



# POLICY

Can policy deliver flexible and profitable business models for CSPs?

- **ANALYST REPORT**  
Stratecast | Frost & Sullivan analysts explain how policy is maturing
- **INTERNET OF THINGS**  
Read our Guide inside including Telit CEO interview
- **CASE STUDY**  
Inside KPN's RAN inventory admin application deployment



**PLUS:** TIBCO cashes in with \$4.3bn private equity deal ■ Metaswitch cracks IMS NFV trial at Vipmobile ■ XL Axiata and Facebook team up with Ericsson to improve app experience ■ AsialInfo's Northstream study finds CSPs are missing out on €2.2bn profits ■ INWI migrates to Openet real-time policy ■ DigitalRoute in seventh heaven with latest MediationZone release ■ Gray is new CEO for Syniverse ■ Read the latest news, opinion, blogs and features at [www.vanillaplus.com](http://www.vanillaplus.com)





# IN THIS ISSUE



## TALKING HEADS

Mark Edwards says CSPs should increase usage of cloud and managed services to accelerate their moves into digital services



12

28

POLICY FOR FAIR USAGE



31

CASE STUDY



38

IoT FEATURE



CLOCKING OFF!

42



## 4 EDITOR'S COMMENT

George Malim argues a useful step for CSPs trying to understand new service value is to imagine there's no network

## 5 INDUSTRY NEWS

TIBCO sold in \$4.3bn cash deal with equity fund, Vipmobile reports successful NFV IMS trial with Metaswitch

## 6 MARKET NEWS

Facebook teams up with XL Axiata and Ericsson to improve app experience, AsialInfo warns CSPs they're missing out on €2.2bn in profits

## 7 PRODUCT NEWS

DigitalRoute releases MediationZone 7.0, Syniverse launches new mobile engagement suite and Ericsson and SAP join hands for enterprise mobility management

## 9 CONTRACT NEWS

INWI migrates to Openet real-time policy, Telenet upgrades FTS Leap Policy Control system

## 10 THE CONTRACT HOT LIST

The latest vendor deals listed

## 11 PEOPLE NEWS

Who's on the move

## 12 TALKING HEADS

Mark Edwards says the time is ripe for digital service providers to continue their adoption of cloud and managed services, and for CSPs to accelerate their move into digital services

## 15 VANILLAPLUS POLICY INSIGHT

The latest VanillaPlus Insight starts here with 16 pages examining how, as policy matures, CSPs are engaging in flexible business models to protect the network and stimulate new service revenues.

The Insight contains a specially authored analyst report by Karl Whitelock, the director of global operations and monetisation strategy, and Troy Morley, operations and monetisation analyst, at Stratecast | Frost & Sullivan. In addition to their report, the Insight includes interviews and features to help you gain an understanding of the new role of policy for CSPs

## 31 CASE STUDY

Inside KPN's new radio access network inventory administration application deployment

## 33 VANILLAPLUS GUIDE TO IoT

## 35 INTERVIEW

It's vital to keep an open mind when it comes to M2M and the internet of things because current deployments have only scratched the surface of the potential, says Telit's Oozi Cats

## 38 IoT for CSPs

Jonny Evans warns that the internet of things brings with it a new disruption for CSPs

## 41 DIARY

Where to go and who to see

## 42 CLOCKING OFF!

Nick Booth bemoans the lack of easy-to-use tools for setting policy for the family



# Imagine there's no network – it's not easy, but you should try



George Malim, editor, VanillaPlus

**CSPs, as they move away from their classic, metered propositions, are starting to deal with the notion that there are different types of megabit. I'm not trying to stretch the boundaries of physics here, just to point out that the megabits that make up a live clip of a match-winning goal are worth more to a user than the megabits that make up an unsolicited text message asking about the road accident you never had**

**S**ervice value is this ethereal idea that involves decoupling what is charged for the utilisation of the network from the capacity itself. It's hard to pin down, which is why it hasn't been by CSPs – yet. However, it's clearly the direction of travel the industry needs to go in, if it is to become anything more than a utility business that manages its continued decline into low single-digit percentage margins.

experiences it delivers count. Google, Facebook, Amazon and many, many others, behave like this is the case already. The network's just an enabler but CSPs struggle with this, perhaps because the network has been so central to their businesses.

Of course, networks remain essential, it's just that networks are not core value generators anymore. CSPs' future success depends on them recognising that.

Imagine a value-oriented market place in which the network and its consumption is irrelevant and only the

George Malim

## EDITORIAL ADVISORS

Andreas Freund, VP Marketing, Orga Systems GmbH



Louis Hall, chief executive, Cerillion Technologies



David Heaps, senior vice president, strategy, CSG International



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



Chris Yeadon, director of Product Marketing, Ericsson



Dr Reinhard Zuba, CMO, Vipnet (Telekom Austria)



## What's on VanillaPlus.com this issue

We've upgraded our website – [www.vanillaplus.com](http://www.vanillaplus.com) – which in addition to our industry news coverage now offers more original content than ever before in a stylish new format. We've assembled a stable of journalists, analysts and industry insiders who are already contributing a wide range of reporting, opinion, blogs and features.

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

### EDITOR

George Malim  
Tel: +44 (0) 1225 319 566  
[george@vanillaplus.com](mailto:george@vanillaplus.com)

### DIGITAL EDITOR

Nathalie Bisnar  
Tel: +44 (0) 1732 808690  
[nathalie@vanillaplus.com](mailto:nathalie@vanillaplus.com)

### BUSINESS DEVELOPMENT DIRECTOR

Cherisse Jameson  
Tel: +44 (0) 1732 807410  
[cherisse@vanillaplus.com](mailto:cherisse@vanillaplus.com)

### BUSINESS DEVELOPMENT MANAGER

Mark Bridges  
Tel: +44 (0) 1732 807412  
[mark@vanillaplus.com](mailto:mark@vanillaplus.com)

### OPERATIONS DIRECTOR

Charlie Bisnar  
Tel: +44 (0) 1732 807411  
[charlie@vanillaplus.com](mailto:charlie@vanillaplus.com)

### PUBLISHER

Jeremy Cowan  
Tel: +44 (0) 1420 588638  
[jc@vanillaplus.com](mailto:jc@vanillaplus.com)

### DISTRIBUTION

UKP Worldwide  
Tel: +44 (0) 8456 444137

### CIRCULATION

Circdata  
Tel: +44 (0) 1635 869868

### PUBLISHED BY

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

### DESIGN

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

Printed in the UK by  
The Magazine Printing Company  
using only paper from FSC/PEFC suppliers  
[www.magprint.co.uk](http://www.magprint.co.uk)



© Prestige Media Ltd 2014

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

All rights reserved. No part of this publication may be copied, stored, published or in any way reproduced without the prior written consent of the Publisher



## TIBCO to be acquired by Vista Equity Partners for \$4.3bn



**Vivek Ranadivé:**  
Deal provides immediate and substantial cash value

TIBCO Software has entered into a definitive agreement to be acquired by Vista Equity Partners, a private equity firm focused on software, data and technology-enabled businesses. Under the terms of the agreement, TIBCO stockholders will receive \$24.00 per share in cash, or a total of approximately \$4.3 billion, including the assumption of net debt. The agreement was unanimously approved by TIBCO's board of directors following a thorough review of strategic and financial alternatives conducted by a Special Committee of the Board.

"The sale of TIBCO to Vista will provide our shareholders with immediate and substantial cash value, as well as a compelling premium, and the board has unanimously agreed that this transaction is in the best interests of all our stakeholders," said Vivek Ranadivé, chairman and chief executive of TIBCO.

David West, a member of TIBCO's board and of the special committee, added:

"Over the course of TIBCO's comprehensive review, the special committee and its advisors evaluated a wide variety of strategic and financial alternatives, including a sale of the company. In reviewing the sale alternatives, TIBCO engaged in an extensive process involving a large and diverse group of strategic and financial buyers. Ultimately, the board concluded that the sale was the best alternative, and that Vista's offer to acquire TIBCO is the best way to maximise value for our shareholders."

Vista is a private equity firm with over \$13.5 billion in cumulative capital commitments, focused on investments in software, data and technology-enabled companies. Vista has an extensive track record of successfully completing take-private transactions, including taking five other public companies private in the past three years. The firm helps its companies achieve operational, product and customer service excellence by contributing professional

expertise, proven best practices and management techniques.

"We look forward to working with the talented management team and employees to accelerate TIBCO's growth and strengthen its leadership as a complete fast data platform," said Robert Smith, chairman and chief executive of Vista Equity Partners. "We worked hard to make this deal happen because we understand the tremendous value that TIBCO can bring to its customers and the marketplace as a private company. We are incredibly excited to help TIBCO reach its full potential."

The transaction is expected to close in the fourth calendar quarter of 2014 and is subject to approval by TIBCO stockholders, regulatory approvals and other customary closing conditions. ©



**Günther Ottendorfer:**  
Group is starting to understand advantages of open source projects

## Vip mobile reports successful NFV IMS trial

Serbian CSP Vip mobile has announced that it is among the first CSPs to have successfully trialed network functions virtualisation (NFV). Vip mobile demonstrated NFV technology on Metaswitch's Open Source IMS (IP Multimedia Subsystem) solution, called Clearwater, presenting live residential and business services.

IMS is a starting point for NFV and a first major NFV candidate to be virtualised and deployed in commercial networks. The nature of IMS services is favourable to virtualisation, as its implementation is supported by the right timing and technical progress. That is confirmed by Vip mobile's

trial and further validated through the following services: Multi-Ring (simultaneous ringing), Call Jump, Wi-Fi to GSM Call Continuity, Hosted PBX and many others that the operator has demonstrated.

"We are absolutely confident that the NFV technology is a paradigm shift for the telecommunications industry and for the Telekom Austria Group this technology evolution is of great importance. We are very proud that Vip mobile achieved another remarkable milestone in our NFV journey," said Günther Ottendorfer, the CTO of Telekom Austria Group.

"This is the first time in our Group that an Open Source community project has been used in order to implement telecom services on a virtualised environment in an operator network. Telekom Austria Group

has already learned many of the advantages possible with virtualisation, following trials in Croatia and Bulgaria. With Vip mobile's trial we are also starting to understand what advantages Open Source projects will bring to the Group," added Ottendorfer.

Dejan Kastelic, the CTO of Vip mobile, said: "We are more than pleased that Vip mobile counts among one of the first operators in the region to work with the NFV technology. Thanks to industry insights and resources that we have as a member of the Telekom Austria Group, we are able to constantly invest in the improvements of our mobile network and new technologies aimed at offering our customers innovative services and the best mobile experience in Serbia." ©



**Hasnul Suhaimi:**  
Correlating Facebook use cases with network statistics is an efficient way to detect and address network optimisation

## Facebook, XL Axiata and Ericsson working to improve app experience

As part of Internet.org's mission to bring affordable internet access to the two-thirds of the world not yet connected, Facebook and Ericsson, in conjunction with Indonesian CSP XL Axiata, have created a new methodology to measure and improve end-to-end network performance using simulated Facebook

application use cases. Network-wide optimisation implemented through the joint project delivered an up to 70% improvement in app coverage.

Chris Daniels, vice president, Internet.org, Facebook said: "As part of Internet.org's

efforts to connect the two thirds of the world's population that is not yet connected, Facebook is committed to working with partners to develop innovative tools and share learnings across the industry. With the methodology set forth in this white paper, we have a model for improving network performance that can be applied globally by mobile network operators. This will help ensure we have more efficient use of existing network capacity and resources, which is key to delivering on our mission to close the connectivity gap."

In Indonesia, 75% of users are on 2G GSM/EDGE networks, yet the country has the fourth-largest Facebook user base in the world. The changing market realities in the country are reflected in XL Axiata's

network, where, in 2013, data traffic rose by 142%. More than half of the operator's 62.9 million subscribers are data users and a majority of those use Facebook, according to XL Axiata estimates.

Hasnul Suhaimi, the chief executive of XL Axiata, added: "We believe this is the first time that an operator, network technology provider and application provider have cooperated on such a project. XL is proud to be selected by Facebook as operator partner in Indonesia. We believe app coverage is essential and correlating Facebook application use cases with network-wide statistics has proven to be an innovative and efficient way to detect and address network optimisation opportunities."



**Dr Andy Tiller:**  
This is a huge wake-up call

## European CSPs missing out on €2.2bn OTT profits

Western European CSPs are potentially missing out on more than €2bn in gross profits according to independent research commissioned by AsialInfo.

Undertaken by mobile communications consultancy firm Northstream, the investigation concentrated on 60 operators across 16 Western European countries.

The research identified that the current individual, essentially manual, approach to OTT collaboration normally undertaken on a case-by-case basis can be expected to generate a modest gross profit of around €160m over the next three years.

However, an approach based on deploying an open collaboration platform, providing OTT partners with direct but controlled access to the operator's IT assets coupled with the possibility to leverage end-user

context, would not only substantially reduce operating costs per partnership, it would also enable operators to add more partners, deliver more value and increase revenues from each collaboration. The net result is a 15-fold increase in gross profits to €2.2bn across the 16 countries.

Commenting on the research findings, AsialInfo's vice president of product marketing Dr Andy Tiller said: "This is a huge wake-up call."

### NEWS IN BRIEF

#### Nokia Networks enters into partnership with Flash Networks

Nokia Networks has signed a partnership agreement with Flash Networks to include Flash Networks' Harmony Gateway as part of its mobile broadband core network offering. The gateway enables CSPs to optimise video and web traffic for an improved user experience, including faster web browsing and downloads, smoother video viewing, and content control services.

"Partnering is an essential part of our company strategy to enable business growth for all the players in the market. We see an exciting partnering opportunity with Flash Networks to extend the ecosystem and grow beyond our current mobile broadband portfolio," said Thorsten Robrecht, vice president at Nokia Networks. "With the addition of Flash Networks' offerings into our mobile broadband portfolio, we create a significant value-add and enable mobile operators to maintain a competitive edge by providing the fastest

network possible while handling the dynamic growth in mobile data."

Ran Fridman, senior vice president of worldwide sales at Flash Networks, added: "Thanks to the partnership we will be able to expand our market reach while helping operators improve their network performance in a cost effective way by better utilising their existing network capacity."

#### Telefónica selects Comarch as recommended supplier

Comarch has been chosen by Telefónica as its recommended vendor of configuration management, network planning and design for Latin America and Germany. The agreement follows a similar decision made in November last year that appointed Comarch as the recommended vendor of OSS planning and fulfillment systems for Telefónica Group in Europe.

Modernising networks and systems by accelerating the deployment of FTTH and LTE technologies, as well as increasing network coverage is central to Telefónica's strategy. The goal is to meet customer needs and deliver innovative digital services, while at the same time improving the efficiency of the operator's global networks and operations.

By implementing Comarch's solutions, Telefónica wants to optimise and standardise its network planning processes as well as simplify and automate network configuration management for the group's companies. Comarch's solutions for network planning and configuration management for transport networks will support Telefónica's rollout of new infrastructure in Argentina, Brazil, Chile, Colombia, Germany and Peru. The plan to re-use Comarch's OSS solutions and business processes across Telefónica's multiple locations is in line with Telefónica's global sourcing strategy. The plan also aims to speed up OSS transformations and bring down their costs through group synergies.



**Johan Bergh:**  
The challenges of network evolution are addressed by latest MediationZone release

## DigitalRoute releases MediationZone 7.0 to give CSPs control over usage and performance data

Johan Bergh, the chief executive of DigitalRoute, said: "Version 7.0 is a milestone release that demonstrates how MediationZone continues to be synchronised with meeting the requirements of CSPs in a commercial

DigitalRoute has announced the release of its MediationZone 7.0 software, a platform that gives CSPs control over their usage and performance data in a flexible, cost-effective and robust manner.

landscape that is changing very quickly indeed."

Version 7.0 secures and also enhances MediationZone's reputation as the leading mediation product on the market while continuing to drive it towards accommodating the changing needs of modern communications service providers via an increased ability to support and enable innovative services such as sponsored data, lean roaming buckets, billing offload and more.

With the release of version 7.0, DigitalRoute continues to strengthen its'

offering towards the OEM channel.

MediationZone 7.0's performance enhancements are available as a free-to-use upgrade for all DigitalRoute customers. Some premium features and the newly available use cases included in 7.0's packaging can be accessed on a license basis.

With the new release the company is also launching InfoZone, an online documentation and collaboration tool that provides customers with the latest updated information about newly released functionality.

## Syniverse launches mobile engagement suite

Syniverse has announced the launch of its Mobile Engagement Suite that helps companies securely engage with their customers and employees anywhere, anytime, and on any mobile device. The suite is composed of two solutions – Mobile Engagement for Customers and Mobile Engagement for Employees – that help companies enhance customer acquisition and loyalty strategies through personalised, two-way communications on any mobile channel.

With Syniverse Mobile Engagement for

Customers, companies can use subscriber data to enrich the experience for their opted-in customers through secure real-time mobile campaigns and notifications such as loyalty programmes, coupons, surveys, contests and trivia. The GUI-based solution makes it easy for companies to create custom campaigns to connect with customers via multiple channels, including SMS, MMS, web, social networks, mobile app push notifications and email.

"Users have come to expect secure mobile

access anytime, anywhere, which is why we created our Mobile Engagement Suite to ensure companies can exceed customer and employee expectations for instant access and two-way interactions with nearly every mobile connected person," said Dave Murashige, general manager, Enterprise and Intelligence Solutions, Syniverse. "With our extensive reach to mobile users across the globe, we enable our customers' success with the ability to scale their mobile engagement strategies in line with their future growth while promoting and protecting their brands."

### NEWS IN BRIEF

#### Ericsson and SAP announce solution for enterprise mobility management

Ericsson has announced an agreement with SAP to securely deliver network-enabled cloud solutions, which will provide users with secure access to their business apps and content on mobile devices. For the growing Enterprise Mobility Management (EMM) market which is expected to reach \$2.1 billion by 2016 (Radicati Group), this joint offering will help businesses across all industries to better manage and secure organisational effectiveness and employee productivity. Ericsson will offer SAP Mobile Secure, a set of cloud-based solutions, combined with an IT managed service offering, expanding its portfolio of services available for its 400+ mobile network operators.

This offering combines SAP Mobile Secure with the stability and scalability offered by Ericsson IT managed services and service delivery capabilities. Worldwide, Ericsson

manages networks that serve 600 million subscribers and additionally provides managed services for networks that serve one billion subscribers.

"With its heritage in mobile security, SAP is known for its ability to develop flexible offerings that can be tailored to the needs of any enterprise," said Per Borgklint, senior vice president and head of business unit support solutions, Ericsson. "With the increased focus of mobile workforce productivity, this solution will enable fast deployment using the software-as-a-service delivery model. By using this model, we can serve both small enterprises that might not have expertise in IT security as well as the Fortune 100 companies with complex needs that require more customisation."

#### Nokia Networks claims OSS software as a managed service first

Nokia Networks is launching Operations

Support System (OSS) as a Service, enabling operators to shift capital expenditure to operational expenditure for more predictable as well as lower cost. Two OSS tools are being offered as a service: Nokia Performance Manager to help CSPs manage the performance and capacity of 2G, 3G and LTE networks, and Nokia Service Quality Manager which gives CSPs an accurate real-time view of service quality across mobile broadband and IT networks.

"Software as a service models are used widely in the IT industry, but in the telco market most operators still buy software solutions as an upfront investment. We are first to offer telco OSS software and related expertise as a service under our Managed Services banner," said Amit Dhingra, head of Managed Services at Nokia Networks. "With Nokia OSS as a Service, operators get advanced tools and vital telco know-how to optimize their use, for example KQIs built on our experience of real-life use cases. This launch is in line with Nokia Networks' strategy to equip operators with a wide range of flexible 'as a Service' solutions."



# VanillaPlus Video Talking Heads

Reach a global audience with  
your interview streamed from  
[www.vanillaplus.com](http://www.vanillaplus.com)



For more information contact: [mark@vanillaplus.com](mailto:mark@vanillaplus.com)  
Tel: +44 (0) 1 732 807412



## INWI migrates to Openet real-time policy

INWI, a Moroccan CSP has deployed Openet's Policy Manager to provide convergent policy control and allowance management. INWI has migrated to Openet's PCC solution so it can rapidly deploy new services to subscribers and create new revenue streams to maximise network capacity investments.

INWI has integrated Openet's Policy Manager with its Balance Manager and Offer Catalogue solution to monetise and shorten time-to-market for innovative new use cases. These will include the offer of one-day mobile data service passes and real-time data upsell notifications to its 13 million subscribers. These new services will ensure new levels of offer transparency and balance management to maximise customer quality of experience, control local and roaming traffic and reduce bill shock.

Openet's Policy Manager enables INWI to deliver differentiated and innovative data services to consumers and business customers across its mobile networks with possible extension to other access technologies. This includes the shaping of network traffic according to the type of service being accessed and the time of day. INWI can enforce user terms and conditions and bandwidth limits in real-time maximising the amount of available capacity for other users. This deployment will leave INWI well placed to monetise upcoming 4G LTE networks.

"Being agile and having the flexibility to react to and capitalise on new market opportunities is a critical contributor to our ongoing success," said Bernard Buyat, the chief technology officer of INWI. "Our partnership with Openet ensures we offer a high quality

and differentiated service to our customers and ensure they remain firmly in control of their service usage. INWI remains completely committed to offering our customers innovation and transparency, with the ability to rapidly react to new opportunities. Openet provides this flexibility."



**Niall Norton:**  
Access to flexible best of breed systems will play a pivotal role in monetising lucrative 4G services

Niall Norton, the chief executive of Openet, added: "Our work with INWI reflects the importance of next generation BSS in safeguarding customer quality of experience and the creation of new revenue streams. Having access to flexible best of breed systems will play a pivotal role in CSPs monetising new lucrative 4G services and driving customer retention."

## Telenet upgrades FTS Leap Policy Control

Telenet, Belgium's leading provider of broadband cable, telephony and internet services has carried out a major upgrade to its FTS Leap Policy Control system.

Telenet, a member of the Liberty Global Group, uses Leap Policy Control for bandwidth quota and policy management. FTS' solution serves as an integrated policy control and charging (PCC) solution within Telenet's network and BSS environment. It provides Telenet with volume-metering and associated rating functionality for its customers and delivers the source data for the informative Telenet Telemeter portal. This deployment ensures that Telenet's subscribers will continue to benefit from personalised

packages and quotas while providing Telenet with immediate upsell opportunities.

The upgrade also sees FTS' Leap Policy Control deployed within a virtual environment and includes integration with Telenet's new DPI infrastructure. Virtualisation enables Telenet to benefit from significant savings on hardware investment, ensuring a more cost effective, scalable and flexible infrastructure.

"Leap Policy Control has proved to be a very reliable and cost-effective solution," said Tom Nauwelaerts, the director of IT Delivery at Telenet. "We independently operate the system thereby reducing our TCO. Using FTS' policy control solution we have been able to

offer attractive offerings that enrich our customers' experience and enhance their stickiness. We are certain that the upgraded solution will continue to strengthen our business with a very satisfied customer base."

Giyora Ran, the vice president of operations at FTS, added: "We are proud to continue our excellent relationship with Telenet. Telenet will now be able to take additional advantage of the power of FTS' platform to support new and innovative policy and charging use cases that will foster a broad range of upsell opportunities and revenue growth." Telenet first deployed FTS' Leap Policy Control in 2006 to perform real-time policy control and charging of broadband services.

### NEWS IN BRIEF

#### Clarity Telecom selects NetCracker for managed services agreement

NetCracker Technology's has announced that Clarity Telecom has agreed to a multi-year, hosted managed services arrangement through which it will leverage NetCracker's order entry, provisioning, billing and revenue management solutions. The use of these solutions will enable Clarity to support its consumer triple-play service offerings as the operator rapidly expands with aggressive merger and acquisition activity.

"Given our past experience working with NetCracker, its managed services offerings were the clear choice to drive our core customer management, service provisioning and billing operations," said Larry Eby, COO at Clarity Telecom. "We can move our business forward with confidence knowing that NetCracker, as a proven partner, will provide us with a strong foundation now and into the future."

As a competitive cable operator delivering consumer triple-play services to communities across the upper Midwest, Clarity requires a strong order-to-cash solution that will scale and maintain cost stability and predictability as the operator grows. By partnering with NetCracker, Clarity will benefit from a world-class hosted managed services operation that provides mission-critical, strategic solutions for major cable, mobile and telecoms providers worldwide.

#### Swisscom selects Verimatrix revenue security

Verimatrix, a specialist in securing and enhancing revenue for multi-network, multi-screen digital TV services around the globe, has announced that Swisscom has chosen its Video Content Authority System to provide enhanced revenue security for its new Swisscom TV 2.0 service offering, which offers integrated live and seven-day replay services for more than 250 channels via an advanced Android-powered set-top box (STB).

Within the new TV 2.0 service, Swisscom has created a best-of-breed IPTV platform that could integrate rapidly with its in-house developed middleware, Harmonic's ProStream multiplexing and scrambling platform, and with advanced security chipsets and STBs.

VCAS for IPTV is integrated into Swisscom's TV 2.0 Android IPTV STB – developed in conjunction with Vestel – with iWedia software providing a smooth and intuitive user experience. The advanced security Android-powered STB also features Marvell's ARMADA(R) 1500 Plus (88DE3108) system-on-chip (SoC) platform with a Full HD video engine, dedicated security processor, and AVASTAR(R) 88W8897 Wi-Fi. The new recording function gives viewers great freedom. Thanks to a cloud-based architecture, subscribers can now record any number of programs in parallel within a storage capacity of up to 1,000 hours. High reliability service delivery is managed via geographically redundant head-ends.

**VanillaPlus Hot List: October/November 2014**

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

Vendor(s)	Client Country	Product/Service	Awarded
Cellwize	Telefónica, UK	Cellwize elastic-SON, Centralised Self Organising Network solution (C-SON) commercially deployed by Telefónica UK to enhance mobile network performance and quality of service for UK subscribers	10.14
Cerillion	GO, Malta	Implementation of new order management system as a module within Cerillion pre-integrated CRM & Billing	9.14
Comarch	Telefónica, Latin America and Germany	Selection of Comarch as recommended vendor of configuration management, network planning and design for Latin America and Germany	9.14
Comarch	NextGenTel, Norway	Deployment of BSS and service fulfillment solutions as part of IT environment transformation	9.14
Computaris	Teleena, Europe	Intelligent Network (IN) replacement project for mobile virtual network enabler (MVNE) awarded to BSS technical consultant and systems integrator, Computaris	9.14
Comverse	Deutsche Telekom, Germany	Enhancement of CSP's visual voicemail service with voice to text capabilities	9.14
Comverse	TELE Greenland, Greenland	Consolidation of traditional value-added services (VAS) into Comverse mVAS, cloud-based, fully virtualised system	9.14
Comverse	LIME, Caribbean	Comverse to manage BSS, VAS and operational systems for Cable & Wireless Communications' LIME branded operations	9.14
CSG International	Comcast, USA	CSG Content Direct deployed as content monetisation and management platform for Comcast Xfinity On Campus service	9.14
CSG International	Indosat, Indonesia	CSG Systems to enable Indosat to consolidate wholesale business and settlement operations using CSG Interconnect and CSG Route	9.14
FTS	Telenet, Belgium	Upgrade of FTS Leap Policy Control system for quota and policy management	10.14
NetCracker Technology	Vivo, Brazil	Expansion of billing managed services agreement to consolidate a billing system responsible for fixed line data services for enterprises with existing NetCracker billing managed service	9.14
NetCracker Technology	Clarity Telecom, USA	Multi-year, hosted managed services deal for cable operator to use NetCracker order entry, provisioning and billing management	9.14
Openet	INWI, Morocco	Deployment of Openet Policy Manager to provide convergent policy control and allowance management	9.14
Razorsight	Kodiak Networks, global	Razorsight Executive Insights and Real Time Predictive Analytics products to be deployed by global push-to-talk (PTT) provider	9.14
Syniverse	Alaska Wireless, USA	Multi-year deal agreed for Syniverse LTE solutions including Diameter Signaling, IPX Network and Reach Management	9.14
Verimatrix	Swisscom, Switzerland	Verimatrix Video Control Authority System chosen to provide enhanced video security for Swisscom TV 2.0 service	9.14
Witbe	Liberty Global, Europe	Deployment of Witbe monitoring system for interactive services on Liberty Global's digital TV platform	9.14
Witbe	Telenor, Norway	Witbe system selected to automate the testing and validation process of Canal Digital Kabel TV multiscreen services	9.14
Wyless	Interoute, Europe	Wyless Porthos Management Platform for M2M and Internet of Things deployed across the Interoute Virtual Data Centre	9.14

## NextGenTel chooses Comarch BSS and fulfillment

Comarch is to deploy a BSS and service fulfillment solution for a Norwegian CSP, NextGenTel. As a result of the project NextGenTel will complete a major transformation of its IT environment, leading to shorter time-to-market for new offerings and improved customer experience, thus enabling growth in both the consumer and business market segments.

The solution is based on Comarch's flagship products: Convergent Billing, Product Catalog Management and Next Generation Service Fulfillment.

NextGenTel offers mobile, fixed, internet and TV services. The CSP is part of the Telio Group, a communications service provider headquartered in Oslo, running

operations in Norway, Denmark, Switzerland and the Netherlands.

"Being aware of very positive references earned by Comarch in their previous implementations for CSPs worldwide, we have chosen them to partner with us in this major transformation of our BSS and service fulfillment environment. Among the factors that influenced this decision were the completeness of Comarch's solutions, offering rich functionalities combined within one modern platform, as well as the company's vast experience in doing big IT transformations, including those that relate to the very demanding business customers," says Jørn Hodne, the COO at NextGenTel.

The launch of the platform is planned for the first half of 2015.

"After a thorough analysis of NextGenTel's requirements, we designed a solution that would help them achieve the assumed business goals. These included improving the quality of customer relationship management, enhancing the transparency and accuracy in billing, increasing margins via focus on self-service and automation, and a significant reduction of service delivery times. We are confident that our BSS and OSS products can help NextGenTel achieve these results," says Piotr Piatosa, vice president and director of the telecommunications business unit at Comarch. 



## Syniverse chief steps down and company names Stephen Gray interim president and CEO



**Jeff Gordon:** We have put Syniverse at the centre of the mobile ecosystem

**Jeff Gordon** has stepped down from his role as president, chief executive and director of **Syniverse**, with immediate effect.

**Stephen Gray**, a member of the Syniverse Board of Directors since January 2011, will become interim president and chief executive.

Syniverse is a global transaction processor that connects more than 1,500 mobile service providers, enterprises, internet service providers (ISPs) and over-the-top (OTT) players in nearly 200 countries and territories.

"My time at Syniverse has been very exciting as we have transformed the business, completed key acquisitions and expanded our customer base, putting Syniverse in the centre of the mobile ecosystem while delivering valued, differentiated services to our customers," Gordon said. "It has been an honour to work with this outstanding team, which consistently provides superior service to our broad customer base."

**James Attwood**, chairman of the Syniverse Board of Directors, added: "Jeff's strategic vision for the business has been integral in driving Syniverse to this pivotal point in its history, and we appreciate his contributions and dedication during his almost seven-year tenure at the company. We are also grateful to Steve for joining the management team at this critical time. Steve is a seasoned executive who brings tremendous leadership skills and an established track record of operational excellence. Steve understands the tremendous opportunity for Syniverse with the proliferation of LTE and more advanced mobile technologies worldwide, ensuring Syniverse is well positioned for its next phase of growth."

Gray joined Syniverse's Board of Directors following the company's acquisition by **The Carlyle Group** in January 2011. An operating executive with Carlyle's Global

Telecommunications, Media and Technology Group, Gray has more than 25 years of experience in the telecoms industry and currently serves on the Board of Directors of **CommScope** and as chairman of **ImOn Communications**, SecurityCoverage, Involta and HH Ventures.

"As a leader in the enablement of LTE technology with reach to more than six billion mobile devices, Syniverse is an exceptional company poised for continued growth in the mobile ecosystem," Gray said. "We will focus the efforts of our world class team at Syniverse to propel the company forward, leveraging our unmatched operational scale, unique assets and unrivalled mobile expertise to continue to grow the business and deliver additional strategic value to our operator and enterprise customers across the world."

The board has now begun a search for a permanent chief executive officer. Gray will continue to be a member of the company's Board of Directors.

## Franciszkowski joins Intersec as vice president of research and development



**Thomas Franciszkowski:** Will manage more than 40% of Intersec's workforce

**Thomas Franciszkowski** has been appointed vice president of research and development at **Intersec**, reporting to chief executive, **Yann Chevalier**.

Franciszkowski will manage the R&D department accounting for more than 40% of the company's workforce. He will also be bringing to

bear his expertise in developing products and processes.

Speaking on his appointment to the role, Franciszkowski said: "I am very excited to be part of an organisation with such an impressive track record in building high performance solutions, and I look forward to working for this innovative and dynamic company".

In 2006, Franciszkowski obtained his MSC in Computer Science from Ecole Nationale Supérieure d'Informatique pour l'Industrie

et l'Entreprise (ENSIE) of Evry. He started his career as an R&D software engineer, then moved on to be an R&D team leader before going on to hold the position of director of engineering at **Bull**.

Chevalier added: "Thomas has led highly skilled engineering teams for many years and we are sure that he will bring a wealth of experience and technical leadership to the Intersec R&D department."

## INSIDE Secure appoints Bergenwall head of mobile security

**INSIDE Secure**, which provides embedded security solutions for mobile and connected devices, has appointed **Martin Bergenwall**, currently vice president of the group's embedded security solutions product line, to the position of head of the Mobile Security business division.

Bergenwall replaces **Simon Blake-Wilson** in this position. Blake-Wilson left the company on 29 August, having successfully completed the integration of **ESS** and **Metaforic** within the Mobile Security business division, leading to a comprehensive and enhanced security solutions offering for embedded mobile devices.

## Roland Kirch appointed CFO of Orga Systems

**Roland Kirch** has joined **Orga Systems** as chief financial officer. Kirch succeeds **Johannes Nussbickel** who decided to leave the company for personal reasons after having managed the finance and administration functions of the company over the past three years.

Kirch is an experienced finance executive. He was for many years in various management positions at the logistics company **Hapag-Lloyd** and was responsible for, *inter alia*, as chief financial officer for group finance and IT. Kirch also brings long-term experience in corporate finance having worked at **Ernst & Young** as well as **BDO Deutsche Warentreuhand**.



# Short innovation cycles mean it's time for DSPs to move fast with managed and cloud services

Our product, CMP, is inherently very flexible and includes the critical capabilities that are needed by enterprises and SMEs

**M**ark Edwards is chief executive of MDS, a provider of managed revenue and customer management systems that enable communications and digital services providers (CSPs and DSPs) to grow their business, evolve to digital services and rapidly monetise any type of communications and IT service. Edwards joined the company in September 2013 to spearhead its move into new markets. He has a reputation as a growth CEO which included growing Mformation from a start-up to a major supplier of mobile device management to tier one CSPs. Previous roles have seen him lead high growth business units at Microsoft, Symbian and Hewlett-Packard. Here, Edwards tells VanillaPlus why the time is ripe for DSPs to continue their adoption of cloud and managed services, and accelerate their move into digital services

**VanillaPlus: How do you see cloud and managed services for billing and customer experience management developing as the shape of the telecoms industry continues to transform?**

**Mark Edwards:** DSPs are experiencing a lot of disruption and I think everyone can see that with the advent of over-the-top (OTT) services and app stores, a lot of value is haemorrhaging away from DSPs in favour of new entrants. The key challenge for DSPs is to react to the hastened time to market and low barriers to launch new services. OTT providers can deliver to the mass market and update apps and services in very short periods of time.

The innovation cycle has therefore become much shorter and it's hard for DSPs to compete when their legacy

systems hinder that innovation, and are effectively not that agile. DSPs must be able to launch new, exciting offerings very quickly and have greater flexibility to target their customers and give them the propositions that they demand.

The benefits of cloud and managed services are that they provide that agility combined with quick time to market. The DSP is not encumbered by their legacy systems and organisational inertia. Additionally, the solution can be paid for on an opex model. That creates a healthier, shared-risk dynamic between the managed service provider and the customer organisation, and that in itself supports faster innovation. Furthermore the managed service provider is held accountable against service level agreements which underpin the business outcomes that are desired. ►



**Mark Edwards,**  
chief executive of MDS

**VP: What types of organisation is the managed services approach applicable to?**

**ME:** Managed service providers like us have a lot of expertise that brings value to all types of providers. There are a variety of different types of operators; obviously there are mobile operators, broadband providers and also MVNOs and VNOs that perhaps offer multiple services. Those might include mobile, fixed line, broadband, M2M, Wi-Fi, TV, SaaS or IaaS – in combination or the whole portfolio. We're dealing with all these types of scenarios.

Managed or cloud services are also applicable to DSPs that have adjunct requirements to support the launch of new services or innovations, or that have services they need to launch in a short timescale. Other relevant markets include greenfield operators and triple- and quad-play providers. For example, we recently helped a service provider successfully launch a new MVNO service in three months, which is four to six times faster than would otherwise have been attainable with a network deployment. That's a key benefit to partnering with an experienced managed service provider.

**VP: MDS has seen success in the enterprise sector, what benefits do you bring to that market?**

**ME:** Our product, CMP, is inherently very flexible and includes the critical capabilities that are needed by enterprises and SMEs. It was built so customers could define and add new services and offers quickly. For example, one prospect was trying to penetrate the enterprise and government market and had a lot of restrictions with their legacy billing system that precluded them from bidding on particular deals. They showed us the problem on a Friday and, by working through the weekend, we were able to show them the solution they needed to address the requirements to win the business on the Monday. Needless to say, we won this project.

Another example is a service provider that came to us for an all day workshop to share their requirements. ▶





The future is about differentiated digital services and the evolving role of the networks as well as the requirement to deal with the issue of innovation life cycles becoming ever shorter

In the morning we agreed that they would set us a complex tariff challenge, they weren't able to create and offer, and we would try to solve it. Literally within an hour of the workshop starting, we had configured the tariff into the system by using the expertise of our Managed Service team.

It's that flexibility, configurability and agility that has given us the edge in terms of proving the value of a managed service partner, to expand our customers business and provide a platform for growth that supports entering new markets.

**VP: What are your customers most concerned about?**

**ME:** They are most concerned with innovation. They need to innovate in order to introduce products and services with a fast time to market. They want to do this with a more opex-oriented model and to share the risk and tie outcomes to their business.

Cost efficiency is certainly very important and they also want to feel confident in their supplier. They want to know the roadmap of their partner is such that it can support their future plans.

**VP: Have you identified any new areas for MDS to head into?**

**ME:** We are focused on DSPs because their requirements for charging and billing are quite complex. With the growing demand for managed service and cloud, we are well positioned to take advantage of these trends and have increased our investment to expand our business internationally and particularly in EMEA and the North America markets.

[www.mdscem.com](http://www.mdscem.com)

We also see partnerships as a key growth area for the business and a way to deliver even more value to customers.

It's also an industry in transformation. Television is moving to the Internet and there are MVNOs and VNOs, and triple- and quad-play propositions which DSPs need to launch. These bring new opportunities for traditional operators, and new opportunities that involve enterprises from adjacent sectors.

**VP: How do you see the industry developing over the next five years?**

**ME:** The theme of innovation and the pace of the industry will continue on an upward trajectory. Cloud services and managed services will be increasingly compelling because of the need to rapidly innovate.

The future is about differentiated digital services and the evolving role of the networks as well as the requirement to deal with the issue of innovation life cycles becoming ever shorter.

One of the other trends we will see is the changing nature of the relationship between the service provider and the customer. The relationship – at least the monetisation opportunity – will need to expand so DSPs can better maximise the value of the data they provide.

I think that will result in the recognition that not all bytes are equal. For example, if I'm travelling on business and I have the option of purchasing a booster on my data speed for the day, I would be likely to purchase this plan if I needed a faster bandwidth. There are lots of opportunities for CSPs to monetise the services that customers like me are most interested in based on context, quality of service and location to maximise data revenue.

This requires higher performance real-time charging technology, which we have incorporated into our billing software and are able to offer as part of our Managed Service.

Real-time also changes the nature of the interaction with customers giving them more immediate up to date information about billing, and lowering the cost to serve new services. A data booster day pass might be attractive to a customer but only viable for the service provider to offer, if they can fulfill the order for cents.

Then there's the whole element of sharing data capacity, whether in enterprise groups or families. How these services are offered and monetised requires an evolution to the way billing is done. This will be fundamental to the revenue growth of digital services. This capability is something we've launched this year in our CMP solution, which we provide as a managed service. This increased appetite for managed services is another key trend we'll continue to see as the market evolves.

We are very optimistic about the future.



# POLICY

Can policy deliver flexible and profitable business models?

## **Analyst Report VanillaPlus**

Prepared by Stratecast

**Download your free  
copy here**

**[<http://goo.gl/yzktYL>]**

Sponsors





## Orga Systems.

### **GOLD CONVERGENT CHARGING AND BILLING**

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

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

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

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

# NAVIGATE TO WHAT'S NEXT

Operations & Monetization (O&M) is the key to business success



Our team helps clients reach smart business decisions in rapidly evolving markets through strategic forecasting and advisory services.

Scan the QR Code below to get your complimentary strategic insight report and an opportunity to receive a 30-minute Virtual Client Briefing.



Stratecast

FROST & SULLIVAN



# CSPs look to monetise with the power to predict

**Charlie Thomas is chief executive of Razorsight, a provider of cloud-based analytics solutions for CSPs. Here, he tells George Malim how the ability to predict network and customer behaviour and the capability to enable addressable advertising, provides CSPs with a valuable new revenue stream**

**C**SPs of all types are faced with the same business challenge, that of market saturation, which is resulting in limited opportunities for growth in traditional operations. "That places inordinate pressure on growing topline revenues, particularly for publicly quoted companies, which most CSPs are," explains Thomas. "Market saturation means price compression and a much more intense focus on delivering great customer experiences along with increased efforts to be proactive rather than reactive to customer issues."

That is where the power of prediction comes in. "I see real-time insights providing strategic advantage sooner rather than later because keeping customers is extremely challenging for CSPs," he adds. "I also see a lot of change in policy with SDN and virtualisation that are leading the industry down the path of maximising the value of real-time analysis."

However, CSPs must learn to extract the value from these insights. "You can produce all the real-time insights you want but if people aren't equipped to respond to it, it becomes just another report," warns Thomas, who says Razorsight is seeing an acceleration in deployments of its systems.

The company has expanded its relationship with T-Mobile US to include additional analytics modules, the integration of Metro PCS which was recently acquired by T-Mobile, and an engagement term extension. In the cable market, Razorsight has won

a similar extension and analytics module expansion with Comcast.

Kodiak Networks, the global provider of push-to-talk (PTT) services to CSPs including Vodafone, KPN, AT&T and Verizon, has also deployed Razorsight predictive analytics to assist its customer experience management.

Razorsight also won a four-year contract to provide Virgin Mobile with real-time and predictive analytics. "We're going to help them deliver more proactive customer experience management and have real-time insights into customer behaviour and consumption," adds Thomas, who is already turning his attention to the next CSP opportunity.

He thinks this will be addressable advertising. "Everyone's looking at big data and, while it's an over-used term, it can be used to create a better experience for every user," he says. "When it comes to advertising, companies want the ability to target users with relevant offers and the technology exists to do that."

"We see it as a big area of monetisation for mobile operators and cable operators on TV and on Wi-Fi," he explains. "There's tremendous potential as can be seen by providers like DirecTV increasing addressable advertising revenue from \$100m last year to \$600m this year. It's certainly going to be a burgeoning market for CSPs and all their data can be analysed to provide a personalised experience to the user without violating their privacy."



**Charlie Thomas:** CSPs and all their data can be analysed to provide a personalised experience to the user without violating their privacy

[www.razorsight.com](http://www.razorsight.com)



# Can fair usage policy enable CSPs to find the right mix?

Once policy was the exclusive domain of the network engineers, but these days that power is being localised to other departments like marketing and billing. But can these efforts be harmonised, asks Nick Booth ▶





**D**evolution of power applies as much to communications service providers (CSPs) as it does to governments. Once it was centralised and the exclusive domain of the engineers as they fought to keep the infrastructure up to speed. But policy has become both a wider brief and increasingly granular and sophisticated at local level. That's why each department is now demanding the powers to make its own policy. But can they collectively pull in the same direction? As CSPs began defending their territory from over the top (OTT) providers, policy was adopted as a tool to monetise and personalise services. Meanwhile, policy tools are being used elsewhere to shape the subscriber's experience. This empowering of individual departments to make their own policy could speed up the provision of services and the response to customer issues. If they get it right.

"CSPs need to have a policy policy," says Dean Bublely, founder of mobile and telecoms advisor Disruptive Analysis. Ultimately, there are only two types of policy: one controls congestion and cost, while the other set of functions is geared towards creating more revenue. Which sounds simple enough but it can go horribly wrong, he says. Giving the wrong policy tools to the wrong people will only set the CSP back. "In general, network-facing teams are good at understanding the cost side. But having people with an engineering focus talk about business models is a recipe for disaster," says Bublely.

Most CSPs will need experienced instructors will be invaluable in the transition. Ann Hatchell, head of strategy for **Amdocs'** new data experience business unit, urges caution over the transformation. Voice over LTE (VoLTE) will be a game changer but initially it could damage the CSP because it creates a ten fold signaling increase, as a consequence of all the extra variable involved in monitoring and managing service quality. "Run it separately at first," says Hatchell. There are definite benefits in partial deployment of virtualisation.

Which departments should be trusted with the early pioneering of policy? It all depends on whether they understand the modern demands of policy making, says Olaf Vieselmann, senior product marketing manager at **Orga Systems**. Those who understand that policy definition is no longer static and network centric are likely to be a good bet, according to Vieselmann.

Pricing is a good place to start, he says, but the real

challenge is to make a management platform that is easy enough for the semi-IT literate to use, but still potent enough to create meaningful shifts in the network's performance. "A single, consistent view is the foundation of policy aware charging," says Vieselmann.

It's not just about creating sets of easy to use templates, warns Victor Ferraro Esparza, **Ericsson's** strategic product manager for policy control. The use cases of policy must be verified and the simulation tools tested thoroughly before deployment in commercial network. "New or modified policies always affect the whole network. Even a simple policy can have severe network impact," he says.

Even in the traditional areas of policy, the game has changed, says Ben Parker, principal technologist at consultant **Guavus**. "You cannot just throw infrastructure at a problem now – in the way that CSPs once did - as there is too much ground to cover and an insatiable appetite for coverage. It's now a question of prioritising, making hard choices. You need to be very selective about your investment, down to the cell you want to improve," says Parker.

The potential for extending policy powers is enormous according to Martin Morgan, **Openet's** vice president of marketing. Fair usage policy could a great marketing tool, argues Morgan. The biggest for CSPs at the moment is that their business support system (BSS) stacks were built for a simpler world of voice and circuit switching. "It's like trying to get an old body to dance at a new tempo," says Morgan. With VoLTE about to electrify the industry, some CSPs could struggle with that.

Another fair use policy could prevent users from sleep roaming into a bill shock when they venture abroad. This would mean giving powers to yet another department, charging.

"Policy has to be easy," says Morgan, "with more achievable through BSS, more people want to get involved. It shouldn't just be the domain of techies to set policy. Devolution of power would make most CSPs much more agile."

As new services such as VoLTE become available, the agility of BSS will be crucial. The virtualisation of the underlying structure creates the possibility for new services to be rolled out in weeks. But, it's crucial that the policy use cases have already been worked out and are in place, says Morgan. Otherwise, there could be local outbreaks of trouble. 



**Martin Morgan:**  
Fair usage policy could create a great marketing tool



**Ben Parker:**  
Policy helps CSPs now they can't just throw infrastructure at a problem



## Embedded policy management – the DNA of next generation billing

**Communications business models are changing rapidly. Communications service providers (CSPs) are rethinking their roles in the digital world and must adapt their processes, structures and cultures to compete. They must switch from supporting business models to providing information during, or even before the event takes place. Most, if not all CSPs understand and agree that real-time responsiveness is vital in order to remain competitive, writes Olaf Vieselmann**



The author, **Olaf Vieselmann**, is senior product marketing manager at Orga Systems

**T**he data deluge has brought with it both challenges and opportunities. With the access to almost anything came the problem of knowing how much data was being consumed. Customers used too much and bill shock became a common term. Regulators moved to limit this, and mandated that customers must be told when their limits were reached. This is when policy management came into play. Customers were throttled or their usage was curbed. Then the business saw the opportunity. Instead of throttling, now customers are told they are approaching their limit and offered some extra data for a small fee. Over the next few years we will see a range of innovations that will be as different from the services of a decade ago as is possible to imagine.

One of the enablers of these services is LTE. This is not only driving the huge increase in data usage, but providing some challenges. One such is voice. Providing high definition voice over LTE will require leading edge policy management and real-time charging functionality in order to deliver what customers will see as a basic service. But with LTE it is far from basic and having policy management embedded in the real-time charging system will be a key functionality.

There is now a genuine focus on enhancing the customer experience. Cross functional customer experience teams are supporting the real-time responsiveness that is now in place in most CSPs. This is being supported by other trends such as centralised product catalogues. A centralised product catalogue means that customer service representatives have everything they need to intuitively up-sell and cross-sell customers, while actually offering them services that they want. Further, real-time functionality, together with embedded policy management is offering customers more and more control. This true customer self service reduces churn, increases loyalty and customers feel their device is a remote control for their digital life.

Whatever the services that CSPs choose to support over the coming years, instant responsiveness will be critical to success. Technology systems have to be reshaped in order to enable more innovation, to achieve superior customer experience, and to increase loyalty. Transforming legacy infrastructures into a real-time driven agile BSS needs to pave the way to new revenue streams and extended business models. To be able to take advantage of new opportunities providers will need to implement both real-time charging and embedded policy management as the DNA of next generation billing. 

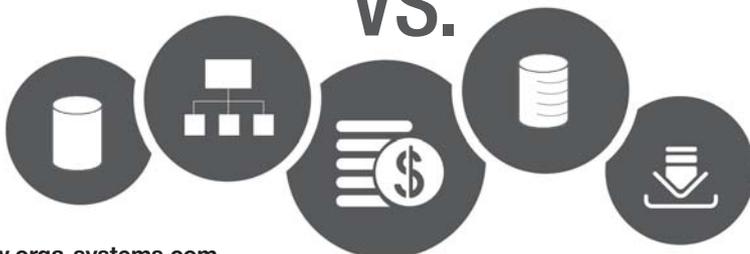
### EMBEDDED POLICY

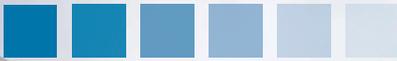
- Single and unified customer data repository
- Policy definitions as an extension to charging rules
- Policy components are part of products and tariffs
- Shared counter values and monetary balances
- Simplified provisioning with order management and customer care

### ADJUNCT PCRF

- Duplication and synchronisation of customer data
- Separated rules, rules engines, configurations and UIs
- Duplication and synchronisation of products and tariffs
- Counters and balances need to be fetched from OCS
- Parallel provisioning of charging and policy

VS.





# KPN rapidly builds and future-proofs key application supporting its mobile networks

**Facing the challenge of creating a new application to support the addition of 4G to its mobile service offerings, KPN needed to move quickly to take advantage of a market opportunity. Here, VanillaPlus explores the CSP's deployment of the Mendix App Platform**

**K**PN, the Dutch former incumbent communications service provider (CSP), also supplies telecoms and ICT services in the German, French and Belgian markets. The operator offers consumers complete solutions for fixed and mobile telephony, internet and TV. For business customers – from multinationals to SMEs to home offices – KPN provides fixed and mobile telephony and data services.

## The challenge

To roll out new sets of services for its cell phone plans, KPN previously had to make extensive changes to a massive internal database and workflow application. This Radio Access Network inventory administrative app supported all the processes for KPN's 2G and 3G networks.

In 2012, KPN started developing a more advanced 4G network to provide high-speed mobile data services

for its subscribers. But the creation of a new network posed a series of challenges. Internal developers determined that making changes to the old application to support 4G would be too time consuming and expensive. In addition, building a new, separate app to support different technologies would increase maintenance costs, create data quality problems from data entry across multiple platforms and cause delays in roll-outs of future changes in the 4G network.

“The options we had ahead of us were just too risky for the organisation,” says Ton Verhoef, product manager for Radio Tooling & IT at KPN. “Customising an off-the-shelf application would have required that we change our process and that would have added a half year to the 4G network roll-out. Additionally, building a new tool internally, with our IT resources, would have taken too long and been too expensive. We decided to go a different way.”

The company selected the Mendix App Platform to ►



To streamline the build process, KPN focused on business and functional requirements and teamed up with the IT services firm Tech Mahindra for development

build a new Radio Access Network Inventory administration application quickly and cost-effectively to support the addition of 4G mobile service offerings. Time to market was critical and a key attraction was the capability of the Mendix platform to accelerate subsequent app modifications by 70%. KPN is able to roll out new service offerings months sooner than previously possible.

Verhoef says the company chose the platform for three reasons: its promise of a short development time, the flexibility it offers for future builds, and its cost-effective pricing structure.

“The mobile industry is evolving at such a rapid pace, we have to roll-out new services quickly to stay ahead of our competition,” he explains. “Using the Mendix App Platform, we built a critical application much

faster than we could have using conventional development methods. Plus, the platform is so flexible and easy to use, it will save us months of development time every time we need to add new features.”

To streamline the build process, KPN focused on business and functional requirements and teamed up with the IT services firm Tech Mahindra for development. KPN’s internal team of one project manager and three IT architects worked closely with Tech Mahindra’s development and implementation teams on an agile, scrum-driven process.

Verhoef adds that Mendix’s visual, model-driven development environment, as well as social collaboration and project management capabilities, helped Tech Mahindra’s teams on-board quickly to the platform and speed up the development time. “The way the Mendix platform is structured, it offers a really iterative development process, which gives us great flexibility for the future,” he says. “Because the model is the working application, you can build prototypes, make changes quickly and seamlessly grow to the final production application. With Mendix, we can involve end users in the process and identify any issues early on. This helps us to come up with the right solution and have the flexibility to easily adapt in the future.”

## Results

Using the Mendix App Platform, KPN and Tech Mahindra created a new, integrated application that supports 2G, 3G and 4G and replaces earlier platforms. The total project cost in the end was actually less than KPN had projected just to make alterations in the existing application.

The company also expects to bring new services to market faster based on the time saved using the Mendix App Platform. In the past, Verhoef says it took six to eight months of development time on the old Radio Access Network inventory administrative app before KPN could roll out a new version of its network. Using Mendix, KPN can now update the new administrative app in less than two months, allowing the company to start a new service roll-out four to six months earlier than was previously possible. Then there are the innovation costs. Verhoef says he expects the cost of future changes to the app will drop by 30-40%, helping the company respond to fast-moving market changes and offer competitive services more quickly.

“Mobile networks will continue to develop in the future, and we’re going to need to develop new features,” Verhoef concludes. “There’s always another generation coming in the mobile industry, and Mendix provides us the speed and flexibility required to adapt our application as we go, so we can remain competitive and innovative.” 



# GUIDE TO IoT



**CSPs must keep open minds to enable M2M and IoT services across an ever-evolving landscape**

**Why IoT represents a new level of disruption for CSPs**



## TO DELIVER ON THE PROMISE OF TOTAL M2M INTEGRATION SIMPLIFICATION

Connecting assets to the Internet of Things, Your provider must bring you

- A portfolio of modules in all trending wireless technologies plus GNSS to address all your design requirements without compromises
- Compliance to Industry's most demanding quality standards to ensure your devices keep operating where others fail
- Services to provide, manage and protect your deployment's connectivity under mobile networks keeping you in control of costs and performance
- Industry's leading PaaS technologies to enable applications, connecting the data from your assets to any and all cloud services and enterprise systems they must integrate



The **INTERNET** of **THINGS**  
made **Plug&Play**



THE INTERNET OF THINGS **AWAITS YOU.**  
START CONNECTING YOUR DEVICES  
AND BRING YOUR IDEAS TO LIFE FASTER,  
WITH LESS COST AND RISK. CHOOSE TELIT.

[WWW.TELIT.COM](http://WWW.TELIT.COM)



**Oozi Cats:** We encourage the continued and relentless challenge of boundaries and limitations

## M2M, Internet of Things or industrial internet – whatever you call it, the global economic implications are immense

**As the machine-to-machine (M2M) market starts to mature and the concept of the Internet of Things (IoT) begins to be become real, the picture is one of massive opportunity but with significant challenges associated with harnessing the sheer volume of possibilities. With many billions of connections required to support services across multiple industries and another wave of mobile innovation in the pipeline with 5G technology, Oozi Cats, the chief executive of Telit, explains why it's vital to keep an open mind to enable M2M and IoT services and communications across an ever-evolving landscape characterised by continued innovation**

**V**anillaPlus: As information technology evolved from standalone mainframes to networks including PCs and other types of devices, the time between data collection and its arrival in the boardroom dropped significantly. How has this acceleration affected the way businesses are managed and operated?

**Oozi Cats:** The ability to access information and see into business processes in real-time has enabled the C-suite to become much more agile with their decision-making.

Traditional corporate decision-making processes have been structured around hierarchical data collection systems from the lowest levels of the supply chain, ►

In order to provide the always-on network connectivity required to avoid these types of crises, CSPs will have to step up their game



There is no doubt that whether you call it M2M, internet of Things or industrial Internet – the global economic implications of this technology are immense

progressively moving up into departments, eventually making their way as performance charts, graphs and red-flags into boardrooms – a process that often took months.

Today, a younger generation of employees – not to mention both business and consumer customers – take instant access to information for granted, whether it be email, always-on smartphones or social media. As a result, this internet-enabled agility is no longer a novelty, nor a luxury – it is a critical necessity for business in the 21st century.

**VP: The birth of machine-to-machine communications (M2M) extends the geographical reach of business processes outside the corporate campus into everything. To what extent does that present challenges to communications services providers (CSPs) and how fundamental is their role in enabling M2M?**

**OC:** Clearly, a communications channel is required to reach outside the corporate campus – in that way the CSPs are absolutely essential. That said, it has only been in the past few years that they have awakened to the unique needs of M2M applications.

Naturally, cellular service providers initially built their networks and related processes around mobile phones. More recently, as phones have become smarter, they have added bandwidth for data connectivity – but still focused on what has become near ubiquitous phone usage. Unfortunately, that development has still not fully addressed M2M requirements.

For example, if the cell phone in my

pocket breaks down, I can take it to the CSP's retail store and get a replacement the same day. Although that process is irritating and inconvenient, the severity of the issue doesn't even approach the kind of cost associated with, for example, a line-down situation in a production facility, a large regional black out of the smart grid, inability to access location information by emergency responders, or, worse, failure of remote medical equipment.

In order to provide the always-on network connectivity required to avoid these types of crises, CSPs will have to step up their game.

Thankfully, they are keen to take up the challenge. For the first time, as the mobile network community begins research into emerging 5G technology – which is still years away, of course – they are taking M2M and IoT into consideration now, seeking to apply lessons learned from previous network rollouts and growing M2M usage and applying them to future network planning from the word go.

In the meantime, M2M-focused MVNOs like Telit m2mAIR Mobile are able to provide a variety of value added services designed to enhance both serviceability and quality of service.

**VP: The potential the internet represents in commerce is an economy in and of itself – average retail prices right before the start of e-commerce included roughly a 50% stacking of distribution** ▶





**margins that the internet has the potential to replace. What effects do you see a mature M2M market having and what needs to happen to make its potential become a reality?**

**OC:** There is no doubt that whether you call it M2M, Internet of Things or industrial internet – the global economic implications of this technology are immense. General Electric predicts it has the potential to nearly replicate the GDP of the US or EU in 20 years’ time.

The hows behind this bold prediction are many and widely varied but boil down to a few key measurements. The first is efficiency or cost savings, which have been the traditional drivers for M2M adoption for the past 20 years.

Next, is service expansion, which is coming as a result of these maturing M2M applications. For example, an application designed to reduce onsite service calls as a cost-saving initiative might, over time, also enable premium preventive maintenance services, paid plans for proactive updates, real-time monitoring for the user and more.

Today, we are starting to see innovators and entrepreneurs develop entirely new categories of applications which make use of this proven technology to change the way we live, work and play – just look at what the automakers are doing with connected cars, wearable technologies like Fitbit and home automation tools like Nest.

Of course, economic indicators alone can’t begin to capture the emerging quality of life benefits likely to come from developments like the smart grid, telemedicine and more. It won’t be long now before we see the convergence of all this big data to create an entirely new class of services, both for business and consumers, that is every bit as

transformative as the industrial revolution of the early twentieth century.

**VP: As this evolution of the internet into industry began to show tangible results the push to connect more business assets further and further away has kept propelling advancements in M2M, causing it to arrive at an intersection with the emerging cloud technology. What opportunities does that present to M2M enablers and CSPs?**

**OC:** Cloud technology enables machines, sensors and other devices to upload and store vast amounts of raw data to create an analysis base and deliver brand new models for assessing performance, profitability, competitiveness and more.

As a result, M2M enablers and CSPs are able to deliver even more value to their customers – and by extension to their customers’ customers. In return, they will have better data themselves to transform their own businesses with new service offerings, and fine-tuned products and processes.

Having watched the growth of M2M and the Internet of Things for the past few years, I have seen so much exciting innovation, I wouldn’t confine the future to the limits of my own imagination. Rather, we will continue to partner with and enable the innovators driving this new industrial internet revolution.

**VP: Just as pilots in a glass-cockpit jetliner can punch up high-level information from hundreds of sensors and systems into manageable displays, so too can executives in the modern boardroom, using big data analytics to glean performance metrics of operations. How is Telit simplifying the connection of things to the Internet of Things?**

**OC:** With over 12 years of unparalleled focus on M2M, reducing technical risk and shortening time to market for OEMs and integrators, Telit’s ONE STOP. ONE SHOP delivers all necessary services and products to connect assets to the Internet of Things. Whether sourcing single products or full end-to-end solutions, count on M2M’s broadest portfolio in cellular, short range and positioning technologies paired with m2mAIR services covering application enablement as well as deployment management and connectivity under mobile networks and over the internet and cloud. Telit benchmark-quality products and services are delivered with global support and logistics exceeding exacting requirements from customers large and small. Telit’s ONE STOP. ONE SHOP delivers the Internet of Things as plug and play propositions.

We welcome the world’s new thinkers, and encourage the continued and relentless challenge of boundaries and limitations. Our products and services are about simplifying the connection of things to the Internet of Things as we continue to add value in this business process revolution. 





# IoT is the new disruption for CSPs



**Chris Halbard:**  
Numerous examples of IoT in action today

**The Internet of Things is already here. Look around and you'll find multiple examples of connected systems in the wild but with it comes a new disruption for CSPs, writes Jonny Evans**

**R**esearch firm IDC estimates there will be 212 billion connected devices by 2020. Those will be available from a plethora of different manufacturers and in countless product categories and driven by wearable fitness devices, smart thermostats and connected security systems.

"SIM-based connections to vehicles for fleet management and logistics, smart meters for remote utility monitoring and billing; and vending machines for

supply chain management, are all real world examples of the IoT in action," explains Chris Halbard, the executive vice president and international president of **Synchronoss Technologies**.

That's the present, but tomorrow will include billions of always-connected devices. Accenture/Acquity Group expects 69% of consumers will own an IoT device by 2019. All these systems will strain bandwidth and data handling infrastructure at CSPs – but there's money to be made. ►



"The growth of these devices will have a major impact on customer experience innovation across industries," notes **Acquity Group** president, Jay Dettling.

All these IoT device solutions will demand always-on, anytime access and connectivity using any available network or networking protocol. Not only this but these IoT solutions are transferring valuable data, so single sign-in and authentication is a priority. Encryption must be built in. And the price for transferring all this data must be small.

Steve Bowker, the vice president of Technology and Strategy at **TEOCO** notes: "Internet of Things (IoT) services are typically very low ARPU services and rely on large volumes of zero or minimal touch management to make sense for a CSP to support. Often they're supported by third party service providers who are effectively Mobile Virtual Network Operators (MVNO) sitting on top of existing CSPs, which means competitive wholesale rates have to be maintained whilst ensuring the service remains profitable for the CSP."

While the majority of IoT traffic may logically be offloaded to use fixed and wireless WAN, LAN and PAN broadband, IoT devices will make significant bandwidth demand from CSPs, particularly for product categories – such as cars and trucks – that are themselves mobile, or for services which require the security CSPs can provide within the network itself, such as geo-location, geo-fencing and trusted hosting.

"Even cutting-edge cellular networks can't deliver the bandwidth the Internet of Things will require: By some estimates, by 2020 the IoT will help to drive 22 times as much data traffic as exists today," **Freescale Semiconductor's** 2014 white paper warned.

"The cost of connectivity is key to the proliferation of M2M and IoT compared to traditional telecoms services. Similarly, whereas traditional telecoms services tend to be rolled out nationwide – IoT has a multinational capability and is not constrained by traditional contractual bounds that govern the telecoms services," notes Laetitia Jay, the vice president of M2M Solutions and Services at **Gemalto**.

Another challenge for IoT service provision is the sheer number of data sources from which to collect data. "Any CSP needs an effective big data processing

solution in place that can correlate data and perform cross-domain analysis in order to understand how the IoT/M2M connected devices are performing and to establish the profitability of new services," says Bowker. "We're seeing high growth in the adoption of IoT-type services especially among the more innovative forward-looking CSPs."

The nature of CSP services is itself changing. It's not about communication between people but communication between machines: "Traditional telecoms services are about connecting people to people. IoT on the other hand is about connecting people to machines to people to infrastructure, which is much more complex both in terms of the technologies and stakeholders involved," Gemalto's Jay explains.

There's already money on the table. Existing M2M implementations within IoT ecosystems include connected car and health insurance policies in which a user's habits and behaviour impact policy payments. This means there's an inherent locked-in value to the data CSPs are being asked to carry.

"The weakness in existing systems and networks lies in their OSS and BSS elements. Current IT systems have been built layer upon layer, or to support individual services only. They're not designed to handle the range of new, more agile services that faster networks with more capacity enable," says Halbard.

With so much data around, privacy is becoming another matter CSPs need to have in mind. The Internet of Things is "developing sporadically across different technologies at different stages rather than being a single, centralised, coordinated roll out," says Jay. "As such, steps need to be taken at the individual, organisational and state level to ensure security. Before anyone deploys IoT they need to understand and analyse the risk and ensure the right levels of security are in place."

IoT devices are "not a single company, single sector play". To be effective they require software and hardware developers, solutions consultants, large enterprises, government and a range of additional stakeholders to work together harmoniously. Within this value chain CSPs will be required to work within an ecosystem of complex and at times competing partnerships, each of which demand QoS be maintained. 



**Steve Bowker:** Internet of Things (IoT) services typically rely on zero or minimal touch management



**Laetitia Jay:** IoT is not constrained by traditional contracts that govern telecoms services

# DON'T EMBARK ON YOUR DIGITAL JOURNEY ALONE

3 Ways that Digital Disruption 2014 Prepares the Modern CxO for the Digital Journey

1

## CxO-tailored Flight Plan

Armed with an agenda built around the modern CxO, you will engage with and learn from an international community of experts on relevant topics that include:

- Internet of Things (IoT)
- Network Functions Virtualization (NFV)
- Customer Experience Management (CEM)

Get agenda updates at [#DD14FlightPlan](#)

2

## Exclusive Technology Exploration

Covering new topics and technologies around the Internet of Things, Digital Health, Smart Energy and Cities, and beyond, you will learn approaches and techniques for driving profits and reducing costs.

Talk technology at [#DD14TechEx](#)

3

## Hone Your Competitive Edge with Front-Line Insights

Engage in best practice workshops and practical interactive case studies that will give you the tools your business needs for future success.

Get early best practice insights at [#DD14BP](#)

PLATINUM SPONSOR

**NetCracker**<sup>®</sup>

GOLD SPONSORS

**ERICSSON**  **SIGMA**  
sigma-systems.com

SILVER SPONSOR

**EMC**<sup>2</sup>

CONFERENCE SPONSORS

**ERICSSON**  **IBM** 

ACTIVITY SPONSORS

**NetCracker**<sup>®</sup>  
NFV Workshop

 **Symantec.**  
Tackling Disruption  
Conference Session

**amdocs**  
Cable Summit

### TM FORUM LIVE! DIGITAL DISRUPTION 2014

brings together a collaborative community of senior leadership that includes disruptors, enterprises and providers.

#LIVEDD14 will prepare you for an exciting and productive journey through the processes of digital innovation and business transformation, while building your professional network with face-to-face activities.

REGISTER TODAY & SAVE \$100  
OFF VIP ON-SITE PRICE  
USE CODE: Save100VP  
[tmforum.org/dd14VP](http://tmforum.org/dd14VP)



DECEMBER 8-11, 2014 | SAN JOSE, CALIFORNIA

Offer expires November 30, 2014



# Upcoming events

## Telco Big Data Summit 12-13 November, 2014

Barcelona, Spain  
Organiser: Informa  
telcobigdata.com



## LTE North America 18-20 November, 2014

Dallas, USA  
Organiser: Informa  
<http://americas.lteconference.com>



## Cloud World Forum Asia 2014 24-26 November, 2014

Hong Kong  
Organiser: Informa  
[asia.cloudworldseries.com](http://asia.cloudworldseries.com)

## Analytics and Big Data Congress Europe 2014

2-3 December, 2014  
London, United Kingdom  
Organiser: Informa  
<http://analyticsandbigdatacongress.com>

## TM Forum Live! Digital Disruption 8-11 December, 2104

San Jose, USA  
Organiser: TM Forum  
<http://www.tmforum.org/dd14VP>



## Mobile World Congress 2-5 March, 2015

Barcelona, Spain  
Organiser: GSM Association  
[www.mobileworldcongress.com](http://www.mobileworldcongress.com)

# VanillaPlus Website



**Vanilla  
PLUS**

DRIVING PROFITS FOR COMMUNICATION SERVICE PROVIDERS

[www.vanillaplus.com](http://www.vanillaplus.com)



# Policy learns to keep it in the family

**The first mobile operator to create DIY policy tools that parents can understand could pull off a massive marketing coup, argues Nick Booth**



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

**T**here are two types of mobile policy. There are the policies that communications service providers devise, in order to get the most out of the creations they laboured painstakingly over and eventually gave birth to – their networks. And there are the policies that parents have to devise, to stop their kids getting lured into trouble by the providers of those mobile networks.

Surely, as parents themselves, the mobile operators ought to show some compassion for their subscribers, instead of luring their children into trouble. Isn't there an argument that one party's policy could be mutually beneficial to the other's?

The point of a CSP's policies is to stop their beloved network from being abused, exploited and having its attention diverted. It's about creating the right environment for them – with the recognition that it's impossible to dictate events. Development is never predictable and the best they can hope for is to channel energies and go with whatever works.

Family subscribers have a similar model. The parents work and invest in the services while the children set about the job of consumption. These two departments, though often in the same building, rarely communicate meaningfully. Mobile policy is a lot harder to dictate in this case, as the two parties and their relationship are much more complex.

Both groups of policy makers – CSPs and parental subscribers – meet infrequently in venues such as the Dog and Duck or the local sport club.

While the CSP policy makers have complete mastery of the tools for controlling traffic, they aren't so well informed about the human toll of mobile phone networks. The parental policy makers, on the other hand, know all about the neurological and psychological side effects of mobile phones, but have little idea about how to devise a policy.

Whenever parents meet and look for some common conversational ground, the talk often turns to youthful addictions. These days kids are permanently glued to some form of glowing glass rectangle. Wasn't life better, we joke, when kids had less harmful addictions, like TV.

Once hooked, it's incredibly difficult to treat a teenager for their screen addiction. They start with soft stuff, seemingly harmless recreational stuff like a Mac or a personal computer – often at school. These are just gateways to much stronger gadgets, with street names like Apple, Galaxy or tablet.

The effects are heartbreaking. If you want to part a 13 year old girl from her iPhone 5, you must first practice with a much simpler task, such as wrestling a bottle of steroids off a body builder. Whether by design or by accident – the jury is out on that one – it is the technology industry that is culpable for creating this compulsion.

Isn't this harmless though? Doesn't technology help kids develop the right skills for a better future? Not everyone agrees.

According to Forbes magazine, there is a recognition among top technology sellers that too much high tech has a detrimental effect on young minds. In Silicon Valley, the chief technology officer of eBay sends his children to the low tech Waldorf School of the Peninsula, a nine-classroom school, Forbes reports. As do executives of Google, Apple and Yahoo.

Well, hang on, if the maker of the iPhone and its search engines know there's danger in its content, surely we should all have the option for protecting our youth.

There's a gap in the market here for the CSPs. They know all about the tools of imposing policy. Why not find a straightforward way for customers (the parents) to devise their own policy for the consumers (their children) of the contents of mobile networks?

The first mobile operator to create a user friendly parental policy bundle would be giving parents a great Christmas present. Mind you, they'd be creating an awful lot of extra subscribers for their own baby (their network) to cope with. 





## Ready for Real Time?

Proactively address your virtual future

Migrating toward a virtualized network environment? Can your assurance solutions transition from reactive monitoring to proactive, real-time intelligence and analytics?

JDSU assurance solutions support both virtualized and non-virtualized environments for a seamless transition from today's physical networks to software-defined, orchestrated, virtual networks. Our solutions:

- Tightly integrate and couple with the network and services as well as orchestration and policy systems
- Leverage virtual software agents for intelligent and pervasive data access coupled with adaptive, application-aware analytics
- Provide correlated media, location, user-plane, and control-plane analysis that preempts and prevents service disruptions
- Enable efficient and effective integration of SDN, orchestration, NFV, and policy domains

Read more from JDSU in this issue of the NFV Guide, scan the tag, and visit us at [www.jdsu.com/nfv](http://www.jdsu.com/nfv)



NORTH AMERICA 1 855 275-5378

LATIN AMERICA +1 954 688 5660

ASIA PACIFIC +852 2892 0990

EMEA +49 7121 86 2222



# Enabling Freedom for the Internet of Things.

Your wireless data solution is more than just data connectivity. We understand that.

So we not only built the world's most advanced global wireless data management platform and private managed network, we also built our business upon the most important connections of all – our relationships with our partners, carriers and customers.

That's why Wyleless is the trusted provider to our partners and the trusted solution for Fortune 500 companies and startups alike. We're the easiest company to work with.

We listen to our customers and take pride in every connection. Wyleless offers truly uncompromising LTE, 3G, and 2G data solutions, delivering worldwide wireless connectivity over the most secure and resilient private managed network infrastructure delivered in partnership with 19 Tier 1 MNOs in over 120 countries. We provide unrivaled management tools and empower you with end-to-end managed services, technical expertise and dedicated support. So connect with the experts and together we'll take your applications to the next level. You have found your true IOE ( Internet of Everything ) and broadband data partner.



**wyleless**®

The leading global M2M managed services provider

+1 617 949 8900  
+44 1895 454 699  
info@wyleless.com  
www.wyleless.com



**DOWNLOAD YOUR FREE  
COPY HERE**

<http://bit.ly/14RmcDj>

# CEO GUIDE TO NFV PART 1

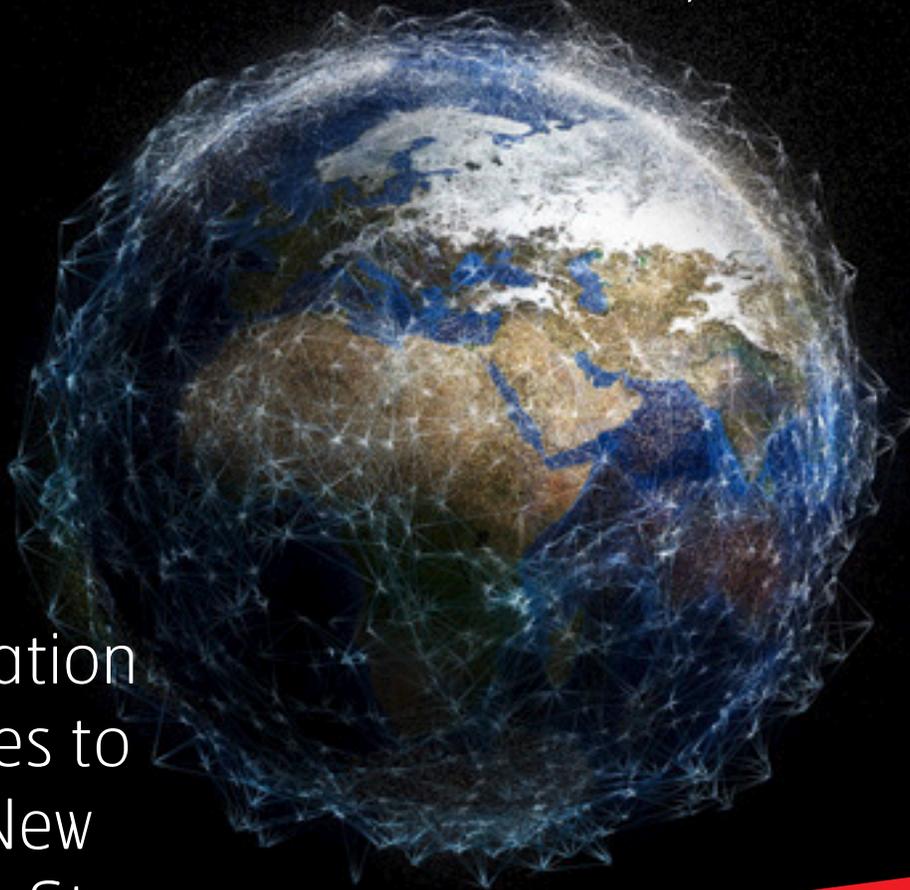
NFV isn't just another  
network technology upgrade

- **TALKING HEADS**  
Cisco Systems' Phil Harris explains why NFV benefits can be real
- **NFV PREPARATION**  
Should CSPs start with the easy steps?
- **VIRTUALISED TESTING**  
Can the testing overhead be reduced?

# 30 BILLION

CONNECTED DEVICES AROUND THE WORLD

*What does this mean for you?*



Monetization  
Strategies to  
Unlock New  
Revenue Streams

**Customer Series:**  
Leading global  
Operators capitalize on  
new opportunities



In this issue, INSIGHT takes a look at the opportunity that 30 billion connected devices will bring across the industry.



**Welcome**

02 04

**Outside Perspective**  
Ovum

**Red Trends**  
Top trends impacting  
the industry

06 08

**Customer Spotlight**  
with the CEO

**Customer Spotlight**  
Delivering virtualization  
at Vodafone Germany

10 12

**Customer Spotlight**  
Driving customer-centricity  
at BH Telecom

**Customer Spotlight**  
TSTT delivers hassle free service

14 16

**Customer Spotlight**  
Oi captures new  
revenue quickly

**Outside Perspective**  
Quindi Research: Billing  
strategies for energy providers

18 20

**Outside Perspective**  
Analysys Mason on the  
role of wholesale

**Red Comment**  
View from Redknee's CTO

22 24

**Red News**  
Latest highlights  
from Redknee

**Beyond the Buzz**  
Industry updates from  
around the globe

26 28

**Red Perspectives**  
From Redknee Product  
Management

**Red Locations**  
Where in the world  
is Redknee?

30 32

**Redknee Events**  
Meet Redknee at  
a city near you

Welcome

02

At Redknee, our goal is to make sure service providers are ready to capitalize on new opportunities.



The way we communicate is undergoing a dramatic shift. By 2020, there will be over 30 billion THINGS connected to the Internet. It's quickly becoming a world where the traditional concept of communication is being turned on its head. A world where a cow's udder in Wyoming can talk to a Kraft executive in Illinois and trigger automatic adjustments to dairy production lines in Vermont and grocery store prices in California; where mobile medical devices track the health of patients as they go about their day, sending constant updates to medical teams that are across the hall, or across the globe. It's a world where connected cars talk to each other - and to traffic signals and road sensors; helping ease congestion, provide traffic updates and even send drivers real-time location-based coupons for nearby restaurants and shops. Now imagine millions of other scenarios just like these.

### **Change is coming - and it's coming fast.**

Many CSPs are trying to determine what role they will play in this new world of connectivity. The Internet of Things (IoT) ecosystem partnerships are being put into place. Sensors, spectrum, devices and apps are all being developed and fine-tuned to meet the growing demands of an increasingly connected, mobile world. At Redknee, our goal is to make sure service providers are ready to capitalize on these

new opportunities. Our solutions support the monetization of new service offerings from concept to cash; new services such as the connected home, the connected car, tele-health, utilities, and smart cities. The opportunities for service providers and their subscribers are practically endless, but the key to success requires that the right tools and systems are in place.

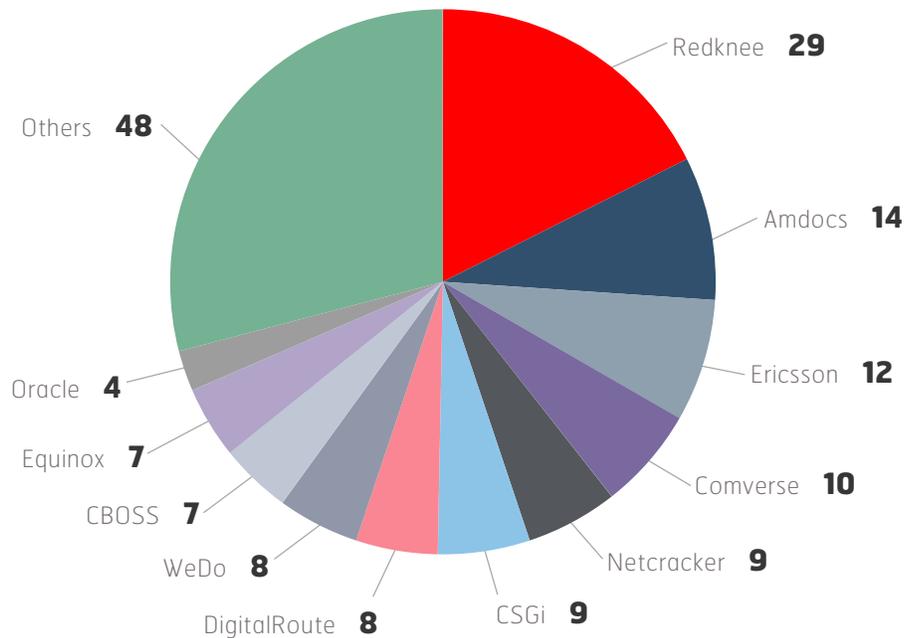
In this edition of INSIGHT, we focus on what these 30 billion things will mean to our customers and partners. With expert commentary from the operator community, including Vodafone Germany, TSTT, BH Telecom and Oi, from the analyst community, and our own Product Management and CTO group, we have brought together a collection of perspectives on how service providers can approach this opportunity and challenge.

At Redknee, we've never been more excited about the future and what lies ahead. We hope you enjoy this edition of INSIGHT Magazine and that you take a moment to consider all the possibilities that tomorrow will bring.

Sincerely,  
Michaela Radman,  
*Editor-in-Chief*

## Redknee Tops Ovum BSS Vendors List for Second Consecutive Period

Source: Ovum



A recent report by a market-leading analyst house, Ovum, includes a comparison of the number of contracts awarded by quarter from 3Q13 to 2Q14, and an assessment of the top 10 OSS and BSS vendors by contracts awarded. The report states:

“Demand for revenue management products, particularly integrated policy control and online charging platforms, has put Redknee at the top of the list for the period covered. This shows not only that policy and charging is a growth area, but also that the telco IT market is no longer the sole preserve of the large infrastructure vendors”.

Redknee topped the list of BSS vendors for the second consecutive reporting period, which emphasizes its leadership, focus and success, in providing innovative solutions that address its customers’ business objectives. The report also reflects Redknee’s increased recognition as a global industry leader, which is in line with Redknee’s growth plan, to increase its market share and deliver the highest level of service to its customers.

To read the full summary please visit: [www.redknee.com/files/PDF/Analyst\\_Briefs/OSSBSSmarketsummary.pdf](http://www.redknee.com/files/PDF/Analyst_Briefs/OSSBSSmarketsummary.pdf)



**REDKNEE**

Looking Beyond



# MONETIZING THE DIGITAL WORLD

Redknee Unified brings service providers the power to differentiate in an era where mobile users are more connected and demand to be in control, informed and always on.

Be ready to monetize digital services from communications to utilities and smart meters, transportation, connected homes and vehicles, and other future businesses as the growing ecosystem of the Internet of Things (IoT) evolves.

Charging | Policy Management | Billing and Customer Care



# Tech Trends

*Looking Beyond...*  
To the Connected  
Customer Experience



The way we communicate is changing, people are constantly connected, in command, informed, social and always on. Fundamentally we have gone live, and CSPs need to catch up and deliver a seamless connected customer experience. To support the change in customer interaction and transaction management, CSPs must operate in a lean and agile fashion with the right technology if they are to keep up with a socially connected customer base. CSPs must adapt, become more relevant and responsive.

*Looking Beyond...*  
Net Neutrality and  
Content Monetization



Monetizing content delivery in this new world requires a very different skill set from traditional broadcast and access subscription models. The consumer has control in the new model. The value chain has a huge role for content owners, and the combination of premium content with premium delivery across multiple devices will be the new norm. In this new model, legacy billing just won't meet these demands. A successful content monetization strategy must incorporate customer access to premium content with settlement to content providers, but most importantly must have a customer self-service model so consumers can choose content on the fly.

*Looking Beyond...*  
To the Changing  
Face of Policy  
Management



The role of policy in the CSP's technology set has changed from one of network protection to one of marketing differentiation. Essentially the 'old' role of policy management is quickly changing from network congestion management to enablement of innovative marketing offers. Integrated charging and policy is a critical area CSPs need to explore to be able to offer flexible payment plans, OTT sponsored content, premium services and more. Mobile content is changing the industry, and operators need real time system flexibility to keep up.

*Looking Beyond...*  
To the Potential of  
4G Monetization



According to a recent survey of CSPs worldwide conducted by Informa, the majority of global operators believe their current BSS systems prevent them from monetizing 4G properly. Since 4G reflects a real tipping point in our industry, enabling ubiquity of bandwidth at any time of day, and since smart devices make OTT services accessible at the touch of a button, the need is ever more important and urgent for CSPs to craft rapidly responsive marketing offers that appeal to their customers and others in the value chain.

*Looking Beyond...*  
To Monetizing the  
Internet of Things (IoT)



By 2020, it is expected that 30 billion new things will be connected to the Internet, and a commercial business model to generate revenue will be required. To take advantage of the full business potential of IoT, CSPs should explore IoT vertical needs and horizontal capabilities, and focus on the IoT value chain, including network, applications and connected devices. It's important to ensure that the right technology platform and strategy for IoT, which provides full end-to-end integration, is in place to develop the right business model with respect to partner management and charging.

Customer  
Spotlight  
with the CEO

08



# CELEBRATING **CUSTOMER SUCCESS**

“ We are pleased to be able to highlight how our customers are leading the field when we benchmark the industry’s best in terms of innovation, customer experience and launching new revenue streams. ”

Thank you for your continued support of Redknee. For the second edition of INSIGHT, we wanted to place a special emphasis on the success of our customers and provide a platform for them to share their stories. Today, Redknee supports more than 200 communications service providers and is supporting service providers to monetize digital services across utilities and smart meters, transportation, connected homes and vehicles, and other enterprises that are emerging from the growing ecosystem of the Internet of Things (IOT). We are pleased to be able to highlight how our customers are leading the field when we benchmark the industry’s best in terms of innovation, customer experience and launching new revenue streams. Supported

by our customer successes, Redknee has been recognized for the second consecutive reporting period as the leading BSS vendor in Q3 2013 to Q2 2014 by the market-leading analyst, Ovum. An excerpt of this report can be found on page 4.

I would like to thank Vodafone Germany, Oi Brazil, BH Telecom and TSTT for sharing their valuable and insightful stories. This a cross-section of how operators across the globe are approaching today and tomorrow’s opportunity and challenges and I look forward to shining the spotlight on our other customers in the next edition.

Regards,  
Lucas Skoczowski  
*CEO, Redknee*

# Delivering Benefits of Virtualization for Tier 1 Network Operator, Vodafone Germany



## Why Virtualization?

Redknee has been a leader in telco-grade BSS solutions and applications for nearly 20 years. Over this time, online systems have evolved to support intelligent networking and open architectures, along with the move from client-server to blade technologies, and the adoption of virtualization technologies.

Redknee's innovation has helped CSPs deploy virtualized BSS and mission critical applications in private and public cloud environments, and in hybrid cloud configurations.

Redknee is supporting the virtualization strategy of the Tier 1 network operator, Vodafone Germany to reduce costs and enhance the customer experience as the operator looks to optimize existing services and to future-proof its 4G / LTE network investments. Vodafone Germany has been using its private cloud in a VCE environment – a combination of VMware, Cisco hardware and EMC disk arrays as a common pool of resources to manage their IT infrastructure in their back office, with a business driver of simplifying their hardware footprint across IT and network operations. Redknee, as a major supplier for Vodafone, has provided its real-time charging solution for Vodafone Germany's Intelligent Network (IN) services

in this virtualized environment - helping Vodafone Germany prove their case for virtualization of mission critical applications.

"As a global communications business, it is our goal to provide the best services to connect our customers and to enrich their experience," said Rui Frazao, Director Network Engineering of Vodafone Germany. "By introducing Redknee's Unified product into Vodafone's private cloud environment, we have the ability to launch services faster to the market, reduce hardware costs, cater to increasing traffic flexibly, and support existing and future requirements, such as IMS, real-time online charging and VoLTE."

“ By introducing Redknee’s Unified product into Vodafone’s private cloud environment, we have the ability to launch services faster to the market, reduce hardware costs, cater to increasing traffic flexibly, and support existing and future requirement. ”

Rui Frazao, *Director Network Engineering of Vodafone Germany*

### The Advantages of Virtualization

By leveraging a long term strategy that focuses not only on the cost savings associated with virtualization but also the real business benefits of risk reduction, scalable performance and agile marketing, Redknee is helping CSPs worldwide, like Vodafone Germany, compete using virtualized systems and agile business models. By recognizing that this strategy plays out in an evolving, complex IT operations environment, and maintaining focus on software agility and simplified integration points, Redknee is helping its customers perform in a more agile and competitive manner.

Experience shows that virtualized BSS, whether deployed in private clouds, public clouds or a hybrid configuration, can be used to increase operating rhythm, thus reducing business risk. By allowing service

providers to test and launch new offers quickly, to manage capacity growth, and to hand off legacy offers that over-complicate operations without failing regulatory compliance, virtualized systems actually reduce overall business risk for the Tier 1 provider.

For Tier 1 service providers, cloud-based BSS provides both an additional test bed and a means to respond more rapidly to competitive threats. As new offerings become mainstream, service providers can choose to migrate them from the cloud to their mainline systems according to their own timeline.

### Unlocking New Capabilities with Virtualization

By providing fully product-based solutions, using systems configuration rather than a customization/services approach, and

supporting transparent virtualization, Redknee allows the CSP to focus its energies on providing the types of services and packages of pricing and policy that enable it to compete rapidly without having to tie software strategy to hardware strategy. This true software approach provides unique value to the CSP, giving the IT and network departments the freedom to source hardware and operating systems independently of their mission critical applications.

Gartner’s Hype Circle for Virtualization 2013 commented that virtualization changes how IT is acquired, managed and used, and challenges how software is supported and licensed. It influences new forms of applications and has become an enabler of cloud computing and other delivery models for providers and consumers alike. Virtualization can drive companies to treat IT like a business service.

“ Virtualization changes how IT is acquired, managed and used, and challenges how software is supported and licensed. It influences new forms of applications and has become an enabler of cloud computing and other delivery models for providers and consumers alike. Virtualization can drive companies to treat IT like a business service. ”

*Gartner Hype Cycle for Virtualization 2013*

# Converged Charging System Drives Customer-Centric Business at BH Telecom

*Amir Orucevic, Director at BH Mobile and Lucas Skoczowski, CEO of Redknee discuss how Redknee Unified enables BH Telecom to drive innovation and leadership in the market, with the flexibility to launch services faster.*

**INSIGHT:** Tell us about BH Telecom

**Amir Orucevic:** BH Telecom is the leading telecom provider in the Bosnia and Herzegovina market; it has a 45 percent market share in the fixed access and 48 percent in mobile. BH Telecom was the incumbent operator, and the first to introduce both IPTV and mobile services in the Bosnian market. In addition, we were the first – together with Redknee – to launch prepaid services in 1999, using converged charging.

**INSIGHT:** How is Redknee helping BH Telecom

**Amir Orucevic:** We are using Redknee products to host 80 percent of our customers. We were the first in the market to introduce the converged service to the business segments.

**INSIGHT:** Can you provide some examples of the kind of services that you are launching using Redknee products?

**Amir Orucevic:** We are using the platform to introduce the converged products for our residential offers, which means prepaid and postpaid segments, as well as

fixed and mobile services. So we treat each personal need as a part of the group offer targeting the family, where several members have special tariff bonuses and mobile phones.

**INSIGHT:** How does Redknee help BH Telecom to launch these new services?

**Lucas Skoczowski:** We have been running the Redknee Unified suite of products to give BH Telecom the configurability and fast time to market to create new promotions, to drive new campaigns, and create new pricing plans. They can pick any of the service types they have – for either consumers or business subscriber segments – and combine them in different ways to address the needs of different customer types. With one suite, Redknee can offer real time charging, billing, policy and analytics that allows for really powerful combinations to drive new revenue models.

**INSIGHT:** Did BH Telecom have to make any

changes to the back office to support these new services?

**Amir Orucevic:** Yes we made some changes, and thanks to Redknee's solutions, we have become more customer-centric. This means we have a lot of customer data that actually improves our efficiency and increases our ability to support the customer through the end-to-end process, from ordering services to customer care. Before, our data was at least 15 minutes old; now we have real time data that improves our efficiency as well as the customer experience.

**INSIGHT:** We are seeing a big industry transition to LTE and 4G, what is the significance of convergent charging during this transition?

**Lucas Skoczowski:** As we shift towards 4G, service providers want the flexibility to address different segments and to create relevant promotions. One thing we are doing with BH Telecom is allowing them to create

“ Thanks to Redknee's solutions, we have become more customer-centric. ”

“Redknee’s solutions make us equipped and ready to offer LTE services to our customers, and to generate new revenue.”

promotions quickly - it can take as little as 5 or 10 minutes. BH Telecom can launch a promotion and get feedback on how it is performing – immediately, or over the next few days – and, if need be, change it very quickly. Convergent charging allows service providers to create specific targeted plans by segment, by time and by content. They can introduce data only plans, mixed plans with IPTV and fixed, as well as 4G to really create both their own content and over the top offers. This allows them to drive mixed business models where service providers are in charge of driving their revenues and profitability.

**INSIGHT:** The industry is currently undergoing rapid and dynamic changes, how do you stay up to date and relevant as this takes place?

**Lucas Skoczowski:** We want to give our customers the tools – both on-premise and in the cloud – that allows them to segment their 4G subscribers and create a fully capable offering with an experience all the way from point of sale to cash collection. We have a model for operators to be able to offer services by subscriber utilizing the full Redknee Unified stack, which enables them to transact and take advantage of the full 4G flexibility. And as they grow the

business, they don’t have to undergo risky and expensive transformations, instead they can achieve solid return on investment and take advantage of not only 4G devices, but also 4G business models.

**INSIGHT:** The industry is changing just as fast for network operators, what does BH Telecom need to do to keep up with your customer’s demands?

**Amir Orucevic:** We need to keep our leading position and be first to market

with innovative services. Next year, the Bosnian regulatory agency will publish 4G licenses, and we are planning to invest in LTE. Redknee’s solutions enables us to be equipped and ready to offer LTE services to our customers, and to generate new revenue.



# Experiencing the Benefits of a Convergent Billing System

*Ronald Walcott, TSTT's EVP of Bmobile Service & Operations Mobile and Lucas Skoczowski, CEO of Redknee discuss how Redknee has been instrumental in TSTT's growth and development over the years.*

*TSTT is a leading telecom in Trinidad and Tobago. It is the only telecom operator in its market that provides a full suite of products and services including fixed line, broadband, TV - both wired and wireless, and of course mobile, including security. TSTT has a long-standing and trusted relationship with Redknee, who has provided TSTT's billing platform for over ten years.*



**INSIGHT:** Why is Convergent Billing critical to TSTT's success?

**Ronald Walcott:** Convergence is the way we want to move forward in our business - triple play, quad play, quin play - bringing the technologies together on this mobile broadband solution is really what we mean when we speak about convergence. You would then need a billing platform that can provide the convergent billing to be able to bring these different products together, to enable us to offer these to our consumers. Redknee has been very instrumental in helping us to be able to do that.

**Lucas Skoczowski:** The key benefits of a convergent billing environment for operators is really all about creating a subscriber-centric infrastructure. Convergent systems really allow them to bring subscriber oriented capabilities where they can monetize and more importantly interact. It's all about interaction with the

“Convergence is the way we want to move forward in our business and Redknee has been very instrumental in helping us to be able to do that.”

Ronald Walcott, TSTT

subscriber in a real time fashion to be able to educate, discover, and make them aware of new capabilities for the subscriber and allow them to consume it. We also see the whole aspect of analytics being critical as part of the convergence. In addition, I believe operators should be able to do it either on a post-paid, pre-paid or a hybrid basis.

**INSIGHT:** How is LTE enhancing TSTT's strategy for growth?

**Ronald Walcott:** LTE and LTE-Advanced speaks to enhance mobile broadband speeds. With UMTS HSPA+ the typical customer experience would be 500 kilobits to 1 megabit per second in terms of their broadband speeds. With LTE, you are talking about 7 megabits per second, 10 megabits per second, which is going to become normal expectations for consumers. It is with the enhanced broadband speeds where you can now do things like video streaming and music downloads. Therefore you will need to be able to provide the policies and have a billing platform that is flexible and robust enough to be able to support such a technological advancement.

**Lucas Skoczowski:** LTE provides unparalleled flexibility for what subscribers can use and how they consume services

“ The key benefits of a convergent billing environment for operators is really all about creating a subscriber-centric infrastructure. ”

from service providers. So it's a big opportunity for service providers on one hand. It is also a big challenge because it puts a lot of pressure on the infrastructure they have today to be able to charge and monetize the services in different ways based on the combinations that subscribers want. Real-time used to be nice to have, under LTE it is a must have.

**INSIGHT:** What does being fast mean to TSTT?

**Ronald Walcott:** The need for speed speaks to time to market - how quickly can we produce a new product or service? In order to have the speed to deliver we must have a partner particularly around billing. In addition, as a leading service provider we must have the agility to be able to quickly offer new services or change and adapt the offers we make, and we are happy that we are working with Redknee to achieve this.

**Lucas Skoczowski:** There is definitely a lot of talk in the market about need for speed

and Redknee wants to help in the equation where we see value for our service provider customers to achieve unparalleled quality in the market. But speed is really achieved by three things; a product that is configurable, this is very critical because you can quickly adjust and change the look and feel of your offering through flexible configuration. Second, is the ability to virtualize both within a country private or public cloud, regionally or globally and that will allow you to be able to take on and consume more app rates faster, allowing you flexibility of capacity and the ability to transact. Third is where it is situated, so it's all about the cloud.

**INSIGHT:** How has your long-standing relationship with Redknee helped to achieve TSTT's success?

**Ronald Walcott:** Redknee has been developing their technology roadmap, particularly as a BSS provider, that is evolving with the technological changes. The telecoms industry is ever-changing and LTE, or LTE-Advanced for example, continues to be challenging for us as a telecom operator to be able to provide a type of convergence and customer service. Redknee is very customer focused, which is another part of the way we want to move forward; we want to make our customers enjoy the benefits of a hassle free service - that is our mandate and Redknee is allowing us to be able to provide it.

“ We want to make our customers enjoy the benefits of a hassle free service – that is our mandate and Redknee is allowing us to be able to provide it. ”

Ronald Walcott, TSTT



# Supporting the Virtualization Strategy of Oi, a leading Latin American Operator

*Delivering the flexibility to better monetize Oi's WiFi investment and control the offload experience.*



“Redknee’s suite of virtualized solutions support operators to launch new business models quickly and effectively to market with a low-risk investment strategy.”

Oi is a leading provider of telecommunication services in Brazil and, after the acquisition of Brasil Telecom in early 2009, became the country’s largest telecommunication company in revenues and South America’s largest fixed telephony company in total number of lines in service. Oi offers a portfolio of integrated and convergent communication products that include regular fixed and mobile telephony services, data transmission (including broadband), ISP and other services to homes, small, medium and large corporate users, government agencies and other telecommunication companies.

### Changing the game through virtualization

This year’s football World Cup, hosted in Brazil, provided Oi with an opportunity to showcase its brand to a global audience. With more than 600,000 international visitors projected to attend the Football World Cup, roaming services needed to be readily available and high quality. The launch of Tourist WiFi, which offered free WiFi access to inbound roamers on its network enabled Oi to attract international users to its network, and generate new revenue streams from mobile data usage. When assessing the successful launch of this service, we begin with Redknee’s virtualized WiFi Offload solution.

### Utilizing a World-Class Solution

Redknee’s suite of virtualized solutions support operators to launch new business models quickly and effectively to market with a low-risk investment strategy. With Redknee, operators have the flexibility to better monetize their Wi-Fi investment through innovative offerings, while controlling the offload experience. Extending on standards-based technology, Redknee’s end-to-end solution seamlessly transitions the user between Wi-Fi and cellular connection based on the congestion level of the different channels, subscriber profile, and even the application being used, based on operator defined policies, all without the need for expensive Wi-Fi infrastructure upgrades.

Utilizing Redknee’s cloud-based end-to-end managed solution, Oi was able to capture new revenue from voice, SMS and data services, increase its competitive position and drive brand awareness by being the customer-friendly operator for international visitors.

“As the largest sporting event in the world, the football World Cup represented an exciting opportunity for Oi to welcome many football fans to Brazil and provide them with exceptional service including free Wi-Fi,” said Eduardo Aspesi, Segments Director at Oi. “Redknee’s ability to provide a flexible and turnkey solution was key to our decision to select them to support us during one of the most important events of the year.”

### Delivering Speed to Market

Redknee’s cloud-based solution enabled Oi to benefit from faster deployment and a lower-risk investment strategy than deploying an on-premise infrastructure, which often requires significant investment and extensive lead-time. With Redknee, Oi is able to extend the solution to support and retain local mobile subscribers, capture additional revenues from exclusive promotions and offers, and lower CAPEX and OPEX with efficient offload management, which will provide an optimal balance between Oi’s investments in WiFi and its mobile networks.

“Redknee’s ability to provide a flexible and turnkey solution was key to our decision to select them to support us during one of the most important events of the year.”

Eduardo Aspesi, *Segments Director at Oi.*



# Billing Strategies for Competitive Energy Retailers

In competitive markets, the energy retail environment is undergoing a radical transformation, driven by new technologies, changing consumer attitudes, and the innovative approaches brought in by some of the newer suppliers. These shifts are placing new demands on the billing and customer care/customer information systems used by energy retailers, and challenging the traditional utility suppliers to upgrade their solutions. In addition, as new types of service proposition and service provider emerge to challenge the classic utility model, there will be an increasing demand for modern, flexible billing and customer care solutions that can accommodate widely varying combinations of products and services.

In its recent report, *Billing Strategies for Competitive Energy Retailers*, Quindi Research recently profiled the Redknee Utility Suite. In its key findings, Quindi Research believes that

Redknee's capabilities in high-volume, real-time convergent charging and billing can address the challenges facing utilities as their businesses adapt to scenarios such as increasing market deregulation, smart metering and smart grids, decentralised generation and e-mobility.

## Vendor Profile

The **Redknee Utility Suite** is an adaptation of Redknee's core telco offering to meet the specific requirements of the utility sector. The product's highly flexible data model enables it to cater for specific energy use cases using configuration tools. Redknee promotes this common foundation to demonstrate the field-proven basis of its utility technology solution. The utility solution has a modular architecture, offering a full range of billing, charging and rating, and CRM functionality.

Based around these functional capabilities in customer care and engagement, and rating, charging and billing, Redknee has developed three main value propositions for the utility sector.

### 1 Prepay Energy

This package is aimed at utilities wanting to introduce smart-meter-based prepayment services. It includes basic web-based customer care functionality and real-time customer engagement tools (e.g. MyAccount, MyUsage, MyShop), a prepaid real-time charging engine, tariff management tools, top-up management (electronic and vouchers), emergency credit, and tools to enable remote connection/disconnection. The solution is delivered as a Cloud service, enabling suppliers to introduce smart prepaid services on a small scale initially and grow them over time. Redknee sees good momentum for this type of solution particularly in Asia and Africa, where collection is still an issue, and the vendor has been responding to various RFIs/RFQs.

### 2 Smart Service Enabler

This package is designed for utilities that want to introduce smarter services without disrupting their existing billing systems and services. The focus is on facilitating new services, such as prosumer / net energy metering scenarios, and supporting e-car mobility. The solution includes advanced online customer care features, online billing, real-time charging and rating, support for prepaid and postpaid payment modes, and multi-service bundling. Like Prepay Energy, the Smart Service Enabler solution is available as a Cloud offering, allowing utilities to benefit from advanced functionality from the outset while keeping costs in line with customer growth. Redknee is piloting its Smart Service Enabler solution in Germany with a nationwide provider of EV charging stations.

### 3 Smart Utility

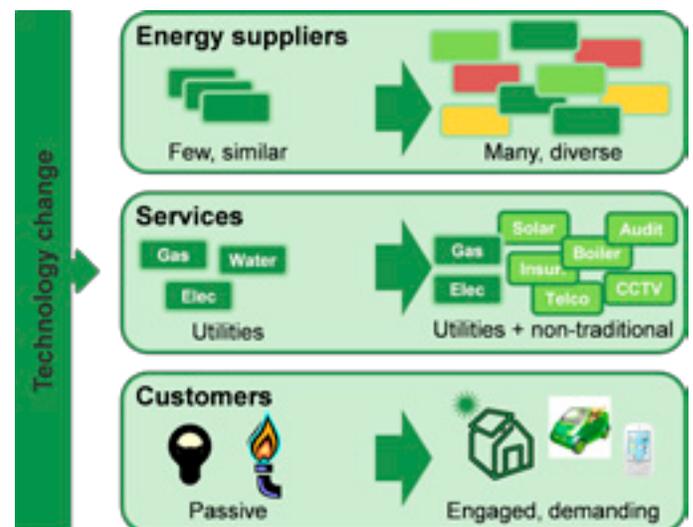
This is a package for new entrant competitive retail suppliers that require a complete billing and customer care infrastructure. The functionality includes advanced customer care and self-care options, support for flexible tariff creation, advanced converged billing and multi-service support, prepaid/postpaid payments and real-time campaigns, and wholesale billing. The real-time rating and charging engine can handle commodity and non-commodity services and enables a customer-centric, real-time view for each customer account. Smart Utility is available as a Cloud service or can be implemented on the client premises.

All three packages include a web service interface to the MDMS.

## Conclusion

The right billing solution can empower an energy retailer to deliver compelling services and manage customer processes in a streamlined and efficient manner. By contrast, inflexible solutions can limit service innovation, constrain growth and dampen margins. As a result, choosing a vendor solution is much more than a billing project, and should instead be seen as a strategic decision that is fundamental to a business's growth.

To read the full report please visit:  
[www.redknee.com/Quindi\\_Research](http://www.redknee.com/Quindi_Research)



Source: Quindi Research

**Catherine Viola** is the founder and director of Quindi Research. She has over 15 years' experience of working in technology research house and consulting environments. During her career she has delivered projects for technology suppliers, network operators and regulators, and has written extensively on a wide range of issues in wireless communications, smart energy and software services. Before founding Quindi Research, she held senior positions at Analysys Mason Research and Innovation Observatory. Catherine holds a first-class honours degree from King's College London and is an Associate of the college.



# The role of wholesale in expanding next-generation mobile services

Ian Streule,  
*Partner, Analysys Mason*

As mobile network operators (MNOs) expand their service offerings with next-generation (4G and enhanced 4G) services, facilitated by the additional network capacity and capability as new spectrum bands come on-stream, the wholesale interface needs a coherent role in the overall strategy of the network players. Wholesale next-generation services will not dramatically change the retail-led drivers of underlying mobile service growth, but increasing vertical and horizontal relationships between different players does support this wholesale diversification.

Historically, mobile network operations and services have expanded successfully on the functioning of a retail-led system – competing, vertically integrated operators selling their own-produced mobile voice and data services to the corporate, industrial, business and residential user segments.

Within this system, wholesale operations have extended from obligatory wholesale voice interconnection and inter-operator roaming services – into today's broader but discretionary MVNO, partner and sub-brand wholesaling of underlying services. In this article we introduce the role of wholesale divisions for operators developing next-generation services.

## **Wholesale: new markets, new services, incremental growth**

Wholesale activities can lead to new markets and new services for 4G network owners. MNOs can gain incremental value by using a wholesale division to broaden the role and usage of these new networks, and to be the interface between the network and expansion into new areas such as M2M,



Figure 1: The wholesale interface (Source: Analysys Mason, 2014)

off-peak mobile clouds, MVNO differentiation and premium peak-load, peak-speed charging.

In order to function effectively, these wholesale divisions need to become integral parts of MNOs' mobile service development, network strategy and profitability management. The buyers of wholesale access also need to be able to adapt the available wholesale services to their mass-market or niche requirements, stage of growth and user maturity.

### Retail: More, bigger, faster, cheaper

Internal retail activities will remain a core activity for most MNOs, but this is conventionally a bounded business – more traffic, more subscribers, bigger, faster, cheaper. A wholesale division can support the optimisation of retail price structures for internally produced and sold services – for example, by giving structure to pricing decisions, and a focus on managing profitability.

### What is needed?

We see the need for a new, strategically managed, dynamic but integral wholesale division to develop within the MNO, to act as an interface for:

- Internal buyers – own-channel retail divisions – ensuring that the opportunities of the new networks can be achieved internally
- External buyers such as MVNOs, fixed operators, resellers, M2M aggregators and roaming providers.

Wholesale divisions need to understand the commercial market-facing realities of multiple user segments, as well as the underlying investment and cash-flow economics of the legacy and 4G networks in the short and longer term. Buyers of access in its various forms will need to negotiate and interface with wholesale suppliers to achieve service terms that are consistent with their own service offers and business growth objectives.

Developing a wholesale service approach for internal and a plethora of external services requires a broad strategy that takes into account retail channels, business-to-business users, commercial applications, end-user pricing, service costing, network profitability and long-term network and spectrum planning.

#### About Ian Streule



As a Partner, Ian is responsible for a significant proportion of Analysys Mason's work in the area of mobile sector regulation, fixed service costing, LRIC, regulatory economic costing, and ultimately strategic regulatory advice to operators and regulators around the world.

#### About Analysys Mason

Analysys Mason provides unique and specialist knowledge on all issues that relate to the telecoms, media and technology (TMT) sectors.

# Monetization Strategies to Unlock New Revenue Streams



Jim DeMarco,  
CTO, Redknee

It wasn't too long ago when the search was on for the "killer application" in Mobile Internet. While we may have moved on from that specific discussion, the essence of the search – i.e. how can we monetize new revenue streams? – stays true. When assessing revenue opportunities for communications service providers in 2017, Gartner<sup>1</sup> believes that the 'next big thing' in telecoms is, in fact, not in telecoms. In fact, there is not one 'next new big thing' that will drive revenue for CSPs but rather the opportunity to deliver value by providing the connection and the monetization of non-telco services.

Which new connected service will drive the revenue? Will it be e-health, connected cars, interactive video, or a combination of all? The value-add

from CSPs will be their ability to launch new connected services on the fly and their ability to help these new services and service providers to make money. Gartner projects that revenue from adjacent markets can range depending on a CSP's approach. Conservative forecasts show that revenue from adjacent markets will account for 8 percent of CSP revenues by 2017; for more aggressive CSPs, Gartner believes that the opportunity for CSPs can reach an astonishing 15 to 20 percent of their total revenue by 2017 – showing that this opportunity is clearly one ripe for picking.

For CSPs, revenue from adjacent markets will not be derived around the traditional model whereby services are built by the CSP, but instead services

are connected by the CSP. Data monetization – and the ability to launch new offerings, content and applications with the marketing campaigns and pricing plans to support them, to stimulate increased usage – will be critical to success. And critically, this is where the roadblocks appear for most legacy billing systems. It is here where new services that need to launch 'fast and light' to small segments of the market, are not only difficult to implement at any speed, they also represent a distraction from important IT support resources. Ironically, what is essential for CSP growth becomes impossible to deploy in a legacy environment. And when the third parties who created the services want to be paid, legacy billing and charging systems are challenged to settle the bill.

“This new era of connected commerce requires modular, flexible and comprehensive charging, billing, and policy management coverage for the new wholesale business.”

Increasingly, the forward-thinkers among CSPs are breaking their “new wholesale” businesses away from their legacy IT. Whether by standing up a new division within a company, by dedicating specific business resources within existing groups, or even spinning off subsidiaries branded for the new wholesale, CSPs are beginning to establish distinct organizations for their non-telco revenue lines. Done right, these separate groups are getting their own charging, billing and customer care systems, and their own IT budgets, thus enabling them to move with the speed, flexibility and expandability that their business models demand. Because these groups are not fettered with legacy back office designs, their own systems can include settlement (critical to this new paradigm) as an architectural centerpiece rather than its usual afterthought status. At the same time, CSPs need to recognize that

customers don’t want separate bills for these services and therefore the new wholesale model must integrate with legacy core billing systems.

So what does this mean for the billing systems in place today that support your business? This new era of connected commerce requires modular, flexible and comprehensive charging, billing and policy management coverage for the new wholesale business, solutions that are fully integrated between the retail side and the wholesale settlements side of the business. At Redknee, we believe that overlay systems can easily work with legacy systems, and can offer unique value to the wholesale business. In particular, CSPs should consider:

- A light footprint approach and the ability to deploy virtually, and through variety of deployment and business models
- A configurable product that doesn’t require a ton of

customization, provides CSPs with the ability to launch the hundreds of offers that support new revenue streams quickly and cost-effectively.

- Real time analytics and context-based campaign management, which is essential to enabling CSPs to add unique value to their customers.

Fundamentally, this shift toward non-telco revenues isn’t an admission that CSPs are mere dumb-pipe providers. Their value-add remains high – they can aggregate services, bundle them creatively, provide quality-of-service and other policy-driven differentiators, and of course bill on behalf of the OTT players. In addition, with the intelligence that real time analytics provides, CSPs can bring additional value in terms of contextual real-time marketing campaigns that individual OTT/connected systems cannot. CSPs are changing from subscription service providers to brokers and it is now up to CSPs to decide if they want this opportunity to reach 8% or 20% of the pie in 2017. service providers to brokers and it is now up to CSPs to decide if they want this opportunity to reach 8% or 20% of the pie in 2017.

<sup>1</sup> *Gartner Group, Market Trends: Adjacent Market Revenue Opportunities for CSPs in 2017, January 2014.*

## Launching Redknee Unified for Communications and Connected Industries

Redknee has announced the availability of Redknee Unified 10, the latest release of its integrated charging, billing, policy management and customer care solution. The modular solution supports the monetization of today's business models and equips service providers to drive profitability into the future.



## Redknee's Leadership and Growth Awarded

Redknee's expertise and focus in delivering innovative solutions to enhance customers' business performance and profitability has been recognized by leading industry awards, including Light Reading's Leading Lights inaugural outstanding OSS/BSS vendor of the year, and Branham Group as one of the fastest growing ICT companies in Canada.

## Redknee Supports Swedish Rail GSM Network

The latest version of Redknee's IN solution for GSM-railway networks has been launched at Trafikverket (TrV) the Swedish transport administration. Redknee's carrier-grade solution delivers additional VAS capabilities, enhanced safety features and continuous availability through geographical redundancy.

## Redknee and Telecoms.com Intelligence Highlights BSS Requirements for 4G / LTE networks

Redknee and Telecoms.com recently surveyed over 60 operators, and found that more than half of the respondents stated the biggest threat to 4G monetization is the lack of real-time billing capabilities. For more results check out the webinar: [www.redknee.com/Operator\\_Perspectives\\_on\\_4G\\_BSS\\_Requirements](http://www.redknee.com/Operator_Perspectives_on_4G_BSS_Requirements)

## Benefiting from Virtualization

Virtualization is an enabler for operators to drive new revenue. Redknee's sees three key benefits to virtualization: speed, cost and the ability to separate hardware from software. Operators can leverage virtualization to reduce risk and address new lines of business faster, more easily and at lower cost.

## Beyond the Buzz

Industry updates  
from around the globe

26



### The IoT now includes cows

The Dutch company Sparked is using sensors in cow's ears to monitor health. Each cow generates about 200MB of data per year.

*Source: IT Europa*

<http://goo.gl/dvmgQi>

$3.4 \times 10^{38}$

The number of addresses available for IoT using IPv6 – equal to 252 addresses for every observable star in the known universe.

*Source: Cloud Tweaks*

<http://goo.gl/9mcCnr>



## 7 Building Blocks For IoT Things

1. Sensors
2. Internet Connectivity
3. Processors
4. Energy-efficiency
5. Cost-effectiveness
6. Quality and reliability
7. Security

*Source: Business Insider*

---

 <http://goo.gl/425Fwj>

## Speed and Customer Connectedness: The Basis for Tomorrow's Revenue Today

*Agility and ease of use are key motivators for Redknee's latest product innovations*

Surging data traffic and consumer self-empowerment continue to influence and shape the digital world—a new world where most anything has the potential to be 'connected.' The latest forecasts from analyst firm IDC estimates over 30 billion new things will be digitally connected by 2020. In this new environment, service providers will need to be even more agile and flexible in order to tap into new revenue sources with existing and new customers and within

growing partner ecosystems. Reducing the complexity of deployed IT infrastructure and simplifying its use is an essential element of BSS evolution.

Reducing the time to market and enabling a service provider to truly be customer-centric are two of the major cornerstones of how Redknee drives its R&D and invests in its roadmap. It is here where we are committed to supporting our customers to continue to be the industry's leaders in launching innovative offerings, increasing revenues and delivering an advanced customer experience.

### Why Speed Matters

*"The need for speed speaks to time to market - how quickly can we produce a new product or service? In order to have the speed to deliver, we must have the agility to be able to quickly offer new services or change and adapt the offers we make,"*  
Ronald Walcott, TSTT's EVP of Bmobile Service & Operations Mobile.

Mr. Walcott is not alone in his sentiments. Redknee believes that product and marketing teams alike must be empowered to have a more active role in the product lifecycle process. In doing so, Redknee's latest versions of Redknee Unified Charging and Redknee PCS bring tools such as the next generation **Offer Manager**, **Real-Time Campaign Manager** and **Policy Wizard**, which put marketing and product management in the driver's seat. Based on an intuitive and easy to understand GUI, product and marketing teams are able to create new innovative products and offerings in just minutes. Via Redknee's Real-Time Campaign Manager, product and marketing are able to quickly define and launch targeted campaigns via multiple customer engagement channels. Redknee's Policy Wizard enables marketing teams to create and launch new network policies in just minutes with easy drag-and-drop capabilities and then to forward them to the network team for quick and easy deployment. Redknee's investment into a GUI that is product and marketing team friendly removes the need for



Chris Newton-Smith,  
Vice President, Marketing

### Highlights of Redknee Unified Charging 10.1

- > Next generation Offer Manager enables product and marketing teams to create new innovative products and offerings in just minutes
- > Real-Time Campaign Manager is an intuitive application designed for product and marketing teams to quickly define and launch targeted campaigns
- > Real-time analytics and business insights with a Hadoop®-based event history database monitoring capabilities

writing complex code, significantly reducing time-to-market and configuration errors.

### Bridging the Gap with your Customers

A key cornerstone of a successful multi-channel, real-time customer engagement solution is its ability to address customers via their preferred channels. The ability to extend the customer reach into social networks and leverage the power of social marketing enables service providers to deliver a more personalized care experience—and one that has the ability to significantly reduce care costs. More than just enabling a new channel for customer engagement, social media can also help boost customer loyalty through incentive and reward campaigns. The latest version of **Redknee Unified Social** provides a social engagement platform that service providers use to interact, engage and manage subscribers and their experience—all via social media channels, bringing new **rewards accumulation and redemption capabilities**. This new feature allows customers to collect bonus points with social activities, i.e. promoting product offerings to friends, as well as redeeming those points for their operator's services. In addition, with the latest version of Redknee Unified Social, service providers can adapt the application to their own specific brand and user experience guidelines. Thus creating a more consistent brand

appearance—a critical success factor for any cross-channel strategy.

To further support the successful definition of products and marketing campaigns, having an acute understanding of customer and business needs, such as customer segmentation, market campaign analysis and consumer usage behaviors, is critical. This was a key driver for Redknee to extend the foundation for **real-time analytics and business insights with a Hadoop®-based event history database** in Redknee's latest release of **Redknee Unified Charging**. Unified Charging also integrates with other data sources, both from Redknee Unified modules, such as Unified CRM, Unified Social and Redknee PCS, and social media as well as outside data sources—creating the ideal holistic data view. From a cost savings perspective, service providers can now achieve 50% reduced total cost of ownership for hardware while significantly improving system performance and reporting capabilities.

In the new era of digital services, we believe speed, ease of use and a lightweight infrastructure are critical to driving revenues and improving profitability. At Redknee, we are committed to continuing to invest in our product roadmap to support our customers do this.

### Highlights of Redknee Unified Social 10.1

- > Deployable via Microsoft Azure for a highly scalable and elastic public cloud deployment option that is quick-turn and enables a pay-as-you-grow business model
- > Redesigned GUI that improves ease-of-use for both marketing and customer care teams
- > Rewards accumulation and redemption that allows subscribers to collect bonus points with social activities, furthering customer loyalty
- > Brand-specific application appearance to help service providers achieve a more consistent brand appearance

### Highlights of Redknee PCS 8.0

- > Integrated Policy and Charging Control enables service providers to rapidly launch innovative plans and services, while reducing operational and capital expenditures
- > Policy Wizard empowers product and marketing teams to create and administer standard policies via an easy-to-use web based GUI
- > Productized and standard-compliant support for emergency and priority calls enables service providers to launch dependable VoLTE services based on a proven and scalable platform
- > Session continuity and plug-in alarms that ensures continuation of ongoing sessions even after site outage while enhancing system monitoring capabilities

# Red Locations

Where in the world is  
Redknee?

30

Today, the colorful and vibrant Arab States is home to the second highest growth rate globally for mobile connections after sub-Saharan Africa. Not only is the region's young and creative population driving demand for sophisticated mobile data services, the region is also ahead of the world as a pioneer of smart building technology that is reducing the Emirate's energy bills and its impact on the environment. In 2014, Redknee opened its regional center in Dubai, UAE, to reflect the region's importance to Redknee's global growth strategy. To read more about Redknee's regional presence in the Arab States and across the globe visit [www.redknee.com](http://www.redknee.com)



—

ا

م

د

د

# Redknee Events

Meet Redknee at  
a city near you

32

SEPTEMBER 2014

23 (10 AM ET)



## Light Reading presents a Redknee Webinar

Virtualization: Be on the fast track  
to monetization in 10 days

[www.redknee.com/Webinar\\_registration\\_SEP\\_2014](http://www.redknee.com/Webinar_registration_SEP_2014)

OCTOBER 2014

13-16



## Futurecom

Sao Paulo, Brazil

[www.redknee.com/Futurecom\\_2014](http://www.redknee.com/Futurecom_2014)



OCTOBER 2014

20-21

## M2M Summit

Düsseldorf, Germany

[www.redknee.com/M2M\\_Summit\\_2014](http://www.redknee.com/M2M_Summit_2014)

NOVEMBER 2014

4-6



### European Utilities Week

Amsterdam, The Netherlands

[www.redknee.com/EU\\_Week\\_2014](http://www.redknee.com/EU_Week_2014)

NOVEMBER 2014

11-13



### AfricaCom

Cape Town, South Africa

[www.redknee.com/AfricaCom\\_2014](http://www.redknee.com/AfricaCom_2014)

DECEMBER 2014

8-11



### TM Forum Live! Digital Disruption

San Jose, California USA

[www.redknee.com/TMF\\_Digital\\_Disruption\\_2014](http://www.redknee.com/TMF_Digital_Disruption_2014)



futurecom 2014

m2m Summit 2014

European Utility Week





# REDKNEE

Looking Beyond

**Redknee Corporate Headquarters**

2560 Matheson Boulevard East

Mississauga, Ontario

Canada L4W 4Y9

Tel: +1 905 625 2622

Fax: +1 905 625 2773

[www.redknee.com](http://www.redknee.com)