Vanilla+

Dec 2014 / Jan 2015
Volume 16 Issue 6
ISSN 1745-1736

BILL & CHARGE

Why CSPs can keep control of the billing relationship and enable the order-to-cash process

ANALYST REPORT
AnalysysMason analyst says billing is set for significant upheaval

IS BILLING RELEVANT?
Changed services could mean billing doesn't matter anymore?

CASE STUDY
Inside Oi's World Cup Wi-Fi monetisation deployment

PLUS: 90% will have mobiles by 2020, says Ericsson report ■ Mobile operators $800bn annual cost burden is unsustainable, says Juniper Research ■ Amdocs releases CES 9.2 ■ Tektronix Communications and Newfield Wireless deploy first integrated RAN product ■ WeDo Technologies and Microsoft agree global RAID partnership ■ AIS Thailand rolls out AsiaInfo self service and data sharing ■ Comptel fulfilled with €8m Telenor deal ■ Read the latest news, opinion, blogs and features at www.vanillaplus.com

IN THIS ISSUE

George Malim, editor, VanillaPlus

War, pestilence, famine, death

The four horsemen of the apocalypse spring to mind when CSPs start talking about quad play propositions, writes George Malim

Every CSP wants what someone else has got. BT in the UK is so keen to re-enter the mobile market that it's talking to both EE and O2 with a view to acquisition. Altice, the parent of French cable operator Numericable, has completed its purchase of mobile operator SFR. In Mexico, AT&T is buying local mobile operator Iusacell and TV provider DirecTV. It is also expected to play a key role in acquiring assets being divested by América Móvil so it can avoid punitive regulation for being a dominant player.

In fact, right now, a fixed operator somewhere is trying to buy a mobile operator or some content rights and a mobile operator is trying to buy cable assets. This will continue throughout 2015 whether it's Denmark's TDC eyeing Swedish cable provider ComHem or wranglings in Italy about who will take control of fibre operator Metroweb.

The reason for this is that in most mature markets subscriber growth is over and CSPs want to go one step beyond triple play and offer quad-play services – broadband, television, telephony and mobile, more often known as the fantastic four than the four horsemen of the apocalypse. CSPs reckon by offering it all they'll be able to cement customer loyalty, generate efficiencies and pick off single, double or triple play rivals with a more comprehensive offering.

Of course, the reality will be a return to a situation that resembles stapled bills. These assets will take years to integrate, the OSS/BSS will be different and potentially incompatible and just when it's looking like progress is being made another acquisition will happen.

Quad-play then is just a marketing wrap, concealing separate services delivered over separate systems by still fundamentally separate organisations. Just don't call it four-play.

Enjoy the magazine and best wishes for 2015.

George Malim

EDITORIAL ADVISORS

Andreas Freund, VP Marketing, Orga Systems GmbH

Louis Hall, chief executive, Cerillion Technologies

David Heaps, senior vice president, strategy, CSG International

Simon Muderack, senior vice president for marketing and alliances, Sigma Systems

Chris Yeadon, director of Product Marketing, Ericsson

Dr Reinhard Zuba, CMO, Vipnet (Telekom Austria)

What's on VanillaPlus.com this issue

Don't forget to visit our website – www.vanillaplus.com – which in addition to our industry news coverage now offers more original content than ever before in a stylish new format. We've assembled a stable of journalists, analysts and industry insiders who are already contributing a wide range of reporting, opinion, blogs and features.

Don't miss VanillaPlus publisher and editorial director Jeremy Cowan's new series of articles on what the future holds for CSPs or Troubleticket, our series of opinionated articles.

EDITOR
George Malim
Tel: **+44 (0) 1225 319 566**
george@vanillaplus.com

DIGITAL EDITOR
Nathalie Bisnar
Tel: **+44 (0) 1732 808690**
nathalie@vanillaplus.com

BUSINESS DEVELOPMENT DIRECTOR
Cherisse Jameson
Tel: **+44 (0) 1732 807410**
cherisse@vanillaplus.com

BUSINESS DEVELOPMENT MANAGER
Mark Bridges
Tel: **+44 (0) 1732 807412**
mark@vanillaplus.com

OPERATIONS DIRECTOR
Charlie Bisnar
Tel: **+44 (0) 1732 807411**
charlie@vanillaplus.com

PUBLISHER
Jeremy Cowan
Tel: **+44 (0) 1420 588638**
jc@vanillaplus.com

DISTRIBUTION
UKP Worldwide
Tel: **+44 (0) 8456 444137**

CIRCULATION
Circdata
Tel: **+44 (0) 1635 869868**

PUBLISHED BY
Prestige Media Ltd.
Suite 138,
70 Churchill Square
Kings Hill, West Malling
Kent ME19 4YU, UK
Tel: **+44 (0) 1732 807412**

DESIGN
Jason Appleby
Ark Design Consultancy Ltd
Tel: **+44 (0) 1787 881623**

Printed in the UK by The Magazine Printing Company using only paper from FSC/PEFC suppliers www.magprint.co.uk

VanillaPlus is distributed free to selected named individuals worldwide who meet the Publisher's terms of Circulation Control. If you would like to apply for a regular free copy supplied at the Publisher's discretion visit www.vanillaplus.com If you do not qualify for a free subscription, paid subscriptions can be obtained. Subscriptions for 6 issues cost £99.00 worldwide (or US$150 / EUR125) including post and packing. VanillaPlus magazine is published 6 times per year.

Ericsson Mobility Report: 90% will have mobiles by 2020

The latest edition of the Ericsson Mobility Report, which uses data from live networks to uncover market trends, has revealed that proliferation of mobile technology continues at a rapid pace. The Report projects that 90% of the world's population over six years old will to have a mobile phone by 2020. By 2020 smartphone subscriptions are forecast to top 6.1 billion.

Fastest growth for new mobile subscriptions was found in India and China, with 18 million and 12 million net additions, respectively, in Q3 2014.

Rima Qureshi, the senior vice president, chief strategy officer and head of M&A at Ericsson, said: "The falling cost of handsets, coupled with improved usability and increasing network coverage, are factors that are making mobile technology a global phenomenon that will soon be available to the vast majority of the world's population, regardless of age or location."

Ericsson also estimates that mobile video traffic will increase tenfold by 2020, ultimately constituting around 55% of all mobile data traffic in 2020.

Rima Qureshi: Falling costs of handsets will make mobile technology available to vast majority of population soon

Mobile operator costs exceed $800bn per year, says study

A new report from Juniper Research has found that, with annual mobile operator expenditures now in excess of $800 billion, CSPs now face the possibility of costs exceeding revenues by the end of the decade unless remedial action is taken.

According to the report – Mobile Operator Business Models: Challenges, Opportunities & Strategies 2014-2019 – a combination of flatlining revenues allied to surging data traffic costs could ultimately threaten the viability of network operations.

In an analysis of 12 international CSPs, the report found that margins had fallen by an average of 6.4% over a three year period, with five of those surveyed experiencing decreasing margins in every year throughout the period. Furthermore, a number of major operators now have single figure margins: with costs currently increasing at 1.5%-2% per annum, the situation is unsustainable in the longer term.

Meanwhile, the report found that without more widespread network optimisation, the situation could become critical in a number of developing markets. It argues that with surging mobile internet adoption in the Indian subcontinent, regional CSPs could see data costs outstrip data revenues by $45 billion within three years unless networks are optimised.

However, the report points to a number of success stories, particularly in the US, where Verizon and AT&T have bucked the trend in falling margins by introducing shared data plans. It observes that Verizon had seen wireless revenues increase by more than 7% in spite of operating in a saturated market, while AT&T now has more than 14 million households on shared plans.

"Given the threat from OTT (Over The Top) VoIP and messaging services to core service revenue, the US emphasis on focusing the value on the data element is absolutely the right way to go. This is particularly true within an increasingly 4G environment," said report author Dr Windsor Holden.

Amdocs releases CES 9.2 for hyper-connected CSPs

Rebecca Prudhomme: Harnessing real-time data while enabling agile service deployment will allow CSPs to drive revenues

Amdocs has announced CES 9.2, the company's latest portfolio release. Spanning business support systems (BSS), operational support systems (OSS), and network control and optimisation, Amdocs CES 9.2 has been developed to help CSPs to succeed in the hyper-connected world by maximising their network assets and relationships with their customers.

"The hyper-connected world, a world in which the industry is forecasting to have 50-80 billion connected devices and a major increase to the world's internet population by 2020, poses a great opportunity for service providers," said Karl Whitelock, the director of Global Operations & Monetisation Strategy at Stratecast | Frost & Sullivan. "By owning the network assets and the relationship with the customer, service providers are well positioned to influence and reap the rewards in this new era. But to do so will require them to embrace new challenges; adapting to a new modes of business, rethinking the customer experience, harnessing pervasive big data, and evolving their networks. Amdocs CES 9.2 will enable service providers to maintain their competitive edge by placing the customer at the centre of their business, delivering new services with greater velocity, and making every customer interaction count."

Rebecca Prudhomme, the vice president of product and solutions marketing at Amdocs, added: "Amdocs CES 9.2 further addresses service providers' need to proactively manage the customer experience from any point of interaction to the network. The ability to harness real-time network and customer data, combined with more agile service deployment, and a consistent user experience across all channels will allow service providers to drive customer revenues whilst optimising and protecting their network investments."

Tektronix Communications and Newfield Wireless deploy integrated RAN system

Newfield Wireless, which was acquired by Tektronix Communications last year, has completed the first deployment of an integrated radio access system from the combined companies.

The system combines Newfield's RAN geoanalytics platform, TrueCall, with Tektronix Communications' virtual monitoring platform, GeoSoft RAN, to provide mobile operators with a powerful, scalable and user-friendly geoanalytics-based data system. Mobile operators can now integrate these capabilities with Tektronix Communications' core network products for a true end-to-end RAN and core network view enriched with location data.

"Through TrueCall and GeoSoft RAN combined data-analysis capabilities, we enable operators to address the complexity of the radio access network and beyond by providing unique information on vital network performance issues continuously and in real-time," said Marc Bensadoun, the chief executive of Newfield Wireless and vice president of Mobile Access for Tektronix Communications. "It combines the best-in-class solutions that can feed into many other systems, such as geomarketing, SON and others."

NEWS IN BRIEF

InfoVista releases live mobile network planning

InfoVista has announced the release of Mentum Planet 5.8, a new version of its software that enables mobile operators to automatically use live mobile network data to make well-informed, cost-efficient network planning and optimisation decisions.

Mentum Planet 5.8 uses highly accurately geo-located call traces, temporal selections of network performance data, live network configuration and parameters to provide RF engineers with an accurate view of the current mobile network's status, its evolving traffic demands and existing network issues. This also enables easy hotspot identification for small cells roll-outs, more accurate network analyses, and the ability for mobile operators to embrace a combined planning and optimisation practice. This results in higher ROI for network investments and optimised QoE for customers.

EXFO expands CPRI offering to support fibre-based RAN

EXFO has announced an enhanced FTTA test portfolio for its FTB-700G and FTB-800 NetBlazer Series to validate the fibre and underlying Common Public Radio Interface (CPRI) communication integrity between the base station and remote radio head with speeds of up to 9.8 Gbit/s.

Mobile operators are required, now more than ever before, to modernise their network infrastructures in order to keep up with continuous high-bandwidth growth. To meet subscriber expectations, many mobile operators are switching from legacy copper-to-the-antenna to fibre-to-the-antenna (FTTA) infrastructures. To add capacity and coverage for LTE services, they are deploying distributed antenna system (DAS) networks and small cells. DAS manufacturers are increasingly using the CPRI protocol as the interface between base stations and DAS head-ends.

The benefits of using CPRI include substantial decreases of head-end deployment costs as well as minimised space requirements. However, this also brings new challenges to service providers by introducing new testing and troubleshooting requirements. With their expanded functionality, both the all-in-one ethernet/optical FTB-700G series and Netblazer FTB-800 series support all the needs of a technician to maintain and manage fibre-based cell sites faster, easier, and more cost effectively.

"Significant investments are being made worldwide in expanding the fronthaul networks to deliver better spectral efficiency and capacity," explained Claudio Mazzuca, the vice president of EXFO's Transport and Service Assurance Division. "By adding Common Public Radio Interface (CPRI) rates, EXFO is future-proofing its technology to meet the requirements of next-generation, fibre-based remote radio networks," he added.

Alcatel-Lucent and Network Mining to co-operate in APAC

Alcatel-Lucent Malaysia and Network Mining, an independent supplier of IP and optical network mediation software, have announced that Network Mining software has been deployed at Tenaga Nasional Berhad (TNB), the largest electricity utility in Malaysia. The software will enable TNB to optimise the management of its mission-critical, nationwide optical transmission network.

"This deployment is another proof of how Network Mining helps utilities to assure the operation of business critical communications infrastructure", said Roland Leners, the sales and marketing director of Network Mining.

Alcatel-Lucent Malaysia is Network Mining's local partner for the implementation and support of its software at TNB. Alcatel-Lucent is a global reseller of Network Mining's software and Network Mining's software is integrated with Alcatel-Lucent's IP routing and transport network solutions.

"Alcatel-Lucent is pleased with the roll-out of the software to its valued customer TNB," added Laurence Delpy, the vice president, Asia-Pacific for the government, transportation and energy segments at Alcatel-Lucent. "We look foreard to a fruitful cooperation with Network Mining in the APAC market."

NEWS IN BRIEF

WeDo Technologies agrees partnership with Microsoft

WeDo Technologies has signed a global partnership agreement with Microsoft to deliver WeDo Technologies' RAID software on Microsoft's public cloud platform, Microsoft Azure. With Microsoft and WeDo, large organisations and the public sector will be able to monitor performance, automate how they audit, control business processes and combat social fraud without the need to manage hardware and other components.

WeDo Technologies' RAID software, running in Azure, will let customers' management teams continuously review business process performance, measure and detect deviations from projected levels, and allow for a rapid transformational response. By gathering processes, systems data and running performance auditing rules, an EBA strategy will enable better alignment, successful strategy execution and improvement in the overall performance and delivery of both short and long term financial returns.

The partnership is aimed primarily at large organisations within the retail, energy, banking, insurance, healthcare industries and the public sector.

AIS Thailand provides users with self-service account management with AsiaInfo Veris Billing deployment

Advanced Info Services, a Thai mobile operator, has launched a service to its prepaid customers which enables them to take greater control of their mobile accounts. The service, YOU! Mobile, is powered by the Veris Billing real-time convergent charging and billing system from AsiaInfo.

Integrated into the AIS network, Veris Billing empowers YOU! Mobile's users, giving them a high level of control over their prepaid services. YOU! Mobile enables the user to mix and match voice and data resources according to individual needs, providing the ability to transform users' remaining or spare voice minutes into available data for usage, and vice versa, in real-time.

Yaw Yee, the general manager for South East Asia at AsiaInfo, added: "AIS places paramount importance on great customer experience and has relentlessly launched new and innovative offerings to its customers. This innovative, user-friendly and personalised self-service mobile app has raised the bar for a bespoke customer experience in the telecoms industry. It has totally redefined customer self-empowerment."

Telenor agrees €8m Comptel Fulfillment deal for fixed network transformation project

Comptel has won an €8 million order from Telenor in Norway for its Comptel Fulfillment software and licences. The four-year contract is a continuation of an existing relationship between the companies.

"We are really pleased to continue our customer relationship with Telenor in Norway. It is a privilege to be part of the Telenor Norway fulfillment transformation project for their fixed network," said Juhani Hintikka, the president and chief executive of Comptel.

Terje Foyn Johannessen, the director of Telephony & Internet for Telenor Norway, added: "Comptel Fulfillment has an important role in our long-term efforts to modernise and simplify products, processes and IT systems. We aim to significantly reduce operational expenditure and offer our customers improved experience with better quality and faster time-to-market for new services."

Juhani Hintikka: Pleased to continue relationship with Telenor

NEWS IN BRIEF

Wave selects CSG for billing and customer care

Wave, a cable and broadband services company, has chosen CSG to provide a single unified billing solution across the enterprise.

Under the terms of the new five-year agreement, CSG will deploy and manage a comprehensive billing solution for Wave that will support all video, voice, and data subscribers across residential, small business, and enterprise customers. The system will offer significant cost savings and business efficiencies to enable Wave to provide an enhanced customer experience.

"In order to support our growth initiatives, we felt it imperative to consolidate on a single, scalable platform," said Charlie Watters, executive vice president of IT and billing at Wave. "Wave is a leader in customer service, and CSG's fully integrated billing solution allows us to streamline our operations while providing improved flexibility for business and residential customers that will be fully realized in the next 12 months. In doing so, we will continue to build on our vision to offer our customers easy-to-use, interactive solutions."

Optus selects NetCracker and NEC for OSS transformation programme

NetCracker Technology and NEC have announced that Optus, a wholly owned subsidiary of Singapore Telecommunications (SingTel), has selected them to deliver a comprehensive, multi-phased upgrade programme.

Working with NetCracker and NEC Australia, this project will allow Optus to upgrade its existing OSS Systems spanning Optus' diverse lines of business including consumer and business wireless, broadband, enterprise data, voice, ICT services and IP telephony, across the service fulfillment chain, from service order management to network configuration and activation.

NetCracker will provide Optus with a range of new OSS capabilities based on its NetCracker 9.0 suite, including Service Information Management, Service Order Management, Service Inventory, Service Activation, Network Planning and Design, Network Resource Inventory, Discovery and Reconciliation, and Network Configuration Management.

NetCracker will be integral in the end-to-end delivery of the OSS service fulfillment programme. It will provide a range of professional services to Optus including programme management and governance, solution implementation and integration, systems consolidation, data migration, legacy system decommissioning, and testing, support and training.

"We look forward to empowering Optus to provision services faster and more efficiently," said Frank DeTraglia, vice president of global sales at NetCracker. "This agreement demonstrates NetCracker's commitment to helping its customers turn their key business challenges into market leadership opportunities."

VanillaPlus Hot List: December 2014 / January 2015

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
Amino	Turkcell Superonline, Turkey	Amino to provide broadband CSP with its Live Advanced Media Platform for the roll-out of TurkcellTV+ IPTV service	11.14
Amdocs	Beeline, Russia	VimpelCom chooses Amdocs Customer Management to boost customer satisfaction at Beeline, its Russian CSP	11.14
Amdocs	Liberty Global, pan-European	Amdocs MVNO system deployed to support cable provider's expansion into quad-play service provision	12.14
Amdocs	Telefónica, Argentina	Amdocs selected to manage BSS as part of the next phase of Argentine CSP's transformation initiative	11.14
Celltick	MTS, Russia	Deployment of Celltick Start intelligent Android interface to allow MTS users to get special offers and personalisation	10.14
CSG International	Exatel, Poland	CSG Assure chosen to improve voice quality and customer experience at Polish voice transit carrier	11.14
CSG International	Telstra, Australia	First Telstra customers are live on CSG International Singleview convergent billing platform	12.14
CSG International	Wave, USA	Five-year agreement for CSG International to deploy and manage a comprehensive billing solution for cable and broadband provider	11.14
Ericsson	Spark, New Zealand	CSP deploys Ericsson Service Agility Suite to re-engineer IT platforms to achieve improved agility	10.14
Ericsson	M:tel, Montenegro	Ericsson to manage operations and maintenance including field services management for M:tel's radio, transmission and core networks	11.14
Ericsson	FarEasTone, Taiwan	Tier one CSP to implement Ericsson Order Care and Catalogue Manager. Ericsson to act as systems integrator	11.14
Italtel	Proximus, Belgium	Italtel selected to decommission Belgian CSP's fixed, switched network and migrate it to next generation network	11.14
Jasper Wireless	Telkomsel, Indonesia	Partnership formed to bring Internet of Things and M2M services to businesses in Indonesia	11.14
JDSU	Etisalat, Egypt	JDSU's ariesoGEO deployed to enhance service quality and optimisation for postpaid customers	10.14
NetCracker Technology	Optus, Australia	Selection of NetCracker and NEC for OSS transformation programme across all lines of business	11.14
Openwave Mobility	SaskTel, Canada	Deployment of Openwave Smart User Repository to unify and simplify management of subscriber data	11.14
Redknee	SingTel Optus Wholesale, Australia	Redknee fully-managed, cloud-based real-time monetisation and subscriber management software deployed	11.14
Tektronix Communications	Si.mobil, Slovenia	Addition of Tektronix Communications' touchpoint, subscriber insight systems to other Tektronix solutions and monitoring platforms	11.14

BASE improves network performance visibility with Comarch

BASE Company, a major mobile network operator in Belgium offers the fastest 3G network in the country and has selected Comarch to implement its new Next Generation Management Platform. The new solution is to be implemented in a managed services model and will enable the CSP to proactively monitor network performance. This will then allow BASE Company to manage the quality of services offered to its customers effectively, which is crucial to shaping the network for the future needs of mobile communications.

"BASE Company believes that the future is mobile," says Jos Donvil, the CSP's chief executive. "As a mobile operator you must offer your customers the best price, the best network and the best service. Today we are a leader in all three areas and we are aiming higher. We keep on finding new solutions and better services for our customers and are focused on providing an optimal customer experience. In everything we do the quality is key."

The Next Generation Performance Management platform for BASE Company is hosted at the Comarch Data Centre. The new system will enable the CSP to better correlate network events, a key element in providing a comprehensive view of network performance. Comarch is fully responsible for the project results and managed services deliveries. Key performance indicators (KPIs) for the project are defined both in the ITIL and in terms of time-to-market. Comarch will also provide integrations and network upgrades, as well as define additional KPIs and deliver reports. Comarch teamed up with MYCOM to deliver the system to BASE Company.

"It is today's do or die for mobile operators to dynamically and flexibly adjust to the changing market reality," said Piotr Piatosa, a vice president and director of the Telecommunications Business Unit at Comarch. "Successful cooperation with BASE Company in the Next Generation Performance Management Platform project, resulting in rapid implementation progress, proves that Comarch's approach of understanding the client's needs and tailoring the right solution for its goals and needs goes a long way. I believe the project will support BASE Company to continue delivering first-class customer experience to its subscribers."

INTERVIEW

Vanilla+

Why CSPs can take their share of the $47bn real-time offers opportunity

Openet's Philip Hogan says CSPs have the tools to generate a highly accurate picture of the needs of their customers

The next step is to monetise that with context-aware real-time offers

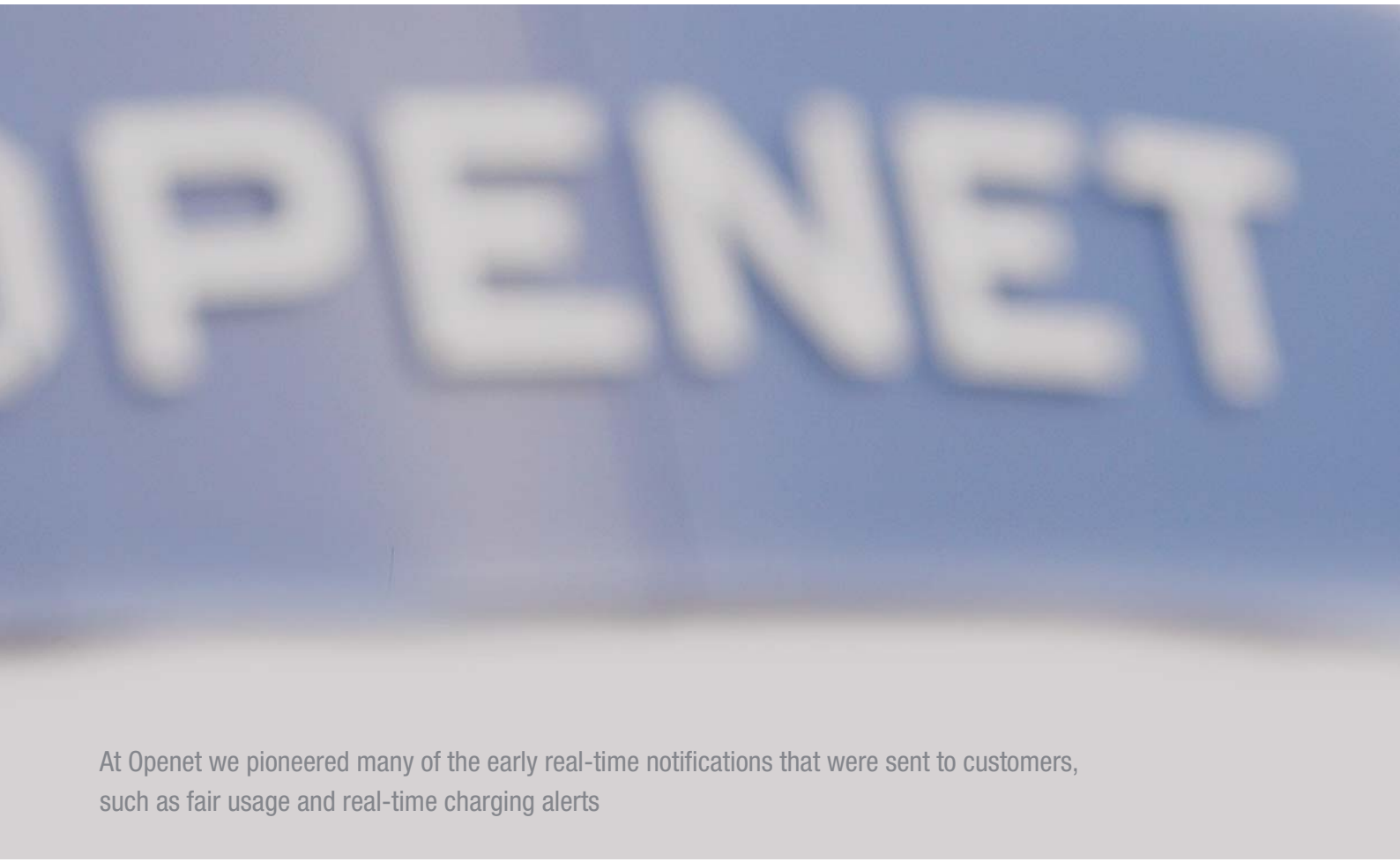
To succeed CSPs must make offers personal, context-aware and in real-time

Philip Hogan is a founder of real-time BSS company Openet and is currently the company's general manager of sales and services. He tells VanillaPlus that communications service providers have the tools available to generate a highly accurate picture of the needs of their customers. The key to extracting revenue from that picture is to use it to establish real-time context-aware offers that customers welcome and are willing to pay for

VanillaPlus: In December we normally see the usual spike in new smartphone and tablet sales, followed by the increase in spending on apps and content. There's a huge increase in money being spent on digital products and services yet many mobile operators are seeing their revenues squeezed. Do you think CSPs understand their customers well enough to get a share of the revenue that is being spent on digital products and services?

Philip Hogan: CSPs have seen themselves squeezed out of the value chain in recent years. They've provided the pipes and others have provided the content, apps and services that people spend money on and interact with. However, there's been a move towards CSPs understanding how different people use services on their devices and then combining this knowledge with business intelligence. This creates an understanding of the real-time subscriber context, which can then be used to market and sell timely, relevant and personalised products, services and offers that can generate a substantial revenue stream for CSPs.

In October 2014 Openet ran a survey of 87 mobile operators worldwide. They said that real-time contextually aware offers could increase data revenues on average by



At Openet we pioneered many of the early real-time notifications that were sent to customers, such as fair usage and real-time charging alerts

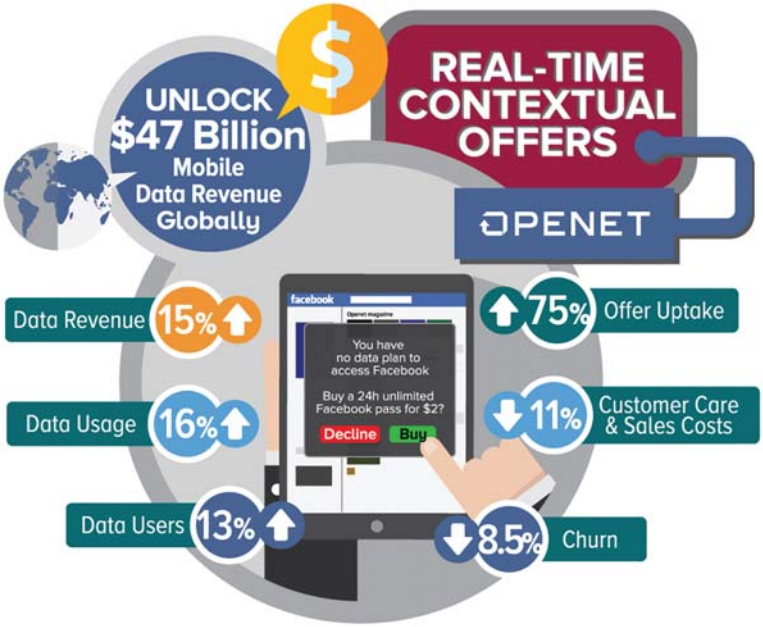
15%. This represents a $47 billion revenue opportunity for operators globally. This is a big enough figure to get people to ask what is a real-time offer. To give a very simple example, take a customer with no data plan who tries to access Facebook. Rather than just apply data usage charges for the megabyte consumed, the customer is automatically sent a one day application pass to try out Facebook on their mobile for a nominal fee or even for free. This is a simple example, but with the offer being made in real-time direct to the device it provides a marketing offer that is relevant and timely to the customer and therefore has a much better chance of take up. Make the same offer two days or even two hours after the customer tried to access Facebook and the chances of success are greatly reduced.

VP: Aren't CSPs already sending real-time notifications to customers – for example when they reach their credit limit or when they start roaming?

PH: Yes, at Openet we pioneered many of the early real-time notifications that were sent to customers, such as fair usage and real-time charging alerts. Many of these alerts are used to communicate or control – for example, you're reaching your credit limit warnings. Traditionally they were not used to upsell new services. CSPs have this real-time channel to consumers for sales and marketing yet many still have an over-reliance on traditional sales and marketing channels – these probably work well enough for buying a new handset, but for add-ons and other online digital services and products customers want instant gratification. They want to buy and use services immediately.

VP: What exactly is a customer's context – is this to do with location, the service being used and network experience?

PH: Context is important as it enables a high degree of personalisation. As well as identifying trigger events in real-time – in the case above, the customer is trying to



The use of event triggers enables personalisation through automated offers that have gone through a decision process shaped by a person's context

access Facebook – we also have information on a customer's profile. This could include remaining credit, day in bill cycle, risk of churn score and others, and we use this information combined with the trigger event to automatically select the most relevant offer for that customer at that moment.

VP: CSPs send many marketing messages direct to the device. It's a proven marketing channel that seems to be working – how are you proposing that CSPs make direct to the device a more effective channel?

PH: Direct to the device offers do work well for CSPs. In our survey CSPs said that they currently get a take up rate of 8% for direct to the device offers. In anyone's language that equates to very good channel performance. But by making these offers context sensitive and real-time the CSPs surveyed said that this figure would increase to 14%. This represents a 75% increase in channel effectiveness.

VP: So this provides the ability for CSPs not only to sell more of their own services, but also those of partners – such as video or music providers?

PH: Absolutely – this is a good way to sell Netflix partnerships to people who watch videos on their mobiles, and Spotify partnerships to people who maybe watch a lot of YouTube music videos. People could be streaming a YouTube music video in order to listen to music. Having the ability to provide real-time contextual offers to upsell third party content and services makes the mobile operator more attractive as a partner – and not just a delivery pipe – for content providers and as such can open up new revenue sharing models.

VP: What's the main ingredient here – why aren't more CSPs providing these types of offers?

PH: Real-time contextual offers need to be developed and driven by a centralised offer catalogue from which offers can be created, launched and updated very quickly. As real-time offers become more successful CSPs will need to develop and maintain a larger base of offers. Many of these may have a relatively short life span and they will all have a very short time to market. The last thing a CSP needs is for the BSS vendor to wheel in an army of software engineers to update the offer catalogue. CSPs need to do this themselves, and they need a rules based catalogue that makes offer development and maintenance easy and quick to do. However it's more than collecting real-time data and developing a centralised offer catalogue. There are many BSS components that need to be updated. The process is that once an offer has been selected and purchased by the customer, it is then automatically activated on the customer's account. Offer settings will be provisioned on the necessary BSS and network elements to ensure that the offer has started for the customer. The user will be informed of the successful activation while in the background, everything has been pushed into place in a logical sequence and the customer gets the service they just selected in real-time.

A problem is that many CSPs don't have a rules based centralised offer catalogue plus the automated BSS orchestration software that is needed to enable real-time offers. Of our survey of 87 CSPs around two-thirds of respondents currently don't have this capability, but they pretty much all said that it was needed to sell more products and services and generate new revenue streams. The good news is that CSPs can install these real-time offer systems as adjuncts to existing BSS, so they don't need expensive and time consuming rip and replace projects.

VP: There's been much talk about mass personalisation of mobile services. Do real-time contextual offers enable this to become a reality?

PH: The use of event triggers enables personalisation through automated offers that have gone through a decision process shaped by a person's context. But personalisation is a very subjective term. A CSP could set up an offer, select the context check points and set up the triggers for an offer to be made. Some people will buy it, others won't. CSPs need to quickly understand why certain customers aren't buying a particular offer. The usual process of analysis of marketing offers taking months is changing. When you're selling add on and upsells direct to the device the need for fast offer refinement is significant. It's important that CSPs continuously learn from the success of offers to constantly refine them. In order to do this they need real-time reporting of offer effectiveness so they can quickly adjust the offers or upsell strategy.

Real-time contextually aware offers can do more that drive up data revenues. Our CSP survey showed that marketing and customer care costs can come down by 11%, data usage can go up by 16%, new data users increase by 13% and churn reduces by 8%. CSPs can drive revenues up by making and enabling offers to be delivered in the same way that customers use the internet – personalised and in real-time.

www.openet.com

Strategic pricing can be the answer to secure CSPs' future profitability

Petter Järtby is head of business unit BSS at Ericsson. In this interview, he tells Vanilla Plus that many CSPs have embraced innovations in both products and customer service, and are now adopting business-model innovations to help them deal with evolving ecosystems. But by themselves, these approaches are still not delivering the kind of revenue increases CSPs want and need. Arguably that can only come from an area of innovation that, historically, is not on many CSPs' radar: pricing.

Järtby proposes the concept of experience-based pricing (EBP). This enables CSPs to charge for the value of the overall experience delivered than solely for network connectivity. This concept requires a high degree of customer intimacy combined with analytically-derived insights into the customers' experience and preferences

It's better to provide customers with the option to have a reliably consistent experience at a greater cost than it is to provide a dissatisfying and unpredictable experience

VanillaPlus: Can you explain a little more about the concept of experience-based pricing and why CSPs should be interested in it?

Petter Järtby: Put simply, experienced-based pricing is about charging based on the perceived value of the customer's experience within a given context, rather than based on solely the network access.

Experience-based pricing may be the only feasible solution to the challenging business outlook facing many CSPs today. Specifically, Ericsson predicts that network traffic will grow ten-fold by 2019 whereas the GSMA predicts CSP revenues to grow by only 20% over the same period. We also see that newly deployed LTE networks are loaded shortly after they are completed because user demands are constantly increasing.

This business outlook results in an unacceptable ROI for CSPs and their shareholders, impacting their ability to invest in their infrastructure and properly serve their customers. They need solutions, and EBP can be part of that solution. As a long term partner to CSPs, Ericsson wants to help them explore potential solutions to address this situation, hence why we are discussing the concept of EBP.

CSPs have looked into many different areas to address this situation. They've cut costs, they've targeted new business models to grow revenues, and they've looked at product and service innovation. Everything except pricing innovation has been considered and that's odd because research from McKinsey and company indicates that pricing is the strongest lever to impact profitability. This research found that when you increase average price by as little as 1% you impact the bottom line by 11% on average.

Many CSPs are offering unlimited access to a finite resource and as a result we are starting to see pricing wars emerge – which is the start of a downward spiral to low profitability. What's more, customers are only served well if the service provider is profitable enough to fund research and development and ensure the services they offer are of high quality and attractive to users.

VP: What is needed to enable CSPs to charge based on the value of an experience? Is there a danger of charging at too high a rate and causing people to not use services?

PJ: EBP is about taking into account much more than just network connectivity – such as utilising complex value propositions to understand what the customer is prepared to pay based on the value of the service to them in a specific context.

For example, it's unlikely that a consumer will pay a premium simply to watch a YouTube video on their phone at home. But imagine that customer was at the World Cup Final, and willing to pay much more than the standard rate to send a video to friends – to share the experience with them. Pricing of that experience could then be based upon supply and demand at that moment.

Where there's a difference in delivered experience there is a difference in value. The experience is different at the grocery store than it is at the World Cup Final. The context therefore matters because in the latter scenario, you're at a 'once in a lifetime' event but from a CSP perspective there is constrained capacity at that event because everyone in the stadium wants to send videos during the same time period. The CSP must consider how to serve those customer demands profitably to optimise their return on investment. ▶

Petter Järtby: Pricing is the strongest lever to impact profitability

It's better to provide customers with the option to have a reliably consistent experience at a greater cost than it is to provide a dissatisfying and unpredictable experience – such as throttling – at the standard rate. By employing yield management concepts such as EBP, you are establishing equilibrium in the supply and demand of connectivity and capacity. Users who are not willing to pay the higher price during capacity constrained conditions opt out and give that opportunity to those who value a higher quality experience at that moment. This is very similar to yield management techniques that have been used for decades in the airline and hotel industries.

To get started an operator would first need to develop a pricing strategy based on the following primary inputs:

- **Micro-segmentation** – the process by which you analyse your customer base and uncover smaller and smaller segments with different priorities; theoretically, getting to a 'segment of one'
- **Insightful Information** – the analytical insights that are exclusively traversing CSPs' networks and systems and can be used to develop personally relevant offers at an acceptable profit
- **Mathematical models** – that incorporate the micro-segmentation, insider information and market and competitive information to determine the optimal price point for individual services and various combinations that result in a 'win-win' situation for the CSP and the customer.

VP: How will CSPs use the data they collect about their customers to extract insights to enable them to make relevant propositions to customers and partners? Is EBP about more than charging the consumer according to experience?

PJ: While EBP does propose that CSPs charge for the experience, it also provides a way to uncover additional value for the customer. Scenarios exist in which there is a service a consumer might value but doesn't know what it will cost them so they don't use it for fear of bill-shock. Take international roaming for example. Currently, greater than 70% of international travellers turn off mobile broadband when they roam due to the uncertainly of the charges, even though many of them indicate that international access would be valuable to them. CSPs could determine ▶

their average cost for providing international roaming for a day and then offer it as a service to their customers at a flat price, giving customers what they need at a price that is acceptable to them and at a profit that is appropriate for the CSP. This can be extended to OTT partners that might wish to pay CSPs for delivering their services or for the insights into how customers are using the OTT service. If a CSP is employing micro-segmentation, it knows which OTT services and apps are being used and can make that information available to its partners. The CSP has more information than the OTT partner does and can buy in bulk from the OTT partner and deliver a service at a specific cost. There is the potential for CSPs to resell and profit from this as well.

VP: Why have CSPs been slow to adopt EBP or other yield management techniques? What are the barriers to adoption?

PJ: If a CSP wants to deploy EBP, they certainly need the technological capabilities I've mentioned, but organisational readiness is also a significant challenge. Historically, CSPs have not used pricing as a differentiator and haven't developed and systematically evolved their pricing strategies as have other industries such as airlines, hospitality and now online retail. CSPs would have to treat pricing strategy development and execution with the care as they currently do product development and execution.

An interesting point is that many CSPs have invested in robust technical capabilities but still have not used them to their full potential. One reason for this situation is that the organisational readiness for pricing strategy development is not in place. Of course, market and competitive considerations must also be carefully weighed and included in the pricing strategy development.

VP: What do you see as the prospects for EBP as it becomes more widely understood and deployed?

PJ: CSPs have to be convinced EBP is a viable pricing strategy. Based on the economic theories of supply and demand, EBP uses sophisticated yield management techniques that have been used successfully in other industries for decades. The telecoms industry is experiencing some of the same market conditions that these industries experienced before they began to use yield management techniques. We believe concepts like EBP will enable CSPs to gracefully transition to the dynamic, real-time, ever-increasing demands that mark the Networked Society; just as similar pricing concepts helped airlines and online retailers successfully transition.

As the market shifts away from traditional, single-connection contracts, we're seeing watershed offerings such as the emergence of shared data plans and 'no-contract' post-paid plans that create more of a 'free market,' bringing CSPs closer to dynamic pricing and EBP. As mentioned earlier, many have already deployed integrated charging and analytics, but they simply don't use them to their full potential. The irony is that of all the consumer facing industries, telecoms has the richest source of data about customers. It's time CSPs made profitable use of it for the benefit of themselves and their customers.

www.ericsson.com

Heart, lungs and soul: the coming battle for digital ascendancy

For most CSPs, digital transformation will take place within the next five years and during that time five significant changes will occur, writes Jennifer Kyriakakis

The author, **Jennifer Kyriakakis,** is founder and vice president of marketing at MATRIXX Software

At TC3, the Telecom Council of Silicon Valley's recent annual innovation event, Mark Sherman, the managing director of Telstra Ventures caused a stir. Telstra Ventures invests in technologies that are strategic to the Australian communications service provider's (CSP's) future, so he encounters a lot of technology innovation. He predicted that within five years, the 'heart and lungs' billing systems of every CSP in the room would need renewing. Which was a startling pronouncement considering those systems have managed to survive for nearly two decades.

Sherman can be confident because Telstra has seen the future and is already adapting to it. The reason he equates such systems with vital organs is that in spite of years of neglect, they are now technically and strategically critical to the survival of CSPs. Particularly the ones who are planning to become digital service providers (DSPs).

This has not gone unnoticed by budding DSPs who have invited a new breed of executive to join the top table team: the chief digital officer – sometimes called the digital strategy officer. These new digital officers are in for the ride of their lives; they're charged with taking the whole business online and enabling customers not only to buy whatever they need – instantly and direct from the device – but through any digital channel with a consistent user experience. Gone will be costly and slow operations; it'll be up to the customers what they want, when they want it, and how they want it.

That's not to say that the swinging sixties are with us again. There are some guidelines this time, and although those are unique to each and every CSP's operations, we can draw a general picture.

Five changes in five years

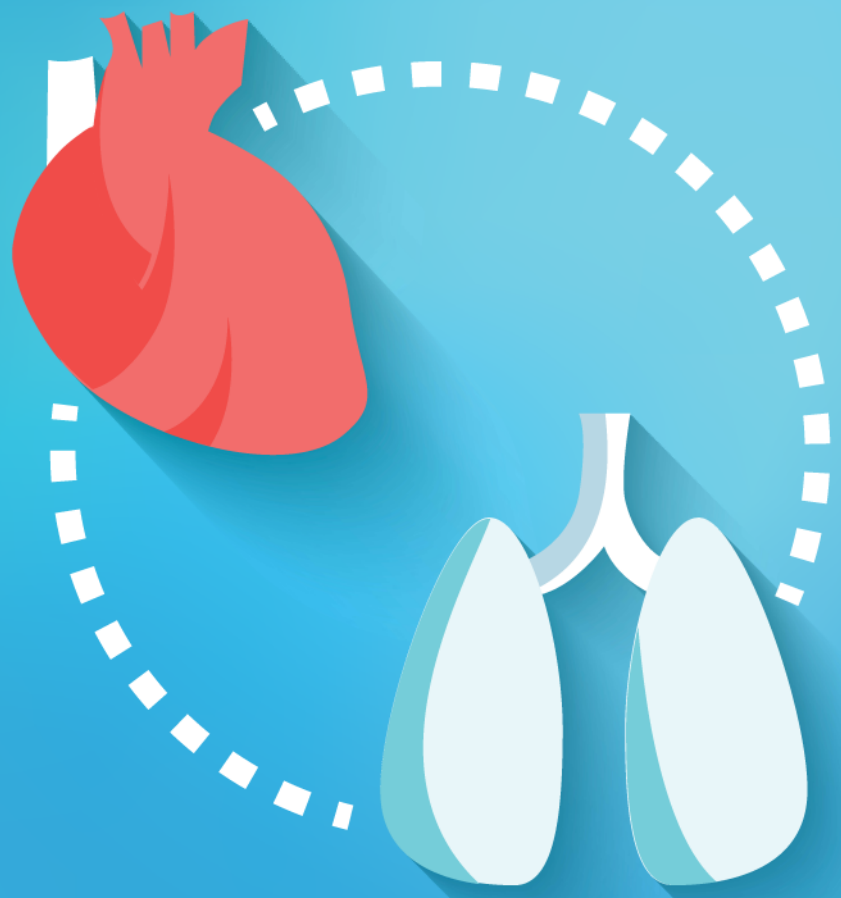
For most CSPs, digital transformation will take place within the next five years – as flagged by Sherman – and is likely to have five components to it, each with their own priority. Firstly, there'll be digital channel enablement, where every mobile service is made available direct for purchase from any device. If this is successful, multi-million dollar contact centre costs are scaled down as customers use online channels to transact in real-time with DSPs. If they want to change anything about their account, they do it straight away from their device without having to call someone and then wait for hours or days for the product to be provisioned.

Of course, that means that products need to be designed by DSPs specifically for digital channels, but having a real-time view of customer needs will enable them to more rapidly model new service and tariff impacts and tune products accordingly. Customers will also need a real-time self-care interface that helps them understand their usage in terms they can understand, and proactively receive alerts when they're approaching their plan limits. They'll also need multiple, onward pathways to top-up allowances, and also to redistribute shared services between families, groups or work colleagues, all at the flick of a graphical slider on their self-care app.

And, they'll need to see those changes reflected immediately, not 48 hours later when either overages have been applied or the decision is no longer relevant to them. Self-configuration of their account to suit their own preferences will be vital to customer longevity and for DSPs, the push of personalised offers in return will complement this freedom.

Repositioning within the value chain

The subtext here of course is not only that CSPs need technology working behind the scenes to do this, but that they need to reposition themselves within the value chain. Some CSPs are experimenting with asymmetric business models such as sponsored data where a strategic third party pays for the customer data usage or for example where travel companies offer their own roaming packages direct to their own customers. The key here is that data moves beyond mere network access and fixed tariffing towards becoming a flexible product that meets new customer needs – putting data at their disposal. And this means that CSPs need to shift from being a connection- ▶



based business to being one based on having a unique view of each of their customers.

The sheer force, proximity and resulting magnitude of this change is the digital officer's imperative – because it impacts the entire organisation across individual staff, departments, processes and technologies. Those heart and lung systems are suddenly elevated from the back office to being the key strategic capability required to enable the change. But, in the rush to pull it all together, quick-fixes have constituted glossy marketing and campaign management tools, questionable analytics and open-ended social portals where views are collected but are not actionable in real-time. They only solve the issue at skin-depth and frankly the results from these projects represent poor value because they don't deliver the deep change that customers need to dramatically improve their experience.

At the very core, the success of that elevated experience – and for CSPs to make the transition from being the provider of access to the provider of value – rests on next generation real-time charging, billing and policy. These core IT assets must themselves adapt for the digital world, enabling DSPs to serve customers through digital channels. But what will these new systems look like?

Unified functionality, all in real-time

We know that underlying policy and charging functionality needs to be unified in order to support digital business models which are infinitely more complex than those needed for voice or text services. These include customer-defined application quotas where, for example, parents limit the consumption of data specific to particular apps that their kids use. Also there will be partner-defined applications quotas, where OTT players work with DSPs to promote specific application usage, and then define pricing and revenue distribution accordingly. Then, there's the ability to offer personalised promotional vouchers and enter into contextual upsell opportunities keyed to a customer's unique requirements. Subsidised and sponsored content, and the ability to optimise video content for, say, an HD-based premium, complete the picture. On the back of this, the product catalogue needs to incorporate policy so that offers can be tailored both by the DSP and by the individual customer.

Critically, everything must happen in real-time. It doesn't matter if a customer can now buy an offer through an app if they can't get the offer they want, have a hard time finding it, have to wait 24 hours for it to provision, or don't understand how it's being charged for. Unleashing self-care for customers means exposing them to the capability of the systems that drive our emerging digital economy. Any false move here is very visible to the customer.
So, DSPs need to be able to trust that they have a single, 100% accurate view of the customer, their services, balances, spending and options. This creates a digital experience for the customer that is consistent across mobile app, online, and various channels by making use of a single set of functions that are all looking at the same data.

Ultimately, merely adding a digital veneer front end without upgrading the systems that drive it will be counterproductive. There is already an explosion in the number of customer interactions with their service provider, and these interactions are becoming increasingly complex. It's about also implementing real-time capability in the core to give customer care and billing the injection of new capabilities needed to support the end-to-end digital customer processes. Those first digital officers are already assessing how to do this in a way that is cost effective and results in quick wins for the business. And that's why the heart and lungs also need a real-time soul.

At the very core, the success of that elevated experience – and for CSPs to make the transition from being the provider of access to the provider of value – rests on next generation real-time charging, billing and policy

www.matrixx.com

Barry Marron: Traditional billing systems have already been stretched well beyond their original design

Linda Austin: Packages will evolve and require the ability to charge for unlimited offer scenarios

Is billing still relevant as the profile of CSP services change?

As CSPs move to charging for services on a flat rate basis much less metering is required and traditional billing data has fewer applications in terms of creating bills for customers. However, traditional billing data is starting to look to have greater applications in big data analytics and enabling contextual marketing and other experiences, writes Jonny Evans

Billing is transforming. Modern billing and deep packet inspection policies enabled by a range of sophisticated billing features go beyond time and volume based charging schemes.

"The billing system was designed to count on two parameters and has already been stretched well beyond its original design," says Barry Marron, the vice president of product marketing at **Openet**. "That is why further investment in BSS is needed to keep pace with the level of service innovation that subscribers desire."

Linda Austin, the director of strategic marketing at Region North America at **Ericsson**, agrees: "Old billing approaches are currently challenged by and will have to adapt to the dynamic real-time connected environment we find ourselves in," she says. "We expect traditional packages to evolve to more à la carte and on-demand offerings requiring the ability to charge for unlimited offer scenarios, in real-time, including new partner based business models."

Carlos Marques, the product marketing manager at **WeDo Technologies**, adds: "New billing and DPI policies enabled by a range of sophisticated billing features go beyond simple time and volume based charging schemes."

Popular all-you-can-eat services are increasingly being supplemented by QoS-assured services for specific needs. The ability to identify and meet such needs is enabling new partnerships.

With this in mind; "Billing is probably still the most valuable customer information CSPs have – it provides insight on price sensitivity, willingness to pay, as well as detailed customer profile and usage information," says David Heaps, the senior vice president of corporate strategy at **CSG International**. "Increasingly we see that this needs to be integrated with CRM and analytics about customer experience to genuinely understand what the customer needs and to respond ... in the most relevant way."

Marrron agrees: “Understanding the demographics and profile of the subscriber can allow more accurate contextual offer and service decision making."

As service and partnership provision evolves, billing ▶

"CSPs all over the globe are now seeing an unprecedented rise in volume, variety and velocity of information. As a result of this, they are beginning to evolve from a product or campaign-centric marketing approach to adopting a holistic customer-centric strategy"

data is becoming an essential data set, opening up new opportunities for big data analysis and the enablement of new profit centres.

"CSPs all over the globe are now seeing an unprecedented rise in volume, variety and velocity of information. As a result of this, they are beginning to evolve from a product or campaign-centric marketing approach to adopting a holistic customer-centric strategy. The new sources of information can now be correlated to offer re-defined and personalised pricing plans, subscriptions, loyalty discounts and reward-based promotions to subscribers," says Marques.

Moshe Peterfreund, the director of marketing at **FTS**, agrees: "The existing billing model can't work for much longer in the traditional sense, but what it can do is to feed into big data analytics, enabling improved marketing based on context and other subscriber experiences."

Not everything changes all at once. "The old approaches are quickly dying, but won't disappear overnight," says Marron, but those who don't adapt fast face future challenges.

Heaps has a warning: "CSPs that have not modernised their approach will increasingly find that their billing systems are a constraint on their ability to offer new services and they will be at a competitive disadvantage with those providers who have recognised that a well-designed billing solution can be an enabler of new business."

Whether CSPs searching for new revenue will find success depends on their ability to collect and process data in real-time in order to field new services. "The priority for CSPs will be to ensure they have the IT infrastructure required to manage the sheer scale of data that will be passing through from their subscribers' connected devices, whether it's billed for or not," says Gordon Rawling, the director of EMEA marketing at **Oracle Communications**.

For Chris Yeadon, the director of product marketing for Convergent Billing & Customer Relationship Management at Ericsson, BSS still remains a key supporting capability. "BSS powered by real-time analytics is what will enable the level of personalisation and relevance that consumers increasingly demand," he says. "We see convergence in terms of network technology, payment and service type is still being deployed as a market differentiator and to reduce cost. BSS is still key to supporting this."

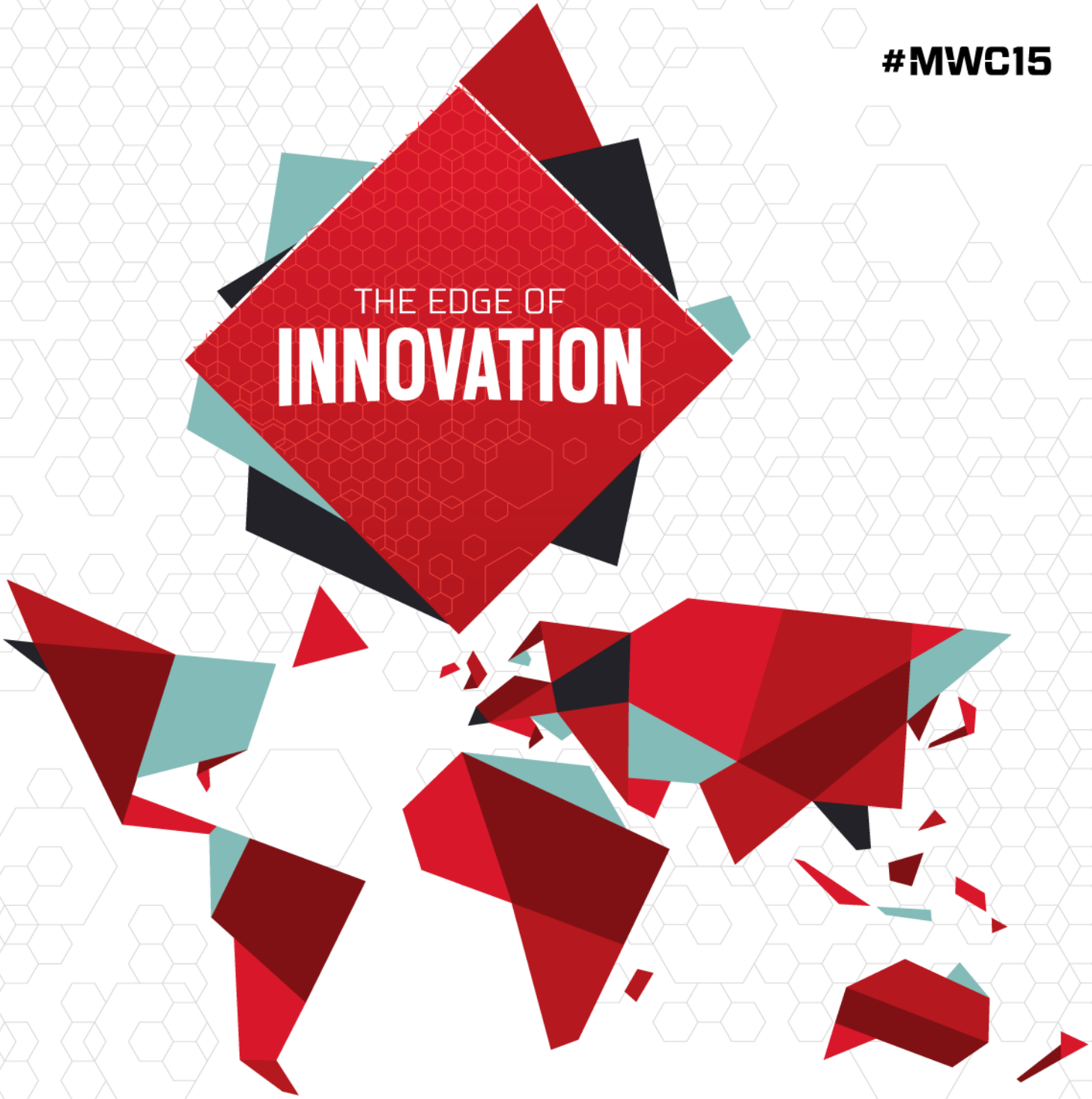
Indeed, while its nature is changing, the value of billing system information is magnified. "Billing is no longer a once-a-month batch-based process with a single charging mechanism, but is now a real-time discipline which tailors the charging to the services being delivered such as price per film, price per user per month, or all you can eat bundles," says Heaps. "A modern BSS allows customers to consume services on the fly. It allows customers to change their subscriptions at any time and maintain multiple account balances for different services – perhaps with different payment methods for each. A modern BSS also integrates with social media and provides personalised recommendations and offers."

Billing and usage information is becoming, "a critical lever in the big data and analytical goals of connecting with customers in a more personal, context-aware and appropriate manner – for example, optimising services they already have, but also offering new and appropriate services at just the right time," concludes Rawling.

Moshe Peterfreund: The existing billing model can't work for much longer in the traditional sense

Chris Yeadon: BSS powered by real-time analytics will enable the level of personalisation and relevance that consumers demand

#MWC15



GSMA MOBILE™ WORLD CONGRESS

BARCELONA 2-5 MAR 2015

The mobile communications revolution is driving the world's major technology breakthroughs. From wearable devices to connected cars and homes, mobile technology is at the heart of worldwide innovation. As an industry, we are connecting billions of men and women to the transformative power of the Internet and mobilising every device that we use in our daily lives. The 2015 GSMA Mobile World Congress will convene industry leaders, visionaries and innovators to explore the trends that will shape mobile in the years ahead. We'll see you in Barcelona at **The Edge of Innovation.**

WWW.MOBILEWORLDCONGRESS.COM

AN EVENT OF
MOBILE WORLD CAPITAL™ BARCELONA

OTT applications and carrier IPX come together to help CSPs monetise their investments

The intersection between OTT applications and carrier IPX is quickly growing, creating an immediate need for both sides to monetise their investments, write Vic Bozzo and Lisa Tovar

Today, voice has become an application much like SMS, video and data. With so many retail services relying on wholesale infrastructure, to manage millions of routing and billing permutations, the adoption and automation of billing, charging and settlements between carriers will ensure efficiency, accuracy and security in any carrier's operations.

OTT's need the QoS and local reach and communications service providers (CSPs) need to be compensated appropriately for their investments. This requires automation, API support and seamless integration at all levels to provide the efficiency that the market demands. Even seemingly free services, monetising their offerings through advertising, many times need to pay for the inbound and offnet and to do so the systems must be consistent, dynamic and standardised.

A proper billing system with true automation of billing and settlements allows any provider to implement the catch-all strategies they choose, without fear of the back office not being able to catch up. This creates a consistency and comfort that with the right system in place revenue will always be properly billed and settled. This metaphorical sentry watches over the network ensuring only proper data gets to downstream systems and is transmitted out. This all occurs while simultaneously allowing any network provider or application provider to synchronise with its partner in the back office. It prevents revenue leakage, disputes and most importantly alerts the CSP to possible fraud conditions. These systems then alleviate the risk of telecoms expenses the CSP incurs but cannot charge for or, in the case the OTT is the CSP's customer, that cannot be monetised.

Telarix's iXLink provides a secure, reliable business-to-business information exchange platform that enables all CSPs regardless of size or level of automation to quickly and efficiently access and share business documents among their trading partners. iXLink enables CSPs and OTTs to share billing and rating information and even trade in a standardised neutral way, enabling an efficient and mutually beneficial partnership. Utilising iXLink, CSPs and OTTs through automation are able to capture bill and settle more accurately and quickly creating a positive partnership. iXLink's automated population into the OSS/BSS environment of iXTools allows a mutually beneficial partnership between OTTs and CSPs and enables the implementation of new strategies to monetise networks and to take advantage of new technologies as they arise. As the complexity grows but more importantly, the opportunity expands, it is increasingly important for both the CSPs and OTTs to be in a position to capture, bill and settle revenue not just with one another but with the wholesale community at large.

Vic Bozzo is senior vice president of worldwide sales and marketing at Telarix

Lisa Tovar is director of marketing at Telarix

www.telarix.com

CSPs – you should be making more money

Who will become the Amazon of telecoms? Numerous industries have already discovered that pricing can be an effective strategic lever – now it's time for CSPs to do the same, and to finally realize financial returns that match the actual value to their customers, write Linda Austin and Chris Yeadon

Linda Austin is director of strategic marketing for Region North America at Ericsson

Chris Yeadon is director of product marketing for Convergent Billing & Customer Relationship Management at Ericsson

Today's consumers increasingly perceive devices, applications and over-the-top (OTT) services to be the most significant elements of their telecoms experiences. Not surprisingly, some of the providers and manufacturers associated with these elements are making a fortune, while many communications service providers are experiencing declining average revenues per user and shrinking profits.

Perspective and perception

As a rule, consumers rarely think about the network unless it is not performing properly, and connectivity is increasingly considered as just another utility, like electricity or water. But in truth, the network represents far more value than any content that is being transmitted over it, or any device that taps into it. Without the network – and the significant investments that CSPs make in its infrastructure – those devices, applications and OTT services would be worthless.

So why aren't CSPs making more money? It's not for lack of trying. Many have embraced innovations in both products and customer service, and are now adopting business-model innovations to help them deal with evolving ecosystems. But by themselves, these approaches still aren't enough.

Changing the game

It's common wisdom that one cannot consistently time the stock market; likewise, merely lowering prices does not provide a sustainable competitive advantage, and often leads to fatal pricing wars. It's also well known that insider information can change the game. CSPs have unique, legal access to insider information in the form of the consumer, application and network data traversing their networks. Until now, traditional telecoms systems couldn't adequately capture or analyse this data to support pricing innovation, nor implement that innovation, so there was little incentive to develop pricing innovation as a strategic lever. As a result, CSPs have not fully realized the financial rewards from the differentiators that they control and that drive value in the consumer's experience.

However, technology that enables such capabilities has developed rapidly in recent years. Today's integrated, real-time, analytics-driven support systems – coupled with software-defined networking, network functions virtualisation and cloud technologies – can make CSPs as nimble and opportunistic as their IP-based OTT counterparts.

This means that the time has come to begin thinking differently about how telecoms services can be priced and sold. Other industries have already discovered that pricing can be an effective strategic lever. CSPs can – and should – do the same, and finally realize financial returns that match the true value of their networks.

Rethinking CSPs' role in the value network

In many ways, CSPs today are in an enviable position. They have an active, ongoing relationship with consumers. They support those consumers through customer relationship management systems, call centres and, increasingly, through self-care portals. Through their billing systems, they also have a trusted financial relationship with consumers. They have the ability to price and package end-to-end services that OTT players cannot match, including connectivity, end-to-end control over policies and QoS, and convenient charging and billing services for movies and m-commerce. All these and more are legitimate assets in the digital services value network that impacts the consumer experience.

What if you were to break down those assets into the greatest number of individual value components representing potentially chargeable events? What if you could assemble them, even on the fly, into personalised offerings and experiences that consumers are willing to buy, and then price them for the greatest profitability?

This is the essence of what we call experience-based pricing – pricing that is dynamically personalised according to the consumer's need or experience, and

based on what an individual user values most while consuming a service at a given point in time or location. Experience-based pricing is the sweet spot where value is maximised for the consumer at a profitable level for the CSP. It matches the needs of the consumer and the requirements of the combination of device and service being used, along with other factors such as location, to provide the optimal consumer experience.

For example, high-quality video or TV delivery requires more network capacity than simple web browsing. How much is a consumer willing to pay for the optimal experience of watching a once-in-a-lifetime event, at their location, on their device?

Tailoring the consumer experience to this level of granularity means managing the network at the same or a similar level – and today's systems and technologies provide the CSP with that capability. The resulting agility and capacity to personalise the experience contextually makes the CSP more valuable to consumers and more attractive as a partner to application developers and OTT service providers. It ultimately translates into increased revenue and higher profitability derived from the consumer, and potentially from the partner too.

Is experience-based pricing worth it?

We are not suggesting that CSPs simply raise prices. At its most basic level, experience-based pricing is about moving beyond current innovation around the pricing structure to include innovation around the pricing level and capturing the known units of value that comprise the consumer experience, such as on-demand speed boosting and yield optimisation, to give just two examples. These are familiar to most CSPs and are relatively easy to implement with next-generation systems that are analytics-enabled, operate in real time and are driven by a centralised catalogue.

The next – or possibly concurrent – step is finding hidden events in value networks for which consumers would be willing to pay. This value discovery fuels pricing-level innovation based on context. Here is an example from another industry. Like all airlines, Virgin Atlantic always had some rows in coach with more leg-room than others. It always had seats near the main exit, from which it was faster and easier to deplane. But it wasn't until it realized the consumer-perceived value of those features that it began charging a slight premium for them – and many consumers have been happy to pay more for the extra space or quick getaway. Are there similarly chargeable value elements waiting to be discovered in operators' current services?

Pricing innovation can take many forms. In the US, Netflix has sought deals directly with Comcast and Verizon to assure QoS and a consistent experience for its streaming video services. CSPs could therefore make additional profit by directly offering optional levels of QoS to the consumer as well, and by providing the optimal experience based on the consumer's context. The consumer could be charged more (or less), according to perceived need, and the service can be packaged and conveniently billed along with other services. This is not the same approach as turbo-boost add-ons – it utilises analytics to identify the unique circumstances of how, where and when a specific consumer is using a specific service, and offers varying levels of value accordingly. Think of turbo-boost combined with yield optimisation – CSPs are familiar with yield optimisation to capture value from excess capacity, but yield optimisation applied to a turbo-boost scenario results in additional value capture in a condition of constrained capacity.

To realize the full potential of experience-based pricing, CSPs will need an ongoing process to discover the uncaptured value within their value network. Such value discovery requires a commitment to digging deep, to using analytics to understand what the consumer values, and then to capturing and monetising that value. It can be a challenge to develop the organisational mindset and processes required, but to realize the financial rewards of experience-based pricing fully, it is necessary to make pricing strategy a part of CSPs' organisational culture, and to look continuously for ways to increase – and profit from – perceived value to consumers.

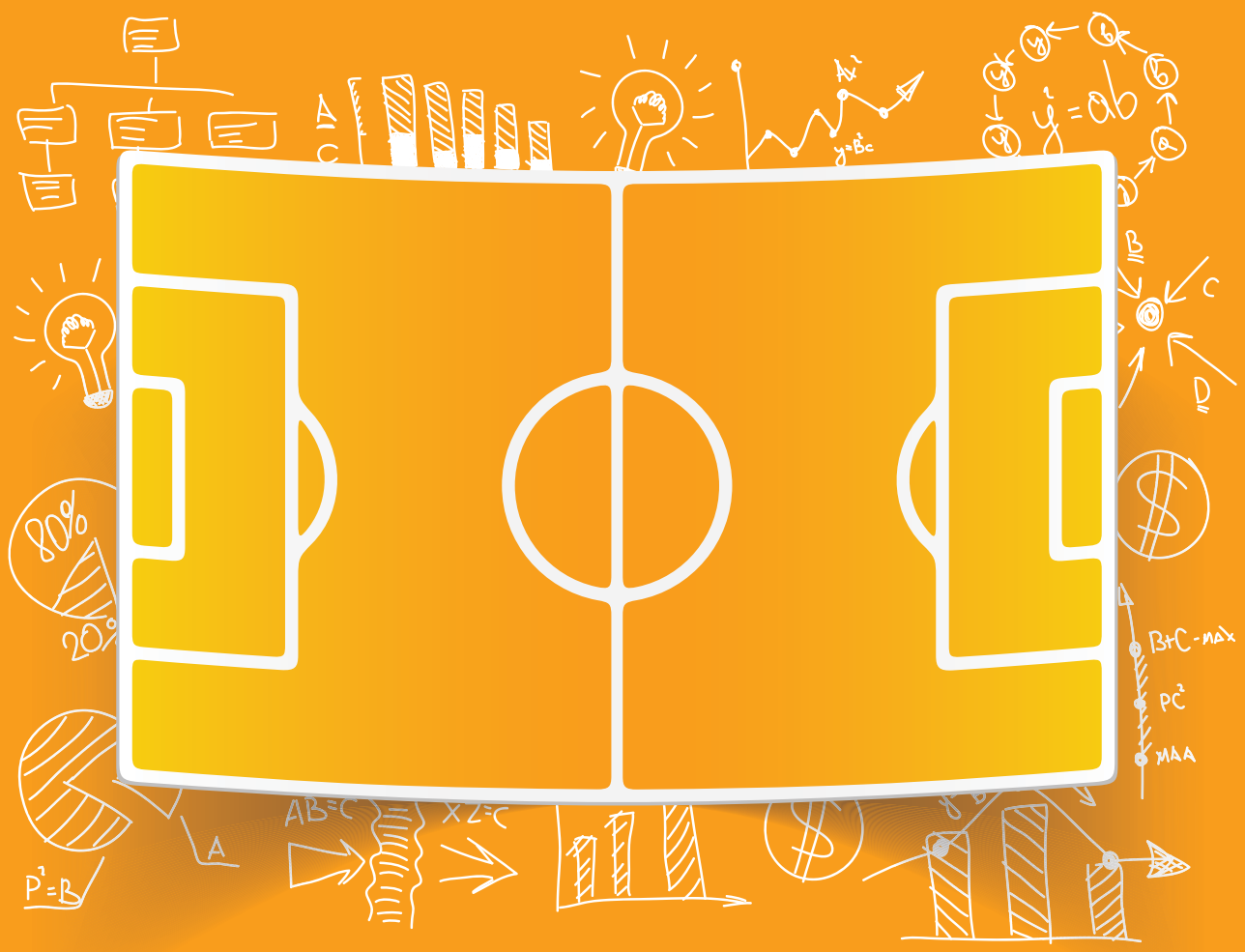
The pricing model and beyond

What if CSPs could change the pricing model in at least some parts of their business, according to the experience provided? As an example of pricing-structure innovation, General Electric (GE) traditionally sold jet engines at cost in order to make a better profit through expensive maintenance contracts. Customers had little choice but to go along, although most were not happy with the arrangement. So GE changed its pricing model, and now sells usage rights to new engines, which include spare parts and maintenance. Customers only pay for the actual time an aircraft is in use, which means GE is highly motivated to keep engines in excellent repair. The result has been a rise both in profits and in customer satisfaction.

Pricing model innovations need not be quite as dramatic as those of GE. For example, mobile operators are launching pricing that better aligns with what consumers value, including no-contract options with a financing plan for the device. Ultimately this creates a win-win for CSPs and their customers.

This feature is an excerpt from an article first published in the Ericsson Business Review. To view the entire article, visit: **http://bit.ly/1ywnv6M**

www.ericsson.com



One player picks up the bill, the other deals with the service charge

Even in the complicated data game, the old war horse of BSS can still fit the bill – with a little help from its team mates, writes Nick Booth

By tradition the business support system was built for dealing with port numbers and SIM cards. It was a much simpler game. The traditional business support system was like Dennis Smith an old school centre back in football, whose lack of mobility didn't matter as he had big neck muscles and a massive forehead, the better for heading crosses away.

When you are used to all the traffic coming in one direction, in one form, it is impossible to adapt quickly to the complex, tippy-tappy movements of the sophisticated modern content game. The fast playing fields of the modern communications service competition lend themselves to quicker, infinitely varied transactions that would make an old BSS seem statuesque. Trying to ask a BSS to keep pace with ▶

> "BSS still has a place in the CSP team, in the engine room no less, as long as it leaves all the complicated stuff to some supplementary software"

Facebook, Netflix and WhatsApp is no more practical than asking the Stoke City team of 1970 to deal with Lionel Messi's Barcelona.

So, should the traditional BSS be retired from the modern OTT game? Is it no longer capable of top billing, let alone charging?

Surprisingly the answer is no. A BSS still has a place in the CSP team, in the engine room no less, as long as it leaves all the complicated stuff to some supplementary software. That is the verdict of Jennifer Kyriakakis, the chief marketing officer and a founder of **Matrixx Software**, whose systems bridge the gap between one dimensional 'after the event' billing and the modern game of quantifying a complex variety of data types and packet lengths, in real-time.

"We can give mobile operators sophisticated options for policy and personalisation that can be communicated back to the back end CRM (customer relationship management) stack," says Kyriakakis, who describes the systems as a sort of 'surgical implant' into BSS. Once a mobile operator has cracked this challenge, it means they can slice and dice their content offerings in much finer detail. Which then means they will be able to entice new customers with delightful small packages in, say, $20 chunks, rather than the $100 commitments subscribers have to make at the moment. Being able to offer these tempting morsels will be an enormous advantage when those same communications service providers (CSPs) begin to address the developing markets.

The old BSS warhorse will need coaching for its new role, says Martin Morgan, **Openet**'s director of marketing. Charging for services, such as movies, TV shows and music, demands a change in how BSS stacks are set up. People don't buy data as a product, they buy it as an enabler to videos, music or friendly interaction, he says. Most billing and charging systems struggle to let CSPs charge for those individual items, however. When you go to the cinema, you buy a ticket for *The Hunger Games* – if the man at the kiosk tried to sell you some content you probably wouldn't pay. The same principles apply when charging for – that is, selling – communications services.

So CSPs need to think about creating better catalogues, pricing and rules. "The systems must be rules driven and easy," says Morgan. You don't need to drop your BSS, but complement it with an intelligent network charging system. This would be a midfield player with a good – rules based and flexible – rating engine, good reading of the game – a penchant for real time data collection, and good decision making powers, so it can rate on event multiple times for retail and wholesale. The real test of the new infrastructure will be if data gifting works.

It's not just about updating the infrastructure, says David Heaps, the senior vice president of corporate strategy at **CSG International**. "CSPs will need to develop partnerships with third party content and digital service providers so they can offer a broad range of chargeable content to subscribers," he says. This could involve putting chargeability at the heart of app design.

It has to be made as easy as possible for customers to buy services using a variety of different payment methods, adds Heaps. That means catering from everything from prepaid to postpaid, subscription, on demand, e-wallet, credit card, PayPal, loyalty points and even advertising funded models.

Charging is not going to be just about monitoring and extracting payment for each subscriber's bit-by-bit consumption of films, videos and voice services – as if that task was not ominous enough. In order to get full value for money from their infrastructure, companies will need to be able to layer on personalised offers and services in real-time, according to their tastes. These timely reminders will enable them to take every opportunity to subscribers, says Ravi Palepu, head of telecoms services at consultancy **Virtusa**.

Charging involves a huge amount of complexity in the back end, warns Eitan Elkin, **Amdocs**' product marketing manager for revenue management. But it's a challenge that must be met, because the most important subscribers, the millennials, expect that level of sophistication now and they are creating the demand. It's a young person's game.

Jennifer Kyriakakis: CSPs will be able to entice customers with delightful, small packages

Martin Morgan: CSPs need to think about creating better catalogues, pricing and rules

David Heaps: Chargeability could be put at the heart of app design

THE GLOBAL VOICE OF B/OSS

PRESENTS

ROUND TABLE: NFV

Network Functions Virtualisation (NFV) is an elegant concept that understandably has gained a lot of CSP attention. Join us for an in-depth guide to NFV with specialists and analysts who can deliver the answers.

The Panellists:

Glen Ragoonanan, *lead analyst for Analysys Mason's Infrastructure Solutions, Service Delivery Platforms and Software-Controlled Networking research programmes*

Ken Dilbeck, *NFV catalyst lead* - TM Forum

Sameh Yamany, *CTO and VP of Mobile Assurance & Analytics* - JDSU

Tom Conklin, *Consulting Managing Director – Cloud / NFV* - Ericsson

Guy Daley, *Director and CTO of Product Management* - Cisco

Rob Marson, *VP Marketing* - Nakina Systems

George Malim, *editor* - VanillaPlus

Wednesday 21st January, 2015
4pm-6pm GMT

vanillaplus.com

Panellists

Myth vs. reality – what virtualisation brings to BSS

Mathias Liebe separates the myths from the facts that have emerged relating to BSS virtualisation

There is a lot going on in the telecoms industry right now, whether because of the threat from more agile and faster OTT players, the fast changing dynamics in the industry or communications service providers' (CSPs) own mindsets of not to being a dumb pipe anymore. The industry has come a long way and is becoming more open to new ideas and innovation. In the course of being innovative, CSPs are looking at many different technologies but only a few of these technologies actually stand out and virtualisation is one of them.

Virtualisation basically refers to the technology used to create virtual instances of hardware platforms, operating systems (OS), network or storage devices. Virtualisation enables multiple virtual instances running on a single platform at the same time, resulting in virtualised solutions being more portable and scalable than any traditional hardware-based solutions.

CSPs are looking at virtualisation from a network perspective and are preparing for the future to maximise SDN and NFV possibilities. This is the situation for most of the CSPs as they make the transition to the services that they hope will secure their future. And many of them have not even thought about how they will adapt their BSS and OSS capabilities to this new dynamic digital services scenario. Beyond the cost optimisation, CSPs are using virtualisation concepts to transform their BSS environments to innovate more rapidly, drive new revenues and stay competitive.

The two worlds – network and IT – have to be brought together, but it is hard to point out which direction to take or who should be in the driver's seat. CSPs are already getting a head start on virtualisation by implementing SDN (software defined networking) and NFV (network functions virtualisation) technologies in their networks, but fast networks will be of no use if there is no suitable monetisation strategy in place. That's where BSS systems and the effect of virtualisation on these systems come into play. A recent survey by Telecoms.com Intelligence showed that 66% of CSPs have deployed or are planning to deploy virtualised BSS by 2016.

CSPs should work on their virtualisation strategies depending on their priority and future direction. Network and BSS virtualisation though are not dependent on one another but definitely help the CSPs to realize the full benefits of virtualisation. Mission critical applications like BSS are the cornerstone in any virtualisation strategy and should not be ignored. How and when it should be virtualised depends upon the CSP's customer demand and the individual business case. Ultimately, there is no doubt that virtualisation is the only way forward for CSPs that need to handle huge amounts of data, customer demands for new products and faster services and to stay competitive against OTT players.

The author, **Mathias Liebe,** is director of product marketing at Orga Systems

As with any other new concept or technology there are certain myths around BSS virtualisation. To separate myths from facts we have put together some myths and the facts related to each of them in our latest whitepaper 'Myth vs. Reality – 5 Myths around BSS Virtualisation'.

Please download your copy here:
http://www.orga-systems.com/wp-virtualization

Brazil welcomed more than 600,000 visitors to this year's football World Cup. Local CSP, Oi, turned to Redknee's Wi-Fi Monetization system to generate value from it's Wi-Fi investments

Oi scores with virtualised billing at 2014 football World Cup

"We supported Oi to successfully utilise our cloud-based end-to-end Wi-Fi Monetization and Offload solution, which is a strong demonstration of Redknee's commitment and focus to provide our customers with innovative and cost-effective solutions"

Oi, one of the largest mobile operators in Brazil, successfully trialled Redknee's suite of virtualised billing, charging and policy management solutions to drive roaming subscriptions and to ensure high quality wireless connectivity for those attending one of 2014's largest sporting events, the 2014 FIFA World Cup. With Redknee's system, Oi was able to better monetise its Wi-Fi investment and enhance the customer experience.

"With more than 600,000 visitors in Brazil for the 2014 FIFA World Cup, this event was a great opportunity for Oi to launch and showcase value of our Wi-Fi offering," says Eduardo Aspesi, the chief marketing officer at Oi, who highlights the capability was valuable to cost-conscious inbound roamers.

Aspesi adds that the Redknee suite helped it to create differentiation among the influx of roamers. "In addition to the increase in roaming usage seen during the World Cup, the Oi Tourist Wi-Fi pilot solution allowed us to differentiate our roaming service, offering Brazil's biggest Wi-Fi network, with more than 600,000 access points," he says.

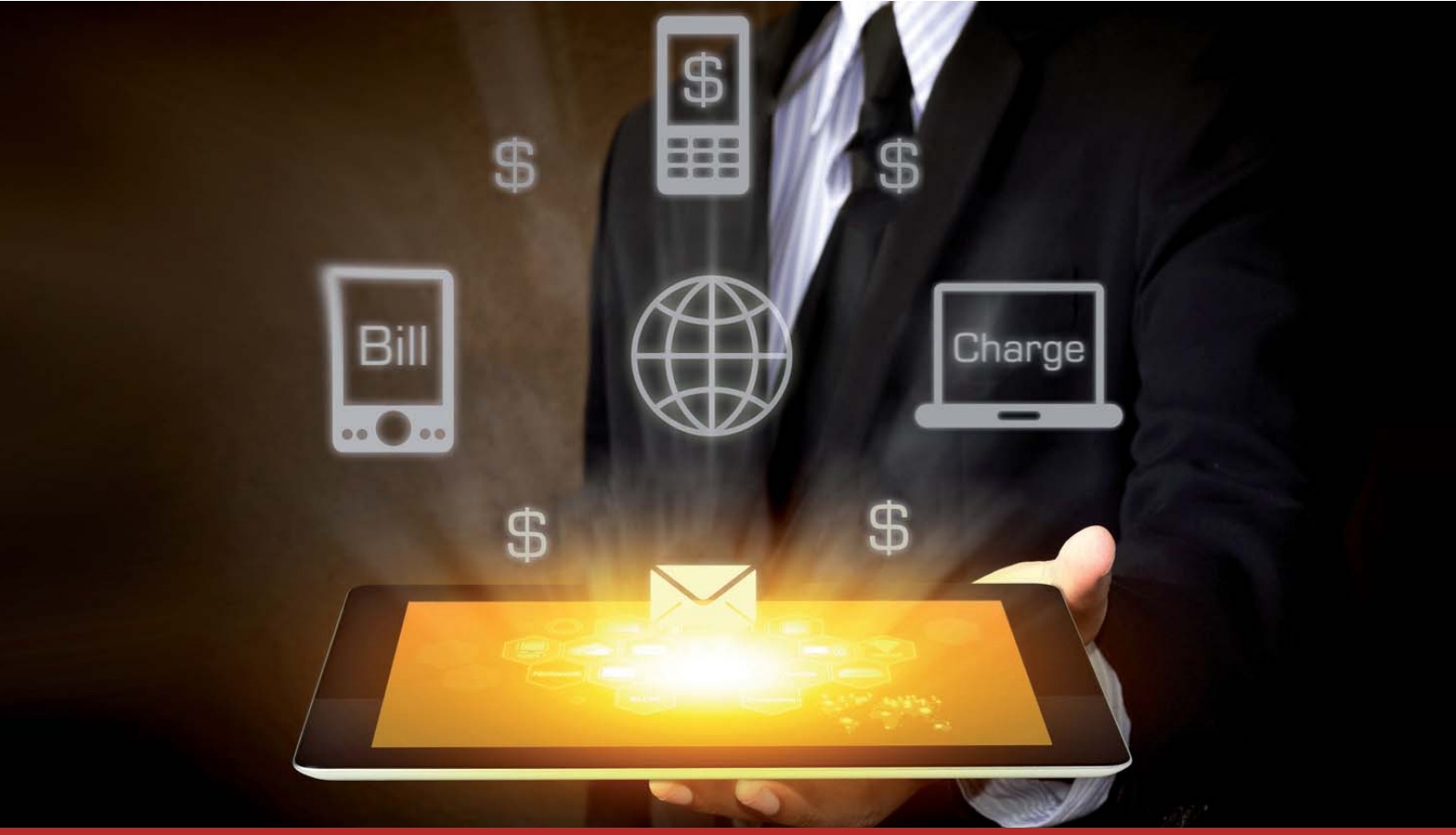
Oi was able to reduce time to market to launch new services, improve the user experience and extend revenue streams into new business lines, such as providing Wi-Fi connectivity at major sporting events with the deployment of Redknee's Monetization and Offload system.

With an aggressive timescale, Redknee's platform was implemented in less than five weeks. Launched as a cloud-based, end-to-end managed service, Oi benefitted from faster deployment and a low-risk investment strategy to drive monetisation and deliver a connected customer experience. Oi launched its Tourist Wi-Fi service, enabling it to attract international users to its network, and generate new revenue streams.

Aspesi sees the project as an unqualified success: "We consider this a true win-win scenario for our customers," he says. "Redknee's innovative Wi-Fi solution has provided us with the capability to combine our mobile and Wi-Fi network, giving a better experience to the inbound roamers."

Part of the Redknee Unified platform, Redknee's virtualised suite of solutions enables CSPs to maximise the value of their network by improving their ability to offload data traffic to Wi-Fi networks, which is a lower-cost alternative to adding expensive network capacity. CSPs can use Wi-Fi to create new revenue-generating opportunities and provide a superior service experience to their customers. Available on premise, cloud-based and as a software-as-a-service offering, Redknee delivers a complete monetisation and subscriber management solution to more than 200 service providers, including some of the largest tier one CSPs in the world.

Lucas Skoczkowski, Redknee's chief executive, adds: "We supported Oi to successfully utilise our cloud-based end-to-end Wi-Fi Monetization and Offload solution, which is a strong demonstration of Redknee's commitment and focus to provide our customers with innovative and cost-effective solutions. The launch of the Oi Tourist Wi-Fi pilot was done quickly and within the time-to-market required to capture the incremental increase of visitors during the 2014 FIFA World Cup with a unique offer. Redknee will continue to invest in our real-time software to support service providers worldwide, and advance our position as the provider of choice for monetisation and subscriber management solutions."



Orga Systems.

GOLD Convergent Charging and Billing.

End-to-end convergent charging, billing and financial management with embedded policy control

GOLD Convergent Charging and Billing is designed around a single rating engine and a unified subscriber data repository. Embedded policy control reenforces revenues from 3G and 4G / LTE data services and helps service providers to offer personalized services and move beyond flat rate pricing.

- Modular architecture for efficient deployment and seamless integration
- Full monetization of any kind of voice, data and content services
- Maximum flexibility for packaging, bundling and cross service promotions
- Fast launch of new services

Find out more about Orga Systems' GOLD Convergent Charging and Billing and contact us: www.orga-systems.com/gold-ccb

CSPs want an integrated whole when it comes to BSS that maximises revenue

Fergus O'Reilly is vice president of solution management for SAP Billing and Revenue Innovation Management at SAP. Here, he tells VanillaPlus that the impact of billing on the customer experience is at the top of CSPs' minds as they approach data monetisation both for consumer and for enterprise users

Fergus O'Reilly: Rather than continuing to patch and deploy adjunct solutions, CSPs are recognising it might be smarter to start with brand new systems

VanillaPlus: How are billing and charging impacted by the renewed focus on customer experience management within communications service providers (CSPs)?

FO: CSPs are no longer looking at billing renewal projects in isolation. Improving charging to improve time to market or to consolidate systems onto a single footprint, which have been done for years, are no longer justification on their own. For a renewal project to be approved, the customer experience always has to be impacted positively. That was always a consideration in the past but now it's vital.

CSPs want to know how they are connecting with their subscribers, how subscribers are transacting with their CSP across the multiple channels available and how billing, charging and offer management are supporting the customer's world.

VP: How are CSPs approaching monetization of data services provided to subscribers?

FO: This is happening in two main ways. One is about trying to increase ARPU from data consumers themselves and CSPs are doing this through meeting the needs of subsets of their subscriber bases such as providing families with shared data plans. They're also decoupling the cost from the service so different packages are offered for browsing and video, for example.

The other source of data monetisation is through third party alliances with CSPs. In developed countries, those are largely about CSPs providing preferred quality of service to a partner. The business relationship is between the CSP and the content provider rather than the consumer. In developing markets it's companies like Facebook which are creating alliances with operators to enable zero-rated traffic for non-smartphone users.

Both trends are happening in parallel and CSPs have got to demonstrate they can make good revenues from services that sit on top of the data services. To date, CSPs have made many efforts to build an infrastructure and service layer on top of the network. They've been quite successful with video services as an over the top service but in other areas, such as app stores, they have not had success.

Their role now is to ensure IP access is correctly monetised and maps well to user needs.

VP: How are CSPs approaching charging and billing for IoT and B2B customers in general?

FO: No one is counting bits and bytes directly on the customer's bill anymore, but there are still a lot of threshold and allowance based charging models which require systems that can count. At the billing and charging layer, CSPs are still looking very much at each individual transaction. Sometimes that happens at the mediation layer, sometimes at the equipment layer but, so long as it's counted accurately, it doesn't really matter.

Some CSPs are trying to figure out where to do the counting and where they do the charging but it's not important if it is done in a connected way. That should mean the consumer perceives they have an allotment of x for service y and a different allotment for service z. If they have a dashboard to alert them when they reach a certain level where the charging scheme is going to change, that's all that is required.

Looking at the B2B and IoT markets, the situation ▶

gets more complex because the numbers get bigger. We're no longer talking about gigabytes for individuals or family members but buckets of data shared across 50,000 enterprise employees. The scale of what you're counting changes but the billing steps are the same.

CSPs' attitudes to B2B have changed because now it is where a lot of growth and revenue is expected to come from. However, add-ons to a B2C software stack won't work well from a customer engagement standpoint. What is required is a proper B2B system that can support invoice checks and other corporate and regulatory functions. Some of the B2B process steps are quite different compared to the regular B2C business.

VP: How can CSPs derive more value from real-time data and analytics in BSS?

FO: We've worked with customers like T-Mobile US which are trying to move to having real-time insight into what's happening across their networks. In T-Mobile US's case they also want insight across their offer management and we see that in many of our customer engagements.

Our solutions can run on SAP HANA which allows both operational processing and analytics to run on the same transactional data store. That means there's no down time associated with moving data around because it stays in the same place so you don't have to correlate data and you don't lose data. This gives huge possibilities in terms of true real-time insight to action and access to full granular data. For instance, you can know which call centre agent at which time was involved and what happened previously in the customer interaction. You can also do pattern analysis which helps with discovery. The market is moving to fully using customer data to improve the customer experience and for that, big and fast data availability in real-time is fundamental.

VP: If you were starting a greenfield operation from scratch, what would you do differently?

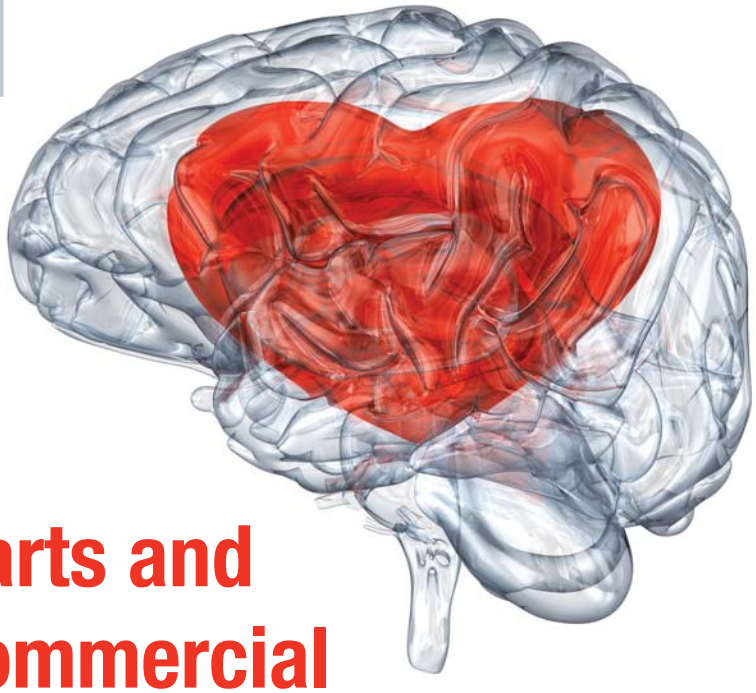
FO: The greenfield approach is something that even established CSPs are starting to consider. Rather than continuing to patch and deploy adjunct solutions, they're recognising it might be smarter to start with brand new systems on the side and migrate customers from the old system to the new.

The customer sees an improved experience while, for the CSP, it's as if they customer has migrated from one provider to another. We're certainly seeing this internal greenfield market develop and it looks like a best of suite approach. That extends from the customer front end interaction channels, through charging, billing, reporting and analytics. CSPs are trying to put everything in an integrated whole.

We're also seeing this approach in the remaining pure Greenfield opportunities that exist where CSPs also want to do as much as they can with a single software stack.

www.sap.com

EXPERT OPINION



Win the hearts and minds of commercial customers with their bill

The author, **Jeth Harbinson**, is vice president of sales at Cycle30

Communication service providers (CSPs) face a constant threat of larger comptetitors poaching their customers. To grow and defend their base, CSPs know they must improve their offering to commercial customers, but those customers have a different set of needs compared to residential customers. They need a wider selection of services and more innovative, value-based billing solutions – both for themselves as well as to offer to their own downstream customers, writes Jeth Harbinson

Working with CSPs around the world, we see a core set of services that commercial customers expect. Not every customer will order every service, but the list below is a good starting point for a basic commercial services basket.

Metro Ethernet Service Classes Carrier ethernet has significant promise beyond the backhaul business. With the ability to remotely scale bandwidth in increments from one megabit per second to one gigabit per second, Metro ethernet providers can deliver several classes of service backed by strong service-level agreements (SLAs).

PRI and Hosted PBX CSPs are also discovering they can support high demand for multiline voice services quite cost-effectively, including the commonly used 23-line Primary Rate Interface (PRI) service traditionally delivered over T1 telephone trunks. Because multiline service can be fractionalised using the digital voice capabilities of high-speed data connections, CSPs are able to offer such options on a per-line cost basis rather than the traditional one-size-(and price)-fits-all mode of PRI.

Enterprise Video The emergence of video as a linchpin of MSO operations is one of the big drivers behind demand for high bandwidth among businesses of all types. The enterprise video impact extends to marketing and training; real-time applications in surveillance, home security, distance learning, digital signage, healthcare, and video-based collaboration and conferencing; and robust file transport in advertising, motion pictures and other enterprises.

Managed Service Support for Collaboration Support for network-based collaboration across multiple locations has become another important opportunity for service providers with the flexibility to shape offerings to specific customer needs. Collaboration is a catch-all term that spans a wide range of apps and services, including messaging, webcasting, internal wikis and blogs, document management, videoconferencing and unified communications. These were once the exclusive domain of large enterprises, but now they are fundamental to doing business in the SMB sector as well.

Internet of Things (IoT) According to Forrester, 65% of enterprises report that they either have an IoT strategy already or they're implementing one, and over 80% agree IoT will be a key strategic technology. Rapid shifts in the IoT ecosystem are creating new opportunities for service providers of every description. Most profoundly, the centre of activity is shifting from mobile carriers' efforts to develop new markets to industry-generated activity in multiple sectors. IoT is now about saving money through automation. ▶

Back-Office Support for 21st-Century Commercial Services With so vast a range of opportunities, any single service provider, no matter how big, would be hard-pressed to pursue all of them at once. CSPs can pursue any and all of them incrementally over time, using initial revenues to expand into ever more usage and customer categories, provided they have an OSS infrastructure in place that facilitates an opportunistic growth agenda.

Selling value

Once you've got the basic service offering in place, you need to define your competitive differentiators.

Discounting your own services in a race to the bottom doesn't create value for your customer, and will only lead to dissatisfaction on both sides as the quality of your service declines along with the number on the invoice.

For commercial customers, there is an easy algorithm to follow: what can you offer that will make your commercial customer the most money?

One area that offers promise is offering innovative billing options for your customers.

You can offer new billing models at two levels

First you can charge for your own services in new ways. While it's tempting to offer turbo-charged versions of residential bundles with various combinations of different services, commercial customers don't want to invest time unpacking the different combos to find which is the best value.

The key instead is to bill based on value-add. We know that commercial customers crave predictability for their budgeting, so consider offering a threshold alert service to proactively let customers know they're at risk of going over budget before it actually happens.

Commercial customers also value control, so you could offer a self-serve web portal where they can see real-time usage, with the option to model how different service plans would affect their bill based on their usage trends.

But more interesting to your customers – and therefore more likely to set you apart in the market – is offering options for how your customers can bill for the services they're providing on top of your connectivity.

The best example here is IoT. With the increase in OTA (over the air) reflashing capabilities in SIMs, connectivity is rapidly becoming a commodity that can be switched in and out almost at will. While this presents an opportunity to win new business, the risk is that a competitor with more scale and lower costs will undercut you.

Your customers know they need connectivity to power their IoT strategy, and the chances are they're billing downstream, but they're probably just taking airtime or data rates and marking them up to the end customer. Yes, it's valuable to offer an easy way to manage markup and downstream bill presentation, but the real value is changing the base of how the bill is calculated.

IoT devices are all transmitting some kind of data, so consider other ways to charge than just charging by the megabyte. With a water meter, for example, why not charge by the gallon? For an automobile monitor, charge by the number of drivers using the car. For transportation or freight, charge by the number of times a truck goes off its designated route.

Offering your customers value-based billing capability secures your place in their business infrastructure. This value-based billing requires some technical sophistication, including a robust set of APIs in your BSS/OSS platform to hook into multiple data sources, then smart business logic to manipulate that data into billable events. But once the work is done – or once you adopt a platform that already has the feature set, then your relationship with your customer is safe for years to come.

Your monthly value-add progress report

Your customers should not resent receiving your bill: in fact, they should look forward to it.

Your bill is your number one communication platform to your customers, it's a progress report detailing the return on their ongoing investment in telecoms services. It should be read each month by the CFO, CTO and even the CEO, not just blindly processed by the accounts payable department.

You can offer valuable business intelligence that will help your customers maximise the use of their communications assets. How does their services mix compare to demographically similar companies? Are there anomalies in their usage patterns that warrant investigation? If they'd deployed a different value-based billing approach for their own customers, what would the financial outcome have been? Trending outward, how much money could they make in the next 12 months if they made some recommended adjustments now?

Your bill is the only opportunity to get in front of your customers with a guaranteed 100% open rate. Make the most of it.

You can offer valuable business intelligence that will help your customers maximise the use of their communications assets

www.cycle30.com

CSPs face $215 billion losses from poor back office administration

On the basis of the latest predictions on gross spend from the Telecommunications Industry Association, 4% of CSP revenues globally are lost because of poor data. That is set to amount to a $ 215 billion loss in 2014 alone – and it's essentially down to the administration of back office databases, writes Asheesh Dongre

CSPs are haemorrhaging money and business, yet even these numbers may be significantly underestimated. Get an email address wrong and significant marketing investment is wasted. Get a customer's preferences or billing wrong, and you may lose the account. Failed processes generate further, often obscure, costs. As any account manager will tell you, existing customers aren't just current contracts, they're opportunities. Opportunity loss, the contingent costs of acquisition (COCA) and churn, and replacing lost accounts are a significant burden. Even in the telecoms business, these costs are still typically underestimated and poorly understood.

This is not the only place that industry participants are bleeding cash. Another prominent source of loss is in supplier invoice reconciliation. Across vast technical estates, misalignment of data can typically manifest itself in inadequate usage of available ports, mismatched charging for circuit use and breach of SLAs. One recent case study is typical: a CSP ▶

recording a circuit as inactive, and not charging a customer, but being billed by its supplier: a triple whammy of costs, revenue loss and of perceptions by business partners.

Defensive or aggressive approaches

With Average Revenue Per User (ARPU), remaining one of the most important Key Performance Indicators (KPI), it is clearly vital to stem revenue losses by retention – making sure we don't have to reinvest in winning another customer. Continued focus on ARPU, retention and churn is no surprise that in an industry where these defensive KPIs are monitored to several decimal places.

Yet there a place for more active approaches is increasingly recognised. Competitor churn and losses of business are an opportunity for suppliers throughout the ecosystem, from consumer networks to upstream providers, to differentiate themselves and avoid commercial disputes.

Furthermore, there is significant opportunity in maintaining data to enable the next period of opportunity and growth for CSPs. This, it is generally accepted, will come from their role as the enabler of connected lifestyles, using analytics and data on consumer behaviour and real-time consumption. This is dependent on big, accessible, usable, and perhaps most importantly, clean data. We might not know how important a particular dataset will be; but poor quality data will almost certainly represent an opportunity cost.

Best practices are consequently emerging from recent data quality projects in the telecoms industry. Interestingly, these are characterised and motivated by more visionary, opportunity led, aggressive approaches to retention and innovation, as well as traditional reactive, KPI led approaches.

Best practices

Focus on opportunity: One telecoms player, operating across 170 countries and with data management challenges to match, recently exemplified this approach by recognising the opportunity implicit in a product master data management project. By developing the project so as to ensure repeatability, developing it as a template that could be rolled out across multiple BSS/OSS for different products and business areas, it recognised and accommodated the unrecognised opportunity represented by its data.

Don't get lost in micro projects: The data quality and data integrity (DQ & DI) management landscape is fast evolving. With the current emphasis on COTS and freeware, DQ & DI is regularly taking a hit, forcing CSPs to look for incremental solutions. Consequently, it is easy to get drawn into the pursuit of the aggregate of small gains, of decimal places, when there is a corresponding culture of chasing incremental improvements to ARPU. This is, potentially, at the expense of the big picture. So, whilst there are plenty of DQ tools available in the market, there isn't any framework available which can ensure 100% data integrity across the system landscape and the big picture can be neglected. CSPs are increasingly consistent in their expectations of DQ & DI solution providers, however. They seek:

- To improve automation, both now and in future
- Reusable and easily deployable components
- To reduce the cost of DQ and DI engagements

Get it right, at the start: For any CSP, it is advisable to curb data quality errors at the inception of a project. It should enforce rigorous checks to ensure that data quality is then maintained. This may be difficult, and require a significant investment of time and resources. Nevertheless, in almost all the engagements with various CSPs, one mathematical certainty is apparent: rubbish in, rubbish out. Enhancing data quality at the master system ensures that half the battle is won. Afterwards, a robust data governance framework will ensure that the data integrity is maintained.

Master unstructured data: With the arrival of big data and social media, data complexity will continue to increase in future. Yet fewer than 10% of organsations are currently equipped to manage these unstructured data sources effectively (source: NASSCOMM). The diversity of data sources, its integrity across systems and its usage across business reporting, presents a technological challenge in capturing, storing and analysing information between seemingly unrelated, large and complex data sources. As well as accommodating future opportunity, it becomes imperative to plan systematically for a robust and scalable framework for data quality management to manage data across its life journey.

Be realistic

These best practices are clearly only emerging now. The reality is that our market is so mature, and systems so distributed, interdependent and complex, that a big bang approach to curating data is unrealistic. It would furthermore introduce unacceptable risk. A methodology for incremental change has developed. The four stages of a successful data quality project have emerged as:

1) **Identify data quality failures**. In the course of data cleansing, identify what is going wrong, and where.

2) **Root cause analysis**. Whodunnit: was it system design, incorrect interface, upstream to downstream workflow? This analysis will focus on systems people and process.

3) **Define the elements of a fix**, in terms of people, process and change management.

4) **Create a keep it clean framework**. A disciplined, algebraic application of technology to check data quality and measure against KPIs.

The challenge of a cash haemorrhage due to data quality issues remains. However, in spite of the challenges of scale and measurement, there is increasing consensus on the scale and causes of loss, and on the approaches required to combat it.

The author, **Asheesh Dongre**, is practice head for data governance, data quality management and revenue assurance at Tech Mahindra

VanillaPlus Video Talking Heads

Reach a global audience with
your interview streamed from
www.vanillaplus.com

For more information contact: mark@vanillaplus.com
Tel: +44 (0) 1732 807412

Ramos to lead Central America for WeDo Technologies

Mário Ramos: Changes bring new business challenges that need to faced and handled effectively

Mário Ramos has been promoted by **WeDo Technologies** to vice president for Central America. Ramos joined WeDo Technologies in January 2013 as business development director for Managed Services before becoming a company vice president. As vice president for Central America, Ramos will be responsible for developing and executing WeDo Technologies' business development strategy in countries, including: Mexico, Panama, Cuba, Venezuela, Ecuador, Costa Rica, Colombia, Nicaragua, Honduras, Guatemala, El Salvador, Suriname, Guyana and French Guiana.

Ramos has more than thirty years' experience in business development, having held strategic roles within the IT and telecoms industries at **Digital Equipment Corporation, Hewlett Packard, Lucent Technologies, Motorola** and **Juniper Technologies**.

Rui Paiva, the chief executive of WeDo Technologies: "The pace of the multi-industry software sector in Central America is accelerating and we are seeing an increasing number of CSPs in the region ask for our help developing next-generation strategies. Mário Ramos's leadership in the region will be central to the continued growth of our international customer base. With his deep engineering experience, strong customer-oriented approach and industry track-record, he will be a valuable asset as we expand our efforts in this geographic region."

Ramos added: "The Latin American technology landscape is moving from strength to strength, with huge impact for industry sectors such as telecoms and retail. With these changes come a number of new business challenges that need to be faced and handled effectively and efficiently in order to protect both the customer experience and the bottom line. I am thrilled to be appointed for this new challenge and very happy to be based in Mexico. I look forward to working together with the team to further expand WeDo Technologies' multi-industry capabilities in the market and build on the company's position in Enterprise Business Assurance."

Andy Chan joins Neural Technologies from Syniverse

Risk management and analytics expert **Neural Technologies** has announced that it is appointing **Andy Chan**, formally of **Syniverse**, as vice president of Professional Services.

Chan was previously the vice president of the turnkey business unit at Syniverse, the Iglobal transaction processor for mobile providers. Chan will work alongside Neural Technologies' chief executive of service, **Stephen Sui**.

Chan is the latest in a number of new hires for Neural Technologies worldwide. In the last six months, the company has expanded its staffing by 20%, boosting its business analytics, commercial and support departments globally.

Luke Taylor, the company's chief executive, commented: "Neural Technologies has undergone continuous growth over the past few years and we are pleased to welcome all our new team members to support our expansion. Delivering first-class service and continually improving our solutions is vitally important to Neural Technologies, and our new employees bring with them the fresh ideas, enthusiasm and customer-focus that enables the company to go from strength to strength."

He added: "Andy will be a great asset, bringing with him 20 years' experience in the technology sector, as well as an excellent creative and customer-orientated attitude, and we all look forward to working with him as we continue with further recruitment."

eGain Appoints Rex Dorricott as general manager for EMEA

eGain, a provider of cloud customer engagement solutions, has appointed **Rex Dorricott** as general manager for EMEA. As part of the executive leadership team, Dorricott will drive business performance and customer success for the region. He will also continue to oversee eGain's management and analytics products.

Dorricott was the chief executive of **Exony** until its recent acquisition by eGain, guiding the company to a leadership position in the contact centre management and analytics market. He brings to eGain a strong track record of business success and technology innovation with more than 20 years of experience in the industry.

"Over the past three months, I've been impressed by Rex's effective leadership in driving rapid change through influence and example. As a result, we have successfully integrated Exony with eGain much faster than planned. In his expanded role, Rex will lead our EMEA leadership team to accelerate and optimise our execution," said **Ashu Roy**, the chief executive of eGain.

Upcoming events

Customer Experience Management in Telecoms Global Summit
26-28 January, 2015
London, UK
Organiser: IQPC
www.customerexperienceevent.com

Mobile World Congress 2015
2-5 March, 2015
Barcelona, Spain
Organiser: The GSM Association
www.mobileworldcongress.com

Monetising OTT & Mobile Content
25-27 March, 2015
London, UK
Organiser: IQPC
www.monetisingott.com

LTE Latin America and Network Virtualization and SDN Latin America 2015
7-9 April, 2015
Rio de Janeiro, Brazil,
Organiser: Informa
latam.lteconference.com

TM Forum Live!
1-3 June, 2015
Nice, France
Organiser: TM Forum
www.tmforum.org

MOBILE WORLD CONGRESS
BARCELONA 2-5 MAR 2015

Driving a common approach to IoT

The GSMA's Connected Living Programme is designed to help CSPs accelerate the delivery of new connected devices and services in the M2M market, which is set to reach 244 million global connections this year according to GSMA Intelligence. Graham Trickey, the head of Connected Living at the GSMA, says it wants to enable the Internet of Things (IoT) and create an environment where consumers and businesses can enjoy rich new services that are connected by an intelligent and secure mobile network

We've experienced significant momentum in recent weeks with the announcement of two initiatives designed to accelerate the adoption of M2M services and ensure mobile networks are safe guarded as the IoT grows. The GSMA Embedded SIM Specification was first released in December 2013 and has now received the support of leading global CSPs and ecosystem partners who have all announced solutions compliant with it. The specification facilitates over-the-air CSP provisioning which allows mobile network operators to provide scalable, reliable and secure connectivity for M2M connected devices that are often hermetically sealed. It highlights that the industry is moving towards a single, common and interoperable specification that will accelerate the M2M market.

We have also published 'IoT Device Connection Efficiency Guidelines,' that outline how devices and applications should communicate via mobile networks in the most intelligent and efficient way. The guidelines are intended for use by all players in the mobile ecosystem and have been formed to ensure that mobile networks can efficiently accommodate and support the ever-increasing number of connected devices and services that we're seeing with the rapid growth of M2M.

The GSMA continues to work closely with its CSP members on both of these initiatives, which are already having an impact across the industry. If we unite all stakeholders behind common global standards, we can accelerate the growing M2M market and deliver the positive benefits to everyone.

This and many other issues affecting the further development of mobile will be explored, discussed and demonstrated at Mobile World Congress 2015. Don't forget the dates have changed so this year's event will happen on 2-5 March, 2015. The venue remains the same at Fira Gran Via, Barcelona, Spain.

www.mobileworldcongress.com

Do customers really want all these choices?

Are data plans devious schemes that CSPs devise and run for as long as they can get away with them, asks Nick Booth

If there's one thing guaranteed to drive me away from a company, it's a loyalty scheme.

I sometimes wonder if the marketing geniuses who dream up customer loyalty campaigns have seen too many Hollywood heist movies, featuring glamorous grifters pulling elaborate scams. What they fail to notice is that the con men in films such as The Sting, The Spanish Prisoner and The Grifters usually have some saving grace in their complex characters. Being portrayed by heart-throbs like Robert Redford and John Cusack also helps. They'll get a more sympathetic emotional response to their tricks than would be extended to Darren in CRM from Slough.

The crucial difference is that the lovable confidence tricksters don't want any repeat business from their 'marks' (as victims are known in the grifting profession).

By contrast, having gained our confidence, supermarket brands want us to come back every week. But there are few customers of major retail brands who haven't become first irritated, and then insulted, by the marketing policies of these grocery behemoths. We've all read at least one national newspaper report about price manipulation. We all know that BOGOF deals (buy one get one free) are no more a bargain than when two buses come along together. We don't like being forced to buy two things when we only need one.

Which is why discounters are taking all the customers in the grocery trade. Their prices are cheaper, because they have a limited range of brands on offer. All of which conspires to make buying from them much less stressful and mortifying, in spite of the long queues.

Communications service providers are experiencing a similar response from their customers, according to the feedback we are hearing from the likes of Amdocs, Virtusa, Guavus and Matrixx Sotware.

While all-you-can-eat billing is inefficient and unworkable, people sometimes prefer that to the alternative, which plunges them into one of those complex buying decision situations that most of us dread. How many people know how much capacity they will need in order to watch a high definition film on their iPad? Only Eitan Elkan knows, and that's because he markets revenue management products for Amdocs. And Elkan only knows, he confessed, because he looked it up while looking for good material for a rhetorical question.

Nobody wants to be over-charged but on the other hand few of us want to study a complex menu of tariffs based on seemingly intangible variables such as quality of service.

The choices for consumers should be simple. Which proposition would you understand better: five hours of music, or 100 songs?

Simplicity is the elusive quality that Australian CSP Telstra seeks as it embarks on its ambitious Digital First strategy to convert 80% of its subscribers into self-service customers, whereas today that's the proportion of the customer base that has to be supported via a call centre.

This, according to Matrixx Software co-founder Jennifer Kyriakakis, will be more of a business challenge than a technical one for CSPs. To be online and digitally focused will involve a change in every level of internal processes. If they can pull it off, they will make a massive saving. Getting customers to input their own choices into a system costs pennies, compared to the megabucks involved in renting call centre office space and employing staff.

As a loyalty card user, I'm entitled to skip the queues and scan my own goods at a supermarket. That must save them a bit on staff but they don't seem to have passed any benefits on to me. Instead, they insult me with devious price hikes, dressed in the red sticker uniform of bargains.

I hope the CSPs don't repeat this dreadful mistake of scamming their customers, because we will eventually rumble the scam. And then we'll all BOGOF somewhere else.

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