OSS/BSS} analyst

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Market intelligence on telecommunications support systems

contents

formerly known as
Billing*PLUS*

Converged billing reaches tipping point, clears the way for user-defined services

The industry has been talking about it for a long time, and now, at last, convergent, real-time billing has arrived. Speaking about the launch of Comverse's converged billing platform, Karna Gupta, president of the company's real-time-billing division, told *OBA* that operators have been aware for some time that the billing system will be the first thing that needs to be changed if they are to take advantage of new services. He says operators are now poised to make that change.

"Feedback we have had from operators [about their immediate billing requirements] has been far beyond our expectations," he says. "Every RFP I have seen in the last six months has specified convergent, real-time billing. Convergent billing's time is now, today."

Essentially, Comverse's new product is made up of its Kenan FX billing platform, which it purchased from CSG in 2005 (*OBA*, 17 Oct, 2005), integrated with its real-time billing product. The recent acquisition of Netonomy (*OBA*, 4 Sep, 2006) has provided the company with an optional self-service front end for its customers, along with point-of-sale and bill-analysis capabilities. At the time of the Netonomy purchase, *OBA* predicted that Comverse would launch a converged billing product, but the speed at which it happened took many by surprise.

"It is impressive that Comverse has brought this offering to market so quickly after the Kenan acquisition," says Andy Bairsto, a senior analyst at the Yankee Group. "We believe that there is a great market potential for converged billing, as operators look to transform their businesses with integrated back-office systems that will enable them to control financial risk, differentiate their services and increase customer loyalty. This announcement, combined with the recent Netonomy-acquisition announcement, demonstrates Comverse's focus on enabling operators to deliver an excellent end-customer experience."

What is equally impressive is that, at launch, Comverse already had a customer for the new system on its books, in the form of Polish 3G operator P4. The operator uses infrastructure from Huawei, and its only other supplier, according to Gupta, is Comverse, which will supply all of

continued on page 2 ▶

Survey spells the end of PSMS, large operator shares

The majority of respondents in a recent survey said they believed direct-to-bill charging would replace premium SMS in the short term. The research, conducted by payment- and settlement-product vendor Valista, was based on the responses of more than 100 industry insiders, who also said that when it comes to mobile content, operators are taking too large a share of the revenue.

Content owners, handset vendors, mobile operators and technology providers were canvassed for their views on the next three to five years in the mobile content market. Sixty-five percent said they believed that the current system of paying for mobile content via PSMS would give way to more-flexible and more-robust payment methods, such as direct-to-bill charging.

More than half of respondents said they thought operators now take 40-50% of mobile content transactions, but less than 6% said that would be the case in three years. Sixty-five percent of those questioned said that, in three years, operators should cut their share at least in half, to less than 20%, with 18% of respondents saying they should take only 5%.

"Currently, operators take the greatest share of mobile content revenue, but the distribution of power could shift, particularly when the major media moguls secure their foothold in the marketplace," Valista Vice President Arlene Adams told *OBA* recently (*OBA*, 18 Sep, 2006). She added that a payments model that lowers or eliminates revenue leakage and allows end-to-end traceability of transactions for all parties involved will enable operators to look at lowering their charges while encouraging growth in the content market.

Good news for the industry came in the respondents' assumption that mobile TV and video downloads would be the most popular forms of content in the next few years, an opinion that mirrors recent analyst predictions. Broadcasting rich content will see a move from lower-value transactions to higher-value ones. When that happens, operators will need to keep their brand's image positive and look to personalized and compelling content to increase ARPU and drive off competition from more-traditional payment systems, Adams says.

Of concern for mobile operators were a pair of survey findings: that only 15% of content purchased will be part of a subscription model, and that operators will not see content purchases making up for falling revenues. Fifty-eight percent of those who contributed said that, in three years, less than a quarter of total operator revenue will come from mobile content, and 15% said it might drop as low as 10%. That is not what operators want to hear at a time when voice revenues are falling.

◀ continued from page 1

OSS/BSS} analyst

Editor
Peter Dykes
T: (44) 20 7017 4842
peter.dykes@informa.com

Editorial Director
Kris Szaniawski
T: (44) 20 7017 4639
kris.szaniawski@informa.com

Reporter
Richard Handford

Chief Copy Editor
Charles Gordon

Copy Editor
Robin Marcus

Production Editor
Rainford Bowley

Marketing
Seth Stromboli
seth.stromboli@informa.com
T: (44) 20 7017 6759
F: (44) 20 7017 4947

Researcher
Ann Swallow

Main Office
Mortimer House
37-41 Mortimer Street
London W1T 3JH
T: (44) 20 7017 5000
F: (44) 20 7017 4667
ossbssanalyst@informa.com
www.informatm.com

Subscriber Service
Informa Telecoms & Media
Sheepen Place
Colchester
Essex C03 3LP
UK
T: (44) 20 7017 5538
F: (44) 20 7017 4783
telecoms.enquiries@informa.com

North America
T: (1) 978 258 2500
F: (1) 978 258 2500
colleen.barron@informa.com

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its back-office systems, value-added-service support and billing requirements.

P4's strategy is interesting in a number of ways. To begin with, it is a greenfield operator, and it has decided to go straight for a converged billing system, leapfrogging technology that most likely would have been cheaper. It is usually an indication that a new technology is gaining traction when startups eschew more conventional offerings. That could also explain why the number of contracts for billing systems has remained relatively flat in the last four years. According to the OSS/BSS database from *OBA* publisher Informa Telecoms & Media, which tracks publicly announced contract wins, some of the major players, such as Amdocs, have seen a decline in contract wins, while vendors focused on real-time billing, such as Highdeal, are gaining ground (see analysis, p. 8).

Additionally, the fact that P4, which is scheduled to go into commercial operation in 1Q07, is acquiring all of its OSS/BSS requirements from a single source could also point to the future of procurement, at least among the smaller operators that do not opt for an outsourced system. The increasing trend among vendors in the OSS/BSS space of offering end-to-end products for billing and service-deployment systems suggests that they believe there will be a strong market for single-vendor systems, even if they are hedging their bets by adopting service-oriented-architecture models.

Floodgates opening

There is one other significant aspect of Gupta's pronouncement that the time for converged billing has arrived. If he is right, then the floodgates have also opened for the launch of a wide variety of new services that will require more developments and modifications to OSS/BSS systems. The main driver behind converged billing, IP services and, indeed, IMS is operators' need to replace declining voice revenues with earnings from data services and to reduce losses from factors such as customer churn. But what has become apparent in the last year or so is that the way these problems can be addressed does not rely on the success of individual services, but rather the ways services can be cross-bundled, cross-discounted and personalized not just for segmented groups of users but for individuals themselves. Although such flexibility is only now becoming possible, with the introduction of real-time, converged billing systems, some vendors are already looking beyond bundling and discounting to more granular ways of upselling to customers and retaining loyalty by giving them control of the way they use services.

New tools needed

"As communication-market competition intensifies, providers should develop new and innovative tools to better cater to customers and reduce churn," says Norbert Scholz, research director at Gartner. He says that the large amount of customer data in the network and OSS layers can be used to deliver a service that is more appealing to the customer. The resulting "dynamic, real-time customer interaction," he says, will improve the customer-provider relationship and lead to higher revenues for the provider.

One vendor that is taking Scholtz's advice is Formula Telecoms Solutions. The billing and CRM company has launched a product into what it claims is "a radical new sector of telecom OSS/BSS." The business control layer, the company says, is a software layer in a service provider's infrastructure that sits between the network/OSS and the BSS. It includes service-management elements from the billing system coupled with real-time charging and network-management elements. The technology can adapt network or service behavior at the customer level by capturing events and responding in real time according to a preconfigured set of business policies or actions. These actions could include functions such as sending the subscriber a message, provisioning a network element, performing balance management or rating.

The system has already been implemented by Telenet, Belgium's largest cable operator (*OBA*, 12 Jun, 2006), where it is used to enable subscribers to determine the amount of bandwidth they want to use and how they want to pay for it. It is now common practice for operators to give high-speed-broadband users the option of having a monthly bandwidth quota. On reaching it, they are automatically downgraded to a lower bandwidth until the end of the accounting period. With the BCL in place, however, customers are directed to a portal, where they can buy additional bandwidth on a pay-as-you-go basis as an alternative to defaulting to the lower speed. Telenet reports that of those users who reach their quota each month, about 15% opt to pay for extra bandwidth, giving the operator revenue it would not otherwise have generated.

"Control is really in the hands of the customer for the first time," says Yair Sakov, FTS' vice president of marketing and business development. "Even if a customer is on a slow connection, if he wants to, for example, download a movie quickly, he can go to the portal, select a higher-bandwidth pay-as-you-go option, download the movie on a per-megabyte basis and switch back to the slow speed when the download is complete." There are other benefits to giving the customer such granular control of network elements, too. Telenet says that, after an adjustment period, customer-support calls relating to download speeds and capping dropped 40% as users moved across to the portal.

Sakov says he is convinced that this is the way forward for service delivery and that the bandwidth-on-demand application is just the beginning. "We can count anything, from any kind of network or service, and make it do whatever the operator wants it to do," he says. "The possibilities are endless."

It is always tempting to believe the promises, particularly those made by vendors, that the shining future enabled by cutting-edge technology has indeed arrived, only to find that there is still some way to go. However, although the implementation of converged, real-time billing and the ability for end-users to customize elements of an operator's network might not lead to a flood of new services in the short term, the fact that there are working systems in use at all must at least mean we have reached the tipping point.

peter.dykes@informa.com

Portal/Oracle nearly ready to launch a new billing and revenue-management platform

It has been some time since Oracle purchased Portal as part of its strategy to become a serious player in the telecoms-services-delivery market (*OBA*, 1 May, 2006). Apart from the odd announcement, such as the consulting and integration deal with China Netcom subsidiary Liaoning CNC, things have been quiet, so *OBA* caught up with Graham Carey, director of product marketing at Portal/Oracle's communications global business unit, at a recent conference on mobile content. Although he was reluctant to say too much in advance of what is being hailed as a major announcement concerning a new version of Portal's billing platform, he did offer a few clues about the direction Oracle's strategy is taking and how it is likely to affect the product.

When can we expect to see the fruits of the acquisition?

All we can say at the moment is that we expect to make an announcement regarding the new billing and revenue-management platform in the very near future. Bhaskar Gorti, senior vice president and general manager of Oracle's communications global business unit, is coming to Europe sometime in the next few months to discuss the integration strategy of Portal/Oracle and the other applications in this business area.

Can you say anything about the direction this development will take?

The strategy and direction will all be revealed during the aforementioned visit. However, one interesting area within the market is content. Content owners, such as large media companies, need to know what they own in terms of content and who they can deliver it to. Many media companies have vast archives of material, much of which they are not aware of or at least haven't cataloged adequately, and they could be losing money as a result.

Also, they may not have classified content for parameters such as copyright and the suitability of content for specific audiences. These are issues they need to address. Similarly, as operators effectively become media-distribution companies, as Telecom Italia Mobile has recently declared itself to be, media companies need to know what content is available, what rights they have to its distribution, who is likely to want it, how their customers way wish to use it, and how they can therefore sell more of it. Plus, of course, it has to be charged for so that all of the parties in the revenue chain can take their cut.

Portal has already had a great deal of experience in this area with, for instance, the integration of three media companies into the billing system of Liaoning CNC. This contract, which was recently completed by Portal's consulting arm, expanded Liaoning's digital-media offerings while at the same time enabling the operator to offer its customers new and flexible prepaid and postpaid rate plans and promotions. We announced in October 2005 that we had begun a multiphase project to assist Liaoning in expanding its use of the Portal revenue-management platform due to significant customer demand for broadband connectivity and value-added content services, and the final phase is now complete. As a result, the operator has increased its year-on-year broadband subscriber growth by around 15 percent and its content subscribers by nearly 40 percent, while at the same time reducing its customer-acquisition costs by 26 percent. I think this proves the points that not only does the solution work, but also that Portal has the expertise to maximize the benefits of such a system for the operator.

What would you say are some of the company's strengths?

In the content area, Oracle now has the opportunity to integrate systems that enable the service provider to bring together the content, to apply the appropriate rights to that content, for example royalties and intellectual-property rights, to know the consumer and finally to know and be able to track all of the revenues.

Also, Oracle has had an internal business unit dedicated solely to telecoms for some time, which is staffed by telecoms professionals with long and wide-ranging experience. Oracle has long had a presence in the telecoms industry, with its databases being used by 99 out of 100 telcos. I think these factors alone mean Oracle now has the necessary expertise and experience to enter the market from a position of strength.

What factors could influence the take-up of SDPs and network convergence in general?

Full convergence, be that of services, of networks and of all the supporting infrastructure, is a journey. It is, however, imperative moving forward, as users are increasingly demanding seamless service offerings that the customer, financial and revenue-management solutions also need to be seamlessly integrated to deliver the true business benefit. The event to cash process is shortening as customers are increasingly demanding a real-time view of their purchasing. Therefore, the early adoption of a real-time charging solution is vital.

Also, content owners are looking for real-time settlement so they can track on an almost minute-by-minute basis which content is selling well and to whom. This in turn will mean that operators need to change both their business and technical processes to accommodate this new reality. Our basic proposition will be to enable content owners and operators to deal with the back-office complexities of content discovery, management, delivery, revenue sharing and billing while enabling the proposition offered to the customer to be as simple, understandable and as user friendly as possible. Put simply, our message is: Know your assets, know your rights, know your customers and know your revenues.

News bites

Redknee has announced the general availability of its parental-control technology, which enables operators to introduce a range of family-specific services, including privacy control, cost control and intelligent call routing. It addresses child-protection concerns by enabling parents to restrict the numbers their children can call or from which they can accept calls or text messages, as well as which web sites they are able to access via their mobile phones. The product also allows parents to set account thresholds and receive notification when the account is approaching its monthly limit.

MOBILE INTERNET

Bango's operator-billing relationships swing Yahoo deal

U.S. Internet firm Yahoo has struck a deal with UK-based Bango that significantly strengthens its position in both the European and U.S. mobile markets, says *OBA* sister publication *Mobile Communications Europe*. MCE says that Yahoo is engaged in a fierce battle with rival Google and a growing number of smaller companies to dominate the market for mobile Internet search engines.

Bango powers thousands of mobile Internet sites and has extensive billing relationships with mobile operators, which enable their customers to pay for content on their phones. Under the deal, the company would use its technology to tailor Yahoo search results in a way that optimizes their revenue potential. For instance, content providers that have paid the most money to appear under a particular subject category would be given priority in the results.

The key benefit of the Bango partnership is that it lets Yahoo deliver paid-for and sponsored search results across the widest possible range of independent mobile content providers. In turn, Yahoo would maximize its advertising and sponsorship revenues from mobile Internet searches. The service is expected to go live in Europe within days. It will later be rolled out in the U.S. and then the rest of the world.

Yahoo is already the default search engine on the networks of a number of mobile operators in the region, including those of Orange and 3. The deals typically also cover access to Yahoo instant-massaging and e-mail applications. Google, meanwhile, signed a deal with T-Mobile in 2005 to become the default home page on some of its advanced phones' web browsers. It has also launched a range of localized search features for mobile users, and in February of this year, Google launched an own-branded mobile news service.

The Bango deal, however, appears to take Yahoo's mobile Internet presence to a new level, allowing it to monetize mobile search results more effectively than its main rival. The business model is different from the one adopted by the most popular search engines on the traditional Internet, of which Google is the dominant player. Google results, except for those clearly demarcated as sponsored, are ranked independently of commercial considerations. In contrast, Yahoo/Bango mobile Internet results will be ranked to a large extent in line with commercial arrangements. Bango says that it's no bad thing, because the businesses and content providers most willing to pay for higher rankings are likely to be among the most relevant to a specific search.

"The quality and search experience actually improve," says Anil Malhotra, Bango's senior vice president of alliances and marketing. "The content that people receive will be more relevant than the usual hit-and-miss results you get on the Internet."

CONVERGENCE

Telecom Italia does U-turn on fixed-mobile convergence

In a controversial about-face that casts doubt on how easy it is to follow an FMC strategy, Telecom Italia is looking to spin off Telecom Italia Mobile. The move comes just two years after the mobile unit was integrated with the telecoms group and a few months after Telecom Italia unveiled its FMC plans. The announcement is causing an outcry, and unions within Telecom Italia are calling for strikes around Europe because of the move, writes *OBA* sister publication *3G Wireless Broadband*.

European analysts had said that Telecom Italia was an innovative, progressive operator that was likely to be a market leader in FMC, but such a scenario looks unlikely now.

In a surprise move early last week, Telecom Italia announced a shift from its traditional telecommunications business to delivering web content – including music, film and television – through its broadband service.

It seems that Telecom Italia is looking to shift its business model away from that of a traditional telecoms business and toward one that focuses on delivering music, film and television content through a broadband service. The group recently announced a media-content deal with Fox to bolster its Internet offering, and an alliance with News Corp. has been rumored.

TI's former CEO, Marco Tronchetti Provera, who resigned following the news about the shift in strategy, said the sale was proposed because the Italian regulator makes it nearly impossible to run an integrated company and said the move will increase efficiency. Some have speculated that the real reason for the move is to raise capital for a company carrying a huge amount of debt.

Reports and rumors suggest that there is no shortage of buyers for the mobile subsidiary, which is valued at approximately US$44.4 billion. Blackstone, the Carlyle Group and Deutsche Telekom are thought to be interested, but Telefonica has taken itself out of the running. In an unusual and controversial statement, the Italian prime minister, Romano Prodi, said that the telecoms group had discussed equity-swap deals with Time Warner, News Corp. and General Electric. Prodi's government owns an 18% stake in Telecom Italia and is eager for the control of the company to remain Italian, which would make it firmly opposed to such a plan.

News Corp.'s owner, Rupert Murdoch, has denied that the deals were discussed. Since Prodi made the statement, 20 people have been arrested as part of an investigation into alleged leaks by the security office of Telecom Italia. Among those arrested were former Telecom Italia employees, members of the Carabinieri – Italy's paramilitary police force – and officials from Italy's tax police force.

Industry drive for new services creates demand for faster and more automated testing

At the announcement of its second-quarter results in August, leading UK cable operator NTL emphasized that Virgin Mobile, the UK's leading MVNO, will play an important role in its proposed quadruple-play strategy. NTL, which acquired the MVNO earlier this year, is eager especially to see growth in Virgin Mobile's contract base. The ARPU of the MVNO's contract customers is more than four times as high as that of their prepaid counterparts. Collectively, the contract base is responsible for two-thirds of Virgin Mobile's UK revenues, a striking figure, given that the company launched its first contract package in 2005 and that it has offered prepaid tariffs since its launch seven years ago.

Launching the contract packages meant that Virgin Mobile had to open up access to its CRM and billing systems for the first time to a number of channels, including its web site, customer-care center and retail outlets, in addition to third-party retailers.

The company offered its Pay Monthly postpaid package exclusively with the Carphone Warehouse retail chain in May 2005, before expanding the offer to its stores, web site and selected branches of retailer The Link at the end of that year.

The operator says it is constantly looking to adjust its contract offering, an area in which it is still a relative newcomer. In August, for instance, it altered its credit-checking process for postpaid users so that the check varies according to the sales channel through which a new subscriber signed up. The change was introduced as an antifraud measure.

Testing time

But every new service or feature requires testing, a process that every operator wants carried out effectively and without slowing down a new launch. In the case of enabling access to its CRM and billing systems, Virgin Mobile would have previously tested each channel separately. Its new approach is to use a piece of "stub code," a custom code that emulates the behavior of middleware or web services. The code tests each presentation layer – in this case the Virgin web site – separately from the rest of the middleware or web services behind it. The code simulates the rest of the system, speeding up the testing process. The testing software used to program the stub code is supplied by UK vendor Green Hat Consulting.

"We are still doing an end-to-end test, but what we are effectively doing is testing the middleware in isolation from the front end so that we only have to do the detailed testing once," says Francesca Kay, Virgin Mobile's test manager.

A "stubbing out" approach also minimizes how much testing time the operator has to book – and pay for – on third-party systems. In addition to retailers such as Carphone Warehouse, such systems might include T-Mobile – the cellular operator on which Virgin Mobile's service piggybacks – or third-party credit-checking systems with which the MVNO regularly works.

Tracing errors

Opening up the MVNO's back-end systems last year was done using web services, rather than the middleware approach the company has historically employed. Virgin Mobile says that web services have superior scalability, resilience and cost advantages in a more-open-source environment but that it plans to retain its middleware – which is supplied by U.S. vendor Tibco – for integrating CRM and billing systems and possibly as a transport layer.

The operator also uses Green Hat, which it first deployed three to four years ago, to run automatic – as opposed to manual – tests of new services. According to Kay, the operator's use of an automated approach to read data from spreadsheets and databases significantly reduces the time taken in the testing process. The Green Hat product was used to test Virgin Mobile's amended credit-checking system for contract customers in August. Employing the technology reduced the time taken from weeks or months to days, Kay says.

"Nowadays, operators are looking to launch lots of new services," Green Hat CTO Peter Cole says. "They want to get them out to the market. But it takes a few weeks to test by hand. If it's all automated, then the operator can put a new service into production much sooner."

The technique can also trace errors relatively easily. Previously, if a test failed, it was not clear where the error with the middleware message had occurred. The error could be anywhere in the front-end system, the billing database or the customer-care system. But the Green Hat tool keeps a record of all messages, so that an individual message containing an error can be rewritten and resent, rather. than having to run the whole test again. "We can edit data, then publish it again, which takes the pain away from the process," Kay says.

Such a capability will likely be in demand soon. According to the presentation that accompanied its second-quarter results, NTL's plans for its mobile subsidiary include taking greater advantage of the combined group's quadruple-play potential. The process will initially involve dual-mode handsets and mobile TV and music, all planned for 4Q06, along with the introduction of a bundled tariff that includes a mobile service alongside fixed voice, TV and broadband, the operator says. The company is talking about a single charge of £40 (US$76) for the four services. More elaborate plans for 2007 and beyond involve network and content convergence. Anything that speeds up the launch of such services will likely prove a big advantage for the combined group.

Richard Handford
ossbssanalyst@informa.com

At a glance

The acquisition of **Virgin Mobile** – the UK's leading MVNO – by cable operator **NTL** closed in July. The combined group plans to use the Virgin brand for all of its activities, starting in early 2007. In the last set of financial results before its acquisition, Virgin Mobile reported a 12% increase in revenues to £515 million (US$980 million) for the year to end-March 2006. Pretax profits grew 24.5% to £66 million. Its active subscriber base in end-March 2006 was 4.33 million. Yearly churn was 27.5% and ARPU was £124, according to the results.

News Bite

Motorola has expanded its range of voice-enabled cable modems with the introduction of the SBV5100 series of devices, which are based on SIP. The company says that with the pending emergence of IMS, many cable operators are adopting or evaluating SIP-based devices for their networks. The SBV5100 supports full-featured primary voice-over-IP telephone service, and its integrated cable modem connects to a computer through either a 10/100Base-T Ethernet or a USB data port.

Managed services

BT Global outlines vision

BT Global Services, the network and IT-services arm of the UK's BT Group, has outlined plans to more than double its revenue in the U.S., Japan, India and China, aiming for more than €1.5 billion (US$1.9 billion) in the next three years. During that time, it expects its Italian and German operations to each become €1 billion businesses. BT also announced that it plans to deliver £400 million (US$756 million) of annualized cost savings from its global-services division by 2008 or 2009. It says the savings will help the division invest for the future and achieve its targets for EBITDA growth. The company also says it will launch a corporate version of its fixed-mobile-convergent Fusion product in early 2007 and expand its global network. BT Global Services provides networked IT services based on BT's global network.

Number management

Numbering system released

Evolving Systems, a provider of software and services to the wireless, wireline and IP-carrier market, has announced the global availability of its number-management product, NumeriTrack. The dedicated number-management system automates the storing, assignment, management, analysis and reporting of numbering resources for fixed, mobile and VoIP services. Designed to work alongside billing, activation and number-portability systems, it enables service providers to have a single, centralized system, along with a real-time management dashboard that provides a view of a service provider's entire number inventory, including use, net additions and history. "As operators embark on wide-scale operational transformations, they are also realizing that they must revisit how they handle their number inventories," said Shira Levine, a senior analyst at IDC's Next Generation OSS & Billing program. "A flexible, centralized number-management system is not only more cost-effective than maintaining separate silos but also improves the customer experience, by limiting the impact of number changes and enabling fast and accurate number assignment."

Financials

AceComm revenues increase

AceComm has reported revenues of US$26.7 million for FY06 – which ended June 30 – compared with US$20 million for the previous year, but its revenues for 4Q-FY06 – US$6.5 million – showed a slight year-on-year loss, from US$6.8 million in 4Q-FY05. The vendor says the drop is due to delays in signing contracts in the pipeline, adding that it expects to complete the contracts in the next two quarters. In the past year, AceComm has repositioned itself to offer a broader range of products and to appeal to larger operators. Among the vendor's 15 contracts that were recorded in *OBA* publisher Informa Telecoms & Media's contracts database in FY06 are agreements with tier 1 operators, including Saudi Telecom.

Partnerships

Teralight partners with Sevis

Two vendors have announced a partnership aimed at offering operators a wider range of fraud and revenue-assurance products. Under the arrangement, Sevis' Active Fraud Eliminator and SIM Box Defense will be added to Teralight's Guardian and Prevail technologies, to provide real-time detection and response. Prevail analyzes inbound traffic to detect fraudulent calls bypassing the system, and by adding the Sevis products, it will be able to react immediately to disconnect long-duration calls, block calls to premium-rate numbers or reroute fraudulent calls to a fraud center, for example, Sevis says. Teralight is based in Dubai, with offices in Pakistan, Hong Kong and the U.S. Sevis is an employee-owned company based in the U.S.

Enterprise IP

Nokia and Alcatel integrate

Alcatel and Nokia have announced a collaboration to extend Alcatel's business-telephony offering to the mobile work force. The Intellisync Call Connect is a Nokia offering designed to integrate Nokia E-series devices with the Alcatel IP Communication server. Nokia says the technology brings added transparency to a company's telephony cost structure by making the billing records easily available and says it can help companies identify costly elements in their telephony system. Nokia says the product will be available in 4Q06, through Alcatel and Nokia resellers.

Increasingly complex services present new challenges for product-life-cycle management

Operators are under pressure to deliver segment-focused and -tailored offerings to reduce churn and increase customer loyalty. Companies that have started down the path of delivering packaged and tailored products that are aligned with differing customer needs and preferences are becoming more innovative in the ways in which they combine a vast array of underlying service capabilities, devices, content and merchandise to create unique product offerings.

Although such a product-centric focus is the right business strategy, the increasingly dynamic nature of services is resulting in a number of product-management challenges for operators. Product-management processes and related data are still manually intensive and document-centric. It is a challenge to compile an up-to-date and definitive list of available service capabilities, devices, content and merchandise from which product managers can define product offerings. There is often no unified view of the building blocks, plans and potential products across different domains and business units. Operators rarely have models for systematic collaboration, revision management, change control, life-cycle management or product-definition strategies.

Hit and miss

There is a significant amount of "hit or miss" in creating valid products that include service capabilities with the required attributes and in developing properly identified and contained relationships between services. And it is extremely burdensome for operators to identify and manage the implications of changes in the underlying service capabilities and building blocks from which bundled and complex products are created.

Successfully moving to a product-based business model and managing product introductions and changes in a timely and efficient manner will require operators to modify their product-management processes and adopt new software systems. A new class of OSS, called product-life-cycle management (PLM), is making its way onto the market. PLM software provides an environment in which to collaboratively construct, manage and deploy a catalog of product offerings and is capable of modeling all product detail, including features and pricing elements, as well as automatically generating valid product possibilities from user-defined templates. The systems manage the entire life cycles of products, from creation to retirement. PLM systems serve as the "source of truth" for product and offering definitions.

PLM systems deliver a number of benefits to operators. They help reduce the time and cost of new-product introduction and product-change management and allow operators to improve the quality of the product offerings created, by ensuring that they are valid and optimal. Such applications are also able to highlight and anticipate the implications of change in underlying components and building blocks, because they simplify and centralize the definition of key characteristics and parameters of offerings.

Old tricks

Although the discipline of PLM is not new, purpose-built PLM systems in the CSP space have been designed to meet the special needs of operators. Such PLM systems incorporate deep-domain knowledge in the modeling, OSS-integration and overall-technology approach. The TeleManagement Forum has recently created a PLM technical program that aims to provide clarity on requirements and approaches for PLM in the communications-service-provider arena.

PLM applications are capable of modeling and managing complex product information, including network-resource dependencies, association of process details in standard-definition languages such as BPEL, specification of SLA metrics and order-time prompts. They also serve as a central store for information regarding what the products are, how they need to be handled and the external data and systems that need to be referred to as part of handling. The applications serve as repositories for all product information required to support operator-business processes, such as order capture, service fulfillment, billing and service assurance.

Operators can manage application-user privileges to control access to different layers of information to support a "decomposed" process for end-to-end definition of products and offerings. For example, service designers may have privileges to create and update service definitions, whereas product managers may have privileges to create and update only the higher-level product definitions that are created from available services. PLM systems have a product-state model to manage the creation, release and retirement of products. The applications often include a change-propagation engine to highlight impacts of changes in modeled information and to support what-if analysis.

PLM-software systems have a comprehensive graphical user interface for iterative modeling, state management and impact analysis. They also typically have a standards-based information model, such as the TeleManagement Forum's SID and APIs for external-system access to definitions of products and offerings. Most PLM applications will also support round-trip service engineering, enabling them to import service-capability definitions from service-creation environments and service-inventory systems.

As operators focus increasingly on product differentiation as their core business strategy, the challenges related to introducing new products and managing product change will grow. Many operators have thousands of product items and options to manage and hundreds of changes every month to contend with, and it is only going to get worse.

Yogen Patel is vice president of product marketing at Ceon. See www.ceon.com

News Bite

Spanish mobile operator **Amena**, part of the **France Telecom** group, has joined the FreeMove alliance. Sister company **Orange**, **TeliaSonera**, **TIM** and **T-Mobile** are already part of the alliance, which works on purchasing, roaming and multinational customer service. FreeMove covers 295 million customers in 26 countries across Europe and in the U.S. and Brazil. The alliance lost Telefonica earlier this year, when the Spanish operator was forced to withdraw as a condition of its takeover of O2.

BCC falls after brief surge as operators wait for next-generation billing systems

Apart from a brief rally at the end of last year and beginning of this year, the overall trend in the number of BCC-contract announcements recorded in the contracts database of *OBA* publisher Informa Telecoms & Media was downward in the four years to the end of August (fig. 1). The peak came in quarters to the end of February 2003 and the end of May 2003, with 113 and 112 announcements, respectively.

In the quarters to the end of November 2005 and February 2006, the number of announcements rose to 101 and 106, but that trend has not been maintained. In the three months to end-August, only 54 announcements were made – the lowest level in the four-year period, less than half of the peak. What might be happening is that with the prospect of real-time, online charging coming ever closer and operators moving toward all-IP core networks, orders for the more-traditional systems are slowing.

Three major subgroups of the BCC dataset in the database are billing and rating; interconnect billing; and mediation. Of the three, billing and rating form the largest proportion. Over the four years, billing and rating announcements fluctuated, with the overall trend relatively flat. In the quarter to end-February 2006, the number of announcements peaked at 64, only to fall to an overall low of 37 in the most recently recorded quarter. Interconnect-billing announcements similarly dropped to a four-year low of only four in the last quarter.

This time last year, mediation announcements had shown an upward trend, which was attributed at least in part to the fact that, to cope with the demands of billing for new services, operators were improving their mediation rather than changing their billing systems. But even the number of mediation announcements dropped to a four-year low of only seven in each of the last two quarters recorded.

In the four years to end-August, fortunes varied (see fig. 2). Amdocs made only three announcements in the last year, despite acquiring DST Innovis (*Billing Plus*, 11 Jul, 2005). CSG Systems' announcement figures understandably fell, since it sold its Kenan and ICMS assets to Comverse in a deal that closed at the end of last year (*Billing Plus*, 17 Oct, 2005). The number of Comverse announcements rose, from three in the year to end-August 2005 to seven in the last year, but the increase is far less than the drop in CSG's announcements figure – from 23 to 10 in the same period. The difference might be partly attributable to the effects of the reorganization. The number of LHS announcements grew steadily as it consolidated is position after reacquiring BSCS from SchlumbergerSema about three years ago. Intec's announcements figure has been level for the past couple of years, despite its greater strength in the retail billing market since it acquired the SingleView product from ADC.

Highdeal represents the new breed of billing vendor with a product targeted at the needs of real-time billing. It has made a dozen announcements in each of the last two years – though its real-time billing offering is not an end-to-end product directly comparable with offerings from the likes of Amdocs, Convergys, Comverse and Portal. Comverse, with its roots in the prepaid-billing market, coupled with its acquisition of the Kenan and ICMS products, is well positioned to address the real-time market. Portal claimed to be one of the first vendors to address the real-time billing market and used to make a high number of announcements of contracts with smaller IP-focused operators. Its fortunes appeared to wane for a couple of years, but recent announcements have put it squarely in the tier 1 space.

Vendors with 8 or more announcements

Sep-05 to Aug-06

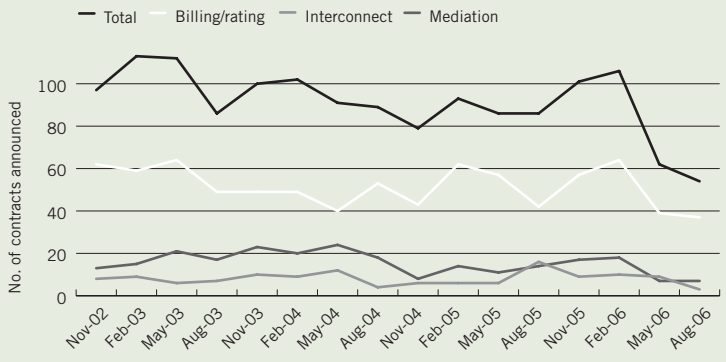
Intec Telecom Systems	23
Convergys	20
Portal Software	16
LHS	15
Highdeal	12
Comverse	10
CSG Systems	10
Mid America Computer	9
Openet Telecom	9
ComArch	8
Info Directions	8
Tecnomen	8

Sep-04 to Aug-05

Intec Telecom Systems	24
CSG Systems	23
Portal Software	13
Highdeal	12
Convergys	11
Amdocs	9
SoftPro (CBOSS)	9
Cerillion Technologies	8
Great Lakes Data Systems	8

Source: Informa Telecoms & Media

Fig. 1: BCC contract announcements, Nov-02 to Jul-06



Source: Informa Telecoms & Media

Fig. 2: Total announcements by selected vendors, Sep-02 to Aug-06

Vendor	2002-2003	2003-2004	2004-2005	2005-2006
Amdocs	16	9	9	3
BCGI	12	9	1	0
Cerillion	7	7	8	6
Comptel	8	10	3	7
Comverse	3	3	4	10
Convergys	18	21	11	20
CSG Systems	22	25	23	10
Highdeal	1	1	12	12
Intec	22	36	24	23
LHS	–	1	7	15
Portal	29	11	13	16

Source: Informa Telecoms & Media

Telecoms BCC contracts, Sep-05 to Aug-06

Vendor	Latin America	Asia Pacific	U.S./ Canada	EMEA	Global/ unspecified	Billing/ rating	Inter- connect	Mediation	Other	Prepaid	Convergent	Fixed	Mobile	Other/ unspecified	Total
Intec Telecom Systems	5	10	3	3	2	5	11	7			3	8	6	6	23
Convergys	1	3	6	9	1	20					2	9	5	4	20
Portal Software	2	2	3	7	2	15			1		4	7	4	1	16
LHS		1		4	10	15					2		3	10	15
Highdeal	1	1	1	8	1	12					1	8	2	1	12
Comverse	7		1	2		4		1		5	1	2	7		10
CSG Systems		1	7	2		10					2	7		1	10
Mid America Computer			9			7	2					9			9
Openet Telecom	1	3	2	3		2		7			2	1	6		9
Info Directions			7		1	8					1		6	1	8
Tecnomen	8					1				7	2		6		8
Azure		1		6			6	1				5	2		7
ComArch			2	6		3	2	2					5	2	7
Comptel	1	2	1	3				7			5		1	1	7
Equinox		1	6					7			2	4	1		7
SoftPro (CBOSS)		1		6		7					1	1	5		7
Cerillion Technologies	2			4		2		4			3	2	1		6
EastWind				5		5							5		5
Mind CTI		1	3	1		5					1	1	3		5
Mer Telemanagement Solutions		1		3	1	4	1				3		1	1	5
Redknee	2	1		2		5					1		4		5
Ace Comm	1			2	1			4				2	1	1	4
VoluBill	3			1						4			4		4
Amdocs				3		3					1	1	1		3
Caleo				3		3					1	2			3
CustomCall Data Systems	1		2			3						2		1	3
DigitalRoute				3				3				3			3
Ericsson	1	1		1		1				2			3		3
Lucent	1			2		1				2	1		1	1	3
OSG Billing Services			3						3			2	1		3
Primal Solutions		1	2			3						3			3
Symsoft				3						3	1		2		3
Tango Telecom	2			1		3							3		3
Verso	1			1	1	1				2		3			3
Other	2	16	16	46	1	49	9	6	6	11	11	29	36	5	81
Total	**42**	**47**	**74**	**140**	**21**	**197**	**31**	**49**	**10**	**36**	**51**	**111**	**125**	**36**	**323**

2 billing/rating contracts	Alcatel, eServGlobal, EyeBill, Formula Telecom Solutions, Informatics, Intracom, MaxBill, MetraTech, Novatel, Peter-Service, RateIntegration
2 interconnect contracts	I-ConX Solutions
2 mediation contracts	Evolving Systems, Narus
2 prepaid contracts	LogicaCMG, Tecore
2 other contracts	Ryder Systems
1 billing/rating, 1 interconnect contract	CDG, EUR Systems, UDP
1 billing/rating, 1 other contract	Visage Mobile
1 billing/rating, 1 prepaid contract	Telcordia
1 interconnect, 1 mediation contract	Basset, Starnet Systems
1 billing/rating contract	Argent Networks, Atos Origin, Bytemobile, Commsoft, Eskadenia, GLDS, Hansen, IntraISP, Martin Dawes, Martin Group, Mobile Cohesion, NTels, Open, Quintrex, Siemens, StreamServe, Suntech, Sysmaster, Tech Mahindra, Telebilling, T-Systems
1 interconnect contract	Integration Management, Strom
1 prepaid contract	Accenture, Apertio, Cisco, Kapsch CarrierCom, Teligent, VoiceCue
1 other contract	Danet, Docucorp, Talgentra

Note: Data collected from vendors 1-Sep 05 to 30-Aug 06. List is not exhaustive

Source: Informa Telecoms & Media

News Bite

Nokia has signed a nationwide supply contract with the Philippine telecommunications company **Globe Telecom**. Under the agreement, Nokia will renew the core network of Globe Telecom, including an upgrade of its Nokia mobile switching center to Nokia's MSC Server mobile softswitch. Also included are Nokia's NetAct network- and service-management platform, voice-over-IP server and IMS. In addition, Nokia will provide implementation, commissioning, systems-integration and training services.

Bakrie Telecom

Indonesian operator Bakrie Telecom has chosen **Redknee**'s Unified Rating and Charging System to provide real-time data-rating and charging capabilities for its prepaid subscribers. With the technology, Bakrie would be able to charge for content, rather than using simple volume-based rating plans. URCS will be used for charging data services, including content and application downloads, m-commerce and streaming content, in real time. With real-time balance management, subscribers can manage their usage and expenditure, and operators can verify usage limits and view account-balance status in real time. URCS works as an adjunct to an operator's billing system, enabling it to earn revenue from content without replacing legacy systems.

BTL

Belize Telecommunications (BTL) has agreed to use **Lucent**'s SurePay real-time rating and charging engine. Lucent says the system will enable the operator to launch a range of enhanced services for prepaid and SMS customers. Lucent says that it plans to integrate the technology with BTL's infrastructure and that it will supply an SMSC platform and wireless-messaging gateway. BTL says that SurePay and the associated products will enable it to offer real-time rating services, such as voice, data, content downloads and e-commerce, with a variety of discount bundles, incentives and buckets. The operator will be able to integrate its prepaid GSM, AMPS and fixed charging and billing systems into a single platform. BTL offers fixed, mobile and Internet services.

Cable & Wireless

Cable & Wireless has selected **MetaSolv** software to help transform its OSS platform for IP and next-generation services. In a multimillion-dollar deal, MetaSolv has agreed to supply C&W with an integrated next-generation platform for activation, provisioning and configuration management across all service domains. The first phase has been deployed across C&W's operations. It standardizes two large and disparate MPLS-based IP networks on MetaSolv's next-generation activation platform and has helped C&W coordinate with a recently acquired European IPN VPN operator, the vendor says. Under terms of the deal, MetaSolv will supply activation, provisioning and configuration-management products.

Cable One

A relationship that began in 1978 between Cable One and **Amdocs** has been extended via a new three-year agreement. Under the deal, Amdocs will continue to manage the operator's billing and customer-management systems. The processes managed by Amdocs' technology include order entry, service provisioning, billing and bill-statement design. U.S. cabler Cable One says 720,000 people subscribe to its cable and broadband services.

Comcor

Moscow Telecommunications (Comcor) has selected **Comptel**'s Incatel Network Inventory Management System to use across its multiservice network. The operator says it will initially use NIMS to handle outside-plant, inside-plant and logical resources in its network. It plans to use the technology to model and plan Comcor's SDH, IP and optical last-mile network as well as for broadband, telematics and CATV services. Comcor says it has longer-term plans to use the product as part of the Comptel Fulfilment product to automate provisioning of its network and services. NIMS is a convergent technology incorporating GIS. It was acquired by Comptel with its purchase of EDB Telecom last fall. Comcor offers wholesale and retail access and metro-area-networking services to government and business customers in the Moscow area.

DirecTV

Hewlett-Packard and DirecTV have signed a seven-year deal, valued at about US$500 million, extending the companies' technology-support agreement. Under the agreement, HP will provide support and testing for DirecTV's CRM and billing systems, including network management, data-center operations, database support and other IT services. The companies have been working together for 12 years.

DTAC

Nokia has supplied Thai mobile operator DTAC with a system designed to enable its customers to top up their prepaid accounts with small amounts via a wide range of resellers. The system, Nokia Connect eRefill, is in use under the brand name Happy Online. Systems similar to this one are being used in mobile markets with a high number of prepaid customers, particularly those in developing countries in the Far East and Africa. Resellers can offer the service via a mobile phone with text messages or through a web interface. Electronic top-up systems reduce the costs and security concerns operators face in connection with physical recharge methods, such as scratch cards and vouchers. The new system enables subscribers to purchase airtime in small amounts, making the service attractive to low-spending subscribers.

Japan Telecom

Japan Telecom has implemented **Vitria**'s BusinessWare platform to improve its OSS. Japan Telecom says it is using the product to consolidate customer-service orders and status information, to speed up service and to reduce operating costs. BusinessWare is an integration platform that includes business-process-management and enterprise-application-integration capabilities and is used in a wide range of industries, including telecoms. It has enabled Japan Telecom to integrate a number of systems and applications to streamline its OSS processes. Japan Telecom, a subsidiary of Softbank, offers voice, data and Internet services.

Jilin Unicom

The Jilin division of China Unicom has signed a BCC contract with **Amdocs**. Jilin is planning to launch personalized voice- and data-service packages and has contracted Amdocs to consolidate and upgrade its rating and billing systems to create an integrated platform to cope with the new services. Jilin is already using Amdocs' BCC products in some of the regions in which it operates, but it says that the upgraded and expanded system will give subscribers greater ability to design their own service packages. The implementation is

planned to operate in two phases. The first phase will entail the rollout of billing, customization and rating capabilities, and the second will include the acquisition and settlement processes. Amdocs says it will carry out the system integration.

Mobiltel

Mobiltel of Bulgaria says it will deploy **Vallent**'s Performance Management platform to help manage multimedia and traditional services over its GSM and UMTS networks. Mobiltel says it is the only Bulgarian operator to offer EDGE, UMTS and HSDPA services. The Vallent technology, which can operate in a multinetwork, multivendor environment, will provide Mobiltel with metrics that enable it to assess the quality of its EDGE, UMTS and HSDPA networks, monitor daily and hourly network performance, isolate, analyze and fix problems affecting service and plan and forecast infrastructure capacity. Mobiltel, part of the Mobilkom Austria group, has 4 million subscribers.

Movistar

Comptel's EventLink mediation system has been chosen by MoviStar of Puerto Rico for its CDMA network. The system will collect and process usage information for Movistar's voice, SMS and data services. It will replace a legacy in-house system that is no longer capable of handling the increasing complex demands of new services. EventLink will forward the processed data to Movistar's billing and interconnect systems and data warehouse and will process roaming records from partner networks.

MTNL

Indian an operator MTNL has selected **Intec**'s SingleView BCC system, in what is reported to be a multimillion-dollar deal. The Indian telecoms market is developing rapidly, in terms of subscriber numbers and the range of services offered, and operators need to update their BCC systems to cope. MTNL says it hopes to be able to use the technology to support growth and development plans. The contract is the first use of SingleView announced by Intec in India. MTNL, a government-owned fixed operator, has about 5 million subscribers.

Qtel

LogicaCMG has been chosen by Qtel, the telecommunications provider for the Middle Eastern state of Qatar, to provide its SMSC platform and a payment engine to enable prepaid SMS roaming. The deal comes in advance of the 15th Asian Games – which Qatar will be hosting in December – and the holiday of Eid. The events are expected to produce increased messaging traffic. Qtel is the highest-ranking sponsor and official telecoms provider of the 15th Asian Games.

SFR

French mobile operator SFR has signed a turnkey contract with **Nokia** to modernize its network to enable fixed-mobile convergence and to help it cope with a projected growth in 3G traffic. SFR will be changing its MSCs to Nokia's integrated 2G/3G MSC Server mobile softswitch. Under the deal, Nokia will manage the network rollout, including adaptation works, integration, rehosting the radio equipment and operating the network. The deal also includes the Nokia NetAct service-management platform. SFR, owned by Vivendi and Vodafone, has 17.4 million subscribers and is the second-largest mobile operator in France. It has a stake in the fixed market, through its 40.8% interest in Neuf Cegetel. Nokia says SFR is the 100th customer for its mobile softswitch product.

Sirius Telecom

Sirius, a U.S. provider of carrier-class switch partitions, switch services and co-location space, has licensed ExtractCDR from **Equinox** to transform the raw switch data and billing records generated by its switch into formats usable for billing. Sirius says it considered developing an application in-house but say that because ExtractCDR can output data in a range of standard and custom formats, it decided instead to use the Equinox product. Sirius' customers include a number of tier 1 telecom operators and large corporate networks.

TDC

Alcatel has agreed to supply an IMS-enabled system to manage communication services for Danish operator TDC. The operator says the technology will enable it to deliver advanced enterprise services, such as voice VPNs and virtual PBXs, for its enterprise customers, opening up new revenue streams. Under the deal, Alcatel will provide TDC with complete system-integration services, including project management, software integration, installation, commissioning and maintenance. Alcatel will also provide its 8640 Corporate Mobility Manager, a network application that spans PSTN, SIP and mobile networks, enabling enterprises to give their employees access to a converged communication system across locations, networks and devices. The Alcatel 8690 OSP, a service-delivery platform, supports the base of installed services while providing an evolutionary path to NGN/IMS multimedia services. It also allows operators to integrate their service networks with existing front- and back-office OSS/BSS.

T-Mobile UK

Amdocs has provided T-Mobile UK with implementation services that have supported the launch of a postpaid pricing plan, Flext. The plan, which launched earlier this year, enables customers to choose a mix of voice, text and picture messaging and other services, based on monetary value rather than minutes or number of messages. T-Mobile was already using an Amdocs billing system, but it needed upgrading to cope with the new plan. Flext is supported by a single billing platform.

Wireless Matrix

A North American wireless data provider, Wireless Matrix, has chosen **Highdeal**'s Transactive product to handle its billing and partner settlement. Wireless Matrix provides real-time telematics and mobile-resource-management applications, such as fleet tracking and remote inventory, that use terrestrial and satellite-based communications networks and depend on a large number of remote devices that generate large transaction volumes. The Highdeal platform handles the associated billing requirements with minimum configuration and removes the need for custom coding. The deal is Highdeal's fourth publicly announced contract to supply its Transactive platform in North America and its first deal in the region this year, but it also signed a supply contract with Mexico's Iusacom in February.

Diary

October

9-12
Optimising OSS
Vienna, Austria
www.iir-conferences.com/OSS

24-25
Service Delivery Platforms Asia
Singapore
www.informatm.com/sdpasia

25-26
Telecoms Revenue Assurance
Renaissance, Prague, Czech Republic

30 Oct-3 Nov
Customer Segmentation Strategies 2006
London, UK
www.iir-conferences.com

November

19-23
Billing & Revenue Assurance Strategies for Middle Eastern, Gulf & North African Operators
Dubai, United Arab Emirates
www.iir-conferences.com

December

4-7
TeleManagement World Americas
Dallas, TX, U.S.
www.tmforum.org

4-8
Next Generation Billing, Charging & Customer Management
Munich, Germany
www.iir-conferences.com

Network intelligence is the key to higher ARPU

Much has been written about next-generation IP networks and the potential they create. They promise converged services that could enhance the user experience and increase the average revenue per user while reducing operating costs through automated service provisioning and fulfillment. Much of the discussion has focused on a powerful new application framework – IMS – and the evolution of the transport network to an all-IP infrastructure. And to package all of these services, service-delivery platforms (SDPs) have come of age, tying together OSS/BSS and application-level service-creation tools.

SDPs have created an environment designed to accommodate the growing complexity of the application-delivery ecosystem, which includes complex blended services, multiple content/application providers and the ability for a user to define a custom service catalog on demand. And there is the potential to employ new business models, as more and more application providers require a robust service-delivery environment to ensure the success of their application and as advertisers look to new IP services to reach highly targeted audiences. These factors are changing the role of OSS and BSS platforms from passive enabler to dynamic service-delivery component.

Missing piece

The one thing missing from all of this discussion is a way to link the applications and network to deliver the full potential of new services that are created in the SDP. Without linking the applications and the network intelligently and in real time, next-generation services will be relegated to the best-effort performance of today's high-speed Internet offerings. The linkage is critical to service providers, which without it would be forgoing the benefits derived from next-generation networks' ability to guarantee the availability of resources, deliver high per-session quality of service and enable user-driven service customization.

Fortunately, the industry and standards bodies have recognized the gap and have been hard at work defining a way to link the application requirements with the network-resource capabilities in a real-time, on-demand environment. As a result, next-generation-network architectures have defined a real-time, policy-driven control plane – resource and admission control subsystem in the ETSI TISPAN specification and policy control and charging node in 3GPP IMS Release 7 – that provides the ability to modify user sessions and to create charging information based on user, application or network events.

The focus of the policy-control layer is predominantly on enabling a high quality of service for a user session, with a goal of providing customers who sign up to premium services with that an enhanced experience. But the new control layer is quickly becoming the linkage that enables BSS systems in the SDP to become an interactive component in the real-time service-delivery ecosystem. For example, with the new intelligent linkage in place, the policy-control layer can receive a user-generated request for a custom service catalog or network-contract change and, in real time, communicate with the required components in the IMS and SDP to perform a rating function and present a window in which the user can consent to new charges before the service is delivered.

New linkage

The policy-control layer enables new business models to be introduced that were previously cost-prohibitive because of complexity and the latency introduced into the service-delivery process. With a real-time linkage in place, the SDP is ready to become a major factor in defining next-generation service-delivery business models, including the introduction of promotional offers, the advertising of sponsored services and custom service contracts for enterprise customers that can be defined and enabled on-demand by the enterprise IT manager.

The impact on service personalization and revenue potential and the opening of the service-delivery ecosystem represent a major paradigm shift in the IP-services market. The shift is being enabled by the introduction of this real-time, policy-driven control layer that is unlocking the potential of all of the systems in the service-delivery ecosystem by closing the communications loop between application frameworks, SDPs and the network.

The power of the newly formed ecosystem is only beginning to emerge. But with the growing number of applications – voice, IPTV, enterprise collaboration – and the demand for far-greater levels of service associated with such offers, the impact of a new level of network intelligence should be profound.

Personalized services delivered to a highly mobile user base with user-defined service levels are part of a vision for the future, and it appears as though the SDP and the policy-control layer are the keys to the future. By adding the network intelligence to the robust application framework being created in the IMS and the ubiquitous access offered by next-generation IP networks, the service utopia that has been long discussed is coming closer to reality.

Richard Cardone is director of marketing at Tazz Networks. See www.tazznetworks.com