

Customer Dialogue

Boost Update

01 October 2014



What we will talk about today

- 1.Changes to UBA billing 1 December
- 2.Boost update
- 3.Price changes and other options

Changes to UBA Billing 1 December 2014

Changes to UBA billing 1 December

- > New 4 tier installation structure for UBA
 - No site visit required (remote connection) \$15.85
 - Exchange or cabinet visit required \$73.51
 - Site visit required \$169.73
 - Where UBA Connection and Wiring is ordered a UBA Site Visit charge applies plus charges for Wiring (e.g. for splitter and jack points). Chorus proposes to use a standard \$115 charge to cover splitter, new Cat5e wiring and jackpoint install (this is POA in the STD). Modem installation charge \$38.01 applies
- > Where UBA and Baseband (or POTS) is ordered concurrently then only the UBA installation charge applies. There are no Baseband charges
- > Changes to transaction charges for UBA
 - Change plan and Transfer (with or without change plan)
 - No port change at DSLAM \$ 15.85, port change at DSLAM \$73.51
 - New transaction charges for UBA
 - Interleaving toggle \$15.85

Boost Update

Proposal for consultation

- we want your feedback as soon as possible so we can confirm our proposals

Recap and Timing Updates

- > Proposals and Notice to the Commission were made on 14 May.
- > There have been a number of Dialogues and Commission arranged workshops.
- > Feedback has been incorporated and updated documents provided to the Commission and to customers.
- > A number of RSPs have signed letters of intent that they wish to take up the new offerings pending completion of the Commission's processes.
- > A number of RSPs, primarily those engaged in Commission processes, are not publicly supportive of the proposals. Spark also made a complaint to the Commerce Commission. Processes on Boost and RUBA are still pending.
- > The Commission has been made aware of today's dialogue session and today it has updated the timetable for dealing with Spark's complaint.

Recap and Timing Updates cont.

- > A section 30R review has been mentioned by the Commission's legal advisers but the Commission's views are unknown.
- > The proposed initial launch date for the proposals of 1 September has been delayed while the regulatory processes are pending.
- > Following discussion today, this pack contains Chorus' proposed approach forward for availability from 1 December – around seven months since the proposals were made.

1 December is a key date for the industry and the regime on a range of matters

Why are we doing this?

- > As an open access wholesaler we believe in proactively building and offering improved commercial wholesale services over and above basic regulated services
- > We believe we should be forward looking, offering services ahead of what is actually required today, to enable future service development, innovation and competition by RSPs for the benefit of end users.
- > As the next slide shows, the market has changed exponentially in the last three years recognising the future of video delivered over IP networks. High concurrent usage of HD video streaming is a generation apart from what is required for basic internet browsing.
- > Our proposals, and in conjunction with the changes we made to our fibre services announced at the same time, are to grow the market and improve NZ's broadband experience.

Chorus provided a full briefing on the Boost proposals in our dialogue session on 10 July 2014. The materials from that session are available here: <http://customer.chorus.co.nz/dialogue/accelerate>

Market context

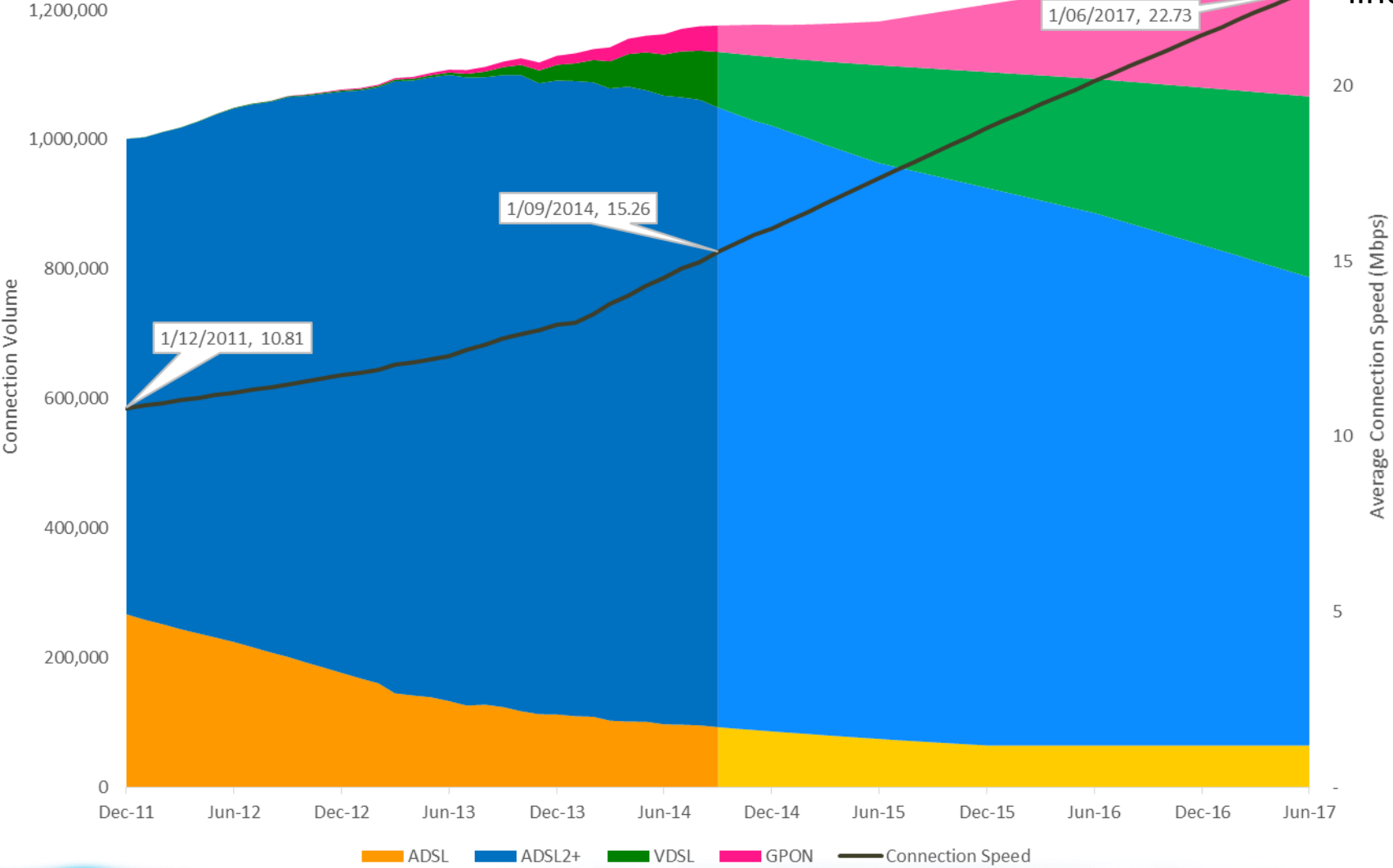
- > In the three years since the demerger of Chorus into an open access wholesale only company we have seen monumental changes within the New Zealand broadband market.
- > Broadband lines have grown by 16% to 1.29m connections and 77% of households now have broadband at home.
- > The number of residential broadband lines capable of speeds greater than 10Mbps have increased to 90% and New Zealand's OECD ranking has moved up to 15th place where we sit comfortably above the OECD average and above the US, Australia and Japan.
- > However, perhaps the biggest change is the explosion in the number of end-user devices, and the seemingly ever increasing demand for HD streamed online video. You need only look to Vodafone's TV service, Slingshot and then Orcon's launch of Global Mode, Spark's recent launch of their Lightbox service and Video Ezy's on demand online movie offering.

Market context

- > Chorus' Boost proposals and recommendations around the regulated broadband service need to be considered in the context of this sea change in end-user demand for greater throughput.
- > If the industry is to be incentivised to invest to deliver better broadband to New Zealanders while in the transition to fibre, it's essential for clarity on the standard regulated service and guidance on when, and how, new wholesale broadband services will be supported in today's regulatory environment.

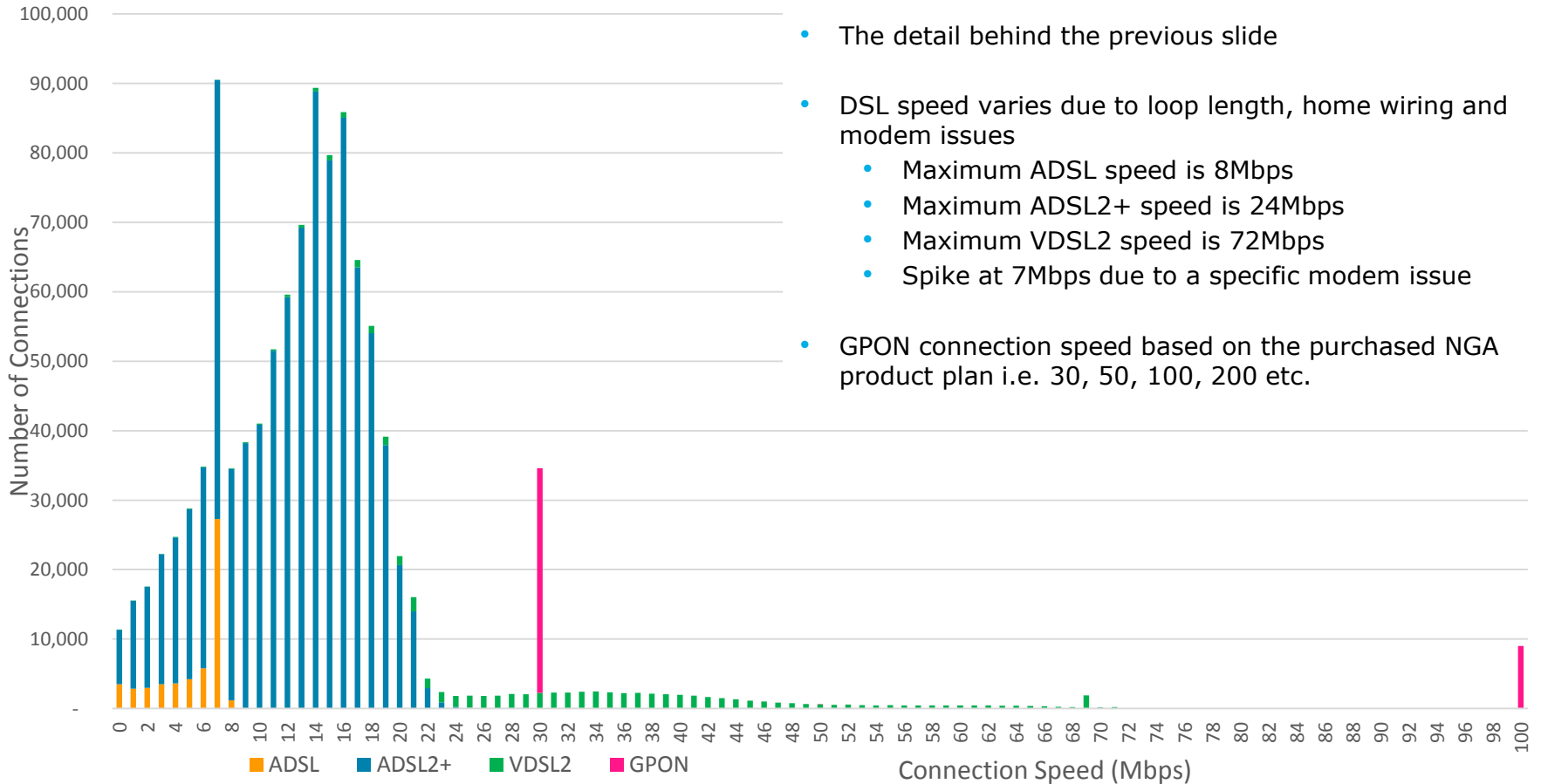
Chorus is committed to improving speeds

Chorus goal is to keep growing this line



Volume trends shown represent a high level indicative view only

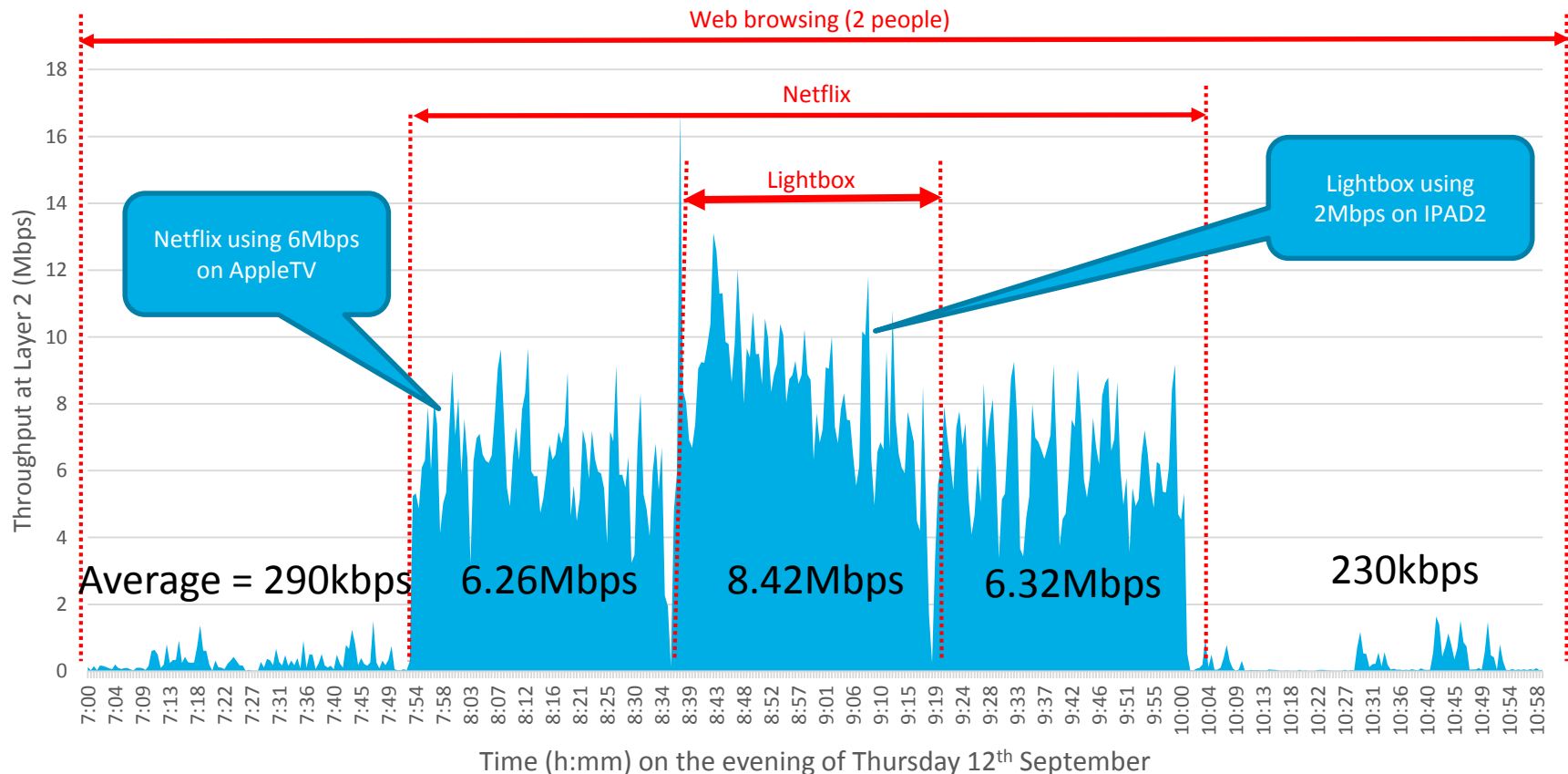
Connection Speed per Technology Histogram



- The detail behind the previous slide
- DSL speed varies due to loop length, home wiring and modem issues
 - Maximum ADSL speed is 8Mbps
 - Maximum ADSL2+ speed is 24Mbps
 - Maximum VDSL2 speed is 72Mbps
 - Spike at 7Mbps due to a specific modem issue
- GPON connection speed based on the purchased NGA product plan i.e. 30, 50, 100, 200 etc.

But sustained HD video impacts throughput

- Location = Auckland; Connection = 70Mbps VDSL; 30 second samples
- Netflix on Apple TV with wifi to standard router, Light Box on IPAD (Gen 2)
- Low concurrent usage is what drives the enables a good (but not perfect) experience today, significant increases in concurrent use will drive network challenges, as traffic is aggregated through the network



A recap on BOOST - Key benefits

- 1 Service commitment to allow end-users to stream high definition (HD) video consistently 24 hours a day 7 days a week.
- 2 Simple pricing, one monthly rental to cover access and install
- 3 Improved line profiles to optimise lines for a combination of speed and stability to reduce faults
- 4 Reduction in handover points to reduce tail extension required
- 5 Improved tools and reporting to offer better visibility of end-user issues for faster fault diagnosis

Regulated UBA STD has a role, but is highly uncertain

- > The regulated basic UBA service (BUBA/EUBA0) has been regulated in the UBA STD and in place for many years. Chorus' financial challenges from the benchmarked prices are well documented publicly.
- > The administration of the regulated UBA STD is currently complex and uncertain for everyone with the following processes pending:
 - Boost proposals by Notice under the UBA STD to enable the Commission to consider the commercial offers and whether they are materially differentiated to the UBA STD
 - UBA proposals by consultation in parallel with the Boost proposals raising questions on the interpretation of the UBA STD and consistency across the regime
 - Spark complaint and investigation in relation to the UBA proposals
 - FPP pricing reviews to replace the prices of the benchmarked prices for UCLL, SLU and UBA
 - Potential for s30R review of the UBA STD. There are no clear policy views or intent of the purpose of the regulated UBA STD in today's environment to guide

Regulated UBA STD has a role, but is highly uncertain cont.

- > A number of submitters, including Chorus, have sought guidance and the Commission's views on the UBA STD and the scope for commercial proposals being made.
- > We appreciate the regime is complex and worked through by the Commission, customers and Chorus process by process.
- > Timing is difficult for everyone across all processes and 1 December is a key date for the industry.

What we have heard from you

Publicly, some customers have:

- > Made it very clear they do not want the regulated UBA STD to be provided at the minimum throughput specification of 32kbps. Chorus agrees and has consistently said that it would not degrade the service.
- > Acknowledged today's averaged observed throughput around 230kbps and say that is good enough.
- > Acknowledged bandwidth growth and indicate the UBA STD service includes or should include unspecified ongoing investment is required beyond that to account for bandwidth growth in a "one size fits all" approach.
- > Focused on presenting views and beliefs that in general, the mass market is not ready for a guaranteed HD service and that concurrent usage does not yet require the sorts of guarantees that Chorus proposed become available as part of the Boost service range.
- > Nevertheless they have privately acknowledged that as concurrent demand changes, especially at the sustained high bandwidths associated with high quality video content, then there may come a time where such services are valuable.

What we have heard from you

Other customers:

- > Have signed letters of intent to go ahead using the proposals to innovate and compete in the retail market if the proposals are confirmed

Any services made available (or not made available) mean all customers have the opportunity to compete and innovate from an open access level playing field.

What occurs at the retail level determines what end users are offered.

Moving Forward

We propose to move forward so that some progress can be made in the market which is dynamic and does not wait for the complexity of the regime to be worked through

Moving forward – traffic management

Traffic Management on EUBA0 [on hold]

- > Chorus has never proposed to “degrade” or reduce the broadband experience from today’s levels.
- > At this time, Chorus will not implement traffic management that we’ve discussed previously.
- > The provision of EUBA0 will continue as it is from a throughput perspective.
- > We will continue to use our judgement to invest to support the service (as it behaves today) and reassess our position again as the FPP outcomes become known.
- > We expect that this means that overall average throughput will grow from 230kbps observed today to around 300kbps by the time the FPP outcome is known.
- > Chorus continues to view traffic management as permitted under the STD and we expect that we will need to do it in the future.

Moving forward – ADSL

Better Boost HD commercial service [on hold]

- > We have a small number of customers who are interested in Boost HD.
- > While we are not proceeding with this service offer right now, we may reconsider it in the future.
- > We'd like feedback from customers who continue to be interested in this service – we continue to believe in the service and we'd like to offer it, but it is too difficult with current uncertainties.

Moving forward

– VDSL continued and improved

Boost VDSL commercial service launch on 1 December

- > We intend to launch Boost VDSL at the \$44.99 price point presented in July.
- > This is the service notified to the Commission and discussed through Commission workshops and Dialogue sessions without any changes.
- > The price is locked in until 31 December 2015 (not subject to FPP outcomes) and includes all applicable installation charges.

Moving forward

– VDSL continued and improved

Current Chorus VDSL service will also continue

- > Existing connections provided under the fact sheet posted terms will remain, so end users with VDSL will have no service interruption
- > At 1 Dec, the price for customers connected before 1 Dec will be dropped to \$34.44 plus the \$5 Connection & Wiring uplift. So, VDSL connections in place will drop to \$39.44 on 1 Dec.*
- > From 1 Dec:
 - Chorus VDSL will be renamed Basic VDSL and, like today, it will be available on the fact sheet posted terms.
 - Like today, customers can choose to amortise installation charges via a monthly uplift (Connection & Wiring uplift).
 - The amount of the monthly uplift will change from \$5 to \$10, reflecting increased charges that will be in place from 1 Dec (described above)
 - This means that most customers* will pay a reduced monthly charge of \$44.44 for new Basic VDSL connections.

* A small number of customers choose to pay for connection and wiring upfront – that option will remain.

Boost VDSL is on track for launch

	UBA	Basic VDSL	Boost HD	Boost VDSL
Availability	100% of DSL capable lines	~60% of DSL lines	~90% of DSL lines	~60% of DSL lines
Minimum line synch rate (pre qual)	64kbps synch rate requirement	64kbps synch rate requirement	6Mbps downstream / 600kbps upstream	12Mbps downstream / 1Mbps upstream
Min throughput	99% probability of a 32kbps average over 15mins	99% probability of a 32kbps average over 15mins	5Mbps commitment over 15mins	10Mbps commitment over 15mins
Traffic management	Basic UBA over ATM: 150kbps (75kbs current average) Basic UBA over Ethernet: 250kbps (200kbps current residential average) x number of customers	Basic UBA over ATM: 150kbps (75kbs current average) Basic UBA over Ethernet: 250kbps (200kbps current residential average) x number of customers	None applied	None applied
Handover locations	90	90	On Hold	26
Tail extension steps	8	8	5	5
Traffic class	Best Efforts	Best Efforts	Differentiated	Differentiated On Hold
Home wiring	Uses existing	New cable installed ETP to modem as standard	New cable installed ETP to modem if site visit ordered	New cable installed ETP to modem as standard
Assure	Truck roll can be ordered by RSP, no fault found may apply	Truck roll can be ordered by RSP, no fault found may apply	Truck roll at no charge if service commitment not met	Truck roll at no charge if service commitment not met
Installation	Remote \$15.85, non-site \$73.51, site visit \$169.73, wiring \$284.73	Offer includes amortised install charges	Remote & non-site and basic modem install included. Site visit charged if applicable.	All install charges included in offer (fibre ready)

Recap - Price comparison table

		Basic UBA	EUBA 40	EUBA 90	EUBA 180	Basic VDSL	Boost HD	Boost VDSL
Throughput	Low priority commitment	Min of 32kbps	Min of 32kbps	Min of 32kbps	Min of 32kbps	Min of 32kbps	Min of 5Mbps	Min of 10Mbps
	High priority commitment	0	40kbps	90kbps	180kbps	0	0	0
Monthly charge		\$34.44	\$36.77	\$37.34	\$38.37	Until 1 Dec \$34.44 + \$5 uplift After 1 Dec \$34.44 + \$10 uplift	\$39.99*** On Hold	\$44.99***
Installation Charges (where applicable)	Remote connect* (25% of installs**)	\$15.85	\$15.85	\$15.85	\$15.85	Included	Included	Included
	Non site visit* (46% of installs**)	\$73.51	\$73.51	\$73.51	\$73.51	Included	Included	Included
	Site visit* (29% of installs**)	\$169.73	\$169.73	\$169.73	\$169.73	Included	Included	Included
	Site visit (connection) + wiring*	\$284.73	\$284.73	\$284.73	\$284.73	Included	\$115.00	Included
	Interleaving toggle*	\$15.85	\$15.85	\$15.85	\$15.85	\$15.85	Included	Included

Handovers

Much simpler

- > If you choose to continue with Basic VDSL and/ or regulated UBA, then no change at all to handovers or their configuration.
- > If you choose to purchase Boost services then you need a Boost handover.

Give us your feedback on handovers. We don't believe that other options are necessary under today's proposed construct, as we believe that these two options above will meet most requirements.

Your account team will be able to work through these options as to what suits you best

Other Commercial Pricing Changes and options

Price increases to commercial services

Enhanced UBA Tail Extension Service

- > From 1 Dec 2014, we are increasing the price of the tail extension service when you take it with the regulated UBA and Basic VDSL services.
- > This is to recognise the significant changes in per service volume that has occurred.
- > There is no price change for the Basic UBA Tail Extension service.

Handovers

- > From 1 Dec 2014, we are increasing the monthly rental for your 10G handover links to \$1444 per month.
- > We have limited capacity to offer 10G handover links at every site and each order is assessed on a case by case basis. We recommend that you hold a network planning session with us as well as send through an appropriate forecast so that we can co-plan for these.

Other ideas we're considering as a result of the feedback

- > Is there interest in a similar bundled up connection charges offer for?
 - UCLL
 - Baseband
 - UBA (ADSL)

- > If there is significant interest we will consider adding these options.

Next Steps

- > We would like to give certainty to all as soon as possible, so please give us your feedback this week.
- > Informers with details on price changes are being released this afternoon.
- > We'll hold a Boost VDSL contract workshop in the next two weeks.
- > We'll confirm the details around changes to the Chorus/ Basic VDSL service provided on the fact sheet posted terms.
- > Further submissions are due to the Commission on Friday in relation to the Spark complaint process.
- > We will continue to work with the Commission on the "New UBA variants" process.