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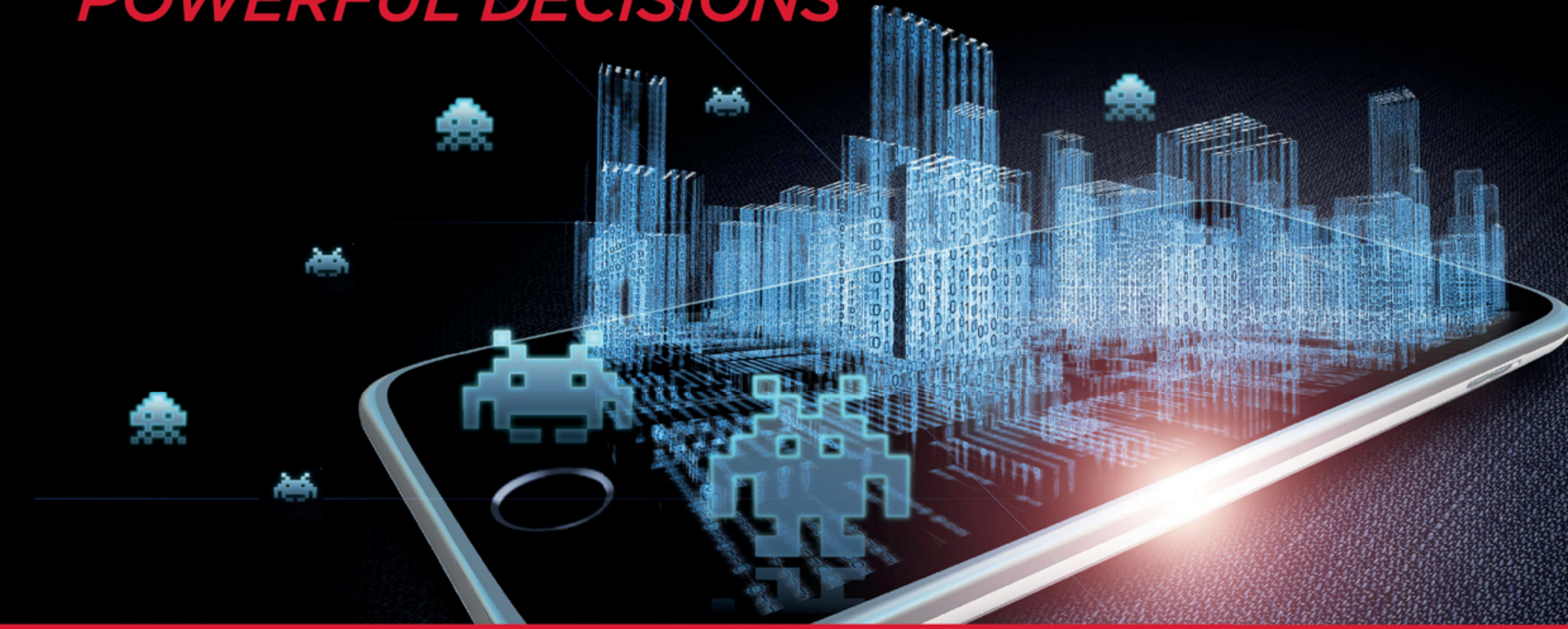

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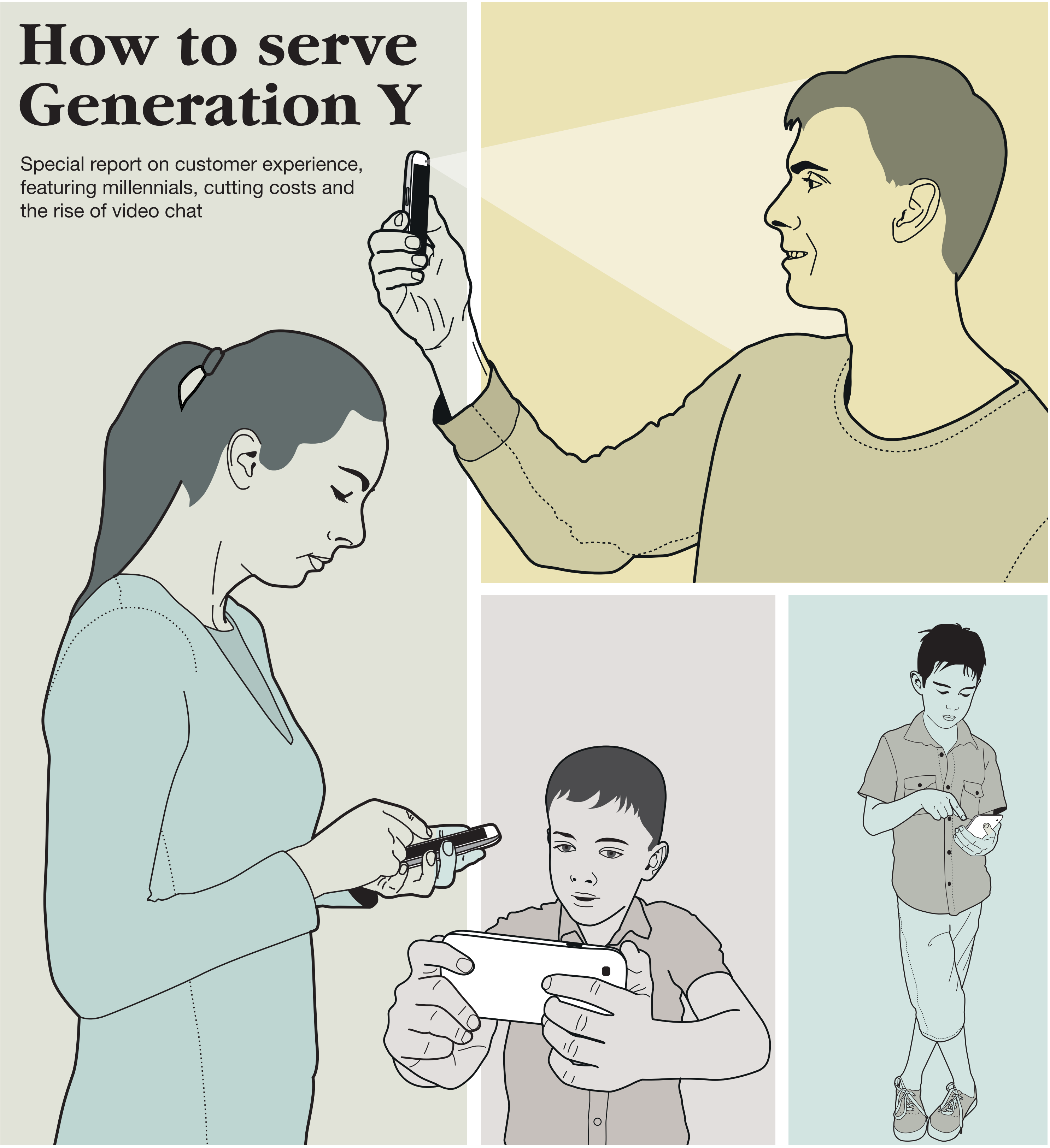
How to serve Generation Y

Special report on customer experience, featuring millennials, cutting costs and the rise of video chat



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Rolv-Erik Spilling, Chief Executive of Telenor Digital, talks to Marc Smith about how the business is evolving to meet future needs

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Industry heads to Barcelona with millennials on its mind

The Q1 issue of European Communications is a harbinger of two things: our annual focus on customer experience and Mobile World Congress.

Our fourth annual customer experience special report features a number of important trends. We look at the digital natives generation – some say Generation Y or millennials – and assess how operators can best serve this key segment.

According to our latest survey, operators are clear that they need to be treated differently. Almost nine in 10 respondents said a different approach was required to their youngest customers.

As such, new technologies will be needed to enable this subscriber base to interact with telcos in a manner that is different to other age groups. One of these is video chat, and we look into this and the growth more widely of non-human contact points.

Operators themselves are split on the subject of video chat: while 54 percent already offer or intend to offer the technology to customers, 46 percent said there are no plans to introduce it.

However, they are in agreement that the costs associated with delivering a best-in-class customer experience remain the biggest challenge the industry faces.

We delve further into this issue and find that industry watchers believe the cost argument to be a red herring. Says Patrick Kelly, Head of US research group Appledore: “Really, you can take any initiative and argue there’s a cost impediment; the biggest challenge for CEM is the culture of the organisation itself.”

We will be discussing all these issues at European Communications’ customer experience seminar, to be held in London in April. I urge you to come along and listen to and network with a range of top industry speakers about this key topic. Check out our website www.eurocomms.com for further information.

Elsewhere in this issue, we have an exclusive interview with the CEO of Telenor Digital. Rolv-Erik Spilling discusses how priorities have changed since its inception and offers advice to his peers on how telcos’ digital initiatives can succeed.

We look at where the land lies in the UK, following the huge burst of M&A activity involving all the major players bar Vodafone.

Operators in Europe will also be interested in our take on what they should do to prepare themselves for the arrival of Apple Pay, as well as the regulatory implications for the M2M/IoT market during the year ahead.

All of the above will undoubtedly be key topics of discussion in Barcelona. The annual industry event looks to usher in increasingly non-telco players as part of the industry’s shift to play a role in the “digital ecosystem”.

As ever, operators have the unenviable task of trying to get their internal systems and processes to mirror those of their digital competitors, while at the same time putting on a public face that tries to convince everyone else that they are already at the forefront of the digital game.

Enjoy the issue.

Marc Smith, Editor

SJP business media

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Sky announces plans to enter UK mobile market
Sky will launch a mobile service in the UK next year after signing a deal with O2.

Tablet growth set for steep decline
Two new forecasts have highlighted the significant slowdown expected in the global tablet market.

Netflix launches on TalkTalk TV
TalkTalk has started rolling out Netflix to its 1.2 million TV customers.

Ericsson and Apple in patent dispute
Ericsson and Apple have gone to the courts to resolve a two-year dispute over mobile tech patents.

Android sales decline across Europe as Apple nears parity in the UK
The Android OS felt the heat of Apple's new launches at the end of 2014 as its market share dropped in Europe's biggest markets.

Belgacom exec starts ETNO chairmanship
Belgacom's regulatory chief has started his new role as Chairman of the European Telecommunications Network Operators' Association (ETNO).

Huawei reports rising revenues, profits and R&D for 2014
Huawei has said that it expects 2014 revenues and profits to rise substantially, with R&D spending also on the up.

Senior Oracle exec jumps ship to head up Alcatel-Lucent's IP business
Alcatel-Lucent has appointed Oracle executive Bhaskar Gorti as head of its IP Platforms business.

Three UK adds Spain and New Zealand to Feel at Home roaming initiative
Three UK has added two new countries to its Feel at Home roaming initiative.

Three.co.uk

EE reaches 7.7 million 4G LTE subs
EE has announced it has 7.7 million 4G LTE subscribers to cement its huge leadership position in the UK market.

Opinion

The trends that will make 2015 a year to remember
By Vincent Rousselet, Vice President, Market Insight and Strategy, Amdocs

Q&A

Simon-Kucher & Partners on the need to raise prices in telecoms
Mark Billige, Managing Partner UK, and Ekkehard Stadie, Global Head of Telecoms, at Simon-Kucher & Partners discuss the best way for operators to increase prices

Feature

Operators seek to be all things to all people in search of start-ups
As we reported late last year, although operators are keen to talk the talk about being innovative, cold hard evidence of it is thin on the ground.

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Europe outguns Asia as the US suffers

The fourth quarter was a triumph for European stocks last year, as M&A activity across the continent drove it above Asian and US indexes

2014 ends with a whimper in US telecoms

The US telco sector had a blue Christmas in 2014, with shares falling 4.3 percent in the fourth quarter.

The 15 December marked a quarterly Black Friday for US telco stocks, as the share prices of the four major operators plummeted because of market jitters.

Reports in the Wall Street Journal claimed as much as $45 billion was collectively wiped off the US operators' market value in the four weeks leading up to the quarter's low point.

Investors were spooked by a number of factors. The first was the ongoing spectrum auction, with Verizon and AT&T set to be hit with heavy costs. Next year will see 600MHz broadcast spectrum sold off, with Sprint and T-Mobile likely to be the big spenders.

The ongoing price war between rivals is also making Wall Street unhappy, especially as it looks set to continue into 2015.

Coincidentally, 15 December was when BT made waves across the Atlantic, bidding £12.5bn for UK market leader EE, which is 50 percent owned by T-Mobile parent Deutsche Telekom.

Sprint's shares took the biggest hammering during the quarter, falling 35.1 percent to close at $4.15. AT&T was the best performing stock but still saw its shares slide 4.3 percent.

Asia saw telco stocks rise 1.4 percent. While China Mobile revealed the sheer speed of its LTE rollout, with the operator adding 27 million customers onto 4G during the third quarter, it announced in October that its profits fell almost 10 percent due to the speed of its network rollout and retention costs. Its shares were broadly flat during the quarter, closing at $58.82.

In Japan, the market faced upheaval with the announcement in October that operators would have to sell unlocked handsets to customers. Market leader NTT DOCOMO, which completed a multi-vendor trial of NFV technology during Q3, saw its shares fall 3.8 percent during the three months until 31 December.

4.3%

The US

The US telecoms sector fell 4.3 percent in Q4 according to data from the Dow Jones US Index

1.4%

Asia-Pac

The Asia-Pac telecoms sector rose 1.4 percent in Q4 according to data from the FTSE Group Index

Altice comes of age

Altice was the best performing stock in our index during Q4 2014 as its share price rose over 59 percent.

The company, which offers cable and telecoms services in France, Israel, Belgium, Luxembourg, Portugal and Switzerland, made a stunning rebound after being the worst performing stock on the third quarter.

It made three major announcements between October and December. First, it confirmed that it had closed a deal to buy France-based mobile operator SFR. Altice paid €13 billion for the company, which it plans to merge with its Numericable business to offer quad-play services.

Second, it unveiled its third quarter results, which showed EBITDA growth of 12 percent. Sales were down 0.3 percent across the board, although French revenues grew three percent.

Third, the company continued its acquisition spree by entering into exclusive talks with Brazilian operator Oi over the purchase of Portugal Telecom. The €7.4 billion deal finally went through in January.

The senior management gave an interesting insight into their views on the market during a conference call to discuss the Portugal Telecom acquisition.

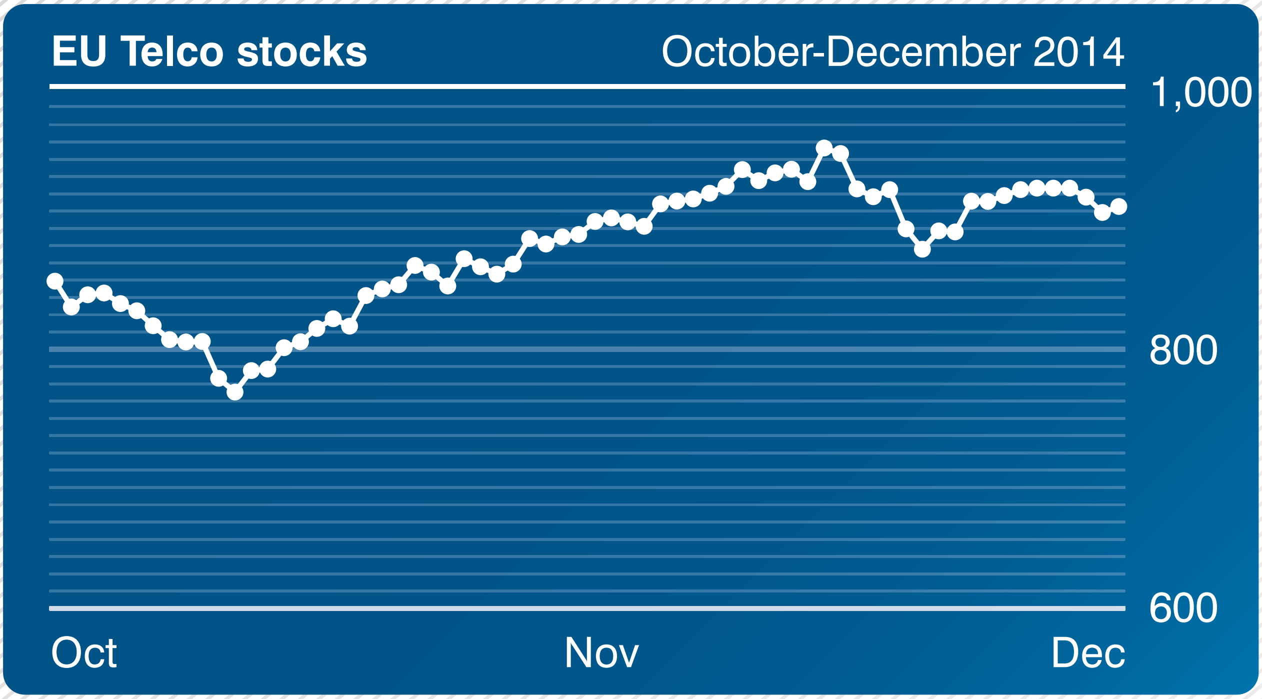
Although CEO Dexter Goei described PT's infrastructure, particularly its FTTH and LTE assets, as state of the art, CFO Dennis Okhuijsen claimed PT had "over invested" in LTE.

The CFO went on to say that "most of the costs [in the business] are mispriced". Altice is targeting €200 million savings in the medium term, with half of that figure to be achieved within 18 months.

If, and there is no doubting why it shouldn't be the case, other incumbents are similarly paying over the odds, more sharks will be circling.

Goei did little to douse the flames, saying Altice remained "interested" in consolidation.

All told, Altice has catapulted itself into the frontline of European telecoms. Even if it doesn't acquire another telco, its presence will be felt for some time to come.



Stellar quarter on the old continent as convergence trend continues

European telecoms ended 2014 on a high, registering a 6.8 percent rise quarter-on-quarter. It meant our index rose during three of the calendar year's four quarters, fuelling the impression that the industry is back in track.

However, it could be argued that much of the growth was down to M&A activity. Altice, which has acquired SFR and Portugal Telecom, was by far and away the best performing stock (see box out).

Orange also made significant progress, as its share price was up over 26 percent. The release of Q3 financials showed continued improvement in revenue decline across its major businesses, as its 4G LTE and FTTH customer bases increased.

There was a further bounce from the September announcement that it planned to acquire Spanish operator Jazztel for €3.4 billion. Regulatory approval is still awaited.

Then, in November, Orange announced it was in discussion with BT over the sale of UK mobile operator EE, in which it has a 50 percent stake, for €15.7 billion.

The news understandably benefitted EE's other parent, Deutsche Telekom, which saw its share price increase over 13 percent during Q4.

Exclusive talks between the three parties were still ongoing as European Communications went to press. The deal would see DT hold a 12 percent stake in BT and Orange hold a four percent stake.

Although DT reported a Q3 sales increase, attempts to protect its operations in Germany and the United States has led to profits falling almost 14 percent.

In November, it signed an agreement with China Mobile to work on a connected car joint venture in China.

CEO Tim Höttges commented: "All strategy-related trends are clearly on an upward trajectory."

Every other operator, apart from Swisscom, on our index registered a rise in their share price of up to 10 percent.

The Swiss company unveiled an increase in Q3 sales following strong growth in the operator's bundled services, but investors took fright at the news that Xavier Niel had acquired Orange Switzerland.

Niel owns the Free Mobile outfit in France, which has caused havoc in the mobile market by invoking an aggressive price war. ec

6.8%

Europe

The European telecoms sector rose 6.8 percent in Q4 according to data from the FTSE Group*

* Our index is made up of the following EU telcos: Altice, Belgacom, BT Group, Deutsche Telekom, Orange, Swisscom, Tele2, Telecom Italia, Telefonica, Telenor, Teliasonera and Vodafone Group.

Telenor Digital re-set

Rolv-Erik Spilling, Chief Executive of Telenor Digital, talks to Marc Smith about how the business is evolving to meet future needs

How relevant are operator digital businesses in 2015? It is a pertinent question to ask given how the trend for them has dissipated somewhat in the last 12 months.

Launching amid much fanfare in 2011, the digital units of both Telefónica and Telenor were hailed as significant departures for the two operators.

There was talk of ushering in faster, leaner tech-focused business practices in a bid to take on internet services, driving new revenue streams – Telefónica talked of a €5 billion business opportunity – and redefining the staid image of telcos suffering from long-term decline.

Yet as we enter 2015 the reality is somewhat different. Telefónica quietly folded its digital business back into its main operations at the end of Mobile World Congress last year.

Telenor Digital is still alive, but also looks rather different to the picture it painted just a couple of years ago.

Back in October 2012, the Norway-based operator said its Digital Services division had been established "with the purpose of developing new services in the digital economy, focusing specifically on internet services that Telenor Group and partners will deliver globally".

CEO Rolv-Erik Spilling commented at the time: "In order to call our innovation efforts a success, we need to be adopted by a high number of customers and generate substantial new revenues."

As the great and the good gather at MWC 2015, it's a good time to take stock and look to the future.

Telenor Digital achieved revenues of NOK 513 million (€58 million) in the first nine months of 2014, up nearly a third year-on-year. However, it is still operating at a loss.

It trumpets four brands, including a webRTC video conferencing platform and a social shopping app, as examples of new services. But appear.in is still undergoing trials at Telenor opcos and SoBazaar launched last November with the modest aim of attracting 20,000 users before the end of the year. TD has already sold half of it to a media company.

Spilling won't go as far as saying TD has failed, but admits that the strategy has changed: "It's hard to make new things. In the beginning, through the hype, we wanted to develop our own services," he tells European Communications.

"This has been replaced by working in partnership. From my point of view, partnerships will be very important... We've put more effort here."

The CEO cites partnerships the company has with Google Play, Facebook, Twitter, LinkedIn and Wikipedia but when he says the online encyclopedia has been "very important" in boosting its corporate social responsibility profile, you get a sense of where the telco sits in these partnerships.

Spilling says he is interested in how Telenor can help to present realtime information across different screens, but admits that transforming the company to work with internet services remains one of his biggest challenges.

Key to this is TD's Global Scale department, which has been tasked with providing a new global infrastructure that allows digital services to be rolled out across all of Telenor's markets.

The aim is to allow a single integration point for partners and provide its global customer base with a single sign-on and payment process.

To be fair to Telenor, it was one of the key tenets of Telenor Digital from the beginning. Spilling says this global delivery platform has taken time to build and implement but will benefit the company hugely in the future.

But after four years, the question remains: is it all too little too late?

The CEO says focusing on revenues as a gauge of success is pointless. "You can't compare the revenues of TD with those of the group," he says. "You have to take a long-term view. [TD] will constitute a significant part of the group's growth."

That's easy to say, but given how the business has been scaled back already, how much pressure is Spilling under?

"The [Telenor Group] board can see deals coming. We've had a lot of discussions with them... we have more support than ever," claims the CEO.

Spilling remains confident that TD will be profitable before the end of the decade. "2020 is a good target to have from a valuation, if not revenue, perspective." But he adds: "It's a bit ambitious and you have to take some big bets."

Specifically, there are two areas that the CEO is keen to talk about: M2M and online classifieds.

TD counts Telenor's M2M business, Telenor Connexion, on its balance sheet. Indeed, the digital arm said revenue and EBITDA growth were thanks to the performance of its M2M business in the first nine months of last year.

It doesn't break out numbers, but Spilling confirmed: "Telenor Connexion has grown a lot in the last two years... and if you look ahead there is [the opportunity for] tremendous growth."

The company provides a range of M2M services, including a platform that's linked to 400 mobile networks around the world. It counts Volvo, Nissan, Scania, and Hitachi as partners.

Last December, it joined the likes of Etisalat, KPN, NTT DOCOMO and Telefonica in the operator-led M2M World Alliance as it looks to build scale.

On the classifieds front, TD's hopes are based on two joint ventures it signed with media companies Schibsted and Singapore Press Holdings in 2013. The JVs are active in South America and South East Asia.

Online classified sites are typically a part of successful internet sites, the three companies reason, which will help them to secure presence on the growing number of mobile devices and, therefore, increased exposure to mobile internet growth.

Telenor is not the only operator to have invested in this area. Deutsche Telekom also has an online marketplace provider, Scout24, but sold a 70 percent stake in it to a private equity firm, netting €1.5 billion.

> "Most telcos in the future won't be telcos"

Spilling says they are already the number one online classified site in eight markets, including Pakistan, and one of his key targets this year is to grow this business.

The CEO is keen to establish other initiatives in Asia in 2015 too. It is clear to see why. At a group level, revenues in Telenor's Asian business are on a par with those in Europe.

"You can still take positions in Asia," says Spilling. "There is a huge difference between operating in pre-pay emerging markets to post-pay Western ones. We have to work much harder on pricing in mature markets.

"Partnership is also very important as customers in Asia make decisions to use specific services on a daily basis."

More broadly, Spilling plans investments in other new areas – he cites e-commerce and m-health as two possibilities. "To grow you need to invest... and investing in new industries is highly important," he says.

He could easily have said 'to grow you need to change tack'. Ultimately, TD is not the beast the operator wanted it to be, at least when it comes to innovation. As Spilling says, it's hard to build new things.

Perhaps unsurprisingly, recalibrating its internal infrastructure looks like where the real success will lie, as long as it can persuade "real" digital businesses to sign up to its benefits.

Says Spilling: "The ability to do digital marketing is going to be key. [Telcos] must learn how to combine data from their partners with their own [data], preferably globally, in order to ensure they can sell a service."

Ultimately, he says the telecom industry must look beyond mobile. "Most telcos in the future won't be telcos [as we think of them today]. They will be providers of [a range of different] services across different industries."

If that is the lesson from the decline and fall of operators' digital businesses, it is one well worth learning the hard way. ec

Telcos and the innovation problem

Telenor incorporates an "incubator environment" into its Telenor Digital business.

Entrepreneur Svein Willassen joined TD in 2010 and now heads up appear.in, a webRTC-based video conferencing tool. It is one of four products that have made it from the prototype stage to become a TD "brand".

Willassen says the aim is for the product to be live in one of Telenor's European markets later this year. But he admits it could have been killed at birth: "We persuaded TD it was a project that had traction but we were rebellious and did not ask for permission to release it.

"Asking permission is a death sentence and I don't think we would have got it. Telcos need to understand that the start up scene is very different to the telco environment and not get in their way."

Nevertheless, Willassen does not regret joining TD over, for example, an established tech VC fund.

He says: "There are pros and cons to both. We might have had a nicer office but I would have spent more time keeping investors happy.

"We want to leverage Telenor's distribution and I think we have more freedom here, but I have to learn the telco culture so as not to offend anyone!"

The UK gears up to embrace the quad squad

As M&A fever hits the UK, Paul Quigley analyses how the market is evolving

After almost a decade of relative stability in the UK telecoms market, the dynamics have quite clearly entered into a new evolutionary phase.

BT's move for the Deutsche Telekom-Orange joint venture EE last December was followed by the decision of Three UK to acquire rival O2.

The catalyst has been that Deutsche Telekom, Orange and O2 owner Telefónica are willing sellers as they look to focus on more core markets and the emergence of quad-play services.

BT is looking to return to the mobile market to complement its broadband strategy. According to the incumbent, the EE acquisition would enable it to "accelerate its mobility strategy that would combine fibre, broadband, Wi-Fi and TV" for what it calls enhanced Fixed Mobile Convergence (eFMC) services.

Meanwhile Li Ka-Shing, CEO of Three parent Hutchison Whampoa, has clearly adopted a take-or-be-taken strategy with the intended addition of O2 to its portfolio of European telecom assets.

Unless due diligence discloses unexpected black holes in pension liabilities or other unaccountable financial irregularities, the immediate challenge faced by all quad-play hopefuls in the UK will be regulatory.

> "The era of pure play mobile, fixed and cable operators is coming to an end"

However, Chris Cowan, Associate Director at Coleago Consulting, believes that the hurdles won't be significant enough to scupper the BT/EE deal. He says: "From a pure regulatory perspective, there should be no problem, since the central plank of Ofcom's regulatory position in the mobile market has been to preserve four national wholesalers, which this acquisition will continue to do."

According to Cowan, Ofcom went to quite some lengths in the 800MHz auction to ensure that Three won 10MHz of 800 spectrum so that the market would continue to have a fourth national wholesaler.

"So, there are no obvious regulatory hurdles, although there will likely be some concessions given the very large spectrum holding that BT will then own," says Cowan.

Jonathan Snade, Partner at Thomas Eggar LLP, agrees it is unlikely that regulators would prevent BT's acquisition from proceeding. But he says: "Looking specifically at Openreach, it will be interesting to see the extent to which BT's customers (including Sky and Vodafone) will be lobbying the regulator to use its powers to force BT, for example, to dispose of some of its wholesale broadband offering."

Mark Collins is Director of Strategy at CityFibre, which is building out an FTTH network in a number of UK cities in a bid to challenge BT Openreach. He thinks an ill wind is set to chill the market if the BT/EE deal progresses unchallenged. "Neither the UK nor the industry will benefit from BT as a communications infrastructure monopoly," he warns.

"BT has refused to use its market power to lead the reform and modernisation of the UK's digital infrastructure. Instead, it has used its financial muscle to further expand into the consumer content and mobile sectors, mostly funded by wholesale revenues from the behemoth that is Openreach - an infrastructure that is largely based on out-dated copper networks upon which nearly all service providers and mobile operators are reliant."

As regards Three's proposed acquisition of O2, there may be a reluctant acceptance by regulators that the UK market is consolidating organically, and that it will be impossible to preserve a quartet of mobile operators in the light of major consolidation and quad play-based business models.

But Dr Marius Luedicke of Cass Business School warns that the Three/O2 merger could mean a hike in prices. He says: "In Austria, after the most recent reduction of telecom providers prices have gone up. However, such price rises also render the market more attractive for new entrants. In the Austrian case, the new entrant was Hofer telecom, who is now serving the market at the lowest prices, thus putting pressure on the more established providers.

"Negative effects for consumers therefore are most likely to result when new competitors do not get fair and price-regulated access to network capacities that are owned by only a few companies. If access is denied, new entrants cannot compete, competitive forces will be reduced, and prices are likely to rise."

Beyond the regulatory and anticompetitive hurdles to overcome, there is the technically convoluted relationship between all of the mobile operators when it comes to the sharing of each other's mobile network infrastructure and systems that will have to be unpicked.

Three has a network sharing arrangement with EE, while O2 has a similar deal with Vodafone. According to recent research by Coleago, both joint ventures are "active" sharing so it will not make financial sense for Three and O2 to remain in both. Coleago found that whichever JV the two companies exit will put the jilted party at a financial disadvantage to the other mobile network operators.

According to the consulting firm, Three/O2 will need to "square the circle" between relinquishing radio spectrum, selecting the lowest-cost network sharing JV and placating its jilted partner.

Furthermore, Three/O2 will need to understand the implications for EE or Vodafone in order to craft a solution to ensure that its proposed acquisition is not blocked or delayed by their objections. Such a situation has not arisen before.

As BT, EE, Three and O2 steal the limelight, what of they other major player – Vodafone? The company has been following a converged strategy for some time, with its acquisitions of Kabel Deutschland and Ono, but has stayed out of the M&A ring in its home market thus far.

It is unlikely to do so for long, experts believe, and a content-rich player such as Sky, or more likely, Liberty Global's Virgin Media would tick many of the boxes it still needs to compete in the emerging quad-play space. Talk Talk is another possible target.

Interestingly, Sky has announced plans to launch a mobile service to accompany its fixed, broadband and Pay-TV offering in 2016 (see box out).

Declan Lonergan, Head of Mobile Telecoms Research at The 451 Group says: "Content is one of the most effective ways to sell mobile broadband and 4G in particular. On the mobile side of the fence, Vodafone has been the most active player. Its 4G differentiation strategy is based almost entirely around exclusive content bundling, through partnerships with Spotify and BskyB (for Sky Sports)."

Bengt Nordström, CEO of Northstream, adds: "Mergers and acquisitions take time but it's likely that this year we'll see Vodafone make at least one more acquisition in order to become a fully converged operator in the UK."

Ultimately Nordström suggests market forces mean the BT/EE and Three/O2 deals will go through, with wider implications for the rest of Europe. He explains: "The era of pure play mobile, fixed and cable operators is coming to an end, and the operator of the future will almost certainly be a converged operator.

"Expect Telefonica, Orange and Deutsche Telekom to retreat from the UK and follow similar consolidation paths in their respective home markets." EC

The future role of MVNOs in the market

The role of Mobile Virtual Network Operators (MVNOs) is once again under discussion in light of increased M&A activity. Ever since the MVNO business model came into being over a decade ago, led by Virgin, network operators have looked to sell spare capacity to a range of companies, from supermarkets to post offices.

Does the future still look bright? Opinions are divided. According to analyst firm Ovum, MVNO subscriptions are set to grow at a compound annual growth rate of 18 percent between now and 2019.

Nowtel Group CEO Andrew Davies believes BT and Three's proposed acquisitions are likely to have a direct impact on the MVNO market depending upon the decisions of the regulators post-merger.

He says: "In more recent transactions, the European Commission has insisted on the creation of more MVNOs or greater wholesale access as a condition of allowing these deals to occur." Davies cites examples in Ireland and Austria. "If this model were to be replicated then we can expect a greater number of MVNOs in the UK in coming years," he says.

However, Scott McKenzie, Director at Coleago Consulting, is convinced that consolidation amongst network operators represents a negative for MVNOs. He explains: "It means less infrastructure competition. In the longer term less infrastructure competition is undoubtedly a negative."

James Tagg, CTO at MVNO Truphone, says service innovation is moving much faster than infrastructure development and operators are yet to move towards cross-border consolidation. "Whilst we are seeing a reduced number of network operators in the market, the issue around infrastructure remains, and networks are likely to continue to be a patchwork of national operators, systems, hardware and software in the medium term," he says.

Nowtel's Davies thinks this presents an opportunity for MVNOs. He says. "With fewer network operators available to switch between, disgruntled and unsatisfied customers will be increasingly likely to look at MVNOs that provide a similar look to network operators in terms of contracts."

Focus is the key if operators are not to be eaten alive by Apple Pay

The launch of Apple Pay need not be the end of the road for telcos' m-payment strategies. A bit of focus may be all that's required, writes Owen Hughes

The arrival of Apple Pay last year seemed to signal a turning point for the mobile payments sector.

Featuring "groundbreaking" NFC antenna design, a dedicated chip called the Secure Element, and security via the iPhone 6's Touch ID it was the shot in the arm that the sector had been crying out for.

Supported by the US company's successful track record and marketing might, few doubt that Apple will succeed in pushing m-payments into consumers' hands and making it desirable.

But what does it mean for operators? Although many have suggested that Apple's move could be a death knell for operator-derived m-payment services, many appear unfazed by the move.

Some are in fact welcoming it outright, claiming that Cupertino's approval will help the industry flourish and thus ensure the prosperity of telcos' own m-payment services.

Mark Ritzmann, Head of M-Wallet Services and NFC at Vodafone, is one such believer. He says Apple Pay will help promote growth in an ecosystem that was otherwise beginning to stagnate.

Vodafone launched its SmartPass service last year, which consists of an NFC tag that can be attached to users' smartphones to enable contactless payments of up to £20 at compatible contactless terminals.

The system is currently being rolled out in Europe and is the first payment service available for Vodafone's Wallet platform, which also allows customers to store digital versions of their payment and loyalty cards on their mobile device.

It is separate from Vodafone's other key payments product, M-Pesa, a text-based service that lets it 18.5 million customers access and transfer money via their mobile phone.

"Before the Apple Pay announcement, people were starting to challenge NFC-derived technology and there were a lot of question marks over whether NFC was the way things were headed," Ritzmann says.

"This conversation completely stopped with the announcement from Apple, because it's another big player proving that this is the right technology."

Ritzmann adds that rather than being a direct rival to Apple Pay, Vodafone is positioning its mobile wallet service as an "enabling platform", with the eventual objective of putting its customers in a position where they no longer need a physical wallet.

Swisscom markets its own m-payment service, Tapit, similarly. Tapit supports Visa cards and enables cashless payments in shops via Android devices with NFC technology.

The operator claims its app has already been downloaded 10,000 times and has revealed plans to further the offering in 2015 by extending the system beyond payments to include access cards for secure buildings.

Like Vodafone, Swisscom points to such functionality when differentiating itself from Apple's system, as well as reasons why it will not be shying away from the mobile payments business any time soon.

The operator also says that strong ties with rival mobile providers - Tapit was developed with rivals Sunrise and Orange - will also play to its advantage as it continues to roll out the service.

Swissom's Carsten Roetz says: "Swisscom is a brand of trust and with strong local partnerships in Switzerland. We believe partnerships are key for mobile payment.

"Our goal is to extend the service to iOS devices in the future to be able to address all smartphone customers. We don't see Apple Pay as a threat, but as a chance for the mobile payment industry."

Yet it all looks rather parochial when compared to Apple, which has a list of partners that includes Visa, MasterCard and American Express, as well as major banks Citi, Bank of America, Capital One and Barclaycard.

High street retailers have also been quick to sign up, with Bloomingdales, Macy's, Foot Locker, McDonalds, Nike, Office Depot and Disney amongst those accepting the service in-store.

Analysys Mason's Enrique Velasco-Castillo warns telcos that they have work to do. "Operators have not shown the ability to gain and sustain the partnerships needed to necessary to guarantee wider adoption of mobile payment services," he says.

"Apple has key partnerships with the most essential players in the mobile payments value chain: the issuing banks, the card networks, the payment processors, and some of the largest retailers in the US. This gives Apple all the pieces of the puzzle to put together a very comprehensive mobile payments service."

Partnerships aren't Apple's only ace in the hole either. From a technological perspective, Apple Pay functions similarly to other mobile payment systems, with one crucial difference: the system relies on Host Card Emulation, meaning the secure element used to carry out transactions is embedded into the device itself

and controlled by Apple.

The result is that Apple is able to offer m-payments as a baked-in feature on its devices, effectively cutting operators out of the loop altogether.

Velasco-Castillo describes the situation as rather precarious. He says: "At the hardware layer, [operators] have been completely bypassed by the security features and the security co-processors that Apple has inserted in the handset, as opposed to the SIM.

"This was the essentially the mechanism whereby operators were trying to gain control over the payment details and gain control over the essential elements that enable mobile payments transactions to take place from a handset.

"Another advantage is that Apple clearly has a device leadership in terms of being capable of persuading consumers that a certain technology or use case or set of interactions is the way to go: We've seen it in the past with the iPad and with the iPhone itself, and we'll probably see it again with the Apple Watch and other potential future smart wearable devices."

With Apple offering a solution out of the box, telcos are struggling to offer something as accessible.

Valyou, the m-payments service launched in Norway by Telenor last year, demonstrates the problem. Being a SIM-reliant system, it requires Android users first download an app from Google Play, before ordering a new Valyou-compatible SIM from the Telenor.

While the crux of the system rests on the GSMA's SIM-based Bank ID technology, Viktoria Erngard, VP of Financial Services at Telenor Norway and Chair of Valyou, acknowledges the issue.

"We know it is important to work out a really smooth system if you want to reach the masses, so we will evaluate this," Erngard says. "We are looking for better ways to source the SIMs and get the customers set up with the right SIM from the start...We want to give the customer a really smooth payment experience [and] as we are going into market, this is working close to perfectly."

Ritzmann says that Vodafone will also continue to work on its offering in this regard.

"We are working on ways to make bank-enabling much easier, so we can onboard things much faster than we can do today, and we also want to further improve the way we sign customers up," he says.

"At the moment, these are still hurdles we are seeing where we just need to improve our proposition."

A way forward

But it could be too little too late. With Apple seeming to have partnering and ease-of-use nailed, it would appear that telcos have little room for manoeuvre. But some do see a way forward.

Velasco-Castillo says: "Operators have a number of advantages that handset manufacturers like Apple don't have. They have very close relationships with their customers - they know who their customers are, they know where they are and what type of customer they are. That's very powerful, and that's why the best go-to strategy for operators that want to be relevant in mobile payments is not to target mobile payments as a whole, as a blanket, but rather to find those niches where operators and vendors provide value."

One example Velasco-Castillo offers is the provisioning of mobile PoS terminals addressed specifically for the enterprise market, in particular self-employed customers or employees of small enterprises that are required to accept card payments, but find it impractical or onerous.

"Operators can position themselves and partner with mobile PoS vendors to provide these solutions targeted specifically at their SME business customers," Velasco-Castillo explains.

"That's one of the ways in which operators can provide value, but it's solely about providing a solution to someone who definitely needs it and which isn't addressed by the larger consumer-oriented initiatives of Apple Pay."

There is, of course, another option. Telcos could choose to partner with Apple, or alternatively with Google, which is rumoured to be in talks to acquire the m-payments joint venture Softcard from AT&T, Verizon and T-Mobile US, rather than take them on.

Velasco-Castillo says: "I would expect a number of partnerships to materialise this year. Operators will start considering whether to partner with Apple or, conversely, with Google. That is something we're going to see a lot of this year."

Although Apple Pay has yet to establish itself, it would be brave to bet against them successfully bringing the technology to the masses. Telcos have been fiddling around the edge of the m-payments space for some time without huge success and it seems they will need to be much more focused if they are to find any success. EC

Legislators consider M2M/IoT related regulation and guidance

With M2M/IoT reaching peak hype, Julian Hale analyses the regulatory implications for this key area during the year ahead

Roaming fees, net neutrality and spectrum are set to be the main regulatory issues related to M2M and the IoT discussed by European Union member states in 2015.

The new European Commission, which took office on 1 November last year, inherited a full in-tray from its predecessor, notably having to pilot the Connected Continent package through the EU Council of Ministers and the European Parliament.

The EC's new Vice President for the Digital Single Market, Andrus Ansip, said in a January 2015 note to Brussels journalists: "We need to end roaming surcharges – this is key to develop new services, think about the future, like connected cars: they will need internet wherever they go, without costing an arm and a leg in roaming costs!"

This particular market could also get a shot in the arm if the EC is successful in securing the roll-out of the long cherished eCall initiative, where cars will be fitted with devices so that they automatically communicate to emergency services when they have been in an accident.

But even if it is not, automobile manufacturers have been exploring the consumer demand for connected cars.

Already this year, Ford has unveiled its Smart Mobility plan, which features 25 experiments including an on-demand vehicle shuttle service, while Telekom Austria and Porsche signed a deal to develop connected car services.

With European motorists increasingly crossing national borders, a removal of roaming fees will help make the commercial case for automotive IoT that much more sensible.

But while the lower regulated roaming rates that might seem appropriate for consumers for their use of mobile data may not reflect the value that can be attributed to an M2M device.

If the same roaming rates apply to consumer data as to M2M data, then "the prices operators could charge are pitifully small compared to the value that industry could gain from M2M devices," warns Machina Research CEO Matt Hatton. "This situation would limit the appeal of this market for operators as it would be harder for them to generate profits."

According to Hatton, "permanent" roaming is an issue that should be on regulators' minds in 2015. Permanent roaming is where a SIM card from a UK operator, for example, is connected to a device that ends up being permanently located in say Germany.

"The way in which roaming is being used today, to support M2M devices permanently located in foreign countries, is not what was envisaged. On this issue, as well as roaming fees and spectrum, regulatory authorities need to adapt to the new environment," Hatton explains.

The EC hopes to reach an agreement on ending roaming this year, but the current Latvian presidency of the EU is going to find securing at deal challenging indeed.

The Body of European Regulators for Electronic Communications (BEREC) has set out two options: (1) no revision of wholesale market before that currently scheduled for mid-2016; and (2) tighter wholesale regulation.

However, the Latvian presidency does not see either option as feasible because "under option 1 some operators would risk operating at a loss, while option 2 risks reducing investment incentives in visited markets".

The Latvians have set out two of their own options for discussion. First, operators could be allowed to additionally charge end-users for regulated roaming services, if provision for regulated roaming services at domestic price levels is financially unsustainable.

This would be the case where the average wholesale charges paid to other operators exceed revenues on a per-unit basis. Such additional retail charges should be fair, proportionate, transparent and predictable, say the Latvians.

These charges should cover only unavoidable costs (in particular, wholesale roaming charges paid to other EU operators) associated with the provision of regulated roaming services. Guidelines for the implementation of these principles would be determined by BEREC and would allow a country specific approach.

Second, the maximum surcharge an operator could levy in addition to the domestic price per unit would be equal to the wholesale caps, currently €0.05 per minute for voice calls, €0.05 per MB for data and €0.02 per SMS.

Alternatively, the surcharge could also take the form of a daily, weekly or monthly flat fee, as long as it is consistent with the principles set out above.

According to an EU official speaking on the provision of anonymity, BEREC is "broadly speaking negative about the feasibility of the EC's roaming at home principle in the short term as it sees many problems in the application of the principle".

The source says there was widespread concern amongst member states about roaming at home rules ordering that users of mobile phone or other devices abroad pay the same fee as in their home country.

"The problem that was expressed by several EU countries is that this could lead to operators raising prices domestically to compensate for the lost roaming surcharge," explains the source.

Lack of clarity

Spectrum allocation could also be a policy bugbear for champions of M2M/IoT. In the past, regulators set this according to two or three categories of devices that did a similar sort of thing; now there is a diverse range of devices with different requirements – think connected cars, connected games consoles or connected security alarm systems.

Says Hatton: "The regulator needs to look at whether the requirements of new devices, particularly in terms of bandwidth, need changes to be made to existing spectrum plans."

> "Permanent" roaming is an issue that should be on regulators' minds in 2015

The Latvian presidency has proposed dropping spectrum management from Connected Continent discussions because member states seem reluctant to debate the issue.

M2M/IoT service providers and manufacturers have an opportunity to express their view on spectrum use for wireless broadband in an EC consultation that runs until 12 April this year.

A key area of discussion is the 700MHz band, which is mainly used for digital terrestrial television (mostly received via rooftop antennas and free-to-air) and wireless audio equipment. But these frequencies are also particularly well suited to provide wireless broadband at higher speeds and with better geographical coverage.

The consultation will help the EC come up with proposals on how to use the band in the most effective way across the EU. But the EC is pushing hard for more to be done here.

"Spectrum is the key raw material for the digital single market. It can't work properly without connectivity that is high quality, high speed and decently priced. Open spectrum is the basis for a digitally enabled society and digital demand. But the more this natural resource is divided, the less efficient it is. Ideally, EU countries should be working together much more on allocating spectrum," said Asnip, in a speech at the GSMA Mobile 360 conference in Brussels in December last year.

Another key issue within the Connected Continent proposals with implications for M2M/IoT is net neutrality, given connected machines will probably need the same service in terms of speed and quality of data flow to converse optimally.

The EC is concerned by what it regards as a dearth of clear EU rules on net neutrality, leaving 96 percent of Europeans without legal protection for their right to access the full open internet.

It wants to end discriminatory blocking and throttling plus set out clear rules for traffic management that has to be non-discriminatory, proportionate and transparent. In addition, companies would be allowed to differentiate their offers, for example by speed, and compete on enhanced quality of service.

Pressed on big areas of discussion on net neutrality that relate to M2M, the EU official says that EU countries "will be discussing, among other things, if providing some users with premium internet services could slow down the services provided to other users paying lower fees".

BEREC highlights the growth in M2M services such as the equipping of energy grids with ICT (to create smart grids) and the deployment of smart meters.

Issues to be considered in this field may include the generation of synergies through the use of network infrastructure belonging to utility companies for the deployment of electronic communications infrastructure; the regulatory requirements applicable to electronic communications networks comprising smart grids and smart metering; the promotion of cooperation between telecoms and energy regulators; and the deployment of electronic communications networks by utility companies.

BEREC will be producing its first public report on the regulatory aspects of M2M and IoT in December 2015.

One good bit of news is that ETSI, the European Telecommunications Standards Institute, says roaming, spectrum allocation and net neutrality related to M2M/IOT don't have any impact in terms of standards.

"They are commercial and high level policy issues rather than technical issues," says an official.

He pinpointed privacy, security of devices, anonymity and the right to reuse data as "future issues" but does not see anything else regulatory specifically related to M2M/IoT coming up in the near future. ec

Tektronix Communications: Unique Insights, Powerful Decisions

Tektronix Communications: A comprehensive suite of solutions for leading network operators facing unprecedented business and technical transformation

Manuel Stopnicki, CTO, Tektronix Communications

The shift in the telecoms industry from hardware and services to the virtualisation of networks and the exploitation of big data involves such massive challenges that operators are looking towards innovative solutions to cope.

Tektronix Communications' CTO Manuel Stopnicki says that, from a service assurance perspective, we are witnessing the disappearance of the last technical boundaries between the present and future shape of telco business: the end of the separation of voice and data services over physical networks, finally achieving full IP convergence in mobile networks.

Much of this upheaval is being driven by worldwide LTE adoption and the acceleration of VoLTE service launches.

On top of all that, year-on-year data traffic growth of 50 percent, flat or declining ARPU and flat budgets are creating unprecedented capex and opex pressure.

"The amount of data being generated by network activity is getting so huge that traditional database technologies and siloed applications cannot work anymore in a cost effective way," says the CTO.

"We are talking about billions of pieces of information generated per day. The need to process that data in near real-time to make decisions faster presents new technical and skillset problems for operators.

"We need to bring everything into one place. We need a single version of the truth."

Demands are particularly acute for the largest players, Stopnicki believes. "The challenge is magnified when you have to work at scale. At scale, the risks of everything breaking are substantial," he says.

Amid such upheaval, operators realise they have to turn themselves into more sophisticated and dynamic businesses. To achieve this, they need a partner to help them manage this change at the right cost.

Tektronix Communications provides service assurance and customer experience management solutions that deliver the most comprehensive coverage of technology and services at scale (RAN to Core to IMS) with a unified suite of products and services. These applications address the needs of network planning, operations, customer care and marketing departments.

In particular, telcos are looking at hardware and software virtualisation in certain network functions (NFV) to reduce capex and enable them to bring new services to market more quickly, which creates organisational and technical challenges.

Says Stopnicki: "While we don't see NFV happening all at once, network operators around the world are starting to experiment with virtualisation. They are building sandbox environments and beginning to experiment with how they can accelerate service deployment, better use their network resources and at the same time keep their service quality high."

In this dynamic, virtualised environment maintaining visibility on the end-to-end process as well as the individual contributing resources is a new challenge, according to the CTO.

"What is sure is that without service assurance solutions adapted to what will be at first a mix of physical and virtualised environments, this move to NFV won't happen," Stopnicki warns.

Tektronix Communications is addressing this issue in two ways; by adding the ability to monitor virtual network environments, and by allowing its own software to operate on x86, standard COTS hardware.

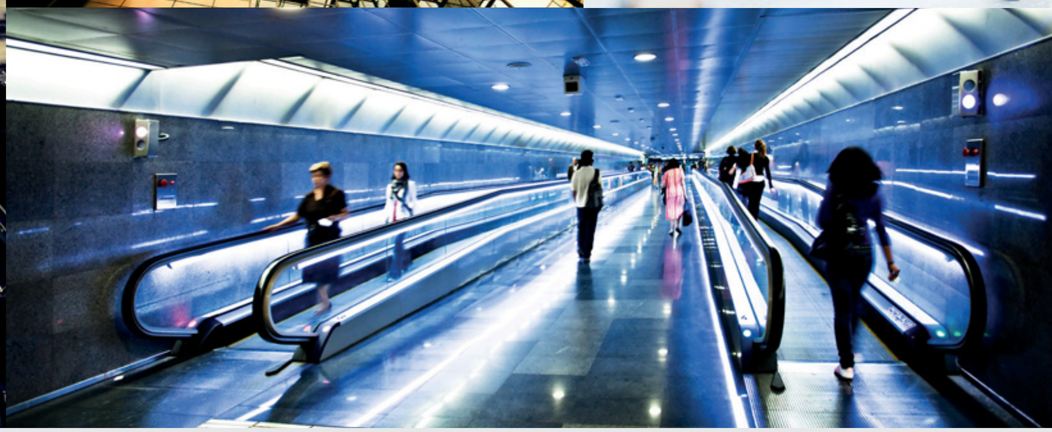
Stopnicki explains: "By doing this, we give our customers a flexible way to ensure they continue to have access to multi-dimensional network data regardless of their path to full NFV 'nirvana.'"

From an opex perspective, the number one request the vendor receives from operators concerns how to move away from descriptive, passive analytic solutions towards more predictive, embedded and active ones.

"They want to automate the processes that transform the multitude of data sources at their disposal into insights on network and subscriber issues and assist troubleshooting (self healing) or close-loop optimisation," explains the CTO.

"Leveraging new powerful analytics



techniques made possible by big data architectures and advances in machine learning practices can actually help operators take things a step further in the automation of some of the business processes that are draining opex budgets."

But it's not all about saving money. Perhaps even more exciting, is the fact that Operators across the world are realising that they are sitting on a large amount of subscriber and network data that is just waiting to be monetised.

More specifically, customer intimacy combined with captured subscriber activities gives them unprecedented data about their location, mobility patterns and service usage. This information can help sales, marketing and commercial organisations to create new offerings or enable upsell opportunities to the right people at the right time – something they may have been missing previously.

Stopnicki reveals Tektronix Communications has launched a data monetisation platform that accelerates operators' monetisation capabilities around a number of use cases.

"Our solutions provide highly granular and precise information about what service is used when, where and by who. Furthermore, there is no longer a need to sample the data for cost reasons, therefore decisions can be much more personalised and real-time. We believe that our role is in helping [operators] understand the value they can extract with these rich data and new analytic capabilities" .says the CTO.

This last point is made possible not only by new streaming technologies but also because of the simplification of the data integration workflows. Stopnicki likens it to a data lake instead of multiple vertically separated repositories.

Many decision processes that operators make, such as network congestion and fraud detection, will benefit from these improvements.

But adopting a big data platform is the easy part; many companies start from that perspective and end-up with huge amounts of data, wondering what kind of RoI they can get from their investments.

"The starting point should be the problem that needs solving not the data," advises Stopnicki.

"This lead us to the most important issue: be selective about the data you capture in order to have relevant data instead of lots of data. This means working with companies that provide domain expertise and that can provide data relevant to the use-cases to be addressed."

The CTO recommends enabling the largest amount of users to access the relevant data and take advantage of the data on their own terms, as quickly as possible.

"Ultimately, moving from passive and descriptive analytics to embedded and predictive ones will reduce the time taken to make decisions, increasing the value of the decision itself," he says.

With Tektronix Communications having a broad client base, it is constantly deepening its understanding of big data's revenue-generating opportunities, whilst being sensitive to prevailing privacy laws and cultural trends in markets.

While web-based data analytics inform telcos about detailed customer preferences and locations to enable them to send relevant digital coupons to subscribers, the system can also indicate the mode of transportation and how fast a user is travelling.

This means an operator can send marketing messages only if a user is in a position to act on them. Stopnicki cites the example of a user who is driving a car, on a highway close to the point of interest, but who would not want to be disturbed.

Big data analysis can also aid third-party consumer research, such

as when retail chains assess where to locate an outlet. Telcos can be “an unparalleled source of data” for such companies, according to the CTO.

It can even help retailers check the effectiveness of hard copy billboards: who is driving past them and at what speed.

There are plenty of other examples too. Security services may benefit from global positioning data. Banks can check whether an account holder is in the right place to withdraw money from an ATM, sending a confirmatory SMS if necessary. A bank card or pin number maybe being used in a country or city far from where a subscriber usually lives, works and banks.

There are also opportunities for governments: disaster recovery and protection systems can use global positioning to warn users in a flood, storm or fire zone that they need to move.

Further, data can help with strategic planning, telling highways authorities more about traffic flows, congestion and pollution than fixed point statistical sampling. These kinds of services are “good for business and good for reputation,” says Stopnicki.

With the growth in M2M electronic systems and the Internet of Things, the availability of such data will grow.

“We need to help our customers have a big data strategy in place,” confirms the CTO.

The breadth of the company’s services and technology should stand them in good stead when it comes to helping telcos respond to all the potential opportunities. For example, the Iris suite of applications addresses the necessary variety of stakeholder needs, providing both breadth and depth of data analytics across all four dimensions of a Carrier’s business - User & Device behavior, the Services & Applications they use, the Technologies deployed and the Network performance itself)

Another example is TrueCall, a mobile geoanalytics platform that provides real-time, geo located network data, which is offered by Tektronix Communications’ Newfield Wireless business.

It helps operators drive new technologies, such as LTE, VoLTE, small cells, SON and HetNet, improving network performance, targeting geomarketing services, optimising customer experience.

The portfolio enables operators to identify where customers use their devices; compare device performance; decide when and where to deploy small cells; assess network impacts of a new device; identify dropped calls; deploy VoLTE at a lower cost; and reduce reliance on drive testing.

Stopnicki concludes: “We work hard to continuously increase the depth and breadth of our solutions in order to turn the increasing complexity that our customers have to deal with into competitive differentiation. Integrating leading edge data management and analytics technologies enables us to provide such expert solutions in the most cost effective way. Our goal remains to help our customers accelerate the delivery of new profitable services, whilst continually improving the quality of experience for their users.

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Tektronix Communications is the industry’s premier telecom intelligence provider, offering service providers greater efficiency and insights through a comprehensive suite of service assurance, network monitoring and intelligence solutions.

Our customers are mobile and fixed communications service providers seeking to leverage the abundant data within their networks to improve service quality, increase efficiency and grow revenues.

The simple way to boil down what we do is to take a look at our vision, which is to deliver unique insights and enable powerful decisions. Our products and services enable this vision for CSPs.

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Survey: Operators bank on millennials, look to finance sector as benchmark

Respondents to European Communications' latest survey are looking to banks as they aim to improve their customer experience, particularly to the youngest generation

Operators in Europe are clear that they need to treat young, digital native subscribers differently and are taking inspiration from the financial sector as the benchmark for customer experience.

European Communications' fourth annual survey found that almost nine in 10 operators think it is important to offer Generation Y/millennial subscribers a more technologically advanced customer experience to others (see fig 1).

Commented one respondent: "They are more demanding." Said another: "You do need a two tier service, one for technically able people and another for those that just want the basics regardless of what generation they belong to."

Adrian Baschnonga, Senior Global Telecommunications Analyst at consultancy firm EY, comments: "It is perhaps unsurprising [that operators want to treat them differently] given how OTTs are redefining customer expectations."

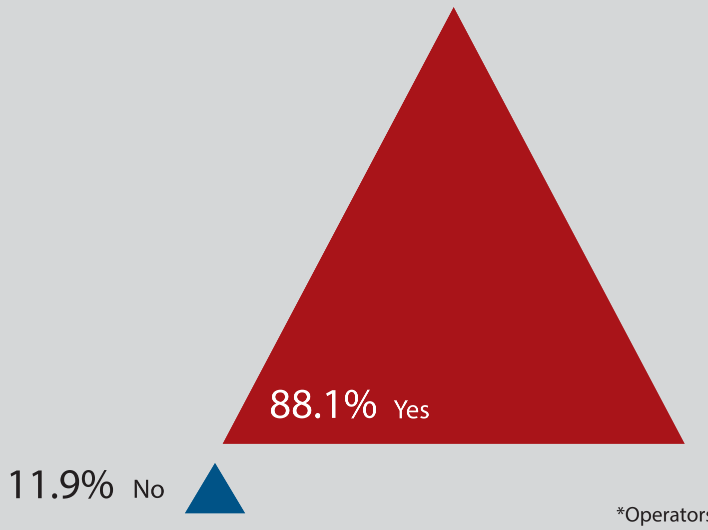
Interestingly, fewer non-operator respondents (vendors and other interested third parties) think millennials need special treatment; just over six in 10 agreed with the notion.

Said one respondent: "Customers should be pulled to digital channels, but there shouldn't a two-tier model."

Commented another: "More technologically advanced customer experience should be offered to anyone, even if younger generations may request this in higher proportion."

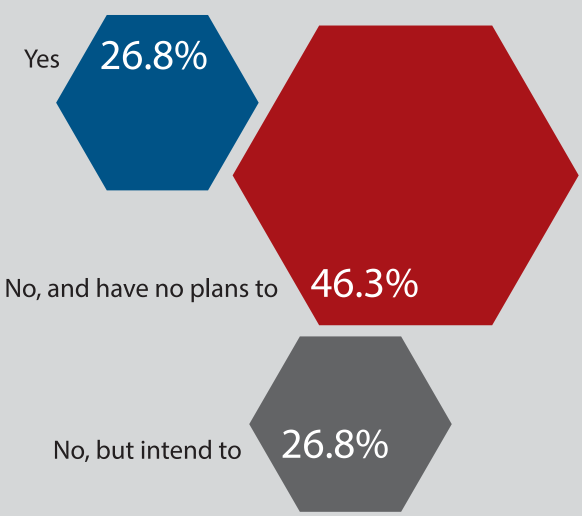
But Analysys Mason's Justin van der Lande says: "Clearly, the survey shows that operators think younger subscribers are technically more astute and can be encouraged to do more themselves."

Fig 1. Do you think it is important to offer Generation Y/ millennial customers a more technologically advanced customer experience to other customers?



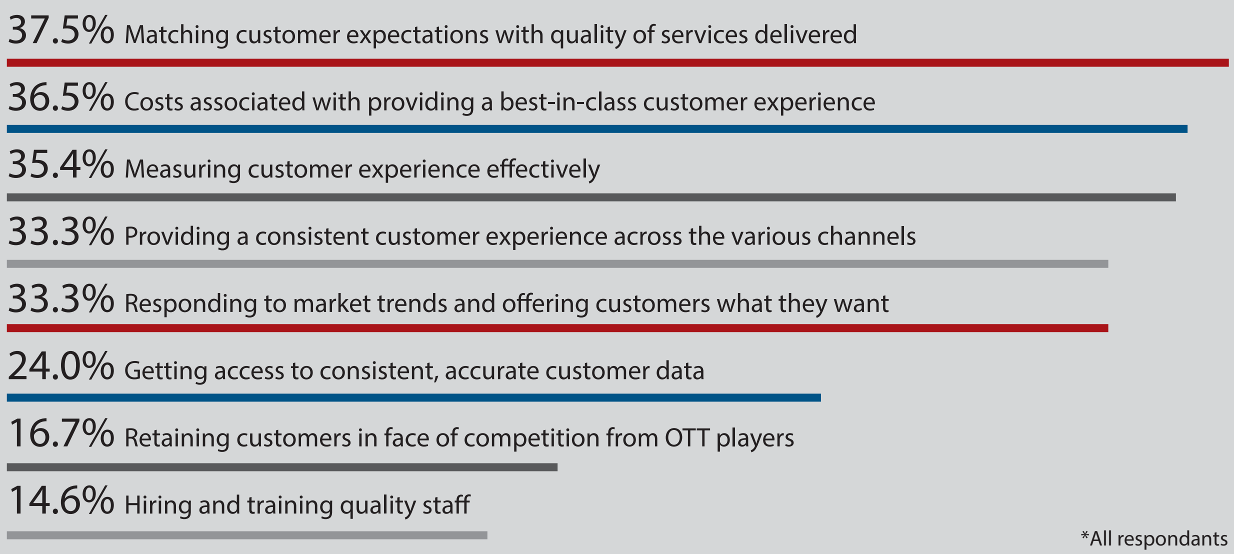
*Operators only

Fig 2. Do you offer video chat services to customers currently?



*Operators only

Fig 3. What do you regard as the biggest challenge the industry faces with regard to customer experience?



*All respondants

As we discuss later on in this special report, the amount of human interaction in the customer care environment is set to decrease dramatically over the next few years as new technologies promise to take the strain and the cost out of CEM.

One of the technologies set to benefit is video chat, with Gartner predicting that it will be used by 20 percent of the world's top 500 companies by 2018. However, telcos remain circumspect.

Although a majority of operators either offers video chat currently or has plans to do so in the future, 46 percent said they have no plans to offer the technology (see fig 2).

According to EY's Baschnonga, it is vital that millennials are provided with the tools they want. He says: "Improved segmentation has a vital role to play in enabling operators to provide a more flexible customer journey, and one that is nuanced to the needs of specific users."

One of the reasons could be cost. For the second year running, operators said that the investment associated with providing a best-in-class customer experience as the biggest challenge that the industry faces.

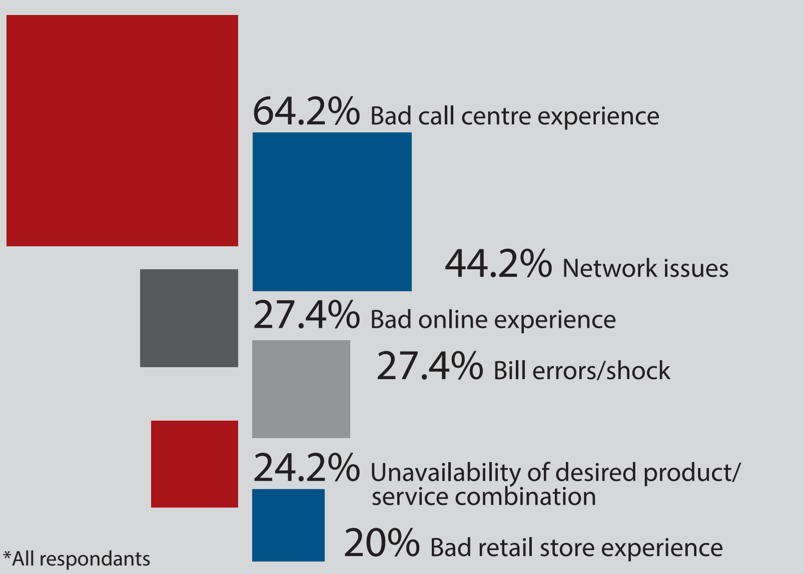
Half of operators chose costs, up from 29.5 percent in 2014 (see fig 3). Baschnonga warns it is a message that vendors would do well to heed as operators look to get more bang for their buck.

However, just 26 percent of non-operator respondents said cost was the biggest challenge. Instead the majority, 44 percent, voted matching customer expectations with quality of services delivered as the key barrier.

According to Analysys Mason's van der Lande, this highlights the quandary that the industry finds itself in. "Subscribers demand increasingly better customer care on one hand, but on the other want to pay the same or less for increasingly complex services."

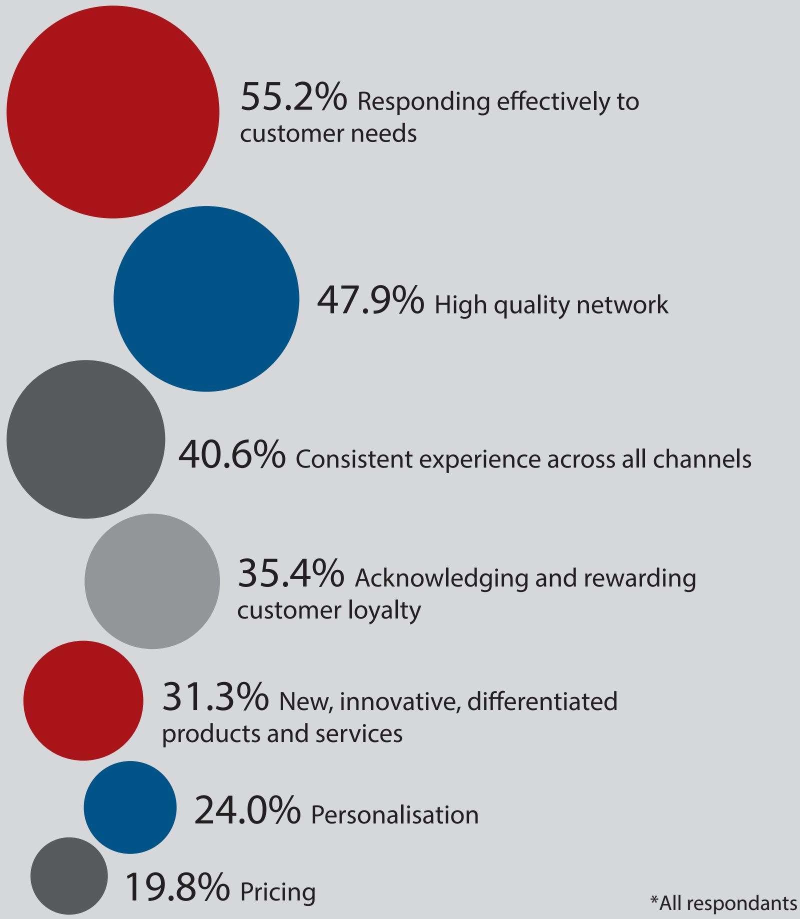
Providing a consistent customer experience across the various channels

Fig 4. What do you regard as the biggest source of poor customer experience within telecoms?



*All respondants

Fig 5. What do you regard as the most important lever in providing a best-in-class customer experience?



*All respondants

Although the same top two as last year, the call centre vote increased by almost 50 percentage points this year.

However, van der Lande urges caution: "Call centres are often pin-pointed as the key interaction where customer experience falls; however, even if the most advanced customer care systems are deployed with the best trained staff they may still be blamed for a poor experience."

Whatever the cause, the industry views responding effectively to customer needs and providing a high quality network as the most important levers in providing a best-in-class customer experience (see fig 5).

While non-operator respondents put responding effectively to customer needs first, operator respondents chose the network.

Comments van der Lande: "Clearly, the ability to respond to customer needs will come out first, but from a systems and process implementation perspective this covers a wide spectrum of potential customer touch points.

"A high quality network is essential in reducing churn and reducing calls to the operator, one of the biggest reasons for churn is still poor network quality or coverage.

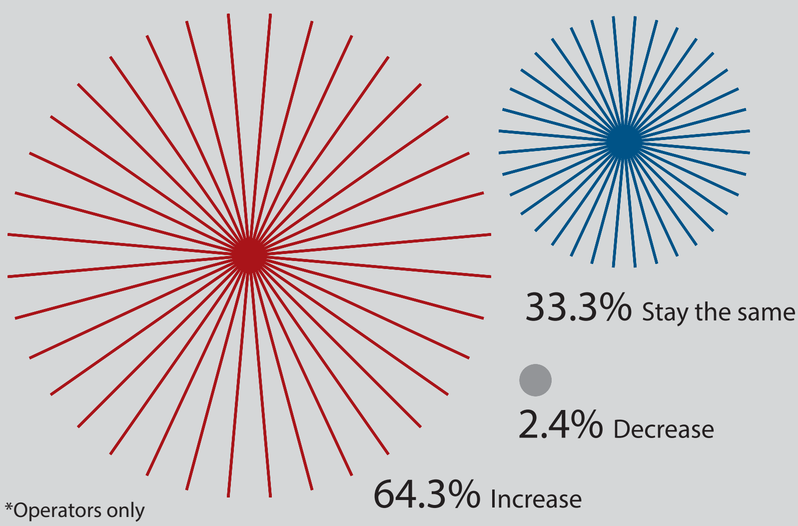
Baschnonga points out that the number of operators who said that both the (40 percent) and responding to market trends/offering customers what they want (38 percent) were the second and third most popular answer by operators.

Interestingly, the perceived threat of OTT returned. After less than five percent of operators said retaining customers in the face of competition from OTT players was the biggest challenge in 2014, more than 20 percent voted for it this year.

Says Baschnonga: "The external environment is creating more uncertainty that ever."

While there may be differences about the challenges, the industry is united in the view that a bad call centre experience is the biggest source of poor customer experience (see fig 4). Almost two-thirds of all respondents chose this ahead of network issues, which was chosen by 44 percent.

Fig 6. Over the next 12 months, is the investment your company is making in customer experience going to:



*Operators only

network was the most important lever and that network issues were the biggest cause of poor customer experience increased compared to 12 months ago.

He says: “While a raft of 4G rollouts and high levels of consolidation in the mobile sector imply a healthy mobile infrastructure landscape, the truth may be somewhat different and operators are more circumspect than ever before.

“Higher levels of spending on customer care and a greater array of differentiated services count for little unless the network underpinning it is up to the job.”

Unsurprisingly, operators remain acutely aware of the need to improve their internal systems. Over the next 12 months, 64 percent of operators said the investment their company intends to make in customer experience is going to increase. This is down from 73 percent last year (see fig 6).

Exactly a third of respondents said investment would stay the same as last year, suggesting investments may have peaked, or at least are slowing down.

Fig 7. Over the next 12 months, is the number of staff dedicated to customer experience going to:

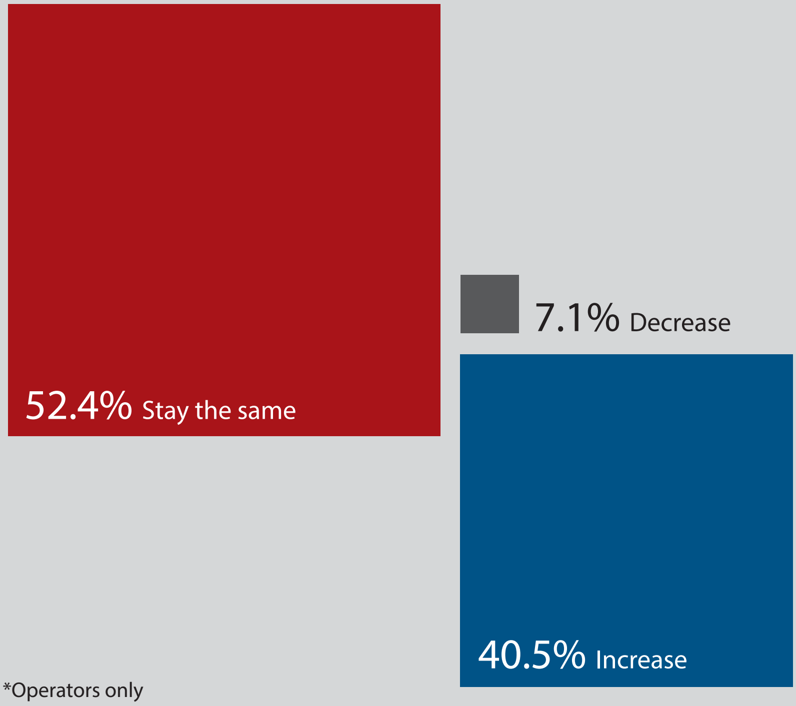


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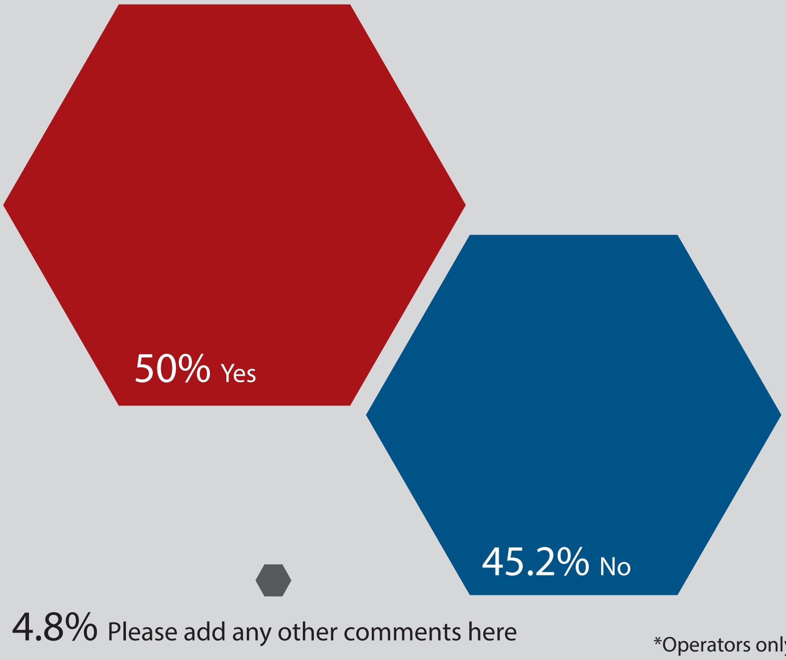
Fig 8. When it comes to providing a differentiated customer experience, do you feel that what you offer is sufficiently different to that of your competitors?



*Operators only

Meanwhile, the majority of operators will deliver customer experience with the same number of staff internally, although 40 percent said they would increase the number of staff dedicated to CEM (see fig 7).

Part of the reason for this could be explained by the fact that the percentage of operator respondents that thinks they are providing a sufficiently differentiated experience to their competitors has declined in the last year.

Fifty percent said they provided a differentiated experience, down from 64 percent in 2014 (see fig 8).

Said one respondent: “[There is] still room to improve, [particularly] getting “right first time” installation and repairs done efficiently.”

But another was more confident. “Our competitors offer a miserable customer experience.”

van der Lande says it is surprising that the figure is as high as 50 percent. “If this was truly the case [then] it would be reflected in significantly lower churn rates, customer lifetime values and higher NPS.”

On the subject of customer experience measurement, the industry remains wedded to customer satisfaction as the most important. Fifty nine percent chose this, up from 47 percent and 35 percent in the last two years (see fig 9).

van der Lande warns: "Customer satisfaction and NPS tend to be carried out through survey work and by their nature tend to reflect a subjective view of historically has occurred.

"There is no one measurement that provides the full picture in a timely way. Each operator needs to take both external "outside-in" measurements and compare these to the KPIs being taken from its internal systems "inside-out" so that they can then predict what the customer experience is."

Key to making this happen is having a joined up, organisational-wide strategy for CEM. While the majority of operators said customer experience is treated as an integral part of everything that's done across all business units, the number was down slightly on last year.

Fig 9. Which of the following do you regard as the most important measure of customer experience?

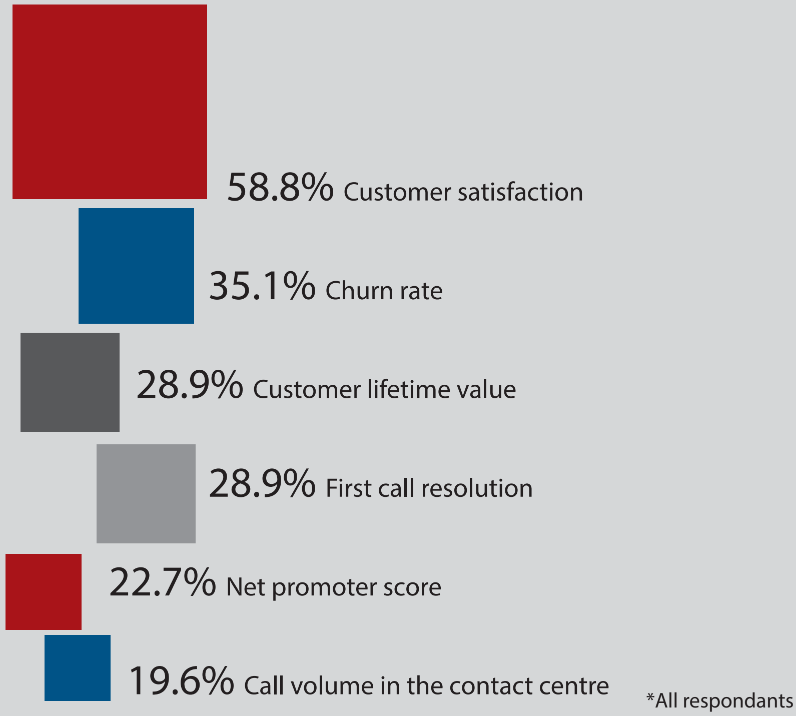
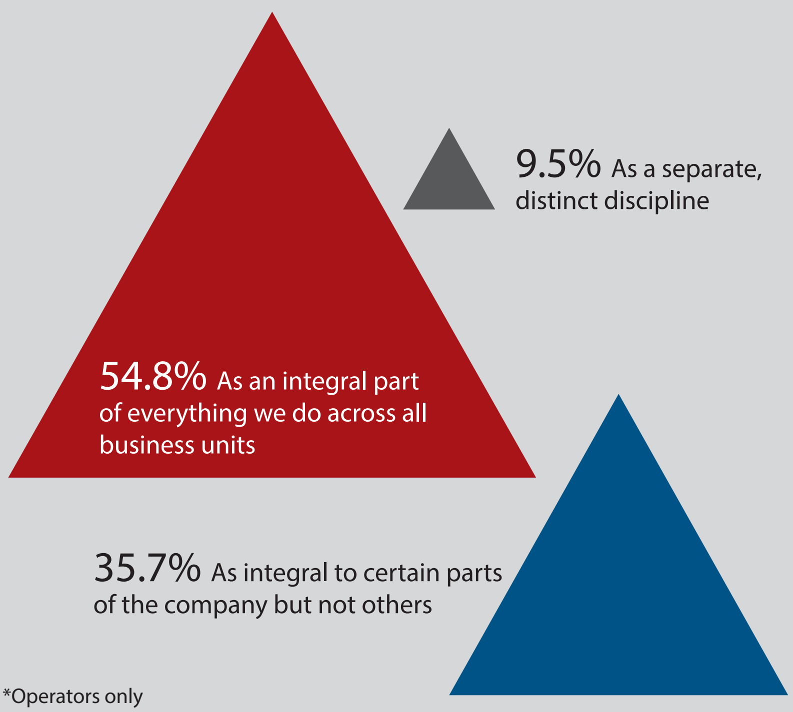


Fig 10. How would you say customer experience is treated within your organisation?



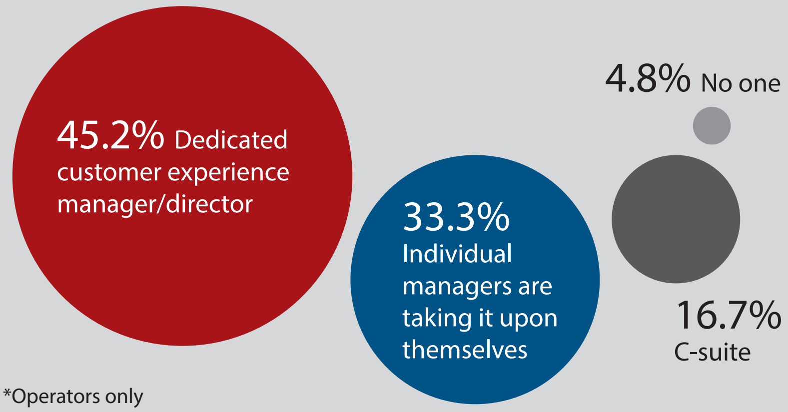
While 55 percent said this was the case, it represented a decline on the 58 percent who chose this answer last year. Perhaps worryingly, the percentage of respondents who said customer experience was treated as a separate, distinct discipline grew from three percent to almost one in 10 (see fig 10).

Said one respondent: "It is not properly tackled... most parts of the company do not consider themselves responsible at all."

Comments Baschnonga: "Operators are in two minds about whether customer experience requires a holistic or singular approach. This ambivalence may prove counter-productive given that challenges are mounting on operators to get more out of their customer experience initiatives."

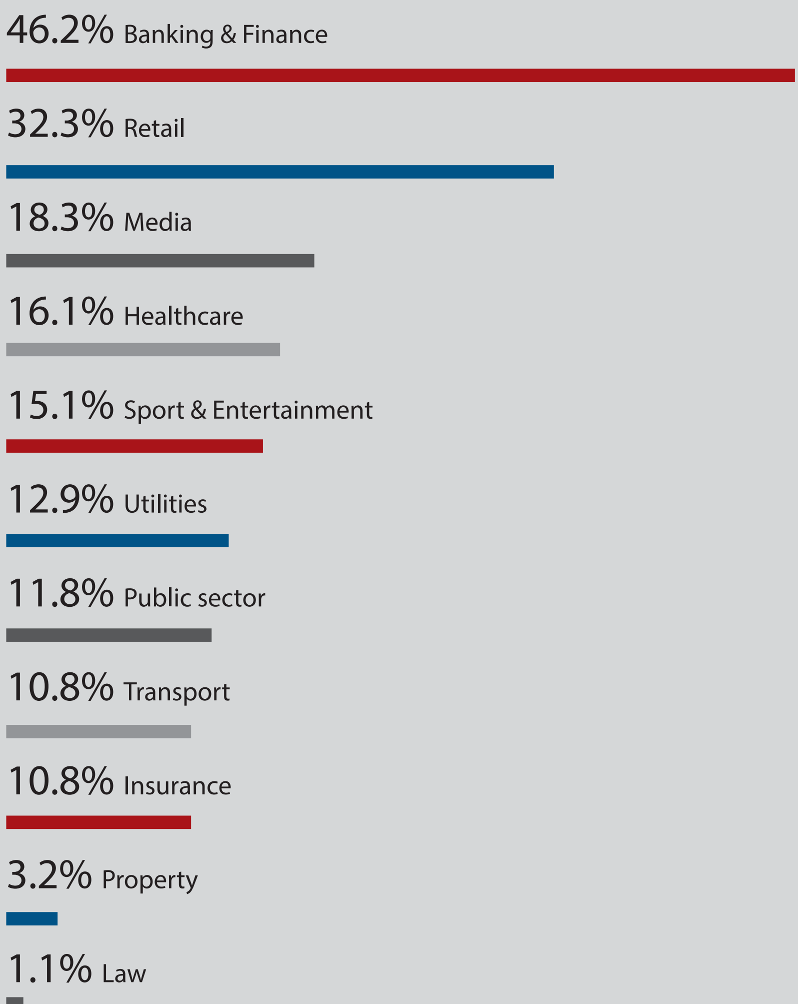
One positive is that the influence of senior management continues to grow. Seventeen percent of operator respondents said that the C-suite is leading CEM efforts within their organisation, up from 14 percent last year (see fig 11).

Fig 11. Who would you say is leading CEM within your company?



*Operators only

Fig 12. Which industry do you look to as the benchmark for customer experience?



*Operators only

The number of operators that said it was a dedicated customer experience manager/director fell from 47 percent to 45 percent.

According to van der Lande, the CE director position is not always supported with the systems and associated budgets that are needed to monitor and manage issues with customer experience.

He says: "Too often the CE Director will rely on departmental goodwill to provide them with data. Today there are no single systems that monitor both KPIs from multiple systems and 'inside-out' information for the complete customer lifecycle to provide the CE director with the information he needs."

While operators grapple with improving their internal processes, it is important to remember that they don't operate in a vacuum. With telcos regularly told that they do not feature at the top of league tables benchmarking customer experience, we wanted to find out which other sectors the telecoms industry looks up to.

There are two clear leaders in the eyes of telcos: banking/finance and retail (see fig 12).

While he says that there are many similarities between banks and telco customers on long-term contracts, van der Lande suggests that retailers may offer a better model to follow: "[Retailers] more have many more interactions with their customers, who have greater choice and can churn more easily to alternative providers. They need to be much more reactive than banks and need to build-up more sophisticated loyalty plans." ec

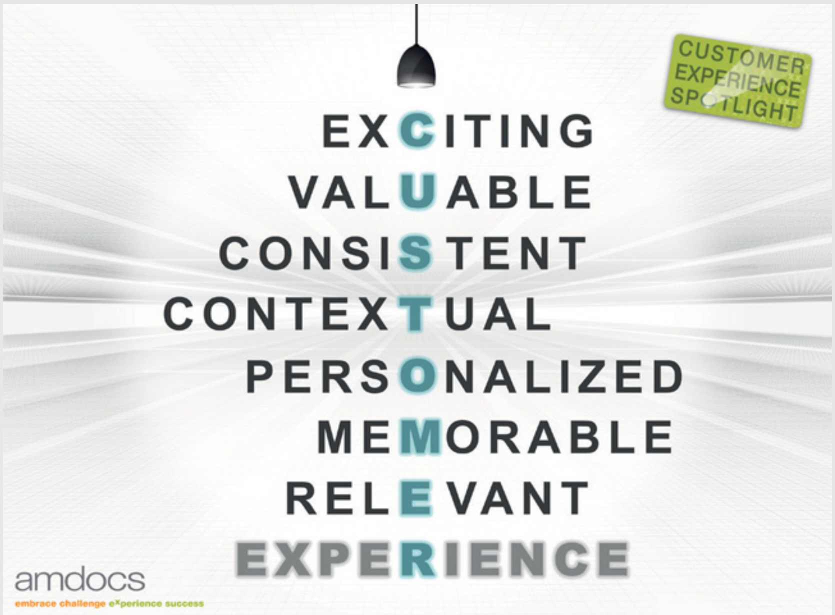
About the survey

One hundred and five respondents took part in our online survey in January 2015. Forty one percent were operators, 34 percent were vendors and 25 percent were from other interested third parties.

From a geographical perspective, 74 percent of respondents came from Europe, while 10.5 percent came from the Middle East and Africa. The remainder was made up of respondents from Asia-Pacific and North America.

How good is your customer experience?

By Uri Gurevitz and Vincent Rousselet



Diane Magers, who runs the Office of the Customer for AT&T, knows a thing or two about customer experience. At an event last year, she shared a striking insight into the pivotal role of customer experience in our industry. "Customer experience", she said, "is no longer about the why or the how, but the how well."

This viewpoint resonates deeply with us at Amdocs. Working with over 250 service providers to help serve their combined subscriber base of over three billion customers in more than 80 countries, we are constantly engaged in discussions, plans and projects centered on the "how well" that Diane Magers mentioned. And in doing so, we are invariably asked the same three questions by our customers – questions that lie at the heart of superior customer experience:

- First, how well do operators compare to other industries in terms of customer experience?
- Second (and closer to home), how well are service providers positioned to win the race against Internet players?
- Finally and crucially, what would keep customers loyal to service providers?

To provide the best answer possible, we surveyed over 8,000 consumers in 17 countries as part of our 2015 Customer Experience Spotlight. Here we share the insights – often surprising, sometimes reassuring for operators, always thought-provoking – from this exercise. So, what did we find?

Because our expectations as consumers of what is an excellent experience is shaped by all of our product and services purchases, be that with banks, airlines or supermarkets, it is important to examine how communication service providers fare against the "rest of the world".

When the figures are broken down, we found that service providers were recognised by respondents as a leader in customer experience in terms of in the store (50 percent) and at the call center (64 percent), compared to 20 and 27 percent of respondents who were satisfied with the respective experience provided in assisted channels by other industries (see figure 1).

Where the other industries held the advantage however was in the realm of digital channels. Fifty-four and 29 percent said they were pleased by their experience on other industries' websites and mobile applications, compared

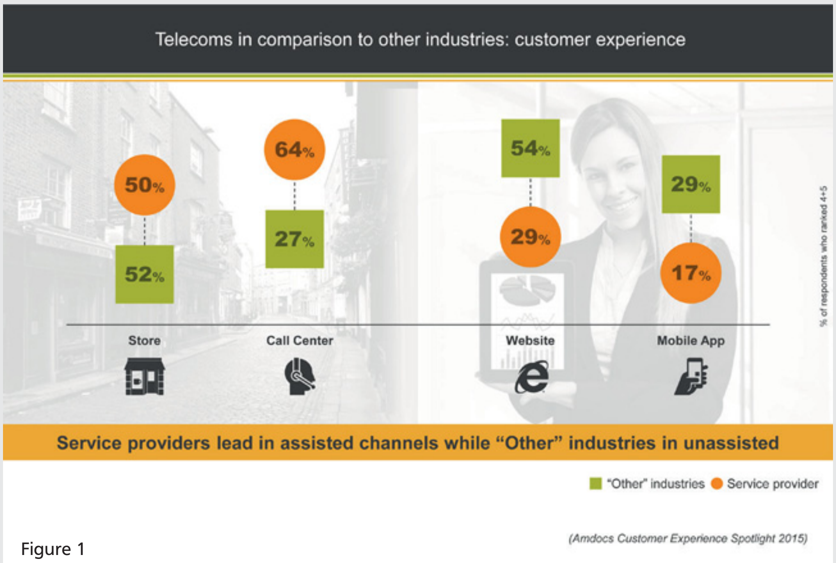


Figure 1

to only 29 and 17 percent for service provider unassisted channels. Customers were looking for the personalised, contextual service that operators could provide, given the vast amounts of information they have about their subscribers.

What, then, of our second FAQ: how well-positioned are service providers against industry disrupters such as Google, Amazon and Facebook?

The good news here is that the vast majority of consumers (80 percent) are not tempted to switch their connectivity service from their current telecom operator to any of Google, Amazon or Facebook. There were some marked variations geographically, with 97 percent of Singaporeans keen to stay put, some going as far as saying that they hoped their government would not allowed this to happen. At the other end of the scale, only 69 percent of Indian respondents said they would keep their operator.

When asked to explain the reasons for their choice, three factors shot to the top. First, consumers feared that their privacy might be compromised by the Internet companies. Second, they expressed doubt about the quality of the service they would receive – a combination of slow speed, low voice quality, and poor coverage outside of cities. Finally, a sense of distrust was mentioned: a global internet brand, driven purely by a commercial logic, does not have the level of intimacy enjoyed today by many operators.

Further good news emerged from our 2015 Spotlight in the propensity to recommend, with 63 percent of our sample confirming that they would recommend their service provider to their family and friends. Here again, we found clear variations by country. Only 58 percent of Filipino and Thai consumers were positive about recommending, whilst 72 percent of Americans were.

As we dug down to the causes of that enthusiasm (see figure 2), 89 percent said that the customer support received today was a key motivation. Second, at 59 percent, was the quality of the connection and third, at 58 percent, pricing, hinting at the need for operators to take a holistic view of customer experience, consistent across all channels. What was just thought of as the complaints process 20 years ago has today taken on multiple dimensions, including brand, offering portfolio, network and the IT systems that make it all come together.

So perhaps service providers are not an endangered species after all? On some dimensions, operators are still clearly favoured by consumers, but the very same sample admitted that they struggled to commit to service providers for more than two years. In fact, 71 percent of respondents said they have been with their service provider for two years or less, which took us to our next and final question.

In asking our 8,000+ consumers what would keep them loyal to a service provider, we knew that price, already mentioned above, would play a part. Yet, beyond the lower prices that most consumers (58 percent) mentioned, the other drivers selected indicate an appetite for innovation and for content, but in a way that puts the customer in the driving seat and provides them with a valuable experience.

Exactly half of the respondents, for example, voted for a bundle they can assemble themselves, 55 percent for a shared data plan (an almost pervasive offer today in North America that has yet to percolate through to many other regions of the world), while 53 percent said they would really appreciate a package including additional communications services.

Once again, we went a step further to really understand consumers' attitudes towards multi-play. Our Spotlight research revealed that globally 83 percent of consumers already subscribe to four or three communications services, but only nine percent take these services from the same provider. Triple and quad-play are known to help with customer retention; the reality however is that the multi-play opportunity remains unclaimed by the industry. As new services, such as mobile payments, the connected home and car, gain wider acceptance in the market, operators have much to gain in cracking the multi-play enigma.

Hot on the heels of Ms. Magers' reminder of the central role of customer experience in sustaining the success of today's service provider, our Spotlight 2015 has brought into focus many of the exciting aspects of the opportunity facing our industry. Above all, getting the customer experience right is a multi-dimensional task. Only by connecting the various domains inside the organization which make or break the customer experience, will the hidden business value of the operator be unleashed.

Uri Gurevitz is director, Market Insight and Strategy, Amdocs, and Vincent Rousselet is vice president, Market Insight and Strategy, Amdocs.
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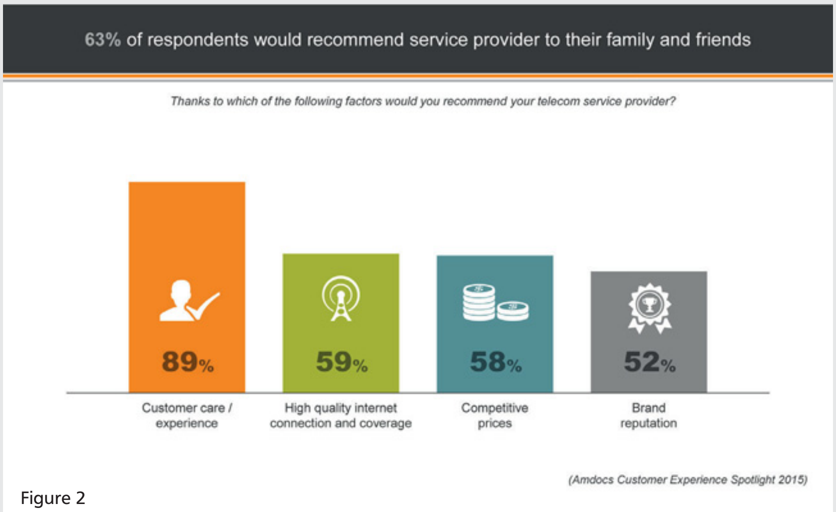

Figure 2

Astellia explores the benefits of deeper customer analysis

It is a truism to say that in the information age, knowledge is power. But it is undeniable that the better operators know their customers, the more they can sell.

France-based Astellia, the innovative telco technology partner, has been digging deep into how data collection and analysis can help operators understand users.

Astellia has pioneered solutions that give a deep understanding of customer behavior and data usage. "The objective is to create synergy between network management, marketing and customer service teams to deliver the highest service quality standards and improve customer experience," said an Astellia note.

One of the key deliverables that has already yielded results is helping operators segment their customer base, helping them target customers with the right packages and offers. The goal is to increase the ARPU of client partners, says Gilles Allain, Astellia's EVP Sales (above).

"Our customers are often in an ultra competitive environment with over 120% mobile penetration. They are looking to increase the value they can bring to their customers in order to strengthen their market position," Allain explains.

No wonder that this is a good idea for very mature markets – that are struggling to increase ARPU.

Allain says: "One of our customers, a Tier 1 operator, had defined various segments of subscribers based on CRM criteria. Having a close look at how they were behaving, they did not find much difference between the ways subscribers were using data services. We were then asked to re-segment the customer base from scratch. We looked at all subscribers, analyzed what services and mobile apps they were using, taking into account the frequency of usage, volume and location."

The data showed some very useful and innovative categorization, with Astellia highlighting groups of customers, for instance prolific social media users, pinpointing who preferred Facebook, Instagram, WhatsApp, and more.

Who and how many customers were keen browsers rather than callers? And who were "media lovers" consuming more than nine gigabytes of data a month? Such customers made up 12 percent of the customer base, the research and analysis showed.

An important benefit of this segmented analysis is helping telcos measure and deliver differentiated quality of experience depending on differing centers of interest. An example is online mobile gaming that is extremely sensitive to latency; on the other hand video streaming requests a high and regular bandwidth. It is key to select the right KPIs to evaluate service-specific perception per subscriber.

Our customer has also used this analysis to good effect and has significantly increased ARPU through a smarter and targeted offering such as unlimited daily Facebook included into a new tariff plan for social media lovers, special 4G upgrades for video lovers and free file transfer at night for heavy data file sharers.

Astellia also helps its customers enhance their position in the enterprise market. Key to this strategy is VIP customers, and ensure they are the "first priority in terms of optimization," Allain says.

The identification and retention of valuable customers is one of the main value propositions of Astellia's geolocation data collection and utilization. This was boosted when the company acquired in February 2014 Spain's Ingenia Telecom, a provider of network analysis and radio optimization solutions for mobile operators. Through this purchase, Astellia has been able to reinforce its E2E offerings with a probeless solution, adding new capabilities for RAN analytics and SON.

> "It is key to select the right KPIs to evaluate service-specific perception per subscriber"

For close to 15 years now, Astellia has developed a unique expertise to deliver high impact improvements in challenging environments - concentration of users in a restricted area and short time span - such as mass events or sports events securing the delivery of sufficient bandwidth to be "able to cope with the huge amount of traffic" including surges at particular times, and "deliver the best customer service to the fans," says Allain.

Identically, based on Astellia geo-location data, improving services to users on board of high-speed trains is key. "The

Astellia's Nova Care solution

quality is often poor," stresses Allain. "But it is important for operators to perform this kind of challenging optimization. Many people travel for business and need to stay online while on board of trains. They are generating high ARPU, you need to deliver them with the highest customer experience whatever the environment is."

This is not going to happen if calls are dropped as trains whizz past base stations and through tunnels, so geo-location-based planning is essential to inform operators on how to boost service coverage and quality.

Using its improved network analysis and radio optimization solution, Astellia has been able to work with telcos and Allain says there are already very positive results from a major European operator.

Geo-location data is of course also valuable to enterprise customers wanting to track and assess consumer habits, enabling them to market relevant services. It can also help retailers decide where to locate an outlet and plan related transport services such as car parks.

This is already the case with "Flux Vision" - Orange big data offer for businesses and public authorities. Flux Vision analyzes population flows in real-time using data captured by Astellia probes from Orange's mobile network. It converts millions of items of technical information from the mobile network into statistical indicators to analyze how often different geographical areas are visited and how people move around.

Looking ahead, Astellia will soon launch a new integrated radio-engineering solution that draws on geo-location analysis called Nova RAN Optimizer. The application empowers radio engineering teams with customer-centric geo-location and SON capabilities. Nova RAN Optimizer will be showcased at Mobile World Congress – Stand #6G20.

Meanwhile, the company is also stressing the value of its customer care solution, Nova Care, which is starting to rack up some impressive performance numbers and delivering positive ROIs in months.

Launched in October 2013, Allain says the company's upgraded customer care solution for mobile telcos has been sharpening customer service trouble-shooting. Fully customizable Nova Care channels customer data to agents, saving them from asking callers questions, and indicating potential solutions.

Indeed, customer feedback suggests that Nova Care can enable level one agents to solve 44 percent of problems, without having to interrogate customers. It has reduced by 25 percent the amount of time level one and two agents spend on handling customer care calls (Average Handling Time). The overall proportion of calls that are successfully resolved during the first call (Firs Call Resolution) increases 15 percent through use of Nova Care, says Astellia. And the proportion of trouble tickets that need to be escalated from a level two to a level three agent has been cut by 20 percent.

These numbers are backed by a solution that can be adopted in its entirety or integrated into existing customer care systems by a northbound interface and which can be operated in a wide range of languages.

Inevitably, churn will be reduced where operators experience such results, but where problems persist, telcos can be helped by Astellia's consultants in pinpointing unhappy customers through Astellia's advanced services.

Powered by a (proprietary) sophisticated algorithm, taking into account variable KPIs depending on the type of customer concerned, telcos are warned about the potential risk of churn when these KPIs fall below a certain level.

Combining deep knowledge of its REAL consumer usage and needs with the power of churn predictions and relevant segmentation, operators will be able to target an unhappy customer all the more effectively, because they know them well. In business - as in life - this is the real secret to happy relationships.

www.astellia.com

In today's era of rising customer expectations, rapid technology advancements, intensified competition and service provider consolidation, operators need to deliver a multidimensional customer experience in order to succeed.

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- Shaping quality of experience with agile software-powered networks
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Culture, not cost, is the barrier to great customer service management

New customer experience initiatives have found momentum as operators find ways to reconcile costs with results, even if their inherent business culture hinders progress still, writes James Blackman

This time last year, respondents to European Communications' annual survey found that financial considerations were the chief impediment to delivering a best-in-class customer experience. Almost 30 percent of operators said cost associated with customer experience management (CEM) was the single biggest challenge the industry faces.

But 12 months is a long time in service provision. CEM is moving from "hype stage to widely accepted business approach," according to Analysis Mason, and the industry appears to have come to terms with the cost issue. Cost? it asks. It's culture what matters.

"Really, you can take any initiative and argue there's a cost impediment; the biggest challenge for CEM is the culture of the organisation itself," says Patrick Kelly, author of the Analysys Mason piece, and now head of US research group Appledore.

For culture, read fragmented business processes and inter-departmental paranoia. Kelly points the finger at network operations, sitting on reams of passive probing data that can pinpoint service quality and illuminate network experience. In different hands, this information can be more powerful. "These fiefdoms that don't want to share information across departments represent a much greater obstacle for CEM than cost," he says.

Thomas Kinnman, Head of Business Development Execution at Ericsson, paints a similar picture. "Marketing teams suddenly realise they're sitting on this goldmine of data. And it's not like the data they've had previously from all of these offline batch crunching campaigns each month; this is real-time network data, which the operations department has wanted to hide to avoid dangerous questions from other parts of the business," he says.

For Orange, the idea that cost is a barrier to any kind of development work is a non-starter. Philippe Bernard, Executive Vice President of Customer Experience, appears to reject the notion at once, and repeatedly. Investment in CEM is assimilated into the operational improvements the business is putting down anyway, he says.

"It is a strange statement; it's not about cost at all. The point is to generate more revenue and escape this price war in Europe. The only way to do that is to deliver a fantastic customer experience. And to do that, you've got to transform your company. You have to be more digital [in your processes and propositions] and you have to provide a simpler customer experience at every touch point. That requires investment, sure; but the return is very good."

O2 UK appears more sanguine about the question of cost, but basically treads the same boards, making play of a holistic approach to investment in its digital operations that puts the customer experience front and central.

The mobile operator's Head of Customer Experience, Jorge Mascarenhas, says: "Cost is not the only factor. It's about having the right strategy, culture, products, people and processes to deliver an excellent experience. Legacy systems and architecture can make this more difficult, and costly, than we'd like. We need to be mindful of the time, resource and financial implications of the decisions we make. Getting that balance right is key."

Ultimately, these responses suggest operators have found some new balance in their approach, and ways to cross this cultural divide. Ericsson's Kinnman says operators have found a middle ground between top-down transformation projects and piecemeal stovepipe imple-

mentations of CEM solutions in the last 12 months. "They are more interested in building the solution on a horizontal platform that makes it applicable for multiple other departments," he says.

Jane Rygaard, Head of CEM at Nokia Networks, agrees. "Previously CEM was seen, more than anything, as this single big transformation project. You know, they didn't really know where it belonged, or who should pay for it. Now, in Europe, we are presenting very specific business cases, which are relevant to operations, planning, marketing and customer care. It's not one big fluffy thing, anymore, which they don't know how to implement or handle; it's not just a black box."

Better returns

According to Kelly, what's changing is the idea that operators can get real time data on their customers – in milliseconds – and put it into the hands of operations, planning, marketing or customer care to make better business decisions. The analyst has a number of good examples of well-considered CEM deployments, where various operator departments collaborate around data resources. In these cases, the ends invariably justify the means, and the business case has been made sufficiently well for operators to make the jump in the first place. This way, the question of cost is effectively side stepped.

White-label handsets are keeping call centres inordinately busy, he observes. "Five percent of network devices generate 80 percent of calls into call centres." Figures are likely to be skewed in Europe, as tier-one operators exercise tight control over their product portfolios, but untested SIM-free handsets still burden customer care functions.

"Operators are using analytics to target these problem devices, and offer swap-out campaigns. And it is a break-even proposition, which reduces call centre traffic and impacts retention," he adds.

More generally, self-care initiatives are considered highly productive in reducing call centre traffic and improving brand loyalty. "Self-care is a game changer in terms of customer experience," says Kelly. "It has dramatic impact on business in terms of both customer experience and operational expenditure."

Their adoption depends on particular market dynamics. Danish users are accustomed to put all their requests and grievances through digital channels, observes Rygaard; less developed markets still throw labour at the problem, says Kelly. Social media is playing an increasing role.

"Nowadays, you don't complain, you Tweet, or you contact the operator in some other open forum. And it can spread. These viral elements have to be taken into consideration as part of CEM. From a tech point of view, it's an input thing, but it has a big impact on overall customer experience," says Rygaard.

Churn initiatives

Operational insights have started to inform marketing initiatives that target very specific customer groups. With the latest iPhone launch in Ireland, eircom identified a curious new segment comprising the spouses and partners of high-usage customers; in receipt of hand-me down phones, but stranded on voice tariffs.

"It ran the analytics and went out with a very targeted discount promotion, and converted around 30 percent of them on to €10 data plans," says Kelly.

Nokia Networks has worked the same initiative with an operator in mainland Europe, helping it to move 200,000 subscribers onto higher-yield data packages. Rygaard says: "For a marketing department within an operator, this kind of data is right-on. They can build a measurable campaign around it; they have a complete picture of the investment and the business case."

In this way, capital expenditure is absorbed into new revenue streams, and the cost barrier is overcome.

The Finland-based vendor is working with various European operators to identify high-value customers with a propensity to churn, based on both their behaviour and experience of the network. Its customer experience index (CEI) takes insights from multiple areas within an operator business, and maps users' personal experience of their network services.

It is not aligned with any particular department, so it is as applicable to network operations as it is to sales and marketing. Ultimately, it allows operators to identify high-value customers with a beef about the network. Telecom Italia is one operator that has already deployed the solution.

Orange is trialing a similar service from Nokia Networks in European markets. Bernard says: "It is about serving each customer in a way that is entirely appropriate to their own personal experience of the network. So we know how many dropped calls they've had, or what kind of data throughput they've had. And if there has been an issue, then we can call up to let them know we've fixed it."

Kelly is impressed by this kind of tactical analysis of disparate data streams, which considers both structured data from network operations and unstructured data from newer input mechanisms such as social media, to improve customer retention.

"This is really where I see innovation. For the most part, it is about fixing basic problems. Operators talk about differentiation, but really it's an objective they have, rather than a focus for their investment. Because they have too many other issues to deal with around coverage, capacity, activating new services, trouble shooting on handsets and so on," he says.

"But the ability to predict is difficult in anything – whether it's the weather or the markets. So the propensity to predict churn, and to get to these individuals before they leave the network is very powerful. Those areas really hold the greatest promise."

Kinnman puts these little steps the industry is taking now, to rationalise the cost of CEM initiatives and get around its cultural inefficiencies, in the context of its bigger strides to improve service.

"If you look at it now, it perhaps doesn't seem like a huge shift. But when we look back in five years, it will seem like the start of really quite dramatic change." ec

Operators split on how to engage with Generation Y

Millennials are a key demographic; should operators treat them differently? David Craik reports

You might not like their music and shake your head at their hipster beards, but Generation Y – those born between 1977 and 1994- are a gathering economic force.

According to Philippe Ougrinov, VP Sales and Marketing at Telus International Europe, Gen Y will spend $200billion worldwide this year; and for a generation brought up with rapid technological advances some of that cash will be spent on new mobile devices.

Ougrinov believes Gen Y will look to the operator offering the best customer service. He says: "Gen Y have a short attention span. The internet puts everything at their fingertips and this affects not only how they expect customer service to be delivered but the level of service they expect."

Indeed if telcos, which Ougrinov states have a poor record in delivering customer satisfaction, "recognise this shift and re-engineer their customer service provision accordingly" they will gain a significant advantage over their rivals.

Uri Gurevitz, Director of Marketing, Market Insight and Strategy at Amdocs, believes telcos are only just starting to understand this opportunity. "Gen Y is very important to service providers," he says.

"More than any other age group they are willing to pay more for their telco services and get more content. They are an area of revenue growth. The providers all talk about this importance but most of them don't know how to approach these consumers or what service they can give to satisfy them."

Gurevitz explains that the Gen Y consumer has multiple technological devices and is "connected all the time". He adds: "You might call them arrogant. They don't want their time wasted by receiving offers from their providers that they don't need."

They are used to personalised care from providers in other industries such as Amazon and taxi provider Uber. "With Uber they know in seconds who their driver is and how long he will take to come," Gurevitz explains.

"They are raising the customer service bar and Gen Y now expects it from everyone. That's important because Gen Y are not the most loyal of consumers."

According to recent Amdocs research, around 60 percent of Gen Y consumers spend less than a year with their telecoms provider; they switch for price reasons but also to get better customer service.

Ben Parker, Chief Technologist at Guavus, adds: "Past generations would tolerate anything and stay loyal. Gen Y does not necessarily care about the provider behind their smartphone. They see them as utilities you can switch packages to and fro. Operators have to work harder on the whole customer experience."

According to Gurevitz, Gen Y wants to communicate with their providers on Twitter and Facebook as well as mobile apps when they have a technical issue or want to find out more about their services.

Parker adds: "The way in which they communicate is different to previous consumers and the customer service should reflect that. They text more, call less, use apps, social media and pictures - so don't expect them to spend a lot of time on the phone to a call centre. They also want providers to be pro-active and to be informed, online, that they are aware of any hiccups to service and are fixing it."

MDS says Gen Y's customer experience barometer also includes price. "They like to use their mobiles to access social media and interact with their peers quickly and affordably," says Chief Operating Officer Gary Haynes.

"Pre-pay has significantly increased the affordability of mobile in many markets. Government intervention in the form of deregulation could also contribute to an increased use of social media, thanks to a greater choice of tariffs more suited to Gen Y-ers brought on by industry competition. If providers can offer the right mix of service and price to Gen Y subscribers they can drive significantly more revenue."

Telcos aim to engage

VimpelCom recently sealed a partnership with Twitter creating timelines for its local operations and the ability to engage directly with customers.

By sending direct messages to their local VimpelCom operations, customers are able to receive essential account, service and promotional information in a reply tweet.

The Netherlands-based operator

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claims this service will "re-define customer care and turn traditional customer service into customer engagement".

Romeo Ganescu, Director of Marketing Services, Partnerships and Devices at VimpelCom, says the tie-up was created specifically for Gen Y. "Social media is a priority channel for Gen Y to interact with their friends. We want to engage with them on this channel," he says Ganescu.

"They don't pick up the phone and call customer care. Just send us a tweet and we will send you information on your current balance or switching tariffs. It's faster for our customers - one click rather than waiting a long time in a call queue. It also means better efficiencies for us as we take less in-bound operating centre calls."

O2 UK launched its very similar TweetServe service in December 2013. It allows customers to sign up and tweet O2's Twitter site with nine different hashtag commands to receive account information, handset updates and special offers or deals on new phones via a direct Twitter message.

O2 made the move after a rise in demand from customers for digital interactions. At the time of launch it was recording one million fewer voice calls per month to its customer service department than in 2011.

Kristian Lorenzon, O2's Head of Social Media says: "This is the quickest and most seamless resolution to Gen Y's customer service issues. We've had a very positive response and user rate and that will feed into our overall revenues."

He also highlights its O2 Guru TV service on You Tube which gives advice to customers on how to download music to their phone, problems with their SIM card and how to upgrade their plans. Gurus, mainly in the Gen Y age range, are available to chat online.

Lorenzon says O2 also analyses the behaviour of the younger generation and their ever-changing technological habits. "We've seen that the Generation after the Ys are using Facebook less and WhatsApp more and we are starting to offer services through that now. It is about responding to these trends."

Over in Turkey, mobile operator Turkcell has focused on its staff using new techniques such as online games on social media and video recruitment to attract more Gen Y candidates.

Gurevitz of Amdocs says: "Turkcell learned their customers habits and how they prefer to interact on mobile apps and online chat. They brought in agents who could talk Gen Y's language."

Swisscom says its xtra label addresses customers under 26 with cheaper mobile tariffs and special offers. It also has a support community where customers can log on and discuss queries with other users.

"These primarily address Gen Y customers but can also be used by other users," says spokesperson Carsten Roetz. "We believe Gen Y is a trend setter and it is important to enable all our customers to benefit from this if they want."

Not a question of age

France's Orange offers technical support to around 40,000 customers over Twitter through a dedicated account called Orange Conseil. It employs special customer representatives who have full access to account details to resolve customer issues.

In sub-brands such as Sosh it runs a community website where customers can engage with each other and answer queries.

According to Philippe Bernard, EVP at Orange and responsible for Quality, Customer Experience and Sales, it has about 300,000 users supported by 85 web advisors. At present 85 percent of questions are answered by other users with the remainder by Sosh's web advisors.

"Our users are premium, not cost-conscious and they are keen to use the digital world and get digital information from their operators," he says. However he stresses that the service has not been created for Generation Y'ers.

"It is Gen Y like – people with high use of mobile data and social media - but it is not designed for them. Telcos today are creating simpler products. One, two, three but no more. Nothing specific for age groups," Bernard says.

Ravi Palepu, Head of Telco Solutions at Virtusa, thinks Gen Y is not about age. He explains: "It is a mindset with 40 and 50 year olds also interacting more with social media," he states.

Telcos are "lagging far behind" other industries such as retail in meeting that mindset, according to Palepu. "Their social networks are not seamlessly integrated with their customer channels," he claims.

"There needs to be more real-time information about products and services and providing omnichannel customer experience."

Telcos should also be mining valuable data from social media users. "You may get a Tweet from someone called David about one of your services. But which David is it? By using more identity management you can personalise services," says Palepu.

Haynes of MDS adds: "Gen Y is happy to share personal information in exchange for a more personalised experience such as access to exclusive content that reflects their interests. This allows operators to further tailor offers and create a better user experience."

He continues: "Multi-device use is an opportunity for telcos. A single sign-on or using the mobile number as an identifier means technical issues can be addressed and solved quickly. They could also recognise whether a user is looking at a product in their own store or in a competitor's and deliver a relevant offer in real-time to encourage the user to buy from them."

VimpelCom's Ganescu sees the potential in Gen Y data but says legal restrictions means only anonymised information can be sent back and forth to Twitter at present.

"They have a lot of data on our customers as well," he says. "It will take a long time but perhaps we will have joint customer profiles for marketing programmes. Our customer services are being driven not by age but by the behaviour of more people going online." ec


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The rise of the customer experience machines

Eira Hayward analyses the impact of reducing human contact and increasing technology in managing customer experience

Carriers have never been at the cutting edge of customer service – generally the perception is that while they can build out networks, many are still struggling to provide a joined up customer experience.

A report late last year from the UK's Institute of Customer Service found that more people experience a problem with their telecoms provider than with any of the 12 other sectors surveyed and customer satisfaction is declining at a faster rate than the UK average. It is trend that it mirrored in other European markets.

Could a reduction in human interaction and an increase in new technologies reverse this trend? Gartner has just completed some research that found that nearly 60 percent of customer service interactions required the intervention of a human. However, by 2017, the report found that this percentage will have reduced to just over 30 percent with increased automation and the use of "intelligence agents".

Further, by 2018 five percent of customer service cases will be initiated by internet connected devices – up from just 0.02 percent in 2014 – and video chat will be used by 20 percent of the world's top 500 companies by 2018.

Michael Maoz, Gartner VP and Distinguished Analyst, who led the research comments: "No rallying principle in the enterprise matters more than the creation of superior customer engagement. Businesses need to focus on what key customer experiences would benefit from customer engagement with a human.

"It is important to poll customers and internal stakeholders such as those in marketing, sales, customer support and inventory/shipping/billing, where the

availability of a human customer support representative can mean the difference between a sale or no sale, the acceptance of an offer or its rejection, and/or a quality customer experience."

These changes will likely have an impact on carriers in a number of ways. Tony Poulos, formerly of the TM Forum and now a market strategist at enterprise business assurance specialists WeDo Technologies, thinks that they are lagging behind other industries already.

He explains: "An airline will let you book your ticket electronically, and then use SMS to communicate with you regularly. Telcos have been doing it too, but often not very well. You might go over your data limit overseas before you get the message to tell you that you are near your limit."

So there's a need for carriers to think differently. Seb Reeve, Director of Product Management and Marketing EMEA at voice and language solutions provider Nuance, says good customer service is all about the appearance of simplicity, solving, even pre-empting, a customer's needs as expediently and painlessly as possible.

He thinks that the industry needs to start thinking about new design paradigms for customer service and natural language should be a critical component. BT has been trumpeting the importance of using such technology in its customer contact channels for more than a couple of years.

Nuance has worked with another UK telco, TalkTalk – whose customer service has been slammed in the past – to improve the carrier's customer service experience via Nuance's Natural Language Call Steering solution.

Customers calling in for assistance can now simply speak naturally when prompted by the interactive voice response (IVR) system to immediately be routed to the most appropriate contact centre agent, improving customer satisfaction with faster, easier service.

Rather than a menu tree, callers are presented with an IVR prompt, such as "What can we help you with today?" and can answer naturally using their own terms. The system recognises the caller's intent and quickly routes each call to the appropriate agent or self-service based on hundreds of unique call paths.

Results have been impressive; TalkTalk achieved cost savings of £3 million in just three months of use. This includes a 16 percent reduction in misrouted calls and an average reduction in call time of 26 seconds, with some customer calls reduced by over two minutes. Call recognition accuracy rate is 94 percent, against a target of 70 percent and most importantly customer self service has increased by 28 percent.

Says Eoin Power, Head of Contact Strategy and Planning at TalkTalk: "Our return on investment was gained in just 14 weeks, compared to the 12 months we had planned for."

Nuance's Reeve adds: "Customers are more likely to use self service when the experience starts well, so the idea of an assistant just asking you what you want and then playing it back to you with understanding is important. It means the customer is much more likely to engage, doesn't feel like self service but something much more fluid, and the customer thinks you've recognised my problem really quickly, you've asked me an in-context question which is easy to answer, it's a quicker outcome."

This underlines Gartner's point that a key question for operators to resolve is when they introduce a human into the customer experience mix. There will be cases when the operator wants to escalate a query to a human anyway – most obviously because a query can turn into a sales opportunity.

"The ideal for customer service is a top line outcome as well as service," says Reeve. "The key is an understanding what the customer's underlying need is – if you go through a menu you don't get that."

The power of video

Video-based chat could offer another answer. Garry Beale, European President of UC at networking vendor Avaya comments: "When it comes to engaging with brands, video is often millennials' first-choice communication method."

Like others, Avaya lauds the benefits of WebRTC technology, as it enables consumers to use video directly through a web or mobile browser, without the need of video-conferencing software. Beale says as much as 70 percent of consumers abandon their online shopping basket and a one-click video call button could help lower this figure. "This represents a massive market opportunity. Innovations like WebRTC are really driving the use of video in customer service," he says.

> "When it comes to engaging with brands, video is often millennials' first-choice communication method"

Jason Downes MD at conference call service Powwownow adds that it can enable stronger relationships to be built and customers are more likely to respond if they talked through steps and instructions by a person they can see, reacting to body language and facial expressions.

James Keller, CEO of Vee24, a vendor that provides video assistance technologies and works with a number of European telecoms operators, comments: "The combination of video, voice and co-browsing always delivers the best customer experience. In telecoms, a customer may use their own camera to show an error message or troubleshoot an issue, often saving the company the cost of an at-home service call."

As the number of channels that operators present to their customers increases, so do the challenges. A problem worked through one channel may have a different experience and outcome in another channel.

Gartner estimates that that at least 60 percent of internet users would prefer mobile customer service applications as their first option, so building a level of customer support comparable with that available on the website into the mobile experience is a critical issue.

By 2017, the research firm predicts that 35 percent of all customer support will take place on a mobile device, an increase of 300 percent.

As such John Parr, Business Development Director at Acision, thinks it's unlikely that P2P video will become the new voice. He says: "Sending video is not easy when you're calling from a mobile device. However, 'see-what-I-see' is considered useful and there's no doubt customer service, health consultation, distance learning, technical and product support and so on will benefit hugely from the ability to share video."

Looking forward, the development of use cases for the Internet of Things should be a priority as the number of customer service cases initiated by internet-connected devices escalates in the next few years. Gartner advises that customer service management departments should identify areas where its current knowledge management may be weak and work on developing processes to improve them.

For example, social media engagement should be part of customer service – not left to the marketers – if customers want to be supported purely through social media and never taken off channel, the customer service team must be able to support that.

Says Gartner's Maoz: "It is the overall impression of the enterprise generated by the quality of customer service that differentiates one enterprise from another. Translating this general and departmental customer engagement concept into operational components across the enterprise is transforming the definition of customer service from an isolated function into an enterprise objective delivered across all points where the customer "touches" the business." ec

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The New World of Customer Experience

Interview with Chris Williams, Head of Global Marketing at Amdocs

Perhaps there are some people still left who remember the days when good customer service amounted to a dazzling smile, a sincere "your wish is my command Madam" and a heartfelt "Have a nice day!"

Time passes and the expectations of both customers and businesses as to what signifies good service has radically changed.

The telecoms industry is no exception with Christopher Williams, head of global marketing at customer experience solutions provider Amdocs, hailing the dawning of a New World of Customer Experience.

The customer experience is evolving. It is being updated and re-defined. If telcos can take a much more aggressive and "multi-dimensional" view they can profit moving forward. "Having been at the forefront of delivering customer experience solutions in telecoms we have seen a dramatic shift in expectations" he says.

Williams, who says Amdocs will be revealing new solutions for and messages and insight on the New World of Customer Experience at next month's Mobile World Congress, believes that customer experience has become the main differentiator between Communication Service Providers (CSPs).

He points to two main forces driving this forward.

"The first is the ever intense and rapidly changing competitive environment both by traditional and non-traditional competitors," he states. "It is really ratcheting up, accelerated by an increase in consolidation and M&A. We've seen that recently in the UK of course but it is also happening elsewhere such as in Mexico, Spain and the US. That means CSPs must be more energetic about improving the experience they offer to their customers to stop them from leaving and the associated revenue leakage." The non-traditional competitors include the wide spectrum of Over-the-Tops (OTTs) including the giants (such as Google) as well as the specific solution providers (such as WhatsApp, Netflix and more).

Williams says the second major factor is that the expectations of customers themselves and what they are demanding from their telco operator has also become more intense.

"Customer loyalty is becoming harder to hold onto as people are being swayed by their experiences of other industries," Williams explains. "For example in the telco industry it is not uncommon for customers to be faced with 4- or 8-hour windows for service technicians to show up at your home. Just compare that to the car service firm Uber when you can track on your mobile exactly where your car is and when it will arrive. It is a much more pleasant experience and customers are finding these more often than ever before through the internet. They have mobile led lifestyles and they have a propensity to switch if they feel their needs are not being met. Customers feel empowered like never before."

He argues that it isn't just a case of CSPs finally grasping the need to deliver better customer experience – that notion already exists – but that the "intensity" of that need has dramatically strengthened.

And, he continues, that is not only being felt in the traditional core area of a company's customer service department but pivotally throughout the entire business.

"It has extended beyond BSS and OSS into the network world. Network teams inside the CSP aren't just measuring the number of dropped calls or infrastructure CAPEX now, they are measuring net promoter scores," he says. "The whole organisation is addressing the customer experience factor with new technologies which were just not available before, helping this become more visible. It is particularly striking when I speak with our customers or read through the annual reports of a CSP that customer experience is at the top of the list of things they say they need to deliver on. Many organizations tie compensation to the overall customer experience metric, proving yet again how any group can impact this important performance indicator. The analysts are also saying that when it comes to investment CSPs should be putting customer experience ahead of everything else. ”

He returns to his earlier phrase – multi-dimensional. What exactly does he mean by that?

“Customer experience and service are influencing how services are launched and paid for,” he says. “It is feeding into marketing and the development of a new exciting portfolio of products that moves beyond customer care and into attractive data plans, mobile payments, mobile transactions, the internet of things and connecting mobile phones to subscribers’ cars and TVs. All the while providing a consistent experience across all services and channels. It’s about you as a CSP being in the driving seat and exciting your customers with new ideas they may not have thought of before. You go proactively to them rather than they come to you! The services we provide CSPs in these areas are a natural extension of where we have been.”

Amdocs is indeed playing a big part in getting these services off the ground. Its mobile financial services solution, that delivers customers a single wallet with multiple funding and payment options, is going strongly in emerging markets where access to retail banks is tricky.

But it is also beginning to take off in developed states with Nordic operators Telenor, TeliaSonera and Tele2 recently buying up the service for their Strex joint venture.

In the world of car connectivity Amdocs was last year selected by AT & T for its Drive Studio development to include charging and billing. This now allows in-car consumer apps to be charged to the driver or the passenger, while simultaneously billing the car maker for vehicle telematics and safety services.

CSPs need to be cautious here – it is not a time for a scattergun approach of sparkling new services. Williams urges them to deliver new services in a “highly intelligent manner through personalisation and contextualisation. It will be unique to your customers’ needs and use disciplines such as big data analytics. They have to see it as ‘My Service’”.

He adds: “This will be influenced by a dynamic quality of experience regardless of what device a customer is on or where they are on the network and will ensure that people get the customer experience they want. It will be delivered over agile and virtualised networks which will give an operator reduced capex and time–to-market benefits.”

He says Amdocs is again leading the way here through its geo network services.

“Our Service Providers know where the customers are and what their usage patterns are,” he says. “Just imagine you are on a train into London and you are sending an email on your phone. Then you take out your iPad to engage in a video conference call. We know that you will need increased video bandwidth but we also see that you are coming into a congested area. Amdocs enables the operator to predict all this for the end user ahead of time and to give them better data. We help CSPs better understand usage data and it is this kind of experience that high-level users really want. If presented with these services then they become loyal.”

Williams says this sort of data has always been in its customers systems through its billing services but it is only now that Amdocs’ data analytic solutions allow the operators to truly “mine” it to predict user patterns in advance.

“It’s great for the customer. They know what they want and crucially they know you have the insight and the ability to deliver it. You can re-route their calls, give them extra bandwidth and their experience does not skip a beat. CSPs are using customer data for their benefit unlike the OTT model where it is used for the benefit of the OTT player” he adds. “CSPs say we want to do this but we are saddled with a legacy infrastructure that stops us defining and delivering the services customers are used to getting elsewhere in a timely manner. IT is the heart of what Amdocs does and with our level of integration and software services we can unleash the trapped value in those systems. We are excited about being able to offer CSPs these new capabilities but I stress that this needs to be a fully integrated solution. This is not something you can just cobble all together.”

He also emphasizes that service providers will profit from making these changes with top line revenues helped by offering integrated multi-play options adding video and internet TV for customers. This will increase loyalty, reduce churn and attract new customers.

“There will be a tremendous fight for subscribers,” he predicts.

Network costs will also be reduced as Amdocs helps CSPs identify the best performing parts. “Data is proving to be a big strain on CSPs networks. They want to invest in their networks but are not sure where exactly the money should go,” he says. “We can, through usage data, help them identify where the profitable areas are. Then they can invest in these areas and get a higher level of return. The whole move to software-powered networks and the reduction of hardware also cuts costs.”

Williams says complex business processes can be simplified and that includes M&A. “You have two different customer environments coming together but operators can use it as a chance to improve service. They can use the M&A to move to a new integrated model,” he states.

He goes on to say that some operators are further down the road of enhanced services than others, highlighting the US, where competition is stoking innovation, and the emerging markets where the more aggressive providers are now offering their customers multi-play options.

Williams says: “As our recent selection by Singtel and Telefonica Vivo demonstrate, our solutions are being well received by CSPs. This isn’t the old days of customer service anymore. They are gone. We are challenging the industry and raising the bar. With just one goal in mind: enabling CSPs to enter the New World of Customer Experience.”

Digital business enablement 'as a service' – the next big opportunity for CSP digital businesses

The digital economy is evolving rapidly worldwide. The communications industry sitting right at the heart of it is faced with OTT players and new entrants. What are the opportunities for CSPs in this highly competitive digital marketplace?

Daniel Kuschinsky, VP Accounts at Infonova (above): The open digital economy (ODE) is providing new and unique opportunities for individuals and businesses to benefit from information and communication technologies.

Much of the first digital tsunami came over the top (OTT) and many Communication Service Providers (CSPs) have not participated in the financial rewards. However, there´s still a great opportunity for CSPs to successfully surf the digital wave.

CSP´s customers expect new services to work seamlessly in combination with legacy and existing services. Enterprise customers of different industries are looking for industrialised assistance across communications, cloud and ICT services from CSPs and also want to be partners, offering the CSP's services in combination with their own and thus operating as Digital Service Providers (DSPs). And this is where the great opportunity for CSPs in the Digital Economy lies: to become the enablers for digital enterprises and provide these enterprises with a 'business as a service' capability.

If the opportunity for CSPs lies in being enablers for enterprises, what are the opportunities and capabilities enterprises need to engage in order to become Players in the Digital Economy? And what are the expectations of customers towards Digital Service Providers?

In today´s digital era, customers' needs and expectations are continually evolving. Customers are consuming both traditional and new digital services with the anticipation that these services will enrich and simplify their lives as well as add value.

A connection to and the use of different services means that customers are no longer reachable purely via one channel, and require the additional flexibility to function, buy, trade as well as consume wherever and whenever. Enterprises must therefore be able to serve customers via both conventional and digital channels, and through various touchpoints (face-to-face, online, call centres etc.) in order to effectively reach, provoke a favourable response and provide the seamless user experience that customers seek. Companies should also possess the agility and speed to bring new products and services to the market quickly and to react instantly to changing customer requirements. Therefore the innovation of digital services is a highly important requirement for businesses, as is the ability to easily modify products and services to keep up with new and rapidly emerging user demands and pressure from competitors.

This results in the need for enterprises to deliver an agile and constantly evolving set of products, as well as attractive bundles of services, through a range of business models. In order to achieve this, enterprises must utilise an IT system that is able to keep pace with the requirements of the market and is also designed to cater for multiple, traditional and digital business models. This IT system must support and facilitate the evaluation of new business models, and evaluation should not only be fast, but also cost-effective, otherwise it may stifle business innovation and waste money that the industry and DSPs cannot afford. Additionally, the system needs to allow for a rapid time to market of products and service bundles as well as the easy adjustment of processes and business models as events unfold. Furthermore it must comply with regulatory requirements.

How and to what extent can CSPs help these enterprises to deliver on the wide array of expectations?

Today, CSPs understand many of the requirements and possess the relevant capabilities necessary to address the needs of enterprises on their way to becoming Digital Services Providers, eg. the customer relationship or the single face to the customer for their communication requirements. Therefore, CSPs have an important role to play in the digital enablement of such industries.

But CSPs will also need to leverage their established customer relationships and key competencies to widen their relevance across the Digital Services landscape and generate new revenue streams.

With extensive experience and knowledge

of Billing & Customer Care, CSPs are well-equipped to support enterprise customers of different industries and can also offer certain services (e.g. billing), as managed services for these enterprise customers.

Communication Service Providers can even go beyond such offerings by leveraging their core competencies: managing complex IT systems and delivering reliable quality of service to customers, and supporting Digital Service Providers by offering everything from a platform to a complete BSS-as-a-service for these enterprise customers. This allows DSPs to easily set-up their business and expand capabilities as they grow, thereby purely concentrating on the positioning of their digital services on the market.

The underlying opportunity for CSPs is the bundling and selling of partner services with CSP services, and conversely, having the partner bundle and sell the CSP services in combination with their own to create advanced digital service offerings.

What kind of CSPs will play a crucial role in the digital business enablement of their enterprise customers and how will this affect their business relationship?

It will be CSPs who combine the best of the telecoms world like solid operational processes, technical standards, established customer and billing relationships etc. with the best of the IT world such as agility, cost-efficiency and tooling for strategic innovation.

Such an example is BT, who recently selected Infonova R6 and BearingPoint to enhance its global compute management system. BT's Cloud Compute helps CIOs build powerful 'pay as you go' cloud solutions with high levels of quality, security and service delivered from BT, which is available in 20 countries across five continents and is used by multinational companies from a variety of industry sectors. The Infonova R6 platform enables BT to seamlessly onboard and aggregate new cloud services and software applications so that they can be offered as new products and services to customers who can exploit the full benefits of cloud and digital transformation. R6 also enables BT to provide white-label facilities to third parties that are seeking to sell their own cloud and application services. It enables them to offer and monetise their services as bundles in combination with BT and other third party services.

This and other examples demonstrate that the new partnering models go way beyond traditional supply chain scenarios, creating multi-party ecosystems and new revenue opportunities for all parties involved. Underlying systems supporting new business architecture and design, with the capability to address the needs of these digital economy multi-party ecosystems, are required to capitalise on the opportunities of these ecosystems.

What benefits and opportunities does this create for CSPs' enterprise customers in diverse industries?

A lot of service industries are now facing the challenges that telecoms have already overcome in the past decade such as regulatory changes towards open markets, out of area competition and disruptive technologies.

These changes in the business and market environment require companies in sectors like utility or healthcare to rapidly evolve or replace their IT systems with capabilities that cover a much more integrated business flow from service design, catalog and order management over CRM, billing and financials. They also need to take care of the transition from the traditional value chain towards the new paradigm of value fabric and the platform-based economy.

CSPs are in a unique position to offer end-to-end vertical solutions that help their enterprise customers avoid a multi-year, painful journey of selection, integration and on-premise roll-out of a complete stack delivering such capabilities. By providing configurable offerings that include combinations and bundles of communication services and other value added services, as well as software in a form that allows for digital business enablement 'as a service', CSPs enable their enterprise customers to efficiently transition towards Digital Service Providers. With the learnings acquired in their own transition, CSPs deliver an option for a much more rapid and agile approach which in turn opens up new revenue opportunities for themselves, going beyond their traditional communications business.

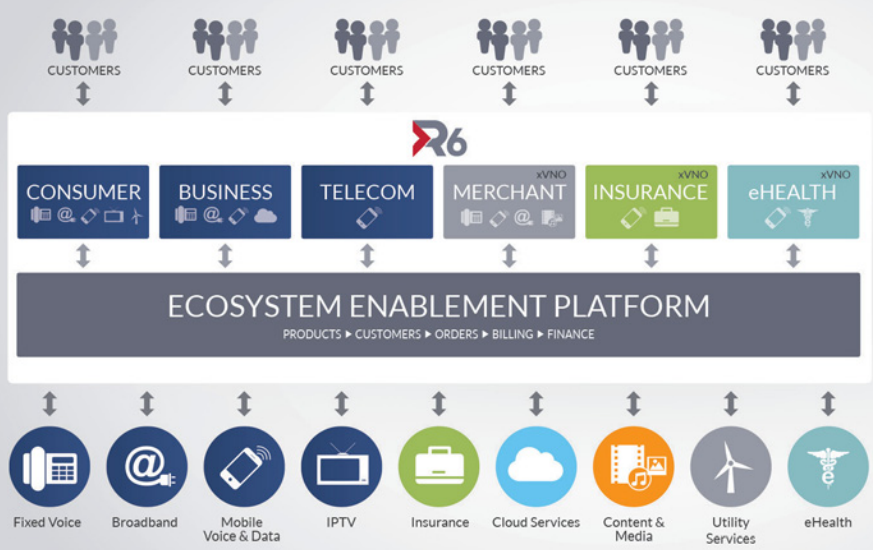
Ultimately, consumers will benefit by enjoying more choices in open markets, choices that are backed by new, innovative digital services.

Can you give us more insights into the capabilities needed for such complex digital economy value chains? What are the business architectural and design requirements in these multi-party ecosystems?

Multi-party ecosystems require enablement platforms to onboard and orchestrate multiple partner services and systems, as well as bundle and monetise the different partners´ contributions when servicing end customers. This will enable CSPs and Enterprise Segment customers to partner and expose, create and rapidly provision digital services beyond strict business or portfolio boundaries, thus supporting different business models.

Such Ecosystem Enablement Platforms (EEP) need to support CSPs to onboard an array of partners, who will want to bundle CSP's communications services together with their own for the benefit of their market. Each new DSP partner must be supported with the core functionalities of a business support system (CRM, Product- and Service Management, order handling and billing) and these BSS capabilities must be instantly available to immediately commence business under their own brand.

All these partners will expect their business data to be secured and adequately partitioned so that other members of the ecosystem, including the EEP operator, cannot access their confidential information on customers, products, billings & revenues etc. Accordingly, the



> "Being recently selected by BT and Dimension Data, and with production deployments across telco, media, utilities and financial industries, Infonova R6 provides evidence of the critical requirements for an Ecosystem Enablement Platform for the Digital Economy"

EEP design needs to provide for more than just separate branding – it needs to enable a separation of the processes supporting the end-to-end concept to cash lifecycle as well as a database that holds the data for each DSP as a virtual private database.

In addition, the EEP must also enable CSPs to make new services available quickly and with minimal disruption so that the Digital Service Providers can immediately utilise these services in conjunction with existing services. To allow CSP and different partners´ offerings to be bundled homogeneously, the EEP has to provide the capability to translate all the services into a common format. A flexible product catalogue then offers DSPs a seamless selection of services and allows them to mix and match services of any kind, creating bundles that are both attractive and appropriately priced for their customers.

The creation, delivery and monetisation of such combined offerings requires new partnering and business models that need to be supported by the EEP. Therefore, the EEP needs to be able to handle each 'supplying' partner's tariffs and revenue sharing models as well as supporting a broad range of B2B2x business models. At the same time, the EEP must allow for the automated settlement with those partners who provide services as well as those who sell services. This enables CSPs, along with their digital service partners, to work together efficiently, and with full confidence that all monetary and billing issues are automatically taken care of.

With latest announcements such as being selected by BT and uses across telco, media, utilities and financial industries, Infonova R6 is gaining significant recognition for its capabilities in the Digital Economy space. What is this based on and what will you be focusing on in future?

Being selected by major players like BT but also Dimension Data, a world leader in ICT services, who recently implemented Infonova R6 to orchestrate their international Managed Cloud Platforms, with operations in over 58 countries encapsulating more than 23,000 employees and 6,000 clients, is a milestone in the recognition of Infonova´s capabilities in the Digital Economy.

With endorsements like these, other organisations are also starting to realise that R6, which is TM Forum Frameworx certified, enables efficient and effective business processes needed for innovative digital services and multi-partner ecosystems of the Digital Economy whereas standard BSSs are not designed to deliver this functionality. Not only is R6 standard-compliant, but Infonova also plays a significant role in shaping the standards for the digital economy by actively contributing to the evolution of TM Forum Frameworx.

With a multi-tenant business architecture that facilitates the full end-to-end process for multiple organisations, R6 enables the simplified and fast set-up of a complete business support system that can be accessed and used independently by all involved parties. R6 has been designed to easily integrate with a company's existing system and also works in conjunction with any service type, supporting both traditional and cross-industry digital economy business models.

Existing Infonova R6 production deployments provide evidence of the critical requirements for an Ecosystem Enablement Platform.

Enabling CSPs and DSPs to capitalise on the opportunities of the Digital Economy, R6 is a key part of Infonova´s growth strategy going forward. Infonova will continue to focus on customer-centric innovations and to support our customers and channel partners to fully exploit the capabilities that R6 provides.

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- Learn from **Telenor** and **Canal Digital** how to leverage the Voice of the Customer to drive improvements in the customer experience
- Find out from **Teliasonera** how to develop customer -centric products and processes
- Discover how to become a more digitally and socially driven business, with case studies from **Elisa** and **Sonera**
- Hear from **DNA** how to leverage customer insight to transform your service metrics
- Take advantage of over **10 hours** of interactive sessions and networking to determine how to keep the customer front-of-mind across all departments

Don't miss out on the **interactive workshop day on Tuesday 14th April** to determine how to enhance customer satisfaction through internal structural optimisation and digital channel development!

"Excellent networking opportunity with interesting insights on how other operators address customer experience!"
Alexander Finger, Head of Online Care and Sales, Swisscom

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These are the tools that modern marketers are using to measure the customer experience. Armed with new insights, retailers can understand the people who shop with them as, perhaps, never before, and respond to their needs, aspirations and demands quickly and efficiently.

The Insight and Experience conference at Internet Retailing Expo is designed to help retailers learn from their customers, with seasoned retailers ready to share their experiences and best practice advice.

"Customer experience will explore key strategies for delivering winning multichannel customer experiences: harness big data and personalisation tools to drill deeper into customer mindsets, bridge the gap between bricks and clicks to offer seamless customer journey and experiences and harness the latest technologies as a route to forming deeper customer connections," says conference director Lisa Ploude.

Keynote speaker in this conference is a senior Shop Direct executive, explaining why investing in the customer experience makes financial sense. This speaker will open the conference at 10.30am, taking the topic Show me the money, the business case for better customer experiences

Neil Sansom, ecommerce director of Moss Bros, then takes to the stage at 11am, with a consideration of how traders can go about using customer insights to provide them with an experience that works across channels. Data and insight to build a connected customer experience starts at 11am.

A different approach is taken by Ali Holmes, head of global ecommerce at Vodafone, who takes a look at how understanding the way customers travel through a website and related channels can have a transformational effect on way that retailers respond.Journey mapping to transform customer experiences takes place at 11.30am, and is followed by a break for lunch.

Jon Wragg, director of ecommerce at SuperGroup, discusses the way that internet retailing can build both businesses and brands at 1.15pm, in Ecommerce as a growth driver and a brand builder.

A panel discussion on omnichannel then features Michael Durbridge, head of omnichannel at B&Q and Tony Rivenell, head of omnichannel at Waitrose. Delivering the omnichannel promise takes place at 2pm.

Then Karin Berg, VP, social media, at Lidl Sweden takes to the podium to discuss the role of social in multichannel shopping. Social as a gateway to stronger customer connections takes place at 2.30pm.

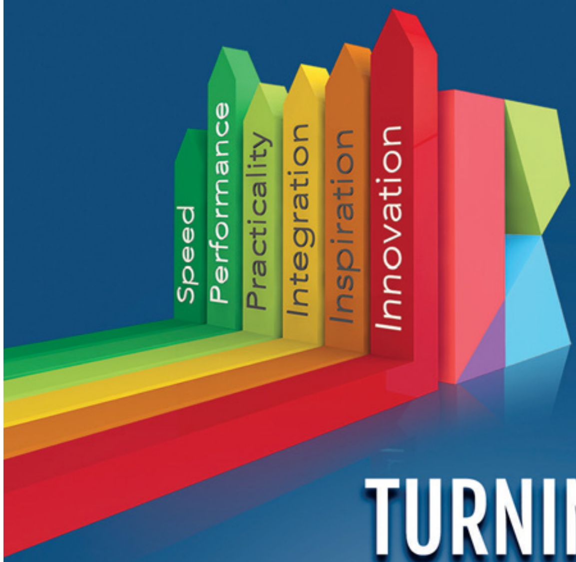
The conference closes at 3pm with a second keynote address, this time considering how retailers can rise beyond the limitations of individual sales channel. Mark Steel, digital operations director at Argos, will speak on Transcending channels for a more connected customer experience.

The Insight and Experience Conference takes place on March 25 in Theatre 2 at IRX 2015. To find out more and to register for the free-to-attend event, www.internetretailingexpo.com

Ali Holmes, Head of global eCommerce Vodafone

Mark Steel,
Digital Operations Director Argos

Mike Durbridge
Head of Omnichannel B&Q



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In the box seat

Telekom Austria Group has teamed up with Porsche Holding Salzburg to develop connected car solutions. A key focus of the partnership is DiBOX, a digital platform, which the two companies plan to open up to third parties. The operator's M2M division will be responsible for equipping the DiBOX platform with SIMs and providing IT systems for administration and billing purposes.