**ENABLE:** Wins Huawei NZ contract, looks to NBN

**FLAMINGO:** Carriers, customers can now co-create services

**TELSYTE:** Home automation on the rise and rise



# COMMUNICATIONS DAY

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"What are the basic standards that need to be met for a workable cloud Ethernet services? A car is not a car without certain basic components – wheels, engine, steering etc – so the industry must decide a set of vendor-neutral networking criteria without which cloud services cannot realistically be supported," Walker said.

According to the CEF, CloudE 1.0 attempts to define the properties that a cloud must have. These are virtualisation, automation, security, programmability, and analytics, or VASPA as the CEF puts it. The CEF has set up five working groups to explore the five topics and determine a reference architecture that will be accepted as part of the CloudE 1.0 standard.

The project already has the support of senior executives at Citrix, Juniper, Wedge Networks, Comcast Cable, Spirant Communications, iomatrix, and others.

As part of the project, the CEF is setting up in parallel a test bed that will kick off the certification process to CloudE 1.0 services, added CEF member and founder and president of testing firm iometrix, Bob Mandeville. This "reference test bed" is currently being developed in a lab in Silicon Valley, with a global test bed on the drawing board.

One test already underway is Wedge Networks' security-based NFV. Wedge is now working with Spirent and Juniper to test its NFV-S solution inside a virtualised network environment.

"This reference test bed is the proving grounds for interoperability, applications performance, security and load balancing," CEF chairman and EVP of Spirent Communicaitons Jeff Schmitz said.

"In the long view, cloud services business is just beginning, however it is expanding fast and could go in many directions quickly without standards," commented Infonetics co-founder and principal analyst Michael Howard. "Today cloud services are dominated by a few big players, including AWS, Google, and Microsoft, but many telecom service providers are entering this business. The cloud services business today does not need another 'platform war', it needs a standards-based, open cloud environment."

**Tony Chan**

## Too early for post-100G, says Infinera

There is no immediate need to introduce faster optical technologies beyond 100G wavelengths, according to Infinera. Infinera executives told CommsDay that the industry trend for 100G adoption is just ramping up and that demand is likely to only peak in the 2018 timeframe. According to Infinera VP of corporate marketing Mike Capuano, demand for 100G is currently driven by long haul terrestrial network operators, internet content providers and cable and cloud providers.

"These people have a lot of sunken investment on these fibre and they are now upgraded them with the larger capacities to get more value out of those assets," he said. "But the trend is just starting. 100G won't get significant penetration in the metro segments until probably 2015."

At this point, there is no need to upgrade wavelengths beyond 100G, Capuano said, while commenting on recent vendor announcements of 200G and 400G optical transport systems. "They are some trials and demonstrations, but our platform is already delivering 500G superchannels."

Infinera's DTN-X platform combines five 100G wavelengths inside a photonic integrated circuit, which forms a 500G superchannel. Infinera's solution is different from recent systems unveiled by Alcatel-Lucent, Huawei and ZTE, who showcased beyond 100G solutions, which use higher modulation or compression such as QPSK and 16QAM, as well as new implementation of the optical grid, to achieve higher per wavelength and per fibre capabilities. Alcatel-Lucent, for example, demonstrated a system that achieved 25Tbps of capacity per fibre by combining 16QAM modulation to boost per wavelength capacity to 200G and its FlexGrid solution to add 42.5% more wavelengths on an individual fibre.

So far, Capuano said, there is no immediate demand for these higher capacity systems, which are also limited in the distance that they can support. Citing an internal Infinera survey, Capuano said only 6%-7% of the operator respondents said they were interested in 16QAM modulation.

Meanwhile, Infinera was named the top optical transport vendor for 100G shipments by research-

ers Infonetics.

According to Infonetics, Infinera shipped 9,333 100G wavelengths in the period between the third quarter of 2010 and the fourth quarter of 2013, putting it ahead of all other optical vendors in terms of wavelengths shipped during the period internationally. Recently, Infinera upgraded three Telstra subsea cables – Endeavour, RNAL, and AAG – with 100G equipment.

**Tony Chan**

## Nuage Networks picked for French sovereign cloud

Nuage Networks, the wholly-owned software-defined networking subsidiary of Alcatel-Lucent has been selected to provide its SDN solution to a new French cloud startup, Numergy.

According to Nuage, Numergy selected its virtualised services platform and 7850 virtualised services gateway as well as Alcatel-Lucent's 7750 service router to manage and automate its data centre network.

Numergy CEO Philippe Tavernier added that Nuage's solution also help the cloud provider "address key performance and compliance requirements" for virtualising its infrastructure."

Numergy was founded by French telco SFR, IT group Bull and the French government's Caisse des Depots. According to Nuage Network senior director, marketing Houman Modarres, Numergy is essentially building a French sovereign cloud platform with ambitions to grow into multiple data centres around the country.

Modarres added that network virtualisation was a natural step for data centre operators. "It's like the whack-a-mole game," he said. "Server virtualisation was the first mole to be whacked. Once that was done, next came network virtualisation, which now removes a mismatch before how compute is provision and how networks are provision."

**Tony Chan**

### HILLS TO FUND NEXT-GEN TECHNOLOGY IDEAS

Hills Limited has called on Australian innovators to submit proposals on innovative technology ideas and projects that can be funded, developed and commercialised in the group's two new innovation centres, due to open in Adelaide on 7 May this year. Through a funding partnership with the South Australian government, $5 million is being invested to open the Lance Hill Design Centre – focused on advancing design innovation – and the D-Shop, with an emphasis on discovering and commercialising digital innovation. According to the company, the objective of both innovation centres is to retain local design expertise and to collaborate with key educational campuses and the rich pool of independent designers in Australia. Through collaboration with UniSA, Flinders University and the University of Adelaide, the two centres will support and fund next generation technology ideas, projects and start-ups.

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

US lobbyists CompTel/ASCENT issued veiled criticism of the Australian Competition and Consumer Commission's new plan for mobile termination reform, claiming price constraints on local operators would result in excessive extra charges for consumers...Telco products provider Westel Group expanded into US and Asian defence markets, acquiring Opentec's terminal business...Telecom New Zealand reaffirmed its commitment to Hutchison 3 despite reports of the 3G operator running into difficulties in the UK with joint venture partner DoCoMo in relation to declining revenue.