



22 December 2017

Mr Robert Wright
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Australian Competition and Consumer Commission
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Dear Mr Wright,

Variation of Telstra's Migration Plan for FTTC

nbn supports the proposed changes to the Migration Plan submitted to the ACCC by Telstra on 6 October 2017. The changes appropriately reflect **nbn**'s introduction of fibre to the curb (**FTTC**) technology, the latest addition to the mixed technology model used by **nbn** to provide superfast broadband to Australian premises.

Introduction of FTTC in the Migration Plan

In line with its statement of expectations, **nbn** continues to assess the most appropriate technology for connecting premises. FTTC, to be launched in March 2018, will deliver fibre to the telecom pit in the street outside a premises, where the fibre connects with a small distribution point unit (**DPU**). From there the existing copper line is used to deliver the service to the premises. As with FTTN, FTTC has the advantage of minimising the need to dig lead-in conduit to run a line into the premises – minimising the impact on end users.

A key difference from FTTN and FTTB is that FTTC is reverse-powered from the end-user premises via the **nbn** supplied network connection device (**NCD**) that incorporates a reverse power feed. Because the technology is reverse-powered, the voiceband pass through functionality that is made available for FTTN/FTTB during the migration window is not possible for FTTC connections. However, **nbn** understands that this functionality has not been used by the majority of RSPs and, in any event, is not available following the migration window for FTTN/B premises.



FTTC construction and activation

Construction

The construction of FTTC is already underway. During construction of the network **nbn** pre-deploys DPUs, cutting in the copper pair from a premises to the DPU. The DPU sits in 'pass-through' mode until an NCD is connected inside the home. For some services, for example, Special Services, **nbn** does not perform the cut-in during construction to avoid service interruption. Services that are not cut-in during construction will be done on demand when an end-user places an order.

Activation

After an end-user places an order, **nbn** completes the access virtual circuit and provisions the DPU port to serve the premises. Once **nbn** completes its activities, the access seeker will be notified so that the RSP can complete their connection activities (eg. supply of modem). The connection of the NCD by the end-user, or **nbn** where required, will then physically power the DPU port enabling the FTTC service.

Telstra disconnection of legacy services

During the migration window, Telstra will disconnect services when either:

- an end user or wholesale customer places a disconnection order; or
- the service is provided over a copper pair that is included in the daily migration file that **nbn** provides to Telstra.

Inclusion in the daily migration file is dependent on completion of an FTTC order over the relevant copper pair. **nbn** will complete an order and send the 'Order Complete' notification to the **nbn** access seeker when either:

- **nbn**'s daily polling confirms traffic flow over the AVC component of the FTTC service; or
- 10 calendar days (or 20 calendar days if extended) has passed since **nbn** completed its connection activities and notified the RSP.

For the daily polling, the data detection capability will be set up to protect against false positives (eg. connectivity that does not indicate a working service through authentication or testing and diagnostics) and will be dependent on both the NCD and RSP gateway being in place.

Order completion will trigger billing, service class update and the daily migration file process. The transfer of the daily migration file for FTTC premises, and Telstra's disconnection activities that flow from this file, replicate the processes that already exist for FTTN/B.

Service continuity and minimising disruption to end users

The ACCC has raised a number of questions regarding service continuity and whether the variations to Telstra's Migration Plan provide an adequate mechanism to minimise potential unintended disconnections. In relation to service continuity, there are three important aspects of the FTTC migration process that should be noted:

- (1) **The Daily Migration File process for FTTC is the same as FTTN/B:** As noted above, Telstra will need to disconnect the services provided over a copper line that **nbn** has used to activate an FTTC service. In this respect, FTTC follows the processes established for FTTN/B and does not introduce any new concerns from a service continuity perspective.



- (2) **Criteria for inclusion in the DMF:** Under FTTN/B, a copper pair is included in the daily migration file as soon as **nbn** completes jumpering at the node, triggering the disconnection of the legacy services provided over the line. This is necessary because the copper pair will no longer be physically capable of supporting the legacy Telstra service. Due to the different network architecture and activation process, FTTC allows a longer period between the completion of **nbn** activities and inclusion in the daily migration file. If **nbn**'s polling has not confirmed traffic on the connected FTTC service, **nbn** will wait a minimum of 10 calendar days before notifying Telstra of the FTTC connection. If an RSP identifies the need for additional time, **nbn** can extend the period up to 20 calendar days for completion of RSP / end user activities.
- (3) **End user control re timing of NCD / RSP gateway connection:** Traffic will only be detected by **nbn**'s daily polling when an end user has plugged in the NCD and the RSP gateway is connected. This means that during the initial 10 calendar day timeframe, the end user is able to determine their preferred time for completing the FTTC connection.

Amendments re Order Stability Period and MDU Common Areas

The amendments to the Migration Plan to:

- update the Order Stability Period (**OSP**) to align with In Train Order disconnection timeframes; and
- clarify that sub-locations within an MDU Common Area (which are not included on the FFL as separate locations from the MDU CA) are subject to cease sale,

are logical updates to ensure that the Migration Plan provides a clear and accurate description of Telstra's disconnection processes and obligations.

To the extent that the **OSP** currently described in the Migration Plan is inconsistent with Telstra's timeframes for managed disconnection in clause 15, **nbn** supports the change to clause 13.1 to bring the **OSP** into alignment.

The changes to clause 17 regarding cease sale for MDU Common Areas do not change the effect of the Migration Plan, but provide a useful clarification. Sub-locations in MDU Common Areas are already subject to cease sale, and Telstra's proposed updates to clause 17.1 simply make this point more explicit.

nbn considers that Telstra has reflected the necessary changes for FTTC in its Migration Plan update (along with useful clarifications regarding the **OSP** and MDU Common Area sub-locations). As FTTC technology is introduced into the mixed technology model, **nbn** will continue to work with Telstra and industry to ensure continual improvement in the migration process for FTTC and all **nbn** access technologies.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Caroline Lovell', written in a cursive style.

Caroline Lovell
Chief Regulatory Officer