

Rural Broadband Agreement



Ministry of Economic
Development



Manatū Ōhanga

RURAL BROADBAND AGREEMENT¹

This **Rural Broadband Agreement** is made on the day of 2011

BETWEEN

- 1 **HER MAJESTY THE QUEEN in right of New Zealand** acting by and through David Smol, Chief Executive, Ministry of Economic Development, of Wellington ("**the Ministry**") and
- 2 **TELECOM NEW ZEALAND LIMITED**, of Wellington ("**Telecom**")²

BACKGROUND

- A. The Government has embarked on a subsidy programme to upgrade infrastructure and extend the reach of broadband services to those rural schools and communities where service is currently not available or where the service is deemed to be inadequate.
- B. On 25 August 2010 the Ministry issued a Request for Proposals (RFP) inviting potential suppliers to provide detailed proposals for the provision broadband infrastructure designed to meet the following objectives:
 - I. improve broadband coverage in Zone 4 such that 80% of Zone 4 households and enterprises are able to access broadband services of 5Mbps or better (the **rural community objective**); and
 - II. provide an ultrafast connection to at least 93% of Zone 4 schools which have a reasonable cost per pupil (the **rural schools objective**).
- C. Following the completion of the RFP process Telecom and Vodafone are to be appointed by the Ministry under separate contracts to construct certain infrastructure, and make available certain telecommunications services, with a view to meeting the rural schools objective and the rural community objective (together the **Rural Broadband Objectives**).
- D. Vodafone is to be appointed under a separate agreement with the Ministry, and the infrastructure and telecommunications services contemplated in that agreement are intended to meet the rural community objective.
- E. Telecom is to be appointed under this Agreement, and the infrastructure and telecommunications services contemplated in this Agreement are intended to meet the rural schools objective, except in the case of the Wireless CBDP Backhaul Links, which are intended to contribute to the achievement of the rural community objective.

¹ This Agreement was amended by an Amendment Agreement between the Ministry and Chorus New Zealand Limited dated on or about 29 June 2012. This version is marked-up with the changes implemented by that Amendment Agreement, but is for reference only, and is not legally authoritative.

² This Agreement was novated to Chorus New Zealand Limited on or about 30 November 2011. Accordingly, except in the context of clause 24.6, each reference in this Agreement to Telecom should be read as a reference to Chorus New Zealand Limited.

- F. The Rural Broadband Objectives will be facilitated through a Government Grant, part of which is to be paid to Telecom in accordance with this Agreement, in order to subsidise the construction of the Infrastructure.
- G. This Agreement sets out the relationship between, and the rights and obligations of, the Ministry and Telecom in relation to the construction, operation and maintenance of the Infrastructure, and the provision of the Rural Telecommunications Services over that Infrastructure.

SIGNED AS AN AGREEMENT

SIGNED for and on behalf of **HER MAJESTY**)
THE QUEEN in right of New Zealand acting)
by and through **David Smol**, Chief Executive,)
Ministry of Economic Development:)
)

Signature

In the presence of:)
Name:)
Occupation:)
Address:)

SIGNED for and on behalf of **TELECOM NEW**)
ZEALAND LIMITED by:)
Name:)
Title:)

Authorised Signatory



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TERMS OF THIS AGREEMENT

It is agreed

1 INTERPRETATION

1.1 **Definitions:** In this Agreement:

<i>Term</i>	<i>Meaning</i>
Access Seeker	a Service Provider requesting access to a Rural Telecommunications Service in accordance with the applicable Terms and Conditions and the relevant provisions of Schedule 1.
Adjustment Event	<p>any of the following events or circumstances affecting the Design and Build Services, to the extent that, at the time of entry into this Agreement, those events or circumstances could not reasonably have been anticipated and allowed for by a skilled and experienced contractor providing services and deliverables of the same or similar type to those being provided by Telecom under this Agreement:</p> <ul style="list-style-type: none">(a) highly abnormal weather conditions falling short of Force Majeure;(b) unanticipated community opposition to installation of Infrastructure, except where the Ministry issues express written instructions requiring Telecom to continue with the Design and Build Services irrespective of that opposition;(c) delays to civil works arising from matters under the authority of the Historic Places Trust, including discovery of archaeological sites while trenching;(d) delays to civil works arising from the rights of utility owners, consenting (including RMA) or other requirements necessary for completion of those civil works;(e) delays in RMA or other consents from third parties, or requirements to co-ordinate works, including any conditions imposed by NZTA or a local or territorial authority, or other utility owners failing to identify their networks or provide necessary consents;(f) unanticipated opposition to the installation of Infrastructure from local authorities and/or territorial authorities;(g) a school refusing to make arrangements for reasonable and timely access to school premises to facilitate the School Lead-in Services, or failing to provide access in accordance with any such arrangements previously agreed with Telecom;



Term	Meaning
	(h) material delay by Vodafone in acquiring any property rights necessary for the Deployment of a Wireless CBDP Backhaul Connection, and/or material delay by Vodafone in the performance of its obligations to the Ministry in relation to the deployment of infrastructure in Zone 4.
Aggregate Cap	[Redacted] [Redacted] [Redacted] [Redacted] [Redacted] [Redacted] <i>[Note: Withheld under s9(2)(b)(ii) of the Official Information Act.]</i>
Agreement	this agreement, including the Schedules, in each case as amended or replaced from time to time.
Architectural Requirements	has the meaning given in Schedule 2.
Authorised Representative	a person appointed by a Party to that role under clause 11.1.
Available	in relation to any Rural Telecommunications Service and any Rural Link or Rural Cabinet, means that Telecom: (a) has in place all the assets and systems which Telecom considers necessary to enable the provision of that service over that Rural Link or through the Rural Cabinet; and (b) is ready and willing to contract with Eligible Service Providers (subject to and in accordance with Schedule 6) to supply them with that service over that Rural Link or through the Rural Cabinet, on the applicable Terms and Conditions, and subject to the applicable Service Levels.
Business Day	any day in Wellington, New Zealand, not being a Saturday or Sunday or public holiday within the meaning of section 44 of the Holidays Act 2003.
Cabinet Feed	has the meaning given in Schedule 2.
Change	has the meaning given in Schedule 5.
Change Control Group	the "Change Control Group" described in Schedule 5.



Term	Meaning
Change Procedure	the procedure set out in Schedule 5.
Change Request	has the meaning given in Schedule 5.
Change Authorisation Agreement	an agreement between the parties recording the terms on which a Change has been agreed in the form set out in Schedule 5.
Chorus	before Structural Separation, the division of Telecom known as "Chorus", and after Structural Separation, the legal entity which as a result of Structural Separation takes over the majority of the assets and functions that were previously accounted for as if they were owned by that "Chorus" division.
Co-location Services	has the meaning given in Schedule 1.
Commerce Act Authorisation	<p>an authorisation under the Commerce Act 1986 that:</p> <ul style="list-style-type: none">(a) applies as if it had been granted in accordance with sections 58(1), (2), (5) and (6) of that Act;(b) has the effect stated in sections 58A(1) and (2) of that Act;(c) applies to any contract, arrangement or understanding entered into before the date on which the authorisation comes into force as if the authorisation was in force at the time of entry;(d) does not apply to any contract, arrangement, or understanding that is entered into later than 6 months after the date on which the authorisation comes into force; and(e) is not subject to sections 65 and 91 to 97 of that Act.
Confidential Information	<p>in relation to a party, means:</p> <ul style="list-style-type: none">(a) the terms and conditions of this Agreement, and(b) any information about that party's business, assets, customers, suppliers, contractors and/or related entities, which is not public knowledge and which is obtained by the other party in the course of, or in connection with, this Agreement.
Construction Period	has the meaning given in Schedule 3.
Construction Year	has the meaning given in Schedule 2.
Deed of Indemnity	the deed entered into (or to be entered into) between the Minister of Finance and Telecom as set out in Schedule 12.



Term	Meaning
Deploy and Deployment	have the meanings given in Schedule 2.
Deployment Milestone	a milestone in the Overall Plan or any Detailed Plan, specifying the due date for completion of Deployment activities for a particular Rural Link or Rural Cabinet.
Design and Build Services	the Deployment activities further described in Schedule 2, including all activities that are ancillary to those services, but excluding any activities which this Agreement expressly designates as the responsibility of the Ministry or a third party.
Design Life	for each Grantable Asset, the period: (a) beginning on the date on which Telecom completes the Deployment of the Rural Link or Rural Cabinet of which that asset forms a part; and (b) continuing for the number of years specified in Schedule 1 as the "Design Life" for assets of that class.
Detailed Plan	has the meaning given in Schedule 3.
Determination	a Standard Terms Determination issued by the Commerce Commission pursuant to the Telecommunications Act 2001.
Documentation	all documentation, reports, procedures, plans, audit plans, charters, processes and other written materials produced or provided by Telecom in connection with the provision of the Design and Build Services and/or Rural Telecommunications Services.
Eligible Service Provider	in relation to a Rural Telecommunications Services, means a Service Provider that meets the eligibility criteria for that service as set out in the applicable Terms and Conditions and/or Schedule 1.
End User	in relation to a Telecommunications Service, a person that has a contractual relationship with a Service Provider for the provision of a Telecommunications Service and who is the ultimate recipient of that service.
End User Premises	means an individual household or business premise, with a unique address recognised by New Zealand Post.
Estimate	has the meaning given in Schedule 4.
FTTP Architecture	has the meaning given in Schedule 2.



Term	Meaning
Grant	the Grant(s) for the provision of the Design and Build Services (other than the School Lead-in Services), which may become payable in accordance with clause 12 and Schedule 4.
Grantable Costs	has the meaning given in Schedule 4.
Grantable Asset	has the meaning given in Schedule 2.
GST	goods and services tax payable under the Goods and Services Tax Act 1985.
Hospital	has the meaning given in Schedule 2.
Hospital Connection	has the meaning given in Schedule 2.
Incremental Grantable Costs	has the meaning given in clause 15 of Schedule 4.
Infrastructure	the Grantable Assets and Non-Grantable Assets.
Industry Regulation	any legislation or regulations (and/or any binding codes, rules, guidelines or determinations promulgated or issued under any legislation or regulation) that are designed solely or primarily to regulate one or more aspects of the telecommunications industry in New Zealand, and/or the activities of one or more telecommunications service providers in New Zealand.
Insolvency Event	in relation to Telecom: <ul style="list-style-type: none">a it is, becomes, or is deemed by applicable legislation or a competent court having proper jurisdiction to be insolvent, liquidated or bankrupt;b it makes an assignment for the benefit of, or makes any arrangement or composition with, its creditors;c it goes into receivership or has an administrator, liquidator, receiver, trustee and/or manager (including a statutory manager) appointed in respect of it or all or any of its property; ord any resolution is passed or proceedings are commenced for its amalgamation with any person, or its bankruptcy or liquidation (except for a solvent amalgamation or reconstruction with the prior written approval of the Ministry, such approval not to be unreasonably withheld, or where the proceedings for bankruptcy or liquidation are stayed or withdrawn within 20 Business Days).
Integrated Family Health Centre	has the meaning given in Schedule 2.



Term	Meaning
Intellectual Property Rights	includes copyright and all rights conferred under statute, common law or equity in relation to inventions (including patents), registered or unregistered trademarks and designs, circuit layouts, data and databases, and all other rights resulting from intellectual activity. Intellectual Property has a corresponding meaning.
Interception Capability	capability to intercept a telecommunication as described in section 8 of the Telecommunications (Intercept Capability) Act 2004. Intercept Capable has a corresponding meaning.
Layer 1	Layer 1 of the OSI Model, which is normally associated with passive fibre optic network infrastructure.
Layer 1 Service	any service which operates at Layer 1.
Layer 2	Layer 2 of the OSI Model, which is normally associated with active fibre optic network infrastructure.
Layer 2 Service	any service which operates at Layer 2.
Library	has the meaning given in Schedule 2.
Library Break Out Point	has the meaning given in clause 5B of Schedule 2.
Local Broadband Aggregation Point (LBAP)	has the meaning given in Schedule 2.
Material Breach	<p>any breach (or series of causally related breaches) by Telecom of the terms of this Agreement the effect of which is to substantially reduce the intended benefit of this Agreement to the Ministry, for example a breach (or series of causally related breaches) that:</p> <ul style="list-style-type: none">(a) delays by 6 months or more the completion of any grouping of Infrastructure that collectively would have served more than 20% of End User Premises in Zone 4;(b) delays by 12 months or more the completion of any grouping of Infrastructure that collectively would have served more than 10% of End User Premises in Zone 4; and/or(c) involves a deliberate refusal to make Available one or more Rural Telecommunications Services where required by this Agreement, except where the refusal is based on a good faith belief that it is not a breach of this Agreement.
Mobile Site	has the meaning given in Schedule 2.



<i>Term</i>	<i>Meaning</i>
Mobile Site Preparation Activities	means the activities identified as "Mobile Site Preparation Activities" in Appendix C of Schedule 3.
No Fault Event	an Adjustment Event, an act or omission by the Ministry or its personnel, and/or a material delay due to a matter being referred to arbitration or expert determination under clause 23 where the resulting decision favours Telecom.
Open Access Requirements	the requirements set out in Schedule 6.
OSI Model	the seven-layer model of network architecture known as the Open Systems Interconnection Model.
Overall Plan	has the meaning given in Schedule 3.
Parties	the Ministry and Telecom, including their permitted assigns.
Partnering Opportunity	has the meaning given in clause 8.12.
Payment Milestone	has the meaning given in Schedule 4.
Performance Issue	has the meaning given in clause 19.1.
Performance Notice	has the meaning given in clause 19.1.
Pre-existing Intellectual Property	in respect of a Party, all Intellectual Property Rights that were owned by or proprietary to that Party or its licensors prior to the date of this Agreement, or developed or acquired by that Party or its licensors independently of their activities under Agreement, together with the Intellectual Property Rights in any modification, enhancement or derivative work made in relation to that intellectual property by either Party in connection with this Agreement.
Priority User	has the meaning given in Schedule 2.
Proposal	the proposal submitted by Telecom and Vodafone that led to the entry into this Agreement, being the document titled "Proposal to deliver zone 4 rural broadband for the New Zealand Government Rural Broadband Initiative" submitted to the Ministry on 12 November 2010.
RFP	has the meaning given in the Background to this Agreement.
RBI	the Government's broadband initiative for Zone 4 as outlined in the RFP, being a subset of the Government's overall Rural Broadband Initiative.
Regional Point of Presence (RPOP)	has the meaning given in Schedule 2.
Rural Cabinet	has the meaning given in Schedule 2.



<i>Term</i>	<i>Meaning</i>
Rural Health Centres	has the meaning given in Schedule 2.
Rural Link	has the meaning given in Schedule 2.
Rural Telecommunications Services	the Telecommunications Services described in Schedule 1.
Schedule of Completion	has the meaning given in Schedule 4.
Senior Executive Group	the "Senior Executive Group" described in Schedule 5.
Sensitive Information	means any information about Telecom or its business, finances, related companies or other affairs which Telecom reasonably considers to be commercially sensitive or the source of a competitive advantage, including any details of Telecom's input costs, but to avoid doubt information will not be considered commercially sensitive merely because it indicates that Telecom has breached its obligations under this Agreement.
Separated Entity	each legal entity that as a result of Structural Separation takes over any substantial part of the assets and functions previously managed by any business unit of Telecom.
Service Level	any "service level" set out in Schedule 1.
Service Provider	any person who provides a Telecommunications Service to an End User.
Service Term	the period during which Telecom is obliged to make Available a particular Rural Telecommunications Service, as specified in Schedule 1.
Schedule	a schedule to this Agreement and includes any appendix attached to a Schedule.
School	has the meaning given in Schedule 2.
School Lead-in	has the meaning given in Schedule 10.
School Lead-in Services	the Deployment of School Lead-ins, including all activities that are ancillary to those services, but excluding any activities which this Agreement expressly designates as the responsibility of the Ministry or a third party.
Serious Performance Issue	a Performance Issue of a kind referred to in clause 17.1b or 17.1c.
Specified Layer 1 Service	a Layer 1 Service which complies with the Specified Layer 1 Service technical product specification recorded in Schedule 1.
Specified Layer 2 Service	a Layer 2 Service which complies with the Specified Layer 2 Service technical product specification recorded in Schedule 1.



Term	Meaning
Specified Service	a Specified Layer 1 Service or a Specified Layer 2 Service
Structural Separation	the structural separation of Telecom's business into two separate corporate groups in order to allow one of those groups to participate in the UFB initiative.
Taxes	any and all taxes (including GST, value added tax, income tax and withholding taxes), duties and levies imposed by any competent authority in any jurisdiction.
TCF Code	any code that is published by the Telecommunications Carriers' Forum and ratified by Telecom.
Telecommunication Service	any service that enables or facilitates "telecommunication" as defined in section 5 of the Telecommunications Act 2001.
Telecom Separation Undertakings	the "Telecom Separation Undertakings" as provided to the Minister of Communications on 25 March 2008 in accordance with section 69K(2)(c) of the Telecommunications Act 2001, as amended or replaced from time to time.
Telecom Zones 1, 2 and 3	the Telecom line density zones known as Zone 1, Zone 2, Zone 3a and Zone 3b and generally used by Telecom to describe those urban density areas of New Zealand served by telephone exchanges with a total line count of greater than 500 lines, and which at 30 June 2008 together include not less than 80% of total Existing PSTN Lines.
Terms and Conditions	in relation to a Rural Telecommunications Service, means the terms and conditions for the provision of that service, as specified in Schedule 1.
UFB	the Government's Ultra-Fast Broadband Initiative.
UFB Undertakings	any undertakings binding on Telecom that replace the Telecom Separation Undertakings as a result of Structural Separation.
Vodafone	Vodafone New Zealand Limited
Vodafone RBI Agreement	the agreement between Vodafone and the Ministry contemplated in paragraph D of the Background to this Agreement.
Whole of Life Costs	the Grantable Costs that Telecom has incurred, and will need to incur, to complete the Design and Build Services, and all other costs (including financing costs) that Telecom has incurred, and will need to incur, in order to design, plan, construct, deploy, test, commission, maintain and/or operate the Infrastructure and/or Rural Telecommunications Services for the periods contemplated by this Agreement.



<i>Term</i>	<i>Meaning</i>
Wireless CBDP Backhaul Connection	has the meaning given in Schedule 2.
Wireless Operator	has the meaning given in Schedule 2.
Zone 4	areas of New Zealand (except the Chatham Islands) that are not in Telecom Zones 1, 2 and 3.

1.2 **Interpretation:** In this Agreement:

- a the headings to clauses in this Agreement and the table of contents are for convenience only and have no legal effect;
- b the singular includes the plural and vice versa and, where a term is defined, that definition applies to all grammatical forms of that term;
- c the **Background** forms part of this Agreement;
- d a reference to:
 - i a **clause** is a reference to a clause of this Agreement;
 - ii a reference to a **Schedule** or an **Annexure** is a reference to a schedule or annexure to this Agreement;
 - iii a **person** includes a body corporate, unincorporated association or a partnership;
 - iv **\$** or **dollars** is a reference to New Zealand currency;
 - v **personnel** includes officers, employees, and contractors;
 - vi **including** and similar words do not imply any limitation; and
 - vii a statute includes references to regulations, orders or notices made under or in connection with the statute and all amendments or replacements of any of them from time to time;
- e none of the terms or clauses of this Agreement are to be construed against a party by reasons of the fact that that term or clause was first proposed or drafted by that party;
- f to the extent that any terms or clauses in this Agreement are ambiguous, those terms or clauses are to be interpreted, to the extent reasonably practicable, in a way that gives appropriate weight to the Rural Broadband Objectives and the Ministry's objectives in clause 3; and
- g the following order of precedence applies to the documents forming part of, incorporated into, or referred to in this Agreement if any conflict or inconsistency arises:
 - i the main body of this Agreement;



- ii the Schedules and Appendices; and
- iii any Documentation or other document referred to in this Agreement.

2 APPOINTMENT AND ACKNOWLEDGEMENTS

2.1 Appointment: The Ministry appoints Telecom to perform the Design and Build Services (including constructing the Infrastructure) and make Available the Rural Telecommunications Services, and Telecom accepts that appointment, subject to and in accordance with the terms of this Agreement.

2.2 Acknowledgements: In entering into this Agreement Telecom acknowledges that:

- a it has not relied on any representation made, or information supplied to it, by the Ministry that not has been independently verified by Telecom;
- b the Ministry expressly disclaims any representation, warranty or undertaking, express or implied, as to the specified level of demand for the Services;
- c it has made its own independent assessment of, and has relied on its own enquiries and investigations as to:
 - i the subject matter of this Agreement;
 - ii the quantity, quality, nature and extent of all resources (including human resources), materials, infrastructure, equipment and facilities necessary to enable it to meet the Open Access Requirements and to otherwise comply with, and perform, its obligations under this Agreement; and
 - iii the nature and the extent of the risks assumed by it under this Agreement;
- d the payment of the Grant will not fully fund the Design and Build Services or the Rural Telecommunications Services, and except where this Agreement expressly provides otherwise, Telecom is responsible for obtaining all other funding required to enable it to perform its obligations in accordance with this Agreement; and
- e it is satisfied that the obligations assumed by it under this Agreement can be met.

3 MINISTRY OBJECTIVES

3.1 Objectives: The Ministry's objectives in entering into this Agreement include to:

- a ensure the Availability of Rural Telecommunications Services, as that term is used in section 90(1)(b) of the Telecommunications Act 2001, to Access Seekers;
- b contribute to the achievement of the rural schools objective and the rural community objective (as defined in paragraph B of the Background section);
- c ensure that any Grantable Assets can be freely accessed by all Access Seekers in accordance with the requirements of Schedule 6;



- d recognise that the Infrastructure provided under this Agreement is important to New Zealand and New Zealanders; and
- e simplify the management of the contractual arrangement with Telecom by ensuring that each party's roles and responsibilities are clearly defined to ensure certainty of the outcomes for the activities covered by this Agreement, including the Infrastructure build and the operation and maintenance of the Infrastructure.

4 TERM

- 4.1 **Duration:** Subject to clause 5.4, this Agreement commences on the later of the date it is signed or the date on which the conditions in clause 5.1 are met and, unless terminated earlier in accordance with its terms, will continue until the expiry of all of the Service Terms.

5 CONDITIONS

- 5.1 **Conditions:** This Agreement is conditional upon:

- a the passing of the Telecommunications (TSO, Broadband and Other Matters) Amendment Bill 2010;
- b the inclusion of a Commerce Act Authorisation in the enacted Telecommunications (TSO, Broadband and other Matters) Amendment Bill 2010 on the date that it is passed, in respect of:
 - i the Proposal made by Telecom and Vodafone; and
 - ii any agreement entered into between the Ministry and Telecom, or the Ministry and Vodafone, and that is directly related to the RBI;
- c the Ministry providing Telecom with a counterpart of the Deed of Indemnity validly executed for and on behalf of the Crown;
- d the Ministry obtaining government approval for the Grant and associated appropriations for the RBI in an aggregate amount of not less than \$285 million, and confirming the same to Telecom by notice in writing; and
- e the approval of the Minister of Finance and the Minister of Communications and Information Technology, followed by the Ministry confirming the same to Telecom by notice in writing.

- 5.2 **Ministry conditions:** The conditions in clause 5.1 d and e are for the benefit of the Ministry and may only be waived by the Ministry by notice in writing to Telecom.

- 5.3 **Joint conditions:** The conditions in clause 5.1 a, b and c are for the benefit of both the Ministry and Telecom, and may only be waived by a joint decision recorded in writing and signed by both the Ministry and Telecom.



5.4 Failure of Conditions:

- a If a condition in clause 5.1 a, b, d or e has not been satisfied (or waived in accordance with clause 5.2 or 5.3, as applicable) on or before 30 July 2011, then the Ministry may cancel this Agreement by notice in writing to Telecom.
- b If a condition in clause 5.1 a, b or c has not been satisfied (or waived in accordance with clause 5.3) on or before 30 July 2011, then Telecom may cancel this Agreement by notice in writing to the Ministry.
- c Subject to clause 5.4 d, upon this Agreement being cancelled in accordance with clause 5.4 a or b, neither Party will have any right against, or obligation to, the other Party, except in respect of any breach of this Agreement occurring prior to its cancellation.
- d Upon this Agreement being cancelled in accordance with clause 5.4 a or b, the Ministry will pay to Telecom all unavoidable, unrecoverable costs reasonably incurred or committed by Telecom up to the time of cancellation for the purpose of performing its obligations under this Agreement, provided that:
 - i the Ministry will only be liable for those costs which it has approved in writing in advance of Telecom incurring them, although the Ministry will not unreasonably withhold its approval of a proposal by Telecom to incur costs for work that is reasonably necessary to meet the Deployment Milestones under this Agreement, up to a maximum of \$820,000 plus GST; and
 - ii Telecom will use reasonable endeavours to avoid and/or mitigate those costs.

5.5 Non-discrimination: Telecom's obligations to make Available the Rural Telecommunications Services in accordance with this Agreement will be conditional on the Ministry ensuring (through whatever legal mechanism it considers appropriate) that Telecom cannot be held to be in breach of any non-discrimination or equivalence of inputs obligations in the Telecom Separation Undertakings (including any new UFB Undertakings) by reason of:

- a Telecom providing (for whatever reason) a service that is not a Rural Telecommunications Service (but may be technically or functionally the same or similar to a Rural Telecommunications Service), on terms and conditions (which may include pricing) that are different to those offered in relation to the Rural Telecommunications Service pursuant to the requirements of this Agreement; and/or
- b Telecom electing (for whatever reason) not to make the Rural Telecommunications Services available more widely than is required by the terms of this Agreement.

The drafting in Appendix A of Schedule 6 provides an illustration of how this condition might be met in the context of the Telecom Separation Undertakings as they stand at the date of this Agreement.



5.6 **Vodafone RBI Agreement:**

- a Telecom will not be obliged to perform the Design and Build Services for the Wireless CBDP Backhaul Links unless the Vodafone RBI Agreement is in force.
- b In agreeing to perform the Design and Build Services for the Wireless CBDP Backhaul Links, Telecom has assumed that Vodafone will complete the Mobile Site Preparation Activities in accordance with the timeframes and other requirements set out in Appendix C of Schedule 3. If and to the extent this does not occur, any resulting delay to the Deployment of Wireless CBDP Backhaul Links will be deemed a No Fault Event.
- c The Parties acknowledge that, during any period while the Vodafone RBI Agreement is not in force, the following provisions of this Agreement will be read subject to the following modifications, namely:
 - i at the completion of the Design and Build Services, clause 14 of Schedule 4 will be applied as if the Vodafone Build had also been completed, but Vodafone will not be involved in the processes contemplated in that clause, and only Telecom will be entitled to bid in accordance with that clause for any Surplus Projects (although this will not limit the Ministry's discretion under that clause to accept or reject those bids);
 - ii Vodafone will not participate in the Change Procedure, and will not be represented on the Change Control Group or Senior Executive Group; and
 - iii Vodafone will not be involved in any of the processes contemplated in Schedule 8.
- d If the Ministry and Vodafone are unable to finalise and execute the Vodafone RBI Agreement on terms satisfactory to both of them, this will be deemed a No Fault Event, and the Ministry may submit a Change Request seeking to alter the Wireless CBDP Backhaul Connections and/or remove some or all of the Wireless CBDP Backhaul Connections from the scope of this Agreement. Without prejudice to the express provisions of the Change Procedure, Telecom will not unreasonably withhold its agreement to that Change Request, so long as the implementation of the Change in accordance with the associated Change Authorisation Agreement would not result in any of the adverse outcomes contemplated in clause 8.3 (a) to (e), 8.3(h) or 8.3(i) of Schedule 5.

6 **GRANT**

- 6.1 **Payment of Grant:** The Ministry must pay the Grant at the rate and the manner set out in Schedule 4. The payment of the Grant is the total amount payable by the Ministry for the performance of the Design and Build Services (other than the School Lead-in Services) and the making Available of the Rural Telecommunications Services.
- 6.2 **Telecom consideration:** In consideration of the Grant, and the fees for the School Lead-in Services payable under Schedule 10, Telecom must provide the Design and Build Services, and make Available the Rural Telecommunications Services, in accordance with this Agreement.



7 MINISTRY OBLIGATIONS

7.1 **Provision of information and assistance:** The Ministry must:

- a promptly and so as not to delay the provision of the Design and Build Services, provide to Telecom all information in its power to obtain which Telecom reasonably requires to provide the Design and Build Services;
- b provide resources and suitably qualified personnel appropriate for the performance by the Ministry of its obligations under this Agreement;
- c assist Telecom in the supply of the Design and Build Services by making timely decisions and providing approvals, (such approvals not to be withheld other than on grounds defined in this Agreement), where required, including those in relation to:
 - i build and asset plans;
 - ii change management requests and decisions;
 - iii payment of the Grant.

8 TELECOM OBLIGATIONS

8.1 **Design and Build Services:** Telecom must provide the Design and Build Services promptly, efficiently and with reasonable skill and care in accordance with:

- a the terms of this Agreement, including the standards and timeframes set out in the Schedules; and
- b all applicable laws, regulations, TCF Codes, Determinations and industry best practice applicable to the Design and Build Services.

8.2 **Rural Telecommunications Services:** Subject to clauses 5.5 and 21.8 f ii, on and from the "General Availability Date" for a Rural Telecommunications Service as specified in Schedule 1, Telecom must make that Rural Telecommunications Service Available in respect of each completed Rural Link or Rural Cabinet (as applicable), from the time of completion of that Rural Link or Rural Cabinet (as the case may be) until at least the end of the applicable Service Term, subject to any restrictions on the enlivening of a Rural Cabinet imposed under a Determination.

8.3 **Maintenance during Design Life:** Telecom will maintain and repair each Grantable Asset for the duration of its Design Life, so that during that period the asset is kept in a serviceable condition suitable for the provision of Telecommunications Services (when used in combination with any other equipment or network components necessary for the provision of those services), including, to avoid doubt, suitable for the provision of Rural Telecommunications Services for the applicable Service Term.

8.4 **Infrastructure and equipment:** Telecom acknowledges that it, and not the Ministry, is responsible for procuring and operating the Infrastructure and all other infrastructure and technical equipment required for Telecom to meet its obligations under this Agreement (regardless of whether such infrastructure or equipment was funded by the Grant or not).



- 8.5 **Implementation:** Without limiting clause 8.1, Telecom must provide the Design and Build Services in accordance with Schedule 2 (Project Scope).
- 8.6 **Service Pricing:** Without limiting clause 8.2, Telecom must make Available the Rural Telecommunications Services to Service Providers at the prices set out in Schedule 9.
- 8.7 **Commissioning:** When each Rural Link or Rural Cabinet has been completed, Telecom must publish information on its publically available website that confirms what specific Infrastructure has been completed and is now Available to Access Seekers through the applicable Rural Telecommunications Services.
- 8.8 **Receipt:** The receipt of a Schedule of Completion under Schedule 4 will not signify acceptance by the Ministry of the Infrastructure or Rural Telecommunications Services or any technical or business process forming part of the Infrastructure but will be made for the purposes of evidencing Telecom's view that a Payment Milestone has been completed.
- 8.9 **Open access and non-discrimination:** Telecom must comply with the open access and non-discrimination requirements set out in Schedule 6 when providing the Rural Telecommunications Services. To avoid doubt, the Terms and Conditions must not be inconsistent with the Open Access Requirements.
- 8.10 **No limit:** The obligations in this Agreement do not substitute or limit the obligation of Telecom to comply with the Commerce Act 1986, the Telecommunications Act 2001 or any other applicable legislative or regulatory requirement.
- 8.11 **Interception capability:**
- a To avoid doubt, Telecom acknowledges its obligations under the Telecommunications (Intercept Capability) Act 2004 and the Crimes Act 1961 ("**the Interception and Crimes Acts**") and in particular, its obligations:
 - i to have an Interception Capability;
 - ii to ensure that its Interception Capability is for the purposes contemplated under the Interception and Crimes Acts and for no other purpose; and
 - b The Parties acknowledge that sub-clause a is not intended to create any right for the Ministry or place any greater obligations on Telecom than those set out in the Interception Act. Any breach of the Interception and Crimes Acts will be addressed in the manner set out in the Interception and Crimes Acts and will not be treated as a breach of this Agreement.
 - c Telecom shall be liable to the Ministry for any consequential damages resulting from the presence or use of any unauthorised Interception Capability (or like function) deployed by Telecom as part of the Infrastructure and shall indemnify and hold harmless the New Zealand Government against any claim related to the same.



8.12 Third Party Partnering:

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[Note: Withheld under s9(2)(b)(ii) of the Official Information Act.]



- 8.13 **Third Party Investment Opportunities:** To avoid doubt and except to the extent prevented by the arrangements contemplated by clauses 16 and 24.5 a and b, nothing in this Agreement prevents Telecom from obtaining third party (e.g. iwi) investment in respect of the Infrastructure or other infrastructure and equipment used to provide the Rural Telecommunications Services, provided that it gives written notice to the Ministry of the investor and the extent of the investment. Telecom must ensure that the terms of any third party investment are not inconsistent with this Agreement.
- 8.14 **Stakeholder Engagement:**
- a Telecom will comply with its obligations in Schedule 8.
 - b The purpose of the activities required under Schedule 8 is to assist Telecom and the Ministry in maximising the benefit of the RBI for rural communities, to the extent that this can be achieved while allowing Telecom to act in accordance with its legitimate commercial interests, and without interfering with Telecom's ability to perform its other obligations under this Agreement.
 - c Accordingly, the Parties acknowledge that:
 - i nothing in Schedule 8 will require Telecom to share any commercially sensitive information with any stakeholders or other third parties;
 - ii Schedule 8 does not alter Telecom's obligations in relation to the Infrastructure, Design and Build Services or Rural Telecommunications Services;
 - iii nothing in Schedule 8 obliges Telecom to implement any request, feedback or decision made by any stakeholder or stakeholder group, or to pursue any opportunity identified through engagement with any stakeholder or stakeholder group.
- 8.15 **Tendering for civil works:**
- a Where any civil works forming part of the Design and Build Services are subcontracted by Telecom's own subcontractors, or subcontracted by Telecom other than to those subcontractors named in the Proposal, Telecom will ensure that those works are subjected to a competitive tendering process with a view to achieving the best possible value for money in the circumstances.
 - b In the event that any component of this competitive tendering process fails to attract more than one bid (other than as a result of any negligence or bad faith by Telecom), Telecom will notify the Ministry accordingly, and either Party may submit a Change Request seeking adjustments to the Overall Plan and any relevant Detailed Plan(s) designed to mitigate any adverse impacts that may arise from that failure.
- 8.16 **Other Requirements:** Telecom must:
- a provide and be responsible and accountable for all of the resource (including equipment, tools, devices, software, capacity, infrastructure, equipment and other facilities and services), effort and personnel (including sub contractors) necessary to provide the Design and Build Services and make Available the Rural Telecommunications Services in accordance with this Agreement;



- b ensure the continuing availability in New Zealand of adequate stocks of replacement equipment and spares used by it for the purposes of providing the Design and Build Services and making Available the Rural Telecommunications Services under this Agreement;
- c provide the ongoing operational maintenance of the Infrastructure to the extent necessary to ensure that Telecom continues to be able to make Available the Rural Telecommunications Services in accordance with this Agreement.

9 DELAYS

9.1 **Delays:** This clause 9 applies to all delays in the performance of the Design and Build Services.

9.2 **Notice:** If Telecom considers that it is (or is likely to be) prevented or delayed from successfully achieving a Deployment Milestone by the corresponding due date (**Delay**), it will immediately provide notice verbally, and then as soon as reasonably practicable (but in any event within 10 Business Days of Telecom becoming aware of the Delay, or such other period as may be agreed by the parties in writing) provide notice in writing to the Ministry (**Notice of Delay**) setting out:

- a the causes for the Delay and its expected duration;
- b the expected effect of the Delay on Telecom's ability to perform its obligations under the Agreement (including the meeting of any other due dates specified in this Agreement);
- c what extension, if any, to the affected due dates is being sought; and
- d what steps, if any, the Ministry may take to mitigate the effect of the Delay.

9.3 **Mitigation:** Telecom will, regardless of the cause of the Delay, take all reasonable steps to eliminate or avoid the Delay and mitigate its effects.

9.4 **Addressing Delays:** As soon as practicable following the receipt of a Notice of Delay, Telecom and the Ministry will meet with a view to agreeing how the Delay should be addressed.

9.5 **No fault delay:** Where Telecom considers the Delay is due in whole or in part to an Adjustment Event, an act or omission of the Ministry or its personnel, or any material delay due to a matter being referred to arbitration or expert determination under clause 25 where the resulting decision favours Telecom:

- a Telecom will be entitled to a reasonable extension to the affected due dates and other timeframes in this Agreement (and, to the extent reasonably necessary, any subsequent Deployment Milestone due dates); and
- b such extension will be assessed and implemented in accordance with Schedule 5 (Change Procedure).



9.6 **Extension to Deployment Milestone due dates:** Subject to clause 9.5 and without limiting the other rights and remedies available to the Ministry and (if applicable) Telecom, if Telecom has failed to complete a Deployment Milestone by the corresponding due date specified in this Agreement, then the Ministry may (at its option) revise the timeframes in this Agreement by extending the due date for achievement of all dependent Deployment Milestones by a period equal to the number of days of Delay. The Ministry will notify Telecom in writing of any such revision and will update the relevant Schedules, including the Overall Plan and any relevant Detailed Plans. The updated Schedules will then replace the existing Schedules and form part of this Agreement.

10 SERVICE LEVEL REGIME

10.1 **Compliance:** From the date that each Rural Telecommunications Service becomes Available, Telecom must ensure that the terms on which those services are offered comply with the applicable requirements set out in this Agreement, and include all of the applicable Service Levels required under this Agreement.

10.2 Checking compliance:

- a Within 10 Business Days of the end of each 6 month period, Telecom must provide a report to the Ministry setting out:
- i information on Telecom's performance against the Service Levels committed to Service Providers, in the form and to the level of detail required by Schedule 1; and
 - ii reasonable details of any material failure of Telecom to perform its obligations under this Agreement during the reporting period; and
 - iii an outline of the steps that Telecom proposes to take in order to prevent a reoccurrence of any Service Level failures or other breaches shown in the report.

In this clause 10.2a, **6 month period** means each 6 month period (or part period if the relevant Service commences during a 6 month period) commencing on 1 January and 1 July of each year.

- b The Ministry may:
- i require Telecom to supply the Ministry, within 10 Business Days (or a longer period if the Parties agree) of a request, the underlying information from which the reporting under clause 10.2a was extracted and calculated; and
 - ii reconcile from Telecom's and the Ministry's own information the contents of a report and notify Telecom if, and to the extent that, it disagrees with the report.

10.3 **Public availability:** Telecom must publish the report provided under clause 10.2a on its website to enable Service Provider and community user access to the information in that report.

10.4 **Dispute:** If there is a dispute between the Parties over the content or accuracy of Service Level reporting, either Party may refer the dispute to resolution in accordance with clause 23.



11 RELATIONSHIP MANAGEMENT AND INFORMATION SUPPLY

11.1 Relationship management:

- a Each Party must maintain an Authorised Representative, who is authorised to represent that Party in communications under this Agreement, to act for it under this Agreement.
- b A Party may appoint an alternate or replacement Authorised Representative by notice to the other Party.

11.2 **Records:** Telecom must maintain proper and accurate records of all transactions and affairs in relation to its use (or proposed use in the case of payment arrears) of the Grant and in relation to the performance of its obligations under this Agreement. Subject to clause 11.9, Telecom must make such records available on an open book basis as soon as reasonably practicable following a written request from the Ministry, including allowing the Ministry to inspect and take copies of those records.

11.3 **Ongoing compliance:** The Ministry may call on the chief executive or a director of Telecom at any time to provide a certificate, signed by that chief executive or director, confirming that, to the best of Telecom's knowledge and belief, after making due enquiry, Telecom continues to comply in all material respects with its obligations under this Agreement, or otherwise certifying where and how Telecom has materially failed to comply with its obligations under this Agreement.

11.4 **Meetings:** Telecom must:

- a attend such meetings with the Ministry's personnel as are reasonably required by the Ministry (but in any case no more often than monthly) to discuss Telecom's progress and other matters relating to Telecom's performance of and under this Agreement, including attending six monthly meetings between senior executives of the Parties to be held in Wellington; and
- b at least 10 Business Days prior to each 6 monthly meeting, provide the Ministry with a report containing the information required under clause 9 of Schedule 4, and any other information required for that meeting in accordance with clause 11.5.

11.5 **Supply of information:**

- a Telecom will supply the Ministry with the reports specified in Schedule 4, at its own cost, in accordance with the timeframes set out in Schedule 4.
- b Without limiting any reporting or information disclosure requirements set out in this Agreement or at law, Telecom must promptly provide to the Ministry any progress reports or other information reasonably requested by the Ministry relating to the Design and Build Services and/or the Rural Telecommunications Services (including long term asset maintenance plans) and/or the performance of this Agreement, but in each case only where the Ministry has provided reasonable advance notice of the nature and extent of the information required. Where the provision of other information would require substantial collation or research by Telecom, Telecom is only required to supply that other information where the Ministry has agreed in writing to reimburse Telecom for the reasonable costs (including internal costs) of locating, collating and supplying that information.



- c The Ministry may share any of the reports provided under this clause 11.5 with the Commerce Commission.

11.6 Audits and reviews:

- a Subject to clause 11.9, Telecom must allow the Ministry (or an independent auditor, with appropriate experience and qualifications, nominated by the Ministry after consultation with Telecom) to conduct audits or reviews of Telecom's provision of the Design and Build Services, the Availability of the Rural Telecommunications Services, and/or Telecom's compliance with this Agreement (during both the construction and operation phases), including the accuracy of any contractor's or supplier's invoices, its use of the Grant, and its compliance with technical specifications set out in this Agreement relating to infrastructure, including Infrastructure, and technical equipment used to provide the Design and Build Services and support the Rural Telecommunications Services.
- b Telecom will use best endeavours to procure that its subcontractors co-operate with the Ministry for the purposes of any audit or review carried out under this clause 11.6.
- c The costs of the auditor (if any) will be borne by the Ministry unless the audit or review reveals any material non-compliance with this Agreement not previously disclosed by Telecom, in which case Telecom must reimburse the Ministry for the reasonable cost of the audit or review.
- d The Ministry will not exercise its rights under this clause 11.6 more than twice in any 12 month period except where the Ministry:
 - i believes on reasonable grounds that Telecom is in Material Breach; or
 - ii is required to do so in order to comply with applicable Crown audit requirements imposed by law.
- e Where any audit or review of the matters in clause 11.6a is carried out pursuant to section 25 of the Public Audit Act 2001 or any other power conferred by statute or regulation ("**Other Audit**"), the Ministry agrees that:
 - i for the purposes of this Agreement, that Other Audit will be deemed to be an exercise of the Ministry's rights in clause 11.6, provided that the Ministry may conduct a more general audit or review in accordance with this clause 12 which incorporates the Other Audit; and
 - ii to the extent permitted by law, the Ministry will ensure that the Other Audit is carried out in a manner consistent with the provisions of this clause 11.

11.7 Audit requirements: If the Ministry conducts an audit or review under clause 11.6, then subject to clause 11.9:

- a the audit or review will be conducted during Business Days and following at least ten Business Days' notice to Telecom, and that notice will provide reasonable details of the proposed scope of the audit or review, within the limits of clause 11.6;



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- b the auditor (if any) will be under a duty of confidentiality in respect of use and disclosure of audited or reviewed information to persons other than the Ministry, and if requested by Telecom the Ministry will ensure that the auditor executes a confidentiality undertaking in Telecom's favour, on terms reasonably required by Telecom;
- c the Ministry and the auditor (if any) will comply with Telecom's reasonable security requirements;
- d the Ministry will use its reasonable endeavours to minimise any disruption to Telecom's business during the course of the audit or review;
- e Telecom must co-operate in a timely manner in respect of any audit or review;
- f Telecom must promptly provide:
 - i access and assistance to the Ministry or the auditor (as applicable) in respect of any audit or review (including access to Telecom, its Personnel, facilities, systems, records and resources used in the provision of the Design and Build Services and the Rural Telecommunication Services); and
 - ii any explanations, information and documentation that the Ministry or the auditor (as applicable) may reasonably require in relation to the audit or review,

provided that nothing in this clause requires Telecom to provide the Ministry or the auditor (as the case may be) with any assistance, or any access to Telecom's systems or information, that is not relevant to the scope of the audit or review as notified under clause 11.7a.

11.8 Remedy non-compliance: If the resulting audit or review report reveals any non-compliance with this Agreement on the part of Telecom then, without limiting any other right or remedy of the Ministry, Telecom must immediately and at its own cost correct that non-compliance.

Sensitive Information:

[REDACTED]

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[Note: Withheld under s9(2)(b)(ii) of the

Official Information Act.]

11.10 **Savings:** Nothing in this clause 11 is intended to limit any audit rights conferred by statute or regulation on the Ministry or any other agent of the Crown, except to the extent that those rights may lawfully be limited by contract.

12 PRICING AND PAYMENT

12.1 **Obligation to pay:** In consideration of Telecom performing its obligations under this Agreement, subject to the provisions of Schedule 3 and Schedule 4 the Ministry will pay the Grant to Telecom for the delivery of the Infrastructure.



- 12.2 **Total cost:** The Grant and the Lead-in Costs payable under Schedule 10 comprise the total amount payable by the Ministry to Telecom under this Agreement in respect of Telecom performing all of its obligations under this Agreement (other than those obligations for which Telecom is entitled to additional reimbursement in accordance with the express provisions of this Agreement).
- 12.3 **Taxes:** All taxes, levies and duties payable by Telecom in connection with this Agreement under any law are to be paid by Telecom and not passed onto the Ministry, except in the case of GST (if any) payable on supplies made by Telecom under this Agreement. For the purposes of section CX47 of the Income Tax Act 2007, the amount payable under the Grant is a government grant.
- 12.4 **Invoicing:** Telecom will invoice the Ministry for the Grant as detailed in Schedule 4 (Payment Schedule and Process).
- 12.5 **Invoice disputes:** If the Ministry disputes an invoice in good faith, the Ministry may withhold any disputed sum until the dispute is resolved, but will pay the undisputed portion in accordance with Schedule 4. Telecom will not be excused from performing its obligations under this Agreement while an invoice is disputed by the Ministry.
- 12.6 **Set-off:** The Ministry may set off any amount owing in respect of the Grant against any undisputed amounts owed by Telecom to the Ministry under or in connection with this Agreement.

13 INTELLECTUAL PROPERTY

- 13.1 **Pre-existing Intellectual Property:** Intellectual Property Rights in any Pre-existing Intellectual Property, which is used for the purpose of this Agreement, remains the property of the current owner.
- 13.2 **Deliverables:** The Intellectual Property Rights in the Infrastructure and any other intellectual property created or developed by or on behalf of Telecom in performing the Design and Build Services and supplying the Rural Telecommunications Services are owned by Telecom from the date those rights arise.

14 CONFIDENTIALITY

- 14.1 **Security and non-disclosure:** Each Party must:
- a keep the other Party's Confidential Information confidential at all times;
 - b not use, communicate, copy, make available or re-supply the other Party's Confidential Information to any person other than its personnel, or professional advisors or contractors to whom disclosure is necessary for the purposes of performing this Agreement;
 - c effect and maintain adequate security measures to safeguard the other Party's Confidential Information from access or use by unauthorised persons, as may be reasonably appropriate given the nature of the services and deliverables under this Agreement; and
 - d ensure that any personnel to whom it discloses the other Party's Confidential Information are aware of, and comply with, the provisions of this clause 14.



14.2 **Disclosure required:** The obligations of confidentiality in clause 14.1 do not apply to any disclosure of Confidential Information:

- a where the disclosure of the other Party's Confidential Information has been approved by the other Party in writing in advance of that disclosure;
- b required by law, including the Official Information Act 1982 ("OIA"), or any stock exchange, provided that the Ministry will consult with Telecom before disclosing any of Telecom's Confidential Information pursuant to a request under the OIA, and will only disclose that Confidential Information to the extent legally required by the OIA;
- c to the extent that such disclosure is necessary in order to perform an obligation under this Agreement, or to enforce any rights or powers in accordance with this Agreement;
- d which is publicly available through no fault of a Party or its personnel; or
- e which was rightfully received from a third party without restriction or without breach of this Agreement.

14.3 **Publicity:** All public statements or disclosures by Telecom relating to this Agreement (other than those required by law or any stock exchange) must be approved by the Ministry in writing in advance, provided that this clause 14.3 does not prevent Telecom from making public statements and disclosures relating to operational aspects of the services and deliverables under this Agreement.

15 WARRANTIES

15.1 **General warranties:** Telecom warrants on an ongoing basis for the duration of this Agreement that:

- a it has the expertise, capability and resources necessary to provide the Design and Build Services and make Available the Rural Telecommunications Services in accordance with this Agreement;
- b at the date of entry into this Agreement, to the best of Telecom's knowledge and belief after making due enquiry, there are no circumstances or matters that are likely to have a material adverse effect on the performance of its obligations under this Agreement, other than those disclosed to the Ministry in writing;
- c in providing the Design and Build Services, it and its personnel will use all reasonable skill, care and diligence;
- d it has in place, or will have in place at the relevant time, all consents, licences, authorisations, easements and approvals necessary to provide the Design and Build Services, subject to any relief to which Telecom is entitled under clause 9 of this Agreement;
- e in providing the Design and Build Services and making Available the Rural Telecommunications Services and in entering into this Agreement it is not in breach of any provision of the Commerce Act 1986;



- f the supply of the Design and Build Services and making Available of the Rural Telecommunications Services, and the use of the Rural Telecommunications Services by Service Providers and Access Seekers in accordance with this Agreement and all other terms and conditions applicable to those services, will not in and of itself constitute a breach of any third party's Intellectual Property Rights;
- g the supply of the Design and Build Services and the making Available of the Rural Telecommunications Services by Telecom will be undertaken in accordance with all applicable laws and regulatory requirements relating to the operation of a telecommunications network; and
- h all factual information provided in writing by Telecom to the Ministry under or in connection with this Agreement or in the Proposal was, to the best of Telecom's knowledge and belief, materially accurate, complete and not misleading as at the time of supply of the information to the Ministry.

15.2 **Replacements:** The warranties and the other provisions of this Agreement apply equally to any service or deliverables under this Agreement which Telecom may re-perform or replace (as applicable) in order to remedy any breach of the warranties under clause 15.1.

16 CONFLICT OF INTEREST

16.1 Avoiding conflicts:

- a Telecom must maintain a high standard of honesty and integrity at all times in the performance of this Agreement.
- b Telecom warrants that at the time of entry into this Agreement it is not aware of any matters in relation to its personnel or its interactions with the Ministry that could reasonably be viewed as compromising the fairness or objectivity of the evaluation, selection and negotiation process conducted by the Ministry in relation to this Agreement, other than matters which have been fully and fairly disclosed to the Ministry in writing.

16.2 **Notifying conflicts:** During the term of this Agreement, Telecom will advise the Ministry in writing of any matters coming to Telecom's attention that relate to Telecom's personnel or its interactions with the Ministry and could reasonably be viewed as compromising the objectivity and independence of the Ministry in managing and enforcing this Agreement. Telecom will assist the Ministry to address, avoid or mitigate such matters.

17 PERFORMANCE ISSUES AND REMEDIAL PLAN

17.1 **Performance Notice:** The Ministry may give notice to Telecom requiring the preparation of a Remedial Plan (**Performance Notice**) at any time while:

- a Telecom has committed a breach of this Agreement the impact or potential impact of which is more than trivial, and Telecom has yet to remedy that breach or eliminate its effects;
- b Telecom has committed a Material Breach of this Agreement, and Telecom's remedial efforts have yet to cure that breach or reduce its effects to a level where it ceases to qualify as a Material Breach; and/or



- c there are reasonable grounds to anticipate an imminent Material Breach,
(in each case, a **Performance Issue**).
- 17.2 **Performance Issue:** If at any time the Ministry issues a Performance Notice in accordance with clause 17.1, Telecom will immediately take all reasonable steps to minimise or mitigate the associated Performance Issue, prior to the provision of a Remedial Plan.
- 17.3 **Remedial Plan:** Where the Ministry issues a Performance Notice to Telecom, that Performance Notice must set out reasonable details of the Performance Issue, and request Telecom to prepare a plan to remedy the Performance Issue (**Remedial Plan**) in accordance with clause 17.4.
- 17.4 **Preparation of Remedial Plan:** As soon as possible after receipt of a Performance Notice (and in any event within 10 Business Days) Telecom will, in consultation with the relevant Ministry personnel, prepare and provide to the Ministry for approval a proposed Remedial Plan setting out:
- a full details of the Performance Issue (including its causes, expected duration and impact on Telecom's obligations under this Agreement);
 - b a plan (including milestones) setting out the steps Telecom proposes to take to eliminate, and mitigate the effect of, the Performance Issue and prevent the Performance Issue from reoccurring, as applicable; and
 - c success criteria to determine whether the Performance Issue has been rectified (**the Success Criteria**).
- 17.5 **Review:** The Ministry will review each draft of the proposed Remedial Plan and will, within a reasonable time (and in any event within five Business Days of receiving each draft), either:
- a approve the Remedial Plan by written notice to Telecom (such approval not to be withheld unless the steps proposed in the Remedial Plan have no reasonable prospect of successfully remedying the Performance Issue); or
 - b notify Telecom of any amendments which the Ministry requires Telecom to make to the proposed Remedial Plan (but only to the extent those amendments are needed to ensure that the steps proposed in the Remedial Plan have a reasonable prospect of successfully remedying the Performance Issue).
- 17.6 **Modifications to Remedial Plan:** Following receipt of each response from the Ministry under clause 17.5, Telecom will promptly (and, in any event, within five Business Days) make such amendments to the proposed Remedial Plan as the Ministry requires in accordance with clause 17.5, and will deliver an updated Remedial Plan to the Ministry for review.
- 17.7 **Implementation:** Once the Ministry has approved the Remedial Plan in accordance with clause 17.5, Telecom will promptly implement the Remedial Plan in accordance with its terms and this Agreement.
- 17.8 **Costs:** Telecom will bear all costs (including any costs incurred by the Ministry) associated with preparing and implementing the Remedial Plan in accordance with this clause 17.



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[Note: Withheld under s9(2)(b)(ii) of the Official Information

Act.]



19 TERMINATION

19.1 **Termination by the Ministry for an irremediable Material Breach:** The Ministry may terminate this Agreement by written notice to Telecom, with immediate effect on the date of termination specified in that notice, if Telecom commits a Material Breach which is not capable of being remedied (in that there is no reasonable possibility of curing that breach or reducing its effects to a level where it ceases to qualify as a Material Breach). A Material Breach which is not capable of being remedied is deemed to include:

- a the occurrence of an Insolvency Event in relation to Telecom; and
- b the occurrence of a change in the effective control of Telecom or any ultimate or intermediate holding company of Telecom in breach of clause 24.5 b.

19.2 **Termination for cause by Ministry:** The Ministry may terminate this Agreement by written notice to Telecom, with immediate effect on the date of termination specified in that notice if:

- a Telecom commits a Material Breach; and
- b a Performance Notice has been issued in accordance with clause 17 in relation to that Material Breach, and:
 - i a Remedial Plan has been approved by the Ministry in accordance with clause 17.5a, but Telecom has failed to meet the Success Criteria set out in that Remedial Plan within the timeframes set out in that Remedial Plan; or
 - ii no Remedial Plan has been approved by the Ministry in accordance with clause 17.5a, more than 20 Business Days have elapsed since receipt of the Performance Notice, and the Ministry is not in breach of clause 17.5; and
- c the Material Breach remains unremedied at the time of the Ministry's notice of termination, in that the breach has not been cured and its effects have not been reduced to a level where it ceases to qualify as a Material Breach.

19.3 **Termination for Force Majeure Event:** The Ministry may terminate this Agreement by notice in writing to Telecom, with immediate effect on the date specified in that notice, if Telecom has been unable to provide all, or a substantial part of, the Design and Build Services in accordance with this Agreement as a result of a Force Majeure Event for a continuous period of 180 Business Days, in which case the Ministry's sole liability to Telecom and Telecom's sole exclusive remedy in relation to such termination is the payment of the termination charges calculated in accordance with clause 19.5.

19.4 **No fault termination:** The Ministry may otherwise terminate this Agreement by providing no less than 180 Business Days' prior written notice where there has been a change in Government policy necessitating in the termination of this Agreement, in which case the Ministry's sole liability to Telecom and Telecom's sole exclusive remedy in relation to such termination is the payment of the termination charges calculated in accordance with clause 19.5.



19.5 Termination charges:

- a In the event that the Ministry terminates this Agreement under clause 19.3 or 19.4, or Telecom terminates this Agreement under clause 19.8, the Ministry will pay Telecom termination charges calculated in accordance with this clause 19.5.
- b Termination charges must be calculated based on:
 - i Telecom's reasonable unrecovered sunk capital costs incurred for the purposes of performing this Agreement; plus
 - ii any other cost which Telecom has incurred or will incur by reason of the termination where:
 - > Telecom has entered into commitments, arrangements or agreements that it is not able to terminate (or that involve a cost to terminate) and which will not expire prior to the termination date; and/or
 - > it is reasonably necessary for Telecom to incur additional costs in order to ensure the orderly wind-down of the Design and Build Services in a manner that complies with the law (for example, re-instating partially completed earthworks commenced prior to termination as part of the Design and Build Services).
- c Termination charges must exclude:
 - i all elements of profit that Telecom would otherwise add to its costs, and any post termination operation costs in connection with providing the Rural Telecommunications Services; and
 - ii any costs that have been recovered by Telecom as a result of the Ministry paying the Grant up to the date of termination.
- d Telecom must use reasonable endeavours to minimise the termination charges.
- e The termination charges must not exceed the maximum value of the Grant, less any Grant amounts already paid by the Ministry to Telecom, and must be audited by a competent auditor.

19.6 Restricted termination by the Ministry: The Ministry acknowledges that its rights to terminate this Agreement for any actual or anticipated breach by Telecom are limited to the express rights set out in this Agreement.

19.7 Restricted termination by Telecom: Except as provided in clause 19.8 Telecom:

- a does not have and expressly waives any rights, at law, including in equity or under statute, and particularly under the Contractual Remedies Act 1979, to terminate this Agreement, except in the case of a repudiation by the Ministry;



- b acknowledges that the failure of the Ministry to perform under this Agreement does not give rise to the right to terminate this Agreement, except to the extent the failure to perform amounts to repudiation by the Ministry; and
- c may, in the event of material breach of this Agreement by the Ministry, seek to recover debts owing, sue for damages, or obtain injunctive relief or specific performance, but may not interrupt, withhold or impair the provision of the Design and Build Services or the making Available of the Rural Telecommunications Services.

19.8 Termination by Telecom for non-payment: If the Ministry fails to pay any Grant or part of any Grant payable to Telecom under this Agreement, and such payments:

- a are due and payable;
- b represent a material amount; and
- c are not either:
 - i the subject of a good faith dispute between any of the parties; or
 - ii being withheld by the Ministry in reliance on an express right under this Agreement,

then without limiting Telecom's other rights or remedies:

- d Telecom may give a written notice to the Ministry which demands payment of the Grant or part of the Grant and clearly and expressly states that, at the expiry of a period of 20 Business Days from the date of receipt of the notice by the Ministry, Telecom is considering issuing a further notice under this clause which may give rise to a right to terminate or suspend this Agreement if the Grant or part of the Grant is not paid within 20 Business Days from the date of receipt of that further notice;
- e if, following expiry of the 20 Business Day period referred to in the notice issued under clause 19.8d, the relevant Grant or part of the Grant remains unpaid, Telecom may give a further written notice to the Ministry which clearly and expressly states that Telecom may terminate or suspend this Agreement at the expiry of a period of 20 Business Days from the date of receipt of that further notice if the relevant Grant or part of the Grant are not paid within that period; and
- f if, following expiry of the 20 Business Day period referred to in the notice issued under clause 19.8e, the relevant Grant or part of the Grant remains unpaid:
 - i Telecom may immediately terminate this Agreement by written notice of termination to the Ministry; or
 - ii Telecom may immediately suspend the performance of the Design and Build Services, in which case: (1) Telecom will give notice lifting the suspension as soon as the Ministry pays the relevant Grant amount; (2) Telecom will be entitled to extend the timeframes for the performance of the Design and Build Services by a period equal to the duration of the suspension, plus any additional period reasonably required to re-mobilise Telecom's resources when the suspension is lifted; and (3) Telecom may terminate this Agreement



by written notice to the Ministry at any time before the Ministry pays the relevant Grant amount.

19.9 **Partial termination:** If the Ministry is entitled to terminate this Agreement under clause 19.1 or 19.2, it may, without prejudice to any other right or remedy available to the Ministry, elect to exercise that right of termination only in respect of one or more of the geographic regions in which the grounds for termination arose, by specifying those regions in the relevant notice of termination (**Terminated Regions**), in which case:

- a subject to the other provisions of this clause 19, the rights and obligations under this Agreement will be terminated to the extent they relate to the Infrastructure and Design and Build Services to be provided in those Terminated Regions, but will otherwise continue in force;
- b where the right of termination arises under clause 19.3 or 19.4:
 - i the Ministry will pay termination charges calculated in accordance with clause 19.5 but recognising the partial nature of the termination;
 - ii the portion of the Grant that has yet to become payable at the time of termination will be reduced by deducting all the Grant amounts allocated to the Estimates for Rural Links and Rural Cabinets that are located in the Terminated Regions and remain incomplete at the time of termination, except for any Rural Links or Rural Cabinets that Telecom is allowed to complete after termination in accordance with Schedule 7;
- c where the right of termination arises under a provision other than clause 19.3 or 19.4, the portion of the Grant that has yet to become payable at the time of termination will be reduced by deducting all the Grant amounts allocated to the Estimates for Rural Links and Rural Cabinets that are located in the Terminated Regions and remain incomplete at the time of termination; and
- d this Agreement will be amended with any other variations necessary to give effect to the partial termination, but otherwise will continue unaffected.

19.10 **Payments on termination or expiry:** Subject to clause 19.9, in the event of termination or expiry of this Agreement, the Ministry will not be obliged to make any further Grant payments under this Agreement, except for:

- a any termination charges payable in accordance with clause 19.5;
- b any unpaid Grant amounts owing to Telecom for work performed prior to the date of termination or expiry;
- c any Grant amounts that become payable to Telecom for work completed in accordance with Schedule 7; and/or
- d any amounts subsequently settled or awarded in Telecom's favour.



19.11 **Preservation of rights and remedies:** Except as is otherwise provided in this Agreement, termination or expiry of this Agreement will not affect:

- a any rights and remedies available to a party under this Agreement which have accrued up to and including the date of termination or expiry;
- b clause the Ministry's rights under clause 11.6, 11.7 and 11.8, provided that following termination or expiry of this Agreement the Ministry may only initiate one final audit under those provisions; and/or
- c any provisions of this Agreement which expressly, or by their nature, survive termination or expiry, including clauses 1, 11.9, 13, 14, 19, 20, 21, 22, 23 and 24.

19.12 **Return of property:** After expiry or termination of this Agreement for any reason, except in the case of a partial termination under clause 19.9, each Party will, within twenty Business Days of written notice from the other Party, return to the other Party all of the other Party's:

- a property (including Documentation); and
- b Confidential Information (or destroy such Confidential Information, if requested),

except to the extent that such property or Confidential Information is required to be retained by the Public Records Act 2005 or any other law, or may be required (in that Party's reasonable opinion) in order to resolve a dispute in progress at the time of termination or enforce any surviving provisions of this Agreement.

19.13 **Termination of Vodafone RBI Agreement:** Where the Vodafone RBI Agreement is terminated prior to completion of the Vodafone Build, the Ministry may submit a Change Request seeking to stop the Deployment of Wireless CDBP Backhaul Connections, and/or to specify alternative Wireless CDBP Backhaul Connections terminating at alternative sites, and that Change Request will be dealt with in accordance with the Change Procedure.

20 FORCE MAJEURE

20.1 **No default:** Subject to this clause 20, no Party will be deemed to be in default or breach of this Agreement to the extent that a Force Majeure Event affects that Party, except that nothing in this clause 20 will excuse any failure to make a monetary payment required by this Agreement.

20.2 **Force Majeure Notice:** If a Force Majeure Event affects a Party (the **Affected Party**), then that Party will, within three Business Days of it becoming aware of the occurrence of that Force Majeure Event, serve written notice on the other Party (a **Force Majeure Notice**) specifying:

- a the nature of the Force Majeure Event;
- b the obligations of the Affected Party that have been rendered impossible or illegal to perform, or which the Affected Party is prevented from or delayed in performing or complying with (**the Affected Obligations**);



- c the extent to which the Force Majeure Event renders it impossible or illegal for the Affected Party to perform, or prevents the Affected Party from performing or complying (or delays its performance or compliance) with, the Affected Obligations (the **Precluded Extent**);
 - d the reasons why the Affected Party considers that the occurrence of the Force Majeure Event renders it impossible or illegal to perform, or prevents the Affected Party from performing or complying (or delays its performance or compliance) with the Affected Obligations to the Precluded Extent; and
 - e the expected duration of any delay arising directly out of the occurrence of the Force Majeure Event.
- 20.3 **Objection to Force Majeure Notice:** If a Party that receives a Force Majeure Notice does not consider that a Force Majeure Event has occurred in relation to the Affected Party, it may:
- a refer the matter to arbitration under clause 25.2 within 10 Business Days of receiving that Force Majeure Notice; or
 - b exercise such other rights available to it under this Agreement (including applying to Court for interlocutory relief under clause 24.5).
- 20.4 **Effect of Force Majeure Notice:** If the Affected Party complies with clause 20.2 then, subject to the outcome of any dispute resolution proceedings under clause 20.3:
- a the Affected Party's obligation to comply with or perform the Affected Obligations will be suspended to the Precluded Extent, for the time (the **Period of Suspension**):
 - i it continues to be impossible or illegal to perform the Affected Obligations; or
 - ii the Affected Party is prevented from or delayed in complying with or performing those Affected Obligations as a direct result of that Force Majeure Event; and
 - b from the date of service of the Force Majeure Notice each Party's obligation to perform any obligations dependent on the Affected Obligations (including any payment obligations directly referable to the Affected Obligations) will be suspended until the Affected Party can resume full performance of its obligations; and
 - c without limiting the foregoing, where the Force Majeure Event affects any aspect of the Design and Build Services, Telecom may submit a Change Request seeking to amend the Overall Plan, any relevant Detailed Plan(s) and/or the Design and Build Services to allow for the impact of that Force Majeure Event.
- 20.5 **Mitigation or avoidance:** During the Period of Suspension:
- a the Affected Party will use its best endeavours to avoid or mitigate the effect of it being prevented from or delayed in complying with or performing its Affected Obligations including by applying relevant insurance proceeds to promptly replace or repair affected Infrastructure;



- b where the Affected Party is Telecom, Telecom will give at least the same priority in responding to a Force Majeure Event under this Agreement as it gives under any other agreement to which it is party or as it otherwise gives to any of its other lines of business, subject to complying with relevant laws and the requirements of any emergency services; and
- c each Party will agree such reasonable arrangements with the other Party, that both Parties believe to be prudent to avoid or mitigate the Affected Party's inability to perform the Affected Obligations.

20.6 **Force Majeure Event termination:** This Agreement may be terminated by the Ministry under clause 19.3 due to a continuing Force Majeure Event. Until termination of this Agreement has taken effect, each Party will continue to perform those of its respective obligations that are not then Affected Obligations (and will perform the Affected Obligations except to the Precluded Extent) or that are not obligations the performance of which is dependent on the performance by the other Party of Affected Obligations.

20.7 **Force Majeure:** For the purposes of this Agreement **Force Majeure Event** means an event or circumstance beyond the reasonable control of the Party affected by the event which makes it impossible or illegal to perform, or prevents or delays compliance with or the performance of, a Party's obligations under this Agreement, including:

- a fire, floods, storms, tempest, earthquake or other act of God;
- b any act of a public enemy, war, riot, act of civil or military authority;
- c nuclear, chemical or biological contamination; and
- d any act of a third party (not being personnel of that party) engaged in subversive or terrorist activity or sabotage;

but does not include an event or circumstance, including those listed in a-d of this clause, to the extent that:

- e the effect of that event could have been substantially prevented, avoided or overcome or mitigated by:
 - i implementation of any reasonable and industry standard business continuity or disaster recovery plan, or any contingency plans agreed between the Parties or which a Party has represented it has in place;
 - ii exercising a reasonable standard of care; or
 - iii using information provided by the other Party or which is available in the public domain;
- f it is an event for which the Party affected is or was directly responsible;
- g that event is constituted or caused by the insolvency of the Party;
- h that event is constituted by a change in law.



21 REMEDIES

- 21.1 **Exercise of remedy:** The Ministry may exercise any remedy with or without exercising another remedy and may exercise multiple remedies against Telecom, to the extent those remedies are not inconsistent with one another.
- 21.2 **Specific Performance:** Telecom acknowledges that damages may not be an adequate remedy for the Ministry in the event of a refusal by Telecom to make Available one or more Rural Telecommunications Services in the circumstances required by this Agreement. Accordingly, Telecom agrees that in the event of such a refusal the Ministry may seek an order for specific performance of Telecom's obligation to make Available the Rural Telecommunications Services in accordance with the terms of this Agreement.

22 LIABILITY AND INSURANCE

- 22.1 **Unrecoverable loss:** Neither Party is liable for any loss of profit, loss of revenue or any indirect, consequential or incidental loss or damage arising under or in connection with this Agreement.
- 22.2 **Telecom limitation:** Subject to clause 22.4, but notwithstanding any other provision of this Agreement, the total combined liability of Telecom under or in connection with this Agreement, in respect of all the events that occur up to any given point in time, will not in any circumstances exceed the Aggregate Cap as it stands at that point in time.
- 22.3 **Ministry limitation:** Subject to clause 22.4, but notwithstanding any other provision of this Agreement, the total liability of the Ministry to Telecom under or in connection with this Agreement is limited to \$5,000,000 in aggregate, although this limitation will not apply to the Ministry's obligations to pay the Grant and other monetary amounts expressly payable under this Agreement, or to the Crown's liability under the Deed of Indemnity.
- 22.4 **Exclusions:** Clauses 22.1, 22.2 and 22.3 do not apply to limit:
- a a Party's liability for breach of clause 14; or
 - b either Party's liability under or in connection with this Agreement for:
 - i damage to the other's property or for personal injury or death; or
 - ii fraud or wilful default of this Agreement.
- 22.5 **Indemnity:** Subject to clauses 22.1, 22.2 and 22.4, Telecom indemnifies, and keeps indemnified the Ministry from and against all damages, liability, loss, cost or expense (including legal costs on a solicitor and own client basis) arising from or in connection with any and all third party claims or proceedings brought against the Ministry as a result of:
- a personal injury or death caused by Telecom in the course of its activities in connection with this Agreement;
 - b loss or damage to any property caused by Telecom in the course of its activities in connection with this Agreement;



- c any breach of this Agreement by Telecom; and
 - d any infringement or alleged infringement by Telecom of a third party's Intellectual Property Rights in the course of Telecom's activities in connection with this Agreement.
- 22.6 **No liability for other's failure:** Subject to clause 9, neither Party shall be responsible, liable, or held to be in breach of this Agreement for any failure to perform its obligations under this Agreement or otherwise, to the extent that such failure is directly attributable to the other Party failing to comply with its obligations under this Agreement, or to the negligence or misconduct of the other Party or its personnel.
- 22.7 **Mitigation:** Each Party must take reasonable steps to mitigate any loss or damage, cost or expense it may suffer or incur arising out of anything done or not done by the other Party under or in connection with this Agreement, and neither party will be entitled to claim from the other (whether by way of indemnity or otherwise) any loss or damage to the extent that it should reasonably have been avoided through such reasonable steps.
- 22.8 **Application:** The limitations and exclusions in this clause 22 will apply to all liability that each party may have under or in connection with this Agreement, whether arising in equity, at common law, in tort (including negligence), under statute or on any other legal basis whatsoever, except to the extent that such liability cannot lawfully be excluded or limited (as the case may be) by contract.
- 22.9 **Insurance:**
- a Telecom must, at its own expense, effect and maintain for the term of this Agreement, insurance for all infrastructure, assets and equipment used in connection with the supply of the Services against all common risks which, in accordance with good commercial practice, would normally be insured against, including full replacement value insurance against loss or damage by fire, explosion, earthquake, flood, and other physical damage. To avoid doubt, the Parties acknowledge that good commercial practice does not require Telecom to insure underground infrastructure in Zone 4, or any overhead transmission lines, distribution lines, or their supporting poles.
 - b Without limiting clause 22.9 a, Telecom must ensure that it maintains insurances in respect of its potential liability for loss or damage under this Agreement.
 - c Telecom must, upon request by the Ministry, provide the Ministry with evidence of its compliance with this clause.
 - d Telecom must, to the extent that the relevant risk may be co-insured, name the Ministry as a co-insured party for any insurance maintained under this clause, but only in respect of Telecom's activities under this Agreement.



23 DISPUTE RESOLUTION

23.1 In the event of any dispute, difference or question arising out of or in connection with this Agreement or its formation (a **dispute**), each Party must:

- a use its best efforts to resolve the dispute through good faith negotiations and informal dispute resolution techniques for 20 Business Days after the date on which the existence and details of the dispute are notified in writing to the other party;
- b if unresolved, escalate the dispute to the Chief Executive Officer of Telecom and the Chief Executive Officer of the Ministry who will use their best efforts to resolve the dispute through good faith negotiations for a further 20 Business Days;
- c not commence any arbitration proceeding relating to the dispute unless it has complied with this clause 23.1; and
- d continue to perform its obligations under the Agreement as far as possible as if no dispute had arisen pending the final resolution of any dispute, whether by settlement, arbitration or expert determination.

23.2 **Arbitration:** If:

- a the dispute is not resolved under clause 23.1b within 20 business days from the date that the dispute was referred to the Chief Executive Officers of Telecom and the Ministry;
 - b this Agreement does not expressly require that the dispute will be subject to expert determination; and
 - c the relevant parties have not otherwise agreed to refer the dispute to expert determination,
- then:
- d either Party may give written notice to the other Party:
 - i setting out the subject matter and details of the dispute and requiring that the dispute be referred to arbitration by a sole arbitrator; and
 - ii stating the name of the independent arbitrator whom the Party giving the notice nominates as an arbitrator;
 - e if the relevant Parties fail to agree on the identity of the arbitrator within 10 Business Days of the date of receipt of the notice referring the dispute to arbitration, the arbitrator will be chosen by the president or vice-president of the Arbitrators' and Mediators' Institute of New Zealand Inc (or his or her nominee);
 - f the arbitration will be held in Wellington, New Zealand;
 - g the arbitrator will decide the dispute in accordance with New Zealand law and conduct the arbitration in accordance with the Arbitration Act 1996 and the Arbitration Protocols of the Arbitrators' and Mediators' Institute of New Zealand Inc; and



h to avoid doubt, in the absence of manifest error, the arbitrator's decision (including any awards) is final and binding on the parties and will be enforced in accordance with the Arbitration Act 1996.

23.3 **Expert determination:** If this Agreement expressly requires that the dispute will be subject to expert determination, either Party may, by written notice to the other Party, refer the dispute to expert determination under clause 23.4. The Parties may also agree in writing to refer any other dispute to expert determination under clause 23.4.

23.4 **Process:** If a dispute has been referred to expert determination under clause 23.3:

- a the independent expert will be appointed by agreement between the Parties or, failing agreement within 10 Business Days, by the president of the New Zealand Institute of Chartered Accountants (or his or her nominee) for financial disputes or the president of the Arbitrators' and Mediators' Institute of New Zealand Inc (or his or her nominee) for non-financial disputes, and in each case the appointing person will be requested to appoint an expert who is suitably qualified, independent and experienced in relation to the subject matter of the dispute (the **Expert**);
- b the Expert will act as an expert and not as an arbitrator, and referral of the dispute to the Expert will not be a submission to arbitration for the purposes of the Arbitration Act 1996 and the provisions of that Act will not govern that referral;
- c all documents and submissions provided to the Expert will be provided on a strictly confidential basis, and the Expert's terms of appointment will include confidentiality undertakings in favour of both Parties (the form and substance of those undertakings to be reasonably acceptable to both Parties);
- d the Expert will be entitled to determine his or her own procedure, so long as that procedure is consistent with the requirements of this clause 23;
- e within 10 Business Days of the Expert accepting the appointment, the Parties will send written submissions on the dispute to the Expert and to each other and, within five Business Days of receiving the other Party's submission, will submit any written replies they wish to make to the Expert and to each other;
- f the Parties will give the Expert all necessary assistance that the Expert reasonably requires to determine the dispute including access to documentation held by either Party;
- g the Expert will, unless the Parties otherwise agree, be directed to deliver a written determination to the Parties within 10 Business Days of having received the Parties' written submissions under clause 23.4d, although where the Expert considers appropriate, he or she may issue an interim decision within that same period, and allow the Parties a further 5 Business Days to make submissions on that decision, after which he or she will issue a final decision within a further 5 Business Days following that additional period for submissions;
- h the Expert will have the power to compel either Party to produce any information material to the dispute which that Party has in its possession and which that Party could be required to produce on discovery in a court proceeding to the Expert and to the other Party;



- i in the absence of manifest error, the Expert's decision will be final and binding and, to the extent it is lawful to do so, the Parties waive any right of appeal or review; and
- j the Expert may, within 5 Business Days of being requested to do so by either Party, correct any clerical, typographical or computational error in his or her decision;
- k the Expert's fees will be shared equally by the Parties unless otherwise directed by the Expert.

23.5 **Urgent relief:** Nothing in this clause 23 will preclude either Party from taking immediate steps to seek urgent equitable relief before a New Zealand Court.

24 GENERAL PROVISIONS

24.1 **Costs:** A party who has an obligation to do anything under this Agreement is to perform that obligation at its own cost, unless a term of this Agreement expressly provides otherwise.

24.2 **Relationship of the parties:** Nothing expressed or implied in this Agreement will, of itself, be deemed to constitute a party as the partner or joint venturer of the other party.

24.3 **Non-waiver:** Neither Party will be deemed to have waived any right under this Agreement unless the waiver is in writing and signed by that Party. A failure to exercise or delay in exercising any right or power under this Agreement will not operate as a waiver of that right or power. Any waiver by a Party under this Agreement will not constitute a waiver of any subsequent or continuing right or of any other provision in this Agreement.

24.4 **Subcontracting:** The Ministry acknowledges that Telecom may subcontract parts of the Design and Build Services and the operation of the Rural Telecommunications Services, but this will not in any way relieve Telecom of its obligations under this Agreement. Telecom will consult with the Ministry on the appointment of any subcontractors for the purposes of this Agreement where the aggregate value of the subcontracted work exceeds \$2m plus GST, although this does not apply in the case of the subcontractors named in the Proposal. Telecom must ensure that its subcontracts are not inconsistent with this Agreement, including the Ministry's right of step-in under clause 18.

24.5 Assignment and transfer:

- a Subject to clause 24.6, the rights and obligations of Telecom under this Agreement are personal to it and may only be assigned with the prior approval in writing of the Ministry which may be given, declined, or given subject to conditions (including, without limit, requiring written undertakings from the assignee in relation to its compliance with the terms of this Agreement, including the requirement to make Available the Rural Telecommunications Services and to provide ongoing maintenance and operation of the Infrastructure). The Ministry will not unreasonably withhold such approval, or impose any unreasonable conditions in relation to such approval. Except where the Ministry agrees otherwise in writing, Telecom remains liable for performance of its obligations under this Agreement despite any approved assignment.



- b Any transfer of shares, or any other arrangement affecting Telecom or its holding company which results in a change in the effective control of Telecom is deemed to be an assignment subject to clause 24.5a. However, this clause 24.5b (and clause 24.5a) does not apply:
 - i to any transaction or arrangement that takes place as part of Structural Separation;
 - ii during any period while Telecom is listed on any stock exchange;
 - iii to any transfer of shares in any of Telecom's holding companies, or to any change in effective control of those holding companies, that takes place during any period while that holding company is listed on any stock exchange; or
 - iv to any transfer of the Kiwi Share shares held by the Minister of Finance on behalf of the Crown.

- c Telecom will be the legal and beneficial owner of all Infrastructure Deployed under this Agreement. Telecom may not sell or transfer to a third party the Grantable Assets used to provide Rural Telecommunications Services, except:
 - i as part of Structural Separation, but only where this occurs in a manner that also complies with clause 24.6;
 - ii to a related company of Telecom, so long as that related company signs a deed in favour of the Ministry undertaking to comply with all applicable obligations of Telecom under this Agreement, to the extent those obligations are relevant to the Grantable Assets transferred;
 - iii as part of the transfer of all or a substantial part of the business and assets of Telecom to a third party, but only where this Agreement is also assigned to that third party in accordance with this clause 24.5; and/or
 - iv otherwise, with the prior approval of the Ministry which, in the Ministry's sole discretion, may be given or declined, or given subject to conditions.

24.6 **Structural Separation:** In the event of Structural Separation, Telecom may novate this Agreement to Chorus by giving written notice to the Ministry ("**Novation Notice**"), in which case:

- a Telecom may identify in the **Novation Notice** one or more rights, powers or obligations under this Agreement which will remain with Telecom notwithstanding the novation, but only where those rights, powers and obligations are reasonably severable and relate wholly or primarily to assets or functions that will remain with a Separated Entity other than Chorus following Structural Separation ("**Retained Rights and Obligations**");

- b Chorus will assume all the obligations and liabilities of Telecom in connection with this Agreement, excluding any Retained Rights and Obligations, and excluding any liabilities accrued before novation;



- c Telecom (as distinct from Chorus) will relinquish all rights under this Agreement, and be released from all obligations and liabilities in connection with this Agreement, in each case excluding any Retained Rights and Obligations, and excluding any liabilities accrued before novation;
- d Chorus will be entitled to subcontract to any Separated Entity any part of its obligations under this Agreement, without the need for any consent or approval from the Ministry, although this will not in any way relieve Chorus of its obligations under this Agreement and Chorus will remain principally liable for those obligations;
- e where a Separated Entity continues to hold any Retained Rights and Obligations:
 - i the Separated Entity may only enforce the relevant rights or exercise the relevant powers with the written consent of Chorus;
 - ii the combined liability of the Ministry to all Separated Entities under or in connection with this Agreement will be no greater than what it would have been but for Structural Separation; and
 - iii the combined aggregate liability of all Separated Entities under or in connection with this Agreement will be no greater than what Telecom's combined aggregate liability would have been but for Structural Separation; and
- f if requested in writing by Chorus, the Ministry will execute a deed prepared by Chorus recording the novation on the terms set out in this clause 24.6.

24.7 Variation: This Agreement may only be varied or amended by agreement in writing signed by the authorised representatives of both Parties.

24.8 Governing law: This Agreement is governed by New Zealand law and will be construed in accordance with the laws of New Zealand. Subject to clause 23 the courts of New Zealand have exclusive jurisdiction for the purpose of hearing and determining all disputes and proceedings under or in connection with this Agreement.

24.9 Severability: If any term of this Agreement is held to be illegal, unenforceable or invalid it will be severed from this Agreement without affecting the legality, enforceability or validity of the remaining provisions of this Agreement.

24.10 Notices:

- a Each notice or other formal communications under this Agreement must be in writing and signed by its Authorised Representative and delivered by hand, by post, by facsimile, or by email to the address (as applicable) of the other Party specified in Schedule 3 (as that address may be amended by each Party by notice given to the other in accordance with this clause).
- b A communication under this Agreement is only effective:
 - i in the case of personal delivery, when delivered;
 - ii if posted, 2 Business Days after posting; and



iii if sent by facsimile or email:

- if sent by facsimile, on production of a transmission report by the machine from which the facsimile was sent which indicates the facsimile was sent in its entirety to the facsimile number of the recipient; or
- if sent by email, at the time the email leaves the communications system of the sender, provided that the sender does not receive any error message relating to the email at the time of sending or any 'out of office' message or equivalent relating to the recipient,

provided that any communication received or deemed received after 5 pm or on a day which is not a Business Day is deemed not to have been received until the next Business Day.

c Despite the above, notices under clauses 17, 18, 19, 20 and 23 must not only be sent by email.

24.11 Entire Agreement: This Agreement constitutes the whole agreement between the Parties relating to its subject matter and supersedes any previous agreement to the extent that the subject matter of the previous agreement is dealt with in this Agreement. No earlier representation, warranty or agreement in relation to any matter dealt with in this Agreement has any force from the date of this Agreement. In particular, the Ministry undertakes in entering into this Agreement it has relied only on the warranties and representations expressly set out in this Agreement, and otherwise has relied solely on its own knowledge, experience and judgement in respect of all other matters influencing its entry into this Agreement.

24.12 Further acts: Each Party must sign and deliver any document and undertake any act, matter or thing which is reasonably required or requested by the other Party to carry out and give effect to the terms of this Agreement in accordance with their true intent.

24.13 Counterparts: This Agreement may be executed in any number of counterparts, each of which is deemed to be an original, but all of which together are to constitute a single instrument.



Schedule 1

Rural Telecommunications Services

1 Introduction

This Schedule sets out the key terms of the Telecommunications Services that Telecom is required to make Available under this Agreement. Pricing for each of these services is set out in Schedule 9. Certain words and phrases used in this Schedule 1 and its Appendices are defined in clause 6 below.

2 Backhaul Services

Telecom will make Available the following services ("**Backhaul Services**") on the terms set out in the tables below:

(a) RBI Backhaul Service	
Service Description	As per Schedule 1 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point) (Decision 626) as amended from time to time except that the handover points for the RBI Backhaul Service are the LBAP and the RPOP at each end of the relevant Rural Backhaul Connection (and all references to "Local Exchange" and "ASNAPOI" shall be construed accordingly).
Terms and Conditions	As per the General Terms and Schedule 4 (Operations Manual) of the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point) (Decision 626) as amended from time to time.
Service Levels	As per Schedule 3 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point) (Decision 626) as amended from time to time.
Availability	Notwithstanding anything to the contrary in the Service Description or Terms and Conditions noted above, Telecom will make this Rural Telecommunications Service available on each Rural Backhaul Connection that has been Deployed under this Agreement.
Service Term	Until the earlier of: <ul style="list-style-type: none"> • The Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point) (Decision 626) expires or is terminated in accordance with the provisions of the Telecommunications Act 2001; or • 3 years after the date on which the last of the Design and Build Services are completed.



Chorus

General Availability Date	From the date of this Agreement.
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(b) Sub-loop Backhaul Service	
Service Description	As per Service Appendix 3, Schedule 1 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul service (Sub-loop backhaul) (Decision 672) as amended from time to time.
Terms and Conditions	As per the Sub-loop Services General Terms and Service Appendix 3, Schedule 4 (Operations Manual) to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul service (Sub-loop backhaul) (Decision 672) as amended from time to time.
Service Levels	As per Service Appendix 3, Schedule 3 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul service (Sub-loop backhaul) (Decision 672) as amended from time to time.
Availability	Notwithstanding anything to the contrary in the Service Description or Terms and Conditions noted above, Telecom is only required to make this Rural Telecommunications Service available over each Cabinet Feed that has been Deployed under this Agreement between a Rural Cabinet and the nearest exchange.
Service Term	Until the earlier of: <ul style="list-style-type: none">• The Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul service (Sub-loop backhaul) (Decision 672) expires or is terminated in accordance with the provisions of the Telecommunications Act 2001, or Service Appendix 3 is removed from that Standard Terms Determination; or• 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	From the date of this Agreement.



(c) RBI Layer 1 Inter-exchange Backhaul Service	
Service Description	<ul style="list-style-type: none"> • If Telecom makes available an open access layer 1 inter-exchange backhaul service pursuant to a UFB Contract ("UFB Layer 1 Inter-exchange Backhaul Service") then the service description for this Rural Telecommunications Service will be the same as the service description for that UFB Layer 1 Inter-exchange Backhaul Service. • Unless and until Telecom makes available a UFB Layer 1 Inter-exchange Backhaul Service, the service description for this Rural Telecommunications Service will be as determined by Telecom from time to time, but will always meet or exceed the minimum specification attached as Appendix A.
Terms and Conditions	<p>Telecom's standard terms of business for the provision of Telecommunications Services to Service Providers, as updated or replaced by Telecom from time to time.</p> <p>Plus Telecom's standard Operations Manual for this Rural Telecommunications Service, as updated or replaced by Telecom from time to time. If Telecom makes available a UFB Layer 1 Inter-exchange Backhaul Service, the Operations Manual for this Rural Telecommunications Service will be the same as the Operations Manual for the UFB Layer 1 Inter-exchange Backhaul Service.</p>
Service Levels	The service levels are as set out in Appendix C to this Schedule 1.
Availability	Telecom is only required to make this Rural Telecommunications Service available on Rural Backhaul Connections where all-new end-to-end fibre connections are Deployed from RPOP to LBAP.
Service Term	Until 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	<p>From the earlier of:</p> <ul style="list-style-type: none"> • the date from which Telecom makes available a UFB Layer 1 Inter-exchange Backhaul Service; and • 31 March 2012.

3 Co-location Services

Telecom will make Available the following services ("**Co-location Services**") on the terms set out in the tables below:



(a) RBI Co-location Service	
Service Description	As per Schedule 1 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location (Decision 610) as amended from to time, except that the purpose of the RBI Co-location Service includes supporting the delivery of services to a School, Hospital or Wireless Operator over a School Connection, Hospital Connection or Wireless CBDP Backhaul Connection (as the case may be) Deployed under this Agreement.
Terms and Conditions	As per the General Terms, Schedule 4 (Operations Manual) and Schedule 5 (Access Terms) to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location (Decision 610) as amended from to time.
Service Levels	As per Schedule 3 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location (Decision 610) as amended from to time.
Availability	Telecom is only required to make this Rural Telecommunications Service available in any Local Exchange that is an LBAP or an RPOP to which a Rural Link has been Deployed under this Agreement, subject to the restrictions set out in the Service Description and Terms and Conditions noted above, except that the RBI Co-location Service may additionally be used to house equipment for the purpose of delivering services to a School, Hospital or Wireless Operator over a School Connection, Hospital Connection or Wireless CBDP Backhaul Connection (as the case may be) Deployed under this Agreement.
Service Term	<p>Until the earlier of:</p> <ul style="list-style-type: none"> • The Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location (Decision 610) expires or is terminated in accordance with the provisions of the Telecommunications Act 2001; or • 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	From the date of this Agreement.



(b) RBI Sub-loop Co-location Service	
Service Description	As per Service Appendix 2, Schedule 1 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location service (Sub-loop Co-location) (Decision 672) as amended from time to time.
Terms and Conditions	As per the Sub-loop Services General Terms and Service Appendix 2, Schedules 4 (Operations Manual) and 5 (Access Terms) to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location service (Sub-loop Co-location) (Decision 672) as amended from time to time.
Service Levels	As per Service Appendix 2, Schedule 3 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location service (Sub-loop Co-location) (Decision 672) as amended from time to time.
Availability	<p>Subject to the Early Commitment process outlined below, Telecom is only required to make this Rural Telecommunications Service available in each Rural Cabinet Deployed under this Agreement, and subject to any constraints and requirements set out in Service Appendix 2 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location service (Sub-loop Co-location) (Decision 672) as amended from time to time.</p> <p>Early Commitment process</p> <p>Telecom will consult with Access Seekers during each Consultation Period on its plans for Deployment of Rural Cabinets during the relevant Construction Period.</p> <p>If, prior to the end of the Consultation Period, an Access Seeker makes binding commitments in favour of Telecom to take the RBI Sub-loop Co-location Service in one or more of the relevant Rural Cabinets on terms reasonably acceptable to Telecom and for a period of at least 24 months ("Early Commitment"), then, subject to the rights of any third party under Service Appendix 2 to the Standard Terms Determination, Telecom will ensure that, when Deployed, the relevant Rural Cabinet has sufficient capacity to accommodate both Telecom's own needs and the capacity ordered by the Access Seeker under the Early Commitment.</p> <p>If as a result of an Early Commitment Telecom Deploys a Rural Cabinet of a different type from that which it would have Deployed but for the Early Commitment ("Default Type"), then where an Access Seeker subsequently withdraws from its Early Commitment, or terminates the service before the end of the minimum period recorded in the Early Commitment, Telecom may require the Access Seeker to pay Telecom the incremental difference between the cost of Deploying the Rural Cabinet and the cost that Telecom would have incurred had it Deployed a cabinet of the Default Type.</p> <p>Where an Access Seeker requests the RBI Sub-loop Co-location Service outside of the Early Commitment process, Telecom is only required to provide the service if and to the extent that there is space in the relevant Rural Cabinet(s).</p>



Chorus

Service Term	<p>Until the earlier of:</p> <ul style="list-style-type: none"> The Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul service (Sub-loop backhaul) (Decision 672) expires or is terminated in accordance with the provisions of the Telecommunications Act 2001, or Service Appendix 2 is removed from that Standard Terms Determination; or 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	From the date of this Agreement

4 Layer 1 Access Service

Telecom will make Available the following service on the terms set out in the table below:

(a) RBI Direct Fibre Access Service (Specified Layer 1 Service)	
Service Description	<ul style="list-style-type: none"> If Telecom makes available an open access layer 1 access fibre service pursuant to a UFB Contract ("UFB Dark Fibre"), the service description for this Rural Telecommunications Service will be the same as the service description for UFB Dark Fibre, and in any case will meet or exceed the minimum specification attached as Appendix B to this Schedule 1. Unless and until Telecom makes available UFB Dark Fibre, the service description for this Rural Telecommunications Service will be as determined by Telecom from time to time, but will always meet or exceed the minimum specification attached as Appendix B to this Schedule 1.
Terms and Conditions	<p>Telecom's standard terms of business for the provision of Telecommunications Services to Service Providers, as updated or replaced by Telecom from time to time.</p> <p>Plus Telecom's standard Operations Manual for this Rural Telecommunications Service, as updated or replaced by Telecom from time to time. If Telecom makes available a UFB Dark Fibre service, the Operations Manual for this Rural Telecommunications Service will be the same as the Operations Manual for the UFB Dark Fibre service.</p>
Service Levels	The service levels are as set out in Appendix C to this Schedule 1.
Availability	Telecom is only required to make this Rural Telecommunications Service available on any fibre optic School Connection, fibre optic Wireless CBDP Backhaul Connection, or fibre optic Hospital Connection where all new end-to-end fibre is Deployed from the customer premise to the LBAP.
Service Term	Until 3 years after the date on which the last of the Design and Build Services are completed.



General Availability Date	From the date of this Agreement.
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5 **Layer 2 Access Services**

Telecom will make Available the following services on the terms set out in the tables below:

(a) RBI Fibre Bitstream Service for Priority Users (Specified Layer 2 Service)	
Service Description	<ul style="list-style-type: none"> • If Telecom enters makes available an open access layer 2 access fibre service for business users pursuant to a UFB Contract ("UFB Bitstream 3a"), the service description for this Rural Telecommunications Service will be the same as the service description for UFB Bitstream 3a, except that the handover point shall be the applicable parent RPOP as set out in Appendix D to this Schedule 1, and in any case the service description will meet or exceed the minimum specification attached as Appendix E. • Unless and until Telecom makes available UFB Bitstream 3a, the service description for this Rural Telecommunications Service will be as determined by Telecom from time to time, but will always meet or exceed the minimum specification attached as Appendix E to this Schedule 1. To avoid doubt, the handover point shall be the applicable parent RPOP as set out in Appendix D to this Schedule 1. • In either case, for School Connections or Wireless CBDP Backhaul Connections that are not fibre optic connections, the provisioning and specifications of the lead-in, NID and other termination equipment for the School or Mobile Site may vary from the service descriptions referred to in the bullet points above, but any alternatives offered by Telecom will be subject to the Ministry's approval (not to be unreasonably withheld or delayed), and must be reasonably suitable for enabling the connection of Priority Users to this Rural Telecommunications Service. • Notwithstanding the specifications of any UFB Bitstream 2 service, UFB Bitstream 3a service, or UFB Bitstream 4 service, any Excess Information Rate (EIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum EIR of 100Mbps, and any Committed Information Rate (CIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum CIR of 1Gbps.
Terms and Conditions	<p>Telecom's standard terms of business for the provision of Telecommunications Services to Service Providers, as updated or replaced by Telecom from time to time.</p> <p>Plus Telecom's standard Operations Manual for this Rural Telecommunications Service, as updated or replaced by Telecom from time to time. If Telecom makes available UFB Bitstream 3a, the Operations Manual for this Rural Telecommunications Service will be the same as the Operations Manual for UFB Bitstream 3.</p>
Service Levels	The service levels are as set out in Appendix C to this Schedule 1.



<p>Availability</p>	<p>Chorus is only required to make available this Rural Telecommunications Service to support the delivery of services to Priority Users over School Connections, Wireless CBDP Backhaul Connections, Hospital Connections, Rural Health Centre Connections, and Library Connections (as the case may be) that have been Deployed under this agreement</p>
<p>Service Term</p>	<p>Until 3 years after the date on which the last of the Design and Build Services are completed.</p>
<p>General Availability Date</p>	<p>Until the earlier of:</p> <ul style="list-style-type: none"> • the date from which Telecom makes available UFB Bitstream 3a; and • 1 July 2012. <p><i>Interim Arrangements</i></p> <p>Until the General Availability Date for this Rural Telecommunications Service, Telecom will make Available the Premium RBI Fibre Bitstream Service for Priority Users as a substitute for this Rural Telecommunications Service ("Substitute Service"), at the price specified in Schedule 9 for this RBI Fibre Bitstream Service for Priority Users.</p> <p>With effect from the General Availability Date for this Rural Telecommunications Service, Telecom will be entitled to migrate customers from that Substitute Service to this RBI Fibre Bitstream Service for Priority Users, provided Telecom does so at no cost to those customers.</p>



(b) Premium RBI Fibre Bitstream Service for Priority Users (Specified Layer 2 Service)	
Service Description	<ul style="list-style-type: none"> • If Telecom offers an open access premium layer 2 access fibre service for business users pursuant to a UFB Contract ("UFB Bitstream 4"), then the service description for this Rural Telecommunications Service shall be the same as the service description for UFB Bitstream 4, except that the handover point shall be the applicable parent RPOP as set out in Appendix D to this Schedule 1, and in any case the service description will meet or exceed the minimum specification for attached as Appendix F to this Schedule 1. • Unless and until Telecom makes available UFB Bitstream 4, the service description for this Rural Telecommunications Service will be as determined by Telecom from time to time, but will always meet or exceed the minimum specification for attached as Appendix F to this Schedule 1. To avoid doubt, the handover point shall be the applicable parent RPOP as set out in Appendix D to this Schedule 1. • In either case, for School Connections or Wireless CDBP Backhaul Connections that are not fibre optic connections, the provisioning and specification of the lead-in, NID and other termination equipment for the School or Mobile Site may vary from the service descriptions referred to in the bullet points above, but any alternatives offered by Telecom will be subject to the Ministry's approval (not to be unreasonably withheld or delayed), and must be reasonably suitable for enabling the connection of Priority Users to this Rural Telecommunications Service. • Notwithstanding the specifications of any UFB Bitstream 2 service, UFB Bitstream 3a service, or UFB Bitstream 4 service, any Excess Information Rate (EIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum EIR of 100Mbps, and any Committed Information Rate (CIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum CIR of 1Gbps.
Terms and Conditions	<p>Telecom's standard terms of business for the provision of Telecommunications Services to Service Providers, as updated or replaced by Telecom from time to time.</p> <p>Plus Telecom's standard Operations Manual for this Rural Telecommunications Service, as updated or replaced by Telecom from time to time. If Telecom makes available UFB Bitstream 4, the Operations Manual for this Rural Telecommunications Service will be the same as the Operations Manual for UFB Bitstream 4.</p>
Service Levels	The service levels are as set out in Appendix C to this Schedule 1.



<p>Availability</p>	<p>Chorus is only required to make available this Rural Telecommunications Service to support the delivery of services to Priority Users over School Connections, Wireless CBDP Backhaul Connections, Hospital Connections, Rural Health Centre Connections, and Library Connections (as the case may be) that have been Deployed under this agreement.</p> <p>Where those connections are not fibre optic connections, Chorus will only be required to make available the '100Mbps up/100Mbps down' variant of this Rural Telecommunications Service.</p>
<p>Service Term</p>	<p>Until 3 years after the date on which the last of the Design and Build Services are completed.</p>
<p>General Availability Date</p>	<p>From the date of this Agreement.</p>

<p>(c) RBI Community Fibre Bitstream Service (Community FTTP Layer 2 Service)</p>	
<p>Service Description</p>	<ul style="list-style-type: none"> • If Telecom makes available an open access layer 2 access fibre service for mass market customers pursuant to a UFB Contract ("UFB Bitstream 2"), then the service description for this Rural Telecommunications Service will be the same as the service description for UFB Bitstream 2, except that the handover point shall be at the applicable FDS location set out in Appendix D to this Schedule 1 (being the FDS at the end of the Rural Link to which the relevant End User Premises is connected). • Unless and until Telecom makes available UFB Bitstream 2, the service description for this Rural Telecommunications Service will be as determined by Telecom from time to time, but will always meet or exceed the minimum specification for the "Next Generation Access Service" attached as Appendix G to this Schedule 1. To avoid doubt, the handover point shall be at the applicable FDS location set out in Appendix D to this Schedule 1 (being the FDS at the end of the Rural Link to which the relevant End User Premises is connected). • Notwithstanding the specifications of any UFB Bitstream 2 service, UFB Bitstream 3a service, or UFB Bitstream 4 service, any Excess Information Rate (EIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum EIR of 100Mbps, and any Committed Information Rate (CIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum CIR of 1Gbps.



Terms and Conditions	<p>Telecom's standard terms of business for the provision of Telecommunications Services to Service Providers, as updated or replaced by Telecom from time to time.</p> <p>Plus Telecom's standard Operations Manual for this Rural Telecommunications Service, as updated or replaced by Telecom from time to time. If Telecom makes available UFB Bitstream 2, the Operations Manual for this Rural Telecommunications Service will be the same as the Operations Manual for UFB Bitstream 2. Otherwise the Operations Manual will be the same as the Operations Manual for Telecom's standard Next Generation Access Service offered in urban areas.</p>
Service Levels	The service levels are as set out in Appendix C to this Schedule 1.
Availability	Telecom is only required to make the RBI Community Fibre Bitstream Service available for the delivery of services to End User Premises with road frontage adjacent to new FTTP Architecture that has been Deployed under this Agreement.
Service Term	Until 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	From the date of this Agreement.

(d) UBA Service	
Service Description	As per Schedule 1 to the Standard Terms Determination for the designated service Telecom's unbundled bitstream access (Decision 611) as amended from time to time.
Terms and Conditions	As per the General Terms and Schedule 4 (Operations Manual) to the Standard Terms Determination for the designated service Telecom's unbundled bitstream access (Decision 611) as amended from time to time.
Service Levels	As per Schedule 3 to the Standard Terms Determination for the designated service Telecom's unbundled bitstream access (Decision 611) as amended from time to time.
Availability	Telecom is only required to make this Rural Telecommunications Service available between handover points connected by Rural Links and/or Cabinet Feeds that have been Deployed under this Agreement, and availability is also subject to any constraints and requirements set out in the Standard Terms Determination for the designated service Telecom's unbundled bitstream access (Decision 611). To avoid doubt, these handover points are the FDS locations set out in Appendix D to this Schedule 1.



Chorus

Service Term	Until the earlier of: <ul style="list-style-type: none">• The Standard Terms Determination for the designated service Telecom's unbundled bitstream access(Decision 611) expires or is terminated in accordance with the provisions of the Telecommunications Act 2001; or• 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	From the date of this Agreement.

(e) Wholesale VDSL2 Service	
Service Description	As per the standard service descriptions for Telecom's Wholesale VDSL2 Service offered in urban areas, as amended or replaced from time to time (a copy of the current version of this service description is attached as Appendix H to this Schedule 1).
Terms and Conditions	Telecom's standard terms of business for the provision of Telecommunications Services to Service Providers, as updated or replaced by Telecom from time to time. Plus Telecom's standard Operations Manual for its Wholesale VDSL2 Service offered in urban areas, as updated or replaced by Telecom from time to time.
Service Levels	As per the standard service levels for Telecom's Wholesale VDSL2 Service as amended or replaced from time to time (a copy of the current service level terms is attached as Appendix H to this Schedule 1).
Availability	Telecom is only required to make this Wholesale VDSL2 Service available for the delivery of services to End User Premises connected through Rural Cabinets and Rural Links Deployed under this Agreement. The handover points shall be at the applicable FDS location set out in Appendix D to this Schedule 1, being the FDS at the end of the Rural Link to which the relevant End User Premises is connected.
Service Term	Until the earlier of: <ul style="list-style-type: none">• Telecom's Wholesale VDSL2 Service is grandfathered or withdrawn; or• 3 years after the date on which the last of the Design and Build Services are completed.
General Availability Date	From the date of this Agreement.



6 Defined Terms

In this Schedule and its Appendices, unless the context requires otherwise:

Applicable Layer 1 Service means, in the context of a Service Level:

- (a) the RBI Layer 1 Inter-exchange Backhaul Service; or
 - (b) the RBI Direct Fibre Access Service,
- as applicable.

Applicable Layer 2 Service means, in the context of a Service Level:

- (a) the RBI Fibre Bitstream Service for Priority Users; or
 - (b) the Premium RBI Fibre Bitstream Service for Priority Users; or
 - (c) the RBI Community Fibre Bitstream Service,
- as applicable.

Availability Period means, in the context of a Service Level, the shorter of:

- (a) the period of the previous 12 months; and
- (b) the period of months since Telecom last failed to meet the Service Level.

Chorus Central Office means:

- (a) in the context of the RBI Layer 1 Inter-exchange Backhaul Service:
 - (i) an exchange located at an LBAP, where the service may originate or terminate; or
 - (ii) an exchange located at an RPOP, where the service may terminate;
- (b) in the context of the RBI Direct Fibre Access Service, an exchange located at an LBAP.

Downtime means the length of time that an End User is without service, measured from the time that a fault is detected, either by an End User fault report or by a network surveillance system, to the time the fault is resolved and the service is restored.



<i>Frame Delay</i>	is a measurement of how long an Ethernet Frame takes to traverse part of the network, typically UNI to the POI, and excludes serialisation delay. It measures the one-way delay and uses a 1500 byte Ethernet frame as a baseline.
<i>Frame Delay Variation</i>	is the amount at which the Frame Delay is allowed to vary across multiple Frame Delay measurements, disregarding any serialisation delay.
<i>Frame Loss</i>	is the percentage of in-profile frames that are dropped between ingress and the point of measurement, typically the POI.
<i>Handover Connection</i>	means, in the context of an RBI Fibre Bitstream Service, the following Telecom equipment located at the specified handover point for that service: <ul style="list-style-type: none">(a) the trunk port on the FDS;(b) the optical fibre from the port to Telecom's OFDF; and(c) the OFDF.
<i>Operations Manual</i>	means the Operations Manual for a particular Rural Telecommunications Service, as identified in this Schedule 1. To avoid doubt, the Operations Manual cannot override the express provisions of this Schedule 1.
<i>POI</i>	means: <ul style="list-style-type: none">(a) in the context of the RBI Fibre Bitstream Service for Priority Users and the Premium RBI Fibre Bitstream Service for Priority Users, the Ethernet Aggregation Switch at the applicable parent RPOP identified in Appendix D of this Schedule; and(b) in the context of the RBI Community Fibre Bitstream Service, the UBA Service, and the Wholesale VDSL2 Service, the applicable First Data Switch identified in Appendix D of this Schedule.
<i>Product Development Process</i>	means, in relation to a Rural Telecommunications Service, the standard product development process that Telecom makes available to Service Providers for services of the same class, as that process is defined in the Terms and Conditions.



RBI Fibre Service

means:

- (a) the RBI Layer 1 Inter-exchange Backhaul Service;
- (b) the RBI Direct Fibre Access Service;
- (c) the RBI Fibre Bitstream Service for Priority Users;
- (d) the Premium RBI Fibre Bitstream Service for Priority Users; or
- (e) the RBI Community Fibre Bitstream Service.

RBI Fibre Bitstream Service means:

- (a) the RBI Fibre Bitstream Service for Priority Users;
- (b) the Premium RBI Fibre Bitstream Service for Priority Users; or
- (c) the RBI Community Fibre Bitstream Service.

Service Demarcation Point

means, in the context of a particular Rural Telecommunications Service, the "service demarcation point" described in the Service Description for that service.

Service Description

means the "Service Description" for a particular Rural Telecommunications Service, as set out or referred to in this Schedule 1.

Termination Point

means, in the context of a particular Rural Telecommunications Service, the "termination point" described in the Service Description for that service.



Chorus

**Schedule 1, Appendix A
RBI Layer 1 Inter-exchange Backhaul Service
Service Description**

See attached



Service Description for
Layer 1 Inter-exchange Backhaul Service

1 INTERPRETATION

References to clauses or sections are references to clauses or sections in this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 and in the Terms and Conditions for this Service apply to this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 will take priority over the definitions set out in the Terms and Conditions for this Service.

2 THE RBI LAYER 1 INTER-EXCHANGE BACKHAUL SERVICE

- 2.1 The RBI Layer 1 Inter-exchange Backhaul Service (referred to in this Service Description as the **Backhaul Service**) is a dark fibre service that provides a single optical fibre to a Service Provider between an originating Chorus Central Office located at an LBAP, and a destination Chorus Central Office located at an LBAP or RPOP. If the Service Provider requires a dual fibre service it must take two single fibres (two instances of the Backhaul Service).

3 BACKHAUL SERVICE AND IMPLEMENTATION ACTIVITIES

- 3.1 A diagram of the configuration for the Backhaul Service is set out in Annex A.
- 3.2 The Service Provider takes a single fibre from the OFDF or SC/FC connector at the Service Provider's RBI Co-location Service footprint in the originating Chorus Central Office to the OFDF or SC/FC connector at the Service Provider's RBI Co-location Service footprint at the destination Chorus Central Office.
- 3.3 The Backhaul Service includes the following installation works (in each case to the extent that the relevant provisioning works are not already complete for the relevant Service Order). These works when complete, will constitute the installation of a Connection:
- 3.3.1 where required, a Fibre Tie Cable from the MOFDF at the originating Chorus Central Office to connect to the Service Provider's RBI Co-location Service footprint within the Chorus Central Office; and
 - 3.3.2 a Fibre Tie Cable from the MOFDF on which a single fibre provided under the Backhaul Service is terminated at the destination Chorus Central Office to connect the fibre to the Service Provider's RBI Co-location Service footprint within the destination Chorus Central Office.

Originating Chorus Central Office Termination Point

- 3.4 The Service Provider must establish a footprint pursuant to the RBI Co-location Service at the originating Chorus Central Office, and connect (via a Fibre Tie Cable from the MOFDF) a single fibre provided pursuant to the Backhaul Service to the Service Provider's footprint. Accordingly, at the originating Chorus Central Office, the termination point for the purposes of the Connection and the service demarcation point is the SC/ACP plug or splice on the end of the Fibre Tie Cable that terminates on the OFDF in the Service Provider's RBI Co-location Service footprint.

Destination Chorus Central Office Termination Point

- 3.5 At the destination Chorus Central Office, the termination and service demarcation point is SC/ACP plug or splice on the end of the Fibre Tie Cable that terminates on the OFDF in the Service Provider's RBI Co-location Service footprint.

Testing

- 3.6 Chorus will test the Backhaul Service from end to end to ensure the Service is within the technical specification for fibre in Annex A.

Additional Services

- 3.7 If the Service Provider requires additional services such as:
- 3.7.1 longer or different lead-in cables than those specified above;
 - 3.7.2 premises wiring services; and
 - 3.7.3 installation and testing of Service Providers Equipment and Services.
- then Chorus may be able to provide these on request on terms and conditions to be agreed with the Service Provider.

Interconnection Requirements

- 3.8 To use the Backhaul Service the Service Provider must have the capability to access and interconnect with it, by co-locating Service Provider Equipment at each of the originating and terminating Chorus Central Offices using the RBI Co-location Service.

Additional Service Characteristics

- 3.9 The technical specification of the Backhaul Service is set out in Annex A.
- 3.10 Chorus will provide certain support and other assistance as part of the Backhaul Service including:
- 3.10.1 an automated facility for Service Requests;
 - 3.10.2 an automated facility fault notifications; and
 - 3.10.3 A tool to assist the Service Provider in determining the location and availability of the Backhaul Service.
- 3.11 Chorus will provide the Service Provider with network optical budget design calculations, and fibre commissioning test results. This information will be provided in good faith and the Service Provider will be responsible for the optical budgets used for each of their specific applications.
- 3.12 Where applicable Chorus will provide the Service Provider with facilities to make fibre performance measurements from the MOFDF in the originating Chorus Central Office to the nominated terminating end. Chorus will provide staff to access the MOFDF and connect the test equipment to the fibre(s) for such tests by the Service Provider. An additional charge will be made for these services.
- 3.13 The Backhaul Service specifically excludes:
- 3.13.1 Provision or maintenance of any cabling or connection or active device beyond the Service demarcation points;
 - 3.13.2 Configuration, monitoring, operation, on-going support or maintenance of Service Providers' or Customers' applications, equipment or networks;
 - 3.13.3 Configuration or on-going support of the Customer's applications; and
 - 3.13.4 Supply of AC Mains & UPS Power, accommodation space, heating, ventilating, air conditioning and other similar services and facilities at the Chorus Central Office.

4 SERVICE DEMARCATION POINT

The Backhaul Service originates from the SC/ACP plug or splice on the end of the Fibre Tie Cable that terminates on the OFDF in the Service Provider's RBI Co-location Service footprint at the originating Chorus Central Office.

The Backhaul Service is delivered to the SCP/ACP connector at the Service Provider's OFDF in its footprint provided under the RBI Co-location Service at the destination Chorus Central Office.

5 TIE CABLE CONNECTION

Where required, Chorus will provide a Fibre Tie Cable between the MOFDF and the Service Provider's SCP/ACP connector on the Service Provider's OFDF in its RBI Co-location Service footprint at the Chorus Central Office. The Fibre Tie Cable will consist of a connectorised fibre pigtail or a fibre tie cable with a connectorised pigtail, generally limited to 10 meters in length.

6 SERVICE PROVIDER RESPONSIBILITIES

- 6.1 The Service Provider responsibilities are detailed in the Terms and Conditions. All charges are set out in the Operations Manual.
- 6.2 The Service Provider will be responsible for all of the design, specification and commissioning of their equipment and plant (both active and passive) connected to the Backhaul service. This includes additional fibre and connections at either end of the Backhaul service.



Annex A – Technical Specification

Technical Specification

Single Mode Fibre	External fibre must comply with ITU-T specification G.652D. Internal building fibres may comply with ITU-T G.657A.
Connector Type	Fibre terminations must be SC/APC type connectors (complying with the IEC 61754-4 standard) or LC/APC type connectors (complying with the IEC 61754-20 standard) as appropriate.
Service Demarcation Point	SC/ACP plug or splice on the end of the Fibre Tie Cable that terminates on the OFDF in the Service Provider's RBI Co-location Service footprint at the originating Chorus Central Office. SCP/ACP connector at the Service Provider's OFDF in its footprint provided under the RBI Co-location Service at the destination Chorus Central Office.
Optic Path	Laser types and path characteristics expected to be designed to a minimum standard which are contained in the documents IEEE 802.3 Section 5 standard.



Chorus

Annex B – Glossary

Term	Definition
Chorus Central Office	Defined in Schedule 1 of this Agreement.
CPE	Customer Premises Equipment. This is equipment used by the End User or provided by the Service Provider at the End User site to use or interface with the Bitstream service.
ETP	means the external termination point for telecommunications services at an End User's premises or, where there is no termination point external to the premises, either the first jack on the premises wiring or, alternatively, the building distribution frame.
Fibre Access Point	A point at the End User premises boundary where the Fibre Lead-in connects to the distribution fibre.
Fibre Lead-in	The fibre from the Fibre Access Point to the Termination Point.
LBAP	Defined in Schedule 2 of this Agreement.
MOFDF	Main Optical Fibre Distribution Frame.
OFDF	Optical Fibre Distribution Frame
RBI Co-location Service	Defined in Schedule 1 of this Agreement.
RPOP	Defined in Schedule 2 of this Agreement.
UPS	Uninterruptible Power Supply.



**Schedule 1, Appendix B
RBI Direct Fibre Access Service
Service Description**

See attached



Chorus



Service Description for Direct Fibre Access Service

7 INTERPRETATION

References to clauses or sections are references to clauses or sections in this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 and in the Terms and Conditions for this Service will apply to this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 will take priority over the definitions set out in the Terms and Conditions for this Service.

8 THE DIRECT FIBRE ACCESS SERVICE

- 8.1 The Direct Fibre Access Service is a dark fibre service suitable for suitable for the delivery of complex business grade applications requiring point-to-point fibre access. It enables access to, and interconnection with, Chorus' Network.
- 8.2 The Direct Fibre Access Service is an input service which a Service Provider can use as a building block to combine with their network and services to provide fibre based telecommunications services to End Users.

9 DIRECT FIBRE ACCESS SERVICE AND IMPLEMENTATION ACTIVITIES

Overview of Direct Fibre Access Service

- 9.1 A diagram of the configuration for the Direct Fibre Access Service is set out in Annex A. The Direct Fibre Access Service consists of the provision of a single fibre from the jack or OFDF at the End User's premises to either:
- 9.1.1 the MOFDF at the Chorus Central Office; or
 - 9.1.2 an SC/FC connector on an OFDF on the Service Provider's footprint at the Chorus Central Office, via the MOFDF at the Chorus Central Office.
- 9.2 The Direct Fibre Access Service includes certain provisioning works. Chorus will provide the following installation works (in each case to the extent that the relevant provisioning works are not already complete for the relevant End User premises). These works, when completed, will constitute the installation of a Connection:

Provisioning at End User's premises - Fibre Lead-in to the ETP or OFDF

- 9.2.1 a Fibre Lead-in from the Fibre Access Point to:
- (a) for Single Dwelling Units, an ETP at the closest point on the End User premises; or
 - (b) for Multi Dwelling Units, the OFDF or equivalent,
- where the Fibre Lead-in utilises no more than:
- (c) 100m of existing conduit or open trench; or
 - (d) 15m of aerial drop lead in overhead areas or
 - (e) 15m of buried lead-in; and
- 9.2.2 Connection of the Fibre Lead-in to the Chorus Network;

Provisioning at End User's premises – extension of Fibre Lead-in for Single Dwelling Units

- 9.2.3 for Single Dwelling Units, an extension of the Fibre Lead-in up to 5m from the ETP to:
- (a) a suitable jack inside the End User premises (there will not necessarily be a break in the Fibre Lead-in at the ETP); or
 - (b) if there is an OFDF beyond the ETP, the OFDF; and

Provisioning at Chorus Central Office - Tie Cable to the Chorus Central Office

- 9.2.4 where required, a Fibre Tie Cable from the MOFDF on which the single fibre is terminated at the Chorus Central Office to connect the fibre to the Service Provider's footprint within the Chorus Central Office.

Termination Points - Single Dwelling Unit Termination Point

- 9.3 For Single Dwelling Units, the termination point for the purposes of the Connection, and the network demarcation point between the Chorus Network and the building owner's premises wiring, is either:
 - 9.3.1 the SC/ACP plug on the end of the fibre from the ETP (which is the jack); or
 - 9.3.2 the OFDF.

Termination Points - Multi-Dwelling Unit Termination Point

- 9.4 For Multi-Dwelling Units, the termination point for the purposes of the Connection, and the network demarcation point between the Chorus Network and the Multi-Dwelling Unit building owner's building wiring, is the OFDF. The Service Provider must make its own arrangements (through the owner of the Multi-Dwelling Unit building or otherwise) to extend the Fibre Lead-in in a Multi-Dwelling Unit beyond the OFDF.

Chorus Central Office Termination Point – Termination on Service Provider Footprint

- 9.5 The Service Provider must establish a footprint pursuant to the RBI Co-location Service and connect the single fibre provided pursuant to the Direct Fibre Access Service via the Fibre Tie Cable from the MOFDF at the Chorus Central Office on which the single fibre is terminated to the Service Provider's footprint. Accordingly, at the Chorus Central Office, the termination point for the purposes of the Connection, is either the:
 - 9.5.1 the SC/ACP plug or splice, on the end of the Fibre Tie Cable from the MOFDF, that terminates on the OFDF in the Service Provider's footprint in the Chorus Central Office; or
 - 9.5.2 the MOFDF at the Chorus Central Office.

Testing

- 9.6 Chorus will test the Fibre Lead-in from the Termination Point at the End User's premises to the MOFDF at the Chorus Central Office to ensure the Direct Fibre Access Service is within the technical specification for fibre in Annex B.

Additional Services

- 9.7 If the Service Provider requires additional services such as:
 - 9.7.1 longer or different Fibre Lead-in cables than those specified above;
 - 9.7.2 premises wiring services; or
 - 9.7.3 installation and testing of Service Provider's equipment and services.then Chorus may be able to provide these on request on terms and conditions to be agreed with the Service Provider.

Interconnection Requirements

- 9.8 To use the Direct Fibre Access Service the Service Provider must have the capability to access and interconnect with it by either co-locating Service Provider Equipment at the relevant Chorus Central Office using a footprint provided under the RBI Co-location Service.

Additional Service Characteristics

- 9.9 The Direct Fibre Access Service extends from the Service Demarcation Point at the End User's site, through Chorus' Network to the Service Demarcation Point in the Chorus Central Office.
- 9.10 The technical specification of the Direct Fibre Access Service is set out in Annex B.

- 9.11 Chorus will provide certain support and other assistance as part of the Direct Fibre Access Service including:
- 9.11.1 an automated facility for Service Requests;
 - 9.11.2 an automated facility for fault notifications: and
 - 9.11.3 a tool to assist the Service Provider in determining the location and availability of the Direct Fibre Access Service.
- 9.12 Chorus will provide the Service Provider with network optical budget design calculations and fibre commissioning test results. This information will be provided in good faith and the Service Provider will be responsible for the optical budgets used for each of their specific applications.
- 9.13 Where applicable Chorus will provide the Service Provider with facilities to make fibre performance measurements from the MOFDF in the originating Chorus Central Office to nominated Termination Points at the End User premises. Chorus will provide staff to access the MOFDF and connect the test equipment to the fibre(s) for such tests by the Service Provider. A charge will be made for these services.
- 9.14 The Direct Fibre Access Service specifically excludes:
- 9.14.1 Provision or maintenance of any cabling or connection or active device beyond the Service Demarcation Points;
 - 9.14.2 Configuration, monitoring, operation, on-going support or maintenance of Service Providers' or End Users' applications, equipment or networks;
 - 9.14.3 Configuration or on-going support of the Customer's applications; and
 - 9.14.4 Supply of AC Mains & UPS Power, accommodation space, heating, ventilating, air conditioning and other similar service and facilities at the POI or End User premises.

10 CUSTOMER SERVICE DEMARCATION POINT

- 10.1 The Direct Fibre Access Service is delivered to the service demarcation point at the End User's premises.
- 10.2 For a Single Dwelling Unit, the connector up to 5m from the ETP is the Direct Fibre Access Service demarcation point (the jack point or the OFDF)
- 10.3 For a Multi Dwelling Unit, the OFDF is the Direct Fibre Access Service demarcation point.
- 10.4 The Direct Fibre Access Service excludes the Customer premises wiring. The Service Provider or the Customer will be responsible for Customer premises equipment (CPE) and wiring at the Customer's site beyond the Customer demarcation point. The Service Provider must ensure that premises wiring requirements are adhered to. These are available at www.tcf.org.nz.

11 CHORUS SERVICE DEMARCATION POINT

- 11.1 The RBI Direct Fibre Access Service is delivered to the SCP/ACP connector at the Service Provider's OFDF in its footprint provided under the RBI Co-location Service.

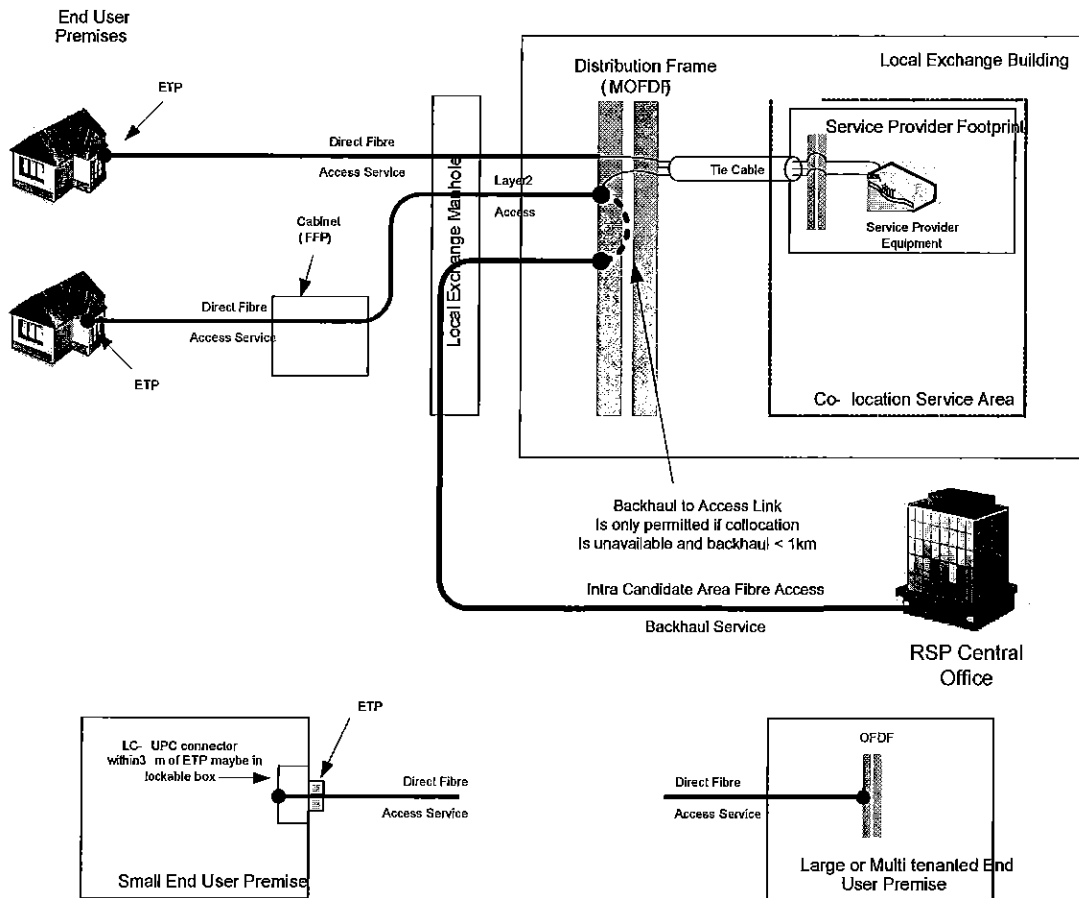
12 TIE CABLE CONNECTION

- 12.1 The Fibre Tie Cable between the MOFDF and the Service Provider's SCP/ACP connector at the Service Provider's OFDF in its footprint at the Chorus Central Office will consist of a connectorised fibre pigtail or a fibre tie cable with a connectorised pigtail, generally limited to 10 meters in length.

13 SERVICE PROVIDER RESPONSIBILITIES

- 13.1 The Service Provider responsibilities are detailed in the Terms and Conditions, including the Operations Manual. All charges are included in the Operations Manual.
- 13.2 The Service Provider is responsible for site access and security at the Customer premise.
- 13.3 The Service Provider will be responsible for all of the design, specification and commissioning of their equipment and plant (both active and passive) connected to the Direct Fibre Access Service.

Annex A – Diagram



This is a generic diagram showing the standard configuration and service demarcation points. It is not intended to represent every situation. The following points should be noted:

- Not all circuits will pass through a Cabinet or Fibre Flexibility Point (FFP);
- In buildings without an OFDF the circuit will terminate within 5m of ETP;
- In buildings with an OFDF the demarcation point is the OFDF.

For the purposes of this Service Description, disregard the depiction of the Intra Candidate Area Access Backhaul Service.

Annex B – Technical Specification

Technical Specification

Fibre	External fibre must comply with ITU-T specification G.652D. Internal building fibres may comply with ITU-T G.657A.
Connector Type	Fibre terminations must be SC/APC type connectors (complying with the IEC 61754-4 standard) or LC/APC type connectors (complying with the IEC 61754-20 standard) as appropriate.
Optic Path	Laser types and path characteristics expected to be designed to a minimum standard which are contained in the documents IEEE 802.3 Section 5 standard.
Service Demarcation Point	Optical Connector delivered within 3m of ETP or termination on End User OFDF at the Customer premise end Optical Connector delivered to Customer's OFDF or CPE at the Local Exchange end.

Annex C – Terms and definitions

Term	Definition
Chorus Central Office	Defined in Schedule 1 of this Agreement.
CPE	Customer Premises Equipment. This is equipment used by the End User or provided by the Service Provider at the End User site to use or interface with the Bitstream service.
ETP	means the external termination point for telecommunications services at an End User's premises or, where there is no termination point external to the premises, either the first jack on the premises wiring or, alternatively, the building distribution frame.
Fibre Access Point	A point at the End User premises boundary where the Fibre Lead-in connects to the distribution fibre.
Fibre Lead-in	The fibre from the Fibre Access Point to the Termination Point.
MOFDF	Main Optical Fibre Distribution Frame.
OFDF	Optical Fibre Distribution Frame
RBI Co-location Service	Defined in Schedule 1 of this Agreement.
UPS	Uninterruptible Power Supply.

Schedule 1, Appendix C

Service Level Terms for RBI Fibre Services

Part 1: Availability and Traffic

1 Layer 1 Service Availability

The Applicable Layer 1 Service between the Service Demarcation Points must meet the following minimum Service Level (excluding Downtime directly caused by Force Majeure Events):

- **Service Level**
In any one Availability Period, the Maximum Downtime for any End User that is caused by a fault in the Applicable Layer 1 Service must be less than or equal to 48 hours.
- **Definition**
Maximum Downtime means the sum of the Downtime experienced by the End User in the Availability Period that is caused by a fault in the Applicable Layer 1 Service.

2 Layer 2 Service Availability

The Applicable Layer 2 Service between the ONT port and the 1st Data Switch (including the Hand-over port, but excluding any Layer 1 Service) must meet the following minimum Service Level (excluding Downtime directly caused by Force Majeure Events):

- **Service Level**
Maximum Downtime for any End User in each Availability Period that is caused by a fault in the Applicable Layer 2 Service must be less than or equal to 12 hours (excluding Downtime caused by an ONT failure).
- **Definition**
Maximum Downtime means the sum of the Downtime experienced by the End User in the Availability Period that is caused by a fault in the Applicable Layer 2 Service.
- **Exclusion**
This Layer 2 Service Availability Service Level measures Layer 2 Service availability only. Downtime caused directly by the failure of an underlying Layer 1 Service will not be included in the measurement of this Layer 2 Service Availability Service Level.

3 Layer 2 Traffic

3.1 For each Applicable Layer 2 Service, the End User's traffic must be delivered to the 1st Data Switch within the following Service Levels, measured over each Measurement Interval (as defined below):

Applicable Layer 2 Service	Frame Delay	Frame Delay Variation	Frame Loss
Specified Layer 2 Services (cl. 5(a) and 5(b) of Sch.1)	Fibre-only links High Priority: < 10 ms Low Priority: < 1 s	Fibre-only links High Priority: ≤ 8 ms Low Priority: n/a	Fibre-only links High Priority: ≤ 0.1% Low Priority: n/a
	Links with radio bearer High Priority: < 30 ms Low Priority: < 1 s	Links with radio bearer High Priority: < 20 ms Low Priority: n/a	Links with radio bearer High Priority: < 0.1% for 99.8% of each rolling 12 months, and in any case < 1% at all times Low Priority: n/a

Applicable Layer 2 Service	Frame Delay	Frame Delay Variation	Frame Loss
RBI Community Fibre Bitstream Service	< 1 s	n/a	n/a

At least 99% of the frames within the Measurement Interval (as defined below) must be within the above Service Levels, otherwise the service is to be considered unavailable for that Measurement Interval.

- 3.2 In the context of each Applicable Layer 2 Service, the "**Measurement Interval**" referred to in clause 3.1 will be every 15 minutes (24/7), unless and until Telecom makes available a service substantially similar to that Applicable Layer 2 Service pursuant to a UFB Contract, in which case the Measurement Interval for that Applicable Layer 2 Service will be the same as the equivalent measurement interval for the frame loss, jitter and frame delay service levels for that substantially similar service.

4 Service Level Exclusions

- 4.1 Subject to clause 4.2, the impact of the following events and circumstances will be excluded from the calculation of the Service Levels under this Part 1:
- (a) an Access Seeker failing to comply with an express obligation under the Terms and Conditions;
 - (b) events or circumstances expressly stated in the Operations Manual;
 - (c) an Access Seeker failing to provide accurate BAU Forecasts in accordance with the Operations Manual;
 - (d) of a serious health and safety issue outside of Telecom's control;
 - (e) a delay in the provision of materials or information to be supplied by the Access Seeker, required to complete the service;
 - (f) deliberate or malicious actions of Access Seekers which are intended to cause Telecom to be in default of a Service Level;
 - (g) acts or omissions of End Users (e.g. delay in the provision of information or materials, hacking or viruses) that prevent Telecom from meeting a Service Level, unless the End User has received Telecom's prior approval for such act or omission.

each a "**Service Impairment**".

- 4.2 Any Service Level extension under clause 4.1:
- (a) will be limited to the time that the Service Impairment continues to prevent or make illegal Telecom's performance of the applicable Service Level; and
 - (b) is subject to Telecom promptly taking all reasonable steps, in accordance with best industry practice, to eliminate or avoid the Service Impairment and mitigate its effect; and
 - (c) will not be given to the extent the Service Impairment is caused or contributed to by Telecom or its Subcontractors acts or omissions, the acts or omissions of any supplier of Telecom, or any person within the control or under the responsibility of Telecom.

Part 2: Provisioning and Operational Support

1 Service Levels

The Service Levels in relation to the provisioning and operational support of the RBI Fibre Services are set out in Table 1 below.

2 Standard Lead-Times

The Standard Lead-Times for Orders in relation to the provisioning and operational support of RBI Fibre Services are set out in Table 2 below.

3 Exclusions

3.1 The Service Levels will not apply where:

- (a) a Service Level Default is due to a Force Majeure Event;
- (b) a Service Level Default is a direct result of an Access Seeker failing to comply with an express obligation under the Terms and Conditions;
- (c) a Service Level Default is due to an Access Seeker failing to provide accurate BAU Forecasts in accordance with the Operations Manual;
- (d) expressly stated in the Operations Manual;
- (e) a Service Level Default is a direct result of:
 - (i) a fault that is the Access Seeker's responsibility under the Terms and Conditions; or
 - (ii) anything (including any fault) caused by the telecommunications network or equipment of any third party or the Access Seeker's Network or the Access Seeker's Equipment;
- (f) a fault is reported and no fault for which Telecom is responsible is detected when the service is tested from end to end;
- (g) a Service Level Default is due to a failure by the Access Seeker or its End User to allow access to the premises or equipment when reasonably requested;
- (h) remedying a Service Level Default would result in a material health and safety risk for a Telecom employee or agent, the avoidance of which could not have been realistically predicted by Telecom; or
- (i) agreed between Telecom and the Access Seeker.

3.2 Further exclusions or limitations to Telecom's liability in respect of specific Service Levels are set out in Table 1 below. The exclusions and limitations provided in Table 1 are in addition to the general exclusions set out in this section 2 and in no way limit the exclusions set out in this section 2.

3.3 Where Telecom makes a decision that a Service Level Default has not occurred because one or more of the exclusions apply, the details of the exclusion are to be recorded and reported in Telecom's monthly performance report provided in accordance with this Agreement.

4 Access Seeker Forecasts

Each Access Seeker must provide reasonably accurate BAU Forecasts to Telecom in accordance with the procedures and time frames set out in the Operations Manual. The consequences of the Access Seeker failing to provide BAU Forecasts or failing to provide reasonably accurate BAU Forecasts will be as set out in the Operations Manual.

5 Review

This Part 2 may be changed in accordance with the change mechanism set out in the Terms and Conditions.

6 Defined Terms

In this Part 2, words and phrases defined in the Terms and Conditions have the meanings given in the Terms and Conditions, and unless the context requires otherwise:

<i>Business Hours</i>	means 8.00am to 5.00pm on any Working Day.
<i>Consecutive Business Hours</i>	means a number of consecutive hours (including fractions of hours) within Business Hours (where the first Consecutive Business Hour in a Working Day is consecutive to the last Consecutive Business Hour in the preceding Working Day).
<i>Deemed Acceptance Time</i>	means the time which is four Consecutive Business Hours after the Receipt Time of a valid Order. To avoid doubt, an Order may still be rejected notwithstanding a deemed acceptance.
<i>Deliverable</i>	means a "Deliverable" specified in Table 1 below.
<i>Fault Restoration Hours</i>	means 7:00am to 7:00pm, seven days a week and <i>Fault Restoration Hour</i> means one hour within this period.
<i>Receipt Time</i>	means: (a) for Orders that are made using OO&T, the time that the electronic communication containing the Order enters OO&T; or (b) for Orders that are made by email, the time that an Order is received in the Telecom designated inbox for receipt of such Orders, provided that where an Order is received outside Business Hours, the Receipt Time will be the start of the first Business Hour of the following Working Day.
<i>RFS Date</i>	means the date that Telecom completes the provisioning of a service to which a Service Level relates.
<i>Service Level</i>	means a "Service Level" specified in Table 1 below.
<i>Service Level Default</i>	means a failure by Telecom to meet the a Service Level.

<i>Standard Lead-Time</i>	means the time period that it will take Telecom to provision a service supporting an RBI Fibre Service as set out in Table 2 below.
<i>Tolerance Level</i>	means minimum levels of performance of a Service Level for a Deliverable each month, expressed as a percentage in Appendix 1 and Appendix 2.
<i>Truck Roll</i>	means each occurrence on which Telecom physically despatches a field services person to go out and perform exchange or field work in connection with the provisioning of a service supporting the RBI Fibre Service.
<i>Waiter</i>	means an accepted Order which has become a waiter under the applicable Operations Manual.

Part 2, Table 1: Service Levels for Provisioning and Operational Support of RBI Fibre Services

Item No.	Function to which Service Level Relates	Service Attribute	Deliverable	Service Level	Tolerance Level	Exclusions
1	New Connection Relinquishment Handover Connection	Order acknowledgement	Telecom will acknowledge receipt of each Order	Provide acknowledgment of receipt of each Order to the Access Seeker within 4 Consecutive Business Hours following the Receipt Time	99%	
2	New Connection Relinquishment Handover Connection	Notification of rejection	Telecom will reject invalid Orders by returning the appropriate code to the Access Seeker	Provide notification of the rejection to the Access Seeker within 4 Consecutive Business Hours following the Receipt Time	90%	This Service Level will not apply where prequalification for an Order requires an action to be undertaken manually.
3	New Connection Relinquishment	Notification of expected RFS Date	Telecom will notify the Access Seeker of expected RFS Date of the Order ³	Provide notification of the expected RFS Date to the Access Seeker within 4 Consecutive Business Hours of the Deemed Acceptance Time	90%	This Service Level will not apply where an Order is a Waiter
4	Handover Connection	Notification of expected RFS Date ⁴	Telecom will notify Access Seeker of expected RFS Date of the Order or confirmation of when Telecom will provide notification of expected RFS Date	Provide notification of the expected RFS Date, or provide confirmation of when Telecom will be in a position to provide notification of the expected RFS Date, to the Access Seeker within 4 Consecutive Business Hours of the Deemed Acceptance Time	90%	

³ The notified expected RFS Date must be within the Standard Lead-Time, except where otherwise agreed between Telecom and the Access Seeker.

⁴ The notified expected RFS Date must be within the Standard Lead-Time, except where otherwise agreed between Telecom and the Access Seeker.

Item No.	Function to which Service Level Relates	Service Attribute	Deliverable	Service Level	Tolerance Level	Exclusions
5	New Connection Relinquishment Handover Connection	Order is completed right first time	Telecom will complete the Order without fault	No faults in work carried out to provision the Order to occur within 5 Working Days of confirmation by Telecom of completion	90% (for each function)	The fault must be a fault: <ul style="list-style-type: none"> for which Telecom is responsible; that has been reported to Telecom within 5 Working Days of confirmation by Telecom of completion of the Order; and that is found and required to be fixed (it is not a "No Fault Found")
6	New Connection	Meet notified expected RFS Date for the relevant RBI Fibre Service	Telecom will complete the Order by the notified expected RFS Date	Complete the Order by the notified expected RFS Date	90% (for each function)	Where Telecom extends a previously notified RFS Date (other than as a result of an Access Seeker's or an Access Seeker's Customer's request to do so), this is considered a failure of this Service Level
7	Relinquishment Handover Connection	Meet notified expected RFS Date ⁵	Telecom will complete the Order by the notified expected RFS Date	Complete the Order by the notified expected RFS Date	90%	Where Telecom extends a previously notified RFS Date (other than as a result of an Access Seeker's or an Access Seeker's Customer's request to do so), this is considered a failure of this Service Level
8	New Connection Relinquishment Handover Connection	Pre-qualification Acknowledgement	Telecom will acknowledge receipt of Pre-qualification Order	Complete the acknowledgement of receipt within 4 consecutive Business Hours following the receipt of the Order	90%	

⁵ The notified expected RFS Date must be within the Standard Lead-Time, except where otherwise agreed between Telecom and the Access Seeker.

Item No.	Function to which Service Level Relates	Service Attribute	Deliverable	Service Level	Tolerance Level	Exclusions
9	New Connection Relinquishment Handover Connection	Pre-qualification Order Completion	Telecom will complete the Pre-qualification Order and return the required information to the Access Seeker	Complete the Pre-qualification Order and return the required information to the Access Seeker within: <ul style="list-style-type: none"> for automated Pre-qualification, 4 consecutive Business Hours following receipt of the Order for a special manual Pre-qualification investigation, 6 Working Days following receipt of the Order. 	90%	
10	New Connection Relinquishment Handover Connection	Change to RFS Date	Telecom will provide notification of RFS Date change	Provide notification of the change of RFS Date to the Access Seeker within 4 Consecutive Business Hours of receipt of the request to change an existing Order (provided that the request is received at least 1 Working Day prior to the notified RFS Date)	90%	
11	New Connection Relinquishment Handover Connection	Confirmation of completion	Telecom will provide the Access Seeker with confirmation of completion of the Order	Provide confirmation of completion of the Order to the Access Seeker within 4 Consecutive Business Hours after the Order has been completed	90%	
12	RBI Fibre Service	Notification of Planned Outages	Telecom will advise of Planned Outages	Advise at least 5 Working Days before Planned Outage occurs	90%	Telecom will use all reasonable endeavours to schedule Planned Outages between the hours of 11:00pm and 6:00am

Item No.	Function to which Service Level Relates	Service Attribute	Deliverable	Service Level	Tolerance Level	Exclusions
13	RBI Fibre Service	Notification of Unplanned Outages	Telecom will advise of Unplanned Outages	Advise within 2 hours, 24 hours a day, seven days a week, of Telecom discovering or receiving notification of the Unplanned Outage	90%	
14	RBI Fibre Service	Fault report receipt acknowledgement	Telecom will acknowledge receipt of each fault report	Provide report receipt acknowledgement within half a Fault Restoration Hour of the fault being reported ⁶	90%	This Service level does not apply where an invalid fault report has been submitted.
15	RBI Fibre Service	Notification of expected restoration time	Telecom will provide notification of the expected restoration time ⁷	Provide notification of the expected restoration time within 4 Fault Restoration Hours of the fault being reported	90%	Unless otherwise agreed between Telecom and the Access Seeker, where a fault relating to the technical service specifications is reported, Telecom will provide notification of the expected restoration time within 8 Fault Restoration Hours of the fault being reported
16	RBI Fibre Service	Meet notified expected restoration time	Telecom will restore the fault within the notified expected restoration time	Restore fault within notified expected restoration time	90%	
17	RBI Fibre Service	Availability of OO&T	Telecom will make OO&T available to the Access Seeker	OO&T is available to the Access Seeker 24 hours a day, 7 days a week.	99.8%	Availability to be measured 24 hours a day, 7 days a week over a calendar month, excluding any periods of Permitted Maintenance.

⁶ If a fault is logged outside Fault Restoration Hours, for the purposes of this Service Level, the report will be deemed to have been received at 7.00am the following day.

⁷ The expected restoration time will be provided in accordance with Telecom's fault prioritisation systems.

Item No.	Function to which Service Level Relates	Service Attribute	Deliverable	Service Level	Tolerance Level	Exclusions
18	RBI Fibre Service	Availability of OFM	Telecom will make OFM available to the Access Seeker	OFM is available to the Access Seeker 24 hours a day, 7 days a week	99.8%	Availability to be measured 24 hours a day, 7 days a week over a calendar month, excluding any periods of Permitted Maintenance.

Notes:

Where availability measured

In respect of Items 17 and 18, availability is measured from the point at which the public internet meets the OO&T or the OFM (as the case may be).

Permitted Maintenance

The OO&T or OFM systems may be taken out of service for routine maintenance, testing, configuration changes, software upgrades or updating facilities. Telecom will, where practicable, carry out such work between 10.00pm and 7.00am. In such cases, Telecom shall advise Access Seekers not less than 5 Working Days prior to the event.

Telecom may, at such other times as Telecom considers reasonably necessary, take the OO&T and OFM systems out of service, taking into account the need to minimise any disruption caused to the Access Seekers. Telecom will advise of such outages not less than 10 Working Days prior to the event.

Unplanned Outages

If the OO&T or OFM systems must be taken out of service to resolve a fault affecting the system, where reasonably practicable, Telecom shall give notice to the Access Seeker of any such unscheduled outages and the Access Seeker will be kept regularly updated regarding the resolution of the fault.

Part 2, Table 2: Standard Lead-Times for Orders

Service supporting an RFI Fibre Service	Standard Lead-Time
New Connection (Truck Roll required)	21 Working Days
New Connection (no Truck Roll required)	2 Working Days
Relinquishment	2 Working Days
Handover Connection (equipment available)	21 Working Days
Handover Connection (no equipment available)	3 – 6 months



Schedule 1, Appendix D Layer 2 Access Services Handover Points

Handover points for RBI Fibre Bitstream Service for Priority Users and Premium RBI Fibre Bitstream Service for Priority Users, and RBI Community Fibre Bitstream Service The handover points are the applicable parent RPOPs located at:

WHANGAREI
WAIHEKE
AUCKLAND
GLENFIELD
ROTORUA
TAURANGA
WHAKATANE
TAUPO
NEW PLYMOUTH
HAMILTON
GISBORNE
HASTINGS
NAPIER
LEVIN
PALMERSTON NORTH
PARAPARAUMU
WANGANUI
MASTERTON
PORIRUA
WELLINGTON
BLENHEIM
NELSON
GREYMOUTH
ASHBURTON
RANGIORA
TIMARU
CHRISTCHURCH
RICCARTON
QUEENSTOWN
OAMARU
INVERCARGILL
DUNEDIN
SOUTH DUNEDIN



Handover points for UBA and Wholesale VDSL2 Services

The handover points are the FDS located at the following LBAPs, on the Rural Links to which the relevant End User Premises is connected. NB: Services can be extended using Tail Extension.

RBI Region	Rural POI
R01	KERIKERI
R01	KAITAIA
R02	DARGAVILLE
R02	WHANGAREI
R03	AUCKLAND
R03	GLENFIELD
R03	HOWICK
R03	HELENSVILLE
R03	HENDERSON
R03	MT ALBERT
R03	PAPAKURA
R03	PAPATOETOE
R03	RED BEACH
R03	REMUERA
R03	TORBAY
R03	WELLSFORD
R03	WAIHEKE
R03	WARKWORTH
R04	COROMANDEL
R04	TAIRUA
R04	THAMES
R05	HAMILTON
R05	MATAMATA
R05	TE KAUWHATA
R06	MT MAUNGANUI
R06	ROTORUA
R06	TAURANGA
R06	WHAKATANE
R07	OHAKUNE
R07	TURANGI
R07	TE KUITI
R07	TAUMARUNUI
R07	TAUPO
R08	GISBORNE
R08	RUATORIA
R08	TOKOMARU BAY
R09	HAWERA
R09	NEW PLYMOUTH
R10	HASTINGS
R10	NAPIER
R10	WAIROA



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RBI Region	Rural POI
R10	WAIPUKURAU
R11	LEVIN
R11	NAENAE
R11	PALMERSTON NORTH
R11	PARAPARAUMU
R11	PORIRUA
R11	TAIHAPE
R11	UPPER HUTT
R11	WANGANUI
R11	WELLINGTON
R12	DANNEVIRKE
R12	FEATHERSTON
R12	MASTERTON
R12	PAHIATUA
R13	BLENHEIM
R13	MOTUEKA
R13	NELSON
R13	ST ARNAUD
R13	TAKAKA
R14	FRANZ JOSEPH GLACIER
R14	GREYMOUTH
R14	HOKITIKA
R14	REEFTON
R14	WESTPORT
R15	AMBERLEY
R15	CHEVIOT
R15	CULVERDEN
R15	KAIKOURA
R16	ASHBURTON
R16	CHRISTCHURCH
R16	DARFIELD
R16	LITTLE RIVER
R16	RICCARTON
R16	ROLLESTON
R16	RANGIORA
R17	FAIRLIE
R17	KUROW
R17	OAMARU
R17	PALMERSTON
R17	TEMUKA
R17	TIMARU
R17	TWIZEL
R18	ALEXANDRA
R18	CROMWELL
R18	DUNEDIN



RBI Region	Rural POI
R18	QUEENSTOWN
R18	RANFURLY
R18	ROXBURGH
R18	WANAKA
R19	BALCLUTHA
R19	GORE
R19	HALFMOON BAY
R19	INVERCARGILL
R19	LUMSDEN
R19	TE ANAU
R19	TUATAPERI



Chorus



Chorus

**Schedule 1, Appendix E
Bitstream 3a Service Description**

See attached



Service Description for Bitstream 3a

14 INTERPRETATION

References to clauses or sections are references to clauses or sections in this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 and in the Terms and Conditions for this Service will apply to this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 will take priority over the definitions set out in the Terms and Conditions for this Service.

15 THE BITSTREAM 3A SERVICE

- 15.1 The Bitstream 3a Service is a multi-class bitstream service suitable for complex business grade applications and premium residential products delivered over a shared fibre access.
- 15.2 The Bitstream 3a Service is an input service which a Service Provider can combine with their own network and services to provide ethernet based telecommunications services to End Users
- 15.3 The Bitstream 3a Service has the following key characteristics:
 - 15.3.1 Ethernet bitstream service that allows up to 4096 VLANs to be passed transparently from the End User premises to the Service Provider, delivered over GPON (shared) fibre.
 - 15.3.2 Support for up to 8 classes of traffic, divided into two performance regimes (High Priority and Low Priority).
 - 15.3.3 A range of reference service plans offered, with the option to create modified bandwidth plan and packaged options using 'core building blocks' and the Product Development Process.
 - 15.3.4 Supports tagged or untagged traffic by the End User.
 - 15.3.5 Is automatically delivered in conjunction with Baseband (including a single ATA Voice service).
- 15.4 Notwithstanding the specifications of any UFB Bitstream 2 service, UFB Bitstream 3a service, or UFB Bitstream 4 service, any Excess Information Rate (EIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum EIR of 100Mbps, and any Committed Information Rate (CIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum CIR of 1Gbps.

16 BITSTREAM 3A SERVICE AND IMPLEMENTATION ACTIVITIES

Overview of Bitstream 3 Service

- 16.1 A diagram of the configuration for the Bitstream 3a Service is set out in Annex A. The Bitstream 3a Service provides an ethernet bitstream service from the UNI at the End User premises to the Handover Connection at the POI that enables a Service Provider to access and interconnect with Chorus' Network.
- 16.2 The Bitstream 3a Service includes certain provisioning works. Chorus will provide the following installation works (in each case to the extent that the relevant provisioning works are not already complete for the relevant End User premises). These works, when completed, will constitute the installation of a Connection:

Provisioning at End User's premises - Fibre Lead-in to the ETP or OFDF

- 16.2.1 a Fibre Lead-in from the Fibre Access Point to:
 - (a) for Single Dwelling Units, an ETP at the closest point on the End User premises; or
 - (b) for Multi Dwelling Units, the OFDF or equivalent,

where the Fibre Lead-in utilises no more than:

- (c) 100m of existing conduit or open trench; or
- (d) 15m of aerial drop lead in overhead areas or
- (e) 15m of buried lead-in; and

16.2.2 Connection of the Fibre Lead-in to the Chorus Network; and

Provisioning at End User's premises – extension of Fibre Lead-in for Single Dwelling Units

16.2.3 for Single Dwelling Units, an extension of the Fibre Lead-in up to 5m from the ETP to a suitable jack inside the End User premises (there will not necessarily be a break in the Fibre Lead-in at the ETP), as follows:

- (a) the Fibre Lead-in is extended to plug directly into the ONT using the SC/APC plug on the end of the Fibre Lead-in; or
- (b) if there is an OFDF beyond the ETP, the Fibre Lead-in is extended to the OFDF. A pigtail is then patched or spliced on to the Fibre Lead-in on the OFDF, so that the Fibre Lead-in extends via the pigtail and plugs directly into the ONT using the SC/APC plug on the end of the pigtail; and

Installation of ONT

16.2.4 installation of ONT including:

- (a) supply and fixing of the ONT to structure of End User premises (in the case of a Single Dwelling Unit, and a Multi Dwelling Unit where a Fibre Lead-in has been extended from the OFDF to the inside of the End User premises as anticipated in clause 3.2.7(a));
- (b) supply and fixing of the ONT to a building common area or other facility made available by the owner to service the Multi-Dwelling Unit, where a Fibre Lead-in has not been extended from the OFDF to the inside of the End User premises;
- (c) supply and connection of fibre pigtail up to 1m long between the Fibre Lead-in Termination Point and the ONT if required; and
- (d) testing from the UNI port of ONT ensuring the Bitstream 3 Service is within specification.

Termination Points - Single Dwelling Unit Termination Point

16.3 For a Single Dwelling Unit, the termination point for the purposes of the Connection, and the network demarcation point between the Chorus Network and the building owner's premises wiring, is the SC/ACP plug on the end of the Fibre that plugs into the ONT.

Termination Points - Multi-Dwelling Unit Termination Point

16.4 For a Multi-Dwelling Unit, the termination point for the purposes of the Connection, and the network demarcation point between the Chorus Network and the Multi-Dwelling Unit building owner's building wiring, is the OFDF.

Extending beyond the OFDF in a Multi-Dwelling Unit Building

16.5 The Service Provider must make its own arrangements (through the owner of the Multi-Dwelling Unit building or otherwise) to extend the Fibre Lead-in in a Multi-Dwelling Unit beyond the OFDF. To complete the extension, it is anticipated that these arrangements would involve either:

- 16.5.1 an extension of the Fibre Lead-in from the OFDF to plug directly into an ONT inside the End User premises using the SC/APC plug on the end of the Fibre Lead-in; or
- 16.5.2 an extension of the Fibre Lead-in from the OFDF to plug directly into an ONT located in a building common area or other facility made available by the building owner to service

the Multi-Dwelling Unit, using an SC/APC plug on the end of a pigtail which is patched or spliced to the Fibre Lead-in cable on the OFDF.

Testing

16.6 Chorus will test the Fibre Lead-in from the Termination Point at the End User's premises to the MOFDF at the Chorus Central Office to ensure the Direct Fibre Access Service is within the technical specification for fibre in Annex B.

Additional Services

16.7 If the Service Provider requires additional services such as:

- (a) longer or different Fibre Lead-in cables than those specified above;
- (b) premises wiring services; or
- (c) installation and testing of Service Provider's equipment and services.

then Chorus may be able to provide these on request on terms and conditions to be agreed with the Service Provider.

Core Bitstream 3a Service

16.8 The core Bitstream services provided as part of the Bitstream 3a Service are as follows:

16.8.1 An Ethernet EPL Service that supports transparent pass-through of 802.1Q frames on a designated UNI on the ONT at the End User premises.

16.8.2 Delivered over a single 802.1ad SVLAN on the E-NNI at the POI.

16.8.3 Tagged Traffic is treated as follows:

- (a) Untagged traffic sent from the End User is tagged and treated as Low Priority.
- (b) Traffic tagged with PCP = 0 will be treated as Low Priority.
- (c) Traffic tagged with PCP = 1, 2, 3, 4, 5, 6 or 7 will be treated as High Priority.
- (d) Traffic will be treated as follows based on the individual frames priority:

Type	Ingress	Transport
Low Priority	Policed at Access Rate	Queued and Weighted fairly under congestion conditions
High Priority	Policed at CIR	Prioritised

- (b) Low Priority traffic can burst up to the Access Rate.
- (c) Non-discriminatory fairness will be applied to Low Priority traffic to ensure a minimum performance and fair use of bandwidth under congestion conditions.

16.8.4 Multiple service plans are available to Service Providers, using the following parameters:

- (a) access rate; and
- (b) Service (High Priority) service bandwidth;

as set out in the table below, and can be modified or combined with other services using the Product Development Process as described in clauses 3.10 and 3.11 below:

Access Rate	100/100 Mbps High Priority (CIR)
-------------	----------------------------------

Service Bandwidth (High Priority)	Upstream	Downstream
	2.5 Mbps	2.5 Mbps
	10 Mbps	10 Mbps
	20 Mbps	20 Mbps
	30 Mbps	30 Mbps
	40 Mbps	40 Mbps
	50 Mbps	50 Mbps
	60 Mbps	60 Mbps
	70 Mbps	70 Mbps
	80 Mbps	80 Mbps
	90 Mbps	90 Mbps
	100 Mbps	100 Mbps

- (k) The standard ONT for the Bitstream 3a Service supports 4 100/1000 Ethernet UNIs and two ATA ports.

16.9 UNI – NNI characteristics

- 16.9.1 The Bitstream 3a Service requires a dedicated UNI.
- 16.9.2 The sum of High or Low Priority traffic profiles of all services delivered at a Handover Connection can exceed the Handover Connection line rate. If there is insufficient line rate to deliver the High Priority traffic then frames will be randomly discarded and service levels do not apply.

Bandwidth Plan Options

- 16.10 The option to create additional High/Low Priority combinations as follows.
 - 16.10.1 High/Low Priority bandwidth combinations can be created using a set of standard building blocks:
 - (a) High Priority (CIR) in increments of 2.5 Mbps upstream and/or downstream;
 - (b) Access Rate in increments of 10 Mbps upstream and/or downstream.
 - 16.10.2 Requests for additional combinations will be implemented and delivered through the Product Development Process.

Packaged Options

- 16.11 The option to add additional Bitstream services to an existing Bitstream 3a Service access as follows.
 - 16.11.1 Additional Bitstream Services can be created using a set of standard building blocks:
 - (a) Point to Point VLAN (E-AVPL) service using High Priority (CIR) and Low Priority (CIR+EIR) combinations as per the RBI Community Fibre Bitstream Service;

- (b) Point to Point VLAN (E-APL) service using High Priority (CIR) and Access Rate combinations as set out in this Bitstream 3a service description;
 - (c) Multicast VLAN service (EMA) using High Priority (CIR) only;
 - (d) ATA Voice Port;
 - (e) UNI port. Note that the Bitstream 3a Service requires a dedicated UNI, and any additional Bitstream services would require a separate UNI;
 - (f) WiFi;
 - (g) Other services or attributes as requested by the Service Provider and agreed by Chorus.
- 16.11.2 Additional services can be added as incremental services, or bundled together as a single package.
- 16.11.3 Requests for additional services will be implemented and delivered through the Product Development Process.
- 16.12 The Bitstream 3a Service will support Ethernet Service Operations and Maintenance (OAM) for service integrity testing, fault diagnostics and performance measurement using ITU Y.1731. OAM capability will be phased in as the functionality is developed and deployed in scale.
- 16.13 To use the Bitstream 3a Service the Service Provider must have the capability to access and interconnect with it, by one of the following:
- 16.13.1 co-locating Service Provider Equipment at the POI using the Tie Cable Service, and RBI Co-location Service;
 - 16.13.2 connecting to third party co-location space at the POI using the Tie Cable Service, and with the third party taking the RBI Co-location Service; or
 - 16.13.3 connecting to a backhaul service that connects to the OFDF at the POI.
- 16.14 The Bitstream 3a Service extends from the Service Demarcation Point at the End User premises, through Chorus' Network to the Service Demarcation Point in the POI.
- 16.15 The technical specification of the Bitstream 3a Service is set out in Annex B.
- 16.16 The Bitstream 3a Service will also include the following service assistance provided by Chorus:
- 16.16.1 an automated facility for Bitstream 3a Service Requests;
 - 16.16.2 an automated facility for Bitstream 3a Service fault notifications; and
 - 16.16.3 a tool to assist the Service Provider in determining the location and availability of the Bitstream 3a Service (pre-qualification),
- each as more particularly set out in the Operations Manual.
- 16.17 The Bitstream 3a Service specifically excludes:
- 16.17.1 the Handover Connection;
 - 16.17.2 provision or maintenance of any cabling or connection or active device beyond the service demarcation points described in clause 4.1 and clause 5.1;
 - 16.17.3 configuration, monitoring, operation, on-going support or maintenance of Service Providers' or End User's applications, equipment or networks;
 - 16.17.4 supply of AC Mains & UPS Power, accommodation space, heating, ventilating, air conditioning and other similar service and facilities at the POI or End User premises.

17 SERVICE DEMARCATION POINT AT END USER PREMISES

- 17.1 The service demarcation point is the GigE UNI on the ONT at the End User's premises.

- 17.2 The Bitstream 3a Service excludes all End User premises wiring beyond the service demarcation point and beyond those installation works described in clause 3.1.1. The Service Provider or the End User will be responsible for End User premises equipment (CPE) and wiring at the End User's site beyond the service demarcation point. The Service Provider must ensure that the industry standard premises wiring requirements for fibre based services are adhered to. These are available at www.tcf.org.nz.

18 SERVICE DEMARCATION POINT AT POI

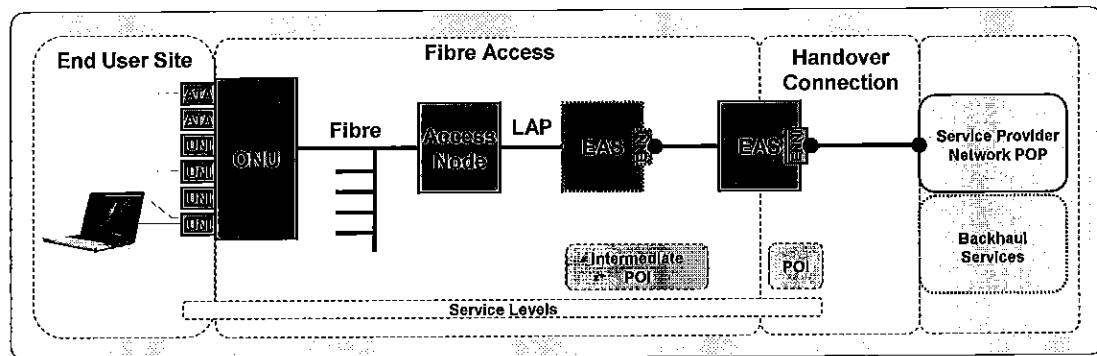
- 18.1 The Bitstream 3a Service is delivered as a transparent VLAN (the logical service demarcation point) on the Handover Connection located at the POI.
- 18.2 The physical service demarcation point is the OFDF in the POI, which is part of the Handover Connection.
- 18.3 The Handover Connection is a separate service and is a prerequisite to purchasing the Bitstream 3a Service i.e. Service Providers must first purchase and then continue to maintain a Handover Connection in taking the Bitstream 3a Service.

19 CHORUS AND SERVICE PROVIDER RESPONSIBILITIES

- 19.1 Other Chorus and Service Provider responsibilities are detailed in the Terms and Conditions, including the Operations Manual. All charges are included in the Operations Manual.
- 19.2 The Service Provider is responsible for site access and security at the End User premises.



Annex A – Diagram



This is a generic diagram showing the standard configuration and service demarcation points. It is not intended to represent every situation or detailed physical architecture. The following points should be noted:

- Some Bitstream services will have a single tier of aggregation, i.e. there is no Intermediate POI.
- Where there are multiple tiers of aggregation, Service Providers can pick the service up at an Intermediate POI. This intermediate POI will service a limited coverage area.
- Service Levels (availability, network performance) only apply to UNI to POI.
- Access Node and Aggregation interconnection may use redundant links to meet Service Level requirements.



Annex B – Technical Specification

Technical Specification

Ethernet	<ul style="list-style-type: none"> • IEEE 802.3 – 2005 • 802.1q supporting 4094 vlans
UNI	<p>ONT supports:</p> <ul style="list-style-type: none"> • 4 x UNI <p>Per UNI:</p> <ul style="list-style-type: none"> • 100/1000Base-T
Handover Connection (E-NNI)	<p>Ethernet:</p> <ul style="list-style-type: none"> • 802.ad vlan (svid, cvid); or • Double tagged Q in Q.
VLAN	<p>Point-to-Point (E-APL) MTU 2000 Bytes Unicast Frame Delivery = Unconditional as per plan Multicast Frame Delivery = Unconditional as per plan Broadcast Frame Delivery = Unconditional as per plan Layer 2 Control Protocols Processing = (to be confirmed)</p>
Fibre	<p>External fibre must comply with ITU-T specification G.652D. Internal building fibres may comply with ITU-T G.657A. Fibre terminations must be SC/APC type connectors (complying with the IEC 61754-4 standard) or LC/APC type connectors (complying with the IEC 61754-20 standard) as appropriate. Laser types and path characteristics expected to be designed to a minimum standard which are contained in the documents IEEE 802.3 Section 5 standard OR distance specifications as per the ITU-T G.984 (GPON) standard as appropriate.</p>



Annex C – Terms and definitions

Term	Definition
802.1ad	An ethernet standard that supports ethernet frames with two 802.1q vlan tags. These vlan identifiers are referred to as: <ul style="list-style-type: none"> • Service Vlan ID or svid, Outer tag. • Customer Vlan ID or cvid, Inner tag.
802.1p	An ethernet standard that uses the 3-bit PCP field in 802.1q vlan tags to advise the network as to what class of service should be applied to the transport of the frame.
802.1q	An ethernet standard that allows the support of multiple independent logical networks through the use of an 802.1q header. This allows up to 4094 virtual networks to be identified through the vlan id field. The 802.1q header also supports a 3-bit PCP field which is used to indicate the class of service the frame belongs to.
802.3/Ethernet II	Ethernet standards that defines the format of standard untagged ethernet frames
CIR	Committed Information Rate. This is the amount of guaranteed throughput – frames submitted within this throughput will be considered discard ineligible by the network.
Coverage Area	This is a geographical area served by a Data Switch. There are multiple tiers: <ul style="list-style-type: none"> • First Data Switch – typically an Intermediate POI or POI • POI. Consists of the aggregate of all First Data Switches served by the POI. In many cases this will only be the POI itself. • Extended POI. Consists of the aggregate of all POIs served by the Extended POI.
CPE	Customer Premises Equipment. This is equipment used by the End User or provided by the Service Provider at the End User site to use or interface with the Bitstream service.
CVID	Customer VLAN ID. This is the vlan identifier contained in the inner 802.1ad tag delivered on the E-NNI.
DHCP	Dynamic Host Configuration Protocol. A Layer 3 protocol used to auto-configure basic IP settings. Optional for Service Providers.
EAS	Ethernet Aggregation Switch.
E-AVPL	Ethernet Access Virtual Private Line. This is a MEF standard for providing an OVC (Operator Virtual Circuit) from the UNI to an E-NNI.
EIR	Excess Information Rate. This is the amount of un-guaranteed throughput – frames submitted within this throughput will be considered discard eligible by the network. Frames that exceed CIR+PIR will be discarded.
EMA	Ethernet Multicast Access. A service that supports the transmission of multicast traffic from a Service Provider to multiple UNIs simultaneously.



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Term	Definition
E-NNI	External Network-to-Network Interface. This is a MEF standard interface that allows connectivity between two ethernet networks. It provides the ethernet demarcation between Chorus and the Service Provider.
ETP	External Termination Point. This is a point on the outside of the End User premises that is the demarcation between the Chorus delivery network and the internal house wiring. The Bitstream 2 service extends beyond this point to the ONT.
Fibre Access Point	A point on the End User premises boundary where fibre service is delivered prior to provisioning.
Fibre Lead-in	The fibre from the Fibre Access Point to the Termination Point.
First Data Switch	The term applied to the first EAS after the Access Node. This is the first Layer 2 Handover Point at which a Service Provider can connect to the Chorus network, although Tail Extension can be used to extend the service beyond this point.
GPON	Gigabyte Passive Optical Network. This is a fibre standard that supports point-to-multipoint delivery of fibre to multiple premises.
High Priority class	This is a class, defined in the TCF ELAS Service Description, which is intended for the delivery of high performing applications and content. All frames marked as high priority are considered discard ineligible. <ul style="list-style-type: none"> • CIR > 0. • EIR = 0
ITU Y.1731	An ITU Ethernet standard that supports protocols and practices for OAM across ethernet platforms.
Low Priority class	This is a class, defined in the TCF ELAS Service Description, which is intended for the delivery of internet grade applications and content. All frames marked as low priority are considered discard eligible. <ul style="list-style-type: none"> • CIR = 0. • EIR > 0
MEF	Metro-Ethernet Forum. An international industry consortium that creates standards for carrier ethernet networks and services.
MEG	Maintenance Entity Group. This is a point in the network that supports OAM management functions.
MEP	MEG End Point. This is a maintenance functional entity located at each end of an end-to-end path and provides a point that can be used to initiate OAM tests or reflect OAM requests.
MIP	MEG Intermediate Point. This is a maintenance functional entity located at intermediate points along the end to end path. It reacts and responds to OAM frames.



Term	Definition
MTU	Maximum Transmission Unit. The maximum ethernet frame, including headers, which can be supported by the service.
OAM	Operations, Administration and Maintenance. A set of processes, tools and activities based on ITU Y.1731 that allows testing and monitoring of the ethernet network.
OLT	Optical Line Terminator. An Access Node that provides for the delivery of GPON accesses. It provides the network-side GPON functions.
ONT/ONU	Optical Network Terminal or Optical Network Unit. Provides the End User GPON functions and terminates the GPON access in the End User site.
PCP	Priority Code Point. A three bit field in the 802.1q header that identifies what class a particular frame is associated with.
POP	Point of Presence. This is the point at which a Service Provider provides a service – either directly or via a backhaul service.
POI	Defined in Schedule 1 of this Agreement.
Product Development Process	Defined in Schedule 1 of this Agreement.
PPPoE	Point-to-Point-Protocol over Ethernet. This is a protocol used for Layer 3 IP attribute assignment. It can be used as an alternative to DHCP.
QnQ	Q in Q is an industry standard protocol similar to 802.1ad. It supports stacked VLANs, i.e. multiple 802.1q vlan tags in an Ethernet frame. Chorus supports this as an alternative E-NNI standard to 802.1ad. The primary difference between QnQ and 802.1ad is the Ethertype field.
SVID	Service VLAN ID. This is the vlan identifier contained in the outer 802.1ad tag delivered on the E-NNI.
Tagged traffic	This is ethernet frames that include one or more 802.1q headers or tags.
Tail Extension	This is a service that extends the service attributes of the tail from the POI to a remote Handover Point. As this provides a backhaul service, the end-to-end service attributes will be different than a service that terminates at the POI.
Tie Cable Service	Chorus' standard Tie Cable Service, as further defined in the Operations Manual.
TR-101/156	This is a Broadband Forum technical report that standardises how GPON can be supported using an Ethernet Aggregation Network.
UNI	User Network Interface. The interface specification facing the End User site.
UNI Port	A single ethernet port on an ONT.
UPS	Uninterruptible Power Supply.



Chorus

Term	Definition
VLAN	A virtual LAN or local area network. A logical ethernet network supported through 802.1q headers.
WiFi	A common short range wireless network used for local connection to a WiFi hotspot. It is offered as a feature on the ONT as an alternative to house wiring, although throughput is limited by the WiFi bandwidth and the number of users on the shared network.
Y.1731	An ITU standard that defines protocols and practices for OAM on ethernet networks including traffic performance measurements such as Frame Delay, Frame Delay Variation and throughput.



**Schedule 1, Appendix F
Bitstream 4 Service Description**

See attached



Service Description for Bitstream 4

20 INTERPRETATION

References to clauses or sections are references to clauses or sections in this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 and in the Terms and Conditions for this Service will apply to this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 will take priority over the definitions set out in the Terms and Conditions for this Service.

21 THE BITSTREAM 4 SERVICE

- 21.1 The Bitstream 4 Service is a high speed single-class bitstream service suitable for complex business grade applications delivered over point-to-point fibre access.
- 21.2 A diagram of the configuration for the Bitstream 4 Service is set out in Annex A. The Bitstream 4 Service provides an ethernet bitstream service from the NID at the End User premises to a Handover Connection at the POI or (using tail extension) another handover point that enables a Service Provider to access and interconnect with Chorus' Network.
- 21.3 The Bitstream 4 Service is an input service which a Service Provider can combine with their own network and services to provide ethernet based telecommunications services to End Users.
- 21.4 The Bitstream 4 Service has the following key characteristics:
- 21.4.1 Ethernet bitstream service that allows up to 4096 VLANS to be passed transparently from the End User premises to the Service Provider's Handover Connection at the POI or (using tail extension) another handover point, delivered over Active Optical Network (P2P) fibre.
 - 21.4.2 A range of reference service plans are offered, with the option to create modified bandwidth plan and packaged options using 'core building blocks' and the Product Development Process.
 - 21.4.3 Supports tagged or untagged traffic by the End User.
- 21.5 Notwithstanding the specifications of any UFB Bitstream 2 service, UFB Bitstream 3a service, or UFB Bitstream 4 service, any Excess Information Rate (EIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum EIR of 100Mbps, and any Committed Information Rate (CIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum CIR of 1Gbps.

22 BITSTREAM 4 SERVICE AND IMPLEMENTATION ACTIVITIES

- 22.1 The Bitstream 4 Service provides the following key service attributes:

Installation Services

- 22.1.1 The following installation characteristics (in each case to the extent that the relevant provisioning works are not already complete) which, when completed, will constitute the installation of a Connection:

Connection to End User's Premises - Fibre Lead-in to the ETP or OFDF

- (a) The Service Provider takes delivery of the Bitstream 4 Service from an End User's premises. Initial installation activities will involve the provision of a Fibre Lead-in from the Fibre Access Point to, in the case of a Single Dwelling Unit, an ETP at the closest point on the End User premises and, in the case of a Multi Dwelling Unit, the OFDF or equivalent, including:
 - (i) a Fibre Lead-in that utilises up to:

- (A) 100m of existing conduit or open trench;
 - (B) 15m of aerial drop lead in overhead areas; or
 - (C) 15m of buried Lead-in; and
- (ii) connection of the Fibre Lead-in to the Chorus Network.

Internal Fibre Lead-in Extension for Single Dwelling Units

- (b) for a Single Dwelling Unit, the Fibre Lead-in is then extended up to 3m from the ETP to a suitable jack inside the End User premises (there will not necessarily be a break in the Fibre Lead-in at the ETP), as follows:
- (a) the Fibre Lead-in is extended to plug directly into the NID using the SC/APC plug on the end of the Fibre Lead-in; or
 - (b) if there is an OFDF beyond the ETP, the Fibre lead-in is extended to the OFDF. A pigtail is then patched or spliced on to the Fibre Lead-in on the OFDF, so that the Fibre Lead-in extends via the pigtail and plugs directly into the NID using the SC/APC plug on the end of the pigtail.

Single Dwelling Unit Termination Point

- (c) for a Single Dwelling Unit, the termination point for the purposes of the Connection and the network demarcation point between the Chorus Network and the building owner's premises wiring is the SC/ACP plug on the end of the Fibre that plugs into the NID.

Multi-Dwelling Unit Termination Point

- (d) for a Multi-Dwelling Unit, the termination point for the purposes of the Connection and the network demarcation point between the Chorus Network and the Multi-Dwelling Unit building owner's building wiring is the OFDF.

Extending beyond the OFDF in a Multi-Dwelling Unit Building

- (e) the Service Provider must make its own arrangements (through the owner of the Multi-Dwelling Unit building or otherwise) to extend the Fibre Lead-in in a Multi-Dwelling Unit beyond the OFDF. To complete the extension, it is anticipated that these arrangements would involve either:
- (a) an extension of the Fibre Lead-in from the OFDF to plug directly into a NID inside the End User premises using the SC/APC plug on the end of the Fibre Lead-in; or
 - (b) an extension of the Fibre Lead-in from the OFDF to plug directly into a NID located in a building common area or other facility made available by the building owner to service the Multi-Dwelling Unit, using an SC/APC plug on the end of a pigtail which is patched or spliced to the Fibre Lead-in cable on the OFDF.

Testing

- (f) testing of the Fibre Lead-in from the Termination Point to the central office where the access node is located to ensure fibre is within the technical specification for Fibre in Annex B.

Installation of NID

- (g) installation of NID including:
 - (a) supply and fixing of the NID to structure of End User premises (in the case of a Single Dwelling Unit, and a Multi Dwelling Unit where a Fibre Lead-in has been extended from the OFDF to the inside of the End User premises as anticipated in clause 3.1.1(e));
 - (b) supply and fixing of the NID to a building common area or other facility made available by the owner to service the Multi-Dwelling Unit, where a Fibre Lead-in has not been extended from the OFDF to the inside of the End User premises;
 - (c) supply and connection of fibre pigtail up to 1m long between the Fibre Lead-in Termination Point and the NID if required; and
 - (d) testing from the UNI port of NID ensuring the Bitstream 4 Service is within specification.

22.1.2 If the Service Provider requires additional services such as:

- (a) longer of different Fibre Lead-in's than those specified above;
 - (b) premises wiring services; or
 - (c) installation and testing of Service Provider equipment and services,
- then Chorus may be able to provide these on request on terms and conditions to be agreed with the Service Provider.

Core Bitstream 4 Service

22.1.3 The core Bitstream services provided as part of the Bitstream 4 Service are as follows:

- (a) An Ethernet EPL Service that supports transparent pass-through of 802.1Q frames on a designated UNI on the NID at the End User premises.
- (b) Delivered over a single 802.1ad SVLAN on the E-NNI at the POI.
- (c) All tagged and untagged traffic sent from the End User is tagged and marked as High Priority.
- (d) Multiple service plans are available to Service Provider's, using the following parameters:
 - (a) Access rate; and
 - (b) Service bandwidth,
 as set out in the table below.

Access Rate	100/100 Mbps High Priority (CIR)		1/1 GigE High Priority (CIR)	
	1 Mbps	1 Mbps	100 Mbps	100 Mbps
Service Bandwidth	1 Mbps	1 Mbps	100 Mbps	100 Mbps
	2 Mbps	2 Mbps	150 Mbps	150 Mbps

	3 Mbps	3 Mbps	200 Mbps	200 Mbps
	5 Mbps	5 Mbps	300 Mbps	300 Mbps
	7 Mbps	7 Mbps	500 Mbps	500 Mbps
	10 Mbps	10 Mbps	700 Mbps	700 Mbps
	15 Mbps	15 Mbps	1 Gbps	1 Gbps
	20 Mbps	20 Mbps		
	30 Mbps	30 Mbps		
	50 Mbps	50 Mbps		
	70 Mbps	70 Mbps		
	100 Mbps	100 Mbps		

(l) The Bitstream 4 Service is a Premium Business service with the following characteristics:

Attribute	Bitstream 4
High Priority	Yes
Low Priority	No
Access Rate	100 Mbps 1 GigE
MTU	9100
MAC addresses	Unlimited
Number of UNIs	1
L2CP support	Limited
Tail Extension	No

22.2 UNI – NNI characteristics

22.2.1 The Bitstream 4 Service will use a dedicated UNI.

22.2.2 The sum of High Priority traffic profiles of all services delivered at a Handover Connection can exceed the Handover Connection line rate. If there is insufficient line rate to deliver the High Priority traffic then frames will be randomly discarded and Service Levels do not apply.

22.3 The Bitstream 4 Service will support Ethernet Service Operations and Maintenance (OAM) for service integrity testing, fault diagnostics and performance measurement using ITU Y.1731. OAM capability will be phased in as the functionality is developed and deployed in scale.

- 22.4 To use the Bitstream 4 Service the Service Provider must have the capability to access and interconnect with it, by one of the following:
- 22.4.1 co-locating Service Provider Equipment at the POI using the Tie Cable Service, and RBI Co-location Service;
 - 22.4.2 connecting to third party co-location space at the POI using the Tie Cable Service, and with the third party taking the RBI Co-location Service; or
 - 22.4.3 connecting to a commercial backhaul at the POI.
- 22.5 The Bitstream 4 Service extends from the Service Demarcation Point at the End User premises, through Chorus' Network to the Service Demarcation Point in the POI.
- 22.6 The technical specification of the Bitstream 4 Service is set out in Annex B.
- 22.7 The Bitstream 4 Service will also include the following service assistance provided by Chorus:
- 22.7.1 an automated facility for Bitstream 4 Service Requests;
 - 22.7.2 an automated facility for Bitstream 4 Service fault notifications; and
 - 22.7.3 a tool to assist the Service Provider in determining the location and availability of the Bitstream 4 Service (pre-qualification),
- each as more particularly set out in the Operations Manual.
- 22.8 The Bitstream 4 Service specifically excludes:
- 22.8.1 the Handover Connection;
 - 22.8.2 provision or maintenance of any cabling or connection or active device beyond the service demarcation points described in clause 4.1 and clause 5.1;
 - 22.8.3 configuration, monitoring, operation, on-going support or maintenance of Service providers' or End User's applications, equipment or networks;
 - 22.8.4 supply of AC Mains & UPS Power, accommodation space, heating, ventilating, and air conditioning at the POI or End User premises.

23 SERVICE DEMARCATION POINT AT END USER PREMISES

- 23.1 The service demarcation point at the End User's premises is the GigE UNI on the NID.
- 23.2 The Bitstream 4 Service excludes all End User premises wiring beyond the service demarcation point and beyond those installation works described in clause 3.1.1. The Service Provider or the End User will be responsible for Customer premises equipment (CPE) and wiring at the End User's premises beyond the service demarcation point. The Service Provider must ensure that the industry standard premises wiring requirements for fibre based services are adhered to. These are available at www.tcf.org.nz.

24 SERVICE DEMARCATION POINT AT POI

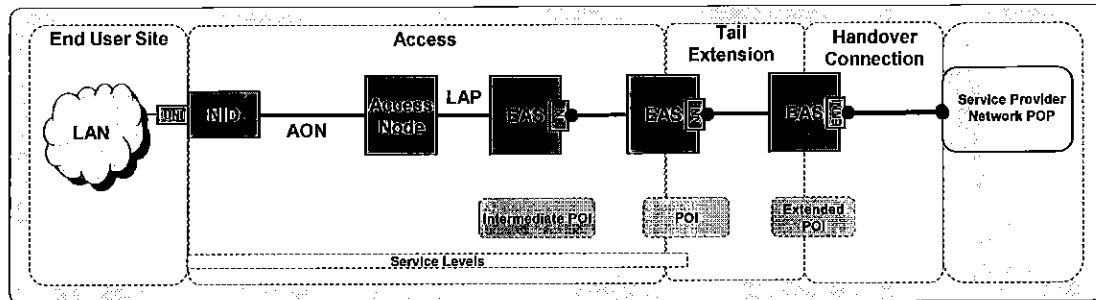
- 24.1 The Bitstream 4 Service is delivered as a transparent VLAN (the logical service demarcation point) on the Handover Connection located at the POI or using tail extension) another handover point.
- 24.2 The physical service demarcation point is the OFDF in the POI or (where tail extension is used) another handover point.
- 24.3 The Handover Connection is a separate service and is a prerequisite service for purchasing the Bitstream 4 Service.

25 CHORUS AND SERVICE PROVIDER RESPONSIBILITIES

- 25.1 Other Chorus and Service Provider responsibilities are detailed in the Terms and Conditions, including the Operations Manual. All Charges are included in the Operations Manual.
- 25.2 The Service Provider is responsible for site access and security at the End User premises.



Annex A – Diagram



This is a generic diagram showing the standard configuration and service demarcation points. It is not intended to represent every situation or detailed physical architecture. The following points should be noted:

- Some Bitstream services will have a single tier of aggregation, i.e. there is no Intermediate POI.
- Where there are multiple tiers of aggregation, Service Providers can pick the service up at an Intermediate POI. This intermediate POI will service a limited coverage area.
- Service Providers can optionally request tail extension to extend the service to an extended POI.
- Service Levels (availability, network performance) only apply to UNI to POI.
- Access Node and Aggregation interconnection may use redundant links to meet Service Level requirements.



Annex B – Technical Specification

Technical Specification

Ethernet	<ul style="list-style-type: none"> • IEEE 802.3 – 2005 • 802.1q supporting 4094 vlans
UNI	<ul style="list-style-type: none"> • RJ45 <ul style="list-style-type: none"> ○ 100 Mbps = 100BaseT ○ 1 Gbps = 1000Base-T <p>MTU 9100 Bytes</p>
Handover Connection (E-NNI)	<p>Ethernet:</p> <ul style="list-style-type: none"> • 802.ad vlan (svid, cvid); or • Double tagged Q in Q.
VLAN	<p>Point-to-Point (E-APL)</p> <p>MTU 9100 Bytes</p> <p>Unicast Frame Delivery = Unconditional as per plan</p> <p>Multicast Frame Delivery = Unconditional as per plan</p> <p>Broadcast Frame Delivery = Unconditional as per plan</p> <p>Layer 2 Control Protocols Processing = (to be confirmed)</p>
Fibre	<p>External fibre must comply with ITU-T specification G.652D.</p> <p>Internal building fibres may comply with ITU-T G.657A.</p> <p>Fibre terminations must be SC/APC type connectors (complying with the IEC 61754-4 standard) or LC/APC type connectors (complying with the IEC 61754-20 standard) as appropriate.</p> <p>Laser types and path characteristics expected to be designed to a minimum standard which are contained in the documents IEEE 802.3 Section 5 standard.</p>



Annex C – Terms and definitions

Term	Definition
802.1ad	An ethernet standard that supports ethernet frames with two 802.1q vlan tags. These vlan identifiers are referred to as: <ul style="list-style-type: none"> • Service Vlan ID or svid, Outer tag. • Customer Vlan ID or cvid, Inner tag.
802.1p	An ethernet standard that uses the 3-bit PCP field in 802.1q vlan tags to advise the network as to what class of service should be applied to the transport of the frame.
802.1q	An ethernet standard that allows the support of multiple independent logical networks through the use of an 802.1q header. This allows up to 4094 virtual networks to be identified through the vlan id field. The 802.1q header also supports a 3-bit PCP field which is used to indicate the class of service the frame belongs to.
802.3/Ethernet II	Ethernet standards that defines the format of standard untagged ethernet frames
CIR	Committed Information Rate. This is the amount of guaranteed throughput – frames submitted within this throughput will be considered discard ineligible by the network.
Coverage Area	This is a geographical area served by a Data Switch. There are multiple tiers: <ul style="list-style-type: none"> • First Data Switch – typically an Intermediate POI or POI • POI. Consists of the aggregate of all First Data Switches served by the POI. In many cases this will only be the POI itself. • Extended POI. Consists of the aggregate of all POIs served by the Extended POI.
CPE	Customer Premises Equipment. This is equipment used by the End User or provided by the Service Provider at the End User site to use or interface with the Bitstream service.
CVID	Customer VLAN ID. This is the vlan identifier contained in the inner 802.1ad tag delivered on the E-NNI.
DHCP	Dynamic Host Configuration Protocol. A Layer 3 protocol used to auto-configure basic IP settings. Optional for Service Providers.
EAS	Ethernet Aggregation Switch.
E-AVPL	Ethernet Access Virtual Private Line. This is a MEF standard for providing an OVC (Operator Virtual Circuit) from the UNI to an E-NNI.
EIR	Excess Information Rate. This is the amount of un-guaranteed throughput – frames submitted within this throughput will be considered discard eligible by the network. Frames that exceed CIR+PIR will be discarded.
EMA	Ethernet Multicast Access. A service that supports the transmission of multicast traffic from a Service Provider to multiple UNIs simultaneously.



Term	Definition
E-NNI	External Network-to-Network Interface. This is a MEF standard interface that allows connectivity between two ethernet networks. It provides the ethernet demarcation between Chorus and the Service Provider.
ETP	External Termination Point. This is a point on the outside of the End User premises that is the demarcation between the Chorus delivery network and the internal house wiring. The Bitstream 4 service extends beyond this point to the ONT.
Fibre Access Point	A point on the End User premises boundary where fibre service is delivered prior to provisioning.
Fibre Lead-in	The fibre from the Fibre Access Point to the Termination Point.
First Data Switch	The term applied to the first EAS after the Access Node. This is the first Layer 2 Handover Point at which a Service Provider can connect to the Chorus network, although Tail Extension can be used to extend the service beyond this point.
GPON	Gigabyte Passive Optical Network. This is a fibre standard that supports point-to-multipoint delivery of fibre to multiple premises.
Handover Connection	As defined in Schedule 1 of this Agreement.
Handover Point	As defined in Schedule 1 of this Agreement.
High Priority class	This is a class, defined in the TCF ELAS Service Description, which is intended for the delivery of high performing applications and content. All frames marked as high priority are considered discard ineligible. <ul style="list-style-type: none"> • CIR > 0. • EIR = 0
ITU Y.1731	An ITU Ethernet standard that supports protocols and practices for OAM across ethernet platforms.
Low Priority class	This is a class, defined in the TCF ELAS Service Description, which is intended for the delivery of internet grade applications and content. All frames marked as low priority are considered discard eligible. <ul style="list-style-type: none"> • CIR = 0. • EIR > 0
MEF	Metro-Ethernet Forum. An international industry consortium that creates standards for carrier ethernet networks and services.
MEG	Maintenance Entity Group. This is a point in the network that supports OAM management functions.
MEP	MEG End Point. This is a maintenance functional entity located at each end of an end-to-end path and provides a point that can be used to initiate OAM tests or reflect OAM requests.



Term	Definition
MIP	MEG Intermediate Point. This is a maintenance functional entity located at intermediate points along the end to end path. It reacts and responds to OAM frames.
MTU	Maximum Transmission Unit. The maximum ethernet frame, including headers, which can be supported by the service.
NID	Network Interface Device. An active device at the End User site that terminates the fiber and provides an electrical interface to the End User.
OAM	Operations, Administration and Maintenance. A set of processes, tools and activities based on ITU Y.1731 that allows testing and monitoring of the ethernet network.
OLT	Optical Line Terminator. An Access Node that provides for the delivery of GPON accesses. It provides the network-side GPON functions.
ONT/ONU	Optical Network Terminal or Optical Network Unit. Provides the End User GPON functions and terminates the GPON access in the End User site.
PCP	Priority Code Point. A three bit field in the 802.1q header that identifies what class a particular frame is associated with.
POI	As defined in Schedule 1 of this Agreement.
POP	Point of Presence. This is the point at which a Service Provider provides a service – either directly or via a backhaul service.
PPPoE	Point-to-Point-Protocol over Ethernet. This is a protocol used for Layer 3 IP attribute assignment. It can be used as an alternative to DHCP.
Product Development Process	As defined in Schedule 1 of this Agreement.
QnQ	Q in Q is an industry standard protocol similar to 802.1ad. It supports stacked VLANs, i.e. multiple 802.1q vlan tags in an Ethernet frame. Chorus supports this as an alternative E-NNI standard to 802.1ad. The primary difference between QnQ and 802.1ad is the Ethertype field.
SVID	Service VLAN ID. This is the vlan identifier contained in the outer 802.1ad tag delivered on the E-NNI.
Tagged traffic	This is ethernet frames that include one or more 802.1q headers or tags.
Tail Extension	This is a service that extends the service attributes of the tail from the POI to a remote Handover Point. As this provides a backhaul service, the end-to-end service attributes will be different than a service that terminates at the POI.
Tie Cable Service	Chorus' standard Tie Cable Service, as further defined in the Operations Manual.



Chorus

Term	Definition
TR-101/156	This is a Broadband Forum technical report that standardises how GPON can be supported using an Ethernet Aggregation Network.
RBI Co-location Service	As defined in Schedule 1 of this Agreement.
UNI	User Network Interface. The interface specification facing the End User site.
UNI Port	A single ethernet port on an ONT.
UPS	Uninterruptible Power Supply.
VLAN	A virtual LAN or local area network. A logical ethernet network supported through 802.1q headers.
WiFi	A common short range wireless network used for local connection to a WiFi hotspot. It is offered as a feature on the ONT as an alternative to house wiring, although throughput is limited by the WiFi bandwidth and the number of users on the shared network.
Y.1731	An ITU standard that defines protocols and practices for OAM on ethernet networks including traffic performance measurements such as Frame Delay, Frame Delay Variation and throughput.



Schedule 1, Appendix G
Next Generation Access Service Description

See attached



Service Description for NGA

26 INTERPRETATION

References to clauses or sections are references to clauses or sections in this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 and in the Terms and Conditions for this Service will apply to this Service Description unless expressly provided otherwise. The definitions set out in Schedule 1 will take priority over the definitions set out in the Terms and Conditions for this Service.

27 THE NGA SERVICE

- 27.1 The Bitstream 1 Next Generation Access (NGA) Service is a best efforts-only bitstream service delivered over fibre, suitable for internet grade applications only.
- 27.2 A diagram of the configuration for the NGA Service is set out in Annex A. The NGA Service provides a single VLAN from the UNI at the End User premises to the Handover Connection located at the POI that enables a Service Provider to access and interconnect with Chorus' Network.
- 27.3 The NGA Service is an input service which a Service Provider can combine with their own network and services to provide ethernet based telecommunications services to End Users.
- 27.4 The NGA Service has the following key characteristics:
- 27.4.1 Ethernet bitstream service over fibre or copper delivered over a single vlan.
 - 27.4.2 Best Efforts only with
 - (a) 30 Mbps downstream and 10 Mbps upstream;
 - (b) 100 Mbps downstream and 50 Mbps upstream.
 - 27.4.3 Supports tagged or untagged traffic by the End User.
 - 27.4.4 Embeds TR-101 information in DHCP and PPPoE traffic.
- 27.5 Notwithstanding the specifications of any UFB Bitstream 2 service, UFB Bitstream 3a service, or UFB Bitstream 4 service, any Excess Information Rate (EIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum EIR of 100Mbps, and any Committed Information Rate (CIR) services made Available as part of the Rural Telecommunications Services will be limited to a maximum CIR of 1Gbps.

28 NGA SERVICE AND IMPLEMENTATION ACTIVITIES

- 28.1 The NGA Service has the following key service attributes:

Installation Services

- 28.1.1 The following installation characteristics (in each case to the extent that the relevant provisioning works are not already complete) which, when completed, will constitute the installation of a Connection:

Fibre Lead-in to the ETP or OFDF

- (a) provision of a Fibre Lead-in from the Fibre Access Point to, in the case of a Single Dwelling Unit, an ETP at the closest point on the End User premises and, in the case of a Multi Dwelling Unit, the OFDF or equivalent, including:
 - (a) a Fibre Lead-in that utilises up to:
 - (A) 100m of existing conduit or open trench;
 - (B) 15m of aerial drop lead in overhead areas; or
 - (C) 15m of buried lead-in; and

- (b) connection of the Fibre Lead-in to the Chorus Network.

Internal Fibre Lead-in Extension for Single Dwelling Units

- (b) for a Single Dwelling Unit, the Fibre Lead-in is then extended up to 3m from the ETP to a suitable jack inside the End User premises (there will not necessarily be a break in the Fibre Lead-in at the ETP), as follows:
 - (a) the Fibre Lead-in is extended to plug directly into the ONT using the SC/APC plug on the end of the Fibre Lead-in; or
 - (b) if there is an OFDF beyond the ETP, the Fibre Lead-in is extended to the OFDF. A pigtail is then patched or spliced on to the Fibre Lead-in on the OFDF, so that the Fibre Lead-in extends via the pigtail and plugs directly into the ONT using the SC/APC plug on the end of the pigtail.

Single Dwelling Unit Termination Point

- (c) for a Single Dwelling Unit, the termination point for the purposes of the Connection, and the network demarcation point between the Chorus Network and the building owner's premises wiring, is the SC/ACP plug on the end of the fibre that plugs into the ONT.

Multi-Dwelling Unit Termination Point

- (d) for a Multi-Dwelling Unit, the termination point for the purposes of the Connection and the network demarcation point between the Chorus Network and the Multi-Dwelling Unit building owner's building wiring is the OFDF.

Extending beyond the OFDF in a Multi-Dwelling Unit building

- (e) the Service Provider must make its own arrangements (through the owner of the Multi-Dwelling Unit building or otherwise) to extend the Fibre Lead-in in a Multi-Dwelling Unit beyond the OFDF. To complete the extension, it is anticipated that these arrangements would involve either:
 - (a) an extension of the Fibre Lead-in from the OFDF to plug directly into an ONT inside the End User premises using the SC/APC plug on the end of the Fibre Lead-in; or
 - (b) an extension of the Fibre Lead-in from the OFDF to plug directly into an ONT located in a building common area or other facility made available by the building owner to service the Multi-Dwelling Unit, using an SC/APC plug on the end of a pigtail which is patched or spliced to the Fibre Lead-in cable on the OFDF.

Testing

- (f) testing of the Fibre Lead-in from the Termination Point to the central office where the access node is located to ensure fibre is within the technical specification for fibre in Annex B;

Installation of ONT

- (g) installation of ONT including:
 - (a) supply and fixing of the ONT to structure of End User premises (in the case of a Single Dwelling Unit, and a Multi Dwelling Unit where a Fibre Lead-in has been extended from the OFDF to the inside of the End User premises as anticipated in clause 3.1.1(e));
 - (b) supply and fixing of the ONT to a building common area or other facility made available by the owner to service the Multi-Dwelling Unit,

where a Fibre Lead-in has not been extended from the OFDF to the inside of the End User premises;

- (c) supply and connection of fibre pigtail up to 1m long between the Fibre Lead-in termination point and the ONT if required; and
- (d) testing from UNI port of ONT ensuring the NGA Service is within specification.

28.1.2 If the Service Provider requires additional services such as:

- (a) longer or different Fibre Lead-in's than those specified above;
 - (b) premises wiring services; or
 - (c) installation and testing of Service Provider equipment and services,
- then Chorus may be able to provide these on request on terms and conditions to be agreed with the Service Provider.

Core NGA Service

28.1.3 The NGA Service provides the following key service attributes:

- (a) Delivered as a tagged or untagged UNI at the End User premises.
- (b) Delivered over a single VLAN on the E-NNI.
- (c) Untagged traffic sent from the End User is tagged and marked as Low Priority.
- (d) Tagged Traffic is treated as follows:
 - (a) Traffic marked with PCP = 0 will be treated as Low Priority.
 - (b) Traffic marked with PCP = 1, 2, 3, 4, 5, 6 or 7 will be discarded.
- (e) End Users can burst up to the Access rate.
- (f) Non-discriminatory fairness will be applied to ensure a minimum performance and fair use of bandwidth under congestion conditions.
- (g) Option to enable TR-101 information per tail. If this feature is requested it will embed TR-101 information in DHCP and PPPoE traffic.
- (h) The following two reference service plans:

<u>Plan</u>	<u>Throughput</u>	<u>Upstream Access Rate</u>	<u>Downstream Access Rate</u>
1	100 kbps	10 Mbps	30 Mbps
2	100 kbps	50 Mbps	100 Mbps
- (i) Throughput is managed at an aggregate level.

28.2 The sum of High Priority traffic profiles of all services delivered at a Handover Connection can exceed the Handover Connection line rate. If there is insufficient line rate to deliver the High Priority traffic then frames will be randomly discarded and Service Levels do not apply.

Bandwidth Plan Options

28.3 The option to create additional High/Low Priority combinations as follows.

28.3.1 High Priority traffic combinations can be created using a set of standard building blocks:

- (a) High Priority (CIR) upstream and/or downstream;
- (b) Low Priority (Access Rate) upstream and/or downstream.

28.3.2 Requests for additional combinations will be implemented and delivered through the Product Development Process.

- 28.4 NGA Services can be extended beyond the POI using Tail Extension. Low Priority traffic is delivered as an average bandwidth:
- 28.4.1 Service Providers can request different averages for different Handover Connections.
 - 28.4.2 Individual service instances can burst to their Access rate;
 - 28.4.3 All service instances served by a Handover Connection must have the same average bandwidth, which is then aggregated and shared with all End Users on that Handover Connection.
- 28.5 To use the NGA Service the Service Provider must have the capability to access and interconnect with it, by one of the following:
- 28.5.1 co-locating Service Provider equipment at the POI using the Tie Cable Service and RBI Co-location Service;
 - 28.5.2 connecting to third party co-location space at the POI using the Tie Cable Service, and with the third party taking the RBI Co-location Service; or
 - 28.5.3 connecting to a commercial backhaul service at the POI.
- 28.6 The technical specification of the NGA Service is set out in Annex B.
- 28.7 The NGA Service will also includes the following service assistance provided by Chorus:
- 28.7.1 an automated facility for NGA Service Requests;
 - 28.7.2 an automated facility for NGA Service fault notifications; and
 - 28.7.3 a tool to assist the Service Provider in determining the location and availability of the NGA Service (pre-qualification),
- each as more particularly set out in the Operations Manual.
- 28.8 The NGA Service specifically excludes:
- 28.8.1 the Handover Connection;
 - 28.8.2 provision or maintenance of any cabling or connection or active device beyond the service demarcation points described in clause 4.1 and clause 5.1;
 - 28.8.3 configuration, monitoring, operation, on-going support or maintenance of Service Providers' or End User's applications, equipment or networks;
 - 28.8.4 supply of AC mains & UPS power, accommodation space, heating, ventilating, and air conditioning at the POI or End User premises.

29 SERVICE DEMARCATION POINT AT END USER PREMISES

- 29.1 The NGA Service is delivered to the GigE UNI on the ONT at the customer premises.
- 29.2 The NGA Service excludes all End User premises wiring beyond the service demarcation point and beyond those installation works described in clause 3.1.1. The Service Provider or the End User will be responsible for End User premises equipment (CPE) and wiring at the End User's site beyond the service demarcation point. The Service Provider must ensure that the industry standard premises wiring requirements for fibre based services are adhered to. These are available at www.tcf.org.nz.

30 SERVICE DEMARCATION POINT AT POI

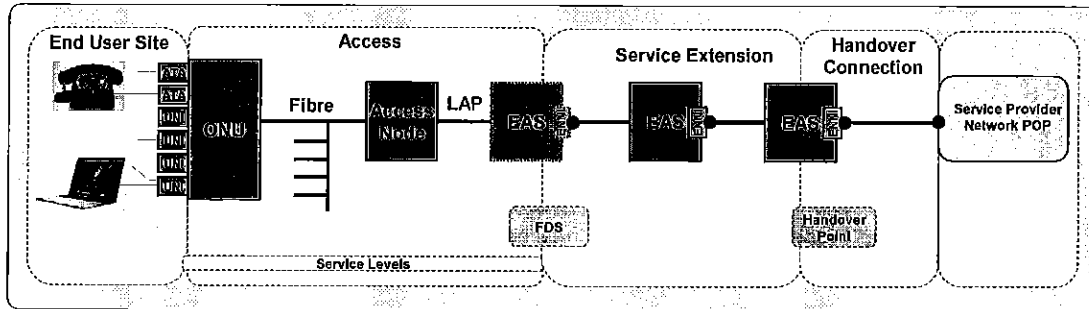
- 30.1 The NGA Service is delivered as a single VLAN (the logical service demarcation point) on the Handover Connection located at the POI.

- 30.2 The physical service demarcation point is the OFDF in the POI, which is part of the Handover Connection.
- 30.3 The Handover Connection is a separate service and is a prerequisite to purchasing NGA Service i.e. Service Providers must purchase the NGA Service and the Handover Connection together.

31 CHORUS AND SERVICE PROVIDER RESPONSIBILITIES

- 31.1 Other Chorus and Service Provider responsibilities are detailed in the Terms and Conditions, including the Operations Manual. All charges are included in the Operations Manual.
- 31.2 The Service Provider is responsible for site access and security at the End User premises.

Annex A – Diagram



This is a generic diagram showing the standard configuration and service demarcation points. It is not intended to represent every situation or detailed physical architecture. The following points should be noted:

- Some services will have a single tier of aggregation.
- Access Node and Aggregation interconnection may use redundant links to meet Service Level requirements.
- Tail Extension can be used to extend the service from the POI to a remote Handover Connection.
 - The mapping of Coverage Areas to Handover Connection is shared with EUBA and WVS.

Annex B – Technical Specification

Technical Specification

Ethernet	Ethernet II or 802.3 untagged interface; or 802.1q tagged interface with <ul style="list-style-type: none"> • vlan id = 10
UNI	ONT supports: <ul style="list-style-type: none"> • 4 x UNI Per UNI: <ul style="list-style-type: none"> • 100/1000Base-T • IEEE 802.3 – 2005 • 802.1q
Handover Connection (E-NNI)	Ethernet: <ul style="list-style-type: none"> • 802.ad vlan (svid, cvid); or • Double tagged Q in Q.
Vlan	Point-to-Point (E-AVPL) MTU 1526 Bytes Unicast Frame Delivery = as per plan Multicast Frame Delivery = discarded Broadcast Frame Delivery = discarded Layer 2 Control Protocols Processing = (to be confirmed)

Annex C – Terms and definitions

Term	Definition
802.1ad	An ethernet standard that supports ethernet frames with two 802.1q VLAN tags. These VLAN identifiers are referred to as: <ul style="list-style-type: none"> • Service VLAN ID or SVID, Outer tag. • Customer VLAN ID or SVID, Inner tag.
802.1p	An ethernet standard that uses the 3-bit PCP field in 802.1q VLAN tags to advise the network as to what class of service should be applied to the transport of the frame.
802.1q	An ethernet standard that allows the support of multiple independent logical networks through the use of an 802.1q header. This allows up to 4094 virtual networks to be identified through the VLAN id field. The 802.1q header also supports a 3-bit PCP field that is used to indicate the class of service the frame belongs to.
802.3/Ethernet II	Ethernet standards that defines the format of standard untagged ethernet frames
CIR	Committed Information Rate. This is the amount of guaranteed throughput – frames submitted within this throughput will be considered discard ineligible by the network.
Coverage Area	This is a geographical area served by a Data Switch. There are multiple tiers: <ul style="list-style-type: none"> • First Data Switch – typically an Intermediate POI or POI • POI. Consists of the aggregate of all First Data Switches served by the POI. In many cases this will only be the POI itself.
CPE	Customer Premises Equipment. This is equipment used by the End User or provided by the Service Provider at the End User site to use or interface with the Bitstream service.
CVID	Customer VLAN ID. This is the VLAN identifier contained in the inner 802.1ad tag delivered on the E-NNI.
DHCP	Dynamic Host Configuration Protocol. A Layer 3 protocol used to auto-configure basic IP settings. Optional for Service Providers.
EAS	Ethernet Aggregation Switch.
E-AVPL	Ethernet Access Virtual Private Line. This is a MEF standard for providing an OVC (Operator Virtual Circuit) from the UNI to an E-NNI.
EIR	Excess Information Rate. This is the amount of non-guaranteed throughput – frames submitted within this throughput will be considered discard eligible by the network. Frames that exceed CIR+EIR will be discarded.
EMA	Ethernet Multicast Access. A service that supports the transmission of multicast traffic from a Service Provider to multiple UNIs simultaneously.
E-NNI	External Network-to-Network Interface. This is a MEF standard interface that allows connectivity between two ethernet networks. It provides the ethernet demarcation between Chorus's network and the Service Provider's network.

Term	Definition
ETP	means the external termination point for telecommunications services at an End User's premises or, where there is no termination point external to the premises, either the first jack on the premises wiring or, alternatively, the building distribution frame.
Fibre Access Point	A point at the End User premises boundary where the Fibre Lead-in connects to the distribution fibre.
Fibre Lead-in	The fibre from the Fibre Access Point to the Termination Point.
First Data Switch	The term applied to the first EAS after the Access Node. This is the first Layer 2 Handover Point at which a Service Provider can connect to the Chorus network.
GPON	Gigabyte Passive Optical Network. This is a fibre standard that supports point-to-multipoint delivery of fibre to multiple premises.
High Priority class	<p>This is a class, defined in the TCF ELAS Service Description, which is intended for the delivery of high performing applications and content. All frames marked as high priority are considered discard ineligible.</p> <ul style="list-style-type: none"> • CIR > 0. • EIR = 0
ITU Y.1731	An ITU Ethernet standard that supports protocols and practices for Ethernet Operations and Maintenance (OAM) across ethernet platforms.
Low Priority class	<p>This is a class, defined in the TCF ELAS Service Description, which is intended for the delivery of internet grade applications and content. All frames marked as low priority are considered discard eligible.</p> <ul style="list-style-type: none"> • CIR = 0. • EIR > 0
MEF	Metro-Ethernet Forum. An international industry consortium that creates standards for carrier ethernet networks and services.
MEG	Maintenance Entity Group. This is a node in the network that supports OAM management functions.
MEP	MEG End Point. This is a maintenance functional entity located at each end of an end-to-end path and provides a point that can be used to initiate OAM tests or reflect OAM requests.
MIP	MEG Intermediate Point. This is a maintenance functional entity located at intermediate points along the end to end path. It reacts and responds to OAM frames.
MTU	Maximum Transmission Unit. The maximum ethernet frame, including headers, which can be supported by the service.
Multicast	A service that supports the delivery of frames to a group of destination computers based on a single transmission from the source. Copies are automatically created in network elements, as the topology and intended recipients require it.
OAM	Operations, Administration and Maintenance. A set of processes, tools and activities based on ITU Y.1731 that allows testing and monitoring of the ethernet network.
OFDF	means Optical Fibre Distribution Frame

Term	Definition
OLT	Optical Line Terminator. An Access Node that provides for the delivery of GPON accesses. It provides the network-side GPON functions.
ONT/ONU	Optical Network Terminal or Optical Network Unit. Provides the End User GPON functions and terminates the GPON access in the End User site.
PCP	Priority Code Point. A three bit field in the 802.1q header that identifies what class a particular frame is associated with.
POI	Defined in Schedule 1 of this Agreement.
POP	Point of Presence. This is the point at which a Service Provider provides a service – either directly or via a backhaul service.
PPPoE	Point-to-Point-Protocol over Ethernet. This is a protocol used for Layer 3 IP attribute assignment. It can be used as an alternative to DHCP.
QnQ	Q in Q is an industry standard protocol similar to 802.1ad. It supports stacked VLANs, i.e. multiple 802.1q VLAN tags in an Ethernet frame. Chorus supports this as an alternative E-NNI standard to 802.1ad. The primary difference between QnQ and 802.1ad is the Ethertype field.
RBI Co-location Service	As defined in Schedule 1 of this Agreement.
SVID	Service VLAN ID. This is the VLAN identifier contained in the outer 802.1ad tag delivered on the E-NNI.
Tagged traffic	This are Ethernet frames that include one or more 802.1q headers or tags.
Tail Extension	This is a service that extends the service attributes of the tail from the POI to a remote Handover Point. As this provides a backhaul service, the end-to-end service attributes will be different than a service that terminates at the POI.
Tie Cable Service	Chorus' standard Tie Cable Service, as further defined in the Operations Manual.
TR-101/156	This is a Broadband Forum technical report that standardises how GPON can be supported using an Ethernet Aggregation Network.
UNI	User Network Interface. The interface specification facing the End User site.
UNI Port	A single ethernet port on an ONT.
UPS	Uninterruptible Power Supply.
VLAN	A virtual LAN or local area network. A logical ethernet network supported through 802.1q headers.
WiFi	A common short range wireless network used for local connection to a WiFi hotspot. It is offered as a feature on the ONT as an alternative to house wiring. Note that throughput is limited by the WiFi bandwidth and the number of users on the shared network.
Y.1731	An ITU standard that defines protocols and practices for OAM on ethernet networks including traffic performance measurements such as Frame Delay, Frame Delay Variation and throughput.

1.3 Schedule 1, Appendix H
Wholesale VDSL2 Service
Service Description and Service Level Terms

See attached

Schedule 1, Appendix I Design Life

For the purposes of clause 8.3 of this Agreement, the Design Life of each class of Infrastructure is as follows:

Infrastructure	Design Life
Ducts / Manholes / Pits	25 years
Cables – Fibre	25 years
Cabinets	8 years
DSLAM	8 years
Radio – DMR	8 years

September 2010

WSPL Service Description

○ Wholesale VDSL2 Service (WVS)



Wholesale

3.8 Product Family: Wholesale VDSL2 Service (WVS)

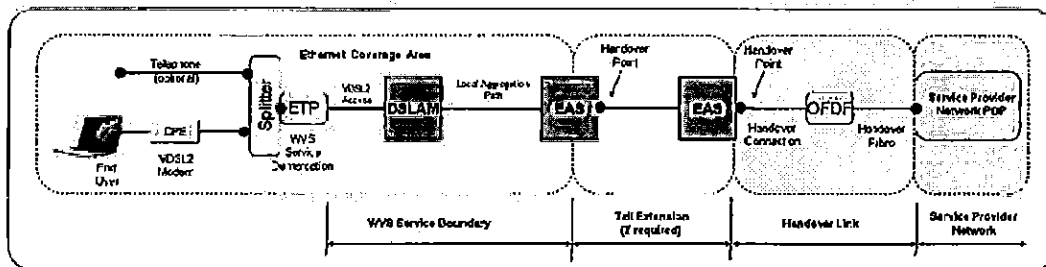
WVS is a commercial service provided by Telecom to Service Providers on the terms set out in the Wholesale Services Agreement.

Introduction

WVS is an Ethernet based bitstream product that enables a Service Provider to offer its End Users delivery of Internet grade Broadband services using VDSL2 technology (ITU-T Rec.G.993.2).

WVS is an Input service that the Service Provider can combine with its own network or with other Telecom products to deliver a VDSL2-enabled service to End Users.

The following diagram illustrates WVS:



WVS provides connectivity between the ETP at an End User's Premises and the Service Provider side of the first EAS.

Detailed technical and operational information on WVS is in the WVS Service Provider guide.

Service Specification - Tailoring

WVS Variants

The following WVS variants are available:

- > WVS0 with POTS – Best Efforts only
- > WVS0 without POTS – Best Efforts only

WVS0 allows the delivery of Best Efforts traffic only. Note that in the future Telecom may choose to introduce WVS variants which allow simultaneous delivery of both Best Efforts and Real Time traffic.

It is the responsibility of the Service Provider to ensure the Best Efforts traffic is tagged as Best Efforts Class of Service, regardless of whether the Real Time traffic is present or not. Untagged or incorrectly tagged traffic will be discarded.

WVS can be provided with or without an active analogue telephone service on the same copper pair (with or without POTS respectively). POTS does not form part of WVS. Where a 'with POTS' WVS is provided, POTS must be purchased from Telecom separately, either directly by



the End User from Telecom Retail or another Service Provider, or by the Service Provider under a separate WSA.

The table below outlines the target metrics for WVS:

Metric	Internet CoS (1500 byte packet)
Throughput	99.9% probability of providing to any provisioned End User a minimum uplink and downlink average throughput of 96kbps during any 15 minute period on demand.
Mean one-way packet delay	<1s
One-way packet delay variation	Unspecified
One-way packet loss ratio	Unspecified

Notes:

- > The service specifications relate to the performance of WVS from the ETP to the Handover Point, and exclude delays such as serialisation or transcoding.
- > Traffic may be policed at both an aggregate level and at an End User level to ensure compliance with the service specification.

Dynamic Line Management (DLM)

DLM is an inherent feature of the WVS product. DLM is proactively used by Telecom on every WVS port to improve individual line performance by optimising the line for speed and stability. DLM enables an iterative process that monitors and optimises the WVS port and associated line over the lifetime of the connection as follows:

- > DLM collects performance data from all VDSL2 ports on a daily basis.
- > DLM analyses the performance data and determines whether the active WVS line profile is optimal or not. If not, a new line profile is chosen based on the collected data and activated for that particular End User's connection.
- > DLM is a self learning technology: it is not a one off implementation; it continues to adapt and improve as the conditions of the line change (such as noise, house wiring changes or copper plant enhancements).

Note:

- > When the WVS connection is provisioned, the interleaving setting for WVS will be "high" and then optimised by DLM. Interleaving settings cannot be changed outside of the DLM process.



Spectrum Profiles

The spectrum profiles to be used for WVS are based on use of the ITU-T G.993.2 997E8b and 997E17a VDSL2 profiles.

The VDSL2 997E8b spectrum profile forms the default profile for all WVS customers.

The 997E17a spectrum profile will only be used for End Users on short loops (an attenuation level corresponding to about 200 m or less) and will be activated by Telecom Wholesale only where this will optimise the end user experience.

Note that DLM will optimise the line based on the selected spectrum profile.

Service Specification - Speed

WVS will be delivered at the line rate of full speed downstream and up to 10 Mbps upstream. Telecom guarantees that the minimum line speed threshold for WVS will be 15 Mbps downstream and 5 Mbps upstream. If the WVS line speed falls below 15 Mbps downstream or 5 Mbps upstream, then a fault may be reported to Telecom via the standard channels.

To make a speed guarantee claim where WVS does not meet the minimum line speeds a Service Provider must:

- > Wait at least 10 days after provision of the WVS line to allow sufficient time for DLM to optimise the line
- > Complete their own Tier 1 diagnosis and raise a line speed fault within 30 days of the provision of the WVS line;
- > Ensure that a Telecom supplied VDSL2 splitter has been correctly installed at the End User premises (as part of "connection and wiring" or "wiring only" installations).

Telecom will then test the WVS line by connecting a Reference Modem and if the line still falls below the minimum line speed threshold due to a fault on the Telecom side of the network which cannot be resolved, Telecom will

- > credit back the installation and service transaction charges associated with the connection; and
- > offer the choice to either relinquish the WVS connection or switch to another Telecom broadband plan without incurring early termination charges.

If the fault is on the End User side of the network (i.e. any point past the End Users side of the ETP), or Telecom's test using the Reference Modem meets the minimum line speed, then Telecom will charge a no fault found fee and the Service Provider will not qualify for the speed guarantee.

Factors Impacting Speed

VDSL2 is a rate-adaptive access technology, which means that its speed varies according to the condition of the copper path between the DSLAM and the End User modem. The maximum offered upstream or downstream line speed that the DSLAM can support on the End User's line given existing line conditions is subject to:



- > any constraints required to comply with the Interference Management Plan;
- > the use of DLM and a series of profiles that optimise the line for speed and stability;
- > any network settings required by the Service Provider to provide a reliable service, where such settings are not applied for the primary purpose of limiting the maximum line speed; and
- > any factors limiting line speed as described below.

The upstream or downstream line speed the DSLAM can support on the End User's line may be limited by factors including:

- > the condition of the copper line;
- > copper loop length;
- > type of cable containing the copper loop;
- > the presence of other services in a cable sheath containing the copper loop;
- > the performance capability of the DSLAM;
- > the End User's modem;
- > presence and degree of external interference (from potential causes such as poor suppression of AC power, electric fences, radio broadcasts etc); and
- > the configuration and/or condition of wiring within the End User's premises

Service Specification - Coverage

Availability

WVS is available where Telecom has VDSL2 coverage and the End User's line meets the minimum line speed thresholds required to deliver WVS.

Telecom's prequalification tool will look at the exchange or cabinet capability and physical characteristics of the copper line serving an End User's premises and determine if that copper line is VDSL2 capable. Telecom will accept any order if the line prequalification returns a theoretical maximum of 10.8 dB which should support a minimum line speed of 15 Mb downstream and 5 Mbps upstream.

The 'with POTS' WVS variants will be available in areas where Telecom has an active analogue telephone service.

Coverage Areas and Handover Points

Each End User must be located in a Coverage Area. The End User traffic from DSLAMs in a Coverage Area is carried to the Handover Point over the LAP supporting WVS.

The Handover Point is the aggregation point for the DSLAMs supplying WVS within a Coverage Area. Service Providers may, via backhaul services and/or other services, connect their network to any available Handover Points throughout the country.

A list of current Handover Points and Coverage Areas will be available to Service Providers on the secure section of the Telecom website. Telecom will give Service Providers at least 1 month's notice if a new Coverage Area is going to be introduced and 12 months notice if the



existing Coverage Areas and associated Handover Points change and those changes will have any impact on Service Providers (i.e. requiring them to install new Handover Points or pay backhaul charges because of the change).

Handover of WVS

In order to consume WVS the Service Provider must:

- > have established at least one Ethernet Handover Connection at a Handover Point, and
 - o the Handover Connection must be purchased from Telecom.
 - o the same Handover Point can also carry some other traffic types. Further information on which traffic types are compatible with WVS Handover is available on request.
- > have a Handover Fibre connected with Telecom's Handover Connection in the Coverage Area where handover is to occur; and
- > advise Telecom of the Coverage Areas in which its End Users are located and indicate the handover arrangements for those Coverage Areas, including backhaul mapping arrangements.

If the Service Provider does not want to establish a Handover Connection in a Coverage Area within which the End User is located, then Telecom offers backhaul services as an option for Service Providers. Additional terms and charges apply where the Service Provider purchases these backhaul services.

General Service Requirements

WVS is available to Service Providers exclusively through Telecom Wholesale.

The Service Provider will provide all Layer 3 functionality, including fulfilment, authentication, authorisation, and addressing for the End User.

Service Levels

WVS service levels are set out in Appendix 1. These service levels will be measured and applied in accordance with the Service Level Agreement. The service levels in Appendix 1 are minimum targets only and neither party is legally obliged to achieve them.

External Termination Point

WVS provides connectivity between the End User ETP and the Service Provider side of the first EAS.

The Service Provider is responsible for providing and installing all required CPE and wiring at the End User's site beyond the ETP, including a service compatible modem. The Service Provider will ensure that TelePermit and premises wiring requirements are adhered to.

Given the nature of the VDSL2 technology, a good quality service cannot be delivered without having a VDSL2 compatible splitter installed. Opting for "Connection with Wiring" or "Wiring Only" when ordering the WVS service is highly recommended.

Exceptions to Service Specification

The End User line quality and length impacts heavily on the ability of the line to support the line speed required to deliver WVS. In order to manage the risk of under-performing, the End



User line quality must meet the minimum line speed threshold to deliver the service. This threshold is based on the ability of the End User line to achieve the minimum specifications of the service. If the End User line does not meet this threshold then WVS will not be available on that line.

While a factor, End User throughput is not solely related to line sync rate. The presence of any of the below factors may mean an End User's peak throughput can vary:

- > network load or other user traffic demand;
- > constraints within the Service Provider and End User domains;
- > the presence of any Real Time traffic on the same DSLAM;
- > the actual loading of the LAP; or
- > any constraints external to VDSL2 technology or WVS (e.g. external noise or interference).

Telecom expects that the Service Provider will apply appropriate technology to ensure their End Users are treated equitably. Wholesale is not able to provide any service that supports individual per End User fairness amongst other End Users of a specific Service Provider.



I.1 Appendix 1 – Service Level Terms

Definitions

In this SLA:

Term	Definition
Best Efforts	An Internet grade CoS
Business Hours	from 8:00am to 5:00pm on any Working Day.
Consecutive Business Hours	a number of consecutive hours (including fractions of hours) within Business Hours (where the first Consecutive Business Hour in a Working Day, is consecutive to the last Consecutive Business Hour in the preceding Working Day).
Consecutive Fault Restoration Hours	a number of consecutive hours (including fractions of hours) between 8:00am to 7:00pm, seven days a week (where the first Consecutive Fault Restoration Hour in a day is consecutive to the last Consecutive Fault Restoration Hour in the preceding day).
Coverage Area	The geographic area serviced by a given Handover Point
CPE	Customer Premises Equipment
Deemed Acceptance Time	the time which is four Consecutive Business Hours after the Receipt Time of a valid Order. To avoid doubt, an Order may still be rejected notwithstanding a deemed acceptance.
DSLAM	Digital Subscriber Line Access Multiplexer. A device that connects many digital subscriber lines to a network by multiplexing the DSL traffic onto one or more network trunk lines.
DSL	Digital Subscriber Line
DLM	Dynamic Line Management
EAS	Ethernet Aggregation Switch
ETP	External Termination Point at an End User's premises or, where there is not termination point external to the premises, the first jack on the premises wiring, or the building distribution frame
Fault Restoration Hours	7:00am to 7:00pm, seven days a week and Fault Restoration Hour means one hour within this period.
Handover Connection	The equipment owned by Telecom provided to the Service Provider to enable the use of WVS and includes:



	<p>(a) The port on the relevant data switch</p> <p>(b) The optical fibre from the port to Telecom's OFDF</p> <p>(c) The OFDF</p>
Handover Fibre	The Handover fibre interconnected with the Handover Connection (and is supplied by either the Service Provider or Telecom) that provides physical interconnection with the Service Provider's network
Handover Point	Telecom's first EAS located in the Coverage Area
LAP	Local Aggregation Path, operating between the End User DSLAM and Telecom's first EAS in a Coverage Area
Order	an order for WVS
OFDF	Optical Fibre Distribution Frame
POTS	Plain Old Telephone Service – the analogue voice service
Real Time	A CoS intended to be used by applications that have significant latency constraints, such as VoIP or Video conferencing
Receipt Time	<p>means:</p> <p>(a) for Orders that are made using OO&T, the time that the electronic communication containing the Order enters OO&T; or</p> <p>(b) for Orders that are made by email, the time that an Order is received in the Telecom designated Inbox for receipt of such orders,</p> <p>provided that where an Order is received outside of business hours, the receipt time will be the start of the first business hour of the following working day.</p>
Reference Modem	A modem tested by Telecom for WVS and included in the WVS modem list which will be available to Service Providers on the Telecom Wholesale Portal
RFS Date	the date that Telecom completes the provisioning of a service to which a Service Level relates.
Service Levels	the service levels set out in this Appendix 1.
Truck Roll	each occurrence on which Telecom physically despatches a field services person to go out and perform exchange or field work in connection with WVS.
VDSL2	The Very High Speed Digital Subscriber Line 2 technology platform
Waiter	an accepted Order which cannot be actioned due to infrastructure capacity constraints.



Working Day	any day other than a Saturday, Sunday or public holiday in any province relevant to the provision of WVS
WSA	Wholesale Service Agreement
WVS	The Wholesale VDSL2 Service set out in this Service Descriptions

Service Level targets for provision of WVS

Services to which Service Level relates	Service Attribute	Deliverable	Service Level	Targets	Exclusions
New Connection Transfer Change Plan Move Address Reassignment	Order acknowledgement	Telecom will acknowledge receipt of each order	Provide acknowledgement of receipt of each order to the Service Provider within 4 consecutive business hours following the Business Time	99%	
New Connection Transfer Change Plan Move Address Reassignment	Notification of rejection	Telecom will reject invalid orders by returning the appropriate message to the Service Provider	Provide notification of the rejection to the Service Provider within 4 consecutive business hours following the receipt time	99%	
New Connection Transfer Change Plan Move Address Reassignment	Notification of expected RFP Date	Telecom will notify the Service Provider of expected RFP Date of the Order	Provide notification of the expected RFP Date to the Service Provider within 4 consecutive business hours of the Command Acceptance Time	99%	This Service Level will not apply where an ORDER is a transfer
New Connection Transfer Change Plan	Order is completed night first time	Telecom will complete the Order without	No failure to work on the first attempt provided the Order	99% (for each service)	The first time only



<p>Move Address Relinquishment</p>		<p>Fault</p>	<p>By receipt within 5 Working Days of completion of Telecom's correction</p>	<p>(a) for which Telecom is responsible; and (b) that has been reported by Telecom within 5 Working Days of completion by Telecom of completion of the Order; and (c) that is found not required to be fixed if it is not a (b) (Fault Found)</p>
<p>Move Address Move Contract Transfer Change Plan Relinquishment</p>	<p>Must not be reported RFS Date for WVS</p>	<p>Telecom will complete the Order by the reported expected RFS date</p>	<p>Complete the Order by the reported expected RFS date</p>	<p>RFS (for both services) where Telecom receives a previously notified RFS date (other than as a result of a Service Provider's or a Service Provider's Customer's request for its own) this is considered a failure of this Service Level</p>
<p>Move Contract Transfer Change Plan Move Address Relinquishment</p>	<p>Pre-qualification of Relinquishment</p>	<p>Telecom will acknowledge receipt of Pre- qualification Order</p>	<p>Complete the acknowledgment of receipt within 5 consecutive Business Hours following the receipt</p>	<p>RFS</p>



<p>New Connection Transfer Change Plan Move Address Relinquishment</p>	<p>Pre-qualification Order Completion</p>	<p>Telecom will complete the Pre-qualification Order and return the required information to the Service Provider</p>	<p>of the Order Complete the Pre-qualification Order and return the required information to the Service Provider, within: - for automated Pre-qualification, 4 Consecutive Business Hours following receipt of the Order - for a special manual Pre-qualification investigation, 6 Working Days following receipt of the Order.</p>	<p>90%</p>	
<p>New Connection Transfer Change Plan Move Address Relinquishment</p>	<p>Confirmation of completion</p>	<p>Telecom will provide the Service Provider with confirmation of completion of the Order</p>	<p>Provide confirmation of completion of the Order to the Service Provider within 4 Consecutive Business Hours after the Order has been completed</p>	<p>90%</p>	



Fault Management for WVS

Services to which Service Level relates	Service Attribute	Deliverable	Service Level	Targets	Exclusions
Fault report receipt acknowledgement	Telecom will acknowledge receipt of each fault report	Provide report receipt acknowledgement within half a Consecutive Fault Restoration Hour of the fault being reported	90%	This Service level does not apply where an invalid fault report has been submitted.	Fault report receipt acknowledgement
Notification of expected restoration time	Telecom will provide notification of the expected restoration time	Provide notification of the expected restoration time within 4 Consecutive Fault Restoration Hours of the fault being reported.	90%	This service level excludes any time Telecom requires to request and obtain further information on the fault.	Notification of expected restoration time
Meet notified expected restoration time	Telecom will restore the fault within the notified expected restoration time	Restore fault within notified expected restoration time	90%		Meet notified expected restoration time



Schedule 2

Project Scope

1 Introduction

This Schedule sets out the scope and overall timeframes for the Design and Build Services. Certain words and phrases used in this Schedule 2 are defined in clause 7 below.

2 Design and Build Services

Telecom will Deploy each of the Rural Links and Rural Cabinets described in Appendix A of this Schedule, in accordance with the overall timeframes outlined in clause 4 below.

3 Architecture Requirements

Telecom will ensure that each Rural Link and Rural Cabinet Deployed as part of the Design and Build Services is designed and built in a manner that complies with all applicable provisions of the Architecture Requirements attached as Appendix D.

4 Timeframes

Subject to the other provisions of this Agreement, Telecom will ensure that each Rural Link and Rural Cabinet is Deployed in a manner that meets or better the timeframes in the Overall Plan. As at the date of this Agreement, the Overall Plan contemplates the following overall rates of Deployment:¹

Rural Links and Rural Cabinets Deployed	Cumulative totals up to end of each Construction Year				
	1	2	3	4	5
School Connections, plus associated Rural Backhaul Connections	492	614	678	748	748
Hospital Connections, plus associated Rural Backhaul Connections	5	6	6	6	6
Fixed Line CBDP Cabinets, plus associated Rural Backhaul Connections (measured by End Lines served)	17,400 End Lines	47,600 End Lines	72,600 End Lines	92,100 End Lines	104,700 End Lines
Wireless CBDP Backhaul Connections, plus associated Rural Backhaul Connections	21	66	118	152	154

The Overall Plan will be updated by the Parties from time to time, as necessary to reflect any extensions of time allowed under this Agreement (for example, due to No Fault Events), the impact of any Change Authorisation Agreements signed by the Parties, and any changes approved by the Ministry as part of a Detailed Plan in accordance with Schedule 3.

¹ Table to be updated to take into account the changes made by the RBI Phase 2 Amendment Agreement

4A Timeframes for Deployment of Libraries

Library Connections will not be available for Deployment any earlier than date on which the School Connection to the nearest School is Deployed. In addition, the scheduling of the Deployment of each Library Connection is subject to the process set out in clause 6B in this Schedule.

4B Timeframes for Deployment of Rural Health Centre Connections

Rural Health Centre Connections will not be available for Deployment any earlier than the date on which the School Connection to the nearest School is Deployed. In addition, the scheduling of the Deployment of each Rural Health Centre Connection is subject to the process set out in clause 6A in this Schedule.

5 Deployment

Deployment of each Rural Link and Rural Cabinet will involve the following:

Circumstances prior to Deployment	Nature of activities comprising Deployment	Grantable Assets and Non-Grantable Assets
School Connection²		
No fibre along route between School site and LBAP	Build new fibre (Layer 1 only) or DMR from LBAP to School site. Install joining pit and access terminal in accordance with Architecture Requirements. Install School Lead-in in accordance with Schedule 10.	Grantable Assets: <ul style="list-style-type: none"> Fibre cable, duct, sub duct, joining pits, location wire etc Tower/pole structure Antennas Ethernet DMR equipment Non-Grantable Assets: <ul style="list-style-type: none"> School Lead-in
Existing fibre along route between School site and LBAP, but not compliant with Architecture Requirements	Augment or extend existing fibre (Layer 1 only) to meet Architecture Requirements. Install joining pit and access terminal in accordance with Architecture Requirements. Install School Lead-In in accordance with Schedule 10.	Grantable Assets: <ul style="list-style-type: none"> New fibre cable, duct, sub duct, joining pits, location wire etc (required for RBI capacity) Ethernet transport system channel cards Ethernet transport system terminal or add/drop terminal, including chassis, transponders Non-Grantable Assets: <ul style="list-style-type: none"> Replacement fibre cable required for fibre lifecycle issues such as delamination or retraction Ethernet transport system channel cards exceeding what is necessary to comply with the Architecture Requirements Existing fibre cable, duct, subduct, joining pits etc already in place prior to Deployment Ethernet transport terminal or add/drop terminals already in place prior to Deployment School Lead-in
Existing fibre between School site and LBAP, compliant with Architecture Requirements	Confirm existing fibre (Layer 1) meets Architecture Requirements. Install joining pit and access terminal in accordance with Architecture Requirements. Install School Lead-in in accordance with Schedule 10.	Grantable Assets: <ul style="list-style-type: none"> Fibre joining pit, fibre access terminal, Non-Grantable Assets: <ul style="list-style-type: none"> School Lead-in

² See also clause 5B of this Schedule

Circumstances prior to Deployment	Nature of activities comprising Deployment	Grantable Assets and Non-Grantable Assets
Hospital Connection		
No fibre along route between Hospital or Integrated Family Health Centre (as the case may be) site and LBAP	Build new fibre (Layer 1 only) from LBAP to Hospital or Integrated Family Health Centre (as the case may be) site. Install jointing pit and access terminal in accordance with Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> New fibre cable, duct, sub duct, jointing pits, location wire etc Non-Grantable Assets: <ul style="list-style-type: none"> Any fibre service lead-in installed by separate agreement between Telecom and Hospital or Integrated Family Health Centre (as the case may be)
Existing fibre along route between Hospital or Integrated Family Health Centre (as the case may be) site and LBAP, but not compliant with Architecture Requirements	Augment or extend existing fibre (Layer 1 only) to meet Architecture Requirements. Install jointing pit and access terminal in accordance with Architecture Requirements	Grantable Assets: <ul style="list-style-type: none"> New fibre cable, duct, sub duct, jointing pits, location wire etc Non-Grantable Assets: <ul style="list-style-type: none"> Any fibre service lead-in installed by separate agreement between Telecom and Hospital or Integrated Family Health Centre (as the case may be)
Existing fibre along route between Hospital or Integrated Family Health Centre (as the case may be) site and LBAP, compliant with Architecture Requirements	Confirm existing fibre (Layer 1) meets Architecture Requirements. Install jointing pit and access terminal in accordance with Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> Fibre jointing pit, fibre access terminal Non-Grantable Assets: <ul style="list-style-type: none"> Any fibre service lead-in installed by separate agreement between Telecom and Hospital or Integrated Family Health Centre (as the case may be)
Fixed Line CBDP Cabinet		
Existing fibre fed cabinet or exchange in place, compliant with Architecture Requirements.	Install/replace existing DSL equipment as necessary to meet Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> Upgrade of air conditioning capability of cabinet to handle DSL equipment (if necessary) Non-Grantable Assets: <ul style="list-style-type: none"> DSL equipment Voice service equipment
Existing fibre fed cabinet or exchange in place, but not suitable for delivering Ethernet based services compliant with the Architecture Requirements.	Replace existing physical cabinet with one suitable for delivering Ethernet based services, complying with Architecture Requirements. Install/replace DSL equipment as necessary to meet Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> Cabinet including DC power and Air Conditioning equipment Non-Grantable Assets: <ul style="list-style-type: none"> DSL equipment Voice service equipment
Existing copper or DMR fed cabinet in place	Replace existing physical cabinet with a fibre or DMR fed cabinet suitable for delivering Ethernet based services, and build all new fibre from exchange to cabinet, so that the cabinet and fibre comply with Architecture Requirements. Note, fibre build may form part of other Deployments, for example, nearby School Connections. Install/replace DSL equipment as necessary to meet Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> Cabinet including DC power and Air Conditioning equipment, Mains power connection setup. Fibre cable, duct, sub duct, jointing pits, location wire etc Tower/pole structure Antennas Ethernet DMR equipment Ethernet transport system channel cards Ethernet transport system terminal or add/drop terminal, including chassis, transponders Non-Grantable Assets: <ul style="list-style-type: none"> DSL equipment Voice service equipment

Circumstances prior to Deployment	Nature of activities comprising Deployment	Grantable Assets and Non-Grantable Assets
Existing copper or DMR fed cabinet in place, but only partial fibre build or overlay required in order to meet Architecture Requirements.	<p>Replace existing physical cabinet with a fibre fed cabinet suitable for delivering Ethernet based services, building new fibre or overlaying existing fibre as necessary to fill gaps between exchange and cabinet, so as to comply with Architecture Requirements.</p> <p>Note, fibre build/overlay may form part of other Deployments, for example, nearby School Connections.</p> <p>Install/replace DSL equipment as necessary to meet Architecture Requirements.</p>	<p>Grantable Assets:</p> <ul style="list-style-type: none"> • Cabinet including DC power and Air Conditioning equipment, • Mains power connection setup. • Fibre cable, duct, sub duct, jointing pits, location wire etc • Ethernet transport system channel cards (in the backhaul) • Ethernet transport system terminal or add/drop terminal, including chassis, transponders <p>Non-Grantable Assets:</p> <ul style="list-style-type: none"> • DSL equipment • Voice service equipment • Ethernet transport system channel cards exceeding what is necessary to comply with the Architecture Requirements • Replacement fibre cable required for fibre lifecycle issues such as delamination or retraction
Existing copper or DMR fed cabinet in place, but fibre solution is not practicable.	<p>Replace existing copper or DMR fed cabinet with a new Ethernet based DMR and cabinet.</p> <p>Install/replace DSL equipment as necessary to meet Architecture Requirements.</p>	<p>Grantable Assets:</p> <ul style="list-style-type: none"> • Cabinet including DC power and Air Conditioning equipment • Mains power connection setup • Tower/pole structure • Antennas • Ethernet DMR equipment <p>Non-Grantable Assets:</p> <ul style="list-style-type: none"> • DSL equipment • Voice service equipment
Rural Backhaul Connection (LBAP to RPOP)		
No existing fibre along route between RPOP and LBAP	Build new fibre (Layer 1 only) from RPOP to LBAP.	<p>Grantable Assets:</p> <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc <p>Non-Grantable Assets:</p> <ul style="list-style-type: none"> • n/a
Existing fibre along only part of the route between RPOP and LBAP	Fill in fibre gaps to provide a complete fibre link between Exchange and 1st data switch. This involves extending the existing fibre to complete the transport link.	<p>Grantable Assets:</p> <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc <p>Non-Grantable Assets:</p> <ul style="list-style-type: none"> • n/a
Existing fibre along route between RPOP and LBAP, where some but not all of that fibre has sufficient capacity to meet Architecture Requirements.	Overlay fibre to augment relevant pieces of transport network, so that capacity meets Architecture Requirements.	<p>Grantable Assets:</p> <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc <p>Non-Grantable Assets:</p> <ul style="list-style-type: none"> • Replacement fibre cable required for fibre lifecycle issues such as delamination or retraction
Existing WDM solution in place between RPOP and LBAP, but not sufficient to meet Architecture Requirements.	Augment existing WDM fibre transport system (e.g. by adding additional channel cards) to provide additional capacity for new Ethernet services, as necessary to meet Architecture Requirements.	<p>Grantable Assets:</p> <ul style="list-style-type: none"> • Ethernet transport system channel cards • Ethernet transport system add/drop terminal, including chassis, transponders <p>Non-Grantable Assets:</p> <ul style="list-style-type: none"> • Ethernet transport system channel cards exceeding what is necessary to comply with the Architecture Requirements

Circumstances prior to Deployment	Nature of activities comprising Deployment	Grantable Assets and Non-Grantable Assets
No WDM solution in place between RPOP and LBAP	Install new WDM fibre transport system to provide capacity for new Ethernet service, as necessary to meet Architecture Requirements. Leave existing TDM / SDH fibre transport systems in place where fibre capacity permits.	Grantable Assets: <ul style="list-style-type: none"> • Ethernet transport system channel cards • Ethernet transport system add/drop terminal, including chassis, transponders Non-Grantable Assets: <ul style="list-style-type: none"> • Ethernet transport system channel cards exceeding what is necessary to comply with the Architecture Requirements
No WDM solution in place between RPOP and LBAP	Install new WDM fibre transport system to provide capacity for new Ethernet service, as necessary to meet Architecture Requirements, and retire existing TDM / SDH transport systems where fibre capacity is insufficient to leave them in place.	Grantable Assets: <ul style="list-style-type: none"> • Ethernet transport system channel cards • Ethernet transport system add/drop terminal, including chassis, transponders Non-Grantable Assets: <ul style="list-style-type: none"> • FOTS systems replacing retired TDM/SDH transport systems • Ethernet transport system channel cards exceeding what is necessary to comply with the Architecture Requirements
No existing fibre along the route between LBAP and RPOP, and no cost effective fibre solution	Add new Ethernet DMR system for new Ethernet services, as necessary to meet Architecture Requirements. Existing transport systems remain in place where DMR capacity permits.	Grantable Assets: <ul style="list-style-type: none"> • Tower/pole structure • Antennas • Ethernet DMR equipment Non-Grantable Assets: <ul style="list-style-type: none"> • n/a
No existing fibre along the route between LBAP and RPOP, and no cost effective fibre solution.	Add new Ethernet DMR system for new Ethernet services, as necessary to meet Architecture Requirements. Existing transport systems are retired where DMR capacity is insufficient to leave them in place.	Grantable Assets: <ul style="list-style-type: none"> • Tower/pole structure • Antennas • Ethernet DMR equipment Non-Grantable Assets: <ul style="list-style-type: none"> • n/a
Wireless CDBP Backhaul Connection		
No fibre along route between Mobile Site and LBAP	Build new fibre (Layer 1 only) from LBAP to Mobile Site.	Grantable Assets: <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc Non-Grantable Assets: <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc in excess of what is necessary to meet the Architecture Requirements
Existing fibre along route between Mobile Site and LBAP, but not compliant with Architecture Requirements	Augment existing fibre (Layer 1 only) to meet Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc Non-Grantable Assets: <ul style="list-style-type: none"> • Fibre cable, duct, sub duct, jointing pits, location wire etc in excess of what is necessary to meet the Architecture Requirements • Replacement fibre cable required for fibre lifecycle issues such as delamination or retraction
Existing fibre along route between Mobile Site and LBAP, compliant with Architecture Requirements	Confirm existing fibre (Layer 1) meets Architecture Requirements. Install jointing pit and fibre access terminal in accordance with Architecture Requirements.	Grantable Assets: <ul style="list-style-type: none"> • Fibre jointing pit, fibre access terminal, Non-Grantable Assets: <ul style="list-style-type: none"> • n/a
No existing fibre along the route between Mobile Site and parent LBAP/RPOP, and no cost effective fibre solution	Add new Ethernet DMR system for new Ethernet services, as necessary to meet Architecture Requirements. Existing transport systems remain in place where DMR capacity permits.	Grantable Assets: <ul style="list-style-type: none"> • Tower/pole structure • Antennas • Ethernet DMR equipment Non-Grantable Assets: <ul style="list-style-type: none"> • n/a

Circumstances prior to Deployment	Nature of activities comprising Deployment	Grantable Assets and Non-Grantable Assets
No existing fibre along the route between Mobile Site and parent LBAP/ RPOP, and no cost effective fibre solution.	Add new Ethernet DMR system for new Ethernet services, as necessary to meet Architecture Requirements. Existing transport systems are retired where DMR capacity is insufficient to leave them in place.	Grantable Assets: <ul style="list-style-type: none"> • Tower/pole structure • Antennas • Ethernet DMR equipment Non-Grantable Assets: <ul style="list-style-type: none"> • n/a
Library Connection		
No fibre along a route between the Library Break Out and/or LBAP and the Library	Build new fibre (layer 1) from the nearest Library Break Out point and/or LBAP, as the case may be, to Library site Install jointing pit and access terminal in accordance with the Architecture Requirements	Grantable Assets <ul style="list-style-type: none"> • New fibre cable, duct, sub duct, jointing pits, location wires etc Non Grantable Assets <ul style="list-style-type: none"> • Any fibre lead in service installed by separate agreement between Chorus and Library
Existing fibre along a route between the Library Break Out and the Library, but not compliant with Architecture Requirements	Augment or extend existing fibre as required to build new fibre from the nearest Library Break Out point and/or LBAP, as the case may be, to Library site in accordance with the Architectural Requirements Install jointing pit and access terminal in accordance with the Architecture Requirements	Grantable Assets <ul style="list-style-type: none"> • New fibre cable, duct, sub duct, jointing pits, location wires etc Non Grantable Assets <ul style="list-style-type: none"> • Any fibre lead in service installed by separate agreement between Chorus and Library
Existing fibre along a route between the Library Break Out and/or LBAP and the Library compliant with Architecture Requirements	Confirm existing fibre (layer 1) is in compliance with the Architectural Requirements Install jointing pit and access terminal in accordance with the Architecture Requirements	Grantable Assets <ul style="list-style-type: none"> • Jointing pits, location wires etc Non Grantable Assets <ul style="list-style-type: none"> • Any fibre lead in service installed by separate agreement between Chorus and Library

5A Deployment of Rural Health Centre Connections

Circumstances prior to Deployment	Nature of activities comprising Deployment	RHC Connection Cost Assets and Other Assets
Rural Health Centre Connection		
No fibre along a route between the RHC and the nearest LBAP	Build new fibre (layer 1) from the nearest LBAP to Rural Health Centre site Install jointing pit and access terminal in accordance with the Architecture Requirements	RHC Connection Cost Assets <ul style="list-style-type: none"> • New fibre cable, duct, sub duct, jointing pits, location wires etc Other Assets <ul style="list-style-type: none"> • Any fibre lead in service installed by separate agreement between Chorus and Rural Health Centre
Existing fibre along a route between the LBAP and the Rural Health Centre, but not compliant with Architecture Requirements	Augment or extend existing fibre as required to build new fibre from the nearest LBAP to Rural Health Centre site in accordance with the Architectural Requirements Install jointing pit and access terminal in accordance with the Architecture Requirements	RHC Connection Cost Assets <ul style="list-style-type: none"> • New fibre cable, duct, sub duct, jointing pits, location wires etc Other Assets <ul style="list-style-type: none"> • Any fibre lead in service installed by separate agreement between Chorus and Rural Health Centre
Existing fibre along a route between the LBAP and the Rural Health Centre compliant with Architecture Requirements	Confirm existing fibre (layer 1) is in compliance with the Architectural Requirements Install jointing pit and access terminal in accordance with the Architecture Requirements	RHC Connection Cost Assets <ul style="list-style-type: none"> • Jointing pits, location wires etc Other Assets <ul style="list-style-type: none"> • Any fibre lead in service installed by separate agreement between Chorus and Rural Health Centre

5B Deployment of Library Break Out Points

When Chorus Deploys the School Connection to the School nearest to a Library, regardless of whether it has received or finalised any SP Library Order, it will Deploy sufficient capacity for the future Library Connection and Deploy a fibre break out for the future Library Connection (including the preparatory activities for making provision for fibre joints, fibre break outs, jointing pit and manhole if needed)(a Library Break Out Point). The assets comprising the Library Break Out Point will be deemed to be Grantable Assets Deployed as part of the School Connection.

6 Out-of-Scope Schools

- (a) For clarity, the Ministry acknowledges that the Rural Links will not reach any of the schools listed in Appendix C, except where the parties specifically agree a Change Authorisation Agreement adding a connection to that school as an additional School Connection in the spreadsheets attached as Appendix A.
- (b) In the case of the schools to which Telecom proposes to Deploy a School Connection under this Agreement, Telecom will use reasonable endeavours to identify which (if any) of those schools have been or will be directly connected to a fibre-optic broadband connection that is deployed and made operational before 1 July 2011 ("**Already Connected Schools**").
- (c) Where an Already Connected School is identified as such before 1 July 2011, the associated School Connection will be removed from the scope of this Agreement, in which case Telecom will calculate the amount of Grantable Costs actually avoided as a direct result of that removal ("**Avoided Costs**") and notify the Ministry of the same.
- (d) If any Avoided Costs are identified, then on or before 1 July 2012, Telecom will submit one or more Change Requests to the Ministry seeking to expand the scope of this Agreement to include additional School Connections (and if necessary, additional Rural Backhaul Connections) serving one or more schools that would otherwise be outside the scope this Agreement ("**Additional School Projects**"), to the extent that the Avoided Costs are sufficient to fund the Grantable Costs that Telecom will need to incur in order to Deploy those Additional School Projects.
- (e) The Ministry will not withhold its approval of any Change Request for an Additional School Project, so long as the Change Request would not result in the Ministry being required to pay any Grant amounts in excess of the "Maximum Funding Limit" or "Revised Cumulative Payment Limit" defined in Schedule 4.
- (f) To avoid doubt, the schools listed in section 1 of Appendix C are not eligible for any Additional School Projects.

6A Deployment planning for Rural Health Centre Connections

- (a) Each Rural Health Centre Connection will only be Deployed if included in a Detailed Plan in accordance with this clause 6A.
- (b) A Rural Health Centre Connection will only be included in a Detailed Plan if Chorus has finalised a SP Rural Health Centre Order in accordance with clause 6A(e) for the relevant Rural Health Centre before the first draft of that Detailed Plan is released.
- (c) Following receipt of each SP Rural Health Centre Order, Chorus will undertake preliminary design work to provide the Service Provider with an estimate of the RHC Connection Costs of Deploying the Rural Health Centre Connection, and an estimate of the time period required to Deploy the Rural Health Centre Connection.
- (d) On completion of the preliminary design work, Chorus will provide the Service Provider with a quote which will include:
 - (i) the RHC Connection Costs required to Deploy the Rural Health Centre Connection;
 - (ii) the time periods for commencement and completion of Deployment of the Rural Health Centre Connection.
- (e) The SP Rural Health Centre Order will be deemed to be finalised on the Service Provider's acceptance of Chorus' quote for the Rural Health Centre Connection, so long as the Service Provider has provided Chorus with a binding commitment to pay, and appropriate security for payment of, the quoted RHC Connection Costs (such terms and security to be satisfactory to Chorus in all respects, acting reasonably and in accordance with its normal credit policies), in which case Chorus will:
 - (i) include the Rural Health Centre Connection within the relevant Detailed Plan in line with the quoted Deployment timeframes; and
 - (ii) advise the Service Provider of the likely Ready for Service date for the Rural Health Centre Connection.
- (f) To avoid doubt, Chorus' obligation to Deploy each Rural Health Centre Connection allocated to a Detailed Plan is subject to the remaining qualifications in this Agreement, including clauses 9.5 and 20.
- (g) The parties will work together (each acting reasonably) to establish and maintain a mutually agreed communications plan addressing how the opportunities for Deployment of Rural Health Centre Connections will be communicated to Service Providers, Rural Health Centres and eligible rural communities.
- (h) Upon release of the first draft of the final Detailed Plan required for the completion of the Design and Build Services (excluding Deployment of Rural Health Centre Connections and Library Connections), any remaining Rural Health Centre Connections not already subject to a finalised SP Rural Health Centre Order will be immediately and automatically removed from this Agreement.
- (i) For the avoidance of doubt, Schedule 11 shall apply to any Rural Health Centre meeting the criteria set out in that Schedule, and therefore (where the criteria are met) any Rural Health Centre Connection lead-in will be charged at no more than the level of the Connection Fees set out in Schedule 11.

6B Deployment planning for Library Connections

- (a) Each Library Connection will only be Deployed if included in a Detailed Plan in accordance with this clause 6B.
- (b) A Library Connection will only be included in a Detailed Plan if Chorus has finalised a SP Library Order in accordance with clause 6B(f) for the relevant Library before the first draft of that Detailed Plan is released.
- (c) Chorus will process SP Library Orders in the order received from Service Providers.
- (d) On receipt of an SP Library Order, Chorus will advise the Ministry of the order and will undertake preliminary design work to provide the Ministry with an estimate of the Incremental Grantable Costs required to Deploy the Library Connection and an estimate of the time period required to Deploy the Library Connection.
- (e) On completion of the preliminary design work, Chorus will provide the Ministry with a Change Request which will include:
 - (i) addition of the Library Connection to the relevant Detailed Plan (provided that if the Change Request is accepted later than 30 days before the Release Date of the relevant Detailed Plan, the Library Connection will be allocated to a subsequent Detailed Plan);
 - (ii) the Incremental Grantable Cost required to Deploy the Library Connection (provided that the aggregate of all Incremental Grantable Costs requested in all such Change Requests for all Library Connections cannot exceed \$2,164,700 plus GST);
 - (iii) the consequential change to the Initial Allocation and Cumulative Payment Limits needed to enable Chorus to recover the Incremental Grantable Cost through Grant payments under this Agreement; and
 - (iv) the time period for commencement and completion of the Library Connection.
- (f) The SP Library Order will be deemed to be finalised on the Ministry's acceptance of the Change Request for the Library Connection, in which case:
 - (i) Chorus will include the Library Connection within the relevant Detailed Plan in line with the Deployment timeframes specified in the Change Request accepted by the Ministry;
 - (ii) Chorus will advise the Service Provider who placed the SP Library Order of the likely Ready for Service date for the Library Connection;
 - (iii) The Initial Allocation and Cumulative Payment Limit will automatically be increased by the agreed Incremental Grantable Cost specified in the Change Request accepted by the Ministry; and
 - (iv) to avoid doubt, Chorus will be entitled to claim the Incremental Grantable Costs incurred in Deploying the Library Connection, as Grantable Costs in accordance with Schedule 4.
- (g) To avoid doubt, Chorus' obligation to Deploy each Library Connection allocated to a Detailed Plan is subject to the remaining qualifications in this Agreement, including clauses 9.5 and 20.
- (h) The parties will work together (each acting reasonably) to establish and maintain a mutually agreed communications plan addressing how the opportunities for Deployment of Library Connections will be communicated to Service Providers, Libraries and eligible rural communities.

- (i) Upon release of the first draft of the final Detailed Plan required for the completion of the Design and Build Services (excluding Deployment of Rural Health Centre Connections and Library Connections), any remaining Library Connections not already subject to a finalised SP Library Order will be immediately and automatically removed from this Agreement.

6C Potaka School

- (a) Chorus' obligation to Deploy a School Connection to Potaka School is conditional on Chorus concluding an agreement with FX Networks Limited, on terms satisfactory to Chorus (in its sole discretion), within a reasonable period of time following the date of this agreement (in any case not materially later than 1 September 2012) for the deployment of fibre by FX Networks from the Gisborne RPOP to Potaka School (FX Partnering Contract), and completion of that deployment by FX Networks within a reasonable time (in any case not materially later than the end of the 2013/14 financial year). This condition is for the sole benefit of Chorus, and may only be waived by Chorus giving written notice to the Ministry.
- (b) If the condition in clause 6C(a) is not satisfied within those timeframes, then the Ministry may give notice to Chorus electing one of the following options, either:
 - (i) Potaka School will be removed from the scope of this Agreement, and the Initial Allocation and Cumulative Payment Limit will be reduced by \$35,000 (plus GST, if any); or
 - (ii) the non-satisfaction of the condition will be deemed to be an Adjustment Event, and Chorus will promptly provide the Ministry with a corresponding Change Request and Change Impact Statement in accordance with Schedule 5.
- (c) Chorus cannot rely on clause 6C(a) to the extent that failure of the relevant condition is due to any failure by Chorus to use reasonable endeavours to advance contract negotiations with FX Networks, acting in good faith and on a reasonable basis.
- (d) Clause 8.15 of this Agreement does not apply to Chorus' entry into the FX Partnering Contract.

6D Porangahau School

- (a) The Ministry acknowledges that:
 - (i) Deployment of a School Connection to Porangahau School is contingent on, and is to be co-ordinated with, the Deployment of a Rural Backhaul Connection to the Porangahau exchange and a Wireless CDBP Connection from that exchange to a nearby Vodafone Mobile Site (Porangahau Mobile Site Deployment); and
 - (ii) the Porangahau Mobile Site Deployment is itself subject to the conditions in clause 5.6 of this Agreement, and clause 5(h) and Appendix C of Schedule 3.
- (b) Accordingly, except to the extent due to Chorus' breach of this Agreement, any delay in the Porangahau Mobile Site Deployment will be deemed an Adjustment Event affecting the associated School Connection, and Chorus may provide the Ministry with a corresponding Change Request and Change Impact Statement seeking to allow for that Adjustment Event in accordance with Schedule 5.
- (c) If, by the Mobile Site Confirmation Date (as defined in Schedule 3) for the final Construction Period, the scheduling and/or precise location of the Porangahau Mobile Site Deployment has yet to be finalised in accordance with clause 5(h) of Schedule 3, then Porangahau School will be removed from the scope of this Agreement, and the Initial Allocation and Cumulative Payment Limit will be reduced by \$59,000 (plus GST, if any).

7 Defined Terms

In this Schedule 2, unless the context requires otherwise:

<i>Adverse Change</i>	has the meaning given in Schedule 3.
<i>Architecture Requirements</i>	means the "Architecture Requirements" set out in Appendix D.
<i>Cabinet Feed</i>	means a fibre optic or Digital Microwave Radio connection along a route between a Fixed Line CBDP Cabinet and the nearest LBAP.
<i>Construction Year</i>	means each successive period of 12 months, commencing on 1 July 2011 and each subsequent anniversary, until there are no further Design and Build Services to be completed.
<i>Deployment</i>	means: <ul style="list-style-type: none">(i) in relation to each Rural Link and Rural Cabinet other than a Rural Health Centre Connection, means carrying out the relevant "deployment" activities for that Rural Link or Rural Cabinet, as described in clause 5 of this Schedule; and(ii) in relation to each Rural Health Centre Connection, means carrying out the relevant "deployment" activities for that Rural Health Centre Connection, as described in clause 5A of this Schedule, and <i>Deploy</i> has a corresponding meaning.
<i>End Line</i>	means a circuit comprising a pair of twisted copper conductors between: (a) a Fixed Line CBDP Cabinet; and (b) the external termination point for telecommunications services at an end user's premises or, where there is no termination point external to the premises, either the first jack on the premises wiring or, alternatively, the building distribution frame.
<i>Fixed Line CBDP Cabinet</i>	means a broadband cabinet identified as a "Fixed Line CBDP Cabinet" in Appendix A, and includes the Cabinet Feed to the nearest LBAP.
<i>FTTP Architecture</i>	means architectural features deployed as part of a Rural Link, as necessary to allow for End User Premises with road frontage adjacent to that Rural Link to be connected to Telecom's network via that Rural Link upon installation of a "Community Lead-in" (as defined in Schedule 11).
<i>Grantable Assets</i>	means assets falling within the categories of "Grantable Assets" set out in the table in clause 5 of this Schedule, which are constructed, or procured and installed, in the course of the Design and Build Services.
<i>Hospital</i>	means a hospital identified in the spreadsheet of Hospital Connections attached to Appendix A.

<i>Hospital Connection</i>	means a fibre optic connection along a route between an LBAP and a Hospital or Integrated Family Health Centre, being those connections identified as "Hospital Connections" in Appendix A.
<i>Integrated Family Health Centre</i>	means a "health centre" identified in the spreadsheet RBI Rural Connections in Appendix A.
<i>LBAP</i>	means a Telecom exchange specified as an "LBAP" in Appendix A.
<i>Library</i>	means a Library identified in the spreadsheet "RBI Rural Connections" in Appendix A.
<i>Library Connection</i>	means a fibre optic connection along a route between an LBAP and a Library, being those connections identified as "Library Connections" in Appendix A.
<i>Mobile Site</i>	means a site at which the Parties anticipate that Vodafone will construct a new cell site under the Vodafone RBI Agreement, being a site identified in the spreadsheet of Wireless CBDP Backhaul Connections attached to Appendix A.
<i>Non-Grantable Assets</i>	means assets falling within the categories of "Non-Grantable Assets" set out in the table in clause 5 of this Schedule, which are constructed, or procured and installed, in the course of the Design and Build Services.
<i>Overall Plan</i>	has the meaning given in Schedule 3.
<i>Priority User</i>	means: <ul style="list-style-type: none"> (a) a School; (b) a Hospital; (c) an Integrated Family Health Centre; (d) a Rural Health Centre; (e) a Library; or (f) a Wireless Operator.

<i>RHC Connection Costs</i>	means the capital expenditure that Chorus attributes to the "RHC Connection Cost Assets" (referred to in clause 5A of this Schedule) which form part of a Rural Health Centre Connection, as and when that capital expenditure is accounted for by Chorus in accordance with IFRS and Chorus' usual accounting policies and practices. For the purposes of this definition, Chorus will: (i) capitalise internal labour at the same labour rates used by Chorus for self-funded capital projects; (ii) exclude all product development costs and interest costs; (iii) exclude all costs in excess of what a skilled and experienced contractor in Chorus' position would reasonably incur in similar circumstances; and (iv) exclude all capital expenditure attributable to any assets that Chorus is required to Deploy as part of a School Connection or Hospital Connection regardless of whether it proceeds with Deployment of the Rural Health Centre Connection.
<i>RPOP</i>	means a Telecom exchange specified as an "RPOP" in Appendix A.
<i>Rural Backhaul Connection</i>	means a backhaul connection between an RPOP and an LBAP, being a connection identified as a "Rural Backhaul Connection" in Appendix A;
<i>Rural Cabinet</i>	means a Fixed Line CBDP Cabinet.
<i>Rural Health Centre</i>	means one of the 226 rural health centres identified in Schedule 2, Appendix B, , but to avoid doubt excludes any Hospital or Integrated Family Health Centre.
<i>Rural Health Centre Connection</i>	means a fibre optic connection along a route between an LBAP and a Rural Health Centre.
<i>Rural Link</i>	means a School Connection, a Hospital Connection, a Rural Health Centre Connection, a Library Connection, a Wireless CBDP Backhaul Connection, or a Rural Backhaul Connection.
<i>School</i>	means a school identified in the spreadsheet of School Connections attached to Appendix A.
<i>School Connection</i>	means a fibre optic or Digital Microwave Radio connection along a route between an LBAP and a School, being those connections identified as "School Connections" in Appendix A.
<i>SP Library Order</i>	means a confirmed order from a Service Provider for the supply of Specified Layer 2 Services to a Library to which Chorus has not yet Developed a Library Connection.
<i>SP Rural Health Centre Order</i>	means an order from a Service Provider for the supply of Specified Layer 2 Services to a Rural Health Centre, to which Chorus has not yet Deployed a Rural Health Centre Connection.

*Wireless CBDP Backhaul
Connection*

means a fibre optic or Digital Microwave Radio connection along a route between a cell site (or proposed cell site) and an LBAP, being those connections identified as "Wireless CBDP Backhaul Connections" in Appendix A.

Wireless Operator

a Service Provider operating a radio transmission system located on a Mobile Site.

Schedule 2, Appendix A Rural Links and Rural Cabinets

Rural Link / Rural Cabinet	Summary	As further described in attachment
School Connections	Fibre and DMR broadband connections from specified LBAP sites to 1035 School sites.	RBI Rural Connections.xls
Hospital Connections	Fibre broadband connections from specified LBAP sites to 51 Hospital and Integrated Family Health Centre sites	RBI Rural Connections.xls
Library Connections	Fibre broadband connections from specified LBAP sites to up to 181 Library sites, subject to clause 6B of Schedule 2	RBI Rural Connections.xls
Rural Health Centre Connections	Fibre broadband connections from specified LBAP sites to up to 226 Rural Health Centre sites, subject to clause 6A of Schedule 2	Not applicable. See clause 6A of Schedule 2.
Fixed Line CDBP Cabinets	DSL capable cabinet solutions to 1224 specified sites.	RBI CDBP Fixed Line.xls
Wireless CDBP Backhaul Connections	<p>Fibre and DMR connections from specified LBAP sites to 154 Mobile Sites.</p> <p>Includes 10 optional backup sites that Vodafone may nominate as substitute Mobile Sites if difficulties arise in obtaining relevant consents, easements, etc for one or more of the 154 currently planned Mobile Sites. Any use of these backup sites will be implemented through the Change Procedure.</p>	RBI Rural Connections.xls
Rural Backhaul Connections	Backhaul connections along specified LBAP to RPOP routes, including new fibre build, fibre overlay and/or capacity upgrade as necessary to comply with Architecture Requirements.	Each route between an LBAP and its parent RPOP, as specified under the "LBAPs" tab in RPOPs and LBAPs.xls

RPOPs	As listed under the "RPOPs" tab in the attachment RPOPs and LBAPs.xls
LBAPs	As listed under the "LBAPs" tab in the attachment RPOPs and LBAPs.xls

Schedule 2, Appendix B Rural Health Centres

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Aotea Health	Claris Postal Centre	Hector Sanderson Road, RD1	Claris	Great Barrier Island	991
Oneroa Accident And Medical Centre		132 Ocean View Road	Oneroa	Waiheke Island	1240
Ostend Medical Centre		9 Belgium Street	Ostend	Waiheke Island	1843
Church St Surgery		94 Church Street		Opotiki	3162
Toi Ora Health (was Heritage Health Ltd)		32A King Street		Opotiki	3092
Katikati Medical Centre		4 Clive Road		Katikati	3129
Murupara Medical Centre		27 Kowhai Ave		Murupara	3272
Tarawera Medical Centre		104 Onslow Street		Kawerau	3075
Te Kaha Health Centre:te Whanau-a-apanui		State Highway 35, RD 3, Te Kaha			
Whakatane Medical Practice Ltd	Med Central	78 King Street		Whakatane	3120
Whakatohea Health Centre		117 Church Street		Opotiki	3092
Akaroa Health Centre		Aylmers Valley Rd		Akaroa	8161
Amberley Medical Centre Ltd		6 Holton Drive		Amberley	7441
Amuri Community Health Centre		54 Wilkin Street		Rotherham	7379
Cheviot Community Health Centre		6 Robinson Street		Cheviot	7310
Darfield Medical Centre		13 North Terrace		Darfield	7510
Diamond Harbour Surgery		2C Waipapa Ave			8941

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Hamner Springs Health Centre		59 Jacks Pass Rd		Hamner Springs	7360
Waikari Health Centre		100 Princes Street		Waikari	7420
Kaikoura Medical Centre		7 Deal St		Kaikoura	7300
Leeston Medical Centre		57-59 High Street		Leeston	7632
Lincoln Medical Ltd		Market Square, 1 Gerald St		Lincoln	7608
Methven Medical Centre		The Square, 116 Main St		Methven	7730
Oxford Community Health Centre		39 Park Avenue		Oxford	8053
Rakaia Medical Centre		30 Elizabeth Avenue		Rakaia	7743
Rolleston Medical Centre		29 Brookside Rd		Rolleston	7643
Templeton Medical		5 Kirk Road	Templeton	Christchurch	8004
Waikanae Health Centre		Marae Lane		Waikanae	6010
Tuakau Health Centre		55 George Street	Tuakau	Pukekohe	2121
Waiuku Health Centre		30 Constable Rd		Waiuku	1852
Chatham Island Medical Centre		Hospital Road		Chatham Islands	8942
Dr Underwood's Practice		37 Carroll St		Wairoa	4160
Health Care Centre Ltd		Kitchener St		Wairoa	4108
Queen Street Practice		34 Queen Street		Wairoa	4160
The Doctors - Waipawa		19 Kenilworth Street		Waipawa	4240
Tuki Tuki Medical Ltd	Tuki Tuki	1 Cook Street		Waipukurau	4176
Wairoa Medical Centre	Ground Floor, Wairoa Hospital	24 Kitchener Street, Ground Floor Wairoa Hospital		Wairoa	4160

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Mangakino Health Services Ltd		60 Rangatira Drive		Mangakino	3445
Pihanga Health 2007 Limited	National Bank Bldg	28 Tautahanga Rd		Turangi	3381
Dannevirke Surgery		33 Victoria Avenue		Dannevirke	4930
Foxton Family Health Centre		Cur Park & Robinson Streets		Foxton	4814
Otaki Medical Centre		2 Aotaki St		Otaki	5512
Queen Street Surgery		50 Queen Street		Levin	5510
Raukawa Iwi Medical Services		2 Stout Street	Shannon	Shannon	4821
Tararua Medical Practice		538 Queen Street East		Levin	5510
Central Medical Motueka		27 Wallace Street		Motueka	7161
Consulting Rooms Motueka		27 Vosper St		Motueka	7120
Golden Bay Medical Centre	1 Edinburgh St	1 Edinburgh St		Ta ka ka	7110
Greenwood Health		20 Greenwood Street		Motueka	7120
Havelock Medical Centre		22 Lawrence Street		Havelock	7100
Murchison Health Centre		58 Hotham St		Murchison	7191
Picton Medical Centre		71 High Street		Picton	7372
Wakefield Community Health Centre		12 Edward Street	Wakefield	Wakefield	7025
Bayview Medical Centre		7 Bayview Road		Paihia	200
Bream Bay Medical Centre	Shop 22	Marsden Point Road, Ruakaka	Ruakaka	Whangarei	116
Broadway Health Centre		36 Lower Broadway		Kaikohe	440

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Commercial Street Surgery		8 Commercial Street		Kawakawa	210
Dargaville Medical Centre Partnership		77 Awakino Rd		Dargaville	340
Hauora Hokianga Health		Parnell Street		Rawene	400
Kaitaia Health Centre		30 Puckey Ave		Kaitaia	441
Kawakawa Medical Centre		2 Vogel Street		Kawakawa	291
Ken i Med Doctors		2 Ranui Avenue		Kerikeri	470
Kerikeri Medical Centre		4 Homestead Road		Kerikeri	470
Moerewa Medical Services		44 State Highway 1		Moerewa	211
Ngunguru Medical Centre		2 Shoebridge Crescent, Ngunguru	Ngunguru	Whangarei	154
Paihia Medical Services- Paihia Surgery		22 Selwyn Road		Paihia	252
Russell Medical Centre		18 Church Street		Russell	242
Te Where Hauora O Te Hike Clinic		49 Redan Road		Kaitaia	410
Top Health Care		34 Redan Road		Kaitaia	482
Waipu Medical Centre		2 Nova Scotia Drive		Waipu	545
Whangaroa Health Services		180 Omaunu Road		Kaero	448
Aspiring Medical Centre		28 Dunganvon Street		Wanaka	9305
Balclutha General Practitioners	Clutha Health First	3-7 Charlotte Street		Balclutha	9230
Catclins Medical Centre		29 Main Road Owaka		Clutha Otago	9535
Centennial Health		32 Centennial Ave		Alexandra	9320
Central Medical - Oamaru		19 Eden Street		Oamaru	9400

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Central Medical Centre - Alexandra		31 Ventry Street		Alexandra	9320
Cornerstone Health		15 Ventry Street		Alexandra	9340
Cromwell Medical Centre		33 The Mall		Cromwell	9310
Dr .J Collins Surgery		28 Charlotte St		Balclutha	9230
Dr Lay Surgery	Wanbrow House	6 Coquet Street		Oamaru	9400
High Country Health		37 Tasman Road		Twizel	8773
Kurow Medical Centre		8 Wynyard St		Kurow	9435
Lawrence Medical Centre		43 Whitehaven Street		Lawrence	9532
Milton Health Centre		7 Eden Street		Milton	9250
Northend Health Centre, Oamaru		4 Frome Street		Oamaru	8915
Oulram Medical Centre		10 Beaumaris St		Oulram	9019
Palmerston Health Centre		117 District Road		Palmerston	9443
Ranfurly Medical Centre		1 Tyrone St		Ranfurly	9332
Reed Street Surgery		23 Reed Street		Oamaru	9444
Roxburgh Medical Centre		65 Scotland St		Roxburgh	9156
South Hill Family Practice		11 Arun Street		Oamaru	9444
Wanaka Medical Centre		21 Russell Street cnr 3 Norfolk &		Wanaka	9192
West Otago Health Limited		Northumberland Sts	Tapanui	Tapanui	9522
Dr Diana Scott Practice Ltd		84 Talbot St		Geraldine	7930
Wood St Surgery (was Dr Hilliker Surgery)		4 Wood Street		Temuka	8752
Dr R. Vara Practice		104 King Street		Temuka	7902

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Oak House Medical Centre		161 Queen St		Waimate	7924
Temuka Family Practice		178 King Street		Temuka	7920
Waimate Medical Centre Ltd		1 Glasgow Street		Waimate	7960
Fiordland Medical Practice		25 Luxmore Drive		Te Anau	9600
Gore Health Centre Limited		9 Birch Lane		Gore	9710
Gore Medical Centre		12 Eccles Street		Gore	9710
Lumsden Medical Centre		58 Garden Street		Lumsden	9742
Mataura Medical Centre		11 Bridge St		Mataura	9690
Mountain Lake Medical Centre		388 Gorge Road		Queenstown	9197
Otautau Medical Centre		Cnr Main & Chester Str		Otautau	9610
Point Med		107 Main Rd		Pleasant Point	7903
Riverton Medical Centre		145 Palmerston Street		Riverton	9822
Tuatapere Medical Practice		69a Orawia Road		Tuatapere	9642
Wakatipu Medical Centre		11 McBride Street		Frankton	9300
Te Whare Hauora O Ngati Porou		2 McKenzie St		Te Puia Springs	3850
Uawa Community Health Centre		Solander Street		Tolaga Bay	3854
Waikohu Medical Centre	74 Station Rd	76 Station Road		Te Karaka	3871
Avon Medical Care Centre		8 Romeo St		Stratford	4332
Dr Ajj Jordaan - at Regan Street		89 Regan St		Stratford	4700

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Te Waipuna		13 Hussey St		Waverley	4544
Or M. Fonseka Surgery		12 Brown St		Inglewood	4330
Eltham Medical Centre		132 High Street		Eltham	4322
Inglewood Medical Centre	Inglewood District Health Centre	12 Brown Street		Inglewood	8254
Oakura Medical Centre and Opunake		1149 Main South Rd		Oakura	4650
Opunake Medical Group		Havelock St		Opunake	4854
Patea & District Community Medical Centre		1 Lincoln Street		Patea	4545
R Gerard Radich		Cnr Miranda & Page Streets		Stratford	4700
Regan St Medical Centre		95 Regan St		Stratford	4700
Caldwell Medical Practice Ltd		Bridge St		Tokoroa	2392
Colville Community Health Centre		2299 Colville Rd	RD4, Colville	Coromandel	3584
Coromandel Family Health Centre		80 Kapenga Road		Coromandel	2851
Dallas Clinic		55 Studholme Street		Morrinsville	3340
Dr Gates Surgery	Doctors@42	42 Main Street		Huntly	3700
F J Simpson Ltd		Bridge St		Tokoroa	2392
Hakanoa Health Centre		43 Hakanoa Street		Huntly	101
Hauraki Plains Health Centre		cnr Dent and Ranui Streets		Ngatea	3503
Health Te Aroha		28 Church Street		Te Aroha	2971
Huntly East Medical Centre		183 Main Street		Huntly	2191

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Huntly West Medical Centre		8 Bridge St		Huntly	3740
Kawhia Health Centre		10 Tainui St		Kawhia	3843
Matamata Medical Centre Ltd		56 Rawhiti Avenue		Matamata	3440
Medicentre		84 Mannering Str		Tokoroa	3420
Mercury Bay Medical Centre		87 Albert Street		Whitianga	3510
Morrinsville Medical Centre		17-19 Canada Street		Morrinsville	3210
Otorohanga Medical Centre		12 Hinewai Street		Otorohanga	2564
Paeroa Medical Centre		15 Princes St		Paeroa	3600
Pauanui Medical Centre see row 163		Shop 9 - 52 Jubille Drive		Pauanui	3546
Pfeffer Medical Services Limited		41 Miriama St		Taumarunui	2946
Putaruru - Tirau Family Doctors Ltd		8 Duke Street		Putaruru	3411
Tairua Medical Centre - combined with Pauanui see row 160		237 Main Road		Tairua	3544
Taumarunui Medical Centre		Kururau Rd		Taumarunui	2946
Te Kauwhata Health Centre		12 Main Road		Te Kauwhata	3710
Te Korowai Hauora O Hauraki - Coromandel		35 Wharf St		Coromandel	3506
Te Korowai Hauora O Hauraki - Paeroa		43 Belmont Road		Pa eroa	2951

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Te Korowai Hauora O Hauraki - Te Aroha		221 Whitaker Street		Te Aroha	3342
Te Kuiti Medical Centre		28 Ailsa St		Te Kuiti	3910
The Family Clinic, Taumaranui (aka Taumaranui Community Kokiri Trust)		17 Morero Terrace		Taumarunui	3920
Tokoroa Health Ltd		Cnr Bridge & Mannering Str		Tokoroa	2392
Tokoroa Primary Care		59 Swanston St		Tokoroa	2392
Waahi Whanui Medical Clinic	Waahi Pa Health	Parry Street		Huntly	2191
Waihi Beach Medical Centre Ltd.		47 Wilson Rd		Waihi Beach	3642
Waihi Health Centre		School Lane		Waihi	3610
West Coast Health Clinic		12 Wallis Street	R 02	Raglan	3225
Whangamata Medical Centre		103 Lincoln Rd		Whangamata	2982
Whitianga Doctors Surgery		58 Albert Street		Whitianga	3510
Carterton Medical Centre		159-163 High St 5th		Carterton	5743
Featherston Medical Centre		3 Clifford Square		Featherston	5710
Greytown Medical Centre		186 East Street		Greytown	5712
Martinborough Health Services Ltd		5 Oxford Street		Martinborough	5711
Coast To Coast Health Care Ltd		220 Rodney Street		Wellsford	1242
Country Medical Clinic Kumeu		76 Main Rd		Kumeu	1250

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Huapai Family Medical Practice		124 Matua Road	RD1	Huapai	891
Kaipara Medical Centre		53 Commercial Road		Helensville	800
Kawau Bay Health & Warkworth Medical		Cnr Percy & Alnwick Street		Warkworth	910
Kowhai Surgery		10 Percy Street		Warkworth	1241
Kumeu Village Medical Centre Ltd	Kumeu Village	Main Road		Kumeu	1250
Snells Beach Medical Centre		Mahurangi East Road Snells Beach	Snells Beach	Warkworth	9700
Waimauku Doctors		8 Waimauku Station	R D 2	Waimauku	812
Buller Medical Services and Karamea clinic		45 Derby Street		Westport	7601
Fox Glacier Health Clinic		Main Road		Fox Glacier	7859
Franz Josef Health Clinic		Main Road		Franz Josef	7952
Haast Health Clinic		Hannah's Clearing	Jacksons Bay Road	Haast	7950
Hari Hari Health Clinic (main rd not recognised, used the garage)		Main Road		Hari Hari	7953
Karamea Medical Centre		126 Waverley St		Karamea	7893
Reefton Medical Centre		103 Sheil Street		Reefton	7830
Franz Josef Health Clinic		97 Cron Road		Franz Josef	7801
Westland Medical Centre		54 A Sewell St		Hokitika	7810
Whataroa Health Clinic		Main Road		Whataroa	7857
Bulls Medical Centre		71 High Street		Bulls	4818
Te Waipuna - Ohakune		2/22 Ayr Street		Ohakune	5461
Otaihape Health Ltd		3 Hospital Road		Taihape	4720

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Stewart Street Surgery		26 Stewart Street		Marion	4710
Waimarino Health Ltd		38 Seddon Street		Raetihi	4632
Fairlie Medical Centre		Ayr Street		Fairlie	7949
Four Peak Health		16 Cox Street		Geraldine	8751
Horowhenua Community Practice Ltd		62 Liverpool Street		Levin	5510
Junction Health Ltd (address not recognised, used McNulty Rd)		1A Traders Lane	Cromwell	Cromwell	9310
Pahiatua Medical Centre		Cnr Main St & Centre St		Pahiatua	4910
Dr Steve Finnigan		12 Brown Street		Inglewood	4330
Frankton Medical Centre		3 Remarkables Crescent		Frankton	9300
Queenstown Medical Centre		9 Isle Street		Queenstown	9300
Masonic Medical		685 Queen St		Levin	5540
Lake Surgery Family Practitioner		109 Tongariro St, Taupo Town Centre		Taupo	3330
Taupo Health Centre		113 Heu Heu St, Taupo Town Centre		Taupo	3330
Taupo Medical Centre		117 Heu Heu St, Taupo Town Centre		Taupo	3330
Tokanui Medical Centre		49 Niagara-Tokanui Highway		Invercargill	9875
Te Waipuna - Waverley		13A Hussey Street		Waverley	4510
Tararua Health Group		Barraud Street (no. not known)		Dannevirke	4930
Levin Medical Centre		73 Winchester Street		Levin	5510

Organisation	Physical Building	Physical Address	Physical Suburb	Physical Town	Physical Post Code
Tikitiki Clinic		1 Rangitukia Rd		Tikitiki	4087
Tokomaru Bay Clinic		Tokomaru St		Tokomaru Bay	4079
Te Korowai Hauora O Hauraki - Thames		210 Richmond Street		Thames	3500
Winton Medical Services Ltd		394 Great North Road		Winton	9662
Thames Medical Centre		817 Rolleston Street		Thames	3540
Hari Hari		State Highway 6		Hari Hari	7884
Whataroa		Scally Road		Whataroa	7886
Fox Glacier		7859 State Highway 6		Fox Glacier	
Matakana		74 Matakana Valley Road		Matakana	985
Maungaturoto		138 Hurndal Street East		Maungaturoto	520
Kowhai Medical Centre		145 Mahurangi East Road		Snails Beach	920
Mangawhai		4 Fagan Place	Mangawhai Heads	Mangawhai	505
Paparoa		187 Paparoa Valley Road		Pa pa roa	571
Southcare Hawera and Manaia		41 Hunter Street		Hawera	4610
Waitara Medical Centre		2 Leslie Street		Waitara	4320
Southcare Manaia		44 South Road		Manaia	4212
Whakawhiti Ora Pai		6652 Main Road		Te Kao	484
Silver Fern Medical Centre		Unit 12, 5-19 Factory Road		Waimauku Village	812
Alexandra Medical Centre		31 Ventry Street		Alexandra	9320
Middlemarch Surgery		50 Swansea Street		Middlemarch	9597

Schedule 2, Appendix C Out-of-Scope Schools

1 Schools already connected to fibre:

<i>Ashburton Borough School (Lagmhor)</i>	<i>Mayfield School (Mid-Canterbury)</i>
<i>Carew Peel Forest School</i>	<i>Methven School</i>
<i>Chertsey School</i>	<i>Mount Hutt College</i>
<i>Dorie School</i>	<i>Mt Somers Springburn School</i>
<i>Fairton School</i>	<i>Our Lady of Snows School (Methven) Rakata School</i>
<i>Hinds School</i>	<i>Wakanui School</i>
<i>Mangamaire Country School</i>	<i>Appleby School</i>
<i>Mangatainaka School</i>	<i>Brooklyn School (Motueka)</i>
<i>Hunterville Consolidated School</i>	<i>Koromiko School</i>
<i>Lauriston School</i>	<i>Lower Moutere School</i>
<i>Longbeach School</i>	<i>Nelson Christian Academy</i>
<i>Lowcliffe School</i>	

2 Schools outside RBI coverage area as at the date of this Agreement:

<i>Aberfeldy School</i>	<i>Oueroa School</i>
<i>Akifio School</i>	<i>Paerau School</i>
<i>Blackmount School</i>	<i>Papanui Junction School</i>
<i>Haast School</i>	<i>Paparua Range School (Blackball Site)</i>
<i>Huiakama School</i>	<i>Pukeokahu School</i>
<i>Jacobs River School</i>	<i>Putere School</i>
<i>Kaitieke School</i>	<i>Ratapiko School</i>
<i>Kakatahi School</i>	<i>Rere School</i>
<i>Kereru School</i>	<i>Rissington School</i>
<i>Kirikau School</i>	<i>Ruakituri School</i>
<i>Le Bons Bay School</i>	<i>Sherwood School (Hawkes Bay)</i>
<i>Macraes Moonlight School</i>	<i>Tahakopa School</i>
<i>Makahu School</i>	<i>Taoroa School</i>
<i>Makarora Primary School</i>	<i>Te Kura Mana Maori O Matahi</i>
<i>Makuri School</i>	<i>Tirioto School</i>
<i>Mangamahu Primary School</i>	<i>TKKM o Waipiro</i>
<i>Mangamuka School</i>	<i>Tokiriima School</i>
<i>Mangaorapa School</i>	<i>Upokongaro School</i>
<i>Marco School</i>	<i>Waerenga-O-Kuri School</i>
<i>Mata School</i>	<i>Walkaretu School</i>
<i>Motu School</i>	<i>Waimarama School</i>
<i>Ngamatapouri School</i>	<i>Waipaoa Station School</i>
<i>Ngamatea School</i>	<i>Waitaria Bay School</i>
<i>Ngatapa School</i>	<i>Whanganui Awa School</i>
<i>Ohuka School</i>	<i>Whareorino School</i>
<i>Okains Bay School</i>	<i>Whataututu School</i>
<i>Orautoha School</i>	

Schedule 2, Appendix D Architecture Requirements

1 Overview

Each Rural Link and Rural Cabinet must be designed and Deployed to a standard suitable for the Rural Telecommunications Services which this Agreement requires Telecom to make Available using those Rural Links and Rural Cabinets.

To ensure efficient use of transport, the Infrastructure will be designed so that the services provided over the Rural Links share the same Ethernet aggregation network and assume a maximum access speed of 1Gbps. The service and architecture design assumes a high degree of statistical gain from the first node (LBAP or cabinet) onwards. One off, high capacity i.e. (>1Gbps or dedicated services with no statistical gain) are dealt with on an exception bases using dedicated layer 1 or dedicated transport systems.

2 Technology overview

The Rural Links are constructed as a combination of backhaul and access. Backhaul technologies will deliver Ethernet transport & aggregation options, and will encompass fibre, radio and in isolated cases copper based solutions. Access technologies will deliver broadband over the "last mile" to the customer, predominantly over existing copper access.

Each Rural Link will be designed to include sufficient capacity to support demand for the Rural Telecommunications Services over the three years immediately following approval of the Detailed Plan under which that Rural Link is Deployed, as forecast by Telecom as at the date of this Agreement.

2.1 Access

(a) Fibre

The long term target access deployment is fibre to the premises. When deploying new access and feeder infrastructure we will make allowance for eventual FTTP. Distribution infrastructure will be deployed separately to feeder and junction fibre, and when co-deployed will be physically deployed above backbone infrastructure. This is intended to preserve the integrity of the high capacity backbone links, allowing on-demand access to distribution infrastructure without risk of accidental damage to backbone links.

Feeder/junction fibre will be used to interconnect exchanges (LBAPs), feed cabinets, microwave and mobile sites only. As a minimum, when building backbone infrastructure, we will co-deploy a 32mm sub-duct for future distribution infrastructure (located above the backbone infrastructure). When deploying new fibre in areas of higher density (greater than 20 End User Premises per linear km, counting all End User Premises with road frontage adjacent to the fibre), we will deploy FTTP Architecture (including a blown fibre microduct architecture) where the fibre passes that road frontage, so long as the relevant End User Premises are within 20 km of the relevant LBAP (measured by fibre length). In areas of lower density, where cost, permits, we will deploy blown fibre technology, consistent with future FTTP along the route. Separation will be maintained between feeder/junction ducting and distribution ducting.

New Work:

- o Prime considerations are ensuring cost efficiencies are foremost in planning, design and in the deployment of rural fibre, without compromising the original objectives and the enhancement of future fibre or transport augmentation.
- o Standard fibre installation is to be by mole-plough/directional boring type work, in tandem with self supporting aerial cable where necessary.
- o Install two or more standard 32mm sub-ducts over the planned route with a copper marker cable for location purposes and with a warning tape above all optical fibre cable for warning purposes. One sub duct will be for the fibre feeder cable into the countryside to proposed dedicated nodes and the other sub-duct(s) for future fibre distribution served from local nodes en-route.

(b) Copper

For Rural Cabinets, our access technology of choice is DSL on existing copper with fibre backhaul. In general ADSL2+ will be deployed for reach, with VDSL2 increasing speeds for users within 1km of an exchange or cabinet. As a guide copper lengths on 0.63 copper will generally be kept to less than 4km (70dB loss at 1024kHz) with a view to delivering the 5Mbps target. As a tactical option two pair ADSL2+ bonding can be used to extend reach to 6km, if sufficient spare pairs are available.

2.2 Backhaul

Backhaul will deliver Ethernet transport capability from access nodes (LBAP) to handover locations (RPOPs) over a range of physical media. It should be noted that there is no physical diversity planned for Rural Telecommunications Services.

(a) Fibre

Our primary Backhaul option choice is fibre based backhaul. This will use Ethernet backhaul over fibre or derived WDM system at 1Gbps or 10Gbps. Backhaul fibre routes will be designed to also provide linking to existing and new DSL serving nodes. When building Rural Links, DSL serving node (i.e. Rural Cabinet) sites should be identified en route, and connected to the associated Rural Backhaul Connection.

Fibre network design should account for an eventual FTTP deployment, and when deploying new fibre in areas where the number of End User Premises passed is greater than 20 per linear km of fibre (counting all End User Premises with road frontage adjacent to that fibre), we will deploy FTTP Architecture where the fibre passes that road frontage, so long as the relevant End User Premises are within 20 km of the relevant LBAP (measured by fibre length).

Where deploying new fibre, Telecom will endeavour as a priority to install sufficient layer 1 fibre capacity to meet demand to schools, primary health providers and points of concentration for community broadband, but if it is cost prohibitive to deploy new fibre, WDM systems will be used to derive additional backhaul capacity.

(b) Radio

The secondary backhaul option is Ethernet Digital Microwave Radio (Ethernet DMR). Ethernet DMR provides a variable rate, with up to 250Mbps per 40MHz radio channel.

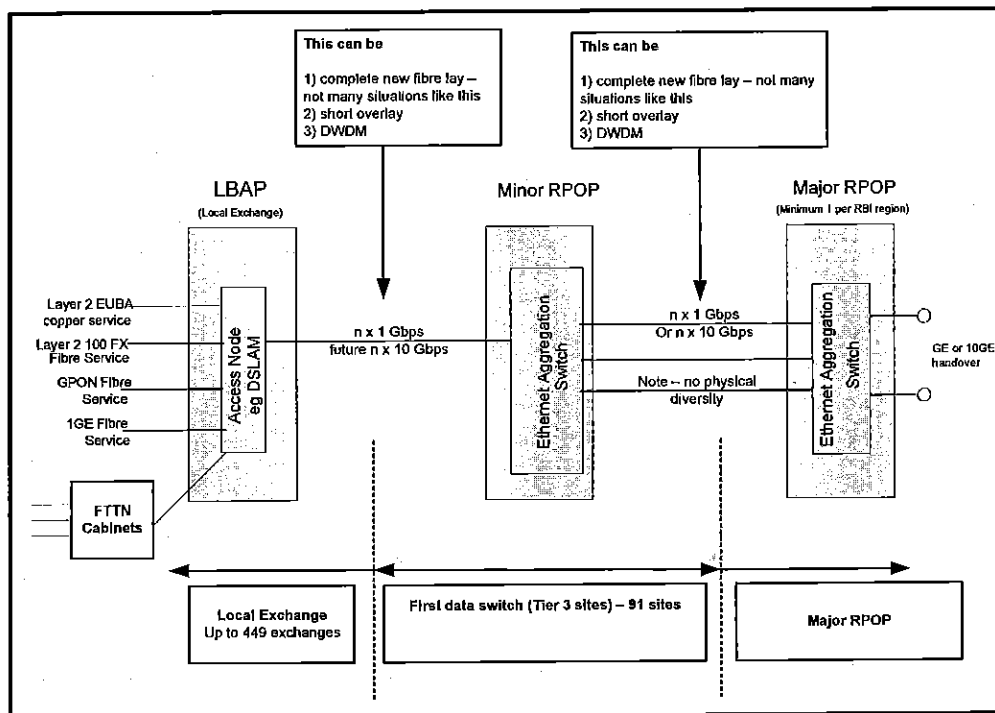
Ethernet DMR will be used when the cost of fibre backhaul becomes prohibitive. As a design rule deploy an Ethernet system if the cost is less than 70% of a fibre deployment to a site.

Ethernet DMR links will be connected to the most economic fibre location, for onward backhaul deeper into the network. We estimate that up to 400 links of Ethernet DMR will be required, 200 of these upgrading current TDM Microwave links, and a further 200 replacing links to existing CMAR locations.

(c) **Copper**

Copper will be very much a tactical solution. SHDSL backhaul solutions are a last resort option when neither fibre nor radio solutions can be deployed. Sign off is required by the Chorus Principal Engineer for each deployment of SHDSL for Ethernet backhaul. Up to 20Mbps Ethernet backhaul can be provided over 4 pairs at up to 2km using SHDSL. Copper Ethernet links will be connected to the most economic fibre location, for onward backhaul deeper into the network.

3 **RPOPs and LBAPs**



4 **School Connections**

Schools will be connected primarily by fibre connection back to an LBAP where the service electronics are located³. For fibre connected schools, either point to point Ethernet services or point to multipoint fibre services can be installed.

Fibre-optic School Connections and associated Rural Backhaul Connections will be designed to support Layer 2 services at 100 Mbps. These services will be based on the existing Telecom HSNS, but the technical architecture will be design to allow a move to a new Layer 2 service consistent with the Layer 2 service offering defined for UFB. Non-fibre-optic School Connections (and associated Backhaul Connections) will be designed to support Layer 2 services of at least 10Mbps CIR and a peak rate of up to 100Mbps.

³ Telecom may choose at its discretion to deploy service electronics for high bandwidth services at RPOPs rather than LBAPs but if it does so, it retains the ability to migrate the service electronics to the LBAP at a later date.

5 Hospital Connections, Library Connections and Rural Health Centre Connections

For Hospital Connections, Library Connections and Rural Health Centre Connections the connection of first choice will be fibre based back to an LBAP where the service electronics are located⁴, and the Hospital Connections, Library Connections and Rural Health Centre Connections and associated Rural Backhaul Connection will be designed to support Layer 2 services at 100 Mbps. These services will be based on the existing Telecom HSNS, but the technical architecture will be design to allow a move to a new Layer 2 service consistent with the Layer 2 service offering defined for UFB.

6 Wireless CBDP Backhaul Connections

Mobile Sites will be connected primarily by fibre connection back to an LBAP where the service electronics are located⁵. For fibre connected Mobile Sites, either point to point Ethernet services or point to multipoint fibre services can be installed.

The Infrastructure for fibre-optic Wireless CBDP Backhaul Connections and associated Rural Backhaul Connections will be designed to support Layer 2 services at 100 Mbps. These services will be based on the existing Telecom HSNS, but the technical architecture will be design to allow a move to a new Layer 2 service consistent with the Layer 2 service offering defined for UFB. The Infrastructure for non-fibre-optic Wireless CBDP Backhaul Connections (and associated Backhaul Connections) will be designed to support Layer 2 services of at least 10Mbps CIR and a peak rate of up to 100Mbps.

7 Community broadband

Community broadband will be provided by ADSL2+/VDSL2 technology located in existing Telecom exchanges, Whisper cabinets and new small 48 or 96 line cabinets (collectively, these are the Rural Cabinets as defined in this Agreement).

The new cabinet locations will be deployed along new and existing fibre routes, generally at the ends of spur roads. In up to 400 locations where fibre access is prohibitive, Ethernet DMR technology will be used to provide backhaul connection from small cabinets or radio sites.

Telecom has trialled VDSL2 and ADSL2+ technology in rural areas, and to meet the 5Mbps target will design cabinet locations such that 80% of rural households are within 4km of a DSLAM, which equates to up to 70dB attenuation at 1024kHz. Where sufficient copper is available to permit 2 pair bonding, this reach will be extended to 6km.

Up to 20% of the Zone 4 population are actually situated within 1km of exchange locations, and will receive very good VDSL2 performance. Customers located close to the exchange or new cabinets could see performance of 50Mbps or better.

Where new backhaul fibre routes are installed, distribution networks compatible with the UFB architecture will be planned, and distribution duct infrastructure will be installed while the fibre is deployed. Household connectivity to this fibre distribution will be the subject of subsequent broadband investment.

⁴ As per note 1 above.

⁵ Telecom may choose at its discretion to deploy service electronics for high bandwidth services at RPOPs rather than LBAPs but if it does so, it retains the ability to migrate the service electronics to the LBAP at a later date.

Schedule 2, Appendix E
Phase 2 Partnering Opportunities for investigation

[REDACTED]

[REDACTED]

[REDACTED]	[REDACTED]
[REDACTED]	[REDACTED]
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[REDACTED]	[REDACTED]

Schedule 3

Project Planning

7 Introduction

This Schedule sets out the process for preparation and approval of six-monthly plans defining in more detail the order and timeframes in which Telecom will carry out the Design and Build Services ("Detailed Plans"). Certain words and phrases used in this Schedule are defined in clause 15 below.

8 Overall Plan

As at the date of this Agreement, the initial timeframes for the Deployment of each Rural Link and Rural Cabinet are set out in the spreadsheets attached to Appendix A of Schedule 2. Those initial timeframes will be amended and updated from time to time in accordance with each Detailed Plan approved by the Ministry under this Schedule, and those timeframes as updated from time to time are referred to as the "Overall Plan".

9 Telecom to prepare Detailed Plan

Telecom will prepare a Detailed Plan for each Construction Period, in accordance with the timeframes and processes set out in this Schedule. Each Detailed Plan must:

- (a) identify the Rural Links and Rural Cabinets that Telecom will begin to Deploy during that Construction Period, and the Rural Links and Rural Cabinets which Telecom will finish Deploying during that Construction Period;
- (b) include a timetable setting out when Telecom will start and/or finish (as applicable) Deployment of those Rural Links and Rural Cabinets during that Construction Period, with timeframes in quarters for Rural Cabinets and in months for Rural Links;
- (c) set out any proposed changes to the then-current version of the Overall Plan, and except where the Parties agree otherwise, must provide for an overall rate of Deployment that meets or betters what is required under the Overall Plan;
- (d) include an estimate of the Grantable Costs that Telecom will need to incur in order to complete the Deployment of the Rural Links and Rural Cabinets covered by the Detailed Plan (with a separate estimate for each Rural Link and Rural Cabinet);and
- (e) include an outline of any partnerships or collaborations which Telecom proposes to utilise in order to carry out the Deployments covered by that Detailed Plan.

10 First Construction Period

- (a) Within 30 days of the date of this Agreement, Telecom will provide the Ministry with a Detailed Plan for the Construction Period commencing 1 July 2011.
- (b) Telecom and the Ministry will each take all steps within their power to ensure that Vodafone's plans for the deployment of Mobile Sites during that Construction Period are consistent with the plans for Deployment of Wireless CBDP Backhaul Connections set out in the Overall Plan. Without limiting the foregoing, Telecom will ensure that the plans for Deployment of Wireless CBDP Backhaul Connections set out in the Detailed Plan are consistent with Vodafone's plans for the deployment of Mobile Sites during that Construction Period, as advised by Vodafone prior to the date on which the Detailed Plan is provided to the Ministry, so long as Vodafone's plans are consistent with Appendix B of this Schedule.

- (c) The Ministry will approve the Detailed Plan prepared by Telecom within 10 Business Days of receipt, and notify Telecom in writing accordingly, so long as the Detailed Plan complies with the requirements of this clause 10, and is otherwise consistent with the Overall Plan.

11 Subsequent Construction Periods

- (a) **Telecom to prepare draft Detailed Plans**

For each Construction Period that commences on or after 1 January 2012, Telecom will prepare a draft Detailed Plan and, on or before the corresponding Release Date, Telecom will release that draft to the Ministry, Vodafone, Access Seekers and Stakeholders for review and comment.
- (b) **Telecom to consult**

During the Consultation Period, Telecom will seek feedback on the draft from Access Seekers and Stakeholders, including by presenting the draft at meetings of Regional Stakeholders held in accordance with Part 1 of Schedule 8, and at meetings of the National Advisory Committee held in accordance with Part 2 of Schedule 8.
- (c) **Telecom to incorporate feedback**

Within the Update Period, Telecom will update the order and timing of the Deployments set out in that draft Detailed Plan to reflect the feedback received during the Consultation Period from the Ministry, Vodafone, Access Seekers and Stakeholders, to the extent reasonably practicable and so long as this does not involve or result in an Adverse Change. Telecom will then provide an updated draft to the Ministry and Vodafone for review.
- (d) **Ministry changes**

At any time before the date 30 days prior to the Expected Publication Date, the Ministry may give written notice to Telecom requesting changes to the order and timing of the Deployments set out in that draft Detailed Plan, in which case:

 - (i) Telecom will not unreasonably refuse any such request from the Ministry, although to avoid doubt Telecom will be entitled to refuse any such request if it would involve or result in an Adverse Change; and
 - (ii) if Telecom does refuse the Ministry's request, Telecom will use reasonable endeavours to present the Ministry with one or more alternative changes that (as far as reasonably practicable) meet the underlying objectives of the Ministry's original request while avoiding any Adverse Change.
- (e) **Final review**

During the 30 days leading up to the Expected Publication Date, the Parties will review the updated Detailed Plan circulated by Telecom under sub-clause (c), and any subsequent changes requested by the Ministry in accordance with sub-clause (d), with a view to obtaining the Ministry's final approval of the Detailed Plan.
- (f) **Approval**

So long as the draft Detailed Plan meets the requirements of clauses 9 and 11 of this Schedule, the Ministry will approve each draft Detailed Plan not later than 10 days before the Expected Publication Date.
- (g) **Vodafone involvement**

The Ministry and Telecom agree that, as far as reasonably practicable, the process contemplated in this clause 11 will be co-ordinated with any equivalent process under the Vodafone RBI Agreement, with a view to ensuring that the preparation and approval of each Detailed Plan takes into account any impact on, or proposed changes to, the Vodafone Build.

- (h) ***Mobile Sites and Wireless CBDP Backhaul Connections***
The Ministry acknowledges that although the approval of a Detailed Plan will confirm the Wireless CBDP Backhaul Connections that are to be Deployed during the relevant Construction Period, the precise location of the associated Mobile Sites will not necessarily be finalised until 3 months before the start of that Construction Period ("**Mobile Site Confirmation Date**"). The Ministry acknowledges that, subject to Telecom's approval, Vodafone may relocate those Mobile Sites at any time up to the Mobile Site Confirmation Date, although a Change Request will be required for any change to the LBAP to which that Mobile Site is to be connected via the Deployment of a Wireless CBDP Backhaul Connection.
- (i) ***Rural Links to have priority***
Where Telecom resource constraints may result in delays against the overall rate of Deployment contemplated in the Overall Plan, in preparing each Detailed Plan Telecom will prioritise Rural Links over Rural Cabinets wherever reasonably practicable (although the Ministry acknowledges that in some cases a Rural Cabinet will form an integral part of the Infrastructure required to serve a Rural Link).

12 Expert Determination

- (a) If for any reason the Ministry has not approved a draft Detailed Plan within the initial period allowed for that purpose in clause 10 or clause 11(e) above (whichever applies), then Telecom may give notice to the Ministry referring the matter to be considered by the Senior Executive Group contemplated in Schedule 5, and the Parties will procure that the Senior Executive Group meets to consider that matter within 5 days of that referral.
- (b) If the matter has not been resolved within a 10 days of being referred to the Senior Executive Group, then Telecom may refer the matter to expert determination under clause 23.3 of this Agreement, in which case the expert will be asked to review the last draft of that Detailed Plan as submitted to the Ministry by Telecom, and to alter that draft to the minimum extent necessary to ensure that it meets the requirements for approval as set out in this Schedule.

13 Cabinetisation Notices

- (a) Following the date of this Agreement Telecom will give "Cabinetisation Notices" under the UCLL and/or SLUCLL Standard Terms Determinations ("**STDs**") in respect of all the Rural Cabinets contemplated in the Overall Plan.
- (b) Where those Cabinetisation Notices relate to one or more Rural Cabinets which Telecom proposes to Deploy during the first three Construction Periods, the Ministry acknowledges that if Access Seekers object to that Cabinetisation Notice under an STD, then Telecom will be obliged to defer the Deployment of those Rural Cabinets until after the first three Construction Periods.
- (c) Where the Ministry requests a change to the timeframes for the Deployment of any Rural Cabinet in respect of which Telecom has already given a Cabinetisation Notice under an STD, the Ministry acknowledges that Telecom will be obliged under the STD to issue an amended Cabinetisation Notice in respect of that change, and if Access Seekers object to that change under the STD, then Telecom will be prevented from implementing that change under this Agreement.
- (d) The circumstances described in sub-clauses (b) and (c) will be deemed to be No Fault Events. The Ministry will not withhold its approval of any aspects of a Detailed Plan (or any changes to a Detailed Plan) which are reasonably necessary to enable Telecom to comply with its obligations under the STDs.

14 Implementation

Once a draft Detailed Plan has been approved by the Ministry (or determined by an expert) pursuant to this Schedule:

- (a) Telecom will publish the Detailed Plan on the Chorus website, although Telecom may remove from that published version any information which it reasonably considers to be commercially sensitive, and provided that Telecom will not be obliged to publish any Detailed Plans on the Chorus website before 30 November 2011;
- (b) Telecom will carry out the Deployments covered by the Detailed Plan within the timeframes set out in that Detailed Plan, subject to and in accordance with the other provisions of this Agreement; and
- (c) the Overall Plan will be updated to reflect any changes approved by the Ministry as part of the Detailed Plan.

15 Defined Terms

In this Schedule, unless the context requires otherwise:

<i>Adverse Change</i>	means a change that would result in any of the outcomes listed in clause 8.3 of Schedule 5.
<i>Construction Period</i>	means each successive period of 6 months, commencing on 1 July and 1 January in each year, until there are no further Design and Build Services to be completed under this Agreement.
<i>Consultation Period</i>	in relation to a Construction Period and/or Detailed Plan, means the corresponding "Consultation Period" specified in Appendix A.
<i>Deploy</i>	has the meaning given in Schedule 2.
<i>Detailed Plan</i>	has the meaning given in clause 7 above.
<i>Expected Publication Date</i>	in relation to a Construction Period and/or Detailed Plan, means the corresponding "Release Date" specified in Appendix A.
<i>Overall Plan</i>	has the meaning given in clause 8 above.
<i>Release Date</i>	in relation to a Construction Period and/or Detailed Plan, means the corresponding "Release Date" specified in Appendix A.
<i>Stakeholders</i>	means Regional Stakeholders and National Stakeholders, in each case to the extent they participate in the consultation processes contemplated in Schedule 8.
<i>Update Period</i>	in relation to a Construction Period and/or Detailed Plan, means the corresponding "Update Period" specified in Appendix A.
<i>Vodafone Build</i>	has the meaning given in Schedule 4.

Schedule 3, Appendix A
Timetable for preparing and consulting on Detailed Plans

Construction Period	Release Date for draft Detailed Plan	Consultation Period	Update Period	Expected Publication Date
1 January 2012 to 30 June 2012	1 April 2011 (or, if later, 30 days after the date of this Agreement)	Starts on Release Date Ends 1 June 2011	15 days following the end of the Consultation Period	1 July 2011
1 July 2012 to 31 December 2012	1 April 2011 (or, if later, 30 days after the date of this Agreement)	Starts on Release Date Ends on 1 July 2011	30 days following the end of the Consultation Period	1 October 2011
1 January 2013 to 30 June 2013	1 October 2011	Starts on Release Date Ends on 1 January 2012	30 days following the end of the Consultation Period	1 April 2012
1 July 2013 to 31 December 2013	1 April 2012	Starts on Release Date Ends on 1 July 2012	30 days following the end of the Consultation Period	1 October 2012
1 January 2014 to 30 June 2014	1 October 2012	Starts on Release Date Ends on 1 January 2013	30 days following the end of the Consultation Period	1 April 2013
1 July 2014 to 31 December 2014	1 April 2013	Starts on Release Date Ends on 1 July 2013	30 days following the end of the Consultation Period	1 October 2013
1 January 2015 to 30 June 2015	1 October 2013	Starts on Release Date Ends on 1 January 2014	30 days following the end of the Consultation Period	1 April 2014
1 July 2015 to 31 December 2015	1 April 2014	Starts on Release Date Ends on 1 July 2014	30 days following the end of the Consultation Period	1 October 2014
1 January 2016 to 30 June 2016	1 October 2014	Starts on Release Date Ends on 1 January 2015	30 days following the end of the Consultation Period	1 April 2015
Each subsequent Construction Period (if any)	15 months before Construction Period begins	Starts on Release Date Ends on date 12 months before Construction Period begins	30 days following the end of the Consultation Period	9 months before Construction Period begins

Schedule 3, Appendix B
Initial allocation of Mobile Sites to Construction Periods

Construction Year	Construction Period	Mobile Sites eligible for Deployment of an RBI Link
1	1 July 2011 to 31 December 2011	Up to 12 of the 21 Mobile Sites listed as eligible for Deployment in Construction Year 1 in the spreadsheet attached to Appendix A of Schedule 2, excluding the following Mobile Sites: 64030521 Mt Prospect 64031316 Stewart Island 64031320 Takaka NW 64040581 Marton Central 64041321 Riversdale Beach 64090549 Eureka 64091307 Kingseat 64091309 Claris 64091310 Puketaha
	1 January 2012 to 30 June 2012	Up to 12 of the 21 Mobile Sites listed as eligible for Deployment in Construction Year 1 in the spreadsheet attached to Appendix A of Schedule 2.
2	1 July 2012 to 31 December 2012	Up to 27 of the 45 Mobile Sites listed as eligible for Deployment in Construction Year 2 in the spreadsheet attached to Appendix A of Schedule 2.
	1 January 2013 to 30 June 2013	Up to 27 of the 45 Mobile Sites listed as eligible for Deployment in Construction Year 2 in the spreadsheet attached to Appendix A of Schedule 2.
3	1 July 2013 to 31 December 2013	Up to 31 of the 52 Mobile Sites listed as eligible for Deployment in Construction Year 3 in the spreadsheet attached to Appendix A of Schedule 2.
	1 January 2014 to 30 June 2014	Up to 31 of the 52 Mobile Sites listed as eligible for Deployment in Construction Year 3 in the spreadsheet attached to Appendix A of Schedule 2.
4	1 July 2014 to 31 December 2014	Up to 20 of the 34 Mobile Sites listed as eligible for Deployment in Construction Year 4 in the spreadsheet attached to Appendix A of Schedule 2.
	1 January 2015 to 30 June 2015	Up to 20 of the 34 Mobile Sites listed as eligible for Deployment in Construction Year 4 in the spreadsheet attached to Appendix A of Schedule 2.
5	1 July 2015 to 31 December 2015	1 of the 2 Mobile Sites listed as eligible for Deployment in Construction Year 5 in the spreadsheet attached to Appendix A of Schedule 2.
	1 January 2016 to 30 June 2016	1 of the 2 Mobile Sites listed as eligible for Deployment in Construction Year 5 in the spreadsheet attached to Appendix A of Schedule 2.

Schedule 3, Appendix C Mobile Site Preparation Activities

Deployment of each Wireless CBDP Backhaul Connections is contingent on Vodafone successfully completing the following activities, and confirming the same to Telecom in writing, in each case not later than the "Mobile Site Confirmation Date" as defined in clause 5(h) of this Schedule.

- 1 Acquisition of such rights, easements, approvals or consents as may be reasonably required from any person that holds or controls any rights in respect of the land on which the Mobile Site is located and/or the land needed for the final segment of the Wireless CBDP Backhaul Connection between the Mobile Site and the road reserve in which Telecom is to Deploy the remainder of the Wireless CBDP Backhaul Connection (*Relevant Land*):
 - (a) as necessary to enable Telecom to install and maintain fibre cables on the Relevant Land and ancillary Telecom equipment at each Mobile Site;
 - (b) on terms that comply with good industry practice in the telecommunications industry, and are reasonably suitable for allowing Telecom to install and maintain the Infrastructure in accordance with this Agreement (including carrying out any requisite upgrades or replacements), for at least the periods contemplated by this Agreement; and
 - (c) in a form that may be enforced by Telecom, either directly in its own name, in the joint names of Telecom and Vodafone, or through an enforceable commitment from Vodafone in Telecom's favour undertaking to enforce those Access Rights as and when reasonably required by Telecom for the purposes above.

- 2 Provision to Telecom of confirmed site plans for the proposed facilities at the Mobile Site, to a level of detail reasonably required by Telecom (in accordance with good industry practice in the telecommunications industry) in order to install a termination point at the Mobile Site, and complete the segment of the Wireless CBDP Backhaul Connection from the boundary of the Mobile Site to that termination point.

Schedule 4

Payment Schedule and Process

16 Introduction

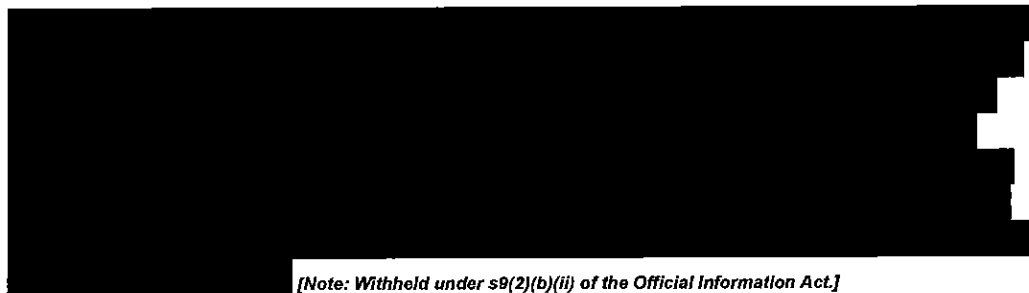
This Schedule 4 sets out the terms on which Telecom may claim, and the Ministry will pay, the Grant for the performance of the Design and Build Services. Certain words and phrases used in this Schedule 4 are defined in clause 30 below.

17 Grant

The Ministry will pay Telecom one dollar of funding (plus GST, if any) for each dollar of Grantable Costs incurred by Telecom in the course of its activities in connection with this Agreement, subject to and in accordance with the provisions of this Schedule 4.

18 Maximum Funding Limit

The Grant will never exceed the Maximum Funding Limit.



[Note: Withheld under s9(2)(b)(ii) of the Official Information Act.]

20 Annual Drawdown Limits

Unless the Ministry agrees otherwise, the total of all Grant amounts covered by all Payment Claims submitted during the period up to the end of any Construction Year will never exceed the "Revised Cumulative Payment Limit" for that Construction Year, as set out in the table below.

Construction Year	Revised Cumulative Payment Limits (excl GST)	FOR INFORMATION ONLY			
		Original Cumulative Payment Limit (excl GST), before RBI Phase 2	Annual Incremental Increase for RBI Phase 2 (excl GST)	Annual Increment for RBI Phase 1 and Phase 2 (excl GST)	Revised cumulative estimate of Grantable Costs (excl GST)
1	\$71,053,000	\$71,053,000	\$0	\$71,053,000	\$56,000,000
2	\$149,173,300**	\$145,263,000	\$3,910,300**	\$78,073,300**	\$123,910,300**
3	\$187,873,700**	\$178,421,000	\$5,542,400**	\$38,700,400**	\$194,452,700**
4	\$221,066,700**	\$211,579,000	\$35,000**	\$33,193,000**	\$234,467,700**

Construction Year	Revised Cumulative Payment Limits (excl GST)	FOR INFORMATION ONLY			
		Original Cumulative Payment Limit (excl GST), before RBI Phase 2	Annual incremental increase for RBI Phase 2 (excl GST)	Annual Increment for RBI Phase 1 and Phase 2 (excl GST)	Revised cumulative estimate of Grantable Costs (excl GST)
5	Maximum Funding Limit	Maximum Funding Limit	\$0 plus Additional Allocation (if any)**	\$13,421,000 plus Additional Allocation (if any)**	\$247,487,700**
6	Maximum Funding Limit	Maximum Funding Limit	\$0 plus Additional Allocation (if any)**	\$0 plus Additional Allocation (if any)**	\$247,487,700**

** Plus each additional amount of Incremental Grantable Costs specified in a Change Request for Deployment of a Library Connection approved by the Ministry in accordance with clause 6B(f) of Schedule 2 and the provisions of Schedule 5.

5A Maximum Library funding

Unless the Ministry agrees otherwise, the total of all Incremental Grantable Costs added to the Initial Allocation in accordance with clause 6B(f) of Schedule 2 shall not exceed \$2,164,700 plus GST. The parties acknowledge that this does not include Grantable Costs for Deployment of Library Break Out Points, which Chorus will be entitled to claim (subject to the other provisions of this Schedule 4) as Grantable Costs for the associated School Connection (as contemplated in clause 5B of Schedule 2), subject to and in accordance with the other provisions of this Schedule 4.

21 Grantable Costs

- (a) The Grantable Costs comprise all capital expenditure that Telecom attributes to the Grantable Assets, as and when that capital expenditure is accounted for by Telecom in accordance with IFRS and Telecom's usual accounting policies and practices, subject to the other provisions of this clause 6.
- (b) In calculating the Grantable Costs, Telecom will capitalise internal labour at the same labour rates used by Telecom for self-funded capital projects.
- (c) The Grantable Costs exclude any product development costs or interest costs.
- (d) The Grantable Costs exclude any capital expenditure that is solely attributable to Non-Grantable Assets.
- (e) Where capital expenditure attributable to Grantable Assets is also partly attributable to Non-Grantable Assets (for example, where the expenditure is incurred in planning, design or installation activities that relate to both Grantable Assets and Non-Grantable Assets), Telecom will allocate that expenditure between the Grantable Assets and Non-Grantable Assets in proportions reasonably determined by Telecom (as far as possible in accordance with IFRS and Telecom's usual accounting policies and practices), and the Grantable Costs will exclude the portion of the expenditure so allocated to any Non-Grantable Assets.

22 Payment Milestones

As work progresses on each Rural Link and Rural Cabinet, Telecom will be entitled to claim payment for the Grantable Costs attributable to that work, whenever it completes one of the following milestones ("**Payment Milestones**"), as applicable in the context of each Rural Link or Rural Cabinet:

Type of Rural Link / Rural Cabinet	Payment Milestones
School Connection	<p>Payment Milestone 1 Completed Deployment of the relevant Layer 1 Infrastructure between the LBAP and the School, in the form of fibre or DMR. Layer 1 commissioning tests confirm fibre/DMR connectivity from LBAP to termination point at boundary of School site. This does not include Deployment of School Lead-in.</p>
Hospital Connection	<p>Payment Milestone 1 Completed Deployment of the relevant Layer 1 Infrastructure between the LBAP and the Hospital or Integrated Family Health Centre (as the case may be), in the form of fibre. Layer 1 Commissioning tests confirm fibre connectivity from LBAP to termination point at boundary of the Hospital or Integrated Family Health Centre site, as the case may be.</p>
Wireless CBDP Backhaul Connection	<p>Payment Milestone 1 Completed Deployment of the relevant Layer 1 Infrastructure between the LBAP and the Mobile Site, in the form of fibre or DMR. Layer 1 commissioning tests confirm fibre/DMR connectivity from LBAP to termination point at Mobile Site.</p>
Fixed Line CBDP Cabinet	<p>Payment Milestone 1 Completed Deployment of the relevant Layer 1 Infrastructure between the LBAP and the Fixed Line CBDP Cabinet, in the form of fibre or DMR. Layer 1 commissioning tests confirm fibre/DMR connectivity from LBAP to termination point at Fixed Line CBDP Cabinet.</p> <p>Payment Milestone 2 Completed installation of Fixed Line CBDP Cabinet, including installation/replacement of DSL equipment as necessary to meet Infrastructure Specifications (i.e. DSL equipment in cabinet and ready for service but not necessarily cut-over to handling live traffic).</p>

Type of Rural Link / Rural Cabinet	Payment Milestones
Rural Backhaul Connection	<p>Payment Milestone 1</p> <p>Completed Deployment of the relevant Layer 1 Infrastructure between any two LBAPs along the route of a Rural Backhaul Connection, or between an LBAP and an RPOP along the route of a Rural Backhaul connection, in the form of fibre or DMR. Layer 1 commissioning tests confirm fibre/DMR connectivity between those two points.</p> <p>Payment Milestone 2</p> <p>Completed Deployment of:</p> <ul style="list-style-type: none"> • the relevant Layer 1 Infrastructure between the LBAP and the RPOP, in the form of fibre or DMR, with Layer 1 commissioning tests confirming fibre/DMR connectivity from LBAP to termination point at RPOP; and • the relevant Layer2 Infrastructure ready to provide end-to-end service along the route between the LBAP and the RPOP (i.e. ready for service but not necessarily cut-over to handling live traffic).
Library Connections	<p>Payment Milestone 1</p> <p>Completed Deployment of the relevant Layer 1 Infrastructure between the Library Break Out Point and/or the LBAP, as the case may be, and the Library, in the form of fibre. Layer commissioning tests confirm fibre connectivity from the Library Break Out Point and/or LBAP (as the case may be) to the termination point at the boundary of the Library site.</p>

23 Payment Claims

- (a) The Ministry will not be required to pay Grant funding other than on the basis of valid Payment Claims submitted by Telecom in accordance with this Schedule 4.
- (b) Telecom may submit a Payment Claim at any time after completing a Payment Milestone in relation to any Rural Link or Rural Cabinet. Telecom need not submit a separate Payment Claim for every Payment Milestone, and may combine two or more Payment Milestones into a single Payment Claim.
- (c) Each Payment Claim will cover all Grantable Costs incurred in connection with the completion of the relevant Payment Milestones.
- (d) Each Payment Claim must include an invoice for the full amount of the Payment Claim, together with a Schedule of Completion for the relevant Payment Milestones.
- (e) The Ministry will pay each invoice issued in accordance with this clause 23, within 10 working days of receipt.
- (f) Telecom acknowledges that the Ministry may employ one or more individuals to review and assess any and all Payment Claim documentation submitted to the Ministry by Telecom from time to time.
- (g) Following the end of each calendar month Telecom will provide the Ministry with an electronic extract of data from each Schedule of Completion submitted during that month, in a consistent CSV format, with each of the fields set out in Appendix A.

24 Progress Reporting

Telecom will supply the Ministry with a monthly report on the progress of the Design and Build Services against the Detailed Plans, and against the overall rates of progress required under the Overall Plan, to a level of detail comparable to that of similar reports normally presented to Telecom's Chief Executive, and in a consistent PDF format. This monthly report will include:

- (a) an executive summary;
- (b) a dashboard covering performance and risks, including the metrics listed in sub-clause (c) below, showing progress for the relevant month, under the current Detailed Plan, and under the Overall Plan;
- (c) key volume measures, showing:
 - (i) no. of Rural Cabinets Deployed
 - (ii) no. of School Connections Deployed (with or without School Lead-ins)
 - (iii) no. of School Lead-ins Deployed
 - (iv) no. of Hospital Connections Deployed
 - (v) no. of Wireless CBDP Backhaul Connections Deployed
 - (vi) kilometres of new fibre laid on Rural Backhaul Connections
 - (vii) no. of Rural Backhaul Connections upgraded; and
- (d) a summary of progress against Estimates.

25 On-Site Verification

- (a) Telecom will ensure that its internal processes for verifying the completion of each Milestone are consistent with best industry practice, and include verification through: (i) photographic or GPS evidence; (ii) visibility of the relevant network elements through network management systems; and/or (iii) OTDR traces.
- (b) If requested by the Ministry, Telecom will promptly provide the Ministry with copies of the Watch Forms completed by Telecom subcontractors in relation to each completed Rural Link and Rural Cabinet.
- (c) If required by the Ministry, during the 40 Business Days following completion of each Section, Telecom will co-operate with the Ministry to allow an independent engineer appointed by the Ministry to conduct sample site visits and inspections of the Rural Links and Rural Cabinets in that Detailed Plan, and review the tender documents, contract specifications and completion documentation for work carried out on those Rural Links and Rural Cabinets by Telecom subcontractors, for the purpose of satisfying the Ministry that Telecom has completed the Deployment of those Rural Cabinets and Rural Links in accordance with this Agreement.
- (d) The Ministry will ensure that each engineer appointed under sub-clause (c) complies with all reasonable security and/or HSE policies (as notified by Telecom in writing from time to time) which apply to any Telecom site or premises which the engineer visits in the course of carrying out his or her functions under this sub-clause (c).

26 Annual Audits

- (a) If requested by the Ministry in writing, Telecom will arrange for its own auditors to carry out an annual audit of Telecom's processes for tracking and accounting for Grantable Costs, confirming completion of Milestones, and preparing Payment Claims, Certificates of Completion and Watch Forms.
- (b) The purpose of this audit will be to verify that these processes are robust, consistently applied, and reasonably suitable for their intended purposes.
- (c) This audit will be carried out at Telecom's cost. To avoid doubt, this audit will not be regarded as an audit initiated by the Ministry under clause 11 of this Agreement.
- (d) Telecom will supply the Ministry with a copy of the final report produced by Telecom's auditors, subject to the redaction of any Sensitive Information (which may be reviewed for the Ministry in accordance with clause 11.9 of this Agreement).

27 Section Audits

- (a) If requested by the Ministry in writing, following the completion of each Section, Telecom will arrange for its own auditors to carry out an audit to confirm that the Certificates of Completion, Watch Forms and Payment Claims for that Section were all in order and in accordance with this Agreement.
- (b) The Ministry will pay any audit fees reasonably incurred by Telecom in relation to this audit. To avoid doubt, this audit will not be regarded as an audit initiated by the Ministry under clause 11 of this Agreement.
- (c) Telecom will supply the Ministry with a copy of the final audit report produced by Telecom's auditors, subject to the redaction of any Sensitive Information (which may be reviewed for the Ministry in accordance with clause 11.9 of this Agreement).

28 Community Collaboration Savings

- (a) Following the completion of each Section, Telecom will review its records to identify whether it has achieved any savings against the total of the Estimates for that Section, and what portion (if any) of those savings was directly attributable to a Community Collaboration ("**Community Savings**").
- (b) Where this results in the identification of Community Savings, Telecom will endeavour in good faith to identify possible additions to the Infrastructure in each Region that could be carried out through an addition to the Design and Build Services and funded from Community Savings achieved on Rural Links and/or Rural Cabinets in that same Region ("**Regional Extension Projects**").
- (c) Where Telecom identifies one or more potentially viable Regional Extension Projects:
 - (i) Telecom will consult on those projects through the next scheduled meeting of Regional Stakeholders under Part 1 of Schedule 8;
 - (ii) Telecom will consider in good faith any feedback obtained through those consultations, and will then prepare a Change Request to the Ministry seeking to incorporate one or more of those Regional Extension Projects as part of the Design and Build Services under this Agreement;

- (iii) Telecom will not be required to pursue any Regional Extension Projects which Telecom (acting in good faith) considers would:
 - (A) require Telecom to incur capital expenditure that cannot be recovered as Grantable Costs paid out of the Community Savings; and/or
 - (B) involve construction of Infrastructure where maintaining that Infrastructure and/or making Rural Telecommunications Services Available over that Infrastructure (in each case, as required by this Agreement) would be uneconomic for Telecom.
- (d) Telecom acknowledges that the Vodafone RBI Agreement includes provisions equivalent to this clause 28. Telecom will use reasonable endeavours to ensure that its proposals in relation to Community Savings and Regional Extension Projects are developed and presented to the Ministry in co-ordination with any equivalent projects identified by Vodafone using equivalent savings under the Vodafone RBI Agreement.

29 Surplus Funding

- (a) If following the completion of the Design and Build Services and the Vodafone Build there is a Telecom Shortfall and a Vodafone Surplus, then the funding represented by the Vodafone Surplus will be added to the Maximum Funding Limit, so that Telecom may claim additional Grant funding in accordance with this Agreement to cover the Telecom Shortfall.
- (b) If at the completion of the Design and Build Services and the Vodafone Build there is a Vodafone Shortfall and a Telecom Surplus, then Telecom acknowledges that the Ministry may reallocate the funding represented by the Telecom Surplus so that it is available to Vodafone to cover the Vodafone Costs.
- (c) If at the completion of the Design and Build Services and the Vodafone Build:
 - (i) there is a Telecom Surplus and a Vodafone Surplus; or
 - (ii) a portion of the funding represented by a Vodafone Surplus is not required in order to cover a Telecom Shortfall under sub-clause (a); or
 - (iii) a portion of the funding represented by a Telecom Surplus is not required in order to cover a Vodafone Shortfall under sub-clause (b),(in each case, a "**Surplus**") then, as soon as reasonably practicable:
 - (iv) the Ministry will issue a notice to Telecom and Vodafone seeking proposals on additional broadband infrastructure projects which Telecom and/or Vodafone could undertake in order to utilise the Surplus in furtherance of the Rural Broadband Objectives ("**Surplus Projects**");
 - (v) the Ministry will consult with Telecom and Vodafone on its goals and priorities for Surplus Projects, and will then provide Telecom and Vodafone with a period of not less than 30 Business Days in which they will each have the opportunity to prepare and submit proposals for Surplus Projects ("**Submission Period**");

- (vi) during the Submission Period, Telecom may submit its proposals for Surplus Projects in the form of one or more Change Requests, which seek (A) to incorporate those Surplus Projects as part of the Design and Build Services under this Agreement, and (B) to add some or all of the Surplus to the Maximum Funding Limit so that Telecom may claim additional Grant funding in accordance with this Agreement, so as to cover the Grantable Costs that would arise in the performance of the Surplus Projects;
- (vii) the Ministry will consider any such Change Requests in accordance with the Change Procedure, and will consider any Surplus Projects proposed by Vodafone during the Submission Period in accordance with the equivalent procedure in the Vodafone RBI Agreement; and
- (viii) the Ministry will consider in good faith each of the Change Requests submitted by Telecom under this clause 13, although Telecom acknowledges that in considering the Surplus Projects proposed by Vodafone and Telecom, the Ministry:
 - (A) will aim to select the Surplus Projects which the Ministry considers offer the best value for money in furtherance of the Rural Broadband Objectives;
 - (B) all else being equal, will aim to favour Surplus Projects proposed by the Party that created the associated Surplus (recognising the positive incentives this creates for Telecom and Vodafone); and
 - (C) need not select any Surplus Project which the Ministry considers does not offer good value for money in the furtherance of the Rural Broadband Objectives.
- (d) The Ministry will ensure that Telecom and Vodafone are each afforded a fair and equal opportunity to participate in the process described in this clause 28.
- (e) Unless the Ministry, Telecom and Vodafone agree otherwise in writing, the Ministry will ensure that any Surplus Projects agreed with Vodafone consist of additional deployments of the same classes of infrastructure and services as the Vodafone Build, and that any Surpluses allocated to Surplus Projects proposed by Vodafone will be payable only in respect of Vodafone Costs.
- (f) Telecom acknowledges that unless the Ministry, Telecom and Vodafone agree otherwise in writing, any Surplus Projects proposed by Telecom must consist of additional deployments of the same classes of infrastructure and services as the Infrastructure and the Design and Build Services, and that any Surpluses allocated to Surplus Projects proposed by Telecom will be payable only in respect of Grantable Costs.

30 Defined Terms

In this Schedule 4, unless the context requires otherwise:

Additional Allocation means any additional funding allocated to the Maximum Funding Limit under clause 29(a) of this Schedule.

<i>Community Collaboration</i>	means a collaboration agreed between Telecom and a Community Group pursuant to Schedule 8, in which the Community Group assists Telecom in Deploying one or more Rural Links or Rural Cabinets serving the area represented by that Community Group, through: <ul style="list-style-type: none"> (a) making a financial contribution to Telecom's costs of Deployment; (b) transferring to Telecom existing telecommunications infrastructure suitable for incorporation into that Rural Link or Rural Cabinet; and/or (c) performing work that Telecom would otherwise need to perform as part of Deployment (e.g. trenching).
<i>Community Group</i>	means: (a) local authorities; and (b) not-for-profit organisations (including economic development agencies, Iwi and other Maori entities, and community associations representing end users).
<i>Deploy and Deployment</i>	have the meanings given in Schedule 2.
<i>Detailed Plan</i>	has the meaning given in Schedule 3.
<i>Estimates</i>	means the estimates of the Grantable Costs required for the Deployment of each Rural Link and Rural Cabinet, as set out in the applicable Detailed Plan approved by the Ministry in accordance with Schedule 3.
<i>Grant</i>	means funding amounts payable to Telecom by the Ministry, subject to and in accordance with this Schedule 4.
<i>Grantable Assets</i>	has the meaning given in Schedule 2.
<i>Grantable Costs</i>	means the "Grantable Costs" as described in clause 6 of this Schedule
<i>Incremental Grantable Costs</i>	means Grantable Costs attributable to Library Connection Grantable Assets set out in clause 5, Schedule 2, but excludes Grantable Costs attributable to any Library Break Out Point.

<i>Initial Allocation</i>	means:
	(a) \$225,000,000 plus GST (being the initial allocation as originally included in this Agreement); plus
	(b) \$9,487,700 plus GST (being an increase to the initial allocation effected by an amendment agreement for Phase 2 of the RBI); plus
	(c) each additional amount of Incremental Grantable Costs specified in a Change Request for Deployment of a Library Connection approved by the Ministry in accordance with clause 6B(f) of Schedule 2.
<i>Maximum Funding Limit</i>	means the Initial Allocation plus the Additional Allocation (if any).
<i>Non-Grantable Assets</i>	has the meaning given in Schedule 2.
<i>Region</i>	means Northland, Auckland, Waikato, Bay of Plenty, Gisborne-East Coast, Hawke's Bay, Taranaki, Manawatu-Wanganui, Wairarapa-Wellington, Nelson-Marlborough, West Coast, North and Mid Canterbury, South Canterbury, Otago and Southland.
<i>Schedule of Completion</i>	means a schedule in the form attached as Appendix A to this Schedule.
<i>Section</i>	means all the Deployments to be completed under a particular Detailed Plan.
<i>Telecom Shortfall</i>	means that Telecom's total Grantable Costs incurred in the completion of the Design and Build Services are greater than the Initial Allocation.
<i>Telecom Surplus</i>	means that Telecom's total Grantable Costs incurred in the completion of the Design and Build Services are less than the Initial Allocation.
<i>Vodafone Build</i>	means the infrastructure to be deployed by Vodafone pursuant to the Vodafone RBI Agreement, as amended by Vodafone and the Ministry from time to time, but excluding any infrastructure to be deployed by Vodafone over and above what is required to meet the overall coverage and performance targets contemplated in the Vodafone RBI Agreement as at the date of this Agreement.
<i>Vodafone Costs</i>	means the capital expenditure incurred by Vodafone in the performance of its obligations under the Vodafone RBI Agreement, to the extent that Vodafone is entitled to recover such expenditure in the form of grant funding from the Ministry under the Vodafone RBI Agreement.
<i>Vodafone Shortfall</i>	means that the total Vodafone Costs are greater than \$60,000,000 plus GST.

Vodafone Surplus

means that the total Vodafone Costs are less than \$60,000,000 plus GST.

Watch Form

means a document completed by a Telecom subcontractor in the form attached as Appendix B to this Schedule.

Schedule 4, Appendix A Schedule of Completion

Site Name	Site Code	Link Details	Service Available Date	Certified By	Estimate of Grantable Costs	Actual Grantable Costs
[School Name]	[####]	[]	[date]	[technician name]	\$[]	\$[]
[School Name]	[####]	[]	[date]	[technician name]	\$[]	\$[]
[Hospital Name]	[####]	[]	[date]	[technician name]	\$[]	\$[]
[Cabinet #]	[####]	[]	[date]	[technician name]	\$[]	\$[]

Schedule 4, Appendix B Watch Form

WORK ASSIGNMENT TO COMPLETION & HANDOVER LOCAL ACCESS



WORKS TITLE: Project Name

Works Manager (S/c person accountable for works outcome)

SC Works Manager: name	Project ID Number:
SC Project ID Number	Contract or PO:
Other (add as reqd)	Other (add as reqd)

Milestone Dates

Rqd	Actual	Record	Rqd	Actual	Record
<input checked="" type="checkbox"/>	dd/mm/yy	Due Date Completion	<input checked="" type="checkbox"/>	dd/mm/yy	Ready For Service Date (RFS)
<input checked="" type="checkbox"/>	dd/mm/yy	DDC Actual	<input checked="" type="checkbox"/>	dd/mm/yy	RFS Actual
<input checked="" type="checkbox"/>	dd/mm/yy	Build works avail. Date	<input checked="" type="checkbox"/>	dd/mm/yy	Commissioning Date
<input checked="" type="checkbox"/>	dd/mm/yy	Consigned Equipment Delivery Date: Notified to Telecom upon receipt			

Graphical Records

Rqd	Actnd	Record	Rqd	Actnd	Record
<input type="checkbox"/>	<input type="checkbox"/>	Underground Plan (UCP)	<input type="checkbox"/>	<input type="checkbox"/>	FOG Plan (FOG)
<input type="checkbox"/>	<input type="checkbox"/>	NetMAP	<input type="checkbox"/>	<input type="checkbox"/>	Inside Plant drawings
<input type="checkbox"/>	<input type="checkbox"/>	Cabinet Earthing on UCP	<input type="checkbox"/>	<input type="checkbox"/>	Other (add as required)

Documentation

<input type="checkbox"/>	<input type="checkbox"/>	Electrical compliance Certs.	<input type="checkbox"/>	<input type="checkbox"/>	Street Opening & Completion Certs.
<input type="checkbox"/>	<input type="checkbox"/>	Commissioning Forms	<input type="checkbox"/>	<input type="checkbox"/>	Traffic Management plan approval
<input type="checkbox"/>	<input type="checkbox"/>	NMR move/add/change forms	<input type="checkbox"/>	<input type="checkbox"/>	Earth Design & DC resistance readings
<input type="checkbox"/>	<input type="checkbox"/>	Other, Add as required	<input type="checkbox"/>	<input type="checkbox"/>	Rehabilitation Forms (Access Renewal)
<input type="checkbox"/>	<input type="checkbox"/>	Other, Add as required	<input type="checkbox"/>	<input type="checkbox"/>	Fire/Smoke Stopping/Penetrations Certified with Producer Statement
<input type="checkbox"/>	<input type="checkbox"/>	RMA approval (Local Authority)	<input type="checkbox"/>	<input type="checkbox"/>	Laser Safety NDF53 to Customer with OLTE
CPA Ref #	CPA ref no. here		CNA Ref #	CNA ref no. here	

Database Updates

<input type="checkbox"/>	<input type="checkbox"/>	2 Meg records (Spanline)	<input type="checkbox"/>	<input type="checkbox"/>	Logical Network records
<input type="checkbox"/>	<input type="checkbox"/>	Cellular / Paging	<input type="checkbox"/>	<input type="checkbox"/>	Site Code/Site Alarms
<input type="checkbox"/>	<input type="checkbox"/>	WMS Scheduler	<input type="checkbox"/>	<input type="checkbox"/>	Other (add as required)

TLRD/NETMAP Bearer Designations

(Record all actual Bearer Designations e.g. TG-WN 16SOT100)

Add as required	Add as required
Add as required	Add as required

Proactivity & Health & Safety

Rqd	Actnd	Detail
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Work Plan approved for use. PTN Accreditation confirmed for this project
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Equipment spares recorded at correct location via SRM, confirmation attached
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Training needs and test/maintenance equipment actioned
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Project files and documents required for Asset maintenance provided
<input checked="" type="checkbox"/>	<input type="checkbox"/>	ALL Sub-Contractor permits, and F.R.E . request ID's copied to Project Mgr

Equipment Relinquishments &/or Site Decommissioning

SC to provide information, Deployment to notify Internal Business Partners

Rqd	Actnd	
<input type="checkbox"/>	<input type="checkbox"/>	Provide NetSOC code and detail of any equipment removed from a site
<input type="checkbox"/>	<input type="checkbox"/>	Provide NetSOC code and detail on any site that is decommissioned

Handover

Service Company Handover (To Telecom Works Manager)	
Outstanding Activities QA-NCR & Variations:	Not applicable <input type="checkbox"/> Details Attached <input type="checkbox"/>
Completion of Works on behalf of Service Co: (S/C person authorised to approve)	Date
Telecom Acceptance of Work (E-mailed to Service Company as receipt)	
Acceptance of Works on behalf of Telecom: (Telecom person authorised to accept)	Date

Schedule 5

Change Procedure

31 Definitions

Unless the context otherwise requires:

"**Change**" has the meaning given to it in clause 2.1;

"**Change Authorisation Agreement**" has the meaning given to it in clause 2.2;

"**Change Impact Statement**" has the meaning given to it in clause 4.1;

"**Change Control Group**" means the group formed in accordance with clause 10 that has the roles and responsibilities set out in clause 10; and

"**Senior Executive Group**" means the group formed in accordance with clause 11 that has the roles and responsibilities set out in clause 11.

32 Application of process

32.1 The Parties will comply with the Change Procedure set out in this Schedule for all changes to the Agreement requested by a Party (a "**Change**") (unless another mechanism is expressly set out in this Agreement for a specific type of change) including:

- (a) changes to the scope of the Design and Build Services, the Infrastructure, the Overall Plan, or the Rural Telecommunications Services;
- (b) changes to any Detailed Plan(s) approved by the Ministry under Schedule 3; and
- (c) changes required to accommodate the impact of a No Fault Event, and/or a Force Majeure Event.

32.2 No Change will be effective unless and until the details of the Change, the associated Change Impact Statement, and the terms on which the Change will be implemented, have been incorporated into a written memorandum signed by both Parties, (in each case a "**Change Authorisation Agreement**".)

32.3 Changes to the sequencing and timing of a draft Detailed Plan that has not yet been approved by the Ministry under Schedule 3 are to be dealt with under Schedule 3, during the Consultation Period or Update Period for that Detailed Plan, rather than by this Change Procedure.

33 Submission of Change Requests

33.1 Either the Ministry or Telecom may, at any time, request a Change by submitting to the other Party a written change request (substantially in the form to be agreed between the Parties) that describes the Change and the reasons for it (a "**Change Request**").

33.2 Where:

- (a) Telecom believes that a Change proposed by Telecom or the Ministry will, or is likely to, impact on the Vodafone RBI Agreement, or on any aspect of the Deployment of a Wireless CDBP Backhaul Connection and/or its associated Rural Backhaul Connection; or
- (b) the Ministry believes that a Change proposed by Telecom or the Ministry will, or is likely to, impact on the Vodafone RBI Agreement, on any aspect of the Deployment of a Wireless

CDBP Backhaul Connection and/or its associated Rural Backhaul Connection (in which case the Ministry will notify Telecom of that belief setting out such detail as is needed to enable Telecom to fulfil its obligations under clause 3.2(c) below),

when preparing the Change Impact Statement under clause 4:

- (c) Telecom will use all reasonable endeavours to engage with Vodafone, to make Vodafone aware of the proposed Change and to reflect (to the extent reasonably appropriate) all relevant issues and changes across the Vodafone RBI Agreement and this Agreement in the Change Impact Statement. Without limiting clause 5, such Change Impact Statement must take into account to the extent reasonably appropriate the results of Telecom's engagement with Vodafone; and
- (d) the Parties will use all reasonable endeavours to include Vodafone in the Change Control Group and the Senior Executive Group and to otherwise have Vodafone follow the processes set out in clause 12.

33.3 Where Telecom receives a request from Vodafone to consider the impact or likely impact on this Agreement of a proposed change to the Vodafone RBI Agreement, Telecom will use all reasonable endeavours to:

- (a) promptly provide Vodafone with all information reasonably required by Vodafone in respect of the likely impact that the change to the RBI Agreement might have on this Agreement and provide Vodafone with all information that Telecom would have included in a Change Impact Statement had that change been a Change Request made by the Ministry; and
- (b) participate as a member of the "Change Control Group" and the "Senior Executive Group", and participate in any dispute resolution process, as provided for in the Vodafone RBI Agreement and implement any Change Impact Statement that is agreed between Telecom, Vodafone and the Ministry, or determined by an arbitrator or an expert, in each case after following a process that is similar to the process contemplated in this Agreement and that provides for Telecom's position and views to be taken into account.

To avoid doubt, Telecom will not be bound to implement any Change Impact Statement determined by that arbitrator or expert to the extent that the same determination could not have been imposed on Telecom by an arbitrator or expert making a determination on a Change Impact Statement in accordance with clause 8 of this Schedule 5.

34 Preparation of Impact Statement

34.1 For each Change Request, Telecom will undertake an assessment of the Change and provide to the Ministry a written statement describing the Change and its impact (the "**Change Impact Statement**") as follows:

- (a) if Telecom is submitting the Change Request, with its Change Request; or
- (b) if the Ministry has submitted the Change Request, as soon as reasonably possible (or such other period as may be agreed by the parties, acting reasonably) taking into account the scope and complexity of the analysis required by the Change Procedure.

34.2 The Ministry will supply Telecom with any information, clarifications or feedback reasonably requested by Telecom for the purpose of preparing a Change Impact Statement that:

- (a) is or is likely to be material to the Change Impact Statement;
- (b) is held or controlled by the Ministry; and

- (c) the Ministry is legally able to provide that information to Telecom.

35 Contents of Change Impact Statement

35.1 Each Change Impact Statement will specify, in reasonable detail:

- (a) the Change, its feasibility, and how and when it will be implemented;
- (b) the likely impact of the Change on the Design and Build Services (including the Overall Plan and any affected Detailed Plan(s)), the Rural Telecommunications Services, the Infrastructure, the associated telecommunications network, other terms of the Agreement, and the ability of Telecom to perform its obligations under the Agreement;
- (c) the likely impact of the Change on the Grant and any increase or decrease to the Grantable Costs and the likely impact of the Change on Telecom's costs;
- (d) whether the Change is consistent with Telecom's technology strategies and architectural guidelines;
- (e) the implications of not implementing the Change;
- (f) risk analysis of the Change;
- (g) the impact of the Change on the Wireless CDBP Backhaul Connections and their associated Rural Backhaul Connections, including the outcome of any engagement with Vodafone under clause 3.2;
- (h) the changes requested to the Agreement and any Schedule to implement the Change;
- (i) any other matter reasonably requested by the Ministry or that is likely to be relevant to the Ministry in its consideration of the Change; and
- (j) a draft Change Authorisation Agreement.

35.2 Where a Party considers that one or more Changes requested should be reviewed and considered under a single Change Request, Telecom may prepare a single combined Change Impact Statement for all of those Changes and the other provisions of this Schedule will be applied as if those Changes had been requested under a single consolidated Change Request.

36 Truncated Process

36.1 Where the Parties agree, on a Change-by-Change basis, that a Change is:

- (a) minor and operational in scope that does not involve:
 - (i) a material or significant alteration or deviation from the Agreement, including the Schedules; or
 - (ii) a material or significant alteration to the Overall Plan; or
- (b) urgent

the Parties may agree in writing to a truncated change control process to deal with that Change, provided that the following will still apply:

- (c) once the Change has been agreed by the Parties, the Authorised Representatives will sign a Change Authorisation Agreement in relation to the Change; and

- (d) once that Change Authorisation Agreement has been signed in accordance with clause 6.1(c) of this Schedule it will be deemed that this Agreement is amended in accordance with the terms of the Change Authorisation Agreement;
- (e) any Change agreed to through a truncated process must be included in the Change Register; and
- (f) the Change may be moved to the full review process provided in clause 7 at any time by either Party upon notice to the other Party.

37 Review Process

37.1 Once the Change Impact Statement is submitted to the Ministry:

- (a) the Change Control Group will have 10 Business Days (or any longer period agreed by the Change Control Group) in which to review the Change Impact Statement ("**CCG Review Period**");
- (b) at any time during that period the Change Control Group can give notice accepting the Change Impact Statement, requesting alterations to the Change Impact Statement, withdrawing the Change Request, or referring the matter to the Senior Executive Group;
- (c) the Parties will attempt to reach agreement on any alterations requested by the Change Control Group and any consequential changes to the Change Impact Statement;
- (d) if the Change Impact Statement is accepted by the Change Control Group (with or without amendments), the Parties will sign the accompanying Change Authorisation Agreement and the Change will be implemented accordingly; and
- (e) if by the end of the CCG Review Period the Change Control Group has not accepted the Change Impact Statement, any member of the Change Control Group may refer the matter to the Senior Executive Group.

37.2 If a Change Impact Statement is referred to the Senior Executive Group, then unless the associated Change Request is withdrawn by the agreement of the Parties:

- (a) the Change Control Group will immediately provide the Change Impact Statement and any related Change Control Group documents to the Senior Executive Group;
- (b) the Senior Executive Group will have 10 Business Days (or any longer period agreed by the Senior Executive Group) in which to review the Change Impact Statement ("**SEG Review Period**");
- (c) at any time during that period the Senior Executive Group can give notice accepting the Change Impact Statement, requesting alterations to the Change Impact Statement, withdrawing the Change Request, or (if applicable) referring the matter to dispute resolution in accordance with clause 8 below;
- (d) the Parties will attempt to reach agreement on any alterations requested by the Senior Executive Group and any consequential changes to the Change Impact Statement;
- (e) if the Change Impact Statement is accepted by the Senior Executive Group (with or without amendments), the Parties will sign the accompanying Change Authorisation Agreement and the Change will be implemented accordingly; and

- (f) if by the end of the SEG Review Period the Senior Executive Group has not accepted the Change Impact Statement, then:
 - (i) to the extent that the Change Request is seeking to accommodate the impact of a Force Majeure Event or No Fault Event, any member of the Senior Executive Group may (if applicable) refer the matter to dispute resolution under clause 8 below; or
 - (ii) to the extent that the Change Request relates to any other matter, the Change Request, in relation to that matter, is deemed to have been withdrawn.

38 Dispute Resolution

38.1 If any aspect of a Change Impact Statement is to be referred to dispute resolution pursuant to clause 7.2(f)(i) above:

- (a) where the Parties agree that the questions for resolution are wholly or predominantly technical in nature, the parties will refer the Change to expert determination under clause 23.3 of this Agreement for the expert to consider how to address the matters set out in the Change Impact Statement and how to implement the related Change in the Agreement. Once the expert has issued his or her decision, unless the initiating Party gives notice withdrawing the Change Request, the Change Impact Statement will be modified in accordance with the expert's decision, the Parties will sign the accompanying Change Authorisation Agreement and the Change will be implemented accordingly; and
- (b) otherwise, the parties will refer the Change Impact Statement to be determined by arbitration under clause 23.2 of this Agreement for the arbitrator to consider how to address the matters set out in the Change Impact Statement and how to implement the related Change in the Agreement. Once the arbitrator has issued his or her decision, unless the initiating Party gives notice withdrawing the Change Request, the Change Impact Statement will be modified in accordance with the arbitrator's decision, the Parties will sign the accompanying Change Authorisation Agreement and the Change will be implemented accordingly,

and for the avoidance of doubt, the process set out in clause 23.1 will not need to be followed in respect of such disputes prior to referring the dispute to arbitration or expert determination. Any expert or arbitrator considering a Change Impact Statement must ensure that his or her decision complies with the principles in clause 9 below.

38.2 In relation to any matter referred to arbitration or expert determination pursuant to clause 8.1 the arbitrator or expert may take into account the following matters (without limitation) when reaching a decision on how to address the matters set out in the Change Impact Statement and how to implement the related Change in the Agreement:

- (a) the impact the Change will have on Telecom's Whole of Life Costs in Telecom accommodating the Change and otherwise performing its obligations under the Agreement;
- (b) whether the Change will materially increase the risk of failures, errors or outages on Telecom's network or systems;
- (c) whether the Change will materially adversely affect Telecom's ability to provide the Rural Telecommunications Services, meet its other requirements under the Agreement, meet its commitments to third parties or comply with legislative or regulatory requirements (including any Standard Terms Determination issued under the Telecommunications Act 2001);
- (d) the impact that the Change will have on the health and safety risks associated with the Design and Build Services or the Infrastructure, and/or the operation or maintenance of the Telecom telecommunications network;

- (e) the impact of the Change on Telecom's ability to perform its obligations under this Agreement; and
- (f) the impact that the Change may have on the Wireless CDBP Connections and their associated Rural Backhaul Connections, and/or the Vodafone RBI Agreement,

and where the Change Impact Statement indicates that the Change will have an impact on the Vodafone RBI Agreement, the principles set out above in clause 8.2 will also be considered in respect of Telecom by the arbitrator or expert in determining how to address the matters set out in the Change Impact Statement and how to implement the related change in the Vodafone RBI Agreement, with the word "Telecom" being replaced by "Vodafone".

38.3 The Parties acknowledge that the arbitrator or expert appointed in accordance with clause 8.1 will only be able to determine how to reasonably address the matters set out in the Change Impact Statement and how to implement the related Change in the Agreement as a result of the No Fault Event and not whether or not a Change is required as a result of the No Fault Event. Unless Telecom (in its sole discretion) agrees otherwise, the arbitrator or expert cannot issue a determination that imposes on Telecom any terms or requirements:

- (a) which Telecom reasonably believes will result in a net increase in its Whole of Life Costs,
- (b) which Telecom reasonably believes will leave it unable to recover costs that it would otherwise have been entitled to recover;
- (c) which Telecom reasonably believes will increase the risk of failures, errors or outages on its network or systems;
- (d) which Telecom reasonably believes this adversely affect its ability to comply with the Service Levels, the other requirements of the Agreement, commitments to third parties, or legislative or regulatory requirements (including any Standard terms Determination issued under the Telecommunications Act 2001);
- (e) which would create inconsistency with Telecom's established technology strategies and/or architectural guidelines;
- (f) which would result in the Design and Build Services covering less than 85% of the route-length of the Rural Links and Cabinet Feeds that were originally within the scope of the Design and Build Services as at the date of this Agreement;
- (g) which would result in the number of Rural Links scheduled for completion in that Construction Year being less than 85% of the number scheduled for completion in that Construction Year as at the date of this Agreement;
- (h) which would have a cost impact on Vodafone, unless the Ministry obtains Vodafone's written approval of the Change and any consequential amendments to the Vodafone RBI Agreement; or
- (i) which would have an adverse impact on, or require any changes or delays to, the infrastructure to be constructed or used by Vodafone for the purposes of the Vodafone RBI Agreement, or the services to be delivered by Vodafone for the purposes of the Vodafone RBI Agreement, in each case unless the Ministry obtains Vodafone's written approval of the Change and any consequential amendments to the Vodafone RBI Agreement.

39 Change Principles (No Fault Events)

39.1 Where either Party submits a Change Request in relation to a No Fault Event, Telecom will be entitled to such of the following:

- (a) a reasonable extension to the Overall Plan and any affected Detailed Plan;
- (b) an increase in the amount payable to Telecom having regard to the increased costs to Telecom arising out of or in connection with the No Fault Event;
- (c) an amendment to the Design and Build Services to account for the impact of the No Fault Event; and/or
- (d) an amendment to the obligations of either party under this Agreement to account for the impact of the No Fault Event,

as is considered reasonable to accommodate the impact of the No Fault Event, provided that in determining what is reasonable the Parties acknowledge that they should look to Telecom's increased costs but the Ministry:

- (e) will only reimburse Telecom for Grantable Costs; and
- (f) will not be required to pay to Telecom and Vodafone in aggregate more than the moneys committed to be payable in aggregate to Telecom under this Agreement and to Telecom under the Vodafone RBI Agreement or to pay any part of the Grant at a rate that exceeds the annual limits payable to Telecom under this Agreement and to Vodafone under the Vodafone RBI Agreement,

and any further accommodation required to address the impact of the No Fault Event will be through the Parties making the changes set out in clauses 9.1(a) and 9.1(c) and (d).

39.2 Where a No Fault Event requires delays against the overall rate of Deployment contemplated in the Overall Plan, subject to clause 8.3, as far as reasonably practicable Telecom will seek to minimise delays to any affected Rural Links by prioritising the allocation of resources to those Rural Links over Rural Cabinets (although the Ministry acknowledges that in some cases a Rural Cabinet will form an integral part of the Infrastructure required to serve a Rural Link).

40 Change Control Group

40.1 The Change Control Group is a committee comprised of up to two Ministry representatives and up to two Telecom representatives, with the relevant delegated authority to agree to the Change.

40.2 The Change Control Group will be chaired by one of the representatives from the Ministry.

40.3 Each Party may replace its Change Control Group appointees from time to time by written notice to the other Party, but will use reasonable endeavours to ensure continuity, and an orderly handover where a change is necessary.

40.4 Each action or decision of the Change Control Group requires the unanimous approval of the members of each Party. No member will have a casting vote.

40.5 The Change Control Group will meet within 5 Business Days of the submission of each Change Impact Statement, and otherwise as reasonably necessary to perform the functions contemplated by this Schedule 5.

40.6 Meetings of the Change Control Group will be held in Wellington except where the Change Control Group agrees otherwise, but members may also attend by audio-conference or video-conference.

- 40.7 The quorum for a meeting of the Change Control Group is all members. Each Party will use reasonable endeavours to ensure that its appointees attend each meeting of the Change Control Group.
- 40.8 The Change Control Group has only the powers expressly conferred by this Schedule 5, and any action or decision outside the scope of those powers is void.
- 41 Senior Executive Group
- 41.1 The Senior Executive Group is a committee comprised of the Chief Executive Officer of the Ministry and the Chief Executive Officer of Telecom. For the avoidance of doubt the Chief Executive Officers may delegate their responsibilities under this Schedule to a senior executive.
- 41.2 The Senior Executive Group will be chaired by the Chief Executive Officer of the Ministry or his/her delegate.
- 41.3 Each Party may replace its Senior Executive Group appointee from time to time by written notice to the other Party, but will use reasonable endeavours to ensure continuity, and an orderly handover where a change is necessary.
- 41.4 Each action or decision of the Senior Executive Group requires unanimous approval.
- 41.5 The Senior Executive Group will meet within 5 Business Days of a Change Impact Statement being referred to it under this Schedule 5, and otherwise as reasonably necessary to perform the functions contemplated by this Schedule 5.
- 41.6 Meetings of the Senior Executive Group will be held in Wellington except where the Senior Executive Group agrees otherwise, but members may also attend by audio-conference or video-conference.
- 41.7 The quorum for a meeting of the Senior Executive Group is all members. Each Party will use reasonable endeavours to ensure that its appointee attends each meeting of the Senior Executive Group.
- 41.8 The Senior Executive Group has only the powers expressly conferred by this Schedule 5, and any action or decision outside the scope of those powers is void.
- 42 Telecom and Vodafone Relationship
- 42.1 If the Change Impact Statement indicates that the Vodafone RBI Agreement will be affected by a Change then:
- (a) the Change Control Group will be expanded to include up to two Vodafone representatives with the relevant delegated authority to agree to the Change;
 - (b) the Senior Executive Group will be expanded to include the Vodafone Chief Executive (or his/her delegate with the relevant delegated authority to agree to the Change);
 - (c) the Parties will use reasonable endeavours to procure that Vodafone:
 - (i) works in good faith to find a solution that is mutually acceptable to all Parties;
 - (ii) agrees to implement any Change Impact Statement agreed or determined in accordance with this Schedule 5, including making any required changes to the Vodafone RBI Agreement; and

- (iii) where the Change is referred to arbitration or expert determination, shares equally the fees of the arbitrator or of the expert unless otherwise directed by the expert or arbitrator.

43 Costs

- 43.1 Unless expressly agreed otherwise by the Ministry and Telecom in writing (acting reasonably), each Party will be responsible for its own costs and expenses incurred in complying with the Change Procedure (including, in the case of Telecom, the preparation of the Change Impact Statement).

44 Liability for Changes

- 44.1 The Ministry will have no liability for any costs or expenses in relation to any Change, and Telecom will not undertake any Change, until both have agreed to the details of the Change in a Change Authorisation Agreement signed in accordance with clauses of this Schedule.

45 Maintenance of register

- 45.1 Telecom must prepare and maintain an electronic register ("**Change Register**") that details all the current and past Changes that are or have been subject to the Change Procedure, and it will promptly make the Change Register available to the Ministry on request.

46 Logging Change Requests

- 46.1 Telecom will assign a unique number to each Change Request and log the Change Request in the Change Register.

47 Details

- 47.1 The Change Register must include the following details for each Change:
 - (a) a unique number for the Change;
 - (b) the date of registration of the Change;
 - (c) the name of the originating Party;
 - (d) a description of the Change; and
 - (e) the current status of the Change.

Schedule 6

Open Access Requirements

48 Telecom Separation Undertakings

Subject to the other provisions of this Schedule 6, when doing or omitting to do anything in respect of a Rural Telecommunications Service, Telecom will comply with all applicable non-discrimination obligations in any operational separation undertakings that are binding on Telecom pursuant to Part 2A of the Telecommunications Act 2001 (or equivalent provisions under an amended Act).

For the avoidance of doubt, if Structural Separation occurs and Telecom enters into new UFB Undertakings, then when doing or omitting to do anything in respect of a Rural Telecommunications Service, the Separated Entity that supplies that Rural Telecommunications Service will comply with all applicable non-discrimination obligations in those new UFB Undertakings.

49 Acknowledgements in relation to Rural Telecommunications Services

Both parties acknowledge that the commercial business case for rural broadband is challenging due to a range of factors, including high costs of deployment and relatively low population density across mandated coverage areas. In that context, the Rural Telecommunications Services have been developed with the intention of achieving an optimal competitive outcome for end-users, having regard to the limited Grant funding being made available under this Agreement.

Telecom acknowledges that delivering the Rural Telecommunications Services at the prices contemplated in this Agreement represents the greatest value able to be delivered in the relevant commercial circumstances and MED acknowledges that it is satisfied that these prices represent the most compelling competitive proposition.

The terms and conditions (including price) on which Telecom has agreed to offer these Rural Telecommunications Services under this Agreement in part reflect the particular circumstances of the Rural Broadband Initiative, including the fact that part of the costs of providing the Rural Telecommunications Services have been subsidised through this Agreement.

In many cases, this Agreement limits the availability of these Rural Telecommunications Services to particular parts of Telecom's network that have been Deployed under this Agreement, and/or limits the use of these Rural Telecommunications Services to Access Seekers using them to deliver services to specific Priority Users.

Nonetheless, Telecom may choose to commercially offer services that are technically or functionally the same as or similar to the Rural Telecommunications Services, but that fall outside the scope of this Agreement. Telecom requires certainty that it is free (for whatever reason) to offer these commercial services on terms and conditions (including price) that differ from the terms and conditions on which this Agreement requires it to offer Rural Telecommunications Services, despite any non-discrimination (or equivalence of inputs) obligations.

In that context, it is important to record that Telecom will only be obliged to make the Rural Telecommunications Services available on the terms prescribed by this Agreement, and only in the circumstances where it is required by this Agreement, in both cases subject to Telecom's Separation Undertakings (with any amendments made for the purposes of satisfying the condition in clause 50 below) and the Telecommunications Act 2001.

The Crown does not intend that any non-discrimination obligations in the Telecom Separation Undertakings or any new UFB Undertakings would require Telecom to extend the price or terms and conditions for the Rural Telecommunications Services, as prescribed in this Agreement, to any other services, regardless of whether those other services are functionally or technically the same or similar to the Rural Telecommunications Services.

50 Conditions under which Telecom will provide Rural Telecommunications Services

Accordingly, the Parties have agreed that Telecom's obligations to make Available the Rural Telecommunications Services in accordance with this Agreement are subject to the condition in clause 5.5 of this Agreement. The drafting in Appendix A provides an illustration of how this condition might be met in the context of the Telecom Separation Undertakings as they stand at the date of this Agreement.

Schedule 6, Appendix A Proposed Variation Wording

Clause 1.1 of the Telecom Separation Undertakings will be amended by inserting the following definition in the appropriate alphabetical order:

Rural Broadband Initiative means the programme to develop enhanced broadband infrastructure in non-urban areas of New Zealand with the support of Crown grant funding;

RBI Contract means the Rural Broadband Agreement between the Crown and Telecom dated on or about 20 April 2010, as replaced or amended from time to time;

Rural Telecommunications Service means a Relevant Service that Telecom is obliged to offer pursuant to the terms of the RBI Contract and for the avoidance of doubt does not include any Relevant Service that is:

- (a) Functionally or technically the same as (or similar to) any Rural Telecommunications Service; but that
- (b) Telecom is not required to provide under the RBI Contract.

ANS Priority Rural Telecommunications Services means the following Rural Telecommunications Services:

- (a) RBI Layer 1 Inter-Exchange Backhaul Service;
- (b) RBI Direct Fibre Access Service (specified Layer 1 service); and
- (c) RBI Sub-Loop Co-location in Grant Funded Cabinets.

Wholesale Priority Rural Telecommunications Services means the following Rural Telecommunications Services:

- (a) RBI Fibre Bitstream Service for Priority Users (specified layer 2 service);
- (b) Premium RBI Fibre Bitstream Service for Priority Users (specified layer 2 service); and
- (c) RBI Community Fibre Bitstream Service (community FTTP Layer 2 service).

A new clause 113 will be inserted in the Telecom Separation Undertakings as follows:

Clause 113

- 113.1 Each Rural Telecommunications Service is a Relevant Service. To the extent that a Rural Telecommunications Service would otherwise be excluded as a Relevant Service under clause 18.2(c)(iv) or clause 45(b)(vii) of these Undertakings, the Rural Telecommunications Service is deemed to be a Relevant Service;
- 113.2 The ANS Unit will not be in breach of clause 31.1 or clause 21.1 if (for whatever reason) the ANS Unit provides a service that is not an ANS Priority Rural Telecommunications Service but which is functionally or technically the same as (or similar to) an ANS Priority Rural Telecommunications Service, on terms and conditions (including as to price) that are different to those offered for such an ANS Priority Rural Telecommunications Service;
- 113.3 The Wholesale Unit will not be in breach of clause 56.1 or clause 47.1 if (for whatever reason) the Wholesale Unit provides a service that is not a Wholesale Priority Rural Telecommunications Service but which is functionally or technically the same as (or similar to) a Wholesale Priority Rural Telecommunications Service, on terms and conditions (including as to price) that are different to those offered for such a Wholesale Priority Rural Telecommunications Service;

- 113.4 The ANS Unit will not be in breach of clause 31.1 or clause 21.1 if the ANS Unit does not make ANS Priority Rural Telecommunications Services available (for whatever reason) more widely than is required by the terms of the RBI Contract; and
- 113.5 the Wholesale Unit will not be in breach of clause 56.1 or clause 47.1 if the Wholesale Unit does not make Wholesale Priority Rural Telecommunications Services available (for whatever reason) more widely than is required by the terms of the RBI Contract.
- 113.6 For the avoidance of doubt:
- (a) clause 31.1 and/or clause 21.1 (as applicable) will apply in relation to the provision by ANS:
 - (i) of an ANS Priority Rural Telecommunications Service; and
 - (ii) of a Relevant Service that is not an ANS Priority Rural Telecommunications Service.
 - (b) clause 56.1 and/or clause 47.1 (as applicable) will apply in relation to the provision by the Wholesale Unit:
 - (i) of a Wholesale Priority Rural Telecommunications Services; and
 - (ii) of a Relevant Service that is not a Wholesale Priority Rural Telecommunications Service.

Examples:

Service Provider A requests a RBI direct fibre access service from ANS in Kimbolton in the Manawatu. ANS provides the service at the price required by the RBI contract. Service Provider B requests a similar service in Henderson in Auckland (which is not covered by the RBI Contract). It will not be a breach of clauses 31.1 or 21.1 if ANS charges Service Provider B a higher price than Service Provider A.

Okato school in Taranaki is tendering for the supply of broadband services. A number of Service Providers are responding to that tender, and propose to use a fibre bitstream service in order to provide the broadband to Okato school. This is an "RBI Fibre Bitstream Service for Priority Users". Any Service Providers that requests the RBI Fibre Bitstream Service for Priority Users from the Wholesale Unit to serve Okato School would receive the service on the agreed RBI terms (including the RBI price). The Service Providers also tendering to supply broadband to Okato Cheese Factory, which is not a Priority User. Any Service Provider that requests the fibre bitstream service on standard commercial terms to supply the Okato Cheese Factory would receive the same price from the Wholesale Unit. However, it will not be a breach of clauses 56.1 or 47.1 if the price for the fibre bitstream service to Okato school differs from the price for the fibre bitstream service to the Okato Cheese Factory.

The Wholesale Unit offers a "Premium RBI Fibre Bitstream Service for Priority Users" over specific fibre optic connections built or upgraded under the RBI Contract to all Service Providers. This is an end-to-end service. It will not be a breach of clauses 56.1 or 47.1 if the Wholesale Unit offers an aspect of the service (e.g. the backhaul between a first data switch and a designated handover point) from Westport on the West Coast at a higher price than might otherwise be assumed as part of the end-to-end RBI service.

The Wholesale Unit makes available a "Premium RBI Fibre Bitstream Service for Priority Users" to support services delivered to cellsites in RBI areas. A mobile or wireless operator may face a higher price for a similar service in a non-RBI area. The higher price in the urban area will not be a breach of clause, 56.1 or 47.1.

Service Provider A requests an RBI Direct Fibre Access Service in Collingwood in the Golden Bay, and the ANS Unit provides the service to Service Provider A. Service Provider B requests a similar fibre access service in Wadestown in Wellington (which is not covered by the RBI contract) but the ANS Unit does not have the service available in that area. It is not a breach of clauses 31.1 or 21.1 if the ANS Unit does not provide the service to Service Provider B.

Schedule 7

Disengagement Process

51 Application

This Schedule 7 applies to any termination of this Agreement, including any partial termination under clause 19.9 of this Agreement, but does not apply where this Agreement expires in accordance with its terms.

52 Effect of termination on Design and Build Services

(a) Where either Party terminates, or partially terminates, this Agreement and termination charges are not payable in respect of that termination:

- (i) Telecom will cease to carry out any Design and Build Services under this Agreement as soon as reasonably practicable;
- (ii) Telecom will not be entitled to any further payment of the Grant for the Design and Build Services, except in relation to Payment Milestones which Telecom had already completed prior to the effective date of termination; and

[Note: Withheld under s9(2)(b)(ii) of the Official Information Act.]

In the case of a partial termination described in this clause 2(a), subclauses (i) to (iii) will be read as only applying to the applicable Design and Build Services, and the associated Grant amounts, for the Deployment Region(s) affected by that termination.

(b) Where either Party terminates, or partially terminates, this Agreement and termination charges are payable in respect of that termination:

- (i) the Parties will meet together in good faith and acting reasonably to discuss ways in which they can maximise the community benefits from Deployments already underway at the time of termination, while minimising the costs (including termination charges) payable by the Ministry in relation to that termination, for example by agreeing to complete one or more Rural Links or Rural Cabinets that were to be Deployed during the then-current Construction Period or the immediately following Construction Period, although the Ministry will not in any circumstances be obliged to agree to any such proposal; and
- (ii) where the Parties agree in writing that Telecom will complete the Deployment of one or more Rural Links or Rural Cabinets following termination, then Telecom will complete those Deployments accordingly, and will be entitled to payment of the Grant for those Deployments in accordance with Schedule 4;
- (iii) except in relation to any Rural Links and Rural Cabinets that the Parties agree will be completed under clause 2(b)(ii):
 - (A) Telecom will cease to carry out any Design and Build Services under this Agreement as soon as reasonably practicable;

- (B) Telecom will not be entitled to any further payment of the Grant for the Design and Build Services, except in relation to Payment Milestones which Telecom had already completed prior to the effective date of termination; and
- (C) the Ministry's only liability to Telecom in respect of that termination will be to pay termination charges in accordance with clause 19.5 of this Agreement; and



[Note: Withheld under s9(2)(b)(ii) of the Official Information Act.]

53 Effect of termination on Rural Telecommunications Services

- (a) In the event of a full or partial termination under clause 19.1, 19.2 or 19.3 of this Agreement, for each Rural Link and Rural Cabinet completed before termination, or completed after termination pursuant to clause 2(b) above, Telecom will continue to make Available the Rural Telecommunications Services for the applicable Service Term, subject to and in accordance with the terms of this Agreement.
- (b) In the event of any other full or partial termination, Telecom will have no obligation to make Available any of the Rural Telecommunications Services in respect of the Rural Links or Rural Cabinets in the Deployment Regions affected by that termination.

54 Effect of termination on Infrastructure

Termination of this Agreement will not affect the ownership of any Infrastructure.

55 Migration Assistance

- (a) If this Agreement is terminated under any clause except clause 19.8 of this Agreement, then during the 90 days immediately following that termination, Telecom will supply the Ministry with any information and assistance reasonably within Telecom's power, as reasonably requested by the Ministry for the purpose of allowing the Ministry (or its nominated contractor) to commence work on alternative services and infrastructure in substitution for those parts of the Infrastructure and Design and Build Services that have yet to be completed as at the date of termination ("**Migration Assistance**").
- (b) Except where this Agreement is terminated under clause 19.1 or 19.2 of this Agreement, the Ministry will reimburse Telecom for the reasonable costs which Telecom incurs in providing Migration Assistance requested by the Ministry, including internal labour costs at the labour rates used by Telecom for self-funded capital projects. Where requested by the Ministry from time to time, Telecom will provide the Ministry with reasonable estimates of these costs for particular tasks forming part of the Migration Assistance, and will not proceed with those tasks unless and until the Ministry approves those estimates in writing, and will keep the Ministry reasonably informed of its progress against those estimates once approved.
- (c) To avoid doubt, sub-clause (a) will not oblige Telecom to transfer any of its assets or personnel to the Ministry or its nominated contractor, but the Parties acknowledge that (where feasible) such a transfer is likely to mitigate the losses that the Ministry might otherwise suffer or incur as a result of a termination under clause 19.1 or 19.2 of this Agreement, which will in turn reduce any liability that Telecom may have for those losses.

56 Return of Information

As soon as reasonably practicable following termination of all or part of this Agreement, each Party will return or destroy any Confidential Information of the other Party in its possession or control, except that this will not require a Party to return or destroy:

- (a) in the case of a partial termination, any Confidential Information acquired or used by that Party in connection with any activities under this Agreement that are not the subject of the partial termination;
- (b) in the case of Telecom:
 - (i) any information which Telecom reasonably requires for the purposes of performing its obligations under this Schedule 7;
 - (ii) any information which Telecom reasonably believes will be needed to use, repair, maintain, enhance and/or extend the Infrastructure, and/or integrate it with other components of Telecom's telecommunications network; or
- (c) any information which that Party reasonably believes will be needed in the future in order for it to:
 - (i) enforce or take the benefit of any rights arising under or in connection with this Agreement and surviving termination or expiry;
 - (ii) resolve any dispute in progress or reasonably anticipated as at the date of termination; and/or
 - (iii) comply with any law or regulations.

Schedule 8

Stakeholder Engagement Process

Part 1: Regional Stakeholder Engagement

57 Background

Collaboration with regional stakeholders may create opportunities to reduce or offset deployment costs and extend broadband reach further while stimulating demand for rural broadband services. A wide range of regional entities have indicated a willingness to work collaboratively with Telecom and Vodafone to achieve these ends.

In this Part 1, "**Stakeholder Region**" means Northland, Auckland, Waikato, Bay of Plenty, Gisborne/East Coast, Hawke's Bay, Taranaki, Manawatu/Wanganui, Wairarapa/Wellington, Nelson/Marlborough, West Coast, North and Mid Canterbury, South Canterbury, Otago and Southland.

58 Purpose

Accordingly, during the provision of the Design and Build Services, Telecom will establish and maintain a stakeholder engagement process as described in this Part 1 ("**Regional Stakeholder Engagement Process**"), with a view to building constructive collaborative relationships with key regional stakeholders, and in turn identifying efficiencies and benefits that can be achieved in the course of the Design and Build Services.

59 Stakeholders

Telecom will target the Regional Stakeholder Engagement Process at local authorities, economic development agencies, Iwi and other Māori entities, lines companies, wireless broadband providers, and user representatives (e.g. farmers, educational institutions etc.) ("**Regional Stakeholders**").

60 Meetings

- (a) Telecom will hold periodic meetings in each Stakeholder Region for the purpose of:
- (i) sharing information with, and gathering feedback from, Regional Stakeholders on the draft Detailed Plans prepared under clause 5 of Schedule 3;
 - (ii) encouraging Regional Stakeholders to promote their constituents' awareness of, and interest in, RBI, and
 - (iii) identifying collaboration opportunities for funding, delivering and extending the Design and Build Services through potential access to community and economic development funds, facilitation of civil works, access to existing infrastructure, resource sharing and/or joint investments, aligning regional priorities with programme planning, and demand stimulation programmes,
- (referred to in this Schedule as "**Regional Stakeholder Meetings**")
- (b) Telecom will use reasonable endeavours to complete the first round of these meetings in each Stakeholder Region by the end of June 2011.

- (c) Telecom will hold subsequent rounds of these meetings in six-monthly cycles (or at other intervals agreed with the Ministry) in each Stakeholder Region, until the Design and Build Services for that Stakeholder Region are more than two-thirds complete, after which Telecom may hold those meetings at longer intervals reasonably reflecting the reduction in activity in that Stakeholder Region.
- (d) Telecom will use reasonable endeavours to encourage participation by Regional Stakeholders in these meetings.

61 Regional Māori engagement

- (a) Telecom will encourage participation in the Regional Stakeholder Engagement Process by Regional Stakeholders who represent Māori interests, including Iwi organisations, Māori Land Trusts, Regional Māori ICT organisations, marae, Māori broadcasters, Māori education providers and Regional representatives from the New Zealand Māori Council, the Iwi Leaders Group, and the Federation of Māori Authorities ("**Regional Māori Stakeholders**").
- (b) As part of the process surrounding each Regional Stakeholder Meeting, Telecom will arrange supplementary meetings with Regional Māori Stakeholders, where this will further the purposes of the Regional Stakeholder Process and can be done without compromising the integrity and effectiveness of the Regional Stakeholder Meetings.

Background in relation to Māori Engagement

The Ministry, Telecom and Vodafone are committed to facilitating meaningful Māori engagement with deployment planning and implementation of the Rural Broadband Initiative.

The Regional Stakeholder Engagement Process is the primary framework within which the Ministry, Telecom and Vodafone will raise awareness within Māori communities about the opportunities arising from the RBI, and ensure appropriate dialogue between Telecom, Vodafone and Māori communities and groups, with a view to ensuring that Māori can take advantage of these opportunities.

Māori will have other interests as users of broadband services, either individually or collectively, for example, for health, educational, business or cultural purposes. Where possible, the Ministry, Telecom and Vodafone intend to assist with these discussions, while recognising that the key focus of engagement with Māori under this Agreement is infrastructure deployment. The Ministry, Telecom and Vodafone recognise that community education may also be required to support these discussions.

The Ministry, Telecom and Vodafone acknowledge that the interests of Regional Māori Stakeholders in relation to infrastructure deployment under the RBI will include, but not be limited to, identifying opportunities for Māori community sites (such as marae) to be connected to the Infrastructure, potential Partnering Opportunities in relation to the Design and Build Services, facilitating land access for the Design and Build Services, leveraging or enhancing existing infrastructure owned by Regional Māori Stakeholders, opportunities for Māori ICT organisations to access Infrastructure or provide services making use of that Infrastructure, and Māori employment opportunities.

The Ministry, Telecom and Vodafone acknowledge that they will require capability and capacity in order to undertake meaningful and appropriate engagement with Māori.

Part 2: National Stakeholder Engagement

1 Background

Obtaining high-level guidance and advice from key users and beneficiaries of the RBI will help to ensure that Telecom's plans in relation to the RBI are informed by (and are better able to meet) end user expectations, and will also raise awareness amongst end users and help to stimulate demand for rural broadband services.

2 Purpose

Accordingly, during the provision of the Design and Build Services, Telecom will establish and maintain a stakeholder engagement process as described in this Part 2 ("**National Stakeholder Engagement Process**"), with a view to building constructive collaborative relationships with key national stakeholders, obtaining guidance and advice from those representatives on issues affecting the RBI, and generating support from those stakeholders for Telecom's plans in relation to the RBI.

3 Stakeholders

Telecom will target the National Stakeholder Engagement Process at local authorities, rural business organisations, rural education organisations, rural health organisations and Māori ("**National Stakeholders**").

4 National Advisory Committee

- (a) Telecom will establish a national advisory committee representing National Stakeholders, as a forum for the views, expectations and aspirations of National Stakeholders in relation to RBI ("**National Advisory Committee**").
- (b) Telecom will use reasonable endeavours to encourage National Stakeholders to participate in the National Advisory Committee.

5 Structure, composition and terms of reference

Telecom will determine the structure, composition and terms of reference of the National Advisory Committee, applying the following principles:

- **Purpose**
The purpose of the Committee is to provide guidance and advice to Ministry, Telecom and Vodafone with a view to maximising the benefits of the RBI for the rural community.
- **Role**
The Committee will act as an advisory group. Members will be encouraged to provide free, frank and independent advice on all relevant matters. The Committee will endeavour to familiarise itself with issues of concern to all relevant rural community stakeholders. The Committee will focus on national issues, leaving Regional issues to be raised and discussed through the Regional Stakeholder Engagement Process.
- **Procedures**
The Committee will be disciplined in carrying out its role, with the emphasis on guidance and oversight. Members will always act within any limitations imposed by the Committee on its activities.

Members will use their best endeavours to attend Committee meetings and to prepare thoroughly for them. Members are expected to participate fully, frankly and constructively in Committee discussions and other activities, and to bring the benefit of their particular knowledge, skills and abilities to the Committee table.

Committee discussions will be open and constructive, recognizing that genuinely-held differences of opinion can, in such circumstances, bring greater clarity and lead to better decisions. The Chair will, nevertheless, seek a consensus in the Committee but may, where considered necessary, call for a vote.

All discussions and their record will remain confidential unless there is a specific direction from the Committee to the contrary, or disclosure is required by law. Subject to legal or regulatory requirements, the Committee will decide the manner and timing of the publication of its deliberations.

The Committee has sole authority over its agenda and exercises this through the Chair. Any Member may, through the Chair, request the addition of an item to the agenda. The agenda will be set by the Chair in consultation with MED and its contracted partners.

At each normal meeting, which will be conducted as a preference together in one location, or by teleconference facilitation, the Committee will consider major issues and opportunities for RBI, and will review an operational report from the Ministry, Telecom and Vodafone on the rollout of the RBI infrastructure.

- ***Chairperson***

The Chair has overall responsibility for representing the Committee to stakeholders, acting as spokesperson for the Committee, or delegating this role as they see fit.

The Chair is also responsible for ensuring the integrity and effectiveness of the Committee and will act as facilitator at meetings of the Committee to ensure that that appropriate discussion takes place and that relevant opinion among Members is forthcoming.

- ***Committee composition***

The composition of the Committee will reflect the duties and responsibilities it is to discharge and perform. Generally, the qualifications for Committee membership are the ability to make sensible business recommendations, an understanding of the rural community and primary user groups therein, the ability to see the wider picture for the community, the ability to ask the hard questions, adherence to high ethical standards, sound practical sense and a total commitment to furthering the interests of stakeholders and the achievement of the RBI.

The majority of Members will be active in the rural community and preferably have a sound understanding of particular user groups therein. The Committee will be independent of any RBI project delivery and Members will be free from any business or other relationship that could interfere with the exercise of their independent judgment, or declare that and have that interest addressed using the appropriate procedures of corporate governance.

Generally, the number of Members will be between 7 and 13 to ensure that a wide range of the rural sector interests are represented. A quorum shall comprise a minimum of 6 Members.

- ***Business or Professional Services by Members***

Because a conflict of interest (actual or perceived) may be created, Members should not normally provide business or professional services of an ongoing nature to the Ministry, Telecom or Vodafone. However, it is acknowledged that the stakeholders represented by the members may already have relationships with the Ministry, Telecom or Vodafone, and in this circumstance the Committee will implement appropriate procedures for the disclosure and registration of conflicts of interest.

- ***Public statements***

The Committee is not authorised to make public statements on behalf of the Ministry, Telecom or Vodafone.

- ***Ministry review***

The Ministry will be entitled to review the independence and value created by the Committee on an annual basis.

6 National Māori engagement

Telecom, in consultation with the Ministry, will engage National Stakeholders who represent Māori interests, including Māori ICT and telecommunications organisations with a nationwide focus, the New Zealand Māori Council, the Iwi Leaders Group, and the Federation of Māori Authorities ("**National Māori Stakeholders**") to determine appropriate Māori representation on the National Advisory Committee. Telecom will also encourage participation of these members in the Regional Stakeholder Engagement Process.

Part 3: Community Engagement

1 Background

Keeping rural communities informed about Telecom's Deployment plans will help to shape achievable community expectations as to when and how fast broadband will become available in their area.

This in turn will improve community satisfaction with the Deployment, and will also help to mitigate concerns that communities might otherwise have over practical aspects of the Deployment, such as road closures, construction work or new roadside cabinets.

Providing rural communities with information on the broadband services available in their area will also maximise their ability to get the full benefit of those services as and when they arrive.

2 Purpose

Accordingly, during the provision of the Design and Build Services, Telecom will establish and maintain a community engagement programme in accordance with this Part 3 ("**Community Engagement Programme**"), with a view to creating awareness and interest in the RBI amongst rural communities, stimulating broadband uptake amongst target users, and promoting a positive community perception of the Design and Build Services.

3 Activities

The Community Engagement Programme will include:

- (a) developing a communications plan supporting the Design and Build Services;
- (b) developing a public relations and community campaign to inform and celebrate schools and community connections as they are rolled out;
- (c) building close working relationships with local authorities with a view to ensuring an efficient resource consent process; and
- (d) utilising the FTTN community engagement strategy and the TCF Guidelines for Community Engagement for cabinet and wireless site deployments.

4 Principles

In carrying out the Community Engagement Programme, as far as reasonably practicable, Telecom will endeavour to:

- (a) make as much information as possible available to the public as early as possible;
- (b) communicate early and clearly with affected residents and communities; and
- (c) minimise disruption to communities.

Schedule 9

RBI Product Pricing

62 Introduction

This Schedule sets out the prices at which Telecom must make Available the Rural Telecommunications Services in accordance with this Agreement. Certain words and phrases used in this Schedule are defined in clause 69 below.

63 Backhaul Services

Rural Telecommunications Service	Pricing
RBI Backhaul Service	As per Schedule 2 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul (telephone exchange to interconnect point) (Decision 626) as amended from time to time.
RBI Sub-loop Backhaul Service	As per Service Appendix 3, Schedule 2 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network backhaul service (Sub-loop backhaul) (Decision 672) as amended from time to time.
RBI Layer 1 Inter-exchange Backhaul Service	POA

64 Co-location Services

Rural Telecommunications Service	Pricing
RBI Co-location Service	As per Schedule 2 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location (Decision 610) as amended from to time.

Rural Telecommunications Service	Pricing
RBI Sub-loop Co-location Service	<p>In relation to each Rural Cabinet that is not a Grant Funded Cabinet, the pricing will be as per Service Appendix 2, Schedule 2 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location service (Sub-loop Co-location) (Decision 672) as amended from time to time.</p> <p>In relation to each Rural Cabinet that is a Grant Funded Cabinet, the pricing will be as per Service Appendix 2, Schedule 2 to the Standard Terms Determination for the designated service Telecom's unbundled copper local loop network co-location service (Sub-loop Co-location) (Decision 672) as amended from time to time, except that for the purposes of this Rural Telecommunications Service:</p> <ul style="list-style-type: none"> • in calculating service component 2.1 of that Appendix, the variable B₁ will be set at \$0, and the variable B₂ will be divided by 11; and • in calculating service component 2.2 of that Appendix, the variable P will be divided by 11.

65 Layer 1 Access Service

Rural Telecommunications Service	Pricing
RBI Direct Fibre Access Service (Specified Layer 1 Service)	<p>If and when Telecom offers a service substantially similar to this Rural Telecommunications Service pursuant to a UFB Contract ("UFB Dark Fibre"), then the Basic Monthly Price and Ancillary Charges for this Rural Telecommunications Service will be the same as those for UFB Dark Fibre.</p> <p>Unless and until Telecom offers UFB Dark Fibre under a UFB Contract:</p> <ul style="list-style-type: none"> • at any time while Telecom offers an Urban Equivalent: <ul style="list-style-type: none"> ○ the Basic Monthly Price will be the lower of Telecom's standard wholesale price for that Urban Equivalent; and \$625.00 (plus GST) per month; and ○ the Ancillary Charges will be the same as the standard Ancillary Charges for the Urban Equivalent; • at any time while Telecom does not offer an Urban Equivalent: <ul style="list-style-type: none"> ○ the Basic Monthly Price will be \$625.00 (plus GST) per month, unless and until a Benchmark Price is established for this service, after which the Basic Monthly Price will be equal to the Benchmark Price; and ○ the Ancillary Charges will be determined by Telecom from time to time.

Rural Telecommunications Service	Pricing
<p>RBI Fibre Bitstream Service for Priority Users (Specified Layer 2 Service)</p>	<p>If and when Telecom offers a service substantially similar to this Rural Telecommunications Service pursuant to a UFB Contract ("Bitstream 3a"), then the Basic Monthly Price and Ancillary Charges for this Rural Telecommunications Service will be the same as those for Bitstream 3a.</p> <p>Unless and until Telecom offers Bitstream 3a under a UFB Contract:</p> <ul style="list-style-type: none"> • at any time while Telecom offers an Urban Equivalent <ul style="list-style-type: none"> ○ the Basic Monthly Price will be the lower of Telecom's standard wholesale price for that Urban Equivalent, and \$218.75 (plus GST) per month; and ○ the Ancillary Charges will be the same as the standard Ancillary Charges for the Urban Equivalent; and • at any time while Telecom does not offer an Urban Equivalent: <ul style="list-style-type: none"> ○ the Basic Monthly Price will be \$218.75.00 (plus GST) per month, unless and until a Benchmark Price is established for this service, after which the Basic Monthly Price will be equal to the Benchmark Price; and ○ the Ancillary Charges will be determined by Telecom from time to time, provided that the monthly charges for a Committed Information Rate will be \$12.50 (plus GST) per 10 Mbps.

Rural Telecommunications Service	Pricing
Premium RBI Fibre Bitstream Service for Priority Users (Specified Layer 2 Service)	<p>If and when Telecom offers a service substantially similar to this Rural Telecommunications Service pursuant to a UFB Contract ("Bitstream 4"), then the Basic Monthly Price and Ancillary Charges for this Rural Telecommunications Service will be the same as those for Bitstream 4.</p> <p>Unless and until Telecom offers Bitstream 4 under a UFB Contract, the Basic Monthly Price for this Rural Telecommunications Service will be as follows:</p> <ul style="list-style-type: none"> • for the 1Gbps down / 1Gbps up variant: <ul style="list-style-type: none"> ○ at any time while Telecom offers an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be the lower of Telecom's standard wholesale price for that Urban Equivalent, and \$750.00 (plus GST) per month; and ▪ the Ancillary Charges will be the same as the standard Ancillary Charges for that Urban Equivalent; and ○ at any time while Telecom does not offer an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be \$750.00 (plus GST) per month unless and until a Benchmark Price is established for this service, after which the Basic Monthly Price will be equal to the Benchmark Price; and ▪ the Ancillary Charges will be determined by Telecom from time to time, provided that the monthly charges for a Committed Information Rate will be \$12.50 (plus GST) per 10 Mbps. • for the 100Mbps down / 100Mbps up variant: <ul style="list-style-type: none"> ○ at any time while Telecom offers an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be the lower of Telecom's standard wholesale price for that Urban Equivalent, and \$625 (plus GST) per month; and ▪ the Ancillary Charges will be the same as the standard Ancillary Charges for that Urban Equivalent; and ○ at any time while Telecom does not offer an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be \$625 (plus GST) per month unless and until a Benchmark Price is established for this service, after which the Basic Monthly Price will be equal to the Benchmark Price; and ▪ the Ancillary Charges will be determined by Telecom from time to time, provided that the monthly charges for a Committed Information Rate will be \$12.50 (plus GST) per 10 Mbps.

Rural Telecommunications Service	Pricing
RBI Community Fibre Bitstream Service (Community FTTP Layer 2 Service)	<p>If and when Telecom offers a service substantially similar to this Rural Telecommunications Service pursuant to a UFB Contract ("Bitstream 2"), then the Basic Monthly Price and Ancillary Charges for this Rural Telecommunications Service will be the same as those for Bitstream 2, except that the connection fees will be as set out in Schedule 11.</p> <p>Unless and until Telecom offers Bitstream 2 under a UFB Contract the Basic Monthly Price for this Rural Telecommunications Service will be as follows:</p> <ul style="list-style-type: none"> • For the 30Mbps down / 10Mbps up variant: <ul style="list-style-type: none"> ○ at any time while Telecom offers an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be the lower of Telecom's standard wholesale price for that Urban Equivalent, and \$50 (plus GST) per month; and ▪ the Ancillary Charges will be the same as the standard Ancillary Charges for that Urban Equivalent, except that the connection fees will be as set out in Schedule 11; and ○ at any time while Telecom does not offer an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be \$50 (plus GST) per month unless and until a Benchmark Price is established for this service, after which the Basic Monthly Price will be equal to the Benchmark Price; and ▪ the Ancillary Charges will be determined by Telecom from time to time, except that the connection fees will be as set out in Schedule 11. • For the 100Mbps down / 50Mbps up variant: <ul style="list-style-type: none"> ○ at any time while Telecom offers an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be the lower of Telecom's standard wholesale price for that Urban Equivalent, and \$75 (plus GST) per month; and ▪ the Ancillary Charges will be the same as the standard Ancillary Charges for that Urban Equivalent, except that the connection fees will be as set out in Schedule 11; and ○ at any time while Telecom does not offer an Urban Equivalent: <ul style="list-style-type: none"> ▪ the Basic Monthly Price will be \$75 (plus GST) per month unless and until a Benchmark Price is established for this service, after which the Basic Monthly Price will be equal to the Benchmark Price; and ▪ the Ancillary Charges will be determined by Telecom from time to time, except that the connection fees will be as set out in Schedule 11.
UBA Service	As per Schedule 2 to the Standard Terms Determination for the designated service Telecom's unbundled bitstream access (Decision 611) as amended from time to time.
Wholesale VDSL2 Service	As per the standard urban price list for Telecom's Wholesale VDSL2 Service as amended or replaced from time to time.

67 **Benchmark Price**

- (a) This clause 67 applies to the monthly prices for the following Rural Telecommunications Services:
- (i) the RBI Direct Fibre Access Service;
 - (ii) the RBI Fibre Bitstream Service for Priority Users;
 - (iii) the 1Gbps down / 1Gbps up variant of the Premium RBI Fibre Bitstream Service for Priority Users;
 - (iv) the 100Mbps down / 100Mbps up variant of the Premium RBI Fibre Bitstream Service for Priority Users;
 - (v) the 30Mbps down / 10Mbps up variant of the RBI Community Fibre Bitstream Service; and
 - (vi) the 100Mbps down / 50Mbps up variant of the RBI Community Fibre Bitstream Service,
- (each a "**Benchmark Service**").
- (b) If by the second anniversary of the date of this Agreement Telecom has not made available an Urban Equivalent for a particular Benchmark Service, then on and from that date the "**Benchmark Price**" for that Benchmark Service will be established at a level equal to the highest monthly price offered pursuant to an LFC Contract at that time for any Comparable LFC Service, provided that the Benchmark Price will be updated with effect from each subsequent anniversary of the date of this Agreement to match the highest monthly price offered at that time for any Competing LFC Service.

68 **Ancillary Charges**

Except where this Schedule expressly provides otherwise, Telecom will retain discretion over the Ancillary Charges for each Rural Telecommunications Service.

69 **Defined Terms**

In this Schedule, unless the context requires otherwise:

<i>Ancillary Charges</i>	means, in relation to a particular Rural Telecommunications Service, any charges for "optional", "sundry" or "on request" service components that (as a matter of Telecom standard practice) are charged separately from the basic monthly recurring price (e.g. one-off connection fees, or charges for a CIR feature).
<i>Basic Monthly Price</i>	means, in relation to a particular Rural Telecommunications Service, the monthly recurring price for that service, excluding any Ancillary Charges.
<i>Benchmark Price</i>	means, in relation to a particular Rural Telecommunications Service, the "Benchmark Price" established in accordance with clause 67 of this Schedule.
<i>Benchmark Service</i>	has the meaning given in clause 6(a) of this Schedule.

<i>Comparable LFC Service</i>	means, in relation to a Benchmark Service, any service that is substantially similar to that Benchmark Service and is offered by a third party pursuant to an LFC Contract in an urban area of New Zealand.
<i>Grant Funded Cabinet</i>	means a Rural Cabinet consisting of an entirely new physical cabinet Deployed under this Agreement (either at a new site or as a replacement for an existing cabinet on the same site).
<i>LFC Contract</i>	means a contract between the Crown and a "local fibre company" (other than Telecom), under which the local fibre company is appointed to provide Telecommunications Services as a participant in UFB.
<i>Relevant Service</i>	has the meaning given in clause 67 of this Schedule.
<i>Urban Equivalent</i>	means, in relation to any Rural Telecommunications Service, a substantially similar service offered by Telecom in urban areas in New Zealand; and in relation to a specific variant of a Rural Telecommunications Service, means a corresponding variant of that substantially similar service offered by Telecom in urban areas.
<i>UFB Contract</i>	means a contract between Telecom and the Crown, under which Telecom is appointed to provide Telecommunications Services as a participant in UFB.

Schedule 10

School Lead-ins

70 Introduction

This Schedule sets out the terms on which Telecom will Deploy fibre lead-ins to connect state and state-integrated schools at the end of School Connections Deployed under this Agreement ("**Eligible Schools**"). The provisions of this Schedule and its Appendices are subject to the other provisions of this Agreement.

71 School Lead-ins

- (a) For each School Connection Deployed under this Agreement, Telecom will construct a fibre lead-in from the access terminal at the end of the School Connection to the Eligible School's server room, in accordance with the Lead-in Requirements attached as Appendix A ("**School Lead-in**").
- (b) However, for non-fibre-optic School Connections, the provisioning and specifications of the lead-in, NID and other termination equipment for the School may vary from the Lead-in Requirements attached as Appendix A, but any alternatives offered by Telecom will be subject to the Ministry's approval (not to be unreasonably withheld or delayed) and must be reasonably suitable for enabling the connection of the School to the Rural Telecommunications Services described in clauses 5(a) and 5(b) of Schedule 1.

72 Lead-in Costs

- (a) The Ministry will reimburse Telecom for all the capital expenditure that Telecom attributes to the School Lead-in, as and when that capital expenditure is accounted for by Telecom in accordance with IFRS and Telecom's usual accounting policies and practices, subject to the other provisions of this clause 71(b) ("**Lead-in Costs**").
- (b) In calculating the Lead-in Costs, Telecom will capitalise internal labour at the same labour rates used by Telecom for self-funded capital projects.
- (c) The Lead-in Costs exclude any product development costs or interest costs.
- (d) The Lead-in Costs exclude any costs in excess of what a skilled and experienced contractor in Telecom's position would reasonably incur in similar circumstances.

73 Cost Claims

- (a) The Ministry will not be required to pay Lead-in Costs other than on the basis of valid Cost Claims submitted by Telecom in accordance with this clause 73.
- (b) Telecom need not submit a separate Cost Claim for every School Lead-in, and may combine two or more School Lead-ins into a single Cost Claim. Telecom may submit a Cost Claim at any time after completing a School Lead-in, but will not submit more than one Cost Claim per month.
- (c) Each Cost Claim must include an invoice for the full amount of the Cost Claim. The Ministry will pay each such invoice within 10 working days of receipt.

- (d) Each invoice included with a Cost Claim must include:
- (i) an electronic file (XML format preferred) specifying the following details for each School Lead-in covered by that Cost Claim:
 - (A) School ID number;
 - (B) School name;
 - (C) School street address; and
 - (D) An breakdown of the cost per School that shows:
 - total length of the School Lead-in;
 - the number of metres, and cost per metre, of the techniques used to provide the School Lead-in (Trench in Grass; Trench in Ashphalt; Trench in Concrete; Directional Drill; Aerial); and
 - any other charges included in the invoice;
 - (ii) a marked up version of any plans provided to Telecom by the School, showing the changes made in the course of installing that School Lead-in; and
 - (iii) a completed Watch Form (as defined in Schedule 4).

74 As-built plans

If specifically requested by a School, Telecom will provide the School with "as built" plans showing the changes made in the course of installing that School Lead-in, subject to the School providing Telecom with any original "as built" plans reasonably required by Telecom for that purpose, and subject to the School agreeing to pay Telecom the reasonable cost of preparing those "as built" plans.

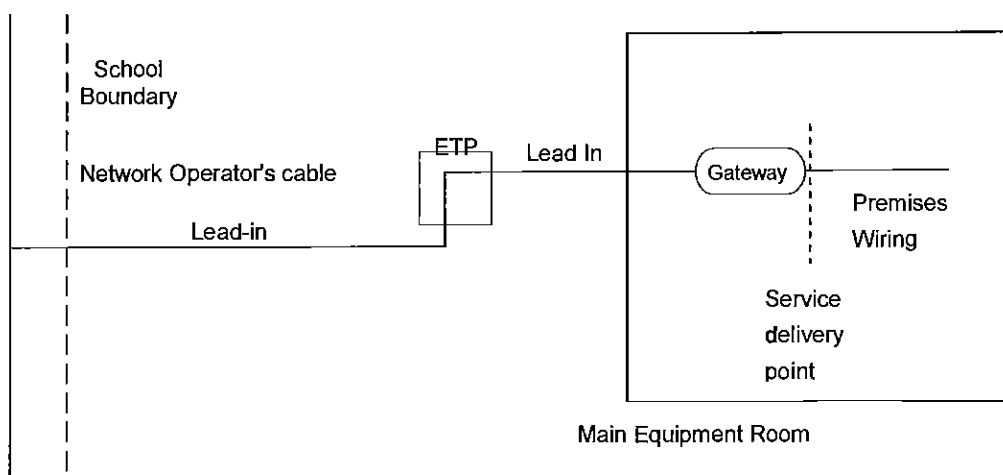
Schedule 10, Appendix A Lead-in Requirements

1 Introduction

This document defines the schools' and Ministry of Education's requirements for the fibre lead-in from the school boundary to a suitable connection point within the school buildings.

2 Definition

The following diagram illustrates the key components of a typical school fibre lead-in.



Term	Definition
Lead-in	The lead-in is the fibre cable that provides the connection between the network operators cable in the roadway to agreed service delivery point. This includes the fibre cable between the ETP and the school's server room.
External Terminating Point	The external terminating point (ETP) is the external point of the network operator's external cable into the school building(s).
Premises Wiring	The internal network cabling beyond the service delivery point.
Gateway	The active equipment that terminates the network and hosts the service delivery point – a port or ports on the gateway to which the schools internal network can be connected. The gateway may consist of 1 or more devices and may have some separation of retail and wholesale service demarcation – however this specification is agnostic on the nature of the demarcation.
Main Equipment Room	The main equipment room is used to accommodate the major items of telecommunications equipment such as telephone system, routers, switches and servers and shall be the central point of the cabling system. See section 8.2 of the Infrastructure Cabling Policy and Guidelines for Schools.
Network Operator	Telecom
School Network Upgrade Project	The <u>School Network Upgrade Project (SNUP)</u> , which is part of the Government's Broadband in Schools programme, provides ICT network upgrades to schools. This includes data cabling and outlets, and Ethernet switches. Electrical cabling and power points at data outlets to power terminal devices and wireless access points, are also

	provided.
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3 Asset ownership and maintenance

It is expected that the network provider will arrange for the connection between the network provider's distribution cable and the service delivery point with-in the school's Main Equipment Room.

Whilst the Ministry of Economic Development will meet the initial installation cost of this infrastructure, ownership and ongoing maintenance costs will be as follows:

Item	Ownership
External Lead-in	Network operator
Internal Lead-in	Network operator
Any ducting installed to house the lead in	Network operator
Premises wiring (NB, not part of Telecom installation activities)	School

4 Standards and Policy

These requirements should be read in conjunction with:

- **Lead In Standards**
 - The Telecommunication Carriers' Forum (TCF) Premises Wiring Standards
- **Premises Wiring Standards and any active equipment deployed into school network cabinets.**
 - The Ministry of Education Information Technology Infrastructure Cabling Policy and Guidelines for Schools Version 2.1 (<http://www.minedu.govt.nz/~media/MinEdu/Files/EducationSectors/PrimarySecondary/Initiatives/ICTInSchools/CablingStandardsV2.1.pdf>)

5 Requirements

Req 1.	<p>Deployment Method</p> <p>The fibre lead-in must comply with the District Plan if it specifies that utility services must be buried.</p> <p>Otherwise the lead-in must be the least cost method that complies with all contractual requirements.</p> <p>In the instance where there the option of underground or aerial deployment are of equal cost the Ministry's preference is for underground deployment</p>
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Req 2.	<p>Lead-ins within and between school buildings</p> <p>Where the fibre lead-in enters a building other than the building housing the main equipment room the following additional requirements apply:</p> <ul style="list-style-type: none"> • Cabling via the internal building spaces may use existing ducts and conduit if agreed between the school and the fibre provider • Cabling between the buildings may use existing inter-building ducts and conduit if agreed between the school and the fibre provider • An assessment must be made prior to work commencing that sufficient capacity in these conduits is available to install the lead-in
Req 3.	<p>Aerial Lead-ins</p> <p>Aerial lead-ins may be used without individual approval by the Ministry of Education where:</p> <ul style="list-style-type: none"> • there is an existing aerial lead-in to the school • the new aerial lead-in will follow the existing lead-in route and maintain at least the existing height clearances • the lead-in route does not impact any planned building work by the School or the Ministry of Education • the other requirements of this document are met
Req 4.	<p>Non Compliant Lead-ins</p> <p>Any lead-in deployments that are not compliant with the other requirements of this document will be considered on a case by case basis by the Ministry of Education.</p>
Req 5.	<p>Internal Lead-ins</p> <ul style="list-style-type: none"> • Any internal lead-in must be clearly labelled to identify the lead-in as distinct from school cabling • Use of existing spare school fibre cables must not occur
Req 6.	<p>Service Demarcation Point</p> <p>The Service Demarcation point must be located in the Main Equipment Room. For schools without a designated Main Equipment Room, the location of the service demarcation point is to be agreed with the School Principal.</p>
Req 7.	<p>Appropriate route and method</p> <ul style="list-style-type: none"> • The proposed route of the lead-in must be submitted to the school for approval • The fibre provider must take into account the school's knowledge when considering hazards of particular lead-in routes • The lead-in route must not negatively impact the use of the school building or grounds. Eg. aerial routes through sports grounds. • Plans must consist of outdoor fibre route maps at a minimum as shown in appendix 1, and diagrams showing internal lead-in route through school if these are used • Plans must detail the route depth • Proposed routes must avoid rework due to the impact of any planned building work by the school or the Ministry of Education, including any signalled by the schools 5 Year Property Agreement (5YA) <p>(This is not a requirement for drafting detailed plans, but is required to ensure the contractor does not inadvertently locate the lead-in through a high maintenance or high risk route – see appendix 1 for required quality of fibre route maps).</p>

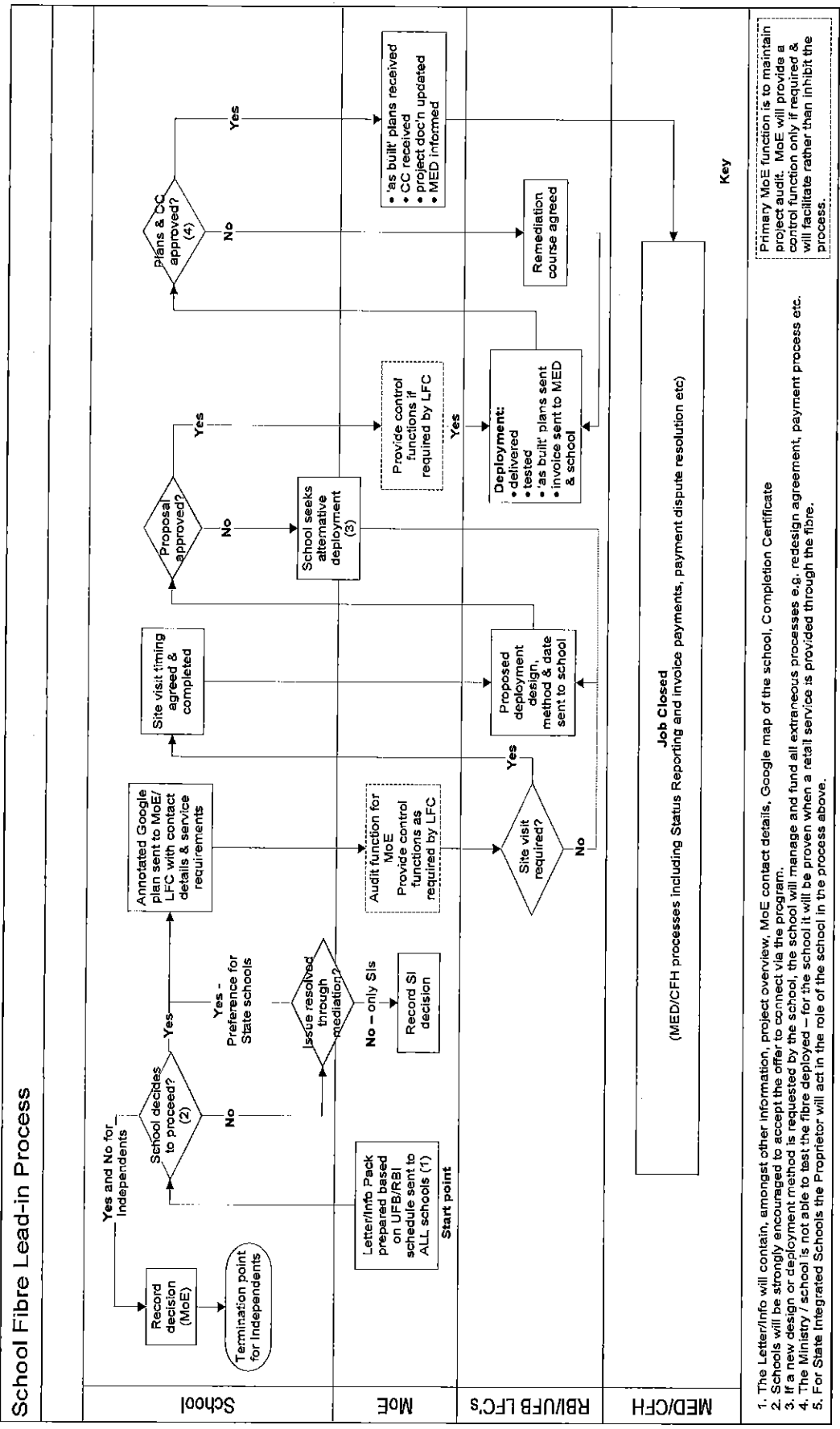
Req 8. S	<p>Desired Route and method</p> <p>Schools have the right to reject the fibre provider's proposal and specify the route and/or deployment type (aerial/underground) of their fibre lead-in even where the proposal complies with Requirement 7 - Appropriate Route and method.</p> <p>But the school must pay the difference in cost between the compliant proposal and their customised lead-in and manage all extraneous processes.</p>
Req 9. T	<p>Agreed schedule</p> <p>The lead-in provider must agree a date with the school for the lead-in installation schedule. (The school must make all reasonable attempts to accommodate the roll-out schedule of the fibre provider and the dates requested / proposed.)</p>
Req 10.	<p>Record of underground lead-ins</p> <p>As-built plans including both hard copy (to be left with the school) and electronic copy showing duct services created must be provided to the School representative and Ministry of Education representative. Where use of SNUP network components such as enclosures, conduits and pits has been made this must be provided as an insert to add to the school's SNUP documentation folder, including SNUP diagrams updated to show any lead-in fibre deployed through the SNUP conduits.</p>
Req 11.	<p>Security compliance</p> <p>All resources provided by the fibre provider to work on the school grounds must comply with the School Boards' and Ministry's security requirements (e.g. Education Amendment Act 2010). Police Vetting is required for every contractor or the employee of a contractor. The vetting process will be administered by the Ministry.</p>
Req 12.	<p>Standards for aerial lead-ins</p> <p>When aerial lead-ins are to be used the fibre provider is to use an "appropriate" self supporting exterior cable that complies with section 9.3.3 Aerial Pathways from the Ministry of Education Information Technology Infrastructure Cabling Policy and Guidelines For Schools Version 2.1⁶</p>
Req 13.	<p>Standards for underground lead-ins</p> <p>When lead-in is underground the fibre provider must ensure the lead-in complies with section 9.3.1 Underground Pathways from the Ministry of Education Information Technology Infrastructure Cabling Policy and Guidelines For Schools Version 2.1⁷</p>
Req 14.	<p>Health and Safety</p> <p>The fibre installation contractor is to comply with relevant health and safety (see appendix 2) policies and provide the school with appropriate notice and information to ensure the safety of staff and pupils for the duration of the fibre installation.</p>
Req 15.	<p>Integrity of installation to school grounds and building</p> <p>The installation contractor is to ensure that there are no negative impacts to the school grounds or buildings as a result of the fibre lead-in. This includes penetration to exterior walls and ground settlement as a result.</p>
Req 16.	<p>Termination Point</p> <p>For a dark fibre termination this should be in a separate wall mounted fibre optic termination panel in the room housing the service demarcation point.</p>

⁶ Will be updated in light of revised TCF standards

⁷ Will be updated in light of revised TCF standards

Req 17.	Fibre Provider Active Equipment All fibre provider active equipment must be installed only in the room housing the service demarcation point - the school's Main Server Room (or on site Disaster Recovery Room where one exists), or other designated alternative location agreed to by the School Principal.
Req 18.	Fibre splicing For some lead-ins it may be practicable to use the same type of cable for the lead-in and the building cable, in these cases the fibre cable should not be broken at the ETP. In cases where this cannot be achieved, small form factor LC/APC connectors should be used to provide the connection.

6 Proposed High Level Process



1. The Letter/Info will contain, amongst other information, project overview, MoE contact details, Google map of the school, Completion Certificate
 2. Schools will be strongly encouraged to accept the offer to connect via the program.
 3. If a new design or deployment method is requested by the school, the school will manage and fund all extraneous processes e.g. redesign agreement, payment process etc.
 4. The Ministry / school is not able to test the fibre deployed – for the school it will be proven when a retail service is provided through the fibre.
 5. For State Integrated Schools the Proprietor will act in the role of the school in the process above.

7 Example fibre drop route layouts

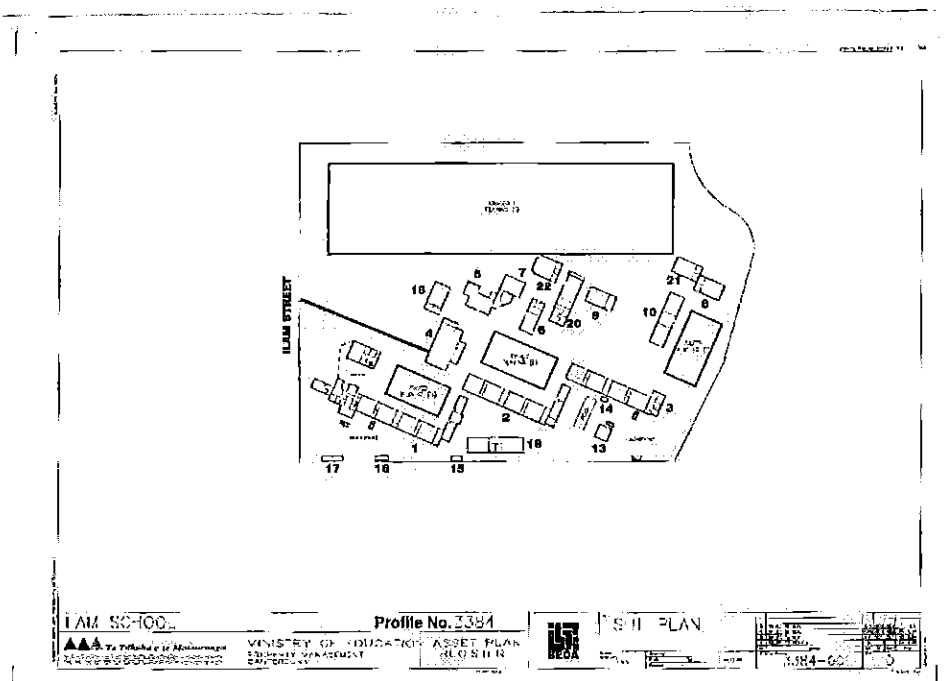
Example 1: Google map image, with fibre route marked to server room

N.B. Route depth should also be recorded



Example 2: School site plan, with drop fibre route marked to server room

N.B. Route depth should also be recorded



8 Health and Safety

Occupational Safety and Health Policy

1. The Contractor engaged under this Agreement agrees to comply with all legal requirements relating to the Services and the Contractor's supply of them.
2. The Contractor has read, understands and agrees to comply with:
 - (a) Any Code of Conduct or Health and Safety Guidelines produced by the School(s);
 - (b) The Ministry's Health and Safety Code of Practice for State and State Integrated Schools Section 3 (September 2003), available at:
<http://www.minedu.govt.nz/index.cfm?layout=document&documentid=8792&data=f>;
 - (c) This Occupational Safety and Health Policy; and
 - (d) The Occupational Safety and Health Policy of the Contractor.(Together, referred to as "the Policies").
3. In the event that any of the Policies conflict, the Contractor must immediately notify the Ministry of Education in writing.
4. The Contractor and its' employees must be appropriately trained, qualified and have current certification for the Services to be provided under this Agreement as required by law.
5. The Contractor shall use safe practices to identify, minimise and monitor hazards on the Site.
6. In the event that the Contractor considers that the Policies (or any of them) are inadequate or inappropriate, then it should immediately notify the Ministry of Education in writing.
7. The Contractor shall immediately report injuries and incidents that occurred on the Site to the Ministry of Education in writing.
8. The Contractor acknowledges that it will:
 - (a) ensure that any subcontractors or employees engaged receive a copy of this Occupational Health and Safety Policy and comply with the conditions listed;
 - (b) ensure that its subcontractors and employees are familiar with the School(s) emergency evacuation procedures as displayed throughout the premises and comply with evacuation instructions given by the fire wardens in the event of an emergency evacuation;
 - (c) not restrict or obstruct access to and from emergency apparatus e.g. fire fighting equipment
 - (d) display warning signs around the Site of potential hazards
 - (e) inform the School representatives of all processes that produce dust or fumes;
 - (f) wear identity badges whilst on Site and register with the School reception; and
 - (g) meet all the obligations imposed on it by statute, statutory regulation or local authority bylaws, including amendments.
9. The Contractor acknowledges that the Ministry of Education or the School representatives may at any stage inspect the Site to ensure that the Policies are being implemented and processes detailed in the Policies are being carried out.
10. The Contractor acknowledges and agrees that if the Ministry of Education issues a notice requiring it to stop work on Site due to a breach (in its opinion) of the Policies then the Contractor will do so and use all reasonable endeavours to rectify such breach.

Schedule 11

FTTP Community Lead-ins

75 Introduction

This Schedule sets out the key terms on which Telecom will offer installation of fibre lead-ins to connect End User Premises as part of the RBI Community Fibre Bitstream Service defined in Schedule 1. The provisions of this Schedule and its Appendices are subject to the other provisions of this Agreement.

76 Community Lead-ins

Telecom will ensure that the RBI Community Fibre Bitstream Service made Available to Eligible Service Providers under Schedule 1 includes installation of a "Fibre Lead-in" in accordance with the requirements of Appendix A ("**Community Lead-in**"). Community Lead-ins are only available for End User Premises with road frontage adjacent to FTTP Architecture that has been Deployed under this Agreement.

77 Connection Fees

- (a) Telecom will ensure that any fees which it charges for the installation of Community Lead-ins ("**Connection Fees**") comply with the requirements of this clause 77.
- (b) All Connection Fees will be calculated with a view to recovering only the capital expenditure that Telecom attributes to the Community Lead-in, as and when that capital expenditure is accounted for by Telecom in accordance with IFRS and Telecom's usual accounting policies and practices, subject to the other provisions of this clause 77 ("**Connection Costs**").
- (c) In calculating the Connection Costs, Telecom will capitalise internal labour at the same labour rates used by Telecom for self-funded capital projects. The Connection Costs will exclude any product development costs or interest costs.
- (d) The Connection Costs will exclude any costs in excess of what a skilled and experienced contractor in Telecom's position would reasonably incur in similar circumstances.
- (e) Telecom will offer the Connection Fees set out in clause 4 below ("**Standard Connection Fees**"), for End User Premises that meet the corresponding criteria set out in clause 4.
- (f) From 1 July 2012, Telecom will offer a promotional discount of 25% off the Standard Connection Fees for Community Lead-ins installed in tandem with the Deployment of the relevant Rural Link as part of the Design and Build Services.
- (g) Outside the scenarios covered by the Standard Connection Fees, Telecom may charge Connection Fees on a "POA" basis, based on actual Connection Costs.

78 **Standard Connection Fees**

Criteria ⁸	Standard Connection Fee
<p>Where all of the following criteria are met:</p> <ul style="list-style-type: none"> • End User Premises in areas which Telecom (acting reasonably) classifies as "Urban Density", generally being areas where average road frontage per End User Premises is 20m or less. • Not more than 1000m of Community Lead-in required to reach the Termination Point at the End User Premises. • Where the Community Lead-in requires more than 10m of buried cable, or more than 15m of aerial drop, the End User provides the physical works (in the form of an open trench) needed to traverse the ground along the route of the Community Lead-in from the site boundary to the Termination Point, in a manner that meets Telecom's reasonable specifications. 	<p>\$810 plus GST plus Additional Lead-in Fee (defined below, if applicable)</p>
<p>Where all of the following criteria are met:</p> <ul style="list-style-type: none"> • End User Premises in areas which Telecom (acting reasonably) classifies as "Medium Rural Density", generally being areas where average road frontage per End User Premises is greater than 20m but less than 100m. • Not more than 1000m of Community Lead-in required to reach the Termination Point at the End User Premises. • Where the Community Lead-in requires more than 10m of buried cable, or more than 15m of aerial drop, the End User provides the physical works (in the form of an open trench) needed to traverse the ground along the route of the Community Lead-in from the site boundary to the Termination Point, in a manner that meets Telecom's reasonable specifications. 	<p>\$1,980 plus GST plus Additional Lead-in Fee (defined below, if applicable)</p>

For a Community Lead-in involving more than 100m of open trenching, the Standard Connection Fee will include an "Additional Lead-in Fee" of \$5 (plus GST) for each metre of lead-in deployed in an open trench beyond the first 100m.⁹

⁸ Note that Community Lead-ins are only available for End User Premises with road frontage adjacent to FTTP Architecture that has been Deployed under this Agreement. See Appendix D of Schedule 2 for further detail on Deployment of FTTP Architecture.

⁹ Community Lead-ins may include open trenching up to a maximum of 1000m.

Schedule 11, Appendix A Community Lead-in Requirements

9 Introduction

This document defines the requirements for the installation of a fibre lead-in from FTTP Architecture provided along a Rural Link to a suitable connection point within End User Premises. These fibre lead-ins are only available for End User Premises with road frontage adjacent to FTTP Architecture that has been Deployed under this Agreement.

10 Defined Terms

In this Appendix A, unless the context requires otherwise:

<i>Connection</i>	means the cable joining the Fibre Access Point to the External Termination Point of an End User Premises, with such cable to be either from the pit on the adjoining boundary of two properties where the Fibre Access Point is located in underground deployment, or from the pole nearby to a number of premises in aerial deployment; and <i>Connected</i> will be construed accordingly.
<i>External Termination Point (or ETP)</i>	means a suitable fibre termination facility located as an attachment to an external structure located at the End User Premises although the fibre may pass through the ETP unbroken. In a Multi-Dwelling Unit or at the non building access point there may be no ETP and fibre may run to and terminate on a building frame or similar point.
<i>Fibre Access Point (or FAP)</i>	means a point at the End User Premises boundary where the lead-in connects to the distribution fibre of the relevant Rural Link.
<i>Multi-Dwelling Unit</i>	means a premises containing within its boundaries several individual residential or commercial tenancies or both.
<i>OFDF</i>	means Optical Fibre Distribution Frame and is the point where the Optic Fibre cables terminate and are cross connected.
<i>ONT</i>	means Optical Network Terminator and is the equipment on the End User Premise that provides the customer interface to the Layer 2 services.
<i>Single-Dwelling Unit</i>	means a premises containing within its boundaries an individual residential or commercial tenancy.
<i>Termination Point</i>	means the point at which the service ends or where it hands over or is connected to another service eg the termination point is the jack on the wall of the premise.

11 Installation

Installation of a Fibre Lead-in consists of the following (in each case to the extent that the relevant provisioning works are not already complete):

Fibre Lead-in to the ETP or OFDF

- (a) Provision of a Fibre Lead-in from the Fibre Access Point to, in the case of a Single Dwelling Unit, an ETP at the closest point on the End User premises and, in the case of a Multi Dwelling Unit, the OFDF or equivalent, including:

- (i) a fibre lead-in that utilises up to:
- 1000m of existing conduit or existing open trench; or
 - 15m of aerial drop lead in overhead areas; or
 - 10m of buried lead-in; and
- (ii) Connection of the Fibre Lead-in to Telecom's network.

Internal Fibre Lead-in Extension for Single Dwelling Units

- (b) for a Single Dwelling Unit, the Fibre Lead-in is then extended up to 5m from the ETP to a suitable jack inside the End User premises (there will not necessarily be a break in the Fibre Lead-in at the ETP), as follows:

- (i) the Fibre Lead-in is extended to plug directly into the ONT using the SC/APC plug on the end of the Fibre Lead-in; or
- (ii) if there is an OFDF beyond the ETP, the Fibre Lead-in is extended to the OFDF. A pigtail is then patched or spliced on to the Fibre Lead-in on the OFDF, so that the Fibre Lead-in extends via the pigtail and plugs directly into the ONT using the SC/APC plug on the end of the pigtail.

Single Dwelling Unit Termination Point

- (c) for a Single Dwelling Unit, the termination point for the purposes of the Connection, and the network demarcation point between Telecom's network and the building owner's premises wiring, is the SC/ACP plug on the end of the fibre that plugs into the ONT.

Multi-Dwelling Unit Termination Point

- (d) for a Multi-Dwelling Unit, the termination point for the purposes of the Connection and the network demarcation point between Telecom's network and the Multi-Dwelling Unit building owner's building wiring is the OFDF.

Extending beyond the OFDF in a Multi-Dwelling Unit building

- (e) the Service Provider must make its own arrangements (through the owner of the Multi-Dwelling Unit building or otherwise) to extend the Fibre Lead-in in a Multi-Dwelling Unit beyond the OFDF. To complete the extension, it is anticipated that these arrangements would involve either:
- (i) an extension of the Fibre Lead-in from the OFDF to plug directly into an ONT inside the End User premises using the SC/APC plug on the end of the Fibre Lead-in; or
- (ii) an extension of the Fibre Lead-in from the OFDF to plug directly into an ONT located in a building common area or other facility made available by the building owner to service the Multi-Dwelling Unit, using an SC/APC plug on the end of a pigtail which is patched or spliced to the Fibre Lead-in cable on the OFDF.

Testing

- (f) testing of the Fibre Lead-in from the Termination Point to the central office where the access node is located to ensure fibre is within the technical specification for fibre in this Agreement;

Installation of ONT

- (g) installation of ONT (if required) including:
 - (i) supply and fixing of the ONT to structure of End User premises (in the case of a Single Dwelling Unit, and a Multi Dwelling Unit where a Fibre Lead-in has been extended from the OFDF to the inside of the End User premises as anticipated in sub-clause (e));
 - (ii) supply and fixing of the ONT to a building common area or other facility made available by the owner to service the Multi-Dwelling Unit, where a Fibre Lead-in has not been extended from the OFDF to the inside of the End User premises;
 - (iii) supply and connection of fibre pigtail up to 1m long between the Fibre Lead-in termination point and the ONT if required; and
 - (iv) testing from port of ONT ensuring the Layer 2 Service is within specification.

Schedule 12

Deed of Indemnity

Deed of Indemnity

THIS DEED is made on the day of 2011

BETWEEN Telecom New Zealand Limited ("Telecom")

AND HER MAJESTY THE QUEEN in right of New Zealand acting through the MINISTER OF FINANCE ("the Crown") pursuant to section 65ZD of the Public Finance Act 1989

BACKGROUND

- A. On 16 March 2010, the government announced its \$300 million Rural Broadband Initiative (RBI) policy with the following two objectives:
- enable 97 percent of New Zealand households and enterprises to access broadband services of 5Mbps or better, with the remaining three percent to achieve speeds of at least 1Mbps ("the community objective"); and
 - connect 97 percent of schools to fibre, enabling speeds of at least 100Mbps, with the remaining three percent to achieve speeds of at least 10Mbps ("the schools objective").
- B. Telecom is about to enter into an agreement with the Ministry of Economic Development ("the Ministry") to design and build certain infrastructure and provide certain telecommunications services ("the Agreement") to enable the meeting of the RBI's schools objective and provide backhaul to Vodafone's wireless sites in order for Vodafone to meet the community objective.
- C. The Agreement includes a provision that enables the Ministry to step-in during the deployment stage of the Agreement to ensure that the overall RBI objectives are met.
- D. The Crown has, subject to the following terms and conditions, agreed to provide Telecom a limited indemnity in connection with the Ministry's Step-in rights under the Agreement.

THIS DEED PROVIDES as follows:

79 Definitions & Interpretation

In this Deed:

- (a) capitalised terms used in this Deed, other than those defined in the Background to this Deed, have the same meaning as those terms as defined in the Agreement; and
- (b) a reference to a clause means a reference to a clause in this Deed unless otherwise expressly stated.

80 Terms of the Indemnity

Pursuant to section 65ZD of the Public Finance Act 1989, the Minister of Finance, on behalf of the Crown indemnifies Telecom against any and all direct costs, expenses and liabilities suffered or incurred by Telecom to the extent that these are caused as a direct result of the Ministry, its Nominated Managers and/or its Nominated Contracts;

- (a) breaching clause 18.5 of the Agreement; or
- (b) failing, in the course of their activities in connection with the Step-in, to exercise the care, diligence and skill that a skilled and experienced telecommunications provider would exercise in similar circumstances,

except to the extent that Telecom could have mitigated those costs, expenses and liabilities during and after the Step-in in accordance with clause 22.7 of the Agreement.

81 Conditions of the Indemnity

81.1 Where a claim is or proceedings are brought against Telecom by a third party against which Telecom has been indemnified in respect of under clause 2, Telecom will only be entitled to indemnification to the extent that;

- (a) Telecom notifies the Ministry, in writing of the claim or proceedings promptly on becoming aware of the claim or proceedings (or of any facts which would indicate to a reasonable person that the claim or proceeding is imminent); and
- (b) Telecom keeps the Ministry informed as to the progress of any claim or potential claim or proceedings referred to in clause 3(a); and
- (c) Telecom acknowledges that the Ministry may, at the Ministry's election, conduct the defence of the third party claim or proceedings referred to in clause 3(a), and agrees to act reasonably in assisting the Ministry (at the Ministry's cost) in the defence or settlement of the claim, provided that:
 - (i) if the Ministry in any way settles or compromises the claim or proceedings without Telecom's prior written approval, the Ministry must ensure that Telecom has no obligation or liability in relation to that settlement or compromise, and that the Ministry accepts full responsibility for satisfaction of the terms of that compromise or settlement without recourse by any person to Telecom;
 - (ii) Telecom will always have sole control of, and the Ministry will not ever have control of, any third party claim or proceedings against Telecom:
 - (A) brought by or concerning Crown Fibre Holdings Limited;
 - (B) brought by or concerning the Crown or any governmental agency, department, instrument or representative, or any telecommunications customer group or user group (for example, the Telecommunications User Group of New Zealand also known as TUANZ);
 - (C) brought by or concerning the Telecommunications Commissioner in New Zealand or any other person with authority to hear or adjudicate matters that relate to Telecom's Network or telecommunications;
 - (D) concerning any claim or application relating to the Kiwi Share or under the Telecommunications Act 2001;

- (E) arising in relation to or affecting the Telecommunications Service Obligations (TSO) Deed for Local Residential Telecom Service (December 2001); and/or
- (F) that involves the Commerce Act, the Commerce Commission or any allegations of conduct that infringes the competition law rights of any person,

provided that in any such case Telecom will afford the Ministry the opportunity to express its interests and views on the conduct of any defence and or settlement of the claim or proceedings, and a reasonable opportunity (so far as is practicable in the circumstances) to review and comment on significant actions planned to be taken by Telecom; and

- (d) The indemnity provided for in clause 2 is subject to all applicable limitations of liability set out in the clause 22 of the Agreement, including the exclusion of certain unrecoverable losses as set out in clause 22.1 of the Agreement..

81.2 The indemnity provided for in clause 1 does not apply to the extent that Telecom could have mitigated those costs, expenses and liabilities during and after Step-In in accordance with the clause 22.7 of the Agreement.

81.3 For the avoidance of doubt the indemnity provided for in clause 2 only applies if the Ministry exercises its right of Step-In under the Agreement and only in relation to acts done or omitted by the Ministry, its Nominated Managers and/or Nominated Contractors during the Step-in period.

82 Disputes

Any dispute between Telecom and the Crown as to the interpretation or operation of this Deed shall be referred to arbitration under the Arbitration Act 1996 or any Act passed in substitution for it.

83 Amendments

This Deed may only be amended or revoked by an instrument in writing signed by both parties to this Deed.

84 Term

This Deed only applies on and from the date on which the Agreement is executed and continues in effect until revoked in writing in accordance with clause 5.

IN WITNESS of which this Deed has been executed.

SIGNED by the Honourable Simon William
English, MINISTER OF FINANCE, for and
on behalf of the Crown in the presence of:

Witness:

Occupation:

Address:

SIGNED by

for and on behalf of **Telecom New Zealand
Limited** in the presence of:

Witness:

Occupation:

Address:

