

Telecommunications Carriers' Forum

UCLL Services and Wholesale Cabinet-delivered DSL Services Working Party Working Party Brief - Dual Feed

Date Submitted: 20 February 2008

A. Background

Under the UCLL Services and Wholesale Cabinet-delivered DSL Services Working Party the issue of dual feed should be considered by the Working Party as the availability or otherwise of a dual feed option could have an influence over parties views regarding the details of the implementation of SLU.

Dual feed in this context is the practicality of providing broadband services to a geographic area served by the same distribution cable from both a cabinet and from an exchange.

A major part of the assessment of the practicalities of providing end customer broadband services in a dual feed configuration is the effect on end customer line speeds caused by interference and/or any spectral power control used to manage interference.

B. Issue Identification

The aim of this Working Party Brief is to agree where possible what practical options exist for managing interference in a dual feed broadband scenario, and what the effects on end customer line speeds would be if dual feeding was implemented in the New Zealand environment. Specifically, the Working Party would seek to agree:

- i. The power spectral density (PSD) shaping options currently available in ADSL2+ capable DSLAMs on ports that are connected to ADSL1 modems and the expected effect on end customer ADSL2+ line speeds;
- ii. The PSD shaping options currently available in ADSL2+ capable DSLAMs on ports that operate in ADSL2+ mode and the expected effect on end customer ADSL2+ line speeds;
- iii. Whether Dynamic Spectrum Management (DSM) is a practical option that is currently available and if so, the expected effect on end customer line speeds;
- iv. The degree to which end customers can effect the PSD shaping settings on their particular port in ADSL2+ mode and if this is possible, the expected level of difficulty to do so;
- v. Whether there would be benefit in testing dual feed scenarios to validate the modelled data.

C. Brief

The Working Party should consider the issues outlined above within the following parameters:

- i. Consider the effect on all asymmetric technologies using the frequency band below 2.2MHz only (not VDSL, however it is recognised that the update to the NZ IMP to cover VDSL will need to cover dual feed);
- ii. Assess the practical technical options and technical effects but exclude consideration of the market or business feasibility of resulting customer propositions.

D. Expected Deliverables

The [UCLL Services & Wholesale Cabinet-delivered DSL Services Working Party](#) will produce a report to summarise the agreed aspects (if any) relating to the issues outlined above [on dual feed](#) for consideration by the [UCLL Services & Wholesale Cabinet-delivered DSL Services Working Party and also the Sub-Loop & Sub-Loop Co-Location Working Party](#), [with the aim to seek a decision on whether or not to progress with the option of dual feed under the auspices of the TCF Working Party process](#).

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In the event that the Working Party agrees that there is scope for dual feed to be implemented, the Working Party will reconvene to agree the changes necessary to the NZ IMP to effect this agreement.

It is important to note that the UCLL Services & Wholesale Cabinet-delivered DSL Services Working Party will liaise with the Sub-Loop & Sub-Loop Co-Location [Working Party and the Sub-Loop Backhaul Working Party \(which at the date of this brief has yet to convene\)](#), to ensure any interrelating issues are communicated, that there is consistency in the work of all groups and to ensure the outputs can be delivered on time across all work streams.

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E. Resources

The Group discussed whether or not to seek an independent technical expert to be included as a member of the Working Party and participate in the dual feed discussions, no allocation of budget has been approved for an independent technical advisor and the Working Party agreed that at this early stage an independent technical advisor would not be required. However, the Working Party noted that if in the future this position was subject to change then they would put forward a proposal to the TCF Board for approval.

F. Timetable

The Working Party will provide a proposed timeframe for the completion of this work for agreement by 25 February 2008.

G. Recommendation

That the TCF UCLL Services and Wholesale Cabinet-delivered DSL Services Working Party approve this Working Party Brief on dual feed.