

Test Agreement

Test Description: Fibre to the Node 200 End User Trial (FTTN Trial)

Parties

- 1 NBN Co Limited (ABN 86 136 533 741) of Level 11, 100 Arthur Street, North Sydney NSW 2060 (**NBN Co**)
- 2 **[Insert full legal name of Test Participant]** (ABN **[insert ABN]**) of **[insert registered address of Test Participant]** (**Test Participant**)

Background

- A NBN Co and Test Participant have entered into the Standard Test Terms.
- B This Test Description, together with the Standard Test Terms, forms the Agreement for the FTTN Trial.
- C The purpose of the FTTN Trial is for NBN Co and Test Participant to test NBN Co's delivery of a Layer 2 Ethernet Bitstream to end user premises through the combined use of fibre and copper based DSL technology, which will assist NBN Co to continue to develop its proposed commercial FTTN product.
- D The FTTN Trial will involve the provision of active feedback by Test Participant and End Users to NBN Co about the performance of the FTTN Trial Product, including any unintended effects from the supply of the FTTN Trial Product.
- E NBN Co intends to perform Test activities relating to the FTTN Trial Product in respect of a limited number of locations for a period up to the Test Description Expiry Date, unless varied by NBN Co or terminated early by NBN Co in accordance with this Agreement.
- F Participation in the FTTN Trial is limited to Test Participants that own unconditioned Communications Wires to be used in the FTTN Trial and who provide access to the non-voice frequency spectrum of the unconditioned Communications Wires to NBN Co.
- G NBN Co may continue offering the FTTN Trial Product for supply after the Test activities are completed until NBN Co offers a commercial service in respect of the locations which are part of the FTTN Trial and prior to the Test Description Expiry Date.

1 Participation in the FTTN Trial

1.1 To participate in the FTTN Trial, and before NBN Co supplies the FTTN Trial Product to the Test Participant, Test Participant must:

- (a) be a Carrier or Carriage Service Provider that provides DSL-based services and provides POTS Telephony Services to downstream service providers and members of the public;
- (b) be a party to a WBA that contains the terms of supply of NEBS over the NBN Co FTTB Network;
- (c) have completed the on-boarding activities for the Sandpit, Facilities Access Service and NEBS under the WBA;
- (d) have provided an executed Access Seeker Undertaking in connection with the Facilities Access Service;
- (e) have entered into the Standard Test Terms;
- (f) have undertaken on-boarding and certification activities (including workshops) as NBN Co prescribes for the FTTN Trial Product; and
- (g) be a party to an agreement with NBN Co providing access to NBN Co of the non-voice frequency spectrum of unconditioned Communications Wires that:
 - (i) for each Pilot Premises, is between:
 - (A) the Second Pillar Termination Point;
 - and

- (B) the Test UNI;
 - (ii) are owned by Test Participant; and
 - (iii) are to be used in the FTTN Trial.
- 1.2 If Test Participant ceases to comply with the conditions in clause 1.1 at any time during the FTTN Trial, NBN Co may immediately terminate Test Participant's participation in the FTTN Trial.

2 FTTN Trial Product

- 2.1 The FTTN Trial Product is:
- (a) an Ethernet-based, Layer 2 virtual connection on the NBN Co FTTN Test Network that carries traffic between:
 - (i) a Test UNI at the First Socket; and
 - (ii) the NNI associated with the CSA in which the Pilot Premises is located; and
 - (b) optional carriage of a POTS Telephony Service from the First Pillar Termination Point through an NBN Co Combiner to the Second Pillar Termination Point,
- for the purposes of enabling Test Participant or a downstream service provider to test the supply of a Carriage Service or Content Service to End Users at Pilot Premises.
- 2.2 The FTTN Trial Product comprises at least the following four product components:
- (a) NEBS NNI;
 - (b) Test CVC;
 - (c) Test AVC; and
 - (d) Test UNI.
- 2.3 The FTTN Trial Product may also comprise carriage of a POTS Telephony Service as described in clause 2.1(b) where agreed by the parties.

3 NBN Co's Obligations

- 3.1 Before the start of the FTTN Trial, NBN Co will provide to Test Participant:
- (a) a Product Description for the FTTN Trial Product and a Product Technical Specification for the FTTN Trial Product; and
 - (b) a Pilot Interactions Handbook and Test Plan for the conduct of the FTTN Trial.
- 3.2 NBN Co will update the documents provided under clause 3.1 throughout the FTTN Trial to reflect learnings from the performance of the FTTN Trial and use reasonable endeavours to provide Test Participant as much notice as practicable of such updates.

- 3.3 [Not used]
- 3.4 Subject to this Agreement NBN Co will supply:
- (a) Test CVCs, Test AVCs and Test UNIs to Test Participant under this Agreement; and
 - (b) the Sandpit, Facilities Access Service and NEBS NNIs under this Agreement, on the same terms as they are supplied under the WBA except as set out in clause 5.2, for use by Test Participant with Test CVCs, Test AVCs and Test UNIs.
- 3.5 [Not used.]
- 3.6 In respect of a limited number of Single Line Pilot Premises nominated by NBN Co and agreed to by Test Participant, at which an existing unconditioned Communications Wire is connected and is already terminated on a dedicated telecommunications outlet and power is made available, Test Participant:
- (a) may (as agreed between NBN Co and the Test Participant) install an NBN Co Splitter within a wall cavity or other suitable location and replace the existing First Socket with a new wall plate including one socket for the connection of End User cabling for the transmission of data and a separate socket for the connection of End User cabling for the transmission of voice; and
 - (b) will connect an NBN Co-approved modem/gateway (as described in the Product Technical Specification for the FTTN Trial Product and provided and configured by Test Participant) and test the Ethernet-based Layer 2 virtual connection.
- 3.7 NBN Co and the Test Participant will assist and collaborate in the investigation and resolution of any fault or performance issues with the FTTN Trial Product or Downstream Product to the extent described in the Pilot Interactions Handbook.
- 3.8 NBN Co will:
- (a) not charge Test Participant for any product component described in clause 3.4(a) or any activity described in clauses 3.5, 3.6 or 3.7; and
 - (b) not charge Test Participant for any product component described in clause 3.4(b) in addition to any associated charge under the WBA where that product component is being supplied under the WBA.
- 3.9 NBN Co will notify Test Participant of any Test activity which NBN Co intends to conduct (under this Agreement or an agreement with any other test participant) which NBN Co expects will cause cross-talk with noticeable impacts for any user of carriage services

at a Pilot Premises or any premises near a Pilot Premises.

- 3.10 Each party will use its reasonable endeavours to co-operate with the other to minimise any adverse effects for users of carriage services from cross-talk.
- 3.11 NBN Co will use reasonable endeavours to include Test activities to evaluate different methods of migrating Pilot Premises from existing commercial products to the FTTN Trial Product (for example, migration on demand, bulk migrations and batch migrations) subject to:
- (a) Test Participant providing access to affected Premises in a manner acceptable to NBN Co for such purposes; and
 - (b) NBN Co having all other consents and approvals necessary or desirable to evaluate a given method of migration.

4 Test Participant's obligations

- 4.1 Test Participant will acquire and use product components supplied pursuant to clause 3.4 to supply Downstream Products to End Users at Pilot Premises in accordance with this Agreement.
- 4.2 If Test Participant intends to use, and NBN Co agrees to supply, the POTS Telephony Service carriage functionality of the FTTN Trial Product with respect to the Pilot Premises, the Test Participant must provide to NBN Co all information and consents necessary for NBN Co to:
- (a) disconnect any existing connections associated with the relevant Pilot Premises where necessary or desirable to do so; and
 - (b) jumper the Pillar Termination Point for the relevant POTS Telephony Service to the NBN Co Combiner.
- 4.3 Throughout the FTTN Trial, Test Participant will (in accordance with the Pilot Interactions Handbook and Test Plan where applicable):
- (a) **End Users:** use its reasonable endeavours to procure the participation of End Users in the FTTN Trial in the numbers, locations and for the periods set out in the Test Plan;
 - (b) **Pilot Premises:** provide, or procure, access for NBN Co to Single Line Pilot Premises and Second Line Pilot Premises in accordance with clause 7 of the Standard Test Terms;
 - (c) **Ordering:** order Test AVCs and Test UNIs in the quantities and with the features set out in the Test Plan;
 - (d) **Installations:** in Single Line Pilot Premises, other than any agreed with NBN Co under clause 3.6 or

4.9, have a registered cabler install a splitter within a wall cavity or other suitable location and replace the existing First Socket with a new wall plate including one socket for the connection of End User cabling for the transmission of data and a separate socket for the connection of End User cabling for the transmission of voice (unless no POTS Telephony Service is or will be supplied during the period in which NBN Co supplies the FTTN Trial Product);

- (e) **CPE:** supply to End Users any CPE described in the Product Technical Specification for the FTTN Trial Product;
 - (f) **Pilot Contact:** at NBN Co's request, make relevant Pilot Contacts available for the purpose of co-ordination of the FTTN Trial;
 - (g) **Feedback:** provide information and feedback to NBN Co regarding the FTTN Trial Product and FTTN Trial processes;
 - (h) **End User feedback:** obtain, or (where requested) assist NBN Co to directly obtain, feedback regarding the FTTN Trial Product and FTTN Trial processes from End Users; and
 - (i) **Communication:** provide NBN Co a reasonable opportunity to comment on any proposed communications from Test Participant to End Users or third parties regarding the FTTN Trial.
- 4.4 Test Participant must immediately notify NBN Co if Test Participant becomes aware of any actual or likely unexpected or unintended impact of the FTTN Trial, including to any person not actively participating in the FTTN Trial.
- 4.5 Test Participant agrees that:
- (a) NBN Co will have no Liability for cross-talk caused by, or contributed to by, the FTTN Trial;
 - (b) Test Participant will not make any Claim in connection with cross-talk caused by, or contributed to by, the FTTN Trial; and
 - (c) clause 11.6 of the Standard Test Terms applies in relation to customers of the Test Participant whether or not they are End Users receiving a Downstream Product to which the FTTN Trial Product is an input.
- 4.6 Test Participant's obligation under clause 2.5 of the Standard Test Terms not to use a Test Product as an input into the supply of a Downstream Product on a commercial basis does not apply to the FTTN Trial Product.

4.7 Notwithstanding clause 4.6, Test Participant must not use the FTTN Trial Product as an input to a Downstream Product that is:

- (a) a Priority Service; or
- (b) used by a medical or security alarm.

4.8 Clause 5.2 of the Standard Test Terms does not apply to the FTTN Trial.

4.9 At Test Participant's request, NBN Co may (at its discretion and in accordance with clause 17.9 of the Standard Test Terms) agree to waive the obligation for Test Participant to perform the installation set out in clause 4.3(d) and, in such cases:

- (a) Test Participant is responsible for any alternative method used to connect End User cabling and equipment to the First Socket;
- (b) NBN Co acknowledges that the use and testing of alternative industry-recognised methods of connecting End User cabling and equipment to the First Socket are acceptable for the purpose of the FTTN Trial; and
- (c) Test Participant acknowledges that alternative industry recognised methods of connection which do not effectively isolate in-premises wiring used for the carriage of voice and data respectively may adversely affect performance of the FTTN Trial Product.

5 FTTN Trial Product performance

5.1 Test Participant acknowledges that the NBN Co Network has not been designed to supply the FTTN Trial Product and NBN Co cannot guarantee supply or performance of the FTTN Trial Product.

5.2 Test Participant acknowledges and agrees that no service level, rebate or compensation is available or applicable to any aspect or component of the supply of the FTTN Trial Product (including with respect to product components supplied under the same terms as under the WBA, in which case the supply of the product component will, to the extent it is used for the purposes of the FTTN Trial, be exempt from any service levels, rebates, compensation or other amounts, and from any obligations on NBN Co to take any action for any failure to achieve any service level that may otherwise apply).

5.3 If Test Participant intends to supply a standard telephone service using a Downstream Product to which the FTTN Trial Product is an input:

- (a) no CSG compensation is payable by NBN Co under or in connection with this Agreement; and
- (b) Test Participant waives any right which it may have to recover any amount from NBN Co pursuant to section 118A of the TCPSS Act in

connection with any FTTN Trial Product or its supply (or non-supply).

5.4 The parties will use reasonable endeavours to minimise any End User Service Downtime in connection with the FTTN Trial.

5.5 Each party acknowledges that, for the purpose of clause 5.4, reasonable endeavours may include reconnecting the type of telecommunications service in place immediately preceding the FTTN Trial if an instance of End User Service Downtime continues for more than 24 hours.

6 Term, termination and withdrawal

Test activities

6.1 Subject to the remainder of this clause 6, Test activities will:

- (a) begin on or around 31 March 2015; and
- (b) cease on the Test Description Expiry Date.

6.2 Subject to clause 6.4, NBN Co may, by giving Test Participant 5 Business Days' notice, amend either or both of the dates on which Test activities begin and cease.

6.3 NBN Co may terminate Test activities before the date on which Test activities are scheduled to cease in accordance with the Standard Test Terms.

6.4 This Test Description will expire on the Test Description Expiry Date. All Tests and Test activities under this Test Description terminate on the Test Description Expiry Date, unless cancelled or terminated earlier in accordance with this Test Description.

Supply of the Test Product

6.5 NBN Co may begin to supply the FTTN Trial Product before it begins Test activities and may continue to supply the FTTN Trial Product after it ceases performing Test activities.

6.6 Subject to clause 6.10, NBN Co may terminate the supply of the FTTN Trial Product at a particular Pilot Premises by issuing a Cancellation Notice in accordance with the Standard Test Terms.

Cancellations by Test Participant

6.7 Subject to clauses 6.8 to 6.10, Test Participant may cancel the supply of the FTTN Trial Product to a particular Pilot Premises by giving NBN Co at least 5 Business Days' notice.

6.8 If Test Participant cancels the supply of the FTTN Trial Product to a Pilot Premises under clause 6.7, Test Participant will:

- (a) inform NBN Co of the reason for the cancellation; and
- (b) assist NBN Co to ensure the cancellation does not affect the parties' overall performance of the Test Plan (including by using reasonable endeavours to procure the participation of substitute End Users if requested by NBN Co).

6.9 If the Test Participant intends to cancel supply of the FTTN Product in respect of a Pilot Premises because its supply is resulting in an adverse impact on Test Participant's network or services:

- (a) Test Participant will immediately notify NBN Co;
- (b) NBN Co will take reasonable steps to investigate and attempt to resolve the issue;
- (c) Test Participant will provide NBN Co with all reasonably requested assistance in its investigation and resolution activities; and

if the issue is not resolved within 5 Business Days after NBN Co receives the Test Participant's notice, NBN Co will promptly terminate the supply of the FTTN Trial Product in respect of the Pilot Premises at the written request of the Test Participant.

Obligations regarding termination of supply

- 6.10 The parties will use their reasonable endeavours to work with each other for the purpose of avoiding any inconvenience to any End User affected by termination or cancellation of this Test Description or the supply of the FTTN Trial Product.
- 6.11 NBN Co is not obliged to supply the Test CVCs, Test AVCs or Test UNIs after termination of this Test Description or cancellation of the FTTN Trial in accordance with this clause 6.

7 FTTN Trial review and report

- 7.1 At regular intervals during the FTTN Trial Test activities and after completion of the Test activities, the parties will, at NBN Co's request, meet to review and evaluate the performance of the FTTN Trial Product and FTTN Trial processes.
- 7.2 If requested by NBN Co, Test Participant will obtain or assist NBN Co to directly obtain (as applicable) additional feedback regarding the FTTN Trial Product and FTTN Trial processes from End Users after the Test activities period.

8 Contact points

- 8.1 NBN Co and Test Participant:
 - (a) will each appoint a person as a central contact point regarding the FTTN Trial; and

- (b) may each appoint additional people as contact points in relation to specific matters regarding the FTTN Trial (such as operational or technical issues),

(each, a **Pilot Contact**).

- 8.2 NBN Co and Test Participant will provide telephone and email contact details of their Pilot Contacts to each other on commencement of the FTTN Trial, and maintain and provide updates to these contact details for the duration of the Test Description.

9 Dictionary

In this Test Description:

- (a) the singular includes the plural and vice versa;
- (b) any capitalised term used but not defined has the meaning given to that term in the Standard Test Terms; and
- (c) any capitalised term used but not defined in this Test Description or the Standard Test Terms has the meaning given to that term in the WBA,

and:

ADSL means Asynchronous Digital Subscriber Line which is the set of protocols, recommendations and standards set out in the ITU-TG.992 Recommendations.

Communications Wire means a copper or aluminium wire forming part of a public switched telephone network.

Copper Jumpering means jumpering using copper cabling provided by NBN Co within an NBN Co Node and between a street pillar or cabinet and the NBN Co Node for the purpose of connecting:

- (a) the Pillar Termination Point with the NBN Co Combiner;
- (b) the NBN Co Fibre Network with the NBN Co Combiner; or
- (c) the NBN Co Combiner with the Test UNI.

CPE means customer premises equipment and may include either, or both, active and passive equipment.

CSG means a performance standard that applies pursuant to the *Telecommunications (Consumer Service Guarantee) Standard 2011*.

DSL means Digital Subscriber Line and includes either ADSL or VDSL.

DSLAM means DSL Access Multiplexer which is the NBN Co Equipment used to transmit and receive DSL signals between the NBN Co Fibre Network and the Test UNI.

End User Service Downtime means, in respect of a Pilot Premises, that the Pilot Premises does not have one or both of:

- (a) a functioning DSL service; and

- (b) a functioning POTS Telephony Service if the FTTN Trial Product which is being supplied to the Pilot Premises includes the carriage of a POTS Telephony Service.

First Pillar Termination Point means the point in a Pillar at which a C-pair connecting that Pillar and a NBN Co Node terminates.

First Socket means the first accessible point in a Pilot Premises at which End User cabling and equipment can be terminated and connected to copper local loop line from an NBN Co Node for the transmission of carriage services including an Ethernet-based, Layer 2 virtual connection and a POTS Telephony Service (where such service is carried as part of the FTTN Trial Product under clause 2.1(b)) received at the Pilot Premises.

FTTN BRT Special Terms means the agreement titled FTTN Business Readiness Testing Special Terms to be entered into between NBN Co and Customer in connection with the FTTN business readiness testing.

FTTN Trial means the supply by NBN Co to Test Participant of the FTTN Trial Product on a trial basis for the term of this Test Description together with the performance of the obligations set out in this Test Agreement in relation to such supply.

FTTN Trial Product has the meaning set out in clause 2.1 and is described in further detail in the Product Description for the FTTN Trial Product and the Product Technical Specification for the FTTN Trial Product.

NBN Co Combiner means a facility installed by NBN Co in an NBN Co Node, which is used by NBN Co to combine the Ethernet-based, Layer 2 virtual connection supplied from the NNI with a POTS Telephony Service carried from the First Pillar Termination Point.

NBN Co FTTN Test Network means the fibre network, Copper Jumpering, the NBN Co Combiner and DSLAM owned or controlled by, or operated by or on behalf of, NBN Co (or any Related Body Corporate of NBN Co), the copper local loop line to which they are connected (including the unconditioned Communications Wire referred to in clause 1.1(g)), and any equipment owned, operated or controlled by NBN Co (or any Related Body Corporate of NBN Co) and used as part of, or in connection with Tests (whether part of the production network, any replica 'sandpit' environment, or otherwise).

NBN Co Network has the meaning given to it in the Standard Test Terms and also includes the NBN Co FTTN Test Network.

NBN Co Node means a street cabinet at which NBN Co will terminate the NBN Co Fibre Network and connect it to a copper local loop line which will be used to supply the FTTN Trial Product to a Pilot Premises.

NBN Co Splitter means a facility installed by the Test Participant in a Pilot Premises to split the Ethernet-based, Layer 2 virtual connection and a combined POTS Telephony Service transmitted by NBN Co from an NBN Co Node and received at the Pilot Premises.

Pillar Termination Point means the First Pillar Termination Point and/or the Second Pillar Termination Point, as the context requires.

Pilot Contact has the meaning given to that term in clause 8.1.

Pilot Interactions Handbook means the interactions handbook supplied by NBN Co to Test Participant for the purpose of the FTTN Trial.

Pilot Premises means a Premises to which NBN Co agrees to supply the FTTN Trial Product.

POTS Telephony Service means a baseband voice service supplied by the Test Participant or a downstream service provider to an End User using copper local loop services.

Product Description for the FTTN Trial Product means the product description supplied by NBN Co to Test Participant for the purpose of the FTTN Trial.

Product Technical Specification for the FTTN Trial Product means the product technical specification supplied by NBN Co to Test Participant for the purpose of the FTTN Trial.

Second Line Pilot Premises means a Pilot Premises at which:

- (a) NBN Co agrees to supply the FTTN Trial Product (on a copper local loop line not in use prior to such supply) without the carriage of a POTS Telephony Service described in clause 2.1(b);
- (b) a POTS Telephony Service exists (on a separate copper local loop line) prior to the supply of the FTTN Trial Product; and
- (b) the copper local loop line over which NBN Co supplies the FTTN Trial Product between the NBN Co Node and the Test UNI is terminated on a dedicated socket, including pursuant to an installation of a socket under clause 3.5.

Single Line Pilot Premises means a Pilot Premises at which:

- (a) NBN Co agrees to supply the FTTN Trial Product with the carriage of a POTS Telephony Service described in clause 2.1(b); or
- (b) no POTS Telephony Service exists prior to supply of the FTTN Trial Product.

Second Pillar Termination Point means the point in a Pillar at which an X-pair connecting that Pillar and a NBN Co Node terminates.

Test AVC means the AVC product component described in the Product Description for the FTTN Trial Product and the Product Technical Specification for the FTTN Trial Product.

Test CVC means the CVC product component described in the Product Description for the FTTN Trial Product and the Product Technical Specification for the FTTN Trial Product.

Test Description means this document, which is issued by NBN Co under the Standard Test Terms.

Test Description Expiry Date means 13 November 2015, unless extended by NBN Co by 5 Business Days' prior written notice to Test Participant.

Test UNI means the UNI product component described in the Product Description for the FTTN Trial Product and the Product Technical Specification for the FTTN Trial Product.

VDSL means Very-high-bit-rate Digital Subscriber Line which is the set of protocols, recommendations and standards set out in the ITU-TG.993.2 Recommendations.

Execution page

Executed as an agreement on

Signed for **NBN Co Limited** by its authorised representative:

Signature of authorised representative

Signature of authorised representative

Name of authorised representative

Name of authorised representative

Signed for **[insert full legal name of Test Participant]** by its authorised representative:

Signature of authorised representative

Name of authorised representative