SPECTRUM: LTE has its limits, says commercial radio lobby

RAIL TRACK CORP: Out with analogue, in with Next G

LETTER: Comparing bananas with apples

VODAFONE AUST CTO expands on "self-organising" network philosophy

COMMUNICATIONS DAY

2 DECEMBER 2014 Daily telecom news & analysis since 1994 ISSUE 4795

Morrow: NBN rollout not politically weighted, Telstra deal due in a few weeks

NBN Co CEO Bill Morrow has strongly refuted suggestions that the company is targeting safe Coalition or marginal electorates in the latest NBN rollout plan. He said the suburbs and communities chosen were based on where it can build the network the most efficiently.

"I can assure you we don't look at anything from a political point of view," he told ABC radio, while also noting that a deal with Telstra was "very close." "This side of Christmas is what I've maintained and I'm still standing by that," Morrow said.

Morrow made a number of media appearances following the release of a detailed 19-month rollout plan covering 1.9 million homes and businesses. As detailed in CommsDay, the plan shows the number of towns, suburbs and premises in every region of every state and territory that the network builder estimates it will cover from this month out until June 2016 – over 1.9 million homes and businesses in all.

Communications minister Malcolm Turnbull also noted that the plans have prioritised underserved areas that were identified in the Department of Communications' MyBroadband site.

"The National Rollout Plan shows the commitment to rural and regional Australia. Of the areas receiving fixed-line rollout over 800,000 are outside of major urban areas," Turnbull commented. "The 128,000 premises in the fixed wireless rollout are generally in rural and regional Australia and these premises are almost universally poorly served."

TASSIE REACTION: The minister described the plan as "an important milestone" as NBN Co works to provide the industry and consumers with reliable information about the progress of the network. However, neither the progress of the rollout nor the latest plans have satisfied Tasmanian tech lobby group TasICT.

Tasmanians had previously been told that they would enjoy "first-mover" advantage by being the first state to get a completed NBN rollout by the end of 2015. However, that timeframe has been pushed back and NBN Co has not committed to a completion date.

TasICT executive officer Dean Winter noted that it had been five years since NBN Co started laying fibre in Tasmania and it had connected less than 10% of the 200,000 Tasmanians in the fibre footprint.

"Far from bringing NBN to Tasmanians faster, today's announcement of a multi-technology approach sees Tasmania's NBN rollout delayed by up to five years," Winter said. "A project that was going to take five years, may now take ten."

The industry group noted that towns and suburbs on the new schedule now have some certainty about the timing of the rollout, however it complained that consumers were getting superior technology compared to significant businesses and government services.

"It is hard to comprehend how we got to the stage of delivering world's best FTTP technology to regional towns and suburbia where there is limited demand, while leaving major business and government districts with the inferior FTTN technology," Winter said.

Geoff Long

Behind Vodafone Australia's latest mobile upgrade: the 3G self-organising network

Vodafone Australia CTO Benoit Hanssen has divulged full details on the firm's latest technology upgrade: a Self-Organising Network solution across the operator's 3G network that also expands on the inherent SON qualities of its 4G net.

In boosting network optimisation and load balancing in near-real time, the tech is tipped to improve customer experience in general – but particularly during high usage periods and in very crowded areas such as popular venues and public event spaces.

Hanssen told CommsDay that, while it had taken a few weeks to push the technology from first activation to nationwide deployment, it had been a six-month project to get SON properly configured and tested across the entire network, including some initial trials.

"The SON is a concept that vendors have been promoting for some time now.... it basically optimises how the various basestations work together," explained the CTO. "For example, each basestation, in order to plan for the right handover so you don't have a dropped call, needs to know who its neighbours are and who it hands over to, and there's synchronisation in the network that needs to happen."

"In the past, we used to manually put [the data for] all these neighbours into the basestation. And when it's manual, it's never perfect; networks have become more complex, there's multiple layers, multiple carriers, it has become increasingly difficult to do that without making any errors. So one feature of SON is automatic neighbour relations: rather than setting the neighbours for every basestation, we give a set of general rules to the SON system, and then it goes about finding all the relevant neighbours for a particular basestation. Typically what you see is that handovers work much better, and you get better quality... less dropped calls."

"Another example is load balancing. We've gradually released new [spectrum] bands, new layers in the network: 3G in 900MHz, we've added additional carriers to upgrade the capacity of 3G in the 2100MHz, we've added the 850MHz LTE carrier. At the moment, on a typical area of the network, you could have up to 6-7 layers independently taking traffic," continued Hanssen. "In the past, you'd have one or two layers and you'd typically do manual configuration; but as we've [added] more layers, that becomes increasingly complex and prone to errors. So what we've done now, with SON, is we've automated that. It's much quicker... and every fifteen minutes, it basically rebalances the traffic between the various layers of the network. So when you have an event somewhere... or gatherings of people, on a fifteen-minute interval basis the network itself rebalances between the carriers, something that you otherwise have to do manually, and you have to have quite specialised engineers to do that."

"The quality is much higher, and we've got a much quicker response to things happening in the network. For example, if you have an outage in a site somewhere, you can tune surrounding sites so that the outages have less impact."

Vodafone is staying quiet on the capital cost of the upgrade, though it fits within the A$1 billion or so annual network spend for the firm. However, SON should help to avoid some operating expenses – and Hanssen said that SON would free up the skilled engineers who'd previously been handling load balancing and the like, allowing them to "really proactively work with certain categories of customers who have issues, rather than focus on certain cell sites."

The carrier has already been running some elements of SON across its 4G net, since some of these are baked into the 4G basestations, but the 3G upgrade brings in a wider breadth of functionality across Vodafone's entire network that will also expand its 4G SON elements. It's also important to note that SON represents more than just a simple software update. "The system runs on hardware, although it's on virtual machines, so there's an infrastructure involved with it; there's software involved with it; but most importantly, there was also [some] rejigging [of] our business processes, because you're actually doing the job in a very, very different way. This is not something you just load and forget; this is really a different approach to how you run the network as well," said Hanssen. "[And] you need computing power, because it gathers tons and tons of information from the network and crunches the data very, very quickly."

Optus runs its own version of SON in its network, and plans to actively trial and introduce further enhancements as they become available. Telstra, for its part, does not have a specific 3G SON solution – preferring to rely on its existing 'business as usual' 3G performance rather than buying additional solutions – but does claim some similar functionality through its radio access, core and backhaul networks.

Petroc Wilton

Coutts claims LTE won't replace digital radio, calls on ACMA to allocate spectrum

Mobile broadband might complement digital broadcast radio but even the latest LTE-Broadband tech won't be good enough for a full replacement – particularly in the regions and for local content, according to industry stalwart Reg Coutts.

And, in a report commissioned by Commercial Radio, Coutts has called on the comms minister and the Australian Communications and Media Authority to plan, allocate and set aside spectrum for a digital radio rollout in regional areas.

With the advent of internet radio streaming on mobile phones, the report considered whether mobile nets could be expanded to accommodate all-free-to-air radio broadcasting nationwide, at the same high quality as broadcast radio. This could theoretically be an alternative to installing DAB+ digital radio broadcasting facilities – as has been done in major cities.

But Coutts cited technical and economic reasons for the continuing use of FTA broadcast in both regional and metro areas. "Fundamentally, the limiting factor of mobile internet radio compared to digital radio is that streamed audio content from a website is sent to users on their mobile as a unicast, i.e. a one-to-one transmission rather than a multicast or a one-to- many as in broadcasting," he said. Coutts added that the effective cost of unicast transmissions did not scale, whereas for broadcast digital radio the transmission cost was independent of the number of listeners – a better solution for situations where "significant audiences often listen to the same content at the same time."

He did acknowledge that LTE-Broadcast technology, or eMBMS, had been developed to allow simulcast of streamed content to multiple users in a particular area at the same time. But Coutts countered that LTE-B had a number of limitations, particularly in regional areas with larger cells. He said that LTE-B had a limited range, could impact other users' applications and had no handover mechanism back to 3G or 4G unicast streaming, risking a dropout at the edge of LTE-B areas. More importantly, he argued that the 4G coverage required for LTE-B would likely only be deployed across major regional centres and highways, with most regional coverage needs to be met by 3G – questioning the business model for upgrading all network assets sufficiently to cope with streaming all terrestrial radio, and warning that costs might be passed onto listeners. And he contended that even with rolling out the LTE Broadcast mode, extra tower sites might not support the local streamed channels.

On the other hand, Coutts highlighted the quietly growing popularity of the digital radio medium. "The adoption of digital radio by consumers and by motor vehicle manufacturers in Australia, in spite of the lack of regional service, has been beyond forecasts – particularly in a market that is second only to Finland in the per capita adoption of mobile broadband," he said, noting that the ratio of digital radio listening to internet radio listening had stabilised at about three to one in favour of digital radio since the launch of the DAB+ service in 2009.

"The communications minister needs to direct the Australian Communications and Media Authority to plan and allocate the spectrum set aside for digital radio rollout and the minister needs to decide switch on dates in regional areas," Coutts told CommsDay.

Coutts also suggested that hybrid solutions, combining both internet and broadcast radio, might be the way forwards. “There is a need for both the broadcasting industry and telecommunications industry to be open to both technology innovation and different business models and work together for mutual business benefit and the general benefit to the whole population,” he said. “Innovative regional broadcasters are at increasing business risk if they cannot incorporate such hybrid digital solutions currently only available to metropolitan broadcasters.”

Richard van der Draay and Petroc Wilton

Rail Track Corp switches off remaining radio systems, moves onto Telstra digital network

The Australian Rail Track Corporation has switched off the last two of its seven regional analogue network radio systems in New South Wales and Victoria, completing the move to solely use a digital Telstra Next G-supported radio network.

The decommissioning of the radio systems marks the end of a seven year project and will see freight trains operating on the corporation’s national freight rail network using a single digital radio system going forward. “The implementation of the digital, 3G-based national train communications system project in close cooperation with Telstra provides a single digital backbone to [our] communications... a true national communications network, interoperable with systems across the nation,” said ARTC CEO John Fullerton, adding that some 1,024 Telstra mobile sites form part of the communications system along the rail network.

Funded by the federal government, the NTCS project kicked off in 2007 and leveraged the telco’s Next G mobile network. It provides 100% coverage of the rail network with the assistance of satellite communications. “In addition to being a safer communications platform by removing previous coverage black spots, NTCS has provided a platform for ARTC to innovate and take advantage of the possibilities that come with a digital network,” noted Fullerton.

The ARTC noted it had tested all of its systems, using a range of Telstra Next G applications including safe travelling distance technology, real-time locomotive tracking, track and wayside monitoring technology, and track awareness support systems.

Richard van der Draay

DTS acquires New Zealand IP voice provider ITtelenet

Business service provider DTS, which has offices in both Australia and New Zealand, has acquired Christchurch-based IP voice provider ITtelenet. It is the first acquisition for the company since it started in 2002.

DTS CEO Brendan Ritchie said the addition of ITtelenet’s network and customer base will allow DTS to bundle IP voice and data services at competitive rates at a time when many aspects of the ICT market are becoming heavily commoditised and prices are dropping ever lower.

“The market is changing and scale is important,” Ritchie said. “Bringing ITtelenet into DTS significantly increases our volume of call minutes and SIP networking knowledge, all with a minimum of complexity in terms of integration.”

DTS first started with offices in Wellington and Auckland but expanded to Australia in 2007, with its first office on the Gold Coast. DTS now has staff based in Dunedin, Christchurch, Wellington, Hamilton and Auckland along with POPs in Invercargill, Queenstown, Christchurch, Wellington, Napier, Hastings, Taupo, Rotorua, Hamilton, New Plymouth, Whangarei, Dunedin, Tauranga, Auckland and Sydney.

Richie said the acquisition of ITtelenet is the first such move for DTS and signals a clear focus on IP voice and increased market share through acquisition.

Geoff Long

Vodafone eying Liberty Global to create US$140bn European giant

Vodafone is reportedly looking to merge with Liberty Global to create a massive European operator with interests in wireless, cable and broadband telecommunications, as well as media and broadcasting. No formal negotiation has been initiated, but Vodafone has been internally discussing a potential deal, including explorations into possible shareholder and regulatory support, according to a Bloomberg report citing unnamed sources. A potential merger would create a company with a market capitalisation of close to US$140 billion and operations in multiple European markets.

Any deal would have to go through pretty extensive regulatory scrutiny. There are major overlaps between the two companies in markets such as Germany, where both firms own cable operators.

It is not the first time the two companies' names have been mentioned in merger discussions. Liberty made an offer for Germany's Kabel Deutschland before Vodafone came in with a higher bid.

Tony Chan

AT&T qualifies fibre investment freeze as net neutrality debate continues

AT&T has released a statement to the US government saying that it will continue with its existing fibre rollout roadmap, but that it won't plan any new builds as it waits for new net neutrality rules.

In the letter to the US Federal Communications Commission, AT&T SVP for federal regulatory Robert Quinn qualified AT&T CEO Randall Stephenson's earlier remarks at an investment conference that the company would cease network investment until it had clarity on the rules that would govern those networks.

"To the contrary, AT&T still plans to complete the major initiative we announced in April to expand our ultrafast GigaPower fiber network in 25 major metropolitan areas nationwide," Quinn said.

AT&T's reassurance to the FCC that it will carry out its previous plan was not entirely driven by market forces. Its investment commitment is part of its request for regulatory approval of its US$48.5 billion deal to buy DirecTV.

In a subsequent statement to Cnet, AT&T said "Our letter to the FCC makes clear that we are keeping our DirectTV merger-related investment commitments, which includes our previously announced fibre deployment plans."

However, the operator did highlight the fact it was still undecided on network investment beyond its committed plans, citing "significant uncertainty into the economics underlying our investment decisions," by President Barrack Obama's advocacy of regulating the internet like a utility. "As a result, we have paused consideration of any fibre deployment investments that would go beyond what we've already announced."

Tony Chan

MOBILITY FIRM KONY HIRES MEDEIROS AS VP FR APAC AND MIDDLE EAST

Florida-based enterprise mobile applications specialist Kony has appointed former SAP head of cloud and mobile services Steven Medeiros as its APAC and Middle East VP and GM. His new role will see Medeiros focusing on building out offices and channels in markets such as Australia, South East Asia, Japan, and Dubai. Medeiros served in a range of senior management roles across the Asia-Pacific region. "We believe the power of mobility will transform the APAC region, especially as the mobile application adoption curve quickly accelerates for many businesses," said Kony field operations president Blake Salle.

ZIPTEL INKS 7-ELEVEN AUSSIESIM DISTRIBUTION AGREEMENT

Prepaid travel SIM card specialist Ziptel has signed what it called a landmark distribution agreement with 7-Eleven that is set to see the firm triple its AussieSim retail footprint. Starting immediately, the deal will see the firm's AussieSim product go on display in some 450 7-Eleven stores with an option to scale up to more than 600 locations. Under the terms of the 18 month agreement, Ziptel will initially supply the retail chain with a minimum 1,350 AussieSim cards. The data-only DataCard, which targets overseas travellers, will be rolled out through the 7-Eleven distribution network early next year. The in-store retail price for the AussieSim card will be A$24.95, which includes A$10 of credit.

INTERACTIVE INTELLIGENCE HIRES NEW AUS TERRITORY MANAGERS

Interactive Intelligence has signed two new Australian-based territory managers charged with overseeing new business development. The firm has appointed Les Reid territory manager for New South Wales and Kathy Murphy as its territory manager for Victoria, based in Melbourne. Reid, who will be based in Sydney, brings more than 25 years' experience in the IT industry to the role and was most recently an account director at Sydney-based telco equipment provider NSC Group. Murphy will be able to draw on her sales experience in telco, having held sales and business development roles at firms including Telstra, Ericsson, and Optus.

AUCKLAND EXCHANGE PEERS WITH CLOUDFLARE

The Auckland Peering Exchange and content distributor CloudFlare have announced a peering agreement that will connect international content distributed by CloudFlare to New Zealand ISPs. APE, operated by CityLink, is the largest peering exchange in New Zealand with more than 80 ISPs, CDNs, media networks and education networks. CloudFlare operates out of 28 data centers in 20 countries around the world. CloudFlare CEO Matthew Prince said APE was a natural choice for a peering partner in Southeast Asia, adding that it will enable the company to reach the bulk of New Zealand service providers and their users.

ON THIS DAY 10 YEARS AGO: FROM THE COMMSDAY 2004 ARCHIVES

The enterprise sector was enjoying some intense call price competition, following dramatically declining telephony charges over the previous 12 months, according to telecoms analyst Telsyte... the developers of file-swapping technology Kazaa produced the biggest music piracy system ever seen with 100 million users worldwide and sharing three billion music files a month, the Federal Court was told... interactive digital media company Two Way TV Australia looked set to raise A$40 million to position itself for a revolution in television it claimed was akin to the change from black-and-white to colour.

LETTER TO THE EDITOR FROM IINET'S STEVE DALBY

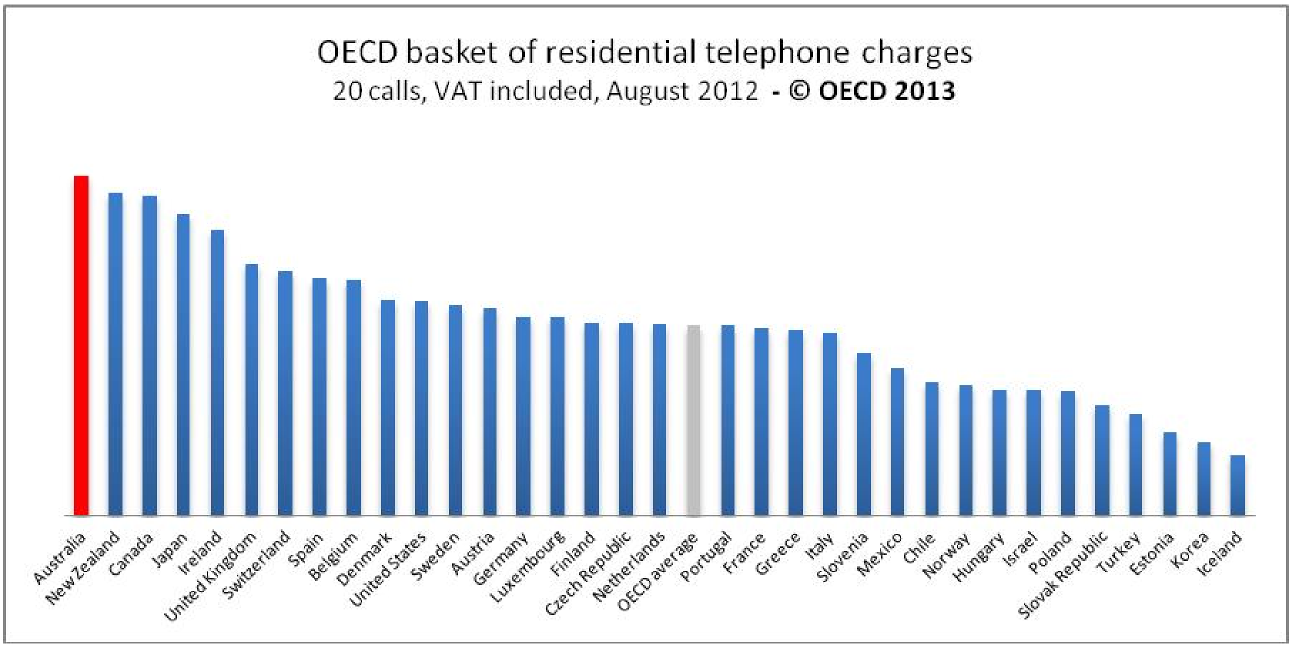
Telstra is comparing apples with bananas

I am writing to respond to the comment piece in Communications Day on 27 November 2014 by Iain Little (Telstra's director for operations and economic analysis, regulatory affairs) which seeks to justify a 7.2% increase in access prices for the declared fixed line services supplied over Telstra's copper network.

Mr Little attempts to take a suggested 7.2% price increase and argue that, of course (!), this really "... equates to a 3.6% real price reduction*". He also declares "nor should anyone get a free ride", then blithely proceeds to outline a scheme to protect Telstra from the downside of obsolescence. This man has clearly missed his vocation and should be in politics.*

Mr Little makes two unsound and unconvincing comparisons to justify the requested price increase. The first is with a 250% increase in the price of bananas following the decimation of the banana crop by Cyclone Larry. The second is with Australia Post's decision to raise the price of stamps from 60 cents to 70 cents.

The comparison with the price of bananas after Cyclone Larry is an entirely irrelevant comparison because, in that situation, supply had significantly declined, compared to demand, whereas the opposite is the case for Telstra's copper services – i.e. demand is falling, compared to supply. So to use the



increase in the price of bananas following Cyclone Larry as a justification for increasing the price of Telstra's copper services is quite simply a classic case (dare one say), of comparing apples with bananas. The more relevant comparison is Australia Post.

However, this also fails for the fact that Mr Little, perhaps conveniently, does not mention that a major cause of falling demand, for Telstra's copper services, is the NBN – and Telstra is more than handsomely compensated for this migration. This is a fundamental difference between the position faced by Telstra and the position faced by Australia Post.

The fact that Telstra is being compensated for falling demand caused by the NBN was not lost on the ACCC when it last considered this issue in 2011. iiNet hopes that the ACCC stays strong and approaches this issue in the same way that it did in 2011 so that common sense can prevail.

iiNet believes that a suggestion to implement a margin protection scheme for Telstra, by increasing prices for legacy services, is quite controversial in circumstances where prices for those same services have been trending downwards for the last ten years. This demand by Telstra for a price increase against Australia's already poor ranking in telephony pricing is further cause for alarm.

Steve Dalby is the chief regulatory officer for iiNet.

About Communications Day (including the Line of NZ)

Communications Day is the telecommunications news authority of Australia and New Zealand. Published daily since July 1994, CommsDay is expertly written and edited by a team of industry writers with a combined 60 years experience in technology reporting across Australia, NZ, Asia, the United States and Europe. CommsDay is available by subscription only and read by over 10,000 industry executives and managers as well as policymakers and parliamentarians every week day.

PUBLISHED BY DECISIVE PUBLISHING
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