Vanilla PLUS
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DRIVING PROFITS FOR COMMUNICATION SERVICE PROVIDERS

TURN MAGAZINE OVER FOR 18-PAGE CEO GUIDE TO MANAGEMENT WORLD AMERICAS 2012

# TALKING HEADS

**Cycle30 chief says billing providers must improve customer service to meet the needs of CSPs**

## POLICY MANAGEMENT

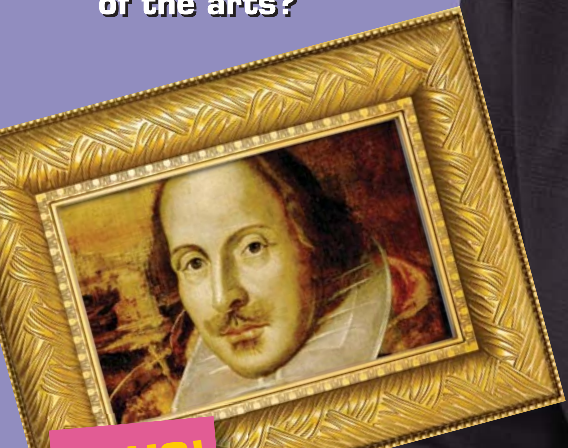
How CSPs are moving on from throttle and choke

## MAY I BE DIRECT?

Why direct billing can re-insert CSPs in the digital value chain

## CLOCKING OFF!

Should CSPs be the new patrons of the arts?



## MASSIVE BILL SHOCK

The €11.721 quadrillion bill is presented

**PLUS!**

Ericsson buys ConceptWave • Swisscom signs MATRIXX real-time charging deal • Oracle launches Elastic Charging Engine • MTN improves number utilisation • Who's winning in the Contract Hot List • What's going on when • Read the latest OSS & BSS news online now at www.vanillaplus.com

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Cycle30 provides a hosted order-to-cash billing platform for cable, wireless, telecommunications, utilities and machine-to-machine services. It empowers service providers to focus on their customers, while Cycle30 handles the billing operation. The Cycle30 platform includes customer management, service fulfillment, billing and revenue management, service assurance, integrations and business intelligence. Cycle30 is a US company, headquartered in Seattle, Washington, with data centre facilities across North America and beyond. **www.cycle30.com**

## IN THIS ISSUE

George Malim, Editor: VanillaPlus

# An unlimited mobile experience, madam? That'll be €11.721 quadrillion, please

The CSP sector has done it again. Just as warmer sentiment among consumers was starting to emerge as the iPhone 5 and 4G started to hit European shores, a back office error has created bill shock to a degree that is frankly laughable.

Solenne San Jose, a French woman who had recently cancelled her subscription to Bouyges Telecom following losing her job, received a final bill for the outrageous sum of €11,721,000,000,000,000 – nearly six times France's national, annual economic output.

Ms San Jose was aware that there would be a penalty for the early termination of her contract but nevertheless was understandably perturbed by the size of the sum. She called in to the CSP's customer services and was helpfully offered an opportunity to pay the balance off in installments. It is not known whether Bouyges suggested something more readily manageable for a newly unemployed teaching assistant such as €1bn per month. Even if they did, she would not be able to pay off the balance in her lifetime.

The saving grace here is that sum is so ridiculous that CSPs can avoid accusations of inflated charging for mobile services. Yet on a more serious note it is clear that CSPs still haven't perfected their billing or customer care. The real sum owing was €117.21 – not great news for a newly unemployed customer but acceptable given the early termination of a contract. The addition of twelve noughts might seem to be a fairly mundane error and Bouyges has attributed it to a printing mistake but I fail to recollect a time when noughts have been added to my bank statement or my pay slip. Printing technology generally provides a pretty accurate image of the data it is supplied with.

Worse is to come. Bouygues initially told Ms San Jose there was nothing it could do to amend the computer-generated statement and only after further calls admitted the true sum before finally waiving it all together and apologising. The lack of authority or will in the call centre to react to a customer's concern and deal with it effectively is evident here.

This error simply should have been spotted by all sorts of systems within the CSP. That failure was then compounded by the woeful lack of effective response by customer care. In a saturated western European market CSPs can't afford to make such errors. Imagine the business impact if the customer had not been an unemployed teaching assistant but instead been a multinational corporation.

Adding twelve noughts to their bill could see a contract worth millions of euros walk out of the door.

Enjoy the magazine

George Malim




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## Ericsson acquires Canadian order management specialist ConceptWave

Hans Vestberg's Ericsson continues to acquire OSS/BSS assets

Ericsson has acquired ConceptWave, the Canadian provider of order management and product catalogue systems, in an all cash transaction. The company was founded in 2000. No financial terms have been revealed.

Speaking exclusively to VanillaPlus on condition of anonymity, a senior ConceptWave executive said: "We are excited about the opportunity. The product fit will be good for Ericsson, and we are looking forward to more exposure in the market. The Ericsson backing will allow us to compete better."

Ericsson, led by chief executive Hans Vestberg, believes the acquisition will strengthen its OSS/BSS portfolio by adding systems to improve its support for activities related to personalisation of end-user offerings and revenue management solutions. However, Ericsson's recent US$1 billion purchase of Telcordia – which also has order management capability, suggests there may be some overlap to be addressed as the businesses integrate. In addition, the bulk of ConceptWave's customers are in North and Latin America, regions in which Telcordia is strong.

The move may cause concern for network equipment providers that partner with ConceptWave for order management and catalogue. Rival vendor Tribold now claims it is the only independent provider of product catalogue systems.

Elisabetta Romano, head of OSS in the Business Unit Support Solutions at Ericsson, said: "There is a trend towards more personalisation of services where end-users want to purchase communications services meeting their individual needs. This puts high demand on telecoms operators to be able to offer flexible product bundles with customised pricing packages. In this area ConceptWave's solutions and employees' expertise adds considerable value to Ericsson's portfolio."

Zarar Rana, president and CEO of ConceptWave, added: "Joining Ericsson today adds great value to ConceptWave, as we become part of their global organisation."

## Amdocs survey finds the who owns the customer battle continues

Amdocs has released the findings of a global survey that explores attitudes toward partnering between three groups that help to define the customer experience: communications service providers, over-the-top (OTT) players – such as streaming video providers – and device manufacturers. The research found that each of these groups acknowledged the importance of forming strategic partnerships to achieve business growth – even though each is heavily invested in owning the all-important customer experience.

The survey found that the battle continues over who owns the customer: 66% of service providers say they must own the customer in any partnering agreement, while only 13% of device manufacturers and 14% of OTT players are prepared to envision a future in which they cede ownership of the customer experience.

Service providers increasingly see OTT players as potential partners and sources of innovation: counter to conventional wisdom, the survey found that 70% of service providers view OTT players as potential partners, rather than a threat. 64% of service providers say that OTT players bring innovation to the industry. And yet, 42% of service providers said they could offer any service an OTT player can deliver – but better. 74% of OTT players and 73% of device makers are willing to expose and share their core assets. 56% of service providers are also willing to do so.

## NEWS UPDATE

### Openet wins summary judgment in Amdocs patent suit

A US Federal court in Alexandria, Virginia, has granted summary judgment for Openet in a lawsuit filed by Amdocs. The court found that Openet software does not infringe Amdocs' patents.

The suit, filed on 16 August 2010, alleged that Openet infringed two US patents owned by Amdocs. Two additional Amdocs patents were added to the case in January 2011. The suit sought damages and an injunction against the sale of certain Openet products.

After extensive discovery of documents and deposition testimony of witnesses, Judge Leonie Brinkema of the Eastern District of Virginia denied Amdocs' claim. Her ruling found that none of Openet's products infringed the four patents in question.

"We welcome the court's decision," said Openet CEO Niall Norton. "This judgement vindicates our strategy of innovation over litigation. I would like to express our sincere appreciation for the tireless efforts of our staff and legal team during this process."

Amdocs had made no comment when this article published.

### Allot Communications completes acquisition of Oversi Networks

Allot Communications has completed its acquisition of Oversi Networks. Oversi is a global provider of rich-media caching and content delivery solutions for internet video and peer-to-peer (P2P) traffic.

The acquisition is expected to enhance Allot's vision to integrate the widest range of critical value-added services in its Allot Service Gateway. Allot now enables operators to implement comprehensive video strategies by integrating caching with a portfolio of video services including video optimisation, analytics and tight integration with both policy and charging. The Allot Service Gateway enables wireless and wireline service providers worldwide to quickly and efficiently drive new revenue sources and to effectively manage the ever-increasing volume of video traffic on their networks.

NEWS UPDATE

## MTN improves number utilisation with Evolving Systems DSA

MTN Nigeria, the largest and most profitable operator within the MTN Group, has deployed Evolving Systems' Dynamic SIM Allocation (DSA) solution, to provide improved number utilisation through automatic number allocation and reduced network overhead costs.

DSA will allow MTN to achieve more efficient use of its network capacity and load balancing across its Home Location Registers (HLRs). By using the solution, MTN will also achieve number allocation efficiencies, as numbers do not have to be predefined on the HLR.

Until now, MTN had used a traditional pre-provisioning approach for new SIM cards. This means it had to buy its numbers from the national regulator and pre-load them on its HLRs. The new system means that it will no longer have to buy numbers as frequently as before.

"We are confident that, moving forward, Evolving Systems' DSA solution will be key in enabling us to drive new operational efficiencies and keep costs down as we roll out SIM cards across the country," says Basit Arogundade, general manager IS, Business Planning and Solutions Architecture, MTN Nigeria.

## Vodafone Czech Republic selects Astellia for quality optimisation

Astellia, which provides monitoring solutions for the optimisation of mobile network QoS and QoE, has been chosen by Vodafone Czech Republic as a main partner for testing and maximising its network performance in the context of its three-year equipment swap project. The contract will enable Vodafone to ensure fast and successful replacement of more than 40 BSCs in its 2G network and deliver the highest customer experience to its subscribers.

This particularly complex and time-sensitive project requires both a strong expertise in RAN optimisation and a vendor-independent monitoring solution.

# Swisscom selects MATRIXX Software for real-time charging

Dave Labuda: Eliminate the limitations of current real-time solutions

Swisscom has chosen MATRIXX Software to provide its Charging Engine to support real-time rating, charging and balance management for its prepaid and postpaid mobile subscribers.
As part of the selection process, Swisscom ran rigorous end-to-end trials for performance, network grade reliability and functionality. The trials included Swisscom's current and future convergent pricing models incorporating complex business hierarchies, shared bundles and balances and family plans. The MATRIXX Charging Engine delivered the same high performance and low latency across all pricing and subscriber scenarios. This enables Swisscom to use the engine as a convergent charging platform to spearhead competitive differentiation.

As Swisscom capitalises on the growth in mobile broadband services and the implementation of LTE, it recognized the need to manage usage in real-time across all subscribers and services. To achieve this, Swisscom required a new generation of Online Charging System (OCS) that can cost-effectively handle the exponential growth in session authorisations created by smartphone apps and LTE signaling. Session growth is an issue that is causing headaches for many CSPs trying to find ways to handle the signaling storm on their 3G and LTE networks.

"MATRIXX Software's Parallel-MATRIXX technology is the core innovation that differentiates its products," said Bram Van der Zwet, Head of BSS/OSS Architecture at Swisscom. "After extensive testing, it clearly demonstrated a breakthrough in the technology required to enable CSPs to deploy Online Charging as a ubiquitous solution. As we roll out LTE, MATRIXX Software has an unparalleled solution that can deliver the real-time charging capabilities we need, including support for large enterprise customers and sophisticated post-paid pricing plans."

Dave Labuda, Founder, CEO and CTO of MATRIXX Software, added: "Our Parallel-MATRIXX technology eliminates the limitations with current real-time solutions and combines high performance, broad functionality and efficiency on a single platform. We're very proud to have been chosen by Swisscom, an innovative and visionary operator who recognises the need for new technology to move the industry forward and solve critical CSP challenges."

# Oracle Communications launches Elastic Charging Engine with three billion events per hour processing

Oracle has announced the availability of Oracle Communications Elastic Charging Engine, a real-time engine that the company claims can process all the world's phone calls on a single Oracle Exalogic Cloud system. The Elastic Charging Engine offers real-time rating and balance management capability and can process more than three billion events per hour on an Exalogic system.

Oracle claims the solution: Processes all rating events rapidly by co-locating data and processing logic within cluster nodes; if one node goes down, the data already exists in backup in another; Provides automatic high availability through the low level replication of data and process; Enables CSPs to accommodate peak demand, such as high call volumes on New Year's Eve, by quickly expanding capacity without service interruption and retracting capacity when demand spikes subside; and Has been tested, benchmarked and certified to run on Oracle Exalogic Elastic Cloud.

"CSPs must invest in operational capabilities to better position themselves to deliver a personalised user experience and monetise new service offerings," said Shira Levine, directing analyst for next gen OSS and policy at Infonetics Research.

Bhaskar Gorti, senior vice president and general manager at Oracle Communications, added: "This next evolution of the Oracle family of rating and charging solutions is an exciting step forward for communications service providers. It enables both large and small operators to scale their billing systems to support next-generation communications services, including data-intensive and machine-to-machine transactions."

## Surjeet Singh appointed managing director of Subex to replace Subash Menon

Subash Menon: Focusing on other business interests

**Subex**'s founder **Subash Menon** has resigned as managing director and CEO, following completion of the company's restructuring of its Foreign Currency Convertible Bonds. He will continue in the capacity of a non-independent director of the company.

Commenting on the development, Menon said "With the restructuring of FCCBs complete, I have decided to focus on my other business interests and hence this move."

The Board of Subex has appointed **Surjeet Singh** as managing director and CEO of the company with immediate effect. Singh has more than two decades of multi-industry global experience in the finance, corporate development, business planning and global operation functions. He has a successful corporate and entrepreneurial track record of building organisations and fostering collaboration in large and culturally diverse cross-functional teams.

Prior to his recent short engagement as president of international business at **Glodyne DecisionOne**, he was the chief financial officer of **Patni Computer Systems** where he played a key role in shaping business transformation and maintaining the highest standards of governance. Singh was also instrumental in enhancing shareholder value during his tenure at Patni. Prior to this, he was part of the founding team of **Cymbal Corporation**, a mid-sized telecom BSS systems integration boutique from the Silicon Valley, which was acquired by Patni in 2004.

"I am excited at the opportunity to serve a leadership company which is one of the largest IP led services businesses out of India," said Singh. "Subex has been at forefront of innovation from its inception. I look forward to working with closely with all Subex employees, customers and investors to charter its new growth phase and maximize value for all stakeholders"

## Sigma Systems promotes new regional executives

**Sigma Systems** has announced several new executive appointments to support the company's regional alignment. **Jackie Berg** has been promoted to vice president and managing director for the Americas, **Jonathan Smith** has been appointed vice president and managing director of EMEA and APAC and **Mark Flynn** has been promoted to associate vice president of service and delivery.

"Sigma has made significant investments in providing our customers with the teams and tools to address their specific challenges and to be competitive in their marketplace," said Tim Spencer, Sigma's president and COO. "These executive appointments will enable us to further align and enhance our regional sales, support and service capabilities, bringing more personalised and strategic support and resources to our customers."

Berg will oversee all sales and regional services delivery for North America and CALA. Previously, Berg led the global sales team in developing a strong customer base across the Americas, Europe, and Asia-Pacific regions.

Smith will lead the company's sales and regional services delivery throughout the APAC region. A seasoned sales executive, Smith spent twelve years with **Ericsson** in roles of increasing responsibility before taking on the role of managing director of EMEA at **Convergys** where he quickly transformed the business and won new customers such as Skype, Ziggo and DHL while expanding existing business with customers such as Virgin and UPC.

Flynn has directed Sigma's technical support and customer training offerings for the past several years. In his new role, Flynn will oversee quality and delivery across the customer solutions development, project control office and technical support.

## Appointments in brief

### Payments specialist Jumio hires Orlando to lead sales

Online and mobile payments and ID verification company, **Jumio** has appointed **Michael Orlando** chief sales officer. Orlando brings more than 22 years of experience in the growth and development of successful teams and companies to Jumio, where he will be responsible for overseeing all aspects of sales operations and the customer experience.

Most recently, Orlando served as senior vice president of global sales and services at **CyberSource**, where he oversaw all enterprise sales and professional services functions worldwide. During his tenure, Orlando was responsible for driving revenue growth from US$35 million to US$340 million.

A trusted senior executive, Orlando has played a critical role advising CEOs, executive teams and boards of directors regarding strategic business decisions. Prior to his role at CyberSource, he held a variety of sales positions in a number of technology companies, including **AVT Corporation, Comdial, Nitsuko America** and **Inter-Tel**.

### Netadmin Systems expands with German agent

**Netadmin Systems** has continued to expand its reach in Europe with the appointment of an independent business consultant in Germany.

**Robert Knaf** has more than 20 years experience in the ICT industry and has held various leadership positions in sales and marketing teams, for **Siemens, BT** and **o.tel.o**. Knaf has been working as a freelance consultant over the past ten years and will now work as an official agent to drive Netadmin sales, operations and business development across the country.

Torbjorn Sandberg, CEO of Netadmin Systems, said Knaf's knowledge of the sector and his experience brings invaluable energy and will continue the company's expansion into German next generation networks. "We are certain Robert's connections and industry experience will help us to expand into Germany," he said. "We are seeing this change now though and expect his dedication and prior experience to help us gain a real foothold in an important region."

## VanillaPlus Hot List: November/December 2012

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 (Duration & Value) | Awarded |
|---|---|---|---|
| Aircom International | Zain, Kuwait | Selected to provide network planning and optimisation solutions to deliver insight into entire network performance | 9.12 |
| Alcatel-Lucent | Belgacom, Belgium | Deployment of Service Quality Manager to enable CSP to offer mobile service quality guarantees to enterprises | 9.12 |
| Amdocs | Reliance, India | Deployment of Amdocs Customer Management 8.1 to improve customer experience for 150 million subscribers | 9.12 |
| Amdocs | Rostelecom, Russia | CSP chooses Amdocs to modernise and consolidate customer management systems to gain a unified view of customer-related activities | 9.12 |
| Astellia | Vodafone, Czech Republic | Radio access network optimisation solutions and services as CSP embarks on three year equipment swap project | 9.12 |
| Cerillion | Columbus Communications, Caribbean region | Deployment of convergent CRM and billing solution in Curucao, Grenada, Jamaica and Trinidad | 10.12 |
| Comarch | MobileOne, Germany | Provision of BSS platform to MobileOne, a Turkcell Europe MVNO serving the German market | 9.12 |
| Comptel | Telefónica, Argentina | Vendor choses as sole mediation platform for more than 130 million daily transactions | 9.12 |
| Comptel | Mobilink, Pakistan | Contract extension for provisioning and activation for Pakistani cellular provider with 35 million subscribers | 10.12 |
| Evolving Systems | MTN, Nigeria | Dynamic SIM Allocation system to provide improved number utilisation through automatic allocation | 9.12 |
| Huawei | Vimpelcom, Russia | Five-year managed services deal encompassing end-to-end network management, network assurance and spare parts management | 9.12 |
| InfoVista | Tunisiana, Tunisia | Deployment of VistaInsight for Networks to monitor availability, traffic load and saturation of 10 gigabit IP backhaul network | 9.12 |
| MACH | Thumb Cellular, USA | Implementation of MACH's Inter-Standard Roaming (ISR) solution ot enable international roaming for postpaid subsribers | 9.12 |
| MACH | Chat Mobility, USA | Implementation of MACH's Inter-Standard Roaming (ISR) solution ot enable international roaming for postpaid subsribers | 9.12 |
| MACH | NorthwestCell, USA | Implementation of MACH's Inter-Standard Roaming (ISR) solution ot enable international roaming for postpaid subsribers | 9.12 |
| Matrixx Software | Swisscom, Switzerland | CSP chooses Matrixx Charging Engine for real-time rating, charging and balance management for pre and postpaid users | 9.12 |
| Mobixell Networks | Safaricom, Kenya | Deployment of Mobixell Seamless Access mobile data traffic management solution for 19 million subscribers | 10.12 |
| NetAdmin | Open Universe, Sweden | OSS system to automate service fulfilment processes on behalf of Telenor-owned CSP | 9.12 |
| Oracle Communications | VimpelCom, Russia | Deployment of Oracle Converged Applications Server to host 'Black & White' call manager service | 9.12 |
| Redknee | Step Up Mobile, USA | Cloud-based billing and customer care solution provided to US MVNO | 9.12 |

CONTRACT NEWS

## Anritsu chosen by UL for the UK's first commercial LTE test facility

UL (Underwriters Laboratories) has chosen Anritsu as its provider for Long Term Evolution (LTE) telecoms equipment, becoming the first commercial independent LTE conformance test facility in the UK. Over the past six months UL has invested over US$4 million at its Basingstoke base to create what it claims is the most complete LTE test facility in the country.

"UL's investment is a clear demonstration of commitment to LTE advancement both within the UK and globally," said Robert Graham, head of Cellular Approvals, UL Verification Services. "Choosing Anritsu was an easy decision. Anritsu has a clear lead in LTE cellular conformance systems, with the largest test case coverage and a proven commitment to work with their customers."

UL's choice of Anritsu ME7873L and ME7834L platforms allows customers to have access to the maximum coverage of validated test cases across the highest number of bands. UL now offers the necessary conformance requirements for the GCF, is a primary laboratory for PTCRB and can offer network operator approvals for Europe, North America and beyond.

Anritsu offers the highest coverage of test cases, but according to Bob Kersey, Anritsu's director of marketing for wireless protocol test: "The real benefit from the system is the value it adds. Anritsu offers unique features such as floating licences and parallel testing to maximise the efficiency of the test assets and lower the overall test time. This results in real value to our customers."

# If CSPs get the commercial order-to-cash process right, they can offset lost consumer ARPU

Jim Dunlap is president of Cycle30, a provider of a hosted platform for scalable and reliable converged billing that includes convergent charging, rating and balance management for existing and emerging services across a variety of markets. The platform addresses point-of-sale, self-care, roaming, pre-paid wireless, inventory management, invoicing and other functions today's cellular and wireless providers need for a complete order-to-cash billing platform. Developed in response to the requirements of its parent company, North American cable provider GCI, Cycle30 is now offering its system to service providers of all types. Here Dunlap tells VanillaPlus how the company is developing solutions to target the M2M market and is moving beyond its home base of North America.

Complex commercial billing is becoming a big differentiator for CSPs

**VanillaPlus: As a relative newcomer to the billing market, how have you found 2012?**

**Jim Dunlap:** It's been a really exciting year. For a young, dynamic newcomer to this market is has been a really great year in terms of the number of contacts we have made and in terms of the excitement around the Cycle30 platform. We've had considerable interest in the areas we had identified as having potential and that has proven out. These are now areas in which we have the opportunity to be wildly successful.

**VP: Which area would you single out as the one that you can bring the most to?**

**JD:** The commercial space holds a massive opportunity. The existing billing providers are doing a pretty poor job of serving that area and probably represents the greatest opportunity for us to provide a platform for CSPs to serve commercial enterprises.

That starts with offer management and continues through order management, workflow processes and goes all the way through to the ability to do hierarchical complex, converged billing. We've identified a very interesting niche and it's one that's very often overlooked. The majority of sales prospects we're dealing with right now are for critical commercial opportunities that can be translated to consumer opportunities in the future.

We're interested in this sector because it is both an underserved market and we can address it well today because it is our heritage. Our parent company, GCI, has a very, very significant commercial base with ▶

customers like British Petroleum, the State of Alaska and Wells Fargo as customers. We are supporting those customers today.

**VP: Why is the attention suddenly on commercial or enterprise billing?**

**JD:** Complex commercial billing is becoming a big differentiator for CSPs. Instead of focusing on fighting churn and low consumer ARPU, you can replace these kinds of revenue and margins by having a robust and growing enterprise sector.

This is a great opportunity because the needs of the commercial market are different to the consumer sector. The customer knowledge and expectations are higher in the commercial sector and this leads to a more significant set of requirements that need to be fulfilled by the billing platform. The challenge is about how you can apply a set of different technologies to be used in new and different ways and effectively secure enterprise customers for the long term.

**VP: What other areas do you see as large opportunities for Cycle30?**

**JD:** We continue to be enthusiastic about the opportunities that exist in the M2M market. Every week we hear of some new solution being developed, launched or in the proof of concept stage. These solutions seem to be an endless stream of value added products and services and involve every industry imaginable. We're currently looking at solutions in petroleum, public works, health care and consumer sectors, but the breadth of solutions

What we've developed is a two-tier approach. Our full-blown proposition includes complex billing, rating and taxation and is able to scale massively in terms of the number of transactions it supports

M2M will touch is staggering. We continue to be very excited about our ability to bring value and monetise these services.

We want to continue to work with our partner Arrow Electronics to broaden the range of products we take to market and to develop models for specific industries. We continue to talk with many, many other solutions providers as well.

**VP: So how do you address the fragmented demands of the M2M sector? It seems to me that there are so many variables in terms of the services and industries and business models involved.**

**JD:** What we've developed is a two-tier approach. Our full-blown proposition includes complex billing, rating and taxation and is able to scale massively in terms of the number of transactions it supports. A utility company is a good example of a suitable application for it but, at the lower level, we've developed a simpler model of our platform. With that, we have the ability to bring customers rapidly onto our platform and do simple billing on a monthly recurring model.

Another example is in situations that involve multiple data sources, complex reporting or analytics. We've approached that with a two-tier solution as well.

You can't take a one-size fits all approach, you have to have the ability to scale up or down and address varying degrees of complexity. That's what is so neat about our platform. We're finding in the M2M market that the upper tier of billing vendors have massive infrastructure in place and are finding it hard to turn their ships to address this high transaction volume market. Our competitors are finding it challenging to make the necessary changes to their value proposition to serve the M2M markets. We are well situated to succeed in this sector and are enthusiastic about its potential.

**VP: M2M is still in its early stages – do you see it turning a corner into the mainstream now?**

**JD:** We see M2M as a longer term play. We recognise this is enormous opportunity and are making investments that we believe will pay off handsomely in the future. We are working selectively with our partners to invest and develop solutions including proof of concept and ROI models. It's a great sector and we continue to believe strongly in it.

**VP: As a provider with North American roots how do you plan to access other regions?**

**JD:** We know that there is enormous potential in Europe in the communications, cable and utility sectors. We have a relationship with an international hosting company that means we can rapidly enter any new geographical market with very little complexity on our side. For example, we can access four different data centres in Greater London alone serving the breadth of Europe. That relationship is very strategic for us as we look at markets outside the US.

**VP: How are you seeing approaches to billing shift as all these new opportunities emerge?**

**JD:** It's exciting to be part of a movement that recognises that the old way of doing things is coming to an end. Cycle30's model is vastly different from others in our space. Our value proposition isn't that of a software vendor. We bring forward the value of our CSP heritage, combined with technology and process innovation.

At the core of our culture is a deep belief in the value of customer service. There has been an overwhelming response to this focus. It is obvious that the existing providers have lost their way in this regard. We are happy to bring that back to the market. In the end it comes down to doing business with people you trust, the value they bring and their ability to help insure outstanding customer service.

# CSPs should take the direct approach to billing

Direct operator billing has the potential to put CSPs at the heart of the digital value chain. It offers a far simpler approach than premium SMS and could make mobile commerce much more attractive – if some perception problems are solved, argues Nick Booth.

Billing systems are a bit like referees – the best are the ones you don't notice, because they keep the game going and don't seem to want to make a name for themselves. That certainly cannot be said for some of the early payment types that officiated over mobile commerce. Premium SMS (PSMS) almost brought the telecoms game into disrepute – and it wasn't all that reliable anyway.

The biggest problem that the mobile commerce industry faces now is the perception that the officiator – the billing system – favours the home team. The public see unfair decisions go against them all the time and even if they appeal the best they can achieve is a pyrrhic victory, where they are never truly compensated for traumatic loss of time and money.

Still, at least SMS is easy to use. I have £20 credits with two different mobile payment systems that I have never used. The problem is it's impossible to find a retailer or pub that will accept that a mobile phone is an electronic cheque book or that my watch has a SIM card in it that can talk to Mastercard. The problem with mobile commerce is it's too fiddly for end users.

Which probably explains why director operator billing is proving so popular. It has the usability of SMS, without the bill shock and the reputation for

The public likes the ease of using direct operator billing, according to a MACH survey, with 59% of survey respondents enthusing about the simple one-click process

deviousness. As long as it keep its nose clean, this is a system that could help mobile operators finally exploit the potential of mobile commerce and ramp up revenues for transaction processing. The content providers certainly seem interested. At a recent Apps World conference around 85 per cent of the delegates who took part in a survey said the service will be a vital method of increasing revenues and expanding their market.

Direct operator billing firm **MACH** seems to be signing up everyone that matters in the UK mobile market, with a client list that includes operators like Vodafone, Everything Everywhere, O2 and 3UK. The operators will use Mach's Direct Operator Billing platform for digital goods – or music and films as they used to be known – initially, but MACH has plans to add physical goods purchases into its portfolio of services.

There is enough potential revenue to be made just by solving the problems of the digital content market, says Michael De Jongh, MACH's global head of sales for mobile billing and content. "Buying digital content on the mobile web is extremely clunky which is why it has a high drop out rate. If people didn't have to mess around with credit cards, there would be a much higher conversion rate," he says.

The public likes the ease of using direct operator billing, according to a MACH survey, with 59% of survey respondents enthusing about the simple one-click process. Whether the public will continue to trust it is another matter. It's important that direct operator billing doesn't become tarred with the same brush that SMS coated the mobile content industry with. Which is why it's vital that Payforit becomes a trusted kitemark for consumers, says De Jongh. In turn, like any even handed referee, it will also act to see there's fair play for online merchants, operators and carrier billing solutions providers, so they can get assurance about who the customer is. Content providers, the creative players in the mobile commerce game, could also benefit from the protection given to them by Pay4forIt, he says.

If the industry gets it right everyone can benefit, says Massimiliano Silenzi, head of mobile payment specialists **Onebip**. "Merchants, aggregators and payment providers, operators, and of course, end-users – will benefit from the convenience, flexibility and ease-of-use for mobile purchasing that direct billing offers," says Silenzi.

Direct billing is only ever likely to fail for practical business, end-user or system reasons – when the user isn't properly authenticated or they don't have credit or if there's a systems fault. By contrast, Premium SMS billing had many failings: SMS delivery backlogs, roaming issues, missed notifications and configuration issues on the handset.

Mobile billing can certainly deliver a better user experience, says Adrian Sarosi, marketing director payment company **OpenMarket**."I use operator billing for impulsive low-value spends and in response to TV or print calls-to-action," he says Sarosi, "sometimes to top up my gaming account too."

Whether direct operator billing can move up the value chain is a moot point. Dean Bubley, founder of **Disruptive Analysis**, needs convincing. "Beyond virtual goods I can't see much scope for direct billing for general purchases like retail goods or travel tickets," says Bubley. "Most people wouldn't want to see the addition of products like groceries on a phone bill. It doesn't really fit most mental models of charging models."

There's a little way to go but the potential appears massive. $


# May I be direct – How can operators make money out of the apps economy

Direct operator billing – the charging of purchases onto a mobile user's phone bill – will enable new revenue streams for mobile operators and bring them squarely into the e-commerce arena, explains Michael de Jongh

While direct operator billing is not new, only recently has the service been deployed with any sort of momentum. Direct operator billing (DOB) is a payment mechanism that charges the cost of apps and other virtual goods onto the consumer's mobile phone bill. While this may sound similar to Premium SMS (PSMS) charging, the two payment mechanisms are fundamentally different. DOB brings a number of benefits to the merchant and the end-user that are not available with PSMS, but it's the operators who stand to benefit the most from its introduction. With PSMS, the operator was relegated to the role of a services reseller. DOB, on the other hand, elevates the operator to the position of a true payments service provider. In an instant, the operator can place itself in the e-commerce value chain and start to win market share from major credit card brands and companies such as PayPal, which have to date dominated the space.

For DOB to really live up to its potential for operators, they must improve revenue share between the content merchant and the operator in order to be competitive with alternative payment mechanisms. With PSMS, operators are used to paying out between 20% and 30% to their content partners, giving themselves by far the biggest slice of the pie. When you compare this to credit card companies that routinely only retain around 3% of the total value of a good or service, it clearly shows just how much operators are going to have to change their approach if they are to evolve into e-commerce payments providers for the content ecosystem.

## Take a fair share

We believe operators should offer upwards of 70% of the total value of an app or in-app purchase to the developer/content provider. This will make the service a competitive proposition in the eyes of the merchant and enable operators to compete effectively with the likes of PayPal and the credit card companies. If they really want to gain competitive advantage, however, it may even make sense to offer revenue share of 90% or greater to the merchants and developers. This will drive a huge amount of low-value payments onto the operators' networks, allowing them to drive up revenues through a high-volume business model. The great news is that operators are now offering these higher payouts in return for much higher transaction volumes and more importantly significantly higher conversion rates.

DOB can make the apps economy even bigger than it is, and as it does so operators will be set to profit from a rich new source of revenue. In the future, it is even possible that through DOB, operators will be able to extend their e-commerce credentials into physical goods and services. It is possible that any online payment could be charged to the phone bill rather than to another payment mechanism. If this situation arises, then the potential benefits to operators will be significant and may fundamentally alter the role of the operator in our lives. $

The author, Michael De Jongh, global head of sales, Mobile Billing & Payments at MACH

For DOB to really live up to its potential for operators, they must improve revenue share between the content merchant and the operator in order to be competitive with alternative payment mechanisms

# Policy's bottom line impact extends beyond controlling consumption

Policy control, rules and management have been at the forefront of CSPs' minds for the last few years as they figure out how to cope with the rise of data consumption across their networks. Now though, with LTE in deployment in many markets, it's clear that providing more bandwidth alone won't solve the challenge. CSPs have recognised the need to apply policy management in order to make sense of their network investments and find a monetisation model for their infrastructure, writes George Malim

The challenge with policy lies in finding a balance between intrusively capping users and instituting some form of control over users' consumption. That protective approach is fundamental to the continued profitability of CSPs. However, the other dimension of policy management, using policy as a stimulus for greater expenditure, is where the true future of the industry lies.

"We're seeing an evolution taking place where CSPs are moving beyond first generation policy management capabilities, in order to enrich the services they're providing and engage with their customers – encouraging network usage, not just controlling it," says Gordon Rawling, marketing director at **Oracle Communications**. "CSPs can capitalise on the opportunities presented by policy management, such as providing extra bandwidth for downloads at the time the customer needs and wants it, in order to generate revenue. CSPs must ensure they are linking policy management services with revenue making opportunities, rather than simply managing capacity."

Gordon Rawling: CSPs must link policy management with revenue making

For Doug Suriano, chief technology officer of **Tekelec**: "The business case for fair usage is well proven and widely deployed, but policy is evolving to accommodate a whole new set of revenue-generation requirements for CSPs. The convergence of universal broadband access, virtually unlimited content and the proliferation of smart devices has created a new paradigm – one moving well beyond fair usage to enable CSPs to increase revenues from new devices, third parties and innovative tariffs."

The days of policy management being a blunt intstrument to throttle and choke user consumption are ending. "Traditionally, policy management was a blunt network-centric tool for managing bandwidth and maximising limited resources," explains Ben Bleichman, director of marketing and Communications for **BroadHop**. "This defensive approach to policy management is now commonly referred to as Policy 1.0. The next-generation of policy management – or – Policy 2.0 delivers a proactive, application-centric approach that allows CSPs to rapidly deliver and monetise real-time and personalised applications and services that drive revenue and profit. Everything offered by Policy 1.0 still applies in terms of protecting the network, but CSPs can't differentiate on just speed and price. And the good news is that they don't have to."

Policy management is increasingly being used in conjunction with real-time charging as a means of monetising services and generating additional revenues, rather than simply controlling or restricting access to services. "Examples of this would be reducing connection speed or blocking data roaming when the subscriber has used all of their configured usage or spend limit," explains David Knox, senior product manager for integrated charging and policy at **CSG International**. "The subscriber can be kept informed of their spend or usage to date as they go and sent an additional notification message when their limit is reached. The notification message can also contain a link to buy an add-on product like a roaming day pass to restore access to the service – thereby keeping the customer happy and generating incremental revenue at the same time."

However, as LTE continues to roll out across the world, the stakes are raised because of the massive infrastructure investment burden associated with it. It has to pay its way. "LTE is a capacity-focused technology ideally suited to deliver high-bandwidth, rich, multi-media content," says Bleichman. "It's becoming rather complicated. Successful monetisation of LTE/4G depends on the degree to which operators can manage this complexity – while hiding it from the end user. For CSPs rolling out their LTE networks, their return on investment won't come from lower price per bit – it's going to have to come from new service models. Without a scalable policy control solution in place, CSPs will not be able to harness the capabilities of an LTE architecture to deliver differentiated services and new business models based on the dynamic control of QoS at an application and flow level."

Knox at CSG International agrees: "4G / LTE adds to the CSP's policy challenges for a number of reasons," he says. "One is that 4G/LTE will be marketed aggressively as a fixed line broadband replacement service, meaning that the data volumes being used per subscriber will be an order of magnitude above what we are currently seeing on 3G connections. Any additional capacity provided by 4G/LTE will quickly get used up and so the need to be able to control access and give subscribers options for paying more depending on how and when they are using their connection will be paramount. Another is that the use of existing spectrum for high bandwidth 4G services makes the need to effectively manage, direct and optimise spectrum use even more critical, given that these networks are already running close to – or at – capacity."

That pressure inherent in 4G deployment means CSPs have got a grip on the reasons for investing in policy management. "The question is not: 'Will policy generate revenue?', the question is: 'How much revenue can policy generate?' A simple example is our work with **TIM Brasil** for international roamers on postpaid plans. With our Policy Server, TIM created new 24-hour flat-rate passes to increase international roaming data revenues. Within the first month of service launch, the use of data services abroad more than doubled." $

David Knox: The need to give 4G users options to pay more will be paramount

Doug Suriano: The question isn't will policy generate revenue but how much?

EXPERT OPINION:

# How to kick the tyres on your next PCC system

Your parents' Oldsmobile might still get you from point A to point B, but it lacks the performance enhancements, energy efficiencies and built-in intelligence of a modern car. CSPs face the same challenges with their approaches to policy control and charging (PCC), writes Kishen Mangat. Here, he advises how to select the right system.

The author, Kishen Mangat is vice president of solutions at BroadHop

Over the past two years, network operators have come to rely on policy management as a way to better manage how their bandwidth is allocated in an effort to control congestion. Some CSPs are content using these rudimentary deployments to get to Point B. But other service providers are ready to put policy at the heart of their service development strategies.

Changes in the service environment are requiring a re-think when it comes to policy. "In the tumultuous service environment now being created by the ever-faster transition to all-broadband, all-IP networks, a radical reworking of CSP network and service platforms is essential if conventional CSPs are to remain at the heart of the service value chain," explains Graham Finnie, chief analyst at Heavy Reading.

With data volume growth outstripping data revenue growth by seven times and the phasing out of flat-rate pricing, re-investment dollars will soon exceed new data revenues. Having a slow, traditional customised development approach to service creation is crippling CSP innovation.  CSPs need a way to personalise and monetise new value-added services and deliver them at web speed. As policy deployments scale up, CSPs need to ask if their current policy solution will be able to cope as new use cases are added.

> While it may be tempting to work with a vendor who will bundle in a policy server with their other offerings – just keep in mind the old adage – you get what you pay for

According to Shira Levine, directing analyst for service enablement and subscriber intelligence at Infonetics Research: "Growth in the policy management market is being driven not only by new wins, particularly in conjunction with infrastructure upgrades, but also through the expansion of existing contracts and by replacement activity. We're seeing many operators run into scalability and flexibility issues with their first-generation policy solutions. They're either replacing them with new solutions or augmenting what they have in place with additional functionality to support things like new pricing models and advanced subscriber controls."

Policy servers must be able to scale up massively as mobile operators move to LTE. While it may be tempting to work with a vendor who will bundle in a policy server with their other offerings – just keep in mind the old adage – you get what you pay for. What might at first sound like a good deal – may end up being a lemon. Operators have invested countless hours and spent a fortune on additional services trying to extract the promised benefits from policy servers that fall short of a next-generation policy management platform purpose-built for scalability, flexibility and service velocity right out of the box.

Let's look at why each one of these key features is so important and how to kick the tyres with key questions CSPs ought to be asking as they consider upgrading their policy management solution.

## How scalable is the platform?

A highly scalable policy management platform means demonstrated carrier-class performance and the ability to deliver service selection, location awareness and fair use policies required in 3G and 4G networks. Scalability tests are common. If a vendor claims it has been independently lab-tested for scalability – ask for the official certification report from the third-party testing facility.

- Are you going to be able to scale up with confidence without requiring third-party software licensing?
- How many subscribers are supported from a single chassis?
- Can the policy management platform

demonstrate real world policy management even when delivering IMS/4G VoIP and data traffic and applying policy and charging rules on a per subscriber basis?
- What kind of standards compliance is offered? Consider relevant telecoms industry standards and web standards?
- Has the vendor adopted virtualisation principles? At what levels? With what specific demonstrable benefits?

What flexibility does the system offer? Policy management solutions have to be flexible, open and easy to configure. For CSPs to establish consistency across multi-network, multi-access environments, they will need to consolidate subscriber identification, service and policy management, rating and charging capabilities in a single platform.

- Does the policy platform have modular policy, AAA and charging functionality built-in?
- Does it allow extensions to be developed – and if so is it a bolt-on approach as opposed to a platform that has been architected from the ground up to support a feature-based architecture?
- Is multi-threading supported across policy plug-ins and is it designed to handle multi-access, multi-enforcement, and quota/charging extensions dynamically?
- Is the platform useable on COTS-based hardware and using an open OS?
- Can it build new use cases without the need for software customisation?
- Does it support charging based policies, two-way subscriber interaction, personalsed services, multiple PCEF (Policy and Charging Enforcement Function) coordination and fixed access policies?
- How open is the vendor to interoperating with partners and third-party software and hardware suppliers? Are there real-world examples?

## Can it be roll out new services quickly?

A critical component to an advanced policy management platform is its ability to quickly roll out news services and monetise those services. Previously, new services could take months to roll out. Advanced policy management platforms can accomplish this in a matter of days, with no custom coding – a significant value-add in competitive markets.

- How quickly does the policy management platform enable the development, test and deployment of new policies – days, weeks or months? The correct answer here should be days.
- Does it allow the application of policy decisions to all subscribers and services?
- Can policies be applied based on a wide range of triggers and criteria?
- Is it possible to link chains of more complex policies and states?

If CSPs are going to address today's increasingly complex and distributed networks and the growing subscriber bases they serve, they will need to take a new approach to policy management – a platform approach that enables operators to introduce new services in a matter of days, resulting in a tremendous cost and time savings. By asking probing questions and embracing an advanced policy management platform, CSPs can significantly increase the value of their network and improve customer relationships. Much like investing in a new set of wheels – one that is purpose built for speed, performance and efficiency – by embracing next-generation policy management you'll be able to leave the competition in the dust. $


> A critical component to an advanced policy management platform is its ability to quickly roll out news services and monetise those services



# Policy linked with BSS helps CSPs mind the gap

In the evolving telecoms landscape, smart devices, consumer expectations for on-demand access to data-intensive services – including OTT – and new business models, such as M2M and enterprise cloud computing, profoundly affect network capacity and performance. This raises new monetisation, marketing, competitive and customer and offer management challenges, writes Alice Bartram.

The author, Alice Bartram, is associate vice president of product management and product marketing at Comverse

Policy management is a key part of the solution for communication service providers (CSPs) addressing these challenges. However, as an isolated function within a CSP ecosystem, policy creates gaps between the network and the customer; a long-term customer-centric approach must have solid policy management – and go beyond.

For example, CSPs need to know in real time: which customers are trying to do what; authorisations, permissions, spending limits; subscriber type; device type; relevant promotions, and more – and they must respond to that information immediately, with optimal customer-centric actions.

CSPs must combine subscriber and network information, and share this information across the organisation and across multiple customer channels – including social media – to capture the value of the connectivity in the most efficient, customer-centric manner.

The Comverse ONE product catalogue includes policy as a dimension, allowing policy to be a feature of any plan or offer, speeding time-to-market

BSS and policy must work as one.

## A smarter approach to data monetisation

With data traffic growing exponentially, this need for a smarter approach to data monetisation must consider both customer and network to capture the value of the data CSPs deliver. To achieve this dual approach, Comverse added policy management to the Comverse ONE® single-system converged BSS solution.

The Comverse ONE product catalogue includes policy as a dimension, allowing policy to be a feature of any plan or offer, speeding time-to-market. This essential capability for implementing subscriber – and network-aware policies and charging schemes also facilitates market testing. Since policies associated with any given offer are easily modified, offers are easy to change upon market feedback.

Comverse's Policy Studio offering further removes complexity, enabling success in the digital world. This marketing-dedicated policy creation environment introduces flexible templates covering a broad set of business categories and is pre-loaded with ready-to-use policy plan templates drawing from Comverse's extensive experience with operators around the world. In connection with Comverse ONE, it accelerates introduction of revenue-accelerating data plans with comprehensive monetisation.

## Success in the era of the connected customer

All Comverse ONE functions share a single real-time view of product and customer information for a consistent and highly personalised multi-channel customer experience. Targeted campaigns, real-time promotions and account information are pushed to customers – irrespective of payment type – for self-driven account management and spend control – a real customer pleaser.

This consistent customer experience extends to social media via Comverse Share, a service-oriented cross-organisational platform adding a social layer to services and business processes. A powerful and versatile social media enabler, Comverse Share empowers CSPs to utilise social channels to drive marketing and sales activities, improve customer care, and enrich the connected user experience with value-added social services. $

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# Shakespeare enters winter of disk content

Reducing the arts to content will make monkeys of us all, warns Nick Booth as he muses on the role of the CSP content director as a patron of the arts.

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

People have favourite musicians, personal anthems, life defining films and loved comedies but I've never met anyone who has a favourite piece of content

It's often said that if you took an infinite number of monkeys and gave them enough time and typewriters, they'd “almost surely” recreate the complete works of Shakespeare.

Whose idea was this? The history of these statements can be traced back to Aristotle's On Generation and Corruption and Cicero's De natura deorum. Presumably neither Greek philosophers nor Roman orators had access to a typewriter – even IBM wasn't around in the year 43 BC - so it's quite possible the keyboard reference was added to Monkey Theorem later.

The point they were making has been lost anyway. In this context, say experts, "almost surely" is a mathematical term with a precise meaning. Meanwhile, the "monkey" is not an actual monkey, but a metaphor for an abstract device that produces a random sequence of letters and symbols ad infinitum.

The relevance of the theory is open to question anyway. The probability of a monkey or a typist exactly recreating Hamlet is so tiny that the chance of it happening is extremely low – even in a period a hundred thousand times longer than the age of the universe. (Believe me, I've sat in press conferences that long at CSPs and nothing good comes out).

Whether monkey theorem is rooted in satire, or the foundations of statistical mechanics, is a moot point. But we do know one thing. It wasn't meant to form the creative strategy for today's CSPs. Sorry, the content strategy, as we have to call it. But that's how it appears to have been interpreted by many people in the industry.

If those monkeys did recreate, say, A Tale of Two Cities or Macbeth or a number of sonnets, we can be sure the manager in charge of delivering them would declare these writings as 'great content'. Doubtless, he 'may have to make a few minor changes' which he'd have to explain to the monkeys in a four hour online torture session involving Microsoft Word's Track Changes feature. “Charles, I just want to say I love your story about Paris and London. Really do like it. I just want to make a few minor tweaks, if that's OK. It's kinda negative, if you ask me. Was that deliberate? These are two major European capitals. These aren't just cities – they're iconic brands. And, if you don't mind me saying so, your intro could do with tightening up. You've written 'It was the best of times, it was the worst of times.' Did you mean to leave that in? Were you hedging your bets? I think we need to make a positive statement here, Mr Dickens. That's what we're paying you for – to write engaging content.”

If there's anything that sours the digital age for me, it's this insistence that all creative works, be they visual, aural or literal, can be lumped together as content. The word content suggests to me something that fills a space, a sort of electronic ballast that can be cut and pasted between various files.

People have favourite musicians, personal anthems, life defining films and loved comedies but I've never met anyone who has a favourite piece of content. I've noticed that nobody who uses the phrase 'engaging content' has ever written any. Or indeed anything that can hold the attention for long. In fact, the very appearance of that dreaded term drives my eyeballs off the page quicker than you can hit Alt and F4.

Surely, if mobile operators and communication service providers are to become broadcasters and publishers and hope to profit from this 'over the top' material, they need to show a little bit more respect for the various disciplines involved in producing these art forms. Surely, if one is to become a music impressario, for example, it helps if you know the difference between Beethoven and The Beatles. Band managers and record company executives are legendary for their supposed lack of interest and indifference to the talent on their books, but they are aesthetes in comparison to the talent handlers you will find at a CSP. Or content directors, as it'll say on their business cards.

If you reduce anything to its basic elements, you can make it seem absurd. Anyone who thinks football is about 22 men kicking a pigs bladder isn't going to make a good commercial manager for Arsenal, because they obviously don't understand the appeal of the game. The fact that films, plays music and all works of art can be digitised, then copied and paste from server to server, should not make you treat them as mere content.

If you took an infinite number of bards, and fed them an infinite number of peanuts, they're likely to produce an infinite amount of unmentionable stuff. And at some stage, it'll come flying back at you.

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George Malim, Editor: VanillaPlus

# Constant change becomes the default setting

We used to talk of transformation as a project or a process with an end in sight. It is now becoming clear that change is a permanent fixture.

That need not be a bad thing. Many elements of telecoms industry are still in dire need of change. While so much of our industry has changed in the last decade, many CSPs can still draw a direct line back from the multi-platform, multi-service offerings of today to their heritage as state-owned and run providers of landline voice services.

CSPs have largely completed the migration from national treasure status to become providers of integrated, converged services but now they need to engage with third party organisations if they are to make sense of the infrastructure investments they have made. Put simply, CSPs must now interact with partners in content production, consumer electronics, payments and sectors such as M2M. They need to identify where the next generation of revenues is coming from because access, mobility and voice are all now saturated and if not fully commoditised, commoditising rapidly.

In this arena of omni-directional partnership, CSPs are grasping for a role and a share of the revenues. They shouldn't be struggling, though. They still bring unique capability to the market in addition to simple bandwidth. Only the CSP has the experience of handling transactions at great scale, assuring them and billing for them.

CSPs are also ably supported in this by the vendor community, which sometimes has been quicker to understand the future shape of the CSP sector than the CSPs themselves. Vendors have portfolios of innovative solutions – which now go far beyond simply selling software [or hardware] – that can be adapted to support multiple business models. Critically, those systems are capable of metamorphosising in deployment as the services they support change yet again.

Just like their CSP customers, vendors are also getting to grips with going to market with new business models. It's clear now that, to alter a well known CSP's UK marketing tag, while the future is no longer orange, CSPs can derive revenue from everything, everywhere if they continue their transformation initiatives and partner with the right businesses.

Welcome to Orlando and enjoy the show.

**George Malim,** *Editor, VanillaPlus*

## CEO GUIDE CONTENTS



Supplement Cover:

**WeDo Technologies** is a worldwide leader in revenue and business assurance, providing software and services to intelligently analyse large quantities of data from across an organisation, helping to negate or minimise operational inefficiencies and deliver a significant return on investment via revenue protection and cost savings. WeDo Technologies works with 140 telecommunications operators from almost 80 countries, through more than 400 highly-skilled professionals. Revenue and business assurance are the domains where WeDo Technologies has become recognised as a constant innovator and true market leader.
**www.wedotechnologies.com**

# Business assurance provides a firm foundation

Brian H. Silvestri is vice president of business development for WeDo Technologies, which provides business assurance systems and services for the telecoms industry. WeDo Technologies recently purchased Connectiv Solutions, a company Silvestri co-founded and successfully grew within North America. Prior to Connectiv Solutions, Silvestri was the executive director of engineering at Telecorp PCS, AT&T Wireless' largest affiliate until its acquisition in 2002 for US$5.6 billion. Here, he tells VanillaPlus how the acquisition will benefit CSPs as the industry grapples with technical and business model shifts.

I met WeDo Technologies in 2010 and swiftly established a partnership that offered the means to bring them into some of our clients

**VanillaPlus: WeDo Technologies has recently acquired Connectiv Solutions. What benefits does the combined company encompass and what efficiencies do you expect that to bring to the business?**

**Brian H. Silvestri:** It really goes back to the strengths of the two companies. I started Connectiv Solutions with a business partner in 2003. We had both worked within CSPs and saw an opportunity because the market was moving towards unlimited voice – with free evening and weekend calls – back then. As a result we were seeing usage volumes and variable network expenses explode and believed CSPs needed a solution to help address and reduce these costs to increase margins. That's how netCLARUS evolved. We grew the business to about 40 employees and focused on cost avoidance and cost management.

At Connectiv Solutions our goal was to transform billions of records into actionable information with measureable results. netCLARUS helps CSPs become more efficient and pinpoint strategies to reduce variable network expenses. From a financial perspective, we're essentially helping clients reduce their cash cost per user (CCPU) since their average revenue per user (ARPU) was declining or flat. Our solution was delivered in a software-as-a-service environment and provided our clients with a playbook of ways to drive efficiency.

Our main sponsors for netCLARUS were from the engineering groups and interconnect organisations within CSPs. By early 2010 we were being approached by both revenue assurance and fraud groups for assistance, but we didn't consider ourselves a revenue assurance or fraud company. We had experience in analytics, but no case management or alerting capabilities.

I met WeDo Technologies in 2010 and swiftly established a partnership that offered the means to bring them into some of our clients. We successfully deployed WeDo's revenue assurance solutions in our data centre, or SaaS environment. Because of the good fit, that partnership grew and moved quickly on to M&A discussions.

**VP: So value has been created by bringing the two capabilities together?**

**BHS:** There are a lot of great positives from this merger and I'm excited about the future for our clients and WeDo Technologies. First off, WeDo Technologies' footprint within North America has significantly increased. We have the personnel here in North America to support our clients. Secondly, we have a strong product portfolio. We are now a one-stop shop for CSPs looking for revenue assurance, fraud management or cost avoidance solutions. And third, we're enhancing our delivery options through license, SaaS and managed services. These are all great things for our current and future clients.

**VP: As the discipline of business assurance matures, how is it being applied to**


**optimise CSP businesses and provide opportunities for cost avoidance? Is business assurance equally applicable to existing issues as to those associated with new services and opportunities?**

**BHS:** We didn't invent business assurance; it's a maturity process and a holistic methodology that CSPs are beginning to embrace. We look at our solutions as a catalyst to streamline the effectiveness of business assurance processes.

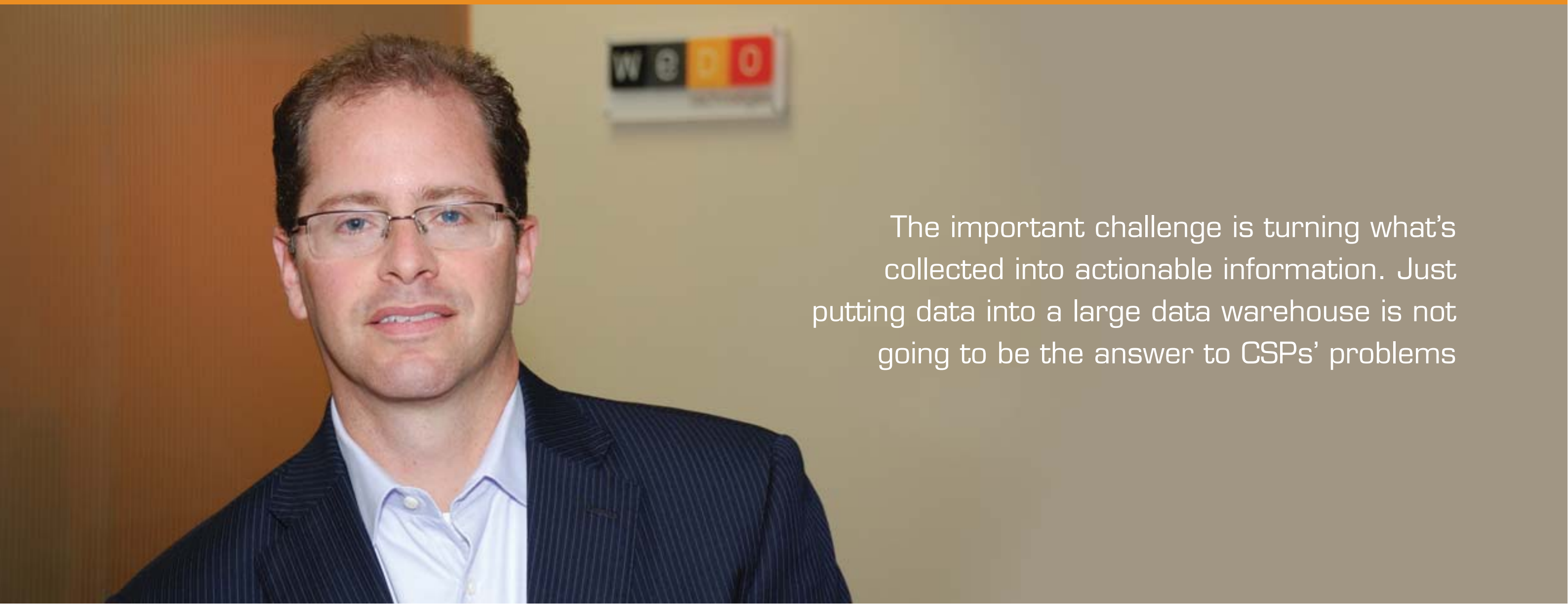
The telecoms market is accelerating rapidly. I can't get over how fast it has been moving over the last few years. It took ten-plus years for the mobile market to move from the first to the second generation, and now CSPs are building out 3G and 4G networks at the same time. There is a radically increased velocity of new technology being introduced. The philosophy of business assurance is to support both the new technology and the old, ensuring backwards compatibility. CSPs support second, third and now fourth generation networks simultaneously and therefore have to ensure compatibility across their systems. CSPs must have systems and procedures that are forward-thinking, and have the capability to adjust in line with new customer expectations and usage patterns.

**VP: What trends are you seeing in business assurance as its scope widens beyond traditional revenue assurance? What impact does the emergence of services such as social networks, M2M and cloud and technology such as LTE have?**

**BHS:** When we look at the rapid evolution of the mobile market there are several dimensions to business assurance. Let's talk about fraud first. Five to ten years ago fraud scenarios were very different because most CSPs maintained tight controls by only allowing limited access to the outside world. Now, though, with apps and internet access, phones have truly become mini computers. This really opens up opportunities for fraud. Exposure has become so much greater, and so will the costs.

M2M is also different from what we've seen before because revenue per device is so much smaller, but volumes of transactions and number of devices across the network will be massive. Putting the procedures in place to support these is a critical challenge. When I deployed networks back in the 1990s it was a completely different environment. The revolution of M2M and social media is coming, so CSPs need to adjust and be proactive so they are ready ahead of time. They need to be looking past the wave of changes that are happening today in order to prepare for what's ahead.

**VP: How has the growth in data relating to transactions or sessions and the need to process it effectively impacted upon business assurance?**



The important challenge is turning what's collected into actionable information. Just putting data into a large data warehouse is not going to be the answer to CSPs' problems

**BHS:** We are going past just collecting CDRs – today we're talking about correlation of data. There is a danger here because there needs to be a balance. It's easy to say: let's collect everything – until the provider sees the cost of doing that. We also need to consider if the queries will return valuable results in a timely manner. There are hardware vendors that can supply the equipment to do that, but you could easily be talking about investments of more than ten million dollars being required to address the amount of data we're talking about. Under LTE, I believe the complexity and volume of data involved is going to easily increase ten-fold, and therefore a balance between the cost and the value of what is achieved is needed.

The important challenge is turning what's collected into actionable information. Just putting data into a large data warehouse is not going to be the answer to CSPs' problems. First you need to know where to look. Business assurance is like finding a needle in a haystack, and most CSPs don't have the resources or the expertise to support these challenges and growing demands. We have to extract that information and give them the tools they need to find where there are discrepancies.

One perfect example – we look to see if an operator's data is being enriched with accurate number portability information. Sure, number portability (NP) has been around for some years in the US, but it continues to generate multiple challenges around routing and auditing. We just released an updated report on this topic and believe most CSPs don't realise how NP is impacting their bottom line. For many new countries just launching NP, these CSPs need to be very aware of potential pitfalls, and it all starts with actionable information.

**VP: CSPs are in a state of transformation as new technologies are deployed and systems are migrated. How can business assurance help CSPs do this smoothly and efficiently?**

**BHS:** What we are seeing from talking to CSPs is a new way of offering services. The market is going back to rated plans for certain data offerings after years of all-you-can-eat propositions. We believe that the new service offerings are going to require major migrations to new billing systems that can support today's growing complexity of services, devices and content.

Billing systems have so much downstream impact that revenue assurance solutions really can play a major part in protecting your customers' experience as well as protecting revenue within an existing organisation.

The other area we've been focused on is data roaming. It's hugely expensive and you really need to have a flexible solution and defined processes within business assurance to make sure you are not leaking revenue, and that you are protecting your bottom line profits. Lastly, just this year we're starting to see another dimension of complexity in North America with shared data plans. Business sssurance helps CSPs ensure they are delivering on what has been promised and that price plans remain profitable.

**VP: What is you view of the future?**

**BHS:** I've been monitoring how things have progressed – I've been involved in CDMA and GSM deployments at CSPs – and I truly believe we're in a perfect storm right now in which everything is in play. The underlying feature of the market is change; whether you're introducing LTE on mobile or moving to an IP-centric world in cable or landline. CSPs are changing the way they bring services to market and the way they run their businesses. User expectations are changing as well. CSPs need to have a strong business assurance plan in place along with a set of processes to cope with that change. Now more than ever, CSPs need to rethink revenue assurance, business assurance and cost avoidance strategies or they will be in a much challenged environment five years from now.

# Management World Americas 2012

Management World Americas 2012 will feature case studies, unique insights, inspiration and new connections into a four-day conference designed to give attendees the tools to succeed in the digital world. VanillaPlus previews the event to be held in Orlando, USA on 3-6 December 2012

As the information age continues to rewrite the rules on partnerships, vertical roles and customer expectations, TM Forum again returns to Orlando for its Management World Americas event. The Forum expects to welcome 59 CSP speakers, which will include 25 C-level speakers. It will also welcome ten speakers from verticals markets and estimates delegate attendance of more than 1,500 people. Understanding the impact on your business is critical to your future success.

The theme of the conference will be exploring the future role of CSPs. The event begins with a series of keynote presentations. Martin Creaner, the president and chief executive of TM Forum will set the scene with a speech exploring how the industry is transforming and where it goes from here.

Creaner will then hand over to Robert Hackl, senior vice president of channel management at T-Mobile and Fari Ebrahimi, senior vice president and chief information officer at Verizon who will discuss where CSPs are putting their money in order to invest most effectively to address the opportunities presented by the industry's transformation.

Digital services are at the forefront of CSPs' minds and have been identified as one of the greatest areas for new revenue generation for CSPs. Dr Bob Roche, vice president of research at CTIA, will provide a market update using the organisation's Indices Report. Roche's research will establish a basis for a the participation of a series of senior executives in a session that will seek to identify the best trends to bet on when it comes to digital services.

Participants in this will include: Steve Hilton, lead analyst, Analysys Mason; Eric Krauss, director, M2M product management, AT&T Mobility; Jürgen Hase, vice president, M2M Competence Center, Deutsche Telekom; Wayne Ward, vice president, Emerging Solutions Group, Sprint Nextel; and Eric Troup, chief technology officer, Worldwide Communications and Media Industries, Microsoft.

That will be followed by a case study on global collaboration on cyber security, presented by Sarah Granger, founder, Center for Technology Media & Society and former

Martin Creaner: Where next for the industry?

Every player in the digital economy is gathering data at an astonishing rate. Behind that data, every transaction holds a story

chair, Digital Government Committee of the U.S. Public Policy Council for ACM (the Association for Computing Machinery).

The event will also feature five streamed forums in addition to a full Cable Summit and Executive Roundtables.

## Digital and M2M Service Enablement Forum

As the digital economy grows, the lines between traditional verticals such as communications, healthcare, financial and energy are quickly blurring, creating a new wave of opportunity for life-changing services such as eHealth, Smart Grid and Connected Home. This Forum examines the management and enablement challenges that complex services bring, including:

- How to build partnerships that last – ensuring service levels, quality and the right customer experience to deliver success
- Driving digital innovation in an established business
- Tracking trends and opportunities in digital and M2M service management
- Overcoming the complexity of seamless billing, charging and revenue assurance for digital services
- Identifying and developing best practices for digital service management

## Big Data Analytics Forum

Every player in the digital economy is gathering data at an astonishing rate. Behind that data, every transaction holds a story – an insight into customer behavior and experience that can transform business decisions, and fortunes. But analysing such massive amounts of data and extracting its value isn't easy. This Forum will explore:

- Best practices in big data analytics – lessons learned from multiple industries
- Using big data to enhance your customer's experience, add value and spot new product and service opportunities
- Utilising and monetising customer data
- Privacy - what's acceptable? Regulatory, legal and social constraints

## Customer Experience Management Forum

Effectively managing customer experience is essential to customer retention, satisfaction and growth. But managing that experience across a single business, let alone a value-chain of partners, is a daunting task. This Forum will provide the tools needed to deliver the best customer experience possible by delving into topics such as:

- Managing the customer experience end-to-end across a value-web of partners
- Using social media to understand and enhance the customer's experience
- Managing your enterprise customer's experience and expectations
- Measuring and benchmarking your own customer experience maturity
- Best practices and practical lessons in delivering world-class customer experience

## Agile IT and Cloud Forum

In the digital economy, an agile business is a profitable business. Flexible, efficient IT is core to delivering that agility, providing the platform for automated, self-managing services that fit individual customer preferences and return a healthy margin. But how do you deliver real agility – where do you invest, and where should you partner? This Forum takes on the tough challenges, including:

- Aligning IT with business goals and requirements
- Deciding what, where and when to move to cloud
- Managing IT in a multi-cloud, multi-partner ecosystem
- Using disruptive technologies to drive positive change
- Using TM Forum Frameworx as the foundation for successful enterprise IT transformation

## Cyber Security Forum

With the digital economy forecast to represent more than one-seventh of all sales flowing through the world economy by 2013, cyber security is a growing threat for business today. As services gravitate towards the cloud, the question for CSPs – and their customers – is how safe is it? This Forum explores the latest thinking on cyber security, including:

- How big is the threat today, and what's next for cyber security?
- How secure is your value-chain partner, and what data should you share with them?
- How to architect and design services with security in mind
- Device security and the challenges for enterprises of Bring Your Own Device (BYOD)
- Monitoring and managing security breaches

**For further information visit: www.tmforum.org/**

# Geolocation provides CSPs with means to ensure advertising offers are relevant

French CSP, SFR has deployed the IGLOO Geolocator location based services system from Intersec in order to generate new revenue. Here, Mathieu Gras, head of location based services at SFR, tells George Malim how LBS opportunities should be addressed in order to benefit the user, the CSP and the advertiser

CSPs have been targeting location-based services for many years as a means to increase revenue. There are obvious benefits in terms of using customers' location data to target marketing and advertising campaigns but CSPs must be conservative in terms of what they can provide if they are to ensure a non-intrusive and relevant service is provided.

Among the first areas that geolocation is being applied to is advertising. That's because it can provide a clear source of revenue. "We launched location based advertising two years ago with a campaign to sell ice cream to users on the beach," says Gras. "We worked with Unilever to make a proposition that if you want a Cornetto you can get one free. For people on a beach, that's a nice idea.

However, such programmes have to be rolled out with caution. For example, there's little value in promoting free ice cream to people that are at work in a city centre. In addition, such advertising cannot be allowed to become irrelevant or intrusive. If that happens, users will opt out of the service altogether and the CSP could damage its relationships with its customers.

"In France, we need to conform to French mobile data privacy [regulation] so people have to opt in," explains Gras. "It is our customer that chooses the frequency of the advertising and we never send more than one [promotion] per week. Users can also choose which advertisements they receive. They can specify no sports, no restaurants or no perfumes for example."

That cautious, non-intrusive approach has made the service a success, says Gras: "The success of the service is explained by the relevance of the messages. You have the profile of subscribers, their location and the time to work with so you can ensure only relevant offers to made. For instance, you wouldn't want to promote ice cream to users in the Alps or offer a lunch deal at a restaurant in the early afternoon."

Another reason for the success of the service is that the propositions made are selected by SFR on the basis of their attraction to users. They have to deliver real value. "We're not looking for the best deal from an SFR sales perspective, we're looking for the best promotional offer for our customer," adds Gras. "A brand might tell SFR they want to target a specific demographic

Mathieu Gras: It is our customer that chooses whether to opt in


but if we think it's not relevant, we won't do it."

Gras gives the example of deodorant brand Axe (Lynx in the UK) which had a marketing campaign involving a yacht entering French ports and promoting a new product. Axe used SFR to send a promotional SMS to its users offering a free glass of champagne to users that visited the boat. Geolocation was vital to target local users but, when Axe wanted to get information on where users came from, SFR declined to provide it. "We have the information in the device and the network to provide that but we have to meet French privacy law," he says. "We understand what you can and can't do and we are more conservative than we need to be in order to ensure our users have a good experience."

Even so, SFR has identified the opportunity that exists in the knowledge it holds on where its customers are and how they move during their daily lives. It is possible, for example, to anonymise location data to aid planners in areas such transport. Gras presents an example of tracking the dispersal of people after a large football match in the Stade de France in Paris. "We can track where users are at intervals after the game has finished," he says.

That would mean a user that leaves the game, routes across Paris and takes a train to another city can be tracked. The rail company could assess from that data whether a need exists to put on direct express services next time there is a large match. Such location-based data could also be used to inform infrastructure planners or aid retailers in their research about new store locations. There is clear value to be unlocked.

However, Gras is keen to emphasise the caution SFR exercises in protecting its customers. "SFR delivers studies, never data," he says. "We have to take care of our customer – spam would lead to them opting out or even churning away from us so we have to take care of all that.

# CSPs must look inwards as well as outwards to seize profit generation opportunities

The search for profit is leading CSPs to exploit parts of their business that are not traditionally viewed as revenue centres. Areas such as network management and the OSS are ripe for investigation argues Judi Gill

In this truly digital age, network speeds have never been faster and the devices available to communicate have never been easier to use. From our homes, offices or on the road, we can find the information we need about virtually anything immediately. As communications service providers (CSPs) invest in 4G/LTE and superfast broadband networks to support the demands of their customers, usage habits are changing yet again to take advantage of the superior bandwidth, changing our communication habits for ever. More and more our communication is visual, whether watching videos online, or using face-to-face communication instead of a simple voice call.

The author, Judi Gill, is director of market analysis and strategy at Clarity

What remains as a question over the telecoms industry is how to best turn a profit to on the investment required to support are ever-growing demand for data.

Although their services are more in demand than ever before, the challenge for many CSPs lies in how to balance the need to maximise customer satisfaction with overall profitability and return on investment to the business and ultimately shareholders. It is well established that much of the premium revenue for data services is being diverted to third party, so called over the top players (OTTs), while operators bear the burden of the investment required to carry the data between the third party and the ultimate consumer. Even as they upgrade their networks, CSPs are facilitating the deterioration of steady revenue streams such as voice and SMS. Where only recently the service quality on alternative voice and instant messaging services was inferior and often unreliable, it has improved dramatically with higher bandwidth networks.

The network is an extremely valuable source of data about the real time operations of a CSPs business

This erosion is unlikely to abate, and so CSPs need to find new ways to generate revenue streams, by assessing their core value in the supply chain and the value-added business skills that they can bring to the market. A critical factor for success will be the agility with which an operator can respond to market demands. The wider operational landscape is changing quickly and new offerings and features must get monetised as quickly and as efficiently as possible. No longer can they take months or years to rollout new products. OTT players deploy products much faster, even deploying products, such as new device operating systems, to the market that may have performance or other issues – and then quickly responding to market complaints to rectify problems.

This does not mean that CSPs should throw out their rigorous and robust processes for network and systems deployments. Customers definitely place a very high value on service stability, but CSPs must find ways to be more responsive to the market, by ensuring they implement systems and processes to more closely integrate network, IT and commercial environments so that the whole enterprise can react in truly dynamic ways.

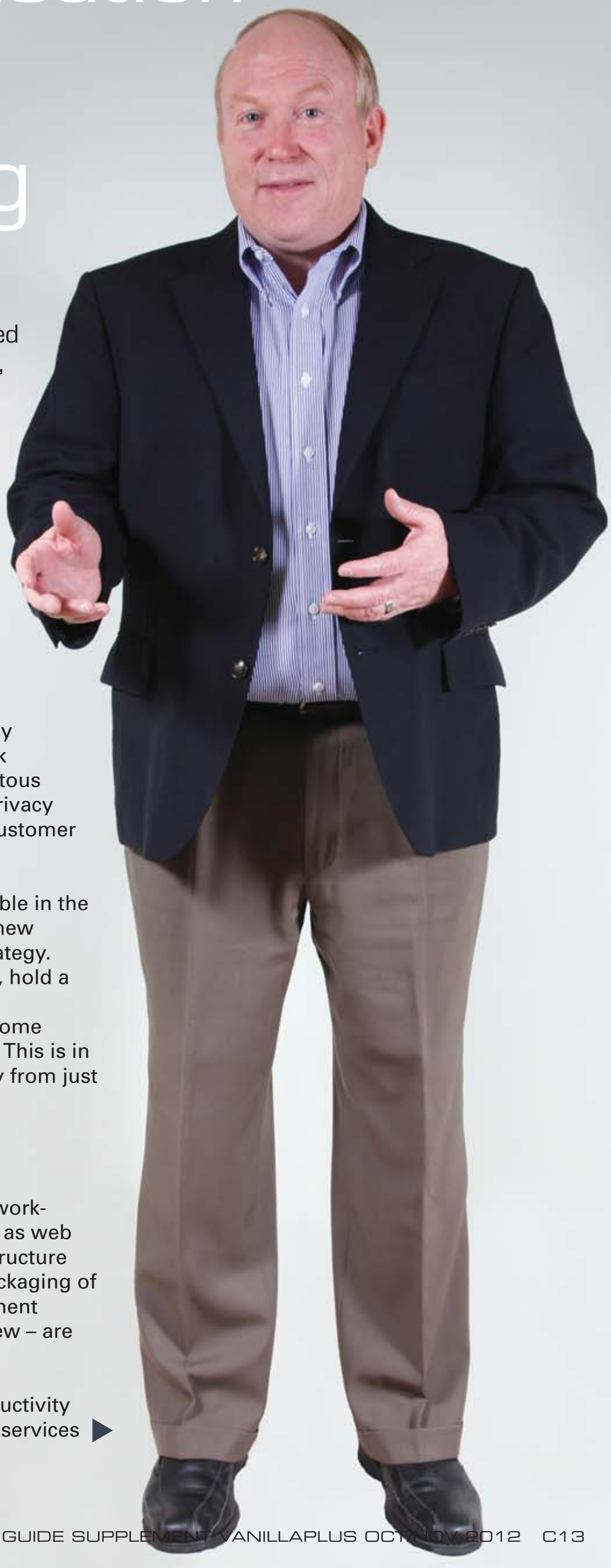
There is also the opportunity for CSPs to exploit parts of their business that are not traditionally viewed as revenue centres but provide value-add processes and data that can be used to create a superior market advantage. In particular, areas such as network management and the OSS are ripe for investigation. The network is an extremely valuable source of data about the real time operations of a CSPs business. By utilising the performance, capacity and service quality information and combining this with other inputs from the BSS, SDP, mediation and probe systems to monitor and measure core business KPIs, CSPs can have real-time dashboards that taps into the nerve centre of their business to manage a balanced scorecard of operational performance.

CSPs can also tap into their existing enterprise offerings, such as value added assurance products like usage and analysis reports or guaranteed service levels. Customers whose business depends on their network reliability willingly pay a premium for such things.

Offering their robust and proven assurance capabilities externally, either to other operators or to myriad companies that are beginning to appear in the extended communications supply chain for cloud and M2M services, is a natural progression of such offerings and potentially a hugely lucrative opportunity for CSPs. Sophisticated applications will demand a premium price and end users will expect a corresponding service performance and availability. Extending the carrier grade processes of the network provider to the wider supply-chain, by monitoring third party networks, IT infrastructure and applications makes a lot of sense as offerings evolve and mature, particularly for business and public services.

The successful CSPs of the future will be leaner and more agile than ever before, incorporating the highest levels of automation and proactive management of their business. CSPs are not just valuable for their networks, but also the fact that they can enter this value chain as trusted suppliers, leveraging their existing customer relationships and service quality assurance capabilities. With the right focus on investment and operational processes they can be in prime position to profit by adding extensive value to the next generation of services and products. $

# New business models bring new monetisation strategies and a change in thinking



The last big land grab within the communications sector happened nearly 20 years ago. It was focused on network capacity build out. The second wave, happening now, is centred on cloud-based capacity and solution offering expansion. Here, Karl Whitelock, director of OSS BSS strategy at Sratecast | Frost & Sullivan, explains the change of thinking that requires from CSPs.

The market requirements to support and monetise cloud-based services are keeping communications service providers (CSPs), network equipment manufacturers (NEMs) and software solution suppliers very engaged. While pass through of software as a service (SaaS) propositions is better than being a victim of an over the top (OTT) play, the dilemma is in how to ensure that SaaS enablement will actually provide a recognisable value add for the end customer and in the process generate new CSP revenue.

CSPs now deliver a number of functions that many enterprises can only dream about. These include: highly available multi-technology network connectivity; agreements with other network operators for near ubiquitous global coverage; configurable customer service options with built-in privacy and security safeguards; and individual knowledge of the billing and customer support relationships with millions of customers.

Although the network technology business has been extremely profitable in the past, declining revenues for both voice and data traffic indicate that a new business focus, not far from current roots, is an essential next step strategy. Demand-based offers tied to infrastructure and even platform services, hold a fair level of appeal; but, ultimately, the long-term customer sustaining opportunity will involve delivery, accountability management and, in some cases, augmentation of the content that flows across each connection. This is in addition to the bit pipe business that facilitates broadband connectivity from just about any location to any other.

## Cloud services significantly change the OSS BSS game plan

Most CSPs either deliver or are planning to deliver non-traditional network-based services to larger enterprise and SMB customers. Services such as web hosting, off-site storage and VPN, are bundled with on-demand infrastructure services or come as a standalone offer. From a SaaS perspective, repackaging of partner-provided solutions – including email, office automation, document management and collaborative communications services, to name a few – are the trend.

The benefit from an enterprise customer's perspective – business productivity apps packaged and sold by the same provider of network connectivity services ▶

Most SaaS-based revenue, regardless of how many augmented network capabilities the CSP may provide, are likely to be passed through to the SaaS suppliers or consumed by intermediaries

– can be found in reduced management complexity and software subscription cost savings. However, these factors are not enough. If the apps are augmented with network-based functions tied to presence, location, end-to-end SLAs, service quality monitoring and single sign on security, then such SaaS-based packages may make more business sense than the enterprise directly negotiating and managing SaaS services from multiple suppliers.

The downside for the CSP community is that the platform to manage SaaS partner interactions looks like another adjunct silo of business and operations management software that must be integrated into the complicated menagerie of previously installed systems. In an attempt to move beyond commoditisation – for example, becoming a bit pipe provider – and to avoid total disintermediation in the customer/content delivery process, many CSPs presently accept this silo type of business solution architecture. However, it is extremely limiting for future business expansion as will be explained later.

## SaaS enables CSPs to be more, but does it deliver more revenue?

Most SaaS-based revenue, regardless of how many augmented network capabilities the CSP may provide, are likely to be passed through to the SaaS suppliers or consumed by intermediaries; unless the value add network functions compel an enterprise to sign up via an end-to-end managed package. The package approach must be at a respectably higher level of margin than that from the resale of SaaS apps alone. In addition, to reduce margin erosion from each SaaS package sale, the aggregation function, with all the options in business rule-driven product management, could be done within the CSP. Even then, margins associated with SaaS sales may not be worth the added risk associated with end-to-end solution management and the increased effort to keep customers satisfied, especially for service capabilities that are not generally within the CSP's direct control.

Key questions every CSP should consider when entering into a SaaS solutions strategy are:

- Does reselling SaaS from an aggregator, or directly from the developer, enable the creation of a new value chain? Do customers perceive added value? Are the new SaaS app margins significant enough to cover the costs of solution management and the very likely reality of first tier customer support?
- Can the CSP incorporate SaaS applications in different types of bundles? For example, can a product manger define the customer experience through bundled contracts that include a business rule driven framework for new bundles? For upgrades or for cross-sell opportunities, can a product manager define service bundles that automatically incorporate network access via fixed line, mobile, value added services (VAS) and an account hierarchy structure that flows on an end-to-end basis? End-to-end, in this case, includes not just components of the service, but support for the full service lifecycle – such as concept-to-cash, where the SaaS is fully incorporated into the business process logic.
- Can the CSP price the flexibly defined service bundles and make changes that can meet market conditions in marketing time – generally hours at the most, rather than the weeks and sometimes months it took in the past to update billing processes for the sale of network connectivity services?
- Can the CSP aggregate SaaS, IaaS and PaaS along with all other resources or devices,

and then make them available so that multiple virtual service operators (VSOs) or tenants can re-package them, if necessary, to suit their industry, segment or business rule-driven requirements?
- Does the CSP have a roadmap of how it can evolve each of the above into a fully monetised assurance framework – not just backups but also for assurance of service level agreement (SLA) cloud bursting scenarios that can be defined in monetary contracts – with automated revenue sharing for all of the contributing parties?

The longer-term implication is that, as customer services are consumed, all parts of the end-to-end service definition and supply chain process must be reconciled in shorter time intervals. Hence, to achieve future business success, it is imperative that new service offers and implementation of new business models are not saddled with the limitations of currently defined systems that cannot show a high degree of flexibility and configurability along with the business processes they support.

## Enabling more to do more: Why cross-industry 2.0 makes sense

The cross-industry 2.0 model allows a CSP to enhance the products from many organisations, in multiple verticals, with those of the communications marketplace, to create new or improved service offers. This model embodies an ecosystem involving partner-suppliers, the CSP, sometimes other external entities and end-user customers. Yet, to take advantage of the opportunities that are now available, a CSP must fundamentally change its business model from a provider of technology-based services – voice, data, and bandwidth access – to a horizontally-focused federator of services developed and enabled by companies across multiple industries. This is much more than the value adds that many now envision to be bundled with a broadband network connection, such as enabling SaaS applications and or exposing certain network functions.

The successful launch and ongoing support of complex partner-involved virtual services, enabled through the cross-industry 2.0 approach, requires solution support functions such as service order orchestration amongst all resource components, service package activation and solution-level quality of service monitoring. Business support functions include: customer support via a web portal or downloadable app; usage transaction management; partner usage accountability; policy-driven rating and charging, partner catalogue management, and SLA-based operability via level of payment.

## How cross-industry 2.0 virtual collaboration services work

Shown in Figure 1, the cross-industry 2.0 business model consists of multiple working layers driven by both supplier relationships and strategic partnerships. Central to this strategy is a concept-to-cash monetisation and management platform focused on the enablement of partner capabilities and not the internal broadband connectivity business and operations processes of the network provider. Each layer of this model is fueled by an always on and always available broadband connection.

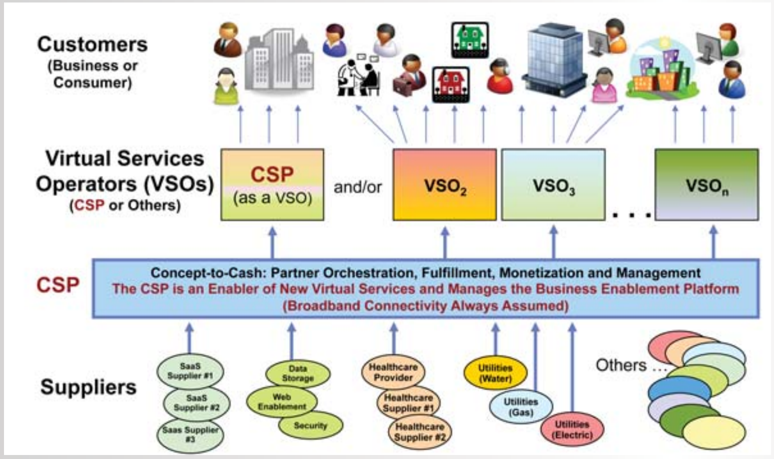
## Supplier layer

The supplier layer is at the base of the model. Here suppliers come together to create new service packages involving industry-specific or cross-industry content. For example, suppliers can be application developers, retailers, data storage providers, content owners, solution aggregators and logistics suppliers. To turn a service package idea into reality, suppliers work with the CSP and its business technology partners to ▶

The longer-term implication is that, as customer services are consumed, all parts of the end-to-end service definition and supply chain process must be reconciled in shorter time intervals

describe how such services need to work, and to define functional dependencies. These relationships can cost-effectively create products that virtually use the capabilities of multiple suppliers to collaboratively satisfy a business challenge.

Figure 1 – Cross-Industry 2.0 Business Collaboration Model




Source: Stratecast

## CSP business enablement layer

At the centre of the model, the CSP orchestrates the business definitions created by the supplier community and supports them in a facilitation role. Through the virtual services business enablement platform the CSP presents each service package directly to end-users, or to other organisations acting as virtual service operators (VSOs), in an n-layer fashion, as business needs dictate.

The cross-industry 2.0 business enablement platform fills the role of orchestrating solution components from the CSP, with the necessary elements from other suppliers. The platform provides secure data links between various applications or data sources, which are combined to deliver a new end-to-end solution to any user within the defined partner ecosystem.

> For many CSPs, the cross-industry enterprise business enablement approach is a step into new territory

## Virtual service operator layer

The virtual services operator layer is next. A VSO is an entity generally external to the CSP. This can be a strategic business technology partner or others that will ultimately sell one or more service packages to end users. The VSO will cultivate the necessary industry-specific expertise and business relationships with key suppliers, to define, establish and sell to these end users. As an alternative, the VSO role can be filled internally by the CSP. This means the CSP must define the needed business relationships and solution packages with the right application partners or solution suppliers in addition to operating the business enablement platform. The CSP must also forge business relationships for the advanced services it will provide to customers that are the recipients of these services. For either scenario, the business enablement platform must support multiple bi-directional data flows to facilitate the monetisation and partner management processes.

## Customer layer

At the top of the model the customer layer receives the outcome of the CSP-Supplier-VSO collaboration. The key to success is fully automated flow-through offers to meet the design requirements of cost-effective service delivery and support. The billing process involved should be flexible and adaptable to the customer audience, and configurable enough to allow rapid changes in pricing and/or partner settlement strategy, as market conditions dictate.

## Realizing the SaaS and cross-industry 2.0 vision requires help

For many CSPs, the cross-industry enterprise business enablement approach is a step into new territory – and is likely to be an alternative that may not have been considered by most in the quest to simplify operations, lower costs, improve customer satisfaction, and build new revenue streams through partnerships and channels.

While the enterprise business enablement platform at first may sound like another BSS and/or OSS silo it is really an enabler that satisfies a different set of business objectives. It is an orchestration layer requiring significant abilities to interface with a CSP's established OSS BSS environment and the systems of other industry suppliers/partners. It is not another add-on to the hundreds of systems that already address the internal business and operations needs of network operators worldwide. The business enablement platform is a tool designed to orchestrate the contributions from external suppliers and partners with CSP network-based functions, in support of next-generation customer services.

The strategic value to the CSP in facilitating the business enablement platform is in the ability to work with partners and suppliers within multiple industries. A platform-based business strategy also enables suppliers from different industries to work together to create service offers not previously possible. Central to service offer planning is the ability to address partner-defined or end-customer defined pricing scenarios and partner settlement options with real-time rating and charging. This type of approach enables the flow of new revenue for the CSP from each layer of the model in addition to any broadband connectivity the various players must obtain.

# The essential ingredients for effective transformation

Analyst firm Analysys Mason has developed a list of the essential ingredients for successful transformation projects through surveying CSPs. Here, Glen Ragoonanan explains what CSPs need to do to ensure benefits are not lost in transformation

Analysys Mason defines transformation as an initiative led by business objectives, the success of which can be measured by financial and operational key performance indicators (KPIs). The key business benefits of transformation to communications services providers (CSPs) are cost savings and improving customer experience in order to enhance a CSP's competitive position.

Analysys Mason surveyed 12 major CSPs and vendors about their top 6–10 transformations. This is equivalent to a sample size of approximately 70–110 transformation projects. From this data, the analyst firm has derived a list of essential ingredients for increasing the success of transformations by CSPs.

## Key KPIs

Transformation activities are expected to bring positive measurable results against their original benchmarked metric. In competitive telecoms markets, quality KPIs are measured according to indicators of improved customer satisfaction such as a reduced churn rate – a metric that CSPs measure.

In order of priority, the major KPIs that dictate the success of most transformation projects are:

- annual cost savings
- customer experience indicators
- operational metrics
- network metrics.

## Good project management

Time, cost and quality are the three critical cornerstones of managing the three kinds of transformation we have defined.

- Large, complex **projects** require organisations to use programme and portfolio management governance.

- **Programmes** are defined as a collection of integrated projects designed to meet specific objectives, and are typically governed by a temporary project management office.

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Glen Ragoonanan

- **A portfolio** is a collection of projects, programmes and other work – for example, retraining of staff – aimed at meeting important business objectives, and is typically governed by a strategic business unit of an organisation.

All tier one suppliers view transformation as a series of related projects – a programme – that will achieve a significant return. Smaller suppliers will continue to view transformation as projects because of their lack of capacity and skills to take on transformation in a more holistic manner.

## Getting the right mix of price and time

According to Analysys Mason's survey of 12 CSPs and vendors, the average cost of transformation varies according to technology type and software segment. There is a correlation between time and cost for these transformation categories – the longer the timeline, the higher the cost.

In order to avoid costly changes, the planning phase for transformation programmes can be as long as 12 months

The firm has observed that for significant benefits to be realised, transformation should take at least 18 months, including pre-implementation activities such as requirement gathering, planning and design. Logistical complexities and higher capex are the main reasons network infrastructure transformation is significantly more costly than other types of transformation. Billing systems and associated processes continue to be the core of the CSP business, which is why the CSPs in our survey spent more on revenue management software transformation than other software segments. In 2010 and 2011, CSPs conducted more service fulfilment transformations than previously because they were trying to improve their provisioning and inventory processes and systems in order to reduce opex in these areas.

## Expect the unexpected

Although the objective of a transformation is to reduce cost, it is to be expected that costs will increase initially before the return is realised. CSPs aim to reduce costs annually, and typically focus on opex savings.

The initiation and planning phase is critical; the objectives, scope, deliverables and governance structure need to be agreed from the outset. The levels of risk and uncertainty peak in the early phases of the project because the CSP will make its expectations clear, which may be different from the supplier's expectation. However, the cost of changes at this stage is minimal because little effort has been expended. As implementation progresses, the cost of changes tends to increase exponentially.

In order to avoid costly changes, the planning phase for transformation programmes can be as long as 12 months. Continued CSP engagement and management coupled with suppliers adopting an agile development methodology will further reduce the risk of costly changes as transformation projects and programmes progress.

## Key lessons learnt

The following are key lessons that CSPs and suppliers have learnt from a number of transformations during the past five years.

- **Use measureable KPIs to determine success:** opex is the most common.

- **Never underestimate stakeholder management:** the best transformation will be a failure unless all stakeholders, not just senior management, buy into and adopt it completely.

- **Good project management techniques go a long way:** risk and change management are critical skills required to steer transformation to success.

- **Local resources can be invaluable:** using skilled local resources ultimately reduces costs, and knowledge of local language and culture can reduce the common issue of stakeholder resistance to changes introduced by the transformation.

- **The transformation could have been done in less time and at a lower cost:** suppliers and CSPs agree that there were and will continue to be lessons to be learnt from transformation projects.

- **The phases of a transformation programme need to be carefully prioritised:** failure to identify interdependencies between the phases and project components of a larger transformation programme leads to duplication of effort and consequently cost.

- **At the beginning of the transformation, it is important to identify that contractual obligations supersede good faith:** the risks, complexities and uncertainties related to transformation force CSPs to seek a supplier they trust.

This is an edited extract from the report: *Lost in transformation: increasing rewards and reducing risks in systems transformation initiatives*, by Glen Ragoonanan. For more information about the report, please contact: research@analysysmason.com. ★