

**TELSTRA VENTURES:** Inside its two latest US investments

**MOBILE PAYMENTS:** Australian firm gets Philippines deal

**CLOUD:** Global firm Ramco opens Australian office

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# COMMUNICATIONS DAY

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## NZ telcos scramble to fix networks after quake

New Zealand telcos have moved quickly to cope with outages in the aftermath of the severe earthquake that struck the country's South Island in the early hours of Monday morning. Vodafone ran a full assessment of both its mobile and fixed line networks and found that a number of mobile sites and fixed line cabinets had been hit by power outages; the firm switched to backup generators to keep a number of sites operational but a small number still went down, primarily in the Wellington and Christchurch regions. Vodafone dispatched more backup generators to key sites and, as we went to press, they were coming back online as power companies restored power.

Spark, meanwhile, had broadband restored in several hundred households in North Canterbury by publication time, although around 1,700 customer homes still had limited or no access to broadband or landline services. In Kaikoura, which was hit hard by physical infrastructure damage and power outages, the main fibre connection to the national network suffered multiple cuts with Spark anticipating it could take weeks to restore full services; the telco helicoptered in technicians who were able to assess that local phone services were working, but that residents could not call outside of the area.

On the mobile front, six mobile cell sites in Canterbury were on back-up battery power, with Spark working to get them back on the mains or backup generators; in Kaikoura, five sites were offline as we went to press with technicians trying to restore some mobile connectivity; the firm installed a signal booster to the mobile cell site on the Kaikoura peninsula as an interim solution. Only a single cell site in Wellington remained down, though Spark said people in the area should benefit from overlapping coverage from nearby sites.

The temporary loss of the east coast cable also left Spark's South Island landline and broadband services reliant on its western cable, running from Blenheim and Nelson down to Christchurch via Greymouth. Spark cancelled permits for any earth works or maintenance on that cable to increase protection.

2Degrees warned of degraded mobile coverage in Whakapirau and, while it brought mobile services back online in Hanmer Springs, Hutt Valley and Epuni, it noted that a number of sites remained affected close to quake-impacted areas such as Ward, Clarence and in particular Kaikoura. Similarly, it warned of degraded or total loss of service

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Communications Day is pleased to announce that table registrations open today for the 2017 Edison Awards. Nominations will also open in the next few days and be heavily promoted in CommsDay.

The Edisons will feature a series of vertical awards for the telco sector as well as Australian telecom's first Hall of Fame, recognising lifetime achievements. Book a table or just one seat.



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- \* HKBN CTO and former NBN Co CTO Gary McLaren
- \* International Institute of Communications president and former ACMA chair Chris Chapman
- \* Market Clarity principal Shara Evans
- \* New Street Research senior telecommunications analyst Ian Martin
- \* Telsyte managing director Foad Fadaghi

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- \* Best telecom industry analyst/advocate (individual)
- \* Best telecom capital raising (joint award)
- \* Best mobile device
- \* Best cloud provider
- \* Best telecom core network vendor
- \* Best data centre operator
- \* Best voice and hosted PBX provider
- \* Best fixed wireless operator
- \* Best virtual network operator
- \* Best SVOD provider
- \* Best IoT/M2M company
- \* Best satellite company
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in Kaikoura, Hanmer Springs and surrounding east coast areas, with engineers, technicians and partners in all cases working to restore services as soon as possible.

Petroc Wilton

## **Telstra Ventures buys into US remote support, marketing analytics companies**

Telstra Ventures has stepped up its US activities with a brace of new investments: one into mobile app marketing analytics specialist Singular and the other into SMB remote app-based support firm Boomtown, with Telstra already trialling the latter's technology for possible Australian deployment.

San-Francisco-based Singular provides a marketing analytics platform that draws data from a range of digital sources to measure app usage and marketing campaign engagement, feeding back insights on return on investment for marketers. It was founded by CEO Gad Elishayov and a number of fellow alumni of Israeli startup Onavo, a mobile analytics company acquired by Facebook last year. Telstra bought in as part of a US\$15 million Series A investment round, alongside venture capital firms KDWC, Translink Capital and General Catalyst.

Boomtown, meanwhile, provides support software and technical services to technology providers and SMBs, primarily through its 'Boomtown Connect' app which supports live chat or video sessions for on-the-spot, personalised IT help and tech training. It also has a network of more than 600 certified technicians capable of providing in-store support to customers across the US.

"Boomtown is enjoying great success in the United States with the growing popularity of their social support platform, which allows technology and service providers to easily collaborate and solve technology problems for their small business customers in real time," said Telstra Ventures MD Mark Sherman. "We are trialling Boomtown's technology in the small business market in Australia. Telstra Platinum Technical Support is already one of our most popular consumer customer service offerings and Boomtown could potentially take that to the next level for our business customers."

It's understood that, if the trials work out, Boomtown's tech would be used to enhance the Platinum support offering rather than as a replacement.

As is usual for Telstra Ventures, the exact amount of its investment in Singular and Boomtown has not been disclosed. However, it typically shells out between US\$5-10 million on each business it buys into.

The telco's venture capital arm has been particularly active in recent months, with a string of investments including in Southeast Asian financial website player C88 Financial Technologies and Chinese comms API provider Cloopen.

Petroc Wilton

## **Australian fintech firm seals partnership with Philippines' Globe Telecom**

Peppermint Innovation – an Australian firm specialising in mobile banking and focused on the developing world – has scored a partnership with a subsidiary of Globe Telecom, the Philippines' largest mobile provider, that will be key in reaching the country's enormous unbanked population. And CEO Chris Kain is already eyeing future expansion in countries around the region such as Vietnam and Indonesia.

Listed on the Australian Securities Exchange last December, the firm has developed the Peppermint Platform: a piece of mobile banking, payments and remittance tech. The platform is already being used on a white-label basis by major commercial banks in the Philippines; however, the letter of intent with G-Xchange – which provides Globe's GCash mobile wallet service – will see the Peppermint Platform adapted to incorporate GCash products and services, but also set up Peppermint agents with access to the GCash non-bank network of 12,000 partners and its 13,000 ATMs across the country.

“It's a very, very powerful partnership... which completely empowers what we're doing in the Philippines with a push into services for the non-banked,” Kain told CommsDay. “Over 70 million people don't hold a bank account in the Philippines. Since we listed [on the Australian Securities Exchange] last December, we've had a communicated strategy that pushes toward servicing that non-banked population, starting in the Philippines and developing a platform that allows us to leverage that into other... developing world nations.”

“We had a purpose-built non-bank agent platform... and we were just waiting for a significant ability to commercially deploy it. And GCash allows us to do that, because under the umbrella of communications with the central bank, we can operate with a completely regulated electronic money license holder in the Philippines, which is effectively GCash.”

The new arrangement is very much in line with Peppermint's business model, which is about providing a complementary offering with large established providers – rather than competing against them, or starting up in a country from scratch. The Philippines is the first major market for the firm, but Kain is already eyeing expansion into countries such as Vietnam, Bangladesh, Sri Lanka, Indonesia and India, with unbanked populations the main objective.

“If there is an opportunity to provide our tried and tested and commercially deployed mobile banking and payments platform with banks in those areas, we'll certainly look at that [but] it's not our core focus,” said Kain. “Our core focus is to roll out this specifically built non-bank agent network platform... into these other countries which have large unbanked populations, where they've established agent networks. Where we're effectively tapping into an established sales force which use a smartphone with an application on it that we provide the technology for, and that's their shop-front... and [even if] the consumer is still dealing in cash, they're being provided a service by an agent who's incentivised to transact over the application, because they earn a

commission.”

Peppermint is also working on tapping into the international remittance market – starting in its established base in the Philippines, to which some US\$1 billion annually flows from Australia in cross-border transfers.

Petroc Wilton

## **Cloud firm Ramco opens Oceania HQ in Melbourne**

Enterprise cloud software firm Ramco will today officially open its Oceania headquarters in Melbourne, on the back of substantial growth since launching in Australia three years previously.

Vice chairman Sandesh Bilagi told CommsDay that the firm used Amazon Web Services hosted in Sydney, which he held up as a key differentiator to some of its US-based competitors. The firm focuses on serving business needs in the logistics management, human capital management and global payroll areas, all via a single cloud platform.

“We’ve had an Australian presence since 2012 and today we have quite a bit of a presence here: 26 customers and around 50+ employees. We represent quite a bit of [Ramco’s] global revenue, in fact we’re the fastest growing within our company; we represent around 12% of the global revenue which, for a young geography like Australia, is quite impressive,” he said. “I think Australia has embraced cloud much faster than any other company.”

“In the region, we have customers spanning from French Polynesian islands, Tahiti, Australia, Papua New Guinea and East Timor... [but] most of the large customers are in Australia, so logically we had to [set up headquarters] in Australia,” he added. “And we’ve got very good growth forecasts in Australia.” Bilagi also said that Melbourne, with a strong academic presence, made a good base for a company like Ramco that invested heavily in innovation and new technologies.

Petroc Wilton

## **Incumbents to benefit from Trump election?**

Telecom industry analysts are beginning to examine the impact of president-elect Donald Trump, and the consensus is that he will preside over a regime more friendly to incumbent telcos and less sympathetic to the interests of OTT providers.

Blair Levin, a former FCC executive and current senior fellow with the Brookings Institution, said in an analysis piece for New Street Research that it is quite likely a new telecommunications act will be introduced under Trump.

“There is likely to be comprehensive telecom legislation for the first time since 1996. We suspect it will be largely friendly to ILECs and be modelled on state legislation largely deregulating IP communications and providing an easy glide path for ILECs to transition to all IP based services,” Levin wrote.

“It will likely also move net neutrality into a new section of the law, keeping the no blocking, no throttling, no paid prioritisation framework, but limiting FCC powers to

enforce, and taking away rule-making authority in that area, as well as others. ...we see the basic framework as pro LEC, neutral to positive for cable, negative for CLECs and small wireless, and negative for tech.”

Consumer lobby New Networks Institute says that despite Trump’s promise that he would “drain the swamp” of Washington special interests, the academic appointed to oversee the transition at the FCC – Jeff Eisenach—has been a paid lobbyist for Verizon.

NNI principal Bruce Kushnick cited a number of examples Eisenach petitioning the FCC on behalf of Verizon and concludes “if Trump cares about draining the ‘Special Interest Swamp’, then having a coin-operated analyst, (with a skew towards his clients), leading the FCC’s transition, is just wrong. It will be seen for what it is – just dumping more pollution into the swamp that needs a good cleaning.”

There is also skepticism that Trump can do anything to restore the control of the US over internet governance. President Barack Obama allowed ICANN to take over the US Department of Commerce’s traditional control of this area earlier this year but Trump vowed to reverse the decision.

The Internet Engineering Taskforce’s Robert Atkinson said “I don't know if the president has the power to change this, but even if they had the power I don't think they'd do it. The horse has left the barn. There would be too much outrage on the Hill and internationally. This isn't a fight they're going to take on.”

“ICANN had an agreement with the U.S. government where the government had some control in the background over ICANN's role of managing the Internet’s domain name system (DNS). ... That tether has been cut, but I think the Trump will monitor them to make sure ICANN lives up to what they said they would do and not allow other countries to take a larger role in Internet governance.”

Current Republican-aligned FCC commissioner Ajit Pai is seen as the likely candidate to be the next chairman. Pai’s career has mainly been focused on the Department of Justice where he has served various counsel roles but he also did a three year stint as a counsel for Verizon.

Grahame Lynch

## **Hyperscale players set to dominate datacentre future: Cisco GCI**

The rapid increase of datacentre workloads and storage demands is set to drive applications to service providers with scale, or hyperscale in Cisco’s definition, according to the equipment vendor’s latest Global Cloud Index report.

While overall demand for datacentres in both workloads and storage is set to multiply many times, the companies that could reap the benefits from that growth could be limited to just a couple of dozen companies.

According to Cisco’s definition, in order to qualify as hyperscale, a service provider must generate more than US\$1 billion in infrastructure- or platform-as-a-service revenue, or more than US\$2 billion in software-as-a-service revenue, or more than US\$4

billion in internet/search/social networking revenue, or have more than US\$8 billion in e-commerce/payment processing revenue.

So far, Cisco has identified just 24 such hyperscale operators, including Amazon/AWS, Rackspace, NTT, IBM, Salesforce, Google, Microsoft, Oracle, Facebook, Apple, Tencent, Yahoo, eBay and Alibaba.

By 2020 the vendor forecast that these companies, or the facilities that they operate, will handle five times as much traffic in their datacentres as they did in 2015, together accounting for 53% of all datacentre traffic. At the same time, the number of datacentres operated by these hyperscale shops will grow from 259 in 2015 to 485 by 2020, when they will host 47% of the total datacentre installed servers, according to the GCI.

The growing dominance of hyperscale players is further indicated by the expected adoption of public clouds. According to Cisco, public cloud platforms are projected to surge ahead of private cloud infrastructure in hosting workloads as well as providing storage for data going forward.

For the period 2015 to 2020, the GCI charts a 35% compounded annual growth rate for public cloud workloads, which will represent 68% (298 million) of all cloud workloads by 2020, up from 49% (66.3 million) in 2015. For the period, private cloud workloads are predicted for a 15% CAGR, accounting for 32% (142 million) of cloud workloads by 2020.

At the same time, total installed datacentre storage capacity is expected to growth 5x between 2015 and 2020 to reach 1.8ZB, up from 382EB. Cloud datacentres will account for 88% of the installed datacentre storage capacity by 2020, up from 64.9% in 2015, according to the GCI. Despite the massive growth, installed capacity may actually be falling behind data stored in datacentres, which is projected by Cisco to increase 5.3-fold to 915EB by 2020, from 171EB in 2015.

**SDN/NFV:** One consequence of hyperscale datacentres is the growing adoption of software-defined networking and network functions virtualisation, GCI remarked. As datacentre operators scale up to handle the growth in traffic, they are turning to SDN and NFV to flatten their architecture and streamline traffic flows.

“Over the next five years, nearly 60% of global hyperscale datacentres are expected to deploy SDN/NFV solutions. By 2020, 44% of traffic within datacentres will be supported by SDN/NFV platforms (up from 23% in 2015) as operators strive for greater efficiencies,” GCI said.

**IOT AND CONSUMER:** On an application level, one of the biggest trends that could potentially impact the overall datacentre is the emergence of IoT, which is forecast to generate a whopping 600ZB of data by 2020, or 275x higher than the projected traffic going from datacentres to end-users or devices (2.2ZB), and 39x higher than the total projected datacentre traffic (15.3ZB).

Not all IoT data will be captured or stored but an increasing amount is expected to support IoT and analytics applications. By 2020, these types of applications will account for 22% of total business application workloads, up from 20% in 2015.

Consumer applications – namely video and social networking – are also projected to drive datacentre demand going forward. Between 2015 and 2020, workloads generated by consumer applications are set to grow 3.5x, compared to 2.4x for business workloads, Cisco said. By 2020, consumer workloads will account for 28% of overall datacentre workloads, up from 21%.

Video streaming and social networking represent the fastest growing consumer applications, accounting from 34% and 24% of workloads respectively in the category by 2020, compared to 29% and 20% in 2015.

Correspondingly, datacentre traffic generated by consumer applications – no doubt as a result of data heavy video – will present 71% of total datacentre traffic by 2020, up from 64% in 2015.

**ASIA:** Geographically, datacentre traffic in Asia is projected for a CAGR of 27% to reach 4ZB by 2020, behind only North America's 7.1ZB. The rest of the world – Western Europe (2.7ZB), Central & Eastern Europe (632EB), Latin America (533EB) and Middle East & Africa (451EB) – fall well behind.

Tony Chan

## **No sure thing for fixed wireless 5G, says analysts**

An analysis of the future 5G market has cast doubt on at least one frequently cited use case: millimetre-wave fixed wireless deployments to deliver ultra broadband services.

According to industry analyst Mobile Expert, there is no guarantee on the return on investment for fixed broadband 5G systems, particularly those operating in the higher 28GHz frequencies. A combination of historical pricing and technical limitations poses some very serious challenges for such 5G deployments, the analysts said.

Citing historical spectrum prices, Mobile Experts asserted that such 5G deployments “will not be successful” without “inexpensive access” to spectrum. The challenge is further exacerbated by the fact large blocks of frequencies are “absolutely necessary” to deliver higher broadband speeds.

At the same time, the existing technical specifications for millimetre-wave systems, featuring links that only reach 50 metres or so, will further limit the ability of such systems to reach customers and deliver financial rewards for operators.

“Link distance is a key factor in the pre-5G business case at 28GHz,” said Mobile Experts principal analyst Joe Madden. “We’ve conducted some in-depth link budget calculations and compared our results to trial results reported by Samsung, Ericsson, Intel, and others. Based on this deep technical work, we have some concerns about the power, linearity, and heat dissipation in pre-5G infrastructure. The laws of physics will limit these pre-5G networks.”

In order for fixed broadband 5G to work, the link distance needs to be extended to some 200 metres in order to cover enough consumers to justify a business case, Mobile Expert said.

“The business case for 5G fixed broadband is not a slam-dunk,” commented Mad-



den. “We expect pre-5G deployment to be a very targeted investment by mobile operators, addressing very specific neighbourhoods instead of nationwide deployment.”

That said, Mobile Experts does expect 28GHz systems to be part of the initial 5G roll out, but as part of a combined solution that also feature systems operating in the low-band such as sub-6GHz frequencies, presumably for range.

Tony Chan

## **NTT DOCOMO to demo autonomous cars monitoring over 5G**

Japan’s NTT DOCOMO will demonstrate a trial 5G application for keeping autonomous vehicles on the road and provide assistance to passengers. The trial, to be conducted in collaboration with Tokyo-based mobile app and services developer DeNA, will be carried out on a prototype 5G system at DOCOMO’s R&D centre in Yokohama and a prototype driverless bus developed by DeNA.

According to DOCOMO, the trial will be supported by a network that will deliver “ultra-high-speed data rates beyond 10Gbps, excess capacity, extra low latency and massive connectivity compared to existing mobile communications systems.”

The trial 5G network will be used to connect a vehicle and a remote control centre, in order to support applications such as real-time high definition video from vehicle mounted cameras. The initial application will focus on real time monitoring of the driverless vehicles to spot any “driving irregularities,” as well as provide passengers with assistance as required.

“The collaboration, which will combine DOCOMO's 5G wireless technologies and DeNA's expertise in services incorporating self-driving technologies, aims to realise extra-safe driverless services for remote monitoring and assistance,” DOCOMO said.

Tony Chan

## **TIENPAY TO LAUNCH MOBILE WALLET IN AU**

Hong Kong software developer TiENPAY has said it intends to launch mobile wallet services in Australia through a local subsidiary. The solution will support both Apple Wallet and Android Pay natively and is positioned as a platform for retailers and brands to reach endusers.

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

The development of the ADSL2+ market hit teething troubles, particularly around the heavy use of bandwidth by residential users, with People Telecom quietly suspending all new ADSL2+ sales... Internode leapt on Telstra’s removal of speed limits on its wholesale ADSL offering, releasing a provisional price list for 8Mbps services... Optus’ latest addition to its satellite fleet, Optus D1, was suffering from what the firm described as a ‘configuration problem’, though the company emphasised the satellite would go into service that week as planned.