

**TELSTRA: Belong sub-brand signs 100,000 customers**

**NBN: Releases new plan for reconciliation action**

**QUANTUM TELEPORTATION: Another breakthrough**

**PLUS: Infinera's new datacentre platform, Vocus CFO resigns, the value of OTT video**

**FORRESTER RESEARCH**

**Amazon Web Services,  
Microsoft ranked as  
leading ANZ cloud cos**

# COMMUNICATIONS DAY

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Telecoms news you can use since 1994

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## Telstra expects Perth-Singapore cable to proceed, talks global enterprise business

Telstra has reaffirmed its commitment to a new submarine cable that will link Perth to Singapore, with demand for the project expected to come from the major internet companies such as Google and Facebook and from carriers that want a new route through to the east coast of Australia. Telstra global enterprise and services group MD Martijn Blanken told CommsDay that he expects the project – led by SubPartners and with backing from SingTel – will soon proceed.

“The definitive agreements have not yet been signed but we are still very committed to co-invest in a cable that links Perth to Singapore. I think it is important to highlight though that it's not necessarily the capacity needed to Western Australia and Singapore,” Blanken said. “The biggest demand for that capacity is actually from Singapore via Perth to the east coast of Australia as an alternative route to the five routes that leave the east coast of Australia. The investments will not be economically justifiable if you just focus on the Singapore to Perth route, you have to look beyond that and connect to the east coast of Australia.”



Telstra, Singtel and SubPartners announced in March this year that they had entered into a memorandum of understanding to build the new international submarine cable. It had previously been known as APX-West but the project name has recently been changed to ‘Indigo’. It is one of three proposed cables that would link Perth to Singapore, vying with projects announced by Perth-based Trident Networks and the Vocus-Nextgen ASC cable.

When it was first proposed in 2014, APX-West had a planned landing in Jakarta, Indonesia in partnership with Indosat. However, since the March MoU the project has changed significantly and will only have a spur that would link to Indonesia.

While Telstra has recently formed a joint venture with Indonesian incumbent Telkom, Blanken said that new capacity was not needed for that business, which mostly involves domestic traffic. He added that enterprises generally were not the main drivers for capacity.

“If you look at the capacity of the cable, only a relatively small percentage of the actu-

# COMMSDAY MELBOURNE CONGRESS - 2016

**Tuesday 4 & Wednesday 5 October 2016  
Langham Hotel, Southbank, Melbourne**



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# COMMSDAY MELBOURNE CONGRESS - 2016

**Chair** Renee Bowker of TelcoTogether

## Day 1 Tuesday 4 October

- 9.00 Australian Competition and Consumer Commission chairman Rod Sims
- 9.25 Symbio Networks CEO Rene Sugo
- 9.50 Telstra group director, corporate affairs Tony Warren
- 10.15 Cisco Head of Architecture, SP Cloud and Software Rada Stanic
- 10.40 Refreshment break
  
- 11.15 Macquarie Telecom national executive, industry & policy and OzHub chair Matt Healy
- 11.40 Equinix director Market Development, Asia Pacific Gareth Bridges on realising revenue growth with an Interconnection-First strategy'
- 12.05 New Street Research senior telecommunications analyst Ian Martin
- 12.30 Nokia Oceania CTO Warren Lemmens
  
- 12.55 Lunch

## 2 NEXT GENERATION TELECOM STREAM

- 2.00 Ciena Senior Director, Blue Planet Division Abel Tong
- 2.20 Telstra GM Global Enterprise products Guy Lupo on Telstra's vision for the future of software defined networks and network functions virtualisation
- 2.40 Ericsson head of portfolio management, PA Cloud Systems Jonathon H. King on digital industrialisation and powering the network economy
- 3.00 Eintellego Networks CEO Skeeve Stevens
- 3.15 Mellanox ANZ country manager Sudarshan Ramachandra on 100GE and beyond
- 3.30 Break
- 4.00 **PANEL: HOW TELCOS CAN ENABLE THE INTERNET OF THINGS**

Telcos are an essential part of the IoT foodchain in terms of connectivity. But is existing fixed and mobile infrastructure fit for purpose or are new topologies combining current tech with dedicated platforms such as SigFox, LoRA and others necessary for IoT success? Does IoT offer sufficient economic incentive to encourage telco investment? How can telcos work with device, application and other providers to ensure IoT success? What legal and regulatory hurdles stand in the way? Panelists include Nokia Oceania CTO-Warren Lemmens, Cisco dir, engineering service pro-

vider, APJ Chia Tan, Optus Business IoT practice lead Anthony Stewart and KPMG national IoT leader Piers Hogarth-Scott

- 5.00 Day 1 closing keynote: How To Save The NBN with iMediate Consulting's Robert James
- 5.30 Drinks
- 6.30 Close

## Day 2 Wednesday 5 October

- 9.00 Federal minister for regional communications Fiona Nash
- 9.25 Shadow communications minister Michelle Rowland
- 9.50 Optus vice president corporate and regulatory affairs David Epstein
- 10.15 NBN chief engineering officer Peter Ryan
- 10.40 Refreshment break
  
- 11.15 Australian Communications and Media Authority acting chairman Richard Bean
- 11.40 Vodafone Australia chief strategy officer Dan Lloyd
- 12.05 Ruckus Wireless head of engineering, ANZ David White
- 12.30 Cyient Sr. Vice President - Communications BU & President - Asia-Pacific Sanjay Krishnaa
- 12.55 Lunch

## 2 REGULATORY AND POLICY STREAM

- 2.00 Australian Communications Consumer Action Network CEO Teresa Corbin
- 2.20 Coutts Communications managing director Professor Reg Coutts on USO reform
- 2.40 Comms Alliance director of program management Christiane Gillespie-Jones
- 3 Break

## 3.20 PANEL: GOING SUPERFAST AGAINST THE NBN

A number of telcos have decided to resist the "natural monopoly" of the NBN and offer high speed broadband over their own infrastructure. This panel looks at the various business models that may succeed against the NBN as well the regulatory settings that distort the playing field. What will the ACCC to change the superfast regulatory regime, if anything? And what can the NBN do to discourage competitive bypass and attract back custom from the renegades. Panelists include Herbert Geer's Tony Dooley, Opticomm's Phil Smith and dgTek's David Klizhov.

- 4.20 Close

al utilisation comes from enterprise customers. You do not build a submarine cable to serve the enterprise market, that is more the icing on the cake. You do it because customers that you want to serve will have significant capacity needs – like other carriers, like many of the web-centric players like Google, Facebook, Microsoft, Apple. The actual traffic of a miner or a bank is, relatively speaking, so small that it doesn't warrant it,” Blanken told CommsDay.

The new cable will incorporate two fibre pairs providing two-way data transmission and each pair will have a minimum design capacity of 10 terabits per second. The cable will terminate in facilities operated by the consortium members in Singapore and Australia, which the companies believe will significantly reduce costs and permitting times.

**VERTICAL INDUSTRIES:** Meanwhile, Blanken and current acting group executive for the global enterprise and services business, David Burns, said that GES was the fastest growing part of Telstra last financial year. According to Burns, revenues were up 11.5% to more than A\$6 billion, with the Indonesian joint venture recently signing its 50th customer for managed services.

One of the strategies for the global enterprise business was to focus on building service provider capability for specific industries – a strategy it plans to expand on. Current examples include its broadcast services business, which was built on the back of its Globecast acquisition, and mining services through the recent acquisition of CBO Telecommunications.

Blanken said each of the sectors required specific skills and would remain at arm's length from the main business so as to retain competencies. “There are potentially some other vertical plays that we may want to attend to but that is the currently a topic for internal debate. But I wouldn't be surprised if we add one or two more industries to that approach,” he said.

**SKYPE FOR BUSINESS DEAL:** At its annual Vantage customer event in Melbourne, Telstra also announced a partnership with Microsoft to deliver managed enterprise voice services to Office 365 customers, as well as to co-develop solutions for the Australian market.

Skype for Business – Microsoft's meetings and voice communications offering delivered in Office 365 – will be paired with Telstra managed voice services and network assessments to deliver a productivity and collaboration solution.

Gianpaolo Carraro, Telstra's director of global applications, said the partnership would help to re-position the carrier as it broadens customer engagement along the technology value chain. “When you combine this partnership, our core network and mobility capabilities, and our recent acquisitions of Kloud and Readify, we can provide customers with truly unique employee productivity solutions, designed specifically for their requirements,” Carraro said.

“This is also a great example of how Telstra is innovating from our core strengths, transforming our product suite from traditional voice to IP services, on our journey from being a telco to a technology company,” he added.

Geoff Long

## **Telstra's Belong brand hits 100,000 customer milestone**

Telstra has announced that its low-cost internet brand Belong has notched up 100,000 customers. Belong was launched in October 2013 as a no-frills offering, initially focusing on ADSL services in selected Sydney suburbs. It has since gone nationwide and is also available on the NBN.

Head of Belong Antony de Jong said growth of the service was attributable to simple plans and the fact that it has backing from Telstra. "Belong's philosophy is to keep things simple for our customers. We achieve this by offering simple month-by-month or 12 month plans with great value included," de Jong said.



"This simplicity and the ability to adapt quickly is reflected in our most recent offer changes where we streamlined our plans, decreased ADSL monthly prices, and extended our unlimited NBN data offer," he added.

In the past year Belong has introduced Belong Voice, an internet telephone service for customers wanting to make local calls or international calls to 10 countries using Wi-Fi or mobile data. It has also extended its ADSL network presence to all Telstra exchanges across Australia.

Telstra has also been investing in the Belong network layer to build greater redundancy and improve speed and performance through a new point of presence in Melbourne and additional capacity in Sydney.

Geoff Long

## **Forrester names AWS, Microsoft as dominant ANZ public cloud players**

A new Forrester report has identified Amazon Web Services and Microsoft as leading the charge among public cloud platform providers in Australia and New Zealand, with IBM, Google, Oracle, Salesforce and SAP lagging behind.

The firm's Wave Q3 2016 'Public Cloud Platforms For Enterprise Developers In Australia/New Zealand' study reviewed the strengths and weaknesses of seven providers, gauging how each firm measured up to enterprise software development requirements to balance application platforms with infrastructure control to help ANZ-based CIOs select the appropriate public cloud platform partner.

"CIOs increasingly trust public cloud platforms to provide secure and reliable service, as well as tools, frameworks, applications, and infrastructure services to speed software delivery," said Forrester, noting that AWS and Microsoft were leading the pack in the ANZ public cloud platform market for enterprise developers. The research firm attributed this pole position to the companies' extensive portfolios of infrastructure, platform, and application-development services; strong strategies; huge market positions; and rapid pace of service innovation.

While AWS' key strengths centred on its "massive profitable business, relentless pace of service innovation, unmatched service breadth, and industry-leading security, compliance, availability, and developer experiences, the report tipped Microsoft as its strongest challenger by far. It added that Microsoft, with its Sydney and Melbourne datacentres, had seen very strong growth in its ANZ cloud business.

The report found that 37% of companies in ANZ were already adopting cloud infrastructure and platform services. Forrester said early cloud adopters had recognised that existing approaches to technology delivery were not sufficient to meet business needs. "A growing number of organisations in both markets view public cloud platforms as the most practical, flexible, cost-effective way to deliver strategic applications as part of a broader digital transformation," it said.

The key differences between the evaluation of the global public cloud platform market and the review of the ANZ market concerned local datacentre availability and local support and partnering capabilities, with many ANZ customers of public cloud platform providers flagging local support teams as significant assets when transitioning to using public cloud platforms.

"Organisations are turning to public clouds for apps to manage customer operations and perform analytics," said Forrester principal analyst Tim Sheedy. "The boom in enterprise technology management teams and their partners taking their projects to these platforms has resulted in a \$21 billion global cloud platform market that is growing by more than 50% per year."

Richard van der Draay

## **NBN issues reconciliation plan**

NBN says it is supporting Aboriginal and Torres Strait Islander communities with its second Reconciliation Action Plan.

The company said its new initiatives include supporting people and organisations in remote Aboriginal and Torres Strait Islander communities bridge the digital divide, and new actions with the company's delivery partners for improved employment opportunities and use of Indigenous businesses in the construction of its network.

NBN says the 2016-18 RAP was developed in close consultation with Aboriginal and Torres Strait Islander representatives, including those on its staff. It said previous initiatives in the first plan included the adoption of cultural heritage management procedures that aim to protect sites of Aboriginal and Torres Strait Islander significance during construction, and supporting Aboriginal and Torres Strait Islander university students through internships and scholarships.

NBN has set up a group to oversee the plan which meets quarterly. It hopes to achieve a 2-3% Aboriginal and Torres Strait on its direct staff and 3-4% on indirect staff. Two NBN staff have been designated as key contacts for the plan: its Indigenous Engagement Lead, Land Access and Stakeholder Engagement Diversity Matt Armstrong and Inclusion and Culture, Capability and Organisational Development executive Anne Marie Holubinskyj. A series of milestones have been set out under the plan

with named management responsibility out to 2018.

Staff reporter

## **New record for quantum teleportation raises possibilities around comms applications**

Researchers at Canada's University of Calgary have reportedly set a new distance record for quantum teleportation – transferring the quantum state of one particle to another at range – over fibre optic cable. The achievement could set off fresh debate around the prospect of using quantum entanglement to revolutionise telecoms networks.

One feature of qubits, the subatomic particles that are the quantum computing equivalent of traditional binary bits, is that – if they are interlocked as part of the same system – changing the state of one qubit changes the rest as well. This is the phenomenon known as quantum entanglement, and it happens instantaneously regardless of distance, bypassing the limit of the speed of light.

Now, according to the New Scientist, a professor Wolfgang Tittel and his team at the University of Calgary have teleported quantum states in this way across some 6.2km using part of the city's fibre optic network. Tittel has suggested that, with the use of quantum repeaters, their setup could see quantum communications networks extended over “arbitrarily long distances,” and certainly between cities; Dr Johannes Kofler, a researcher at Germany's Max Planck Institute of Quantum Optics, was quoted as saying the experiments could be a milestone in the path towards a “fibre-based quantum internet.” However, it's important to note that there is longstanding theoretical debate around the practical application of quantum entanglement to networking technology; although the entangled particles may affect each other simultaneously, current theory holds that information still cannot be transmitted at faster-than-light speeds.

While Telstra has invested into quantum research primarily to ensure it stays abreast of future cloud computing developments, Telstra chief scientist Hugh Bradlow for instance has said that quantum entanglement won't see telecoms break the lightspeed barrier. “You've got to have two qubits that are separated, and the time it takes to separate those qubits will be governed by the speed of light – so it doesn't violate the laws of special relativity, that's a misconception,” Bradlow told CommsDay previously.

Petroc Wilton

## **Infinera unveils next generation Cloud Xpress 2 DCI platform**

Infinera has announced the second generation of its datacentre interconnect platform, Cloud Xpress, offering high density, throughput and power efficiency. Cloud Xpress 2 will feature the company's fourth generation photonic integrated circuit, dubbed the Infinite Capacity Engine.

Compared to its existing PIC supporting 500Gbps superchannels, Cloud Xpress 2's ICE offers up to 1.2Tbps per superchannel – essentially 12 channels of 200Gbps run-

ning 16 quadrature amplitude modulation.

Each Cloud Xpress 2 system now offers a 4.8x increase in density compared to the first generation Cloud Xpress, supporting a maximum per fibre capacity of a whopping 27.6Tbps over distances of up to 130km.

As part of the density improvement, a single Cloud Xpress 2 unit now comes in a single RU rack form factor – half the space required compared to its predecessor, while improving power efficiency by a factor to 2x over its existing platform, consuming just 0.57 watt per Gbps of capacity.

Cloud Xpress 2 is designed to hit an emerging “sweet spot” for datacentre interconnections, commented Infinera SVP datacentre business group Stu Elby.

“In talking to our customer base for DCI, we found the sweet spot that they wanted in terms of power, space and capacity, was 1.2Tbps... in 1RU,” Elby said. “It is what is happening in the datacentre that really projects outward and upward to drive DCI. The network interface cards on the servers are going from 10G to 25G, that’s a 2.5x jump in capacity, so the network inside the datacentre has to accommodate that, so we are seeing a pretty accelerated adoption moving away from 40Gbps inside the datacentre to 100Gbps.

“What that means is if you look outside the datacentre, they now have to be interconnected at multiple 100GE rates, really adding up to multiple Tbps on a DWDM rig. This is the driver of why we are seeing 100G adoption for DCI.”

Yet, Cloud Xpress 2 is not positioned as a replacement upgrade to the Cloud Xpress. Rather, the platform complements existing generation Cloud Xpress by addressing those customers that require the higher throughputs.

“Cloud Xpress 2 isn’t removing the need for the Cloud Xpress, let’s make that very clear. Cloud Xpress 2 is the latest entry into this Cloud Xpress family. The first generation is still very important to our customers,” he said. “Many customers still don’t need multi-terabit links, having half a terabit is still a good solution for them, so this is really a complement.”



Like the previous Cloud Xpress, the latest generation will support programmability in the form of application programming interfaces (NETCONF/YANG) to support software defined networking, and come with built-in traffic encryption in the form of MACsec. The new platform also adds Layer 1 encryption from the ICE.

At the same time, Cloud Xpress 2 will be available with Infinera’s pay-as-you-go purchase option “instant bandwidth,” which allows operators to adopt each unit, but pay licenses for only the bandwidth they use. For example, an operator might roll out Cloud Xpress 2 but only pay the price of a single channel (200Gbps) and then ramp up incrementally to a full superchannel (1.2Tbps) as they grow their traffic through subsequent software licenses. The Cloud Xpress 2 is expected to hit the market in the first quarter of 2017.

Tony Chan

## **Canada to mandate open access to all fibre last miles: report**

The Canadian Radio-television and Telecommunications Commission is reportedly ready to officially enact regulation that will mandate open access to the country's fibre access network, regardless of ownership.

A decision to make the regulation official is expected this week, following a year-long appeal by the incumbent operator Bell Canada to thwart the legislation when it was first proposed.

The original proposal, first unveiled after an official review of the country's wholesale wireline services regime, stipulated open access to fibre infrastructure for third party operators. However, the formal enactment of the rule was blocked by an appeal from the country's incumbent operator, Bell Canada, which claimed the regulation did not comply with Canada's competitive laws, and interfered too much with market forces.

Bell's appeal was rejected however this summer however on the basis that Bell's argument failed to cast doubt on the legitimacy of the proposal. The finding in June paved the way for a decision to open up all last mile fibre to third party subscribers.

Under the original proposal, the market will move to a "disaggregate" model of wholesale fibre connectivity, from the current "aggregated wholesale access" model for fibre.

Tony Chan

### **VOCUS CFO RESIGNS**

Vocus CFO Rick Correll - who had remained in the position even following Vocus' merger with M2 - has resigned from the firm. His departure was apparently amicable, with Correll agreeing to remain on-board for the next few months while the company launches an internal and external search for his successor. Vocus chairman David Spence thanked Correll for his significant contribution, having been with the firm "since the early days," while Vocus CEO Geoff Horth added his own thanks for Correll's help with the transition process since the M2 merger. The Vocus share price dropped by more than 10% on the day of the announcement.

### **IOT GROUP MOVES TO FIRE CEO**

ASX-listed Internet of Things player the IOT Group has taken action to terminate the employment of CEO Simon Kantor with immediate effect. The firm cited Kantor's involvement in an intellectual property lawsuit in the New South Wales Supreme Court, a case in which IOT Group itself is a defendant, as having made his position "untenable;" it added that the board had requested that Kantor step down multiple times, but that he had refused. IOT Group will also consider a special shareholder meeting to remove Kantor as a director.

### **BROCADE FLAGS MOMENTUM FOR GEN 6 FIBRE CHANNEL RANGE**

Brocade has signalled rapidly growing sales momentum for its Gen 6 Fibre Channel

storage networking services, with OEM partners such as Dell EMC, Fujitsu and NetApp now shipping the offerings. Fibre channel is a high-speed network technology primarily used to connect computer data storage to servers. According to Brocade, its own Gen 6 Fibre Channel tech allows organisations to meet their performance, reliability, and scalability requirements with a key focus on all-flash datacentres, new datacentre architectures and next-generation storage capabilities.

## BOSTON QUANTIFIES VALUE OF OTT VIDEO

A new report by The Boston Consulting Group claims the global OTT market has added \$25 billion in revenue to the video industry, representing 5% of the US\$500 billion video business. “However, value is relatively concentrated despite massive competition: of the more than 500 OTT providers, five global companies (including Google, Facebook, and Netflix) capture 50% of the revenue,” it said. “At the local level, OTT has enabled the development of a content production ecosystem: there are today nearly 1 billion amateur and pro-am content creators with unimpeded consumer access. Within English-language markets, like the US and Canada, production spending is growing at a healthy rate: 7% annually in the US and 5% in Canada.”

## ON THIS DAY 10 YEARS AGO: FROM THE COMMSDAY 2006 ARCHIVES

Telstra was to face a nationwide audit of its CDMA network coverage by year-end as the government set out to establish service benchmarks and ensure consumer “comfort” ahead of the carrier’s WCDMA transition... Telstra GMD Telstra Product Management and AMTA chairperson Holly Kramer called for a relaxing of onerous regulations on the mobile industry, urging a collaborative effort between industry and government on the creation of regulatory and operational structures that provided “practical rules and regulations that do not impose overly prescriptive and unworkable burdens on business”... Australia moved up a place in the world DSL broadband rankings, a total 2.686 million subscribers enough to unseat the Netherlands as the world’s 13th largest DSL population.

### **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 80 years experience in technology reporting across Australia, NZ, Asia, the United States and Europe. CommsDay is available by subscription only and read by 10,000 industry executives as well as policymakers and parliamentarians every week day.

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