



## **Final clarification of the Standard Terms Determination on Chorus's Unbundled Bitstream Access service**

**DECISION NO. 746**

Draft clarification under section 58 of the Telecommunications Act 2001 (the 'Act') of  
Decision 611

**The Commission:** Dr Ross Patterson  
Anita Mazzoleni  
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Pat Duignan

**Date of final clarification:** 19 December 2011

## Purpose

1. This decision sets out changes the Commission has made to the service description for the Commerce Commission's Standard Terms Determination for the designated service Telecom's unbundled bitstream access, dated 12 December 2007, Decision 611 (the **UBA STD**), to clarify technological alternatives available for delivering the BUBA service.

## Background

2. On 12 December 2007, the Commission issued a standard terms determination under section 30M of the Act in respect of the designated access service of Telecom's unbundled bitstream access (**UBA**).
3. The unbundled bitstream access (UBA) service is a digital subscriber line enabled service that enables access to, and interconnection with, that part of Telecom's fixed PDN that connects the end-user's building to Telecom's first data switch (or equivalent facility) other than a DSLAM. In the UBA STD 2007, 4 variants were specified:
  - Basic UBA
  - Enhanced UBA 40kbps
  - Enhanced UBA 90kbps
  - Enhanced UBA 180kbps

Each variant of the UBA service was also available with and without POTS.

4. The basic UBA (BUBA) service was specified with a single class of service, internet grade FS/FS service. The EUBA services were differentiated by having two classes of service, one an internet-grade service and the other a real-time class of service where packets could be tagged.<sup>1</sup>
5. In the service description for the Basic UBA, the 'External Termination Point' (paragraph 3.20) is stated as:

The Basic UBA Service is delivered as PPP over ATM (PPPoA) over a DSL copper interface (ITU-T G.992.1) to the ETP at the END User's premises.

6. In contrast, in the service description for the Enhanced UBA (EUBA) the 'External Termination Point' (paragraph 4.21) is stated as:

The Enhanced UBA Services are delivered as Ethernet services over a DSL copper interface to the End Users ETP.

7. At the UBA conference in 2007, Telecom stated that initially BUBA would be offered over ATM, but it intended in the future to offer BUBA over Ethernet. This situation has now been realised.

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<sup>1</sup> See, e.g., UBA STD Reasons paper, para. 56.

8. EUBA(0) is a bitstream service offered by Telecom Wholesale that matches the service characteristics of the BUBA service. The service is offered over Ethernet as either PPPoA or PPPoE. Apart from the infrastructure differences arising from the underlying use of Ethernet instead of ATM, the EUBA(0) service is identical to the BUBA service. In particular, EUBA is offered as a FS/FS service with a single class of internet traffic.
9. The Commission considers that EUBA(0) is the BUBA regulated service (delivered specifically over Ethernet), and seeks to clarify the UBA STD accordingly.
10. While Telecom already provides the EUBA(0) and BUBA services on the same terms, including price, we consider that clarifying the UBA STD now will provide certainty to Chorus and access seekers. In particular, it will ensure that the correct pricing information is provided for benchmarking purposes.
11. The Telecommunications (TSO, Broadband, and Other Matters) Amendment Act 2011 (**Amendment Act**) requires that the Commission determine an initial pricing principle (IPP) for Chorus's unbundled bitstream, access that is calculated from the price of the access to Chorus's unbundled copper local loop plus benchmarking additional costs incurred in providing the unbundled bitstream access. These prices need to be benchmarked against prices of similar services in comparable countries that use a forward-looking cost-based pricing model.

## Consultation process

12. On 11 November 2011 the Commission released a draft clarification to remove the ATM restriction from the service description for BUBA. Removal of this restriction would enable the Commission to include Ethernet based UBA services in its UBA benchmarking data.
13. In that clarification, the Commission proposed the wording of the following sections of schedule 1 (UBA service description) of the UBA STD be amended as follows:

### Interleaving:

3.13 For each Basic UBA Service connection ordered, the Access Seeker will advise Telecom ~~whether that connection will be provisioned with interleaving on, or off.~~ of the interleaving requirements. For a service delivered as PPPoA over ATM, the access seeker has the option of having interleaving being provisioned as either on or off. For a service delivered as PPPoA/PPPoE over Ethernet the access seeker has the option of interleaving being provisioned as either low or high.

3.14 The default setting for the Basic UBA service ~~is to have interleaving turned on over ATM~~ is to have interleaving turned on. The default setting for UBA over Ethernet is to have interleaving set to high.

3.15 Interleaving is used by Telecom on DSL connections to increase the tolerance of line noise. ~~End users~~ If an end-users service is being delivered over ATM, they can ask their Access

Seeker to have interleaving turned off. If the service is being delivered over Ethernet, they can ask to have interleaving set to low. With interleaving turned off 'off or low' there may be a reduction in latency but the ~~Basic-UBA~~ service may be more susceptible to line noise that may cause the End User to believe their service is faulty. Access seekers will bear the responsibility for evaluating if the fault is attributable to interleaving being turned off 'off or low' and, if so, for remedying this.

External Terminal Point:

3.20 "The Basic UBA Service is delivered as PPP over ATM (PPPoA) or Ethernet (PPPoA / PPPoE) over a DSL copper interface (ITU-T G992.1) to the ETP at the END User's premises."

14. The Commission received submissions from Telecom / Chorus and Vodafone on the draft clarification.
15. Vodafone confirmed the Commission's position.
16. Chorus disagreed with the Commission's view that a clarification was needed. Chorus outlined a number of technical differences between the BUBA and EUBA(0) services and stated that extending the scope of regulation is unnecessary. Chorus submitted that "From a product perspective BUBA and EUBA(0) are similar insofar as they are both best efforts DSL internet access services. However, from a technological perspective they are quite different."
17. After considering the submissions, the Commission re-stated its position that it is the service that is subject to regulation and not the technology of delivery of the service that is regulated. Whether BUBA is delivered using "Layer 2 Tunneling Protocol" (L2TP) over UDP over IP, or as a pure Ethernet service, is not the concern of the Commission. The Commission's intention is that a best efforts bitstream service, however it is delivered, is subject to regulation under the UBA STD.
18. In a subsequent submission, Chorus stated that while it didn't believe that the EUBA(0) needed to be regulated, if the Commission still deemed it necessary to undertake a clarification, some minor redrafting was required to ensure that the BUBA service remained technology neutral.
19. The Commission has accepted a number of the suggestions put forward by Chorus.

## Decision

20. The Commission considers that the following provisions of the UBA STD set out in column 1 of the attached Schedule 1 ('References') require clarification under section 58 of the Act:
  - Clauses 3.9.1, 3.14, 3.15, 3.16 and 3.21, UBA Service Description (Schedule 1 of the UBA STD)
21. The Commission considers that the clarification set out in Schedule 1 is likely to best give effect to the purpose set out in section 18 of the Act.

**DATED** at Wellington this 19 December 2011

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Dr Ross Patterson  
Telecommunications Commissioner

## Schedule 1: Changes to UBA STD Service Description

Reference	Amendment
Clause 3.9.1	<p>Delete:</p> <p>is an internet grade service, delivering a point-to-point protocol (PPP) bitstream to the End User and Layer 2 Tunnel Protocol (L2TP) to the Access Seeker</p> <p>Replace with:</p> <p>Is an internet grade service</p>
Clause 3.14	<p>Delete:</p> <p>For each Basic UBA Service connection ordered, the Access Seeker will advise Chorus whether that connection will be provisioned with interleaving on, or off.</p> <p>Replace with:</p> <p>For each Basic UBA Service connection ordered, the Access Seeker will advise Chorus whether that connection will be provisioned with interleaving on/off, or low/high.</p>
Clause 3.15	<p>Delete:</p> <p>The default setting for the Basic UBA Service is to have interleaving turned on</p> <p>Replace with:</p> <p>The default setting for the Basic UBA Service is to have interleaving turned on or high</p>
Clause 3.16	<p>Delete:</p> <p>Interleaving is used by Chorus on DSL connections to increase the tolerance of line noise. End Users can ask their Access Seeker to have interleaving turned off. With interleaving turned off there may be a reduction in latency, but the Basic UBA Service may be more susceptible to line noise that may cause the End User to believe their service is faulty. Access Seekers will bear the responsibility for evaluating if the fault is attributable to interleaving being turned off and, if so, for remedying this.</p> <p>Replace with:</p> <p>Interleaving is used by Chorus on DSL connections to increase the tolerance of line noise. End Users can ask their Access Seeker to have interleaving turned off or low. With interleaving turned off or low there may be a reduction in latency, but the Basic UBA Service</p>

	<p>may be more susceptible to line noise that may cause the End User to believe their service is faulty. Access Seekers will bear the responsibility for evaluating if the fault is attributable to interleaving being turned off or low and, if so, for remedying this.</p>
Clause 3.21	<p>Delete:</p> <p>The Basic UBA Service is delivered as PPP over ATM (PPPoA) over a DSL copper interface (ITU-T G.992.1) to the ETP at the End User's premises.</p> <p>Replace with:</p> <p>The Basic UBA Service is delivered over a DSL copper interface to the ETP at the End User's premises.</p>

## Attachment 1: Legal framework

22. Under section 58 of the Act the Commission may amend a determination for the purpose of making a clarification if:
- (a) at any time the Commission, on its own initiative or on the application of any person, considers that a determination requires clarification; and
  - (b) no appeal is pending in respect of the determination.
23. Under section 19(a) of the Act, the Commission must consider the purpose set out in section 18. Section 18 states that:
- Purpose**
- (1) The purpose of this Part and Schedules 1 to 3 is to promote competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand by regulating, and providing for the regulation of, the supply of certain telecommunications services between service providers.
  - (2) In determining whether or not, or the extent to which, any act or omission will result, or will be likely to result, in competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand, the efficiencies that will result, or will be likely to result, from that act or omission must be considered.
  - (2A) To avoid doubt, in determining whether or not, or the extent to which, competition in telecommunications markets for the long-term benefit of end-users of telecommunications services within New Zealand is promoted, consideration must be given to the incentives to innovate that exist for, and the risks faced by, investors in new telecommunications services that involve significant capital investment and that offer capabilities not available from established services.
  - (3) Except as otherwise expressly provided, nothing in this Act limits the application of this section.
  - (4) Subsection (3) is for the avoidance of doubt.
24. Under section 19(c) of the Act, the Commission is required to make a decision that best gives, or is likely to best give, effect to the purpose set out in section 18 of the Act.