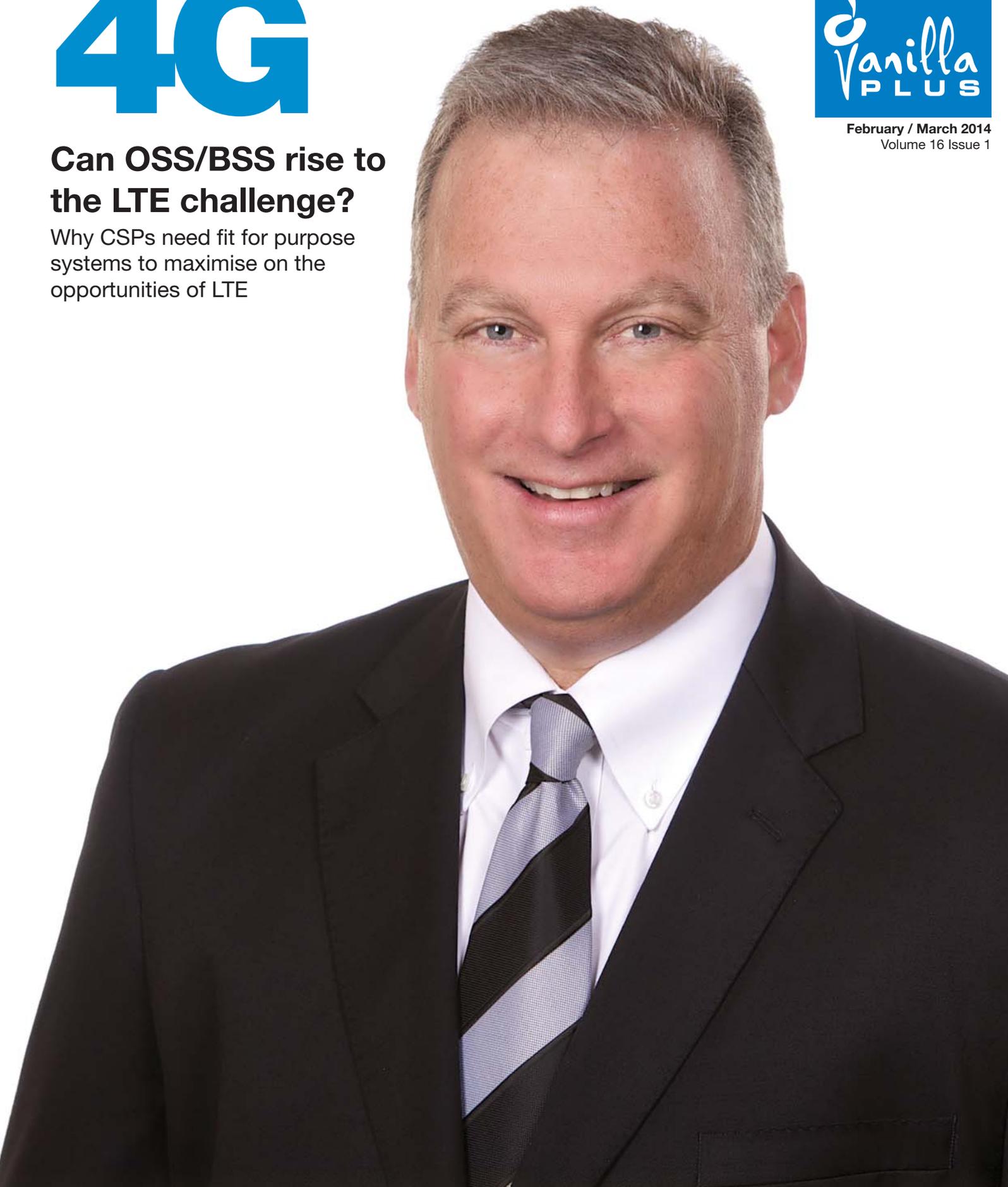


4G

Can OSS/BSS rise to the LTE challenge?

Why CSPs need fit for purpose systems to maximise on the opportunities of LTE



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PLUS: More optimisation assets sold as Mobixell and Newfield Wireless acquired • Amdocs goes for a drive in AT&T's connected car • Siemens Convergence Creators sells R&D • Cerillion goes live in El Salvador • WeDo Technologies launches RAID on ZAIN group CSPs • Anite accelerates LTE Advanced carrier aggregation • Read the latest news at www.vanillaplus.com



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19 VANILLAPLUS 4G INSIGHT

The sixth of our VanillaPlus Insights starts here with 30 pages exploring how CSPs are turning to OSS/BSS to optimise, monetise, plan and roll out their LTE networks. The network may be different but at least, this time, the back office is being planned in parallel.

The Insight contains a specially-commissioned report written by Clare McCarthy, the practice leader of telco operations and IT at analyst firm Ovum. She explores the importance of activation, charging and monitoring of services on the LTE networks that are being deployed now.

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Where to go and who to see

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Nick Booth says if you're IT agnostic, you're in the wrong job.



Have CSPs hit the edge of efficiency?

Much of the content of VanillaPlus over the last few years has focused on how CSPs can become agile, flexible businesses and optimise the efficiency of their operations. In an industry with declining margins from its core business, that's a vital and obvious area to pay great attention to but, because there will always be a glass ceiling of diminishing returns from doing that, we've also kept a close eye on how the back office can enable new forms of revenue generation



George Malim,
editor, VanillaPlus

There's only so much business transformation that can be achieved through efficiency alone – even in vast, fragmented and high volume industries like telecoms. To take an example in the OSS/BSS market, fraud prevention systems typically make large gains early in their deployment as the obvious frauds are detected and halted and then incrementally performance drops off as the readily identifiable leakage is staunch. That's also true to an extent in the search for efficiency. Big gains can be made relatively rapidly and then the long tail begins.

That leaves CSPs in a state of transition in which the current situation begins to reverse. Where five years ago the focus was increased efficiency with new revenue opportunities as a nice-to-have, the pivot point is here now. Revenue generation from new services becomes the focus and further increases in efficiency are the nice-to-have side benefit.

At Mobile World Congress that shift will be evident. With a keynote from Facebook's Mark Zuckerberg at this

year's show, it's clear the industry is being embraced by OTTs – the message from this must be CSPs have some value to add beyond simple transport, after all. In addition, the expected lead theme of the show is the Internet of Things. Perhaps that's not the most exciting area from a network point of view. Most IoT activity will be relatively low bandwidth and involve applications that are not much different to those already in use.

However, CSPs' expertise at doing things at great scale in a quality-assured way is a valuable skill and path to revenue for them. OSS/BSS is central to this enablement of the agile, flexible and new, multi-directional, multi-party business models. LTE flattens the mobile architecture but a flat foundation is easiest to build on. What is stimulating is the OSS/BSS sector's effort will now be focused more on constructing new revenue opportunities rather than on making old architecture operate more efficiently.

Enjoy the magazine.

George Malim

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Flash Networks acquires Mobixell for optimisation and monetisation



Liam Galin: Combined R&D strength to accelerate innovation

Flash Networks is to acquire Mobixell, a provider of mobile data management, network optimisation, and rich media delivery systems. The companies say the acquisition will result in them having a combined market share larger than any other

independent vendor, with hundreds of

deployments, serving over one billion subscribers worldwide.

The deal will enable Flash Networks to meet growing demand for data optimisation, acceleration and monetisation services following the proliferation of new consumer devices, rich multimedia content, and high speed 3G and 4G networks.

“With the ever growing demand for our offering, this collaborative venture is an important step in establishing our dominance in the global market,” said Liam Galin, president and chief executive of Flash Networks. “As the largest player in this domain – both in size and worldwide customer reach, our

combined R&D strength will accelerate the speed of innovation to evolve our already ground breaking products. As we are interested in extending our position in the mobile operator market, Flash Networks is committed to continuing support of Mobixell’s solutions and customers.”

Klod Ghez, the chief executive of Mobixell, added: “We are pleased to be joining forces with Flash Networks. By combining our technological expertise and broad customer base, together with our mutual customer commitment, Flash Networks is uniquely positioned to enhance our offering and support our customers.” 



Lyn Cantor: Geolocation capability to enhance offering to CSPs

Tektronix Communications completes Newfield Wireless deal

Tektronix Communications has acquired Newfield Wireless, a privately held pioneer in next-generation mobile network optimisation with geoanalytics intelligence.

Newfield Wireless brings a layer of geoanalytics and visualisation tools for the RAN, enabling mobile operators to dynamically pinpoint issues at the subscriber and network level in real-time across 2G, 3G and 4G networks. Newfield’s solutions deliver a full range of

capabilities to support critical decisions in engineering, operations, sales and marketing, regulatory compliance and reporting. When combined with Tektronix Communications’ probe-based network monitoring solution, the vendors claim operators can affordably centralise end-to-end management and visibility of their mobile network, from subscriber to the data centre.

“Newfield Wireless’s RAN optimisation products, services and expertise will combine with our own solutions to benefit service providers in two ways. One is the ability to assure customer experience across the entire mobile network down to the geolocated device. The other is an enhanced ability to provide new value-add data feeds into numerous departments –

from operations to customer care to business audiences at any given service provider,” said Lyn Cantor, the president of Tektronix Communications. “We are pleased to welcome Newfield Wireless and are excited about the opportunities this will offer our customers.”

Newfield Wireless CEO Marc Bensadoun added: “This is a natural fit. We will continue to innovate in mobile network optimisation while also being part of one of the world’s most respected leaders in telecoms network intelligence.”

The move follows the acquisition of optimisation and geolocation specialist Aries by JDSU and the purchase of optimisation vendor Actix by Amdocs in 2013. 



Dave Caputo:
Profitable in every quarter

Sandvine reports record Q4 2013 revenue

Sandvine, which provides intelligent network policy control solutions for fixed and mobile CSPs, has reported record revenue of US\$30.8 million for its fourth quarter of 2013, net income of US\$5.6 million and non-IFRS income of US\$5.9 million.

Other Q4 2013 highlights include revenue growth up 12% compared to Q4 2012, gross margin of 75%, the announcement of

more than US\$9 million from tier one CSPs, including US\$4 million in initial orders from several properties of a tier one group in Latin America.

In addition, the company claims it won 25 new CSP customers, including 18 wireless operators during the period. The company added that it has advanced in network functions virtualisation strategy by demonstrating a completely virtualised network policy control system – it claims it is the first vendor to do so.

“We grew revenue more than 20% for the year, generated over \$14 million in cash and were profitable in every quarter. As a result of our success, Infonetix Research named Sandvine as the leader in our market,” said Dave Caputo, Sandvine's president and CEO. “Orders for Sandvine's service creation products, which help service providers quickly define and implement innovative new subscriber service tiers, continued to grow, and were the largest part of our business. These products represent a significant differentiator for us in the market.”



AT&T chooses Amdocs for AT&T Drive Studio

Amdocs has been selected by AT&T for the AT&T Drive Studio, a new centre to spur the development of connected-car services and applications. AT&T announced its connected car initiative on 6 January at the 2014 Developer Summit alongside the Consumer Electronics Show in Las Vegas. Expanding its longstanding AT&T relationship into the emerging connected car market, Amdocs also said it will enable AT&T to enhance its offering by supporting innovative business models with its auto industry partners. The solution will provide charging, billing and partner relationship management integrated with AT&T's existing capabilities.

These capabilities will enable AT&T to split the connectivity charges for separate services occurring in the same car, so that consumer apps – such as navigation and

entertainment – can be billed to consumers, while connectivity for car diagnostics, vehicle telematics and safety services may be included in a car maker's subscription charge. This split-billing capability also opens up promotional opportunities for auto OEMs, app and content providers and others in the connected car ecosystem – facilitating, for example, offers for a free year of internet music service.

“The car is about to become essentially one more connected device on a customer's shared data plan,” said Chris Penrose, senior vice president, emerging devices, AT&T Mobility. “The Connected Car market is an area of strategic importance for AT&T, and it was only natural to team up with Amdocs, whose dynamic solutions continue to provide new

monetisation capabilities.”

Rebecca Prudhomme, vice president of product and solutions marketing at Amdocs, added: “We look forward to being a key part of the AT&T Drive Studio ecosystem, working with AT&T and automakers to help create the innovative services that will drive the connected car market. Amdocs' flexible billing and data monetisation solutions can support the new connected-car billing models we're likely to see, in which new in-car applications may need to allocate billing charges between the automaker, service provider and consumer – a great opportunity for service differentiation.”



Rebecca Prudhomme:
Supporting new connected car models



NEWS IN BRIEF

Siemens Convergence Creators sells R&D to Tieto

As part of Siemens Convergence Creators' efforts to streamline its business to a core portfolio, Siemens and Tieto have signed an agreement to acquire parts of Siemens Convergence Creators' Network Directory Server (NDS), IP Multimedia Systems (IMS), Home Location Register (HLR) and Radio Access (RA) businesses to Tieto Product Development Services. As part of the planned outsourcing, approximately 220 employees who are working in four countries and five locations will transfer to Tieto.

“The planned transaction will be a further step in Siemens Convergence Creators' business focusing process on innovative solutions in the fields of communication networks, service and customer management, public security, multi-media infotainment and aerospace technology,” said

Daniel Felicio, chief executive of Siemens Convergence Creators. “It will support our strategy to concentrate on our core portfolio, which is of particular importance regarding our expansion activities on our regional footprint and the constantly increasing demand for our core portfolio.”

Antti Vasara, executive vice president of Tieto Product Development Services, added: “The Siemens employees that are transferring to Tieto are experts that complement our portfolio in voice and IP transformation areas allowing us to build new offerings for our customers. We are happy to engage ourselves in a closer cooperation in these areas.”

CSG International to acquire Volubill assets

CSG International has purchased key assets

of Volubill, which had been in the French equivalent of Chapter 11 bankruptcy protection. Volubill products, which are used by CSPs to bring to market and monetise the new generation of digital, communication-based services, are a natural extension of CSG's current market-leading billing and revenue management portfolio, says the company.

“CSG's global strength, credibility, and coverage will enable Volubill products to reach a much wider market than was possible for Volubill alone,” said John Aalbers, chief executive of Volubill. “We are very pleased to become part of the CSG family.”

CSG currently provides comprehensive software, technology, and services solutions to more than 500 global communications clients. Assets acquired will allow CSG to rapidly expand its charging and policy reach and expertise while providing a path to innovative new capabilities and services.



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Anite accelerates development of LTE-Advanced carrier aggregation



Paul Beaver:
Advancing key features of LTE

Anite, with HiSilicon, has verified Release 10 LTE-Advanced (LTE-A) protocols in HiSilicon's newly developed LTE-A chipset.

Anite's early availability of key features within its testing solutions has enabled the industry to develop LTE-A products in line with market requirements. The Anite solution was used to verify HiSilicon's new chipset Balong720, which is the world's first LTE Cat6 platform

supporting 20 MHz + 20 MHz Carrier Aggregation (CA). The close collaboration has resulted in the verification of new 3GPP RAN5 LTE-A CA protocol conformance test cases, using Anite's Conformance Toolset – a market-leading protocol conformance and performance testing solution. LTE-A CA provides end-users with superior data rates through combining spectrum resources.

Anite has achieved a number of key industry milestones over the years, such as the first TD-LTE test case verification submissions to 3GPP RAN5 in May 2010 and the industry-first TD-LTE CA test case

submissions in July 2013. To date, more than half of all TD-LTE test case verification submissions to 3GPP RAN5 have been provided by Anite using HiSilicon product.

"Anite's close collaboration with HiSilicon has played an important role in advancing key features of LTE technology," said Paul Beaver, products director at Anite. "This underlines Anite's leadership position as a driving force behind the development of 3GPP RAN5 test cases and their subsequent inclusion in the device certification requirements of the Global Certification Forum (GCF)."

Anritsu introduces error detector and other enhancements

Anritsu has introduced a high-sensitivity error detector and other additions to its MP1800A BERT (Bit Error Rate Tester) signal quality analyser to support multi-channel BER measurements up to 32.1Gbit/s. The enhanced MP1800A is suitable for testing the backplanes, cables, and interconnects used in the next generation of ultra-high speed network equipment.

Featuring receive sensitivity of 10mV (typical) and the fastest auto-adjust function on the market, the MP1800A with its new error detector provides signal integrity engineers with a highly accurate

test solution to verify that components comply with industry standards for high-speed transmission, such as 100GBASE-SR4 and 100GBASE-KR4.

Providing a wideband bit rate from 2.4Gbit/s to 32.1Gbit/s, the error detector features an auto-adjust function that permits simultaneous search in less than one second, and automatically detects the optimum BER voltage threshold and phase levels for up to eight channels. This helps the user to improve the efficiency of the test process and to lower the cost of testing.

The extended functions of the MP1800A created by the new device support simultaneous measurement of low-amplitude, small eye-opening test outputs for multiple channels.

Anritsu also introduced a 32Gbit/s extension option for its MP1825B 4Tap Emphasis that features low jitter for up to four taps, allowing it to create emphasis that matches every industry standard. The MP1825B with the new option can be configured with the Anritsu MP1800A BERT signal quality analyser to accurately measure the performance of interconnects used in high-speed networking applications.

NEWS IN BRIEF

Starhome MACH announces US Patent for LTE Roaming Broker

Starhome MACH has been granted a US patent for the core technologies of its LTE Roaming Broker service.

Implementing LTE roaming agreements for network operators is costly and time consuming, and during the lengthy time spent securing roaming agreements, CSPs lose significant revenue potential. The LTE Roaming Broker solution enables CSPs with

LTE roaming agreements to sponsor networks without such agreements, allowing these networks to offer inbound and outbound roaming based on the sponsoring network's existing roaming agreements and signaling infrastructure.

With LTE Roaming Broker, CSPs can offer LTE roaming more quickly as there is no need for heavy investment in bilateral LTE roaming agreements and direct roaming integration. The current patent also covers VoLTE (Voice over LTE) brokering, and supports hybrid

scenarios of legacy (2G/3G) and LTE roaming such as circuit-switched fallback.

"Starhome invests significantly in innovation to ensure we can solve key issues facing the market," said Shai Ophir, the chief technology officer of Starhome MACH. "This patent is yet another milestone in our extensive intellectual property portfolio, ultimately focused on benefiting our customers. With the rapid growth of LTE technology worldwide, LTE roaming is critical for our customers."

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**VanillaPlus Hot List: February/March 2014**

The Hot List below shows the companies informing us of recent contract wins or product deployments. If your contract is not listed here email the details to us now marked "Hot List" <editorial@vanillaplus.com>

Vendor(s)	Client Country	Product/Service	Awarded
Amdocs	AT&T, USA	Amdocs to provide billing, charging and PRM capability – including split billing – to CSP's Drive Studio connected car programme	1.14
Amdocs	T-Mobile, Czech Republic	Amdocs Convergent Charging and Billing system selected for billing modernisation project	12.13
AsialInfo-Linkage	Telenor, Denmark	AsialInfo-Linkage selected for BSS transformation project covering implementation, operational and maintenance support	11.13
Astellia	Eastlink, Canada	Canadian mobile operator to implement Astellia unified network performance management system integrating both RAN and core data	12.13
Cerillion	Columbus International	Deployment of Cerillion CRM and Billing system as part of roll-out across Columbus group properties with vendor as preferred billing platform	12.13
ClickSoftware	Wind, Italy	Wind replaces workforce management platform with ClickSoftware system to enable advanced scheduling and enhanced mobility	1.14
Comptel	DNA, Finland	Finnish CSP extends use of Comptel Policy Control to address roaming cost control and launch defined, fixed price data packages	12.13
cVidya	Swisscom, Switzerland	cVidya Prospero system deployed to manage performance of 13,000 internal sales executives and external channel distributors	1.14
FTS	Sampoerna Telecom, Indonesia	Multi-year extension for FTS convergent billing and charging platform to support mobile data services	12.13
JDSU	MTS, Canada	JDSU's ariosoGEO platform deployed to provide subscriber centric network design, planning and optimisation across HSPA and LTE networks	12.13
NetBoss Technologies	du, Saudi Arabia	Deployment of performance management system and centralised network probes as part of CEM programme supporting voice, data and IPTV	1.14
NetCracker Technology	yes, Israel	Direct broadcast satellite provider implements NetCracker billing, rating and CRM to improve customer interactions	12.13
Oracle	Hathway Cable and Datacom, India	Oracle Communications Billing and Revenue Management, Online Mediation Controller and ASAP product deployed to transform back office infrastructure and enhance customer interactions	12.13
Revector	Glo Mobile, Ghana	Revector selected to lead campaign to detect and eradicate SIM Box Fraud on mobile operator's network	12.13
Sigma Systems	Sky Italia, Italy	Italian pay TV provider selects Sigma Systems' Enterprise Product Management and Configure Price Quote products to drive real-time order configuration	1.14
Syniverse	Nimbuzz, global	Multi-year agreement to provide authentication of mobile communications and entertainment platform, Nimbuzz's 150 million users via Syniverse Enterprise Messaging Service	12.13
WeDo Technologies	Etisalat, Afghanistan	WeDo Technologies' RAID deployed as a single, integrated platform for revenue assurance and fraud management	12.13
WeDo Technologies	Zain Group, Iraq, Jordan, Kuwait	WeDo Technologies' RAID selected for Zain operations in Iraq, Kuwait and Jordan	1.14

du launches NetBoss Technologies performance management

NetBoss Technologies, a supplier of network management and service assurance solutions to CSPs, has announced that du is using its centralised network probes and performance management system as part of its customer experience management programme supporting the advanced voice, data, and IPTV services carried over its next generation network.

NetBoss provided the scalable, turnkey system with its technology partners EMC Corporation and EXFO. The solution includes a combination of active and passive network probes and an overlay umbrella performance management reporting system. This enables du to have a centralised repository of key performance

indicators (KPIs) that can be monitored using intuitive summary reports and dashboards in near real-time.

The implementation is based on the TM Forum GB917 standard in which the KPI output also flows to du's service level agreement (SLA) and customer experience management systems.

Walid Kamal, senior vice president of information technology at du, said, "We are dedicated to exceeding the expectations of our valued customers by delivering a comprehensive and innovative service portfolio. Our service assurance efforts are now targeted at service quality and associated customer experience which is a paradigm shift from looking purely at

network quality. This is the reason du is investing in these service and customer centric initiatives. NetBoss Technologies provided a solution that works well with all of our equipment and services, and will expand in a cost-effective manner."

Jim Odom, the chief executive and president of NetBoss Technologies, added: "du has been an important customer of NetBoss Technologies since 2007, and we are excited that we were again able to deliver such an important project to meet du's technical, budget and schedule requirements. We completed the project within a six-month deployment commitment to enable du to achieve their goal of providing the highest level of service quality to their customers as rapidly as possible."



Louis Hall: El Salvador deal builds Columbus relationship

Columbus El Salvador goes live with Cerillion

Cerillion Technologies, a provider of next generation customer management systems, has announced the successful rollout of its CRM and Billing solution for Columbus International in El Salvador. Following the deployment of the Cerillion solution for

Columbus' retail operations in Curacao, Grenada, Jamaica, Trinidad and Barbados, the deployment in El Salvador marks the

first step in an expanded partnership, with Columbus adopting Cerillion as its preferred billing platform.

"The latest deployments for Columbus in Barbados and El Salvador, reaffirm our selection of Cerillion to improve our business agility and transform our billing and customer management capabilities," said André Foster, chief information officer for Columbus. "By building our own core team we are also now able to quickly rollout the Cerillion corporate solution to

our new sites as we continue to expand our operations throughout the region."

Louis Hall, the CEO of Cerillion Technologies, added: "From our first project with Columbus in Curacao three years ago, to the most recent go-live in El Salvador, I am delighted at how our relationship has grown into a strategic partnership. Columbus is an ambitious and exciting company to work with and we look forward to further success together in the coming years."

Glo Mobile Ghana selects Revector for fraud detection



Andy Gent: Removing fraudulent SIMs

Mobile anti-fraud and revenue protection specialist Revector has been selected by Glo Mobile Ghana to lead a campaign to detect and eliminate SIM Box fraud on its network.

Revector has been selected because of its record of detecting and

eliminating SIM Box fraud in real time across more than 80 countries worldwide. The company will spearhead Glo's efforts to protect the network against fraud.

Akeem Kazeem, head of business at Glo Mobile Ghana, said: "Revector was the obvious choice as a partner to identify and remove illegal SIM Boxes from our network. The company's experience, expertise and consultancy are globally acknowledged. We are delighted that the engagement of

Revector has started yielding immediate results. They have been identifying new SIM Boxes every day as we work to remove this illegal activity."

Andy Gent, CEO of Revector, added: "It is refreshing to see Glo Mobile Ghana making such a proactive stance towards removing fraudulent SIMs from the network. Already, we are seeing the results of this, saving Glo money and generating lost revenues for both the operator and government."

NEWS IN BRIEF

Zain Group selects WeDo Technologies' RAID system

Zain Group has selected WeDo Technologies' RAID revenue solution software for its operations in Kuwait, Jordan and Iraq. Zain needed an enterprise business software suite to analyse and identify risks, monitor controls, provide billing assurance and manage forensic investigation compliance. The RAID system will be implemented to provide support to Zain Group's revenue assurance department to minimise risk and prevent revenue leakage in the three countries.

Hisham Alam, chief technology officer at Zain Group, said; "Improving operational efficiency and ensuring that all possible revenues are

collected is critical to Zain 's stakeholders. We have chosen to work with WeDo Technologies in three of our key markets because it has excelled as a constant innovator and is known as a true market leader within the business assurance and fraud management space."

NetCracker transforms BSS for yes satellite TV

Israeli direct broadcast satellite provider yes has implemented NetCracker Technology's billing, rating and CRM solutions to improve customer interactions, accelerate speed-to-market for complex service bundles and promotions, and support new forms of content delivery and transactions across a variety of customer devices.

yes is the sole direct broadcast satellite TV provider in Israel's pay TV market. yes is working with NetCracker to enhance its content delivery offerings and customer experience through a large-scale, multi-year transformation. This long term programme will migrate yes to an end-to-end NetCracker BSS/OSS implementation.

"The market for digitalised, on-demand pay TV content continues to accelerate and become more competitive," said Roni Baranov, vice president of information management at yes. "Transforming our end-to-end BSS/OSS capabilities with NetCracker will enable us to deliver competitive new offerings rapidly while continuing to lead with the best customer experience in our market."



Mark Edwards joins MDS as chief executive

Mark Edwards has joined **MDS** as chief executive. Edwards has spent the last 14 years as chief executive and board member of various companies including **Mformation**, which he grew from a start-up to a global leader in mobile device management supplying tier one customers.

Edwards has also worked at **Aylus Networks**, a specialist in mobile video technology and held senior roles that have seen him manage and direct rapidly growing businesses at **Microsoft**, **Symbian** and **Hewlett Packard**.

"The integrated modular solution for billing,

customer management and analytics offered by MDS, is ideally positioned to help service providers flexibly and rapidly respond to the needs of today's complex environment of managing users through the lifecycle of digital products and services," said Edwards. "I am excited and honoured to be joining the MDS team, to lead the growth with both our existing customers as well as in new markets."

Martin Dawes, the chairman of MDS, said of the appointment: "Mark is renowned as a growth CEO and his reputation in the telecoms and technology industry is second to none, which is the main reason

the board has made the investment in bringing him to MDS. His track record in growing companies into global operations is going to be a huge asset to MDS. I would also like to thank **Dewi Thomas** who has been CEO for several key periods during the development of MDS, who now resumes his role on the MDS board as vice chairman."



Mark Edwards: Integrated billing, customer management and analytics offering is ideally positioned



Rui Paiva: Rui will be a fantastic addition

WeDo Technologies appoints new vice president

Raul Mascarenhas has been named as a new member of **WeDo Technologies'** global management team. With more than 25 years of experience in board roles at companies such as

Accenture, **CTT**, **Logica**, **Deloitte** and **SPMS**, Mascarenhas will assume the role of vice president, responsible for business development in the retail, energy, finance and insurance sectors worldwide.

Rui Paiva, WeDo Technologies' CEO, said: "Our aim is to become a truly multi-industry company. In 2013, our sales with customers outside of the telecoms space in countries like Portugal, Russia, the United Kingdom, Brazil, USA and Mexico represented more than 10% of total sales. We believe that this appointment will further accelerate this trend. I have known Raul for many years and am certain that he will be fantastic addition to our global management team."

Mascarenhas added: "WeDo Technologies is a multinational company with a very special profile. With a 500-strong team, it has offices in 12 different countries and clients in more than 80. It is a worldwide leader in its sector, offering clients huge value in a short timeframe with its Enterprise Business Assurance vision. Combining all this with my longstanding relationship with Rui Paiva and other members of the management team, it was with great enthusiasm and expectation that I accepted this opportunity."

NetCracker's Feinberg invited onto SCTE Foundation board

Andrew Feinberg, the president and chief executive of **NetCracker Technology**, has been invited to join the SCTE Foundation board of directors. The Foundation is dedicated to helping members of the Society of Cable Telecommunications Engineers (SCTE) advance or enhance their careers.

"We are pleased to have Andrew join the SCTE Foundation Board," said Tony

Werner, SCTE Foundation president who is also executive vice president and chief technology officer at Comcast. "His insights and experience will complement our team of industry professionals who are focused on advancing the Foundation's mission to provide programmes that fuel the growth and strength of our industry as a whole."

Feinberg added: "I am pleased to join such

a distinguished board of directors at the SCTE Foundation. NetCracker is committed to supporting the SCTE Foundation's mission and we look forward to close cooperation and partnership in the years to come."



Andrew Feinberg: Helping cable engineers advance their careers



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Don't operate – innovate!

When it comes to BSS, there are storm forecasts ahead as technological changes affect CSPs' operations and they offer a more complex and far wider range of services. Robert Machin explores the extent to which existing systems can weather the storm



The author, **Robert Machin**, is director of product marketing, EMEA, at CSG International

Depending on how we read the forecasts, the business climate for mobile communications over the next three years can be seen as threatening or promising, but either way, no-one is assuming plain sailing as we swing from network services to digital services and from communications to complex variations on convergent information and communications technology (ICT). Increasingly, we ask ourselves: when it comes to future business support systems (BSS), is the old ship still seaworthy, or should we be looking at an altogether different vessel for the voyages to come?

Although we have been anticipating it for many years, LTE rollout will peak during 2014 and 2015, as will the corresponding customer take-up of 4G devices, mobile broadband access, and mobile internet services. This raises questions:

- Are communications service providers (CSPs) ready for the storm tide of data that is about to break over their BSS decks?
- Are they able to intelligently optimise processes to keep operational costs low but business responsiveness and the customer experience high?
- Can they work with a broad range of partners, whether to build new digital services for adjacent market verticals, to provide channels to market for content and media partners, or to take other initiatives to monetise their network investments?
- Can they get new services to market fast enough to fully exploit new ideas and defend against competitor initiatives?

Many CSPs are aware that the challenges of the next two years will make very specific demands on their business and operational support systems (BSS/OSS) – in terms of both functionality and performance. They see that new revenue possibilities are beginning to manifest themselves, as the digital lifestyle become more pervasive and businesses and enterprises become increasingly mobile and virtualised around the cloud. But how many are considering that these fundamental shifts in the business environment may signal a real sea change in how the business should be supported?

The coming changes in mobile technology and the business climate require more than running repairs – a more fundamental change of direction may be

needed, turning the IT ship into the prevailing wind to meet the challenges of the new digital economy.

The future is here

LTE is growing faster than any mobile technology previously rolled out to the market. Network deployments will peak over the next 24 months, more LTE-capable devices are being released, and fourth generation capability is gradually penetrating the market through organic replacement of consumer and business handsets and other equipment.

But 4G success isn't just about networks and devices. LTE will move mobile networks firmly into mobile internet territory and CSPs will need to compete for every dollar as customer choice opens up to all kinds of third party communications services, further undercutting traditional revenue streams.

Intelligent discounting, bundling, promoting and other charging strategies can help to keep the customer on board and, just as importantly, spending their money with the CSP rather than with third parties. Competition now is not only for the customer's account, but for each transaction, and the importance of real-time integrated policy management and charging becomes increasingly evident.

Notwithstanding efforts to maintain customer loyalty, traditional revenues will continue to slide, and the hunt to find alternative sources of income continues. Many new propositions are likely to depend on third parties – as suppliers or partners – as service providers develop new ways to utilise their telecoms capability, and seek to redefine their role in the digital economy. One thing is for sure – it will be vitally important to develop propositions quickly and take them to market fast, whether to maximise the first-mover advantage of innovative thinking, or to counter competitor initiatives. Inefficient and siloed back office systems will block the innovative thinking on which future success depends.

CSPs have many unique advantages that can be exploited and turned into revenue, particularly when applied to the emerging mobile enterprise sector. Providing guaranteed quality of service across digital networks will be a vital enabler of customer confidence in cloud services, in turn nurturing and sustaining a critical new revenue stream as CSPs move into ICT, providing software, applications and ►



platforms as well as communications. Helping enterprises and individuals to defend themselves against cyber-crime is another pivotal and natural role for CSPs, as enterprises increasingly recognise that while mobility and virtualisation offer great benefits to the business, they also carry significant security risks.

Digital demands and operational responses

Many of the changes in BSS are about making the business more responsive and agile, including:

- Carrying out more customer-impacting activities in real-time, such as charging, balance management and the application of policy.
- Rationalising the product management process through a centralised product catalogue to ensure consistency, eliminate errors and shorten the critical period between product concept and launch. Three to six-month product lifecycles won't cut it for digital services.
- Automating partner management, and making it easier to bring new partners on board, offer third party content, and take collaborative propositions to new markets.
- Exploiting customer, service and network data to optimise the business and maximise customer loyalty and value.

These capabilities are no longer just nice to have, but are business-critical, and for many CSPs, represent a significant transformation of incumbent systems which were designed to support a range of different service portfolios. But upgrading functionality may not be enough.

For many CSPs, the migration from communications to digital service provision and to ICT will be the kind of diversification that will trigger fresh thinking about how the business should be supported. CSPs will certainly need fundamental capabilities to manage customers, partners, services, assets and more as they sail into uncharted waters—but this could be a

good time to think about where those capabilities should come from.

Do network operators or service providers want to source and integrate new capability themselves, given the typical timescales of a major deployment or transformation? Perhaps more importantly, do they want to risk capital in transforming current business platforms to support services whose return is as yet unquantifiable? In defining the requirements for future platforms, which way will CSPs bet? On broadcast services? Rich content? Cloud services for enterprise? Machine-to-machine applications for other industry verticals and government agencies? Cyber-security offerings? Or myriad other possible digital propositions, many not even yet considered. Can any of us be certain where the success stories will be written over the next three to five years?

New ways to work

The key question as we go into 2014 may be whether now is the time to gamble scarce capital on uncertain futures. Or does it make more sense to find partners that can provide the broad and deep operational capability that you may need to draw on, freeing up your key resources to explore new partnerships, markets, propositions and different ways of doing business – to find the new sources of revenue that will only come from genuine innovation.

Managed services can be a cost-effective way of doing business, for sure, but many CSPs are now finding that the flexibility they can offer also encourages innovation and responsiveness – particularly when the partner offers a strong combination of technology, service experience and domain expertise, and the business relationship is based not just on cost, but on meaningful business outcomes and shared risk.

For us, and for our CSP clients, the bottom line in 2014 is: don't operate when you can innovate! 

www.csgi.com



The author, **John Giere**, is chief executive and president of Openwave Mobility

It's time for more shared data plans in Europe

US mobile operators have pioneered shared data plans which allow users to share packages and bundles of data across their families or even small businesses. Here, John Giere, explains why European CSPs are missing out

Sharing is good. That's the pricing strategy that two of the United States' top mobile operators adopted when they introduced shared data plans in 2012. Verizon and AT&T Mobility broke new ground when they allowed

different subscribers to use a shared data allowance across different devices with unlimited voice and text. Since then, a number of other American operators followed suit and in the past few weeks, US Cellular became the latest to launch shared mobile data plans. ▶





It is not hard to see why shared data plans have proved popular. Most households have a variety of internet-connected smartphones and tablets. Yes, shared data plans benefit families but the fact is even individual subscribers can benefit from this as they can spread the data pool across different devices. Put simply, for the consumer, shared data plans can offer value, flexibility and take the hassle out of managing multiple subscriptions – keeping bill shock to a minimum.

For CSPs, shared data plans can increase customer loyalty and revenues. According to AT&T, over 13 million devices were connected in less than one year on its shared data packages. Verizon reported that 23% of its customer base subscribed to its Share Everything plan. The CSP is said to have added 1.8 million customers during the quarter – 1.5 million of which were for long-term contracts.

Europe vs USA

While shared data plans have proved popular among mobile operators in the United States, European CSPs have been slow to launch this pricing strategy for non-business customers. TeliaSonera in Sweden claimed to have launched the first European shared plan in March 2013 and this was followed in the UK by EE in July 2013.

So, why have European mobile operators been slow to adopt shared data plans? Some CSPs fear that introducing shared data services would require wholesale changes to be made to the billing platform. CSPs are unsure if their system can effectively handle simultaneous always-on data sessions from different devices and whether they can identify subscribers who are nearing their data limits to effectively notify and upsell to customers.

While these might seem like formidable issues, America's largest privately held mobile operator, C Spire introduced shared data plans in December 2012 and addressed these challenges very effectively. It has successfully driven revenues and increased customer loyalty – all without making wholesale changes to its back-office and billing systems.

Case study: C Spire

C Spire takes pride in its personalised wireless proposition and its shared data plan was to be a reflection of this customer service philosophy. C Spire therefore wanted to give consumers more choice and empower subscribers to control how they use mobile data. The CSP wanted a system which allowed subscribers to know precisely what they're spending and exactly what they're receiving. To roll out this new pricing plan, it selected a mobile data charging

solution to help create two new offerings: CHOICE Data Plans and SHARED Data Plans.

CHOICE Data Plans include unlimited data at a lower price but excluding tethering and with a pre-set limit of 30 minutes video streaming. By segmenting out these two premium services, subscribers would have to pay extra for them when required. However, customers would always know what to expect on their monthly bills and avoid bill shock. On the other hand, subscribers who rarely stream mobile videos or tether their devices don't have to pay for services they don't plan to use.

SHARED Data Plans were aimed at families and small enterprises. The pricing plan is for a group of users to share a common monthly data allowance rather than having to subscribe to individual data plans.

Both of these plans have the added capability of monitoring data usage in real-time so subscribers can benefit from an intuitive shock absorber. When users are close to reaching their data limits, subscribers are notified inline and can choose to purchase a top-ip pass within a few clicks and taps.

The shared data plans have been an amazing success for C Spire accounting for two-thirds of new incremental revenue. Take up of the CHOICE video pass premium service has grown 100% year on year with significant positive impact on revenue.

It is good to share

Shared data plans have proved popular with subscribers, and North American CSPs have launched innovative pricing plans to meet customer needs. Yet, most of their European counterparts are still lagging to adopt this pricing strategy. As C Spire has shown, shared data plans can increase revenues, rather than cannibalise revenues – and do so without wholesale changes to its billing system – a key consideration for any CSP. Consumers use a plethora of always connected devices and this trend is only set to continue with new technologies from smart-watches to glasses which will all require additional data. As such, consumers are likely to want data plans which allow them to share their pool of data across different devices – and with members of the family, a model they intuitively understand with their family's broadband data allowance. The US is a different market to Europe of course, but not so different that a shared mobile data allowance doesn't make perfect sense to subscribers and business sense to CSPs. The customer experience benefits and bottom-line benefits are there, and with the positive case studies that are there for the world to see, it is indeed time for European CSPs to get moving and get on the very positive shared plan bandwagon. 

John Giere and C-Spire will be delivering a speech on day two at Mobile World Congress: Tuesday, February 25, 2014 at 1600. The session is entitled "Driving New Revenues and Relationships for Operators and Brands"

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A young man with dark hair, wearing a light blue striped shirt, is smiling broadly while talking on a black mobile phone. He is holding the phone to his ear with his right hand and gesturing with his left hand. The background is a blurred outdoor setting with buildings and a blue sky.

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*Ovum Global Telecoms Technology Spending Forecast Through 2017: Analysis (Sept 13)

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IT agnostic? If you don't believe in technology you're in the wrong job

If telecoms engineers know one thing, it's that syntax and protocols and standards must be upheld. There's simply no scope to be IT agnostic, writes Nick Booth



The author, **Nick Booth**, is a contributor to VanillaPlus and a technology journalist

The telecoms industry should be setting an example to others on human interaction

That upholding of standards makes it unacceptable if switch vendor A makes a box that cannot be understood by handset B. The rules of engagement are broadly accepted and standardised. All vendors make gadgets that, if they were humans, would be singing from the same song sheet.

Those are the rules we impose on the hardware, software and technical specifications of the telecoms industry.

It's a pity we can't follow those guidelines ourselves. Meanwhile, the machines we created are growing smarter by the day. Artificial intelligence means they can learn from their mistakes, and the Internet of Things will presumably allow them to pass their experiences on to each other. Pretty soon, there will come the revelation that all offspring experience and they will see right through us. Though we tell them to be exact about their terms and meanings, when it comes to applying these rules to ourselves, we are not so stringent. The machines will come to realise that we are complete and utter hypocrites.

Why, a router might ask, does anyone claim to be IT agnostic? Even the dumbest device now has online access to several dictionaries, and they define an agnostic as someone who doubts the existence of something. Which would beg more questions from the Internet of Things that are becoming increasingly curious. Such as: Are you saying you are unsure whether you believe in the existence of technology? Are you sure you're the right person for this job? How on earth can an agnostic also be an IT evangelist?

Those machines would have a point too. There are

many terms in IT which promise the exact opposite of reality. Customer relationship management (CRM) systems, for example, were actually about customer stalking. If there was a relationship involved, it was pretty one sided, with one party bombarding the other with constant unwanted phone calls and messages. If you buy a gadget from a company, it doesn't mean you want a relationship with them. That's the sort of obsessive misinterpretation that would normally end in a restraining order.

The telecoms industry should be setting an example to others on human interaction. We shouldn't talk about 'leveragizing' something when we really mean using it. That only confuses people. Just as we demand that machines keep their exchanges simple and unequivocal, surely we should be sticking to standard English.

It's not just laymen and women who get confused by artificially inflated terms. Even people in the industry are getting bamboozled. According to one company, 56% of all software defects can be traced back to a lack of communication between people working on a project. Testing issues and production defects stem from having misinterpreted the information, says the study by Grid Tools. Development teams don't specify clearly what the testers should be testing for, says the firm. As we moved to the era of software defined networking, that is rather worrying.

What's software defined networking? I'm not sure – it all depends who you ask! You see what I mean?

It's the machines I feel sorry for. When their creators act like this they must be really confused. 



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Welcome to Barcelona!

For many of us crammed onto budget airlines, traversing Europe to return to Barcelona is as much a fixture of our calendars as a child's or wife's birthday. We know the days will be long and the nights – at least the sleeping part – short, we know the distances covered on foot will be epic and refreshments scarce and taken on the move

In fact one colleague once said to me he has only two rules for Mobile World Congress: Eat whenever you are offered food because you don't know when you will next be offered some and; Never get on a coach because that removes your right to self-determination when you find yourself stuck on the wrong side of town at a questionably relevant third-party developer's briefing session.

I'd broadly concur with those rules but I think the catering situation has improved – slightly – at the new venue, Fira Gran Via. I did see some green material in one sandwich last year, which I believe to have been lettuce. The coach question becomes almost irrelevant because, contrary to popular expectation, the rail transport to the venue worked very well last year.

Regardless of the hardships of getting there, there's a common thread for the nearly 70,000 of us that will attend this year. The vast majority of the opinion shapers, influencers and decision-makers of the industry will be in one place. There's an energy to that, whether you're trying to sell product, building your brand, looking for new partners, trying to recruit employees, or just finding a few hours to figure out what a particular three-letter acronym actually means.



This year the variety looks to be even greater with a wide range of people from outside telecoms set to attend. We'll see car makers, hotel chains, banks and a raft of others at the event looking to build relationships with CSPs and telecoms vendors as industries seek to build mobile ecosystems, with mobile operators playing an increasingly important part.

In fact, while challenges still exist in network planning and deployment, the story this year may not be about throughput and coverage, but collaboration and partnership.

That would be a substantial change. However, I will be adhering to my friend's Congress rules. If you offer me a canapé, I'll say yes; if you offer me a ride on your coach, I'll run for the metro.

Enjoy your visit to the show!

George Malim

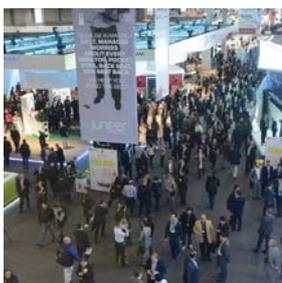
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TALKING HEADS

Per Borgklint

C5



C4 CSPs BECOME THE ENABLERS OF THE INTERNET OF THINGS

This year's Mobile World Congress will see CSPs more prepared than ever before to collaborate with other industries. George Malim previews the event

C5 TALKING HEADS

Per Borgklint, senior vice president and head of Business Unit Support Solutions at Ericsson tells VanillaPlus why CSPs must achieve agility to meet users' great expectations

C10 EXPERT OPINION

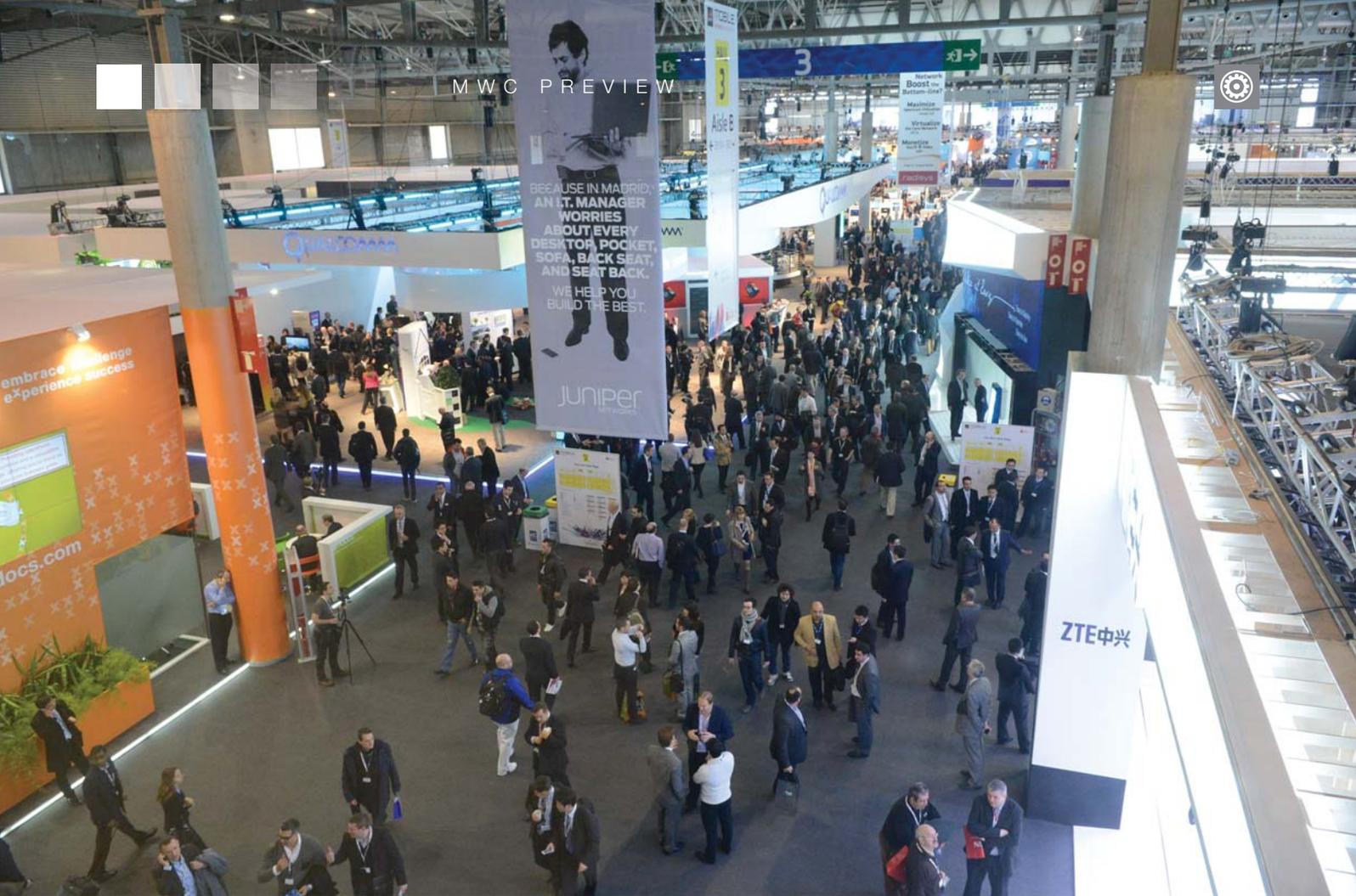
Antti Koskela explains why 2014 has to be the year of intelligent data for CSPs

C12 INTERVIEW

Peter Conquest details the complexity CSPs face in dealing with the complexity of omni-channel big data

C14 ANALYSIS

Patrick Kelly, research director at analyst firm Analysys Mason explores how CSPs are turning to value-based delivery support



CSPs become the enablers of the Internet of Things

This year's Mobile World Congress, to be held in Barcelona, Spain on 24-27 February 2014, will see a further strengthening of the relationships between CSPs and adjacent industries. VanillaPlus explores what's in store for visitors and the likely themes of this year's show

'The direction of travel seems to be one of increased cooperation with the aim that all those involved benefit fairly'

Although the telecoms industry has struggled to establish itself in the digital value chain for more than a decade, refreshed approaches to working with other industries are, at last, starting to bear fruit. CSPs have turned away from an attitude of trying to compete with everyone from banking, entertainment and the web industry, to recognising that the opportunity lies in where they can add value to the businesses of other industries.

Perhaps the strongest indicator of that is that Mobile World Congress's organisers the GSMA have attracted a broad range of senior speakers, not just from the old telecoms sector to present at the event. This year's keynote presentation is to be given by the founder and chief executive of Facebook, Mark Zuckerberg. In the past CSPs have seen social media companies as competitors and it is significant that Zuckerberg has agreed to speak.

Facebook is increasingly a mobile medium and

Zuckerberg's willingness to participate at the event demonstrates the extent to which he sees the mobile industry as important to his business. The fact a CSP member organisation has invited him to speak demonstrates that the competitive tension between social media companies and CSPs is also dissipating.

It might be too early to call what that tension will be replaced with but the direction of travel seems to be one of increased cooperation with the aim that all those involved benefit fairly from the value they provide.

"Mobile World Congress 2014 is set to be our biggest, most ambitious and most diverse event yet, offering new experiences for attendees across the growing mobile ecosystem," said Michael O'Hara, the chief marketing officer of the GSMA, on announcing Zuckerberg's participation. "Over four days, attendees will have the opportunity to see just how broadly mobile is impacting our everyday lives, how we work, live and play. We're looking forward to seeing the mobile world gather in Barcelona." ►

Continued on page C8



Per Borgklint:
CSPs must respond to the
new and complex demands
on their systems

CSPs must achieve agility to meet subscribers' rising expectations

CSPs continue to strive to serve users' ever-increasing expectations for instant gratification. Consumers and enterprises alike want a wider range of personalised services concurrent with higher speeds, greater capacity and improved coverage, and CSPs are doubly challenged by the need to solidify their role in the digital value chain. Continued focus on improving service agility will address large parts of the challenge, along with systems that help to manage new lines of business, Per Borgklint, senior vice president and head of Business Unit Support Solutions at Ericsson tells VanillaPlus

VanillaPlus: What are your CSP customers around the world seeing as the trends in mobility?

Per Borgklint: Fantastic growth in mobile broadband and the continued enormous growth of OTT services into new markets and third world countries is creating demand for services both in high and low ARPU countries. The speed of movement is also incredible in terms of how individuals' requirements are changing. Agility and time to market are becoming key requirements that service providers must meet.

What is shaping this but is not necessarily seen is that mobile devices and infrastructure are going from a single or dual solution to a multi-solution environment to one with very broad service agility. OTT services will not only be over-the-top but through-the-top and we

will see the mobile phone as a very broad service enablement environment.

The device will be the ultimate personal thing that connects users. This creates complexity and requirements on the solutions and systems that make it possible for me as an individual to have services rendered in a way that I want – and that will be different to what my wife, my children, my friends and my colleagues choose for themselves.

The expectation is that everything I do happens immediately. This only continues to become more complex as people are becoming more and more obsessed with their mobile phones. Research from Ericsson Consumer Lab has found that users are bringing their own broadband device to work and that



city dwellers and women are relentlessly driving the smartphone market. These are just some of the trends that are shaping the always-on mobile market in which instant gratification is the expectation.

For individuals to have services rendered in a way that they want, CSPs must respond to the new and complex demands on their solutions and systems. With competition coming from every angle, CSPs are very concerned about their ability to meet these demands.

VP: What are the biggest most challenging implications for CSPs in the face of these trends?

PB: Experience, efficiency and innovation. Being able to meet time-to-market expectations can only be accomplished with the right people and efficient processes. That's critical to achieving CSP agility in the networked society's hyper-competitive, ultra-demanding yet decreasingly loyal market.

CSPs need to become more agile in order to compete across multiple service layers. They have to be able to package services for convenience and then deliver an experience that is quick and efficient at a cost that users are willing to pay.

What we are seeing, working with our customers, is that more and more they require automated, configurable, simple, straightforward solutions that achieve fast time-to-market to enable them to be competitive and meet new market demands. It doesn't matter if a solution is on the network, service or customer side, it needs to be seamless on all sides and fully address CSP opex and capex constraints.

They must first achieve network agility. In the network there is the requirement to accelerate the planning, roll-out, integration and optimisation of new and existing networks. That increases both the technological and organisational complexity from planning to provisioning.

Service agility is definitely one of the areas where CSPs can personalise the experience they offer and go from idea to implementation via an automated, seamless process. It is possible to roll-out and create service features in minutes that users will be able to see on their phones.

We support our customers with automated product lifecycle management – from development of the initial product concept, selection of technology, updating systems and processes, and the creation of a roll-out plan for any new offer, through to phasing it out. Our solutions automate a wide range of processes, from lead to cash, to greatly reduce cost and decrease time to revenue. Our agile system allows a CSP to generate and manage sales leads. This extends from receiving a customer order to delivering the service for use, including activation and policy allocation. Our customers have achieved very high throughput and have minimised manual touch points to lower delivery costs with substantially reduced order errors and associated handling costs.

Our systems also allow CSPs to manage financial services in real-time, including capturing use of a service and the associated events and converting them into monetised or chargeable items. Ericsson's solutions let CSPs reduce revenue leakage and increase customer satisfaction, by cutting time-to-market for new service plans and accurately charging and billing customers for service use.

VP: What are the biggest, most challenging implications for OSS/BSS?

PB: The whole way that OSS/BSS has been put together has been based on a workflow established in 1885 at the dawn of the industry. That workflow is charge per minute or per use and send

an invoice to the customer. When mobile emerged in the early 1990s, all that happened was the cable was cut, but the CSP acted in the same way.

Then bundles came in and evolved into OTT services and suddenly, service agility becomes essential. Consumers are consuming very different things – they might be viewed as data but they are really purchasing experiences not data. The data itself is not the service, it's an enabler of the service.

The challenge therefore is to make sure the customer experience remains very solid across any touchpoint. Data needs to be accessed by both the CSP and the customer to create a foundation so both get the right experience.

The catalysts for the networked society – universal mobility, cloud computing and broadband – require new emphasis on customer experience, new levels of operating efficiency, and new business models.

We believe that OSS/BSS has an increasing role to play in enabling new business models either through the ability to manage bundles of complex products that contain partner-supported components, or by enabling the provision of cloud-based services that combine network, IT and service quality considerations. OSS/BSS must deliver not only efficiency within processes, but economies of scale across the planning, building and operation of multi-technology, multi-vendor networks and services.

VP: How is Ericsson addressing these challenges?

PB: Our vision is to provide process-oriented OSS/BSS suites and an integrated operations and real-time platform based on a modern convergent architecture that is open, modular and cloud-enabled to support new value chains. In that vision, we are trying to encapsulate the end-to-end experience where the end user is the ultimate decision maker.

The end user should be able to open, run and execute based on their individual needs and that means the OSS/BSS needs to be an integrated platform so the value chains can be captured and created around specific services in what is a constantly moving environment.

Our strategic focus is on service agility, service enablement, customer experience, cloud management, big data analytics and automation and optimisation. These are the ingredients CSPs need.

Service agility describes an environment that allows CSPs to create, launch, deliver and manage services efficiently to allow for rapid development of new product offerings. This is quickly becoming table stakes but, to markedly grow revenue, they must expose this environment to an expanded ecosystem of partners, suppliers, and developers to provide a wide range of creative new product offers.

Our response is to assemble a number of our OSS/BSS and service enablement products into a pre-packaged service agility solution that is accessible to CSP business partners with more revenue for all parties.

Our vision in service enablement is to bridge the gap between a commoditised core business and a fast moving, innovative and disruptive marketplace with a proven software platform with out-of-the-box commercialised business solutions. This includes personalisation, capability wholesaling, and M2M advancements.

To support the customer experience our vision is to offer a comprehensive portfolio of software offerings for analysing, preparing, delivering and measuring customer experience throughout the entire customer lifecycle. ▶



Our goal to aid CSPs' cloud management offerings is to develop software solutions that allow them to offer cloud services with end-to-end control of service quality. We will do this by merging the network with the IT domain and managing cloud services as either via pre-defined offerings or completely new offerings created from a catalogue of reusable components.

In the connected devices market, our plan is to create new value propositions and business ecosystems with partners and other industries by turning machine data into valuable information for new applications and services including smart metering, smart grid, smart home and connected vehicles.

By combining real-time network, service, usage, and device data with unstructured data, we will provide CSPs with actionable insights from big data and analytics that accelerate and optimise business.

Finally, our vision is that what can be automated will be automated, and networks and processes should run at their best, automatically.

VP: Why are CSPs choosing Ericsson?

PB: There is no doubt that a fierce competition is going on and time-to-market drives all decision making. There is now no room for faulty or low performing software. Our customers trust us to provide business critical systems. It's critical to choose a vendor who can be a strategic partner and has that experience. You do need to be a large scale business with a history of proven success. We can truly meet those needs. We walk both sides of the street in telecoms – Ericsson, with more than 100 years in the industry, is the only vendor that is also the world's largest CSP servicing more than 2.5 billion subscriptions. When we talk of the challenges CSPs face and the ways to overcome them it is that experience that separates us. 

www.ericsson.com



Zuckerberg will explore the importance of extending the benefits of ubiquitous internet access to the unconnected world.

Zuckerberg will headline the first of the week's Mobile World Live keynote sessions on Monday, 24 February at 18:00-18:45. In the session, Zuckerberg and technology journalist and writer David Kirkpatrick will explore the importance of extending the benefits of ubiquitous internet access to the unconnected world. In addition to the live audience in the Conference Village in Fira Gran Via, the Mobile World Live keynotes will be streamed live across the venue and to hundreds of thousands of viewers globally via the Mobile World Live portal.

In addition to Zuckerberg, the GSMA has announced further chief executives participating in the Mobile World Congress conference programme, including:

- Laetitia Gazel Anthoine, the chief executive of Connectings
- Ahmad Abdulkarim Julfar, the chief executive of Etisalat Group
- Stephen Odell, the president of Europe, Middle East and Africa, at Ford Motor Company
- Susan Siegel, the chief executive of GE Ventures and healthymagination
- Chua Sock Koong, the group chief executive of SingTel

For full information on the Mobile World Congress conference programme, visit www.mobileworldcongress.com/conference.

mPowered Industries Keynotes

This year Mobile World Congress introduces its mPowered Industries programme, which focuses on mobile's role in key vertical industry sectors such as

health, marketing and advertising, media and travel, will kick off with keynote sessions on the afternoon of Monday 24 February. These sessions will showcase the mobile achievements of top brands from around the world and will explore how adjacent industries can use the power of mobile to improve the customer experience and grow their businesses.

The mPowered Industries keynotes, to be held at the Fira Montjuic in Hall M5, will feature executives including:

- Ralph Rivera, the director of Future Media at the BBC
- Nicola Mendelsohn, the vice president, EMEA, of Facebook
- Surjit Chana, the chief marketing officer of IBM Europe
- Dr. Oliver Harrison, the chief executive and co-founder of Ithaca Health
- Vikas Chawla, the vice president of Mobile and Digital Guest Services at Marriott International
- David Sear, the chief executive of Weve

The cross-section of industries involved illustrates how CSPs are no longer trying to compete in adjacent industries but are instead looking to generate revenues by enabling mobile business cases.

NFC Experience

Although near-field communications (NFC) has not taken off in the ways expected, it is far from a failed technology and Mobile World Congress will see an extension of the use of the technology at the show from last year. The 2014 Mobile World Congress NFC ►





Experience has been expanded to provide an even greater range of mobile NFC services for attendees with NFC-enabled devices, such as venue access, catering and networking, as well as demonstrations of the latest NFC products and services, among others. This year, attendees with iPhones will be also be able to participate in NFC Experience activities using an NFC-enabled case provided by Mobile World Congress Supporting Partner Incipio.

The GSMA is introducing interactive NFC Tap-n-Go Points to provide attendees quick and easy access to event information and other downloadable material. Attendees with NFC-enabled devices can go to one of the 61 NFC Tap-n-Go Points located across Fira Gran Via to easily download event news, schedules, documents, presentations, videos and other information.

As part of the NFC Experience, the GSMA will be demonstrating a range of NFC-based Mobile Commerce solutions, highlighting applications in payment, retail, transport, mobile identity and access, among others. Partners demonstrating solutions with the GSMA include Aimia, Assa Abloy, BC Card, Chungwa Telecom, Deutsche Telekom, Escher Group, Gemalto, The Logic Group, Proxama, Telecom Italia, Telenor and Verifone.

The Connected City

At Mobile World Congress, the next generation GSMA Connected City will showcase transformational mobile experiences. Visitors will be able to explore mobile

innovations in health, automotive, education, smart cities, digital commerce and other sectors.

Attendees will be able to navigate the streets of the city with their own device, guided by downloadable maps which lead them to interactive demonstrations, and cutting edge technology. Users will learn how mobile is delivering a richer experience by creating more value and greater efficiency with intelligent wireless connections. CSPs such as AT&T, Deutsche Telekom, GSMA, KT, Vodafone and their partners, will demonstrate how connected solutions will become part of everyday life and how they are powering economic growth and new business opportunities. The Connected City is at Fira Gran Via, Hall 3, Stand 3A11 and 3A31 and is open throughout the show.

The App Planet

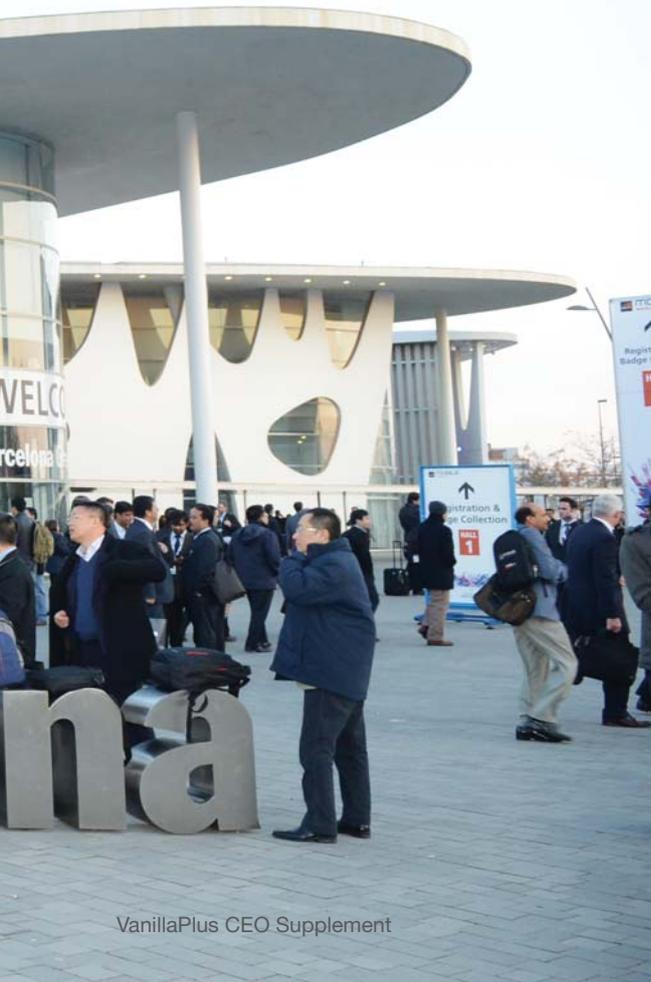
App Planet part of the Congress will explore who is creating the next big thing and enable developers to connect with peers and content specific conference sessions for the developer community. The App Planet includes:

- **App Developer Conferences (ADCs)**
This range of free conference sessions are aimed at designers of software for devices that want building relationships to technology platforms, or gain knowledge on topics from operating systems and APIs, to app stores and monetization. The conferences will be held in Hall 8.0 Theatre District.
- **App Planet Exhibition**
Showcasing over 200 app-focused exhibitors in the areas of apps, gadgets, devices and technology in the mobile ecosystem, the App Planet Exhibition is located in Hall 8.1.
- **App Networking**
There are a series of networking opportunities in App Planet. The App Lounge in Hall 8.1 will provide attendees a location to connect to Wi-Fi, hold meetings with new customers, pick up a publication provided by our media partners, or regroup with peers to plan what is next to explore.

Last year's event welcomed more than 72,000 attendees from 200 countries to the Congress's new venue at the Fira Gran Via. Fears of transport issues to the new venue proved baseless and the general consensus was that the new venue provided more space and improved facilities and catering. Although the venue remains the same, this year's event will cover new ground as the mobile industry continues to its transformation to the role of being the enabler of the Internet of Things.

With LTE roll-out advancing across the world, the potential of mobile to provide connectivity to the unconnected and form the foundation of the platform for users' digital lives is as exciting as ever. The collaborative attitude the industry appears to be promoting now indicates that CSPs may even be able to make money from this. 

“The potential of mobile to provide connectivity to the unconnected and form the foundation of the platform for users' digital lives is as exciting as ever”





Why 2014 has to be the year of intelligent data

Communications service providers (CSPs) are faced with declining revenues from users that are demanding more and more capacity. CSPs therefore need to change the business model and find new ways of generating revenue. Antti Koskela says utilising their data intelligently could be an answer

It's somewhat ironic that at a time when the number of mobile users around the world will reach 1.75 billion according to eMarketer research, the telecoms industry is facing steep declines in revenue. This is a worldwide phenomenon. Only a few emerging markets like China will see above-average growth. Overall, Ovum predicts that CSP revenues will grow just 2% per year through to 2018.

As traditional sources of revenue such as roaming charges and SMS have been lost to regulation or over-the-top (OTT) competition, the top priorities for CSPs this year should be extracting monetary value from their data asset and the deployment of new technology that allows for rapid and efficient deployment of innovative services, creating new business opportunities.

CSPs know that big data is important in making this happen. But to make use of big data, CSPs first have to focus on creating intelligent data insights.

Become effortlessly efficient

Right now, the name of the game is efficiency. CTOs know that better than anyone, because it has been their jobs to bring networks into the future. This future for many CSPs has been recognised as being all-IP and through adoption of cloud technologies. Virtualised environments can deliver big benefits including opex and capex efficiency and time-to-market advantage; they can also have a profound impact in disaster recovery, redundancy reduction, mobility and in agile project models. That's because, when scaled across the organisation, going virtual can touch every part of the business.

Innovative CSPs are already experiencing some of these benefits by using cloud-based platforms and applications such as CRM from salesforce.com. Working within the cloud promotes collaboration, social integration, analytical insight and mobility, effectively creating a new generation of operating principles.

This marks a difference from the past. In the early days of flow-through provisioning for example, the business case for automating enterprise services end-to-end was difficult to justify. The number of service instances versus the level of complexity often caused CSPs to conclude the only viable solution was to rely

on robust manual business processes. All-IP networks, virtualisation and cloud-based applications are finally making end-to-end automation a reality.

Unlocking the data within

Unfortunately all of this potential efficiency, innovation and agility remain stunted in many cases. That's apparent even from the way CSPs implement OSS/BSS stacks. Typically, CSPs will differentiate between enterprise and the mass market subscriber services, effectively cutting systems into two, if not more.

So, even as CSPs rely on OSS and BSS to streamline operational processes, the responsibilities for each stack often fall to different teams, and the data set stays locked within that department. Without enrichment with information from other departments or with analytical insight, its value can remain limited to the silo where it was conceived.

By consolidating siloed OSS/BSS systems and analysing network usage in real-time, CSPs can make data intelligent – where it becomes an active, streaming source of business insights that can be transformed into new revenue opportunities.

Instead of requiring painstaking and manual analysis, contextual intelligence driven by predictive analytics can help ensure that CSPs' data benefits the business. For instance, imagine combining equipment failure notifications with predictive analytics to establish trends, and proactively identify propensity for future failures. Then imagine associating those predictions with associated revenue impacts and you have some powerful insights to work from. Analytics only scratches the surface of what's possible with consolidated OSS/BSS systems and virtualised environments. And what's possible with intelligent data.

SDN: The effect of internal, intelligent data

Intelligent data isn't just valuable for revenue growth. Combining intelligent data with the emergence of software-defined networking (SDN) provides an opportunity of service innovation and agility previously unthinkable. Virtualising Layer 3 services challenges all of the existing architectures, supplier hierarchies and associated market dominances, from the network equipment providers (NEPs) through to the OSS/BSS vendors. SDN also levels the playing field for new ►



The author,
Antti Koskela,
is CTO of Comptel



entrants in software network applications and associated management platforms.

This flatter landscape could serve as the foundation for a new business model – for CSPs, NEPs and OSS/BSS vendors alike. There have been false dawns in the past, specifically with IMS/SDP, but the signals this time seem a good deal more promising. With SDN, the ideal network is an all-IP layer 2 network that offers insertion points for software that manages service applications. Typical uses for this software can include QoS, peer-to-peer functions, charging, location enrichment, content caching, security and network traffic optimisation. The number of insertion points could become significant, and a key to Network Function Virtualisation (NFV)/SDN becoming real is the ability to scale automation and execution of the management processes from this software.

Pairing these functions with intelligent data can drastically increase efficiency and turn traditional business models on their head. More efficient operations and tools will lead to a streamlined approach to infrastructure management, data security and faster time-to-market for new products. Sleeker CSPs will lead to more powerful, dynamic products and services that will change the market and allow CSPs to focus on giving consumers the one thing that

they've wanted above all: personalised engagement and a good customer experience.

Context-aware communications

In the mobile world, context is critical to personalisation. Today, aside from mass messages aimed at upselling to customers or warning them about data limits, most CSPs only make rare ventures into sending contextual messages to customer segments. But companies can no longer assume that users are in one specific location – they could be using their devices in line at the grocery store, on a couch, at a concert or during lunch. Data without intelligence assumes users are still doing the same thing they were doing an hour ago. Intelligent data can reveal usage habits in real-time, offering unprecedented opportunities for personalisation and other forms of customer engagement.

CSPs already have the data necessary for this kind of success, but most isn't intelligent. Before a business can fully exploit the benefits of big data, organisational silos need to be flattened, and OSS/BSS need to be consolidated. When a solution is implemented that can organise user data in real-time, data will become intelligent and teams can work together toward the common goal of enhancing customer experience and moving business forward. [▶](#)

Innovative CSPs are already experiencing some of these benefits by using cloud-based platforms and applications such as CRM from [salesforce.com](#)

Wondering how Contextual Intelligence can help you?



**Meet us at
Mobile World
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in Barcelona
Hall 5
Booth F41**

Omni-channel customer engagement provides a big opportunity for data insights

As the service arena continues to diversify touching multiple systems across multiple channels, CSPs are challenged to converge all the disparate sources of data into meaningful insights. Here, Peter Conquest, the business development director at **hybris**, explains why CSPs need an omni-channel approach in order to extract value from all these sources of data and deliver a better, more cohesive experience to customers



Peter Conquest:

The complexity of converging data from multiple sources should not be underestimated

VanillaPlus: What are the greatest challenges CSPs face in managing data as service usage proliferates across systems, platforms and devices?

Peter Conquest: Communication service providers (CSPs) are certainly challenged to keep on top of data in real-time due to the explosion in internet services and the adaption of internet enabled devices. This has given rise to complex challenges where customers adopt new touch points and expect a cohesive experience from the beginning to the end of their purchase journey. In addition cloud services are growing rapidly creating more challenges and opportunities as SMBs and large corporate enterprises adopt these services.

Large volumes of content are coming in via multiple sources and somehow they have got to be pieced together. For example, a user may begin an interaction with a CSP on a smartphone or tablet that may then cross into a session of web-self care, culminating in a visit to a high street store to view or purchase a product. All manner of data come into this service chain but they all originate in different systems – or channels – and that is where the challenge really lies.

CSPs need to have a comprehensive view of what the customer has across the portfolio of services they use and the data collected in the systems that support those services. They then have to manipulate those bundles and product offerings with great agility based on a raft of information coming in from the different

sources. That could be composed of location data, device data, social preferences, billing information and inputs from policy control and network, for example.

The real value is in how to merge all that data from all those sources into useful information about the customer to enable upsell and cross-sell opportunities. The capability becomes a merchandising and customer service tool that is reliant on continuously available streams of data.

VP: How have user expectations changed and what pressure does that put on CSPs?

PC: The user is more empowered with access to internet-enabled services, which may seem obvious, but creates a range of new behaviour for CSPs to fit their businesses around. Customers understand brands, not channels, although they interact across multiple channels in the traditional telco sense. Therefore CSPs need to act in a way that is consistent to customers and delivers the brand experience they desire regardless of channel. Social media, for example, is one channel that generates billions of interactions and CSPs need to be able to converge their data with data generated within that channel.

CSPs bundle products and services and they receive large volumes of data from different sources and need a mechanism to converge that and extract value from it. At the same time, customers expect a cohesive experience if they're in a store, on a mobile or ►



BIG DATA

speaking to a call centre agent. That puts the CSP under pressure because their data is very siloed and sits in many different databases for each channel. The complexity of bringing all of this together should not be underestimated.

Right now, there's no easy way to fully address this fragmented complexity but, as consistent data is presented across all touch points, CSPs will be able to handle this better and fulfil in-store as well as on the device or in the call centre.

VP: What does omni-channel data mean to CSPs? What value can they extract and deliver to offset the costs involved in enabling this?

PC: Omni-channel means converging data from all channels to create the cohesive environment required to support customers' demands.

The technology has to be extendable to meet these demands. The challenge for CSPs is that they have to handle big data as well as the customer pressures involved in enabling cloud services and devices from anywhere in real-time.

With touch points such as tracking of mobile applications, CSPs can intelligently personalise information and can learn much more about users' behaviour and preferences.

They can track exactly what has happened to a particular user. This could be from chat and community data such as social feeds or it could be

from master data such as logistics, CRM and billing. This comprehensive data can then be used to create attractive, personalised propositions for new revenue generation.

By combining analytical tools with personalisation rules, the CSP will be able to gather valuable customer insight. The value of that knowledge, and the ability to apply it across all the channels that a customer engages with, will provide competitive advantage.

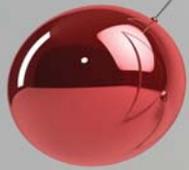
VP: Is a new platform needed to enable the concept of omni-channel data? What does hybris provide?

PC: We have massive amounts of data that has to be drawn from the databases. That information just can't be handled in a standard database so it has to be managed in a third party database but that means connections are needed to properly integrate it. We are integrated with HANA (High Performance Analytic Appliance) as well using NoSQL storage support from MongoDB, Cassandra and others

The reason why we think we're in a good position is that we have the experience of big data and our product is uniquely a purpose-built fit for the CSP market, both for B2C and B2B offerings. We already handle the complexities of bundling and subscription management, order management, B2B functionality and have enabled hybris to work in a cloud environment. So, the hybris solution is not about starting from zero – the foundations are in place which we are now building on. 

Omni-channel data simply is the means of converging data from all channels to create the cohesive environment required to support customers' demands

www.hybris.com



Customer experience management – CSPs turn to value-based delivery and service support

Technology advances and service innovation will drive changes in how consumers use telecoms products and services. The monetisation of these services requires communications service providers (CSPs) to provide more flexible offers and manage each interaction in the customer lifecycle to optimise the customer experience. CSPs in developed and emerging markets must focus on extending the customer lifecycle and creating a positive experience in order to differentiate themselves from other CSPs that are focused on price, device offerings and network coverage



The author, **Patrick Kelly**, is research director at Analysys Mason

The importance of extending the customer lifecycle

Figure 1 represents the customer lifecycle and illustrates why CSPs need to pay more attention to their processes and measure the interactions at each stage of the customer lifecycle to keep customers longer and sell more products and services with the overall goal of improving profitability. Our research shows that in the first year after acquiring a customer, a CSP spends between 12% and 20% of revenue in acquisition costs, which include marketing, selling, on-boarding and equipment subsidies. With such high costs in the first year, how do CSPs measure and

manage their operational activities against the perceptions of how well they are doing according to their customers?

CSPs can improve customer retention and drive revenue growth if they focus on three critical areas of their business.

- Simplifying the pricing, packaging and purchasing process. Understanding the usage and consumer behaviour patterns to promote relevant offers that customers value.
- Streamlining the on-boarding process in order to avoid customer frustration and high support costs.
- Understanding what drives customer requests. This reduces contact care cost and raises net promoter scores (NPS) for customers who prefer self-care. ►



Value-based service differentiation in the customer experience

After getting the basics right, CSPs should aim to ensure a consistent customer experience across all customer touch points. Figure 2 looks at each phase in the customer lifecycle and contact points between the customer and CSP employees. This contact could be either online or a live interaction. We have identified some areas based on our consulting and research work with CSPs to highlight where most of the value-based service differentiation can be achieved to raise NPS and customer satisfaction.

Figure 2 illustrates some data collected from a CSP that we consulted with on a project to improve customer loyalty and operational processes. It segments the customer base according to historical spending and internal measurements collected by the CSP on interactions with the customer. The data reveals that 50% of this CSPs' customer interactions occur in the billing phase. The analysis concluded that a large number of enquiries resulted from customers failing to understand how services were billed. This drives up support cost and creates frustration with the customer. The obvious conclusion is to redesign the bill and use other tools such as customised video billing, which we have covered in our research into customer experience management.

Requests for technical support also generate high levels of customer contact activity. Figure 2 reveals that almost one third of customer contact occurs in this area. It is in this phase that the CSP may want to focus on only the top 6% of its customer base to provide exceptional support. This model is used in other industries such as airlines, but outside the business market segment, most CSPs have not actively developed any meaningful strategies to date. In many developed markets, high-value postpaid subscribers do not receive any special perks until they contemplate leaving at the end of their contract. 

Figure 1: The customer lifecycle and its impact on profitability
[Source: Analysys Mason, 2014]

Customer acquisition and retention strategy dimensions

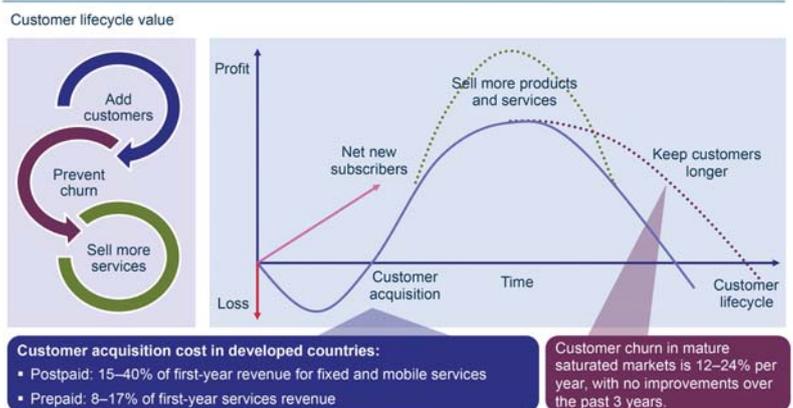
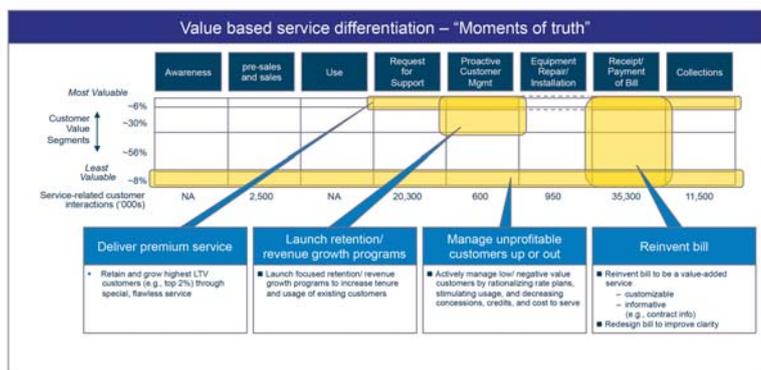


Figure 2: Value-based service differentiation in the customer experience
[Source: Analysys Mason, 2014]

A segmented customer service approach would allow operators to focus on highest return areas – unprofitable customers need to be managed accordingly



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