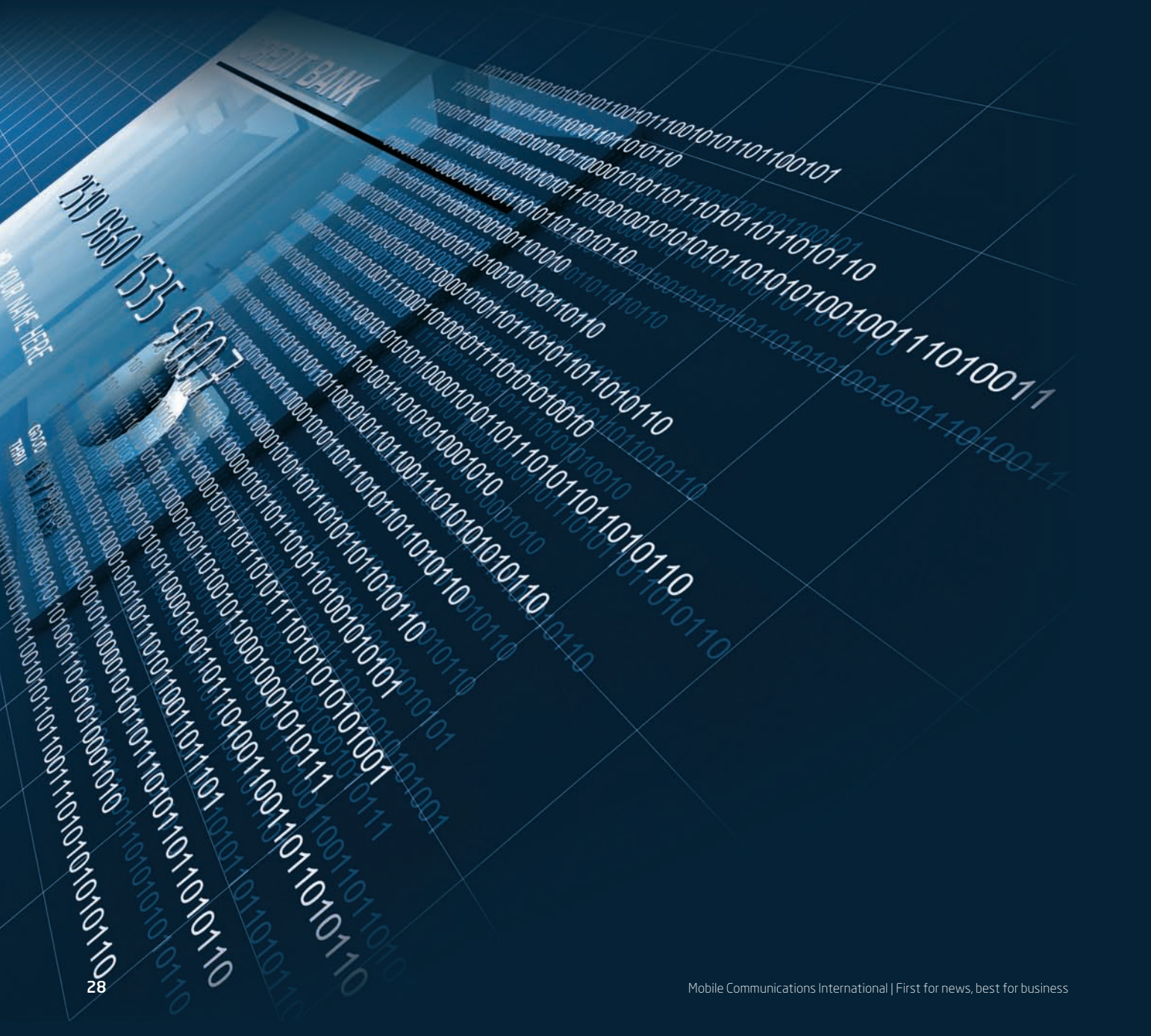


Stand and deliver

It's not often that you find an industry as diverse as telecoms singing from the same hymn sheet on anything, but this year's TM Forum Management World event in Dublin was positively harmonious. And the message was that less is more.

By Pamela Weaver



There's nothing like a stark choice to focus the mind, and with ARPU's flatlining in almost direct proportion to demand, consensus at this year's TMF event was that silos and complex legacy systems are slowly choking the industry to death. The oxygen, it seems, will come in the form of a back office systems and processes diet. Leaner, less complex and more flexible solutions will allow operators to innovate on billing and operations in a bid to vastly improve customer service and experience—about the last place left for operators in search of a meaningful differentiator in a market that often looks like it's leaving them behind.

If opportunity lies in difficulty, it's fair to say that carriers are currently sitting in the eye of the storm. But they need to shake off their reputation for being built for comfort, not for speed—and start injecting a little agility into their processes.

Pegasystems' communications and media industry solutions director Tom Erskine says that agility has been a long time coming, and maybe hasn't even arrived yet. "One definition of insanity is to keep doing the same things over and over again, always expecting a different result—and that's sometimes how it feels in this business," he says. "IT projects in telecoms are often characterised by a slow-moving approach but it's also one in which legacy systems have amalgamated over time." Pointing to mergers and acquisitions among carriers as a key driver in the legacy accumulation stakes, Erskine says that, when it comes to trying to transform infrastructure into "something that makes sense", carriers "keep going back to the same vendors who sold them the infrastructure in the first place. It's time for a fresher approach that leverages more modern tools and technologies."

For some, it's not so much a need for freshness as a radical overhaul. Speaking at a joint keynote session at Management World, Deutsche Telekom's CTO and CIO (Olivier Baujard and Steffen Roehn) said that the only cure for the German giant's years of legacy accumulation was a "big clean up job in our networks and IT." Without it, they said simply, "we fail." In common with many other carriers, DT is looking for clarity and simplicity through standards and automation. "We don't want to have to customise everything to death," said CIO Roehn, "we want out-of-the-box capabilities and not by half-measures...And we can't do this on our own. We need standards."

A recent survey undertaken by research firm Vanson Bourne suggests that more than half of communications service provider (CSP) executives agree with Baujard and Roehn when it comes to BSS/OSS business processes and architecture. Of 100 senior executives surveyed, 56 per cent estimated that the adoption of existing standards would free up 1-16 per cent of their annual IT budget, with 75 per cent saying that current systems integration costs were higher thanks to inconsistent standards adoption. When asked which outcomes for BSS/OSS would offer the greatest benefit to the business, 54 per cent ranked IT architecture agility in their top three, with 67 per cent saying that agreed industry standards would be "very helpful" in achieving that outcome.

Oracle Communication's general manager Bhaskar Gorti says it's clear that industry standards had a "very real role to play" in making BSS/OSS work for other businesses. "Standards expedite procurement processes through their use of common terms to describe product and service capabilities, as well as the ability to identify inefficiencies via comparisons with industry best practices," he says.

Gorti's colleague, VP of product marketing Dan Ford adds that, while it's fair to say telcos' attempts to streamline are being forced by the likes of Google and Skype when it comes to finding new revenue streams and business models, the trend towards out-of-the-box is also a natural, evolutionary process. "Go back 30-odd years and companies used to build their own databases. Nobody does that today," he says. "The same happened with ERP systems and I think increasingly with CRM—the vast majority of companies buy off the shelf and then configure, as opposed to hand-built or customised."

Ford says that, historically, a lot of operators based their differentiation on how they built their own billing or order management systems but that they are now, "recognising the benefits of standardisation in distinguishing or differentiating themselves in the way they serve their customers—on agility rather than IT infrastructures."

Standards might be a good direction to move in, but they're not the only show in town: KPN Mobile CTO Erik Hoving says that while innovation demands simplification, any time spent on standardisation before operators simplify is "time wasted." Describing, as many before him, current network operations as "spaghetti", Hoving told Management World »



Deutsche Telekom's CTO
Olivier Baujard

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delegates that next-generation operations should be more like lasagne: layered, organised and in one tray. But he warned against papering over cracks: "Don't cut the lasagne, put the spaghetti in, put the top back on and call it lasagne. You have to get rid of the spaghetti."

Hoving should know: since arriving at KPN, his task has been largely focused on unravelling a situation in which each of the countries served by the carrier had a different set of systems in place, all covering a diverse product set. He said his focus had been on creating a single set of systems to support voice, data and SMS. Pointing to successes achieved in other industry verticals, Hoving said telcos needed to offer simplified choices to customers that could be delivered in a cost-effective, speedy way. An essential component of this, according to Hoving, is the dumping of existing technology roadmaps in favour of decision mapping, clearly defining a business need before exploring technology solutions.

It's a vision shared by Pegasystems' Erskine, who says that a good model for telcos is a much more iterative one, "a model where you essentially identify what the critical business issues are and then quickly leverage modern applications to work between the business and the IT model and then execute and deliver the application." Erskine also likes layers, favouring a rational approach to legacy transformation where instead of trying to rip and replace, you essentially put an agility layer on top of the legacy applications and "slowly but surely, process by process, transform the old to the new." It's a thought process that echoes Hoving's: "We had to do a huge IT overhaul in one of our countries," Hoving said, "and we were unable to deploy new projects for nine months. It was the best nine months we've had."

And if there's a business model out there driving the current technology trends in billing and operations, it's customer experience and quality of service. Or rather, how to enhance it. With carriers beating a speedy retreat from all-you-can-eat data plans and looking towards tiered offerings, the key to retaining and growing customer base will lie in the ability of telcos to innovate and overhaul tired business models—whether that's in terms of networks, personalised application suites or just the way traditionally disinterested contact centre agents deal with customer complaints and queries.

There's little argument against the view that unlimited data plans have wreaked havoc on core business for operators; new business models are the last chance saloon if carriers are to escape the fate of becoming dumb pipes for over-the-top players. Chris Hoover, VP for marketing and product management at subscriber optimisation vendor Openet, says that the integrity of the business models operators have had for the past 15 years is starting to fragment. "It's difficult to move subscribers off a decade-long paradigm [of all-you-can-eat data]. One the other hand, it's also difficult and risky to understand which direction to move users into," he says.

According to Hoover, data caps on their own aren't going to solve anyone's problems; they don't address demand or traffic. Oracle and other vendors are pointing to carrier-grade as a differentiator that will allow telcos to leverage the unique assets of their customer databases to grow revenues as well as customer loyalty. Oracle's Dan Ford says that telcos with streamlined, effective processes in place are in a unique position to use customer data to offer controlled exposure of that data to third party software developers who, in turn, can use that data to build tailor-made

solutions structured on individual customer usage patterns.

Ford cites Telecom Italia as a "classic instance of an operator that has exposed these unique differentiators and assets to third party software developers and is able to offer very novel applications to sell and monetise." Telecom Italia's Virgilio and Matrix portals opened up online advertising revenue streams for the company through the use of location-based services, personalised television/video streaming offerings and other "connected life experiences" aimed at Italian-speaking users around the world.

While there are success stories based around the innovative use of customer data insights, Openet's Hoover is sceptical of viewing it as a silver bullet solution. Hoover says that the uniqueness of the data carriers have access to is diluting. "Take location-based information," he says: "Time was, operators could say they had unique access to that data but that's no longer true. These days, it's basically an API on a device that sends data to whoever asks for it, whether that's Google Maps, Facebook or the carrier themselves."

Hoover says that over-the-top (OTT) applications have become very granular and are no longer accessed through a single interface. This, he says, presents carriers with "a really important opportunity" to take advantage of multiple points of access to end users in a very flexible way in terms of how content is bundled and charged for, as well as the policies that can be developed around that flexibility. "When you have just one point of access—the internet—you don't have a lot of choice, you just offer access or you don't, and operators struggle to differentiate on that. It's all about price in that situation and that's what we've seen up until now," says Hoover.

In an application/OTT-driven market, Hoover says carriers can open up new revenue streams, not least in the enterprise space, where they can bundle data connectivity with enterprise-specific applications, changing the value proposition completely. "This infrastructure requires a combination of charging and billing," says Hoover, simultaneously offering pre-and-post-paid. And that payment might be made in different contexts; carriers need to manage policy to look at what's happening on their networks in the context of fluid payments and data consumption, he says, "all while taking into account things like user profile, device-specific requirements or roaming, for example."

Hoover says that Openet is working on trials with a number of carriers aimed at opening up back-end data to end-users, exposing billing information, making data consumption a more transparent process and driving new revenue streams in the process. "Allowing customers to trial additional services such as video, or extend their viewing allocation on an ad hoc basis brings a lot more edges into play. There are more touch points between the operator and the customer and that means a lot more opportunities to differentiate as well."

Like many of the commentators *MCI* spoke to on this topic, Hoover believes that tiered networks will play a significant role in how carriers innovate in the service space. Network intelligence and policy vendor Tekelec's director of product management Mike Heffner says that carrier ability to address different tiered service capabilities is a "question that's never been answered." Pointing to the reality that not all customers are the same, Heffner says that some carriers will focus on driving low-cost pipelines while others look for "granularity on high-end customers."

"When we start talking about customer experience going forward, we're going to have to address different expectations for different tiers of people," says Heffner. "Because if you treat your VIPs the same as the mass market, you're going to end up losing your highest ARPU users." Charging users for high-end services will understandably raise expectations in terms of quality, putting a new pressure point on carriers to deliver the goods seamlessly. This, says Heffner, is a driving force behind a surge in interest in policy control and performance management toolsets. "We're receiving a lot more queries on these issues now than in the past," he says. "Carriers are looking to technologies like deep packet inspection (DPI) because it

gives them that granularity they need. When it comes to policy and billing/charging, DPI really improves visibility."

Director of telecoms solution strategy at billing and customer service vendor Convergys, Tony Jackson, points to the advent of 4G/LTE as "something of a catalyst" for the renewed vigour. "For Jackson, real-time capability monitoring and intelligent management has been a game-changer in allowing carriers to offer customers the kinds of tariff plans and services that "make them want to sign contracts."

Real-time is, according to Jackson, "why billing is becoming more of a buzzword now." In the past carriers simply pumped massive volumes of data into their warehouses every day, ran reports and maybe used information based on averages to drive marketing campaigns every few weeks. Real-time monitoring paired with innovation in billing enables the kind of add-ons that allow carriers to treat customers more intelligently, says Jackson.

In common with other commentators, Jackson says that BSS has had to become more real-time capable, moving much closer to the network and, in the process, beginning to cross over into the OSS space. "And the network and OSS side have had to become much more subscriber aware. Everything's beginning to overlap now, there's no longer necessarily a clear dividing line between BSS/OSS," he says. "In the past, there would have been some batch file passed over between systems at periodic intervals. Now you've got two-way interactions going on in real time between multiple different systems, so what is BSS or OSS? They're becoming very closely bound."

The problem for carriers to date has been one of legacy systems and monolithic, siloed OSS infrastructure. Telcos aren't the first to see the need for substantial transformation, consolidation and simplification in order to drive agility – the financial services industry is perhaps the biggest example of an industry that, at one time, was almost paralysed by overly complicated back-end infrastructure. The growing threat from OTT players has forced a significant change in strategy for carriers as they evolve into service aggregation and more innovative models for customer experience. Customer experience is a significant driving force behind a lot of the innovation the industry is seeing at the moment. As innovation in price plans, billing, smart metering, insertion and tiered services comes to the fore, agility in the back room has never been more important for carriers. ■



Openet's Chris Hoover

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