

SEARCH

ANALYSIS

Research Agenda 2018

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Service Provider Markets

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Mike Roberts

Research Director

Service Provider Strategies & Markets

“ “ Service providers have to innovate like never before to survive and thrive the digital transformation of their markets ” ”

The Market Challenge

Service providers worldwide are at a strategic crossroads as they balance the need to defend and innovate around their traditional consumer and enterprise connectivity businesses driving the bulk of their revenues while investing in new digital services such as 5G and IoT.

Transformation is high on the agenda as service providers drive innovation and cost reduction in traditional segments such as mobile, broadband and pay TV with new digital tools such as virtualization, digital customer service and artificial intelligence.

Disruption is a given as digital giants consume traditional markets and service providers transform their strategies, operations and services to survive and thrive the digitization of their markets.



Mike Roberts
Research Director, Service
Provider Strategies & Markets

How Ovum helps you

Transform your strategy based on the best practices of leading digital and communications service providers worldwide.

Learn how leading service providers are investing in new digital tools such as artificial intelligence and expanding into new digital segments such as 5G and IoT.

Innovate around existing mobile, broadband and entertainment services based on the best practices of leading service providers worldwide.

Key Deliverables

Digital Strategies – learn from the digital strategies and challenges of leading service providers globally through operator case studies and global analysis

Service Provider Benchmarking – assess service provider best practice through regular company updates and benchmarking of the world's top service providers

Telco Services Innovation Radar – gauge how service providers are innovating by segment and region with a detailed innovation tracker, case studies and analysis

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Global Digital
Enablement
Revenues in the
TMT industries will
top \$4.7 Trillion in
2022

”

Mobile, Broadband and Pay TV Integrated Forecasts – understand the growth and convergence of the industry’s key segments with detailed forecasts on the industry’s core services by region and major country worldwide

Mobile Subscription and Revenue Forecasts – gain insight into the state of the mobile market by region and major country with detailed mobile subscriptions and revenue forecasts

Fixed Broadband Subscription and Revenue Forecasts – assess the state of the fixed broadband market with detailed subscription and revenues forecasts

Themes for 2018

Digital service provider strategies and outlook

Service providers are transforming their strategies to address fast-changing markets and intense competition from ascendant digital players. Assess how digital markets across the telecoms, media and technology landscape will unfold and what it means for today’s service providers and their strategies, operations and services.

Broadband everywhere: the road to 5G & the Internet of Everyone

Broadband is the future of the communications industry and 5G is the future of broadband. Ovum will assess the impact of 5G on service provider strategy and performance as it accelerates virtualization, opens new revenue opportunities and upends traditional broadband value chains. Ovum will also research the Internet of Everyone – including the efforts of digital giants such as Google and Facebook to bring the Internet to the “last four billion,” and the implications for service providers and the Internet itself.

Mobile, broadband and pay TV market outlooks

Mobile, broadband and pay TV markets are maturing and under attack from digital players but still drive the lion’s share of subscriptions, revenues and margins for communications services providers. Track the size, growth and outlook of the industry’s core services through regular in-depth subscription and revenues forecasts and analysis by market segment, region and major country.

Service provider innovation

Every service provider has to innovate but some do it better than others, driving differences in service provider results, market share and industry leadership. Learn from innovators across the telecoms, media



and technology markets whether digital giants, traditional telcos or disruptive startups through detailed market tracking and innovation case studies.

Service provider strategy and performance benchmarking

Service providers globally are developing new strategies and services to address fast-changing markets. Learn which service providers are succeeding and which are struggling through in-depth data and analysis on service provider performance delivered through regular company updates and financial benchmarks.

What's new

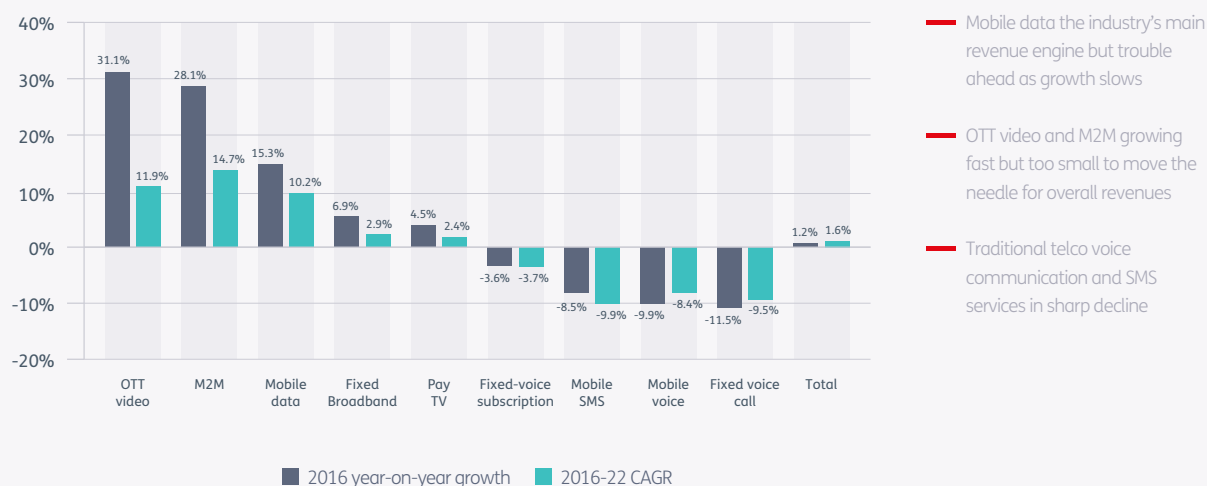
Global Digital Market Outlook – understand digital markets globally and their impact on digital and communications service providers

Digital Service Provider Index – assess the digital transformation and performance of leading service providers worldwide

5G Outlook – evaluate the impact 5G will have on service provider strategies, operations and services with market analysis and forecasts

Internet of Everyone – gauge how initiatives by Facebook, Google and others to connect billions worldwide who still lack Internet access could transform the TMT industry and the Internet itself

Mobile data driving telecoms & media service revenues to 2022



The Market Challenge

American operators are pressing ahead with strategies to transform their businesses. In the United States, this means doubling the bet on new markets, such as the Internet of Things (IoT), in which new LPWA networks will test the providers' ability to tap into new revenue streams. The accelerated pace of change will also see operators trying to intensify monetization opportunities from bundling content with telecoms services, which will ensure that securing access to premium content remains as important as ever.

Latin American operators are a step behind, but are showing signs of recovering from the economic downturn of the past two years. In the main markets, the focus has shifted to protecting profitability rather than growing market share, and the priority is to grow the postpaid customer base and expand LTE coverage while keeping within lower investment budgets. Across the region most operators still lack a clearly articulated IoT strategy.



Ari Lopes
Principal Analyst

How Ovum helps you

Regional outlook reports analyse market trends and the competitive dynamics at the country, operator, and regional level, based on primary research and Ovum's integrated forecasts.

Case studies operator and country profiles and topical reports provide full assessment of the status of the business, enriched by Ovum's regional analysts' recommendations.

Detailed market data and integrated forecasts deliver the insights customers need to understand markets and trends.

Key Deliverables

Regional Outlook Reports – quarterly regional reports providing detailed analysis about market data and developments, with recommendations for major market players

Country Reports – profiles of the major country markets within the region, including comprehensive market data and analysis

Operator Reports – detailed portrait and analysis of the major operating groups within the Americas, including financial and operational KPIs

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Ovum forecasts that by 2022 the us will have 103.7 Million mobile 5g subscriptions, the second-largest number after China
”

Case Studies – detailed assessments of specific service deployments in the Americas

Regional and Country Datasets – comprehensive set of data and forecasts for the region and every country within the region

Themes for 2018

Americas service provider digital strategies

As the Americas market matures, operators are moving ahead with strategies to transform their businesses. As a consequence, there is pressure for consolidation and M&A activity has accelerated. The bigger players are seeking a differentiation strategy by delivering premium content through super-fast networks where they can assure a premium experience. Nonetheless, lessons learned from OTTs will see operators complementing this strategy by launching their own video OTTs, targeting the full spectrum of customer segments. Ovum will assess how successful such strategies can be.

Broadband everywhere in the Americas – the road to 5G

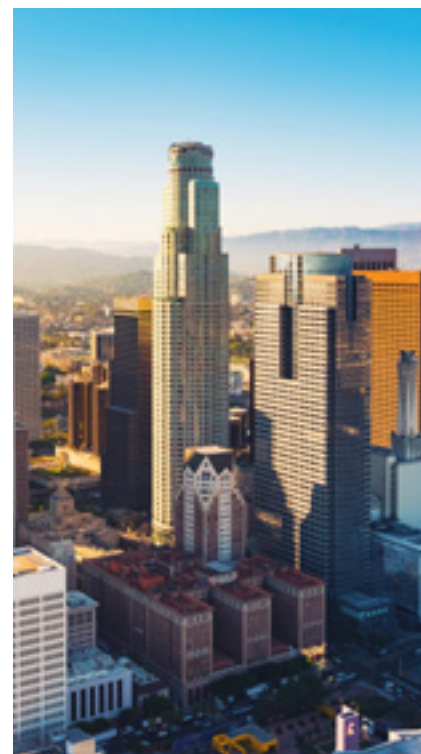
The US will lead the global adoption of 5G while the rapid adoption of mobile broadband in Latin America continues apace. Ovum will track the move to 5G in the Americas by analysing market data, operators' 5G strategies, and regulatory developments. In addition the accelerating take-up of 4G represents one of the main growth opportunities in Latin America, driving fundamental changes in the market. Fixed broadband has also been posting strong growth. Ovum will assess the role that small and regional providers are playing in the expansion of fixed broadband outside the big urban areas, as well as the further development of mobile broadband, including the adoption of LTE-A, the deployment of LTE in the 700MHz spectrum bands and the emergence of 5G.

Americas service provider innovation

Market saturation means that traditional business will not deliver the results shareholders expect, while additional pressure is coming from traditional as well as new competitors. Service providers need to invest in innovation not only in order to survive, but to thrive. Ovum will monitor and analyse product launches, new services and new technologies in the Americas, providing recommendations to regional players.

Americas IoT markets

Interest and investment in IoT in the Americas is accelerating, and



Ovum will report closely on the progress of IoT in the region, as service providers deploy IoT technologies and services. Ovum's analysis will compare IoT developments and prospects within the region, point to the markets and sectors that offer the best prospects, and make recommendations about provider IoT strategies.

Latin America after the economic downturn

Latin America is slowly recovering from the economic downturn, and service providers have to adapt to this new reality. M&A activity in important markets in the region, such as Argentina, Brazil, and Colombia, might lead to a reconfiguration of the competitive landscape. Additionally, regulatory pressure might lead to important shifts in Mexico. Ovum's research will investigate these developments and analyse the potential impact.

What's New

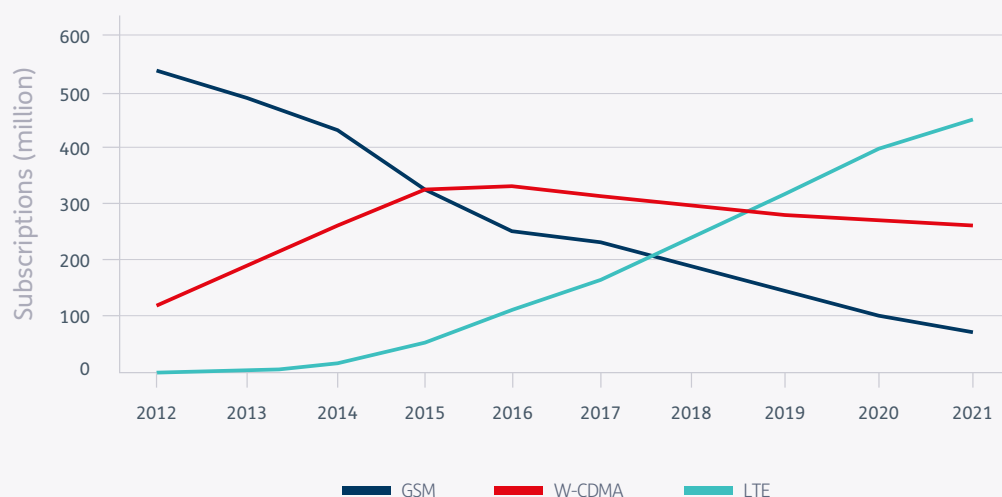
Expanded country reports – country reports will be extended to cover the TV market as well as fixed and mobile telecoms

Consumer Insights surveys – new consumer survey program will give fresh insight into regional markets

Operator reports to cover enterprise – operator reports will be expanded to cover enterprise as well as consumer markets

Digital Index tracker – new dataset will cover service providers' digital services and performance

Latin America, mobile subscriptions per technology, 2014-21 (million)



In 2015 and 2016, Latin America saw an unprecedented decline in mobile connections. However, the decline was mainly in 2G connections, while LTE is by contrast experiencing extraordinary growth. Ovum forecasts that LTE subscriptions in Latin America will increase at a CAGR of 30% between 2016 and 2021. LTE now accounts for 24% of mobile connections in Latin America and is expected to account for 58% by 2021.

The Market Challenge

Operators in Asia face the combined challenge of slowing or stagnant subscription growth, continued core product commoditization and intensifying competition from both traditional and next-generation players.

In the new, digital environment, consumers are freely accessing content and services from a seemingly infinite number of companies, many of which are dominating traditionally telco-related areas like messaging. The proliferation of platforms and devices also complicates operators' understanding of customer usage habits and digital consumption trends. Nevertheless, operators are making their own forays into digital sectors including messaging, video, gaming, and music.

In enterprise markets, service providers must consider how to best position themselves if they are to capture the opportunities for telcos that are emerging across various verticals.



David Kennedy
Practice Leader

How Ovum helps you

In-depth reports track and analyse market data, competitive dynamics, and major trends at the country, operator, and regional level, and make recommendations to service providers and other market players.

Case study profiles and topical reports set out and assess significant initiatives, developments and strategies in the region, such as digital-service deployments, and the prospects for 5G.

Comprehensive market data and forecasts allow customers to size and compare markets, identify quantitative trends, and develop strategies based on statistical evidence.

Key Deliverables

Regional Outlook Reports – quarterly regional reports providing detailed analysis about market data and developments, with recommendations for major market players

Country Reports – profiles of the major country markets within the region, including comprehensive market data and analysis

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By the end of 2022, Asia will have 191.8 Million 5g subscriptions, more than any other region
”

Operator Reports – detailed portrait and analysis of the major operating groups within the Asia, including financial and operational KPIs

Case Studies – detailed assessments of specific service deployments in the Asia

Regional and Country Datasets – comprehensive set of data and forecasts for the region and every country within the region

Themes for 2018

Asia service provider digital strategies

As the Asian telecoms market matures, operators and industry players are seeking to develop new data-based and digital services. We assess these strategies and sectors, with case studies and analysis around digital media, M2M, and FMC services. Ovum's data and reports cover market segmentation, pricing and packaging, marketing campaigns, CRM, and retail strategies.

Broadband everywhere in the Asias – the road to 5G

Asia is expected to rapidly become the largest regional market in the world for 5G, once China's deployment of 5G gets underway. Ovum will track the move to 5G in Asia by analysing market data, operators' 5G strategies, and regulatory developments. In addition topics such as next-generation LTE, new M2M and IoT networks, fiber for ultra-broadband deployment, and network strategies for rural and remote areas must be addressed. Ovum's Asia channel will address these topics through comprehensive analysis and case studies.

Asia service provider innovation

The Asian market is increasingly competitive and sophisticated, and service providers need to develop innovative products that will help them to stand out from their rivals, win and retain customers, and develop new revenue streams. Ovum will monitor and analyse product and service innovation in Asia, identifying trends and making recommendations to providers.

Asia IoT markets

Ovum will report closely on the progress of IoT in Asian markets, as operators deploy IoT technologies and services. Ovum's analysis will compare IoT developments and prospects within the region, point to the markets and sectors that offer the best prospects, and make recommendations about provider IoT strategies.



China is powerhouse of a diverse region

Asia accounts for more than half of all mobile subscriptions worldwide, with the two Asian mega-markets of China and India each having more than a billion subscriptions. South Korea, Singapore, Hong Kong, and Japan are among the most advanced telecoms markets in the world, but some others within the region are much less developed. Ovum will monitor and analyse the complexities of this huge and influential regional market.

What's New

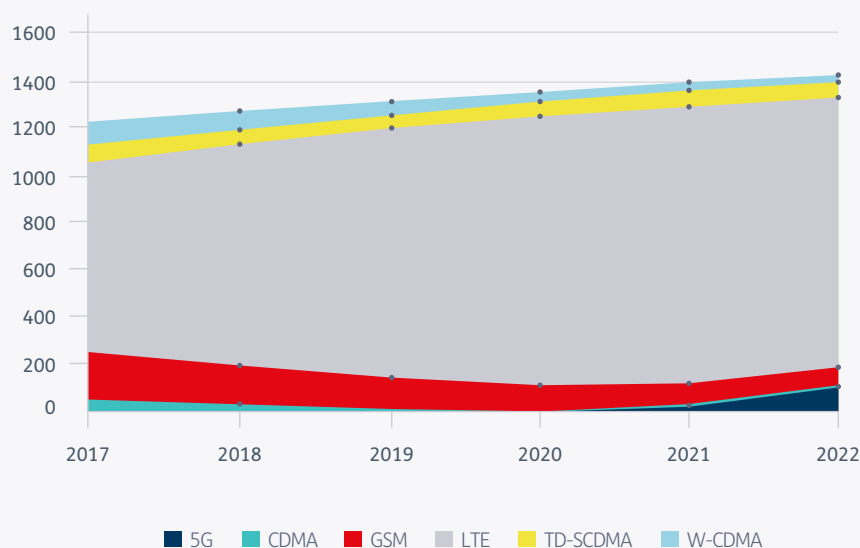
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China, mobile subscription forecasts by technology, 2017-22 (millions)



China is the biggest mobile market in the world, and is still growing, with the number of mobile subscriptions forecasted to increase from 1.41 billion at end-2017, to 1.64 billion at end-2022. China will also be the single biggest market in the world for 5G by the end of 2022, when it is expected to have 128.75 million 5G subscriptions.

The Market Challenge

Europe is at an inflexion point. The years of sharp decline are over, but the regional market is largely stagnant and service providers need to improve their performances to match the healthier macroeconomic situation across much of Europe.

However, competition remains fierce, and the acquisition and retention of market share remains high on the agenda. Service providers need to work harder on a number of fronts: Both fixed and mobile offerings are largely undifferentiated, and pricing pressure spreads too easily across national markets. Innovation in services and experiences, as well as the effective segmentation of the customer base – mass personalization – will help service providers to extract more value. Meanwhile, low-margin customers and services are a burden in markets that are growing sluggishly. A radical review of business processes and structures is an imperative while legacy support systems and network can be refreshed with newer cost-effective, digital-first technologies.

The monetization of mobile video, TV, and to a lesser extent the connected home, all represent new and important markets for service providers. The adjacent markets of advertising and third-party service monetization also offer important opportunities.

How Ovum helps you

In-depth reports track and analyse market data, competitive dynamics, and major trends at the country, operator, and regional level, and make recommendations to service providers and other market players.

Case studies profiles and topical reports set out and assess significant initiatives, developments and strategies in the region, such as digital-service deployments, and the prospects for 5G.

Comprehensive market data and forecasts allow customers to size and compare markets, identify quantitative trends, and develop strategies based on statistical evidence.

Key Deliverables

Regional Outlook Reports – quarterly regional reports providing detailed analysis about market data and developments, with recommendations for major market players



Dario Talmesio
Practice Leader



The European region is at an inflection point as 2017 gives encouraging signals. The pace of decline for fixed and mobile revenue slowed in 2016, to 2.75% Year on year, but capex intensity remains high at 17.8%



Country Reports – profiles of the major country markets within the region, including comprehensive market data and analysis

Operator Reports – detailed portrait and analysis of the major operating groups within Europe, including financial and operational KPIs

Case Studies – detailed assessments of specific service deployments in Europe

Regional and Country Datasets – comprehensive set of data and forecasts for the region and every country within the region

Themes for 2018

European service provider digital strategies

As the European market is highly mature, service providers and others in the industry are increasingly looking to develop new, digital strategies centred on digital transformation as well as on digital services. Ovum will assess digital strategies and services in the region across sectors such as digital media, e-commerce, TV, IoT, and mobile financial services, through case studies, analysis, and data.

Broadband everywhere in the Europe – the road to 5G

As video becomes the most important data traffic-driver, service providers are exploring new data monetization mechanisms with today's networks while also evaluating the business case for 5G. Although customer propositions must appear simple, video monetization strategies build on an incredibly complex construct where multiple – and often competing – partners design their offerings in compliance with net neutrality and customer data protection regulations. How will the economics of content, economics of broadband and economics of advertising be reconciled with video-bingeing strategies and promotions? Ovum will also monitor service provider progress and best practice across the region.

European service provider innovation

The European market is increasingly competitive and sophisticated, and service providers need to develop innovative products that will help them to stand out from their rivals, win and retain customers, and develop new revenue streams. Ovum will monitor and analyse product and service innovation in Europe, identifying trends and making recommendations to providers.

European IoT markets

IoT is already widely deployed in Europe and Ovum will report closely on the progress of IoT in the region, as operators introduce new



IoT technologies and services. Ovum's analysis will compare IoT developments and prospects within the region, point to the markets and sectors that offer the best prospects, and make recommendations about provider IoT strategies.

Consolidation in Europe continues, but has it worked so far?

The European region has witnessed a wave of consolidation in the TMT sector, with intense M&A activity in recent years. While mobile consolidation opportunities in the mobile sector have diminished, there is scope for wider consolidation across the broader TMT market, perhaps around triple-play (fixed-mobile-tv) combinations, as well as within the highly-fragmented eastern European fixed sector. Ovum will constantly monitor M&A activities and assess the results of consolidation in markets where it has occurred in the recent past.

What's new

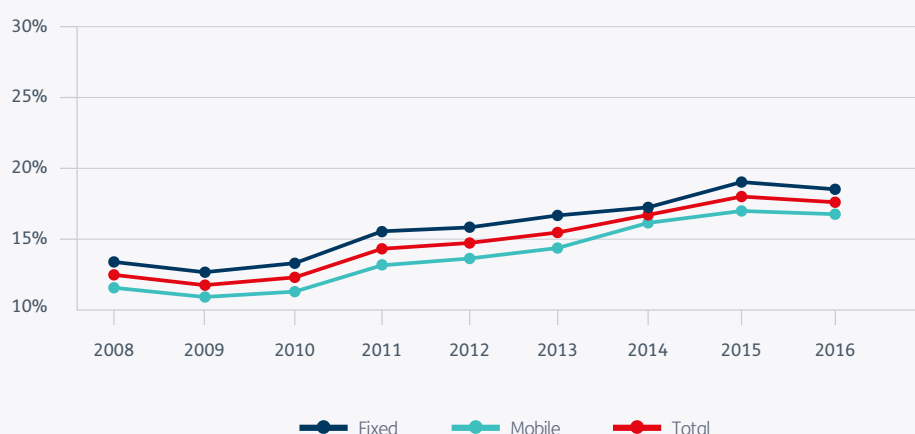
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Telecom Capital Intensity – Western Europe



Despite revenue stagnation, European operators are still committed to the robustness of their networks, as they face increased demand for video services.

Doing more for less means that capex intensity has increased in recent years, rising in five of the seven years since the 2008 financial crisis.

With 5G spectrum auctions and network deployments approaching, European operators need to work hard to improve their top-line and bottom-line financials.

The Market Challenge

The high rates of growth, particularly in mobile subscription numbers, that used to characterize MEA telecoms markets have fallen significantly. As in other regions, the established business lines of voice and SMS are in decline at most telecoms operators.

Data access and data revenues are growing strongly, but the growth is from a low base in many cases, and providing data connectivity requires substantial investment. Some markets in the region are leaders in mobile financial services, particularly mobile-money transfer, but the development of other new digital services in the region is in its infancy.

Political, economic and infrastructure difficulties affect substantial parts of the region. Additional complexity comes from the vast and varied nature of the MEA region. Some countries in the Middle East have very advanced telecoms markets, whilst sub-Saharan Africa, by contrast, has some of the world's least-developed markets.

How Ovum helps you

In-depth reports track and analyse market data, competitive dynamics, and major trends at the country, operator, and regional level, and make recommendations to service providers and other market players.

Case studies profiles and topical reports set out and assess significant initiatives, developments and strategies in the region, such as digital-service deployments, and the prospects for 5G.

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Regional Outlook Reports – quarterly regional reports providing detailed analysis about market data and developments, with recommendations for major market players

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Operator Reports – detailed portrait and analysis of the major operating groups within the MEA region, including financial and operational KPIs



Matthew Reed
Practice Leader

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Ovum forecasts that the first 5G services in the Middle East will be launched in 2020, and that there will be 2.3 million 5G subscriptions in the Middle East by end-2022

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Case Studies – detailed assessments of specific service deployments in the MEA region

Regional and Country Datasets – comprehensive set of data and forecasts for the region and every country within the region

Themes for 2018

MEA service provider digital strategies

Service providers and others in the MEA market are increasingly looking to develop new, digital strategies centred on digital transformation as well as on digital services. There is growing interest from beyond the region too: In 2017, Amazon acquired the Middle East e-commerce site Souq.com as a bridge into the region. Ovum will assess digital strategies and services in the region across sectors such as digital media, e-commerce, and mobile financial services, through case studies, analysis, and market data.

Broadband everywhere in MEA – the road to 5G

There are a few very advanced telecoms markets within MEA, but the region as a whole has a substantial broadband deficit, and addressing that shortfall remains a major issue. Ovum's data and analysis will cover the prospects for and progress of broadband in the region, as operators continue to roll-out 3G and 4G networks and services, and deploy more fibre for backhaul and access. Ovum will also track the move to 5G in MEA by analysing market data, operators' 5G strategies, and relevant regulatory developments. Some of the advanced Gulf markets – notably the UAE and Qatar – are expected to launch 5G early. But for much of the rest of the MEA region, 5G will come some time later. However, in many markets in the region the planning and preparation for 5G should start now.

MEA service provider innovation

The MEA market is increasingly competitive and sophisticated, and service providers need to develop innovative products that will help them to stand out from their rivals, win and retain customers, and develop new revenue streams. Specific strategies are required for the region's overwhelmingly prepaid mobile markets. MVNOs and operator sub-brands are relatively new to the region but offer a means of increasing market segmentation. Ovum will monitor and analyse product and service innovation in the MEA region, identifying trends and making recommendations to providers.

MEA IoT markets

There is a lot of interest in IoT in the Middle East and Africa, and Ovum



will report closely on the progress of IoT in the region, as operators deploy IoT technologies and services. Ovum's analysis will compare IoT developments and prospects within the region, point to the markets and sectors that offer the best prospects, and make recommendations about provider IoT strategies.

MEA service providers reshape strategies for new markets

As the MEA market matures and moves beyond the high-growth phase of a few years ago, service providers and other key players need to reinvent themselves for the next stage of the development. At the same time, difficulties such as the impact of the lower price of oil and other commodities on resource-dependent economies, as well as political instability within the region, are forcing change. Ovum will track and analyse the changing market environment, and the strategies for succeeding amid the upheaval.

What's new

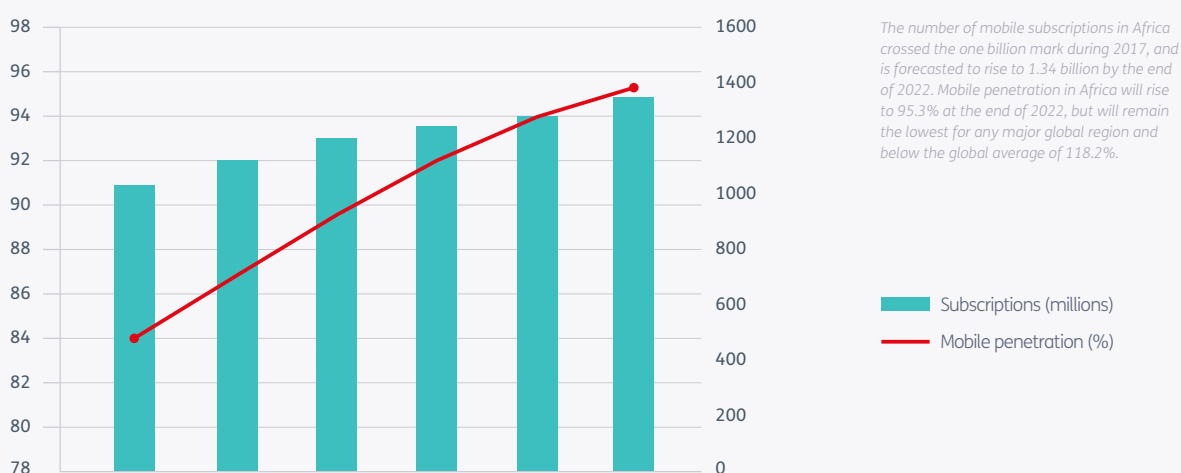
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Africa, mobile subscription and penetration forecasts, 2017-22



The Market Challenge

Wholesalers operate in an increasingly complex and competitive market, in which their customers are demanding greater flexibility, responsiveness, differentiation, and innovation. In response, many players in the market are developing strategies to defend against the threats posed by OTT service providers and intense price pressure, and to attract business from new customer segments.

The successful wholesalers of the future will be those that respond to the commoditization of traditional wholesale services by differentiating and adding value to their services portfolios. Even the most traditional wholesaler must take a more proactive approach to meeting customer needs, especially when targeting new customer segments.



David James
Practice Leader

How Ovum helps you

Understand where wholesale markets are growing and discover the best strategies for maximizing those opportunities.

Discover how to create innovative strategies, services, and solutions to deliver greater flexibility and responsiveness to customer demands.

Learn which service portfolios, pricing models and customer service strategies are most effective at differentiating from competitors and capturing business from a range of wholesale customer segments.

Key Deliverables

Wholesale innovation analyser – understand what innovations carriers are bringing to market and their likelihood of success

European wholesale market share report – discover which wholesalers are growing their shares of this well-developed market

Wholesale customer survey – benefit from our analysis of the evolving demands of wholesale customers

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Wholesale revenues will reach \$213bn by 2021 as proactive carriers respond to customer demands for innovative and flexible new solutions

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Themes for 2018

Strategies for effective transitions in wholesale

A number of major telecoms industry transitions are impacting wholesale service providers, including the evolution of TDM voice into voice and video over IP, the rise of network virtualization, the retirement of time-expired communications services, and innovative new pricing models. We will

analyse the likely impact of these transitions on wholesalers, and advise on strategies to mitigate their adverse impacts and maximize the associated benefits.

Managing evolving wholesale service portfolios

Our forecasts demonstrate that wholesale revenues will grow as a result of increases in global trade, in broadband penetration, and in telecoms' dependency on wholesale services. However, not all services are expected to experience improving revenues or margins. During 2018 we will compare and contrast the prospects for different groups of wholesale services, and will make recommendations for maximising the return from each group.

The impact of consolidation on the wholesale market

There has been a recent flurry of mergers and acquisitions among Communications Service Providers (CSPs), particularly in the mature markets of North America and Europe. Some consolidation is intended to grow market share, some to gain access to complimentary capabilities, or to reach additional markets. We plan to research the impact that each type of consolidation will have on the overall wholesale market and on the players directly concerned. We will advise wholesalers how to take advantage of the opportunities presented by market consolidation.

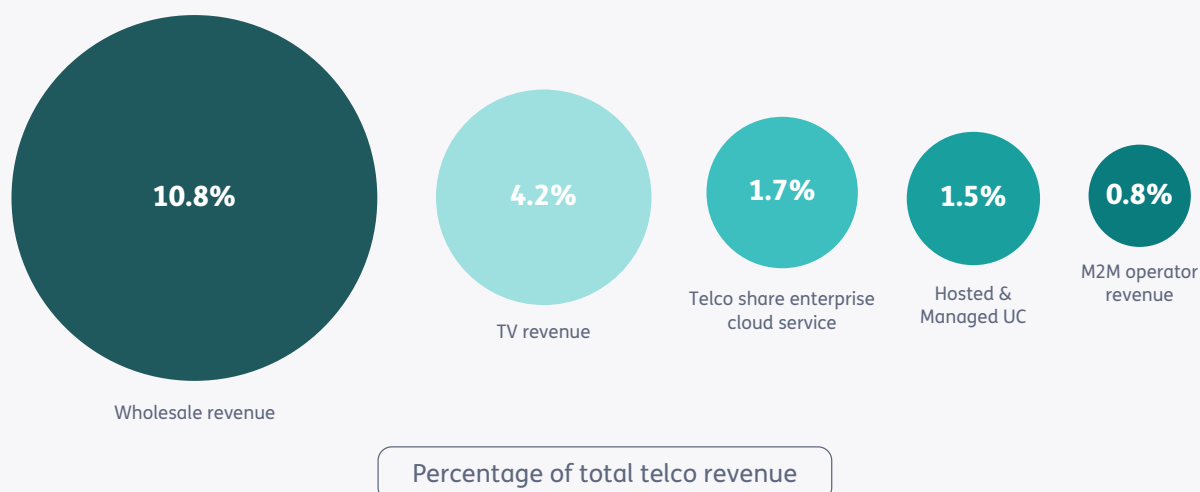


What's new

Wholesale announcements tracker – reports and analyses major wholesale product launches, enhancements, infrastructure upgrades, and other market developments during the year

Wholesale accounts for over 10% of telco revenue

Telcos are forecast to earn more from wholesaling services in 2021 than from TV, M2M, enterprise cloud and hosted and managed unified communications combined.



The Market Challenge

The evolution of telecoms, media, and technology (TMT) has never been harder to comprehend – let alone regulate.

Tech companies operating “over the top” of the Internet are rapidly challenging traditional business models in ever more dramatic ways, while largely escaping the oversight that binds their established service provider and enterprise peers. At the same time, the growing power of the OTT providers is raising questions about what new forms dominance and anti-competitive behaviour will take in the digital economy.

The challenge for all stakeholders is to protect competition and consumers, without foreclosing on TMT’s potential to improve lives, economies and societies.



David Kennedy
Practice Leader

How Ovum helps you

Assess which regulatory issues your organization should prioritize.

Learn how leading regulators are tackling the industry’s latest challenges.

Understand how to successfully design and influence regulation and policy.

Key Deliverables

Cutting-edge regulation reports – discover how regulators, service providers and other stakeholders are tackling 5G, IoT, data protection and other emerging regulatory challenges.

Reactive research notes – gain insight into the implications of the most crucial regulatory decisions and developments as they emerge.

Country overviews and scorecards – assess spectrum policy, wholesale regulation, universal service and other key regulatory issues in major economies.

Spectrum and NGA trackers – understand policy and initiatives aimed at facilitating the deployment of next-generation access (NGA) networks.

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5G planning will gain significant momentum in 2018 as regulators move to auction 4,000mhz of spectrum, boosting the total amount awarded by 200% to 6,000mhz

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Wholesale broadband and interconnect benchmarks – compare rates for regulated wholesale broadband access across and interconnection rates across over 60 countries worldwide and over time.

Themes for 2018

Regulating future networks

Fiber-to-the-x, 5G and the Internet of Things (IoT) will increasingly underpin tomorrow's digital economy. But their high roll-out costs and radical potential also pose questions fundamental to the future of investment and competition. Ovum will identify and analyse best-practice examples of regulation – and self-regulation – that stimulate investment without harming competition and support new business models while reducing the potential for ill effects.

Getting the balance right on OTT

Innovation in the telecoms, media, and technology has never moved faster, thanks to the speed at which services delivered “over the top” (OTT) of the internet can be launched and evolved. Critics claim a lack of regulation gives OTT providers an unfair advantage over traditional counterparts, and is leading to abuses of dominance, privacy, and consumer safety. Ovum will advise on how the industry can work together to protect consumers and competition, while ensuring new business models and startups can rightfully challenge status quos.

A decisive year for data protection

The European Commission's General Data Protection Regulation (GDPR) will become enforceable in May 2018. How well – or badly – its implementation and application goes will be a key test for the game-changing regulation, and the idea of data protection in general. Ovum will examine the progress of GDPR and other attempts elsewhere in the world to provide a balanced view of the pros and cons of policy aimed at handing citizens back control over their personal data.

What's new

Enhanced country overviews and scorecards – expanded coverage of regulation of OTT services, data protection and other key emerging topics.

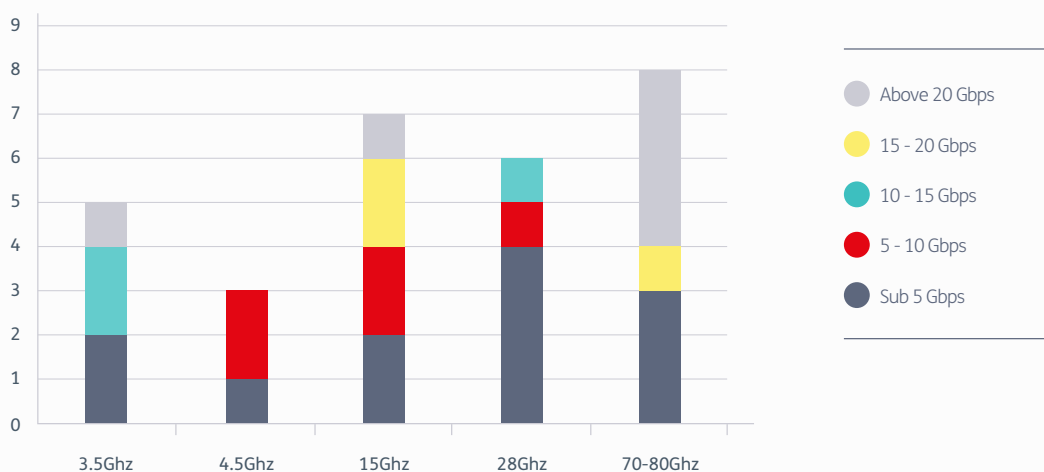
Improved spectrum and NGA trackers – new interactive, visual tools to aid access and analysis of data and developments.



New data protection tracker – monitoring the development, implementation, application of data protection regulation, including GDPR and more.

Higher spectrum bands have supported 5G broadband speeds as fast as an eye-watering 35Gbps

Speeds achieved by spectrum band in global 5G trials



Consumer & Entertainment Services

Communications & Social Networking	25
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Broadband & Multiplay	34
Consumer Technology	37
Payments	40



Rob Gallagher

Research Director

Consumer & Entertainment Services

“ Change is the only constant in today's consumer telecoms, media and technology market. Over the top (OTT) services are redefining industries, connected “things” are creating new categories, and artificial intelligence promises to upend everything ”

The Market Challenge

WhatsApp, WeChat and other chat apps are fundamentally changing how consumers and businesses communicate with each other. In addition to enabling ever-richer forms of text, voice and video communications, they are evolving into broader platforms for digital media, e-commerce, chatbots and other forms of personified artificial intelligence. The challenge for the providers and their partners is understanding when and where these plans will gain traction.

Telcos face the challenge of remaining relevant as providers of communications services. They must look to maximize assets, such as network ownership, the customer relationship, and billing, to enhance their existing service offerings and to develop new ones. They must also ensure that they work with relevant partners – including chat apps – to insert themselves into the new value chains and ecosystems emerging around the provision of next-generation communications.



Pamela Clark-Dickson
Practice Leader

How Ovum helps you

Evaluate the size and positioning of the OTT communications market, to understand the impact of chat apps on traditional telco services, and the evolution of consumer communications services.

Understand how to transition existing communications services, and develop new value-added services, to remain relevant in a fast-moving marketplace

Assess the role that key social networking and media companies play in the development of new services, technologies and business models.

Evaluate the progress and development of the supplier ecosystem underpinning the communications market.

Key Deliverables

OTT Communications Tracker – historical KPIs and projections for players including WhatsApp, Facebook Messenger and WeChat.

Digital Consumer Insights – survey covering China, Japan, the UK and the US.

OTT Messaging Forecast – provides global, regional and country-level

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Just under half of the world's population will regularly use a chat app by 2020, when unique global mobile monthly active users will reach 3.18 Billion

”

market sizing of mobile and fixed OTT communications users and messaging traffic.

OTT VoIP Forecasts – provides global, regional and country-level market sizing of mobile and fixed VoIP users and traffic.

Social Media Tracker – historical KPIs and projections for key players including Facebook, Twitter, QQ and Sina Weibo.

Themes for 2018

Monetizing the next generation of digital communications

The way in which consumers communicate has changed, driving developments in the type of messaging, voice and video services they expect to be able to access from telcos and chat apps. Ovum will assess how telcos and chat apps are evolving their communications offerings, with an emphasis on the identification and quantification of new business models. In addition, Ovum will evaluate strategies for new value-added services, including location.

Harnessing the potential of AI and chat bots

Artificial intelligence and chat bots are the next frontier for consumer communications, with both telcos and chat apps exploring the potential of adding these technologies to their networks and platforms. Ovum will assess the role of AI and chat bots in communications, examining the strategies of operators and chat apps as they move their customers and users towards a more automated, contextual communications experience.

Identifying new opportunities in social media

Social networks are dominant in consumers' online lives; they are also making significant investments in product development, advertising, media and infrastructure, while facing challenges around regulation, data security and privacy, and consumer protections. In 2018, Ovum will track and analyse developments across key social media players.

Unpacking the communications technology ecosystem

The way in which enterprises communicate with consumers is changing in line with the way in which consumers' own communications behaviour is evolving. Legacy equipment suppliers and service providers have had to become more agile in order to compete with nimbler start-ups, and to keep pace with emerging technologies such as chat bots. In 2018, Ovum will analyse the application to person (A2P) communications market, evaluate the



continuing dominant role of A2P SMS, examine the impact of the growing penetration of chat apps, and assess the strategies of various players in the value chain, including telcos, aggregators and vendors.

What's new

Chat app revenue forecasts – sizing the global chat app market, by segments such as advertising, commerce and content

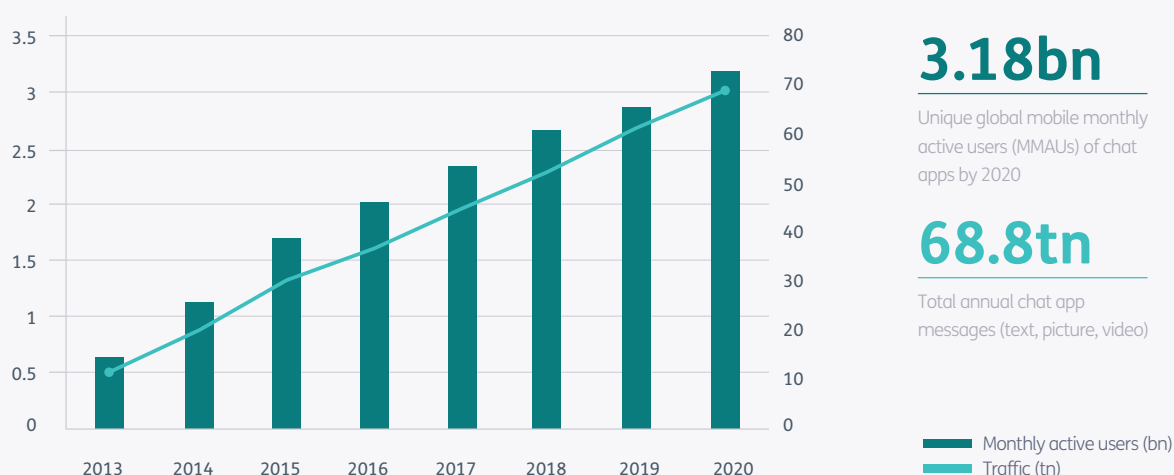
Social media forecasts – sizing the global social media market

RCS user and traffic forecasts – sizing the global RCS market

Chat bot platform index – evaluate the chat bot strategies and platform capabilities of the key chat app players

Chat apps have already disrupted traditional communications services and content distribution models; commerce and business-to-consumer interactions are next.

Global, chat app unique mobile monthly active users and total annual messaging traffic, 2013-2020



The Market Challenge

Entertainment has never been more in demand – yet its future has never seemed so uncertain.

Great content's ability to attract customers, boost loyalty and drive spend is leading players from across the telecoms, media and technology (TMT) market to make ever-greater investments in the business – including mega-mergers of the industry's biggest names. But therein lies the rub: each has different – and often disruptive – visions for the role of entertainment in tomorrow's digital economy, depending on their diverse aims.

Finding a clear path will require a nuanced understanding of the multiple motives, methods, and market opportunities in play.



Ed Barton
Practice Leader

How Ovum helps you

Discover which entertainment segments, geographies, and partners to prioritize using data and forecasts of unrivalled depth and breadth.

Develop compelling products and services based on data on consumer behaviour, market trackers, and services provider benchmark.

Optimise your go-to-market strategies by identifying the best feature-set, pricing, bundling and partnership options for your organization.

Key Deliverables

Digital consumer insights – discover how audiences are changing in developed and developing markets, based on surveys of thousands of consumers

Hot topic trackers and benchmarks – filter the signal from the noise with tools to help monitor and analyse the most disruptive trends and players in entertainment

Entertainment innovation reports – understand how new and existing service providers, content owners and vendors are evolving and reinventing the sector

Comprehensive entertainment forecasts – quantify opportunities across key established and emerging entertainment segments, geographies and service providers

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Subscriptions to skinny bundles and other subscription-based linear ott tv (slin) services in North America and Western Europe will total 115 Million by the end-2017

”

TMT country landscapes – underpin your geographical strategy with detailed profiles of digital consumer dynamics in an unrivalled number of countries

Themes for 2018

Total video monetisation

Internet innovation and economics means that TV & video services will increasingly take new and surprising forms. Ovum will provide an integrated data-driven view of existing and emerging opportunities to help stakeholders understand where, when and why audiences and revenues will move and plan accordingly.

Making advertising work

Concerns are growing over traditional TV advertising's reach and relevance, while digital's credibility is suffering problems with fraud, measurement, and just plain bad ads. Ovum will identify the winners and losers in the battle to make advertising a better proposition for all involved.

Living with the mega-platforms

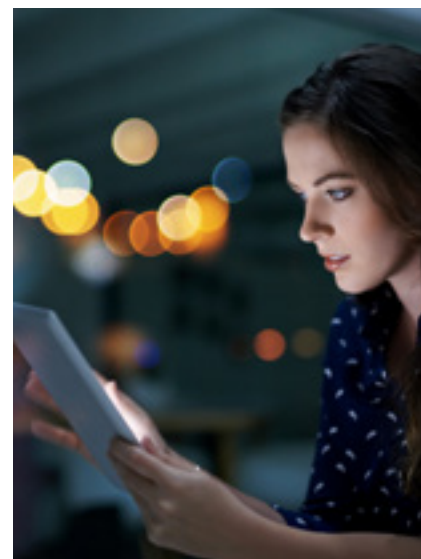
The influence of Amazon, Apple, Facebook, and Google will only grow as they continue to invest and innovate in ever more aspects of entertainment. Ovum will predict what's next for the global mega-platforms and the opportunities and challenges for players across the value chain.

Entertaining the augmented customer

Advances in the smart home, mixed reality and artificial intelligence are part of an ongoing step-change in consumer technologies that will "augment" people's lives in an ever-growing number of ways. Ovum will examine how this shift will change how content is created, discovered, consumed and monetised.

New roles for network operators

As broadband providers, telcos and cablecos occupy a crucial role in digital consumers' lives. Ovum will forecast the potential of an array of further opportunities for operators, including telco TV, mobile video, OTT partnerships, big data, and carrier billing.



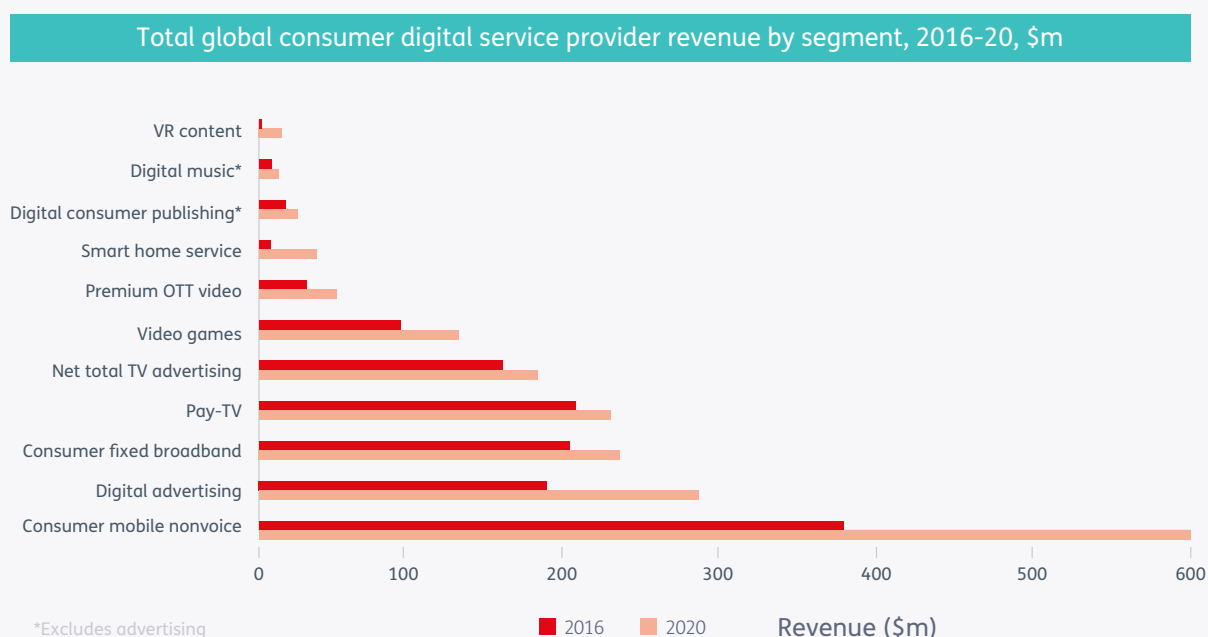
What's new

Total TV & video forecasts – an integrated view of opportunities across all business models, geographies and service providers

Enhanced TMT country landscapes – added data and analysis to provide a more complete view of TMT markets worldwide

The Augmented Customer series – the implications of AI, mixed reality, 5G and other emerging technologies on entertainment

Digital advertising will overtake pay TV and fixed broadband to become the second largest source of digital consumer revenue after mobile broadband.



The Market Challenge

Smart home is not a single market, but a concept that encapsulates a multitude of different technologies, services and applications across a number of industrial verticals from commerce to healthcare.

Solutions are therefore varied, but must work together if they are to provide optimum value to the consumer. This makes the smart home complex and everchanging as new players enter, evolve and diversify. Consumer demand also differs significantly, not just within different consumer segments, but from country to country, due to differences in demographics and cultural trends.

To succeed in the smart home, players of all types therefore must have a detailed understanding of the markets they wish to target, with a sound and up-to-date knowledge of the various stakeholders involved and adjacent to each market.



Michael Philpott
Senior Practice Leader

How Ovum helps you

Gauge the size and potential of key smart home market segments on a country-by-country basis.

Track the offerings, developments and partnerships of key service providers, equipment vendors and tech companies.

Learn about emerging business models and go-to-market strategies based on in-depth case studies.

Understand the impact of key announcements and trends on the smart home market.

Key Deliverables

Smart home forecasts – quantifying the size of the opportunity in each market

Smart home trackers – tracking of the offerings and ecosystems of top smart home players

Smart home opportunity index – detailing the key drivers on a country by country basis

“By 2021, 21% of households worldwide will have use at least one smart home device, with advanced markets such as North America reaching 60%”

Digital consumer insights – providing the voice of the consumer

Best-of-breed case studies – providing a detailed understanding of the business models driving key market players

Making money strategic reports – understanding complex smart home business models and value-chains

Themes for 2018

Sizing the smart home opportunity

Quantifying the smart home is extremely complex. Markets can differ wildly from country to country, and identifying the right consumer segments, developing the right product, and finally crafting the right marketing strategy, are essential to success for all players. Ovum helps its customers by providing a range of data tools that cover markets from a 360 degrees perspective, on a country by country basis.

Making money from smart home

Smart home will require businesses to invest in new technology and business models that will eventually change entire markets. Return on investment can take many years so the risk for any business is significant. But companies that are not willing to invest and adapt could find themselves left behind. Ovum's analysis will help clients understand new business models, how to successfully market smart home technologies and services, and how to implement a successful and efficient service delivery strategy.

Developing the optimum smart hub strategy

The smart hub will form the gateway of the home, efficiently connecting every room with high-speed broadband for high-definition media consumption, and every device to enable a new level of home automation. What this hub will look like from the technology capability point of view, who will control it, and how in itself it can be monetised is still unclear. Ovum's research will provide in-depth qualitative and quantitative research to help equipment vendors and service providers develop a road map for the smart home hub of the future.

Serving the smarter consumer

The future will be defined by a smarter consumer, where products are not only connected but are also delivered automatically and personalised. This will create new opportunities for e-commerce companies, as well as those organisations that control the consumer data. Through in-depth reports and case studies, Ovum will provide



a best-practice guide for AI enhanced digital commerce, as well as how service providers should position themselves to maximise their prospects in this increasingly complex data economy.

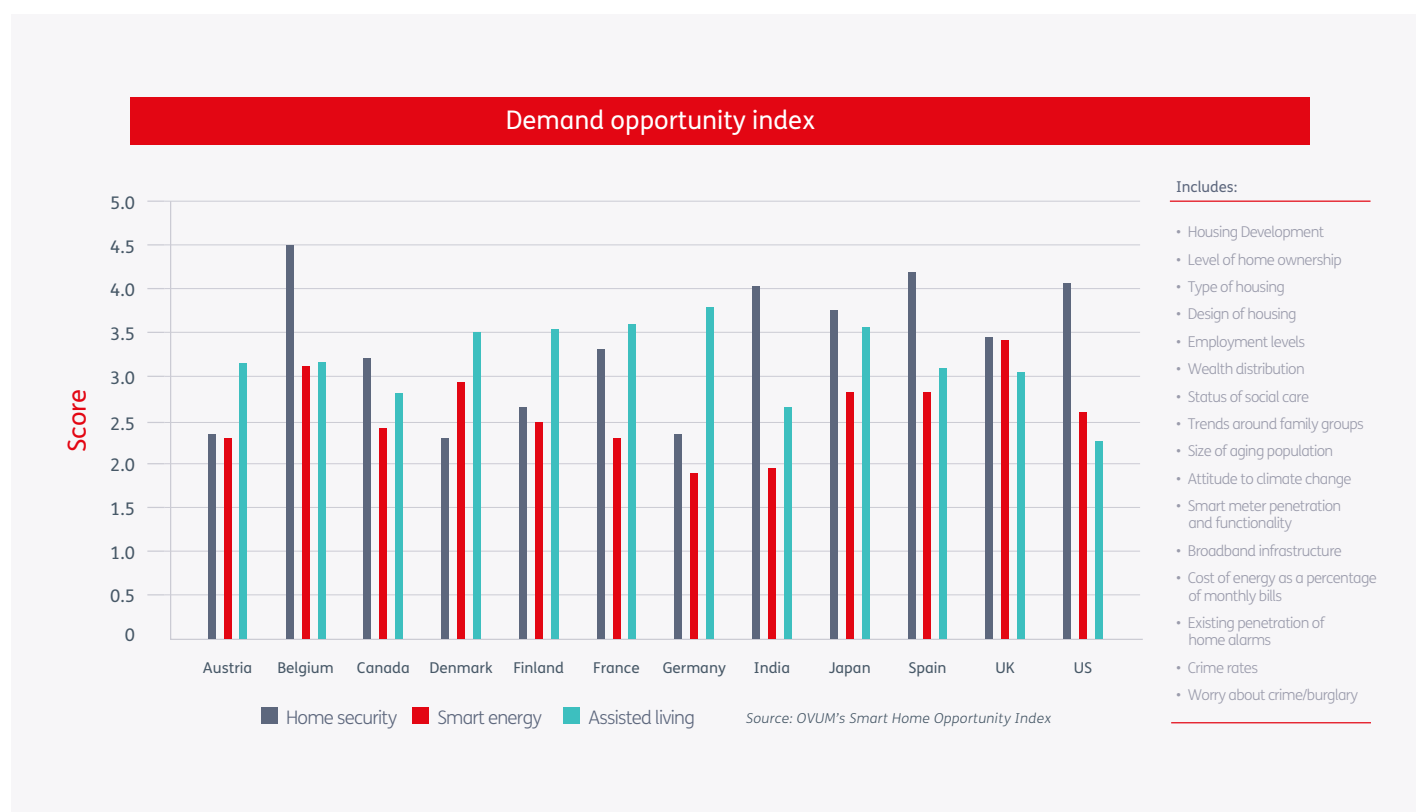
What's new

Smart hub report series – the home hub is an increasingly important part of the connected home. Ovum's research will provide a detailed understanding of the future road map of this important device

Smart home consumer segmentation – traditional segmentation models don't apply to the smart home market. Ovum's analysis will shed light on the segments that matter and what they care about

"Marketing the smart home" case studies – lack of consumer understanding is a major barrier for smart home devices and services. Better marketing holds the key to unlocking this market

The demand drivers for smart home



The Market Challenge

The new digital consumer wants to buy broadband, mobile and TV services differently. Who is this new consumer, and how should communication service providers (CSPs) evolve to meet the changing market place?

CSPs will need to know their customer bases more intimately than before and how to price and package services in new ways for them. These two facets – bundling and pricing – remain central the telco monetisation story.

Understanding best bundling and pricing strategies will be key to unlocking new growth opportunities, whilst addressing new threats such as the rise of the mobile-only customer.



Nicole McCormick
Practice Leader

How Ovum helps you

Understand which broadband and multiplay bundles will drive subscriber and revenues growth based on robust forecasts for developed and developing markets worldwide.

Develop compelling bundles and services based on data on consumer behavior and analysis of leading operator strategies that are changing how broadband, mobile and TV are being bought and sold.

Optimise your go-to-market strategy by identifying the best feature-set, pricing, bundling and partnership options for your organization.

Key Deliverables

Digital consumer insights – discover how consumer attitudes and intentions towards existing and emerging broadband and multiplay packages are changing.

Multiplay bundle forecasts – quantify the potential and impact of different bundling strategies in developed and developing markets worldwide.

Broadband pricing interactive tool – inform your marketing strategy with detailed information on innovative tariffs from leading operators in major markets.

“

Next-generation bundles that include ott tv, mobile or both will have 184 million subscribers by the end of 2022

”

Themes for 2018

Evolving the bundle for modern audiences

Consumer expectations are changing faster than ever. Understanding the impact that OTT video will have on multiplay bundle buying behaviour will be a key focus in 2018. Ovum will quantify how revenue will shift between new and emerging bundle types, as consumers upgrade, downgrade, swop services and cut cords. Our analysis will be underpinned by segmentation analysis of the new digital consumer, examining the purchasing behaviours and usage profiles of various groups, including millennials, students and 50+ year olds.

The mobile-only broadband customer uncovered

The potential of 4.5G and 5G to offer gigabit broadband has re-ignited the debate about whether fixed broadband's days are numbered. But mobile-only subscribers are a reality here and now and they're using their connections as more than just a substitute for fixed broadband. Ovum will profile the new mobile-only market and how it will evolve over the next five years. We will also explore the impact on the fixed broadband industry, and what it means for operators targeting the converged offerings.

Standout mobile pricing and loyalty strategies

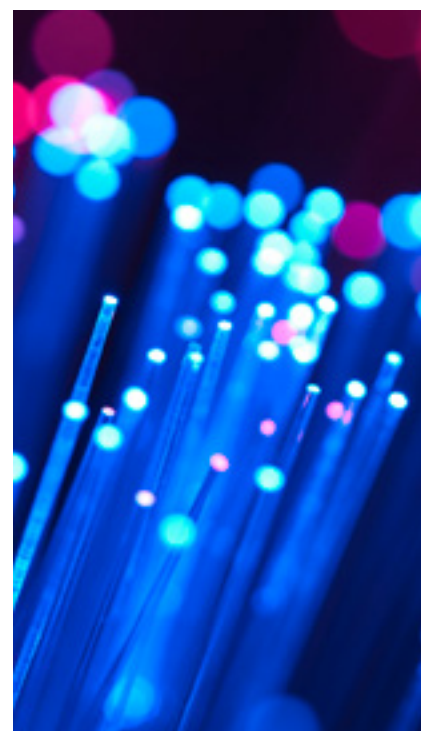
Incumbent operators need to make 2018 the year of keeping the customer happy, as MVNOs and challenger operators seek to undermine their positions. Ovum will focus on innovative pricing and loyalty schemes to help mobile operators really stand out from the crowd in the endless battle to win and keep customers.

What's new

Expanded multiplay forecasts – to include revenue splits showing the financial impact of next-generation bundling strategies

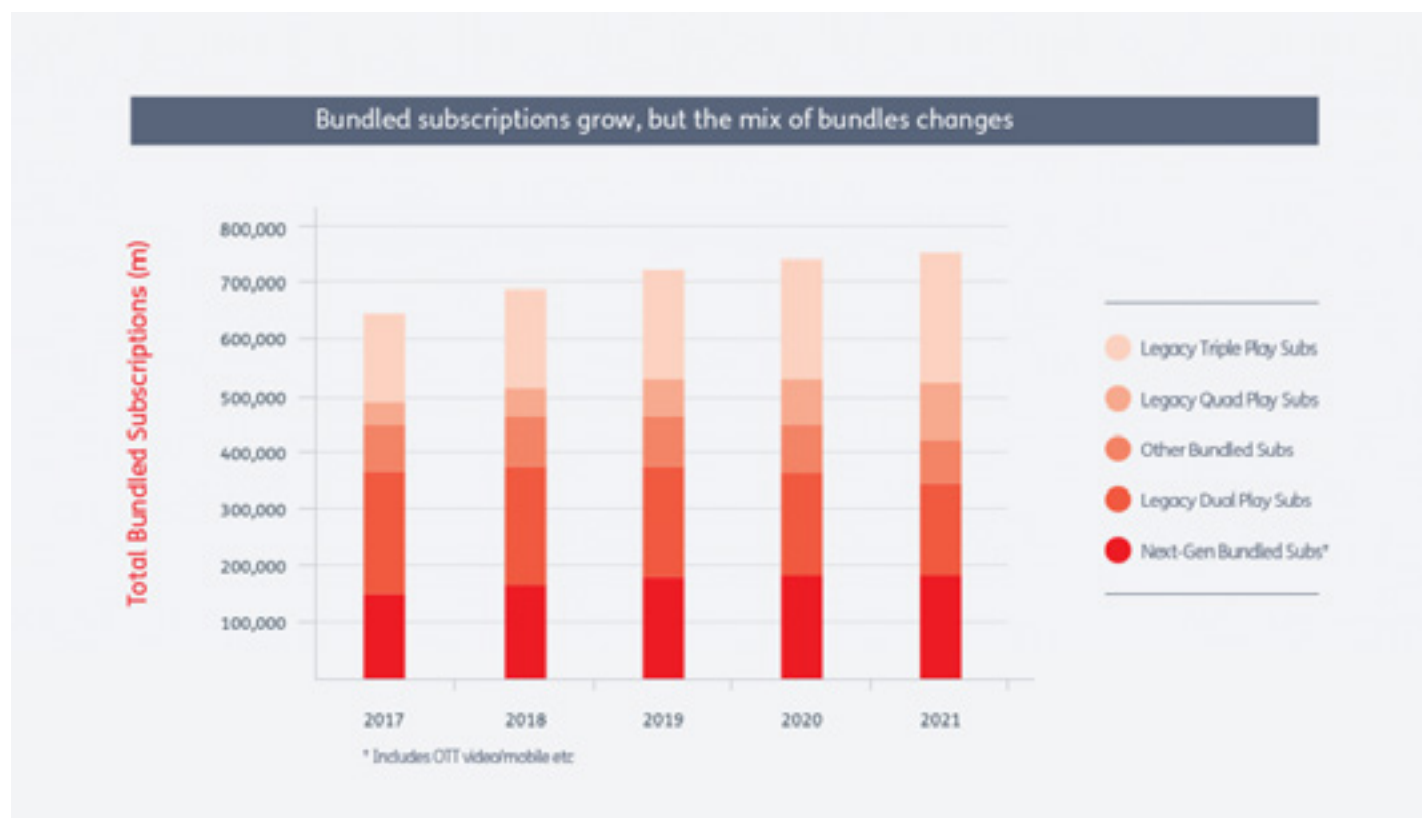
Customer segmentation analysis – dissecting multiplay buying behaviour of millennials, 50+ consumers and other age groups

The mobile-only consumer series – analysing the opportunities and challenges presented by this new breed of customer



Steady Growth Path For Bundles, But Consumers Like Mobile And Netflix In The Bundle

Steady demand for bundles continues, but legacy bundles are losing relevance with consumers that want next-gen bundles with mobile and OTT video.



The Market Challenge

The golden era of the smartphone is coming to an end and wearables and virtual reality (VR) headsets are not providing enough new growth. How can device vendors and platform providers sustain value and brand loyalty in a commoditised consumer electronics market?

Artificial Intelligence (AI) is portrayed as the solution with vendors marketing digital assistants as the number one feature across multiple new products. But its impact will extend far beyond device sales, fundamentally disrupting digital service market as it changes how consumers interact with content and services, especially in the home.



Ronan de Renesse
Practice Leader

How Ovum helps you

Evaluate the size of the AI-capable device market including handsets, tablets, wearables, VR, smart TVs, smart home devices, set-top boxes and media streamers.

Plan for the next technology revolution in the home across your footprint via realistic predictions and insights on what role to take and which opportunities to go after.

Get quarterly insights on potential market disruptions coming from new technology and device launches, consumer behaviour shifts and company strategy changes.

Get an holistic market view of key competitors or/and partners in consumer technology such as Apple, Amazon, Google, Microsoft, Samsung and many others.

“

Global annual sales of devices with built-in voice-controlled ai will reach 3 billion units in 2021, with 7.5 Billion in use

”

Key Deliverables

Connected-device forecasts – size your addressable market with installed base and unit sales forecasts for handsets, tablets, wearables, VR, smart TVs, smart home devices, set-top boxes and media streamers.

AI-capable device forecasts – support your consumer-facing AI product strategy using our AI-capable devices forecasts by segment, by digital assistant and by country/region

Consumer-tech trackers and reports – Monitor new technology launches in anticipation for market disruptions with our set of consumer technology trackers and “Tech Watch” report series.

Digital consumer insights – understand consumer adoption, usage towards new technology through our surveys and benchmark from across the world.

Themes for 2018

Object smartification and the consumer IoT

The evolution of consumer electronics is shifting from the creation of new gadgetry to the “smartification” of existing objects. Each segment obeys to its own set of rules from replacement cycles to retail and maintenance demands, driving or inhibiting smart living adoption. We provide a unique converged perspective on the smart living device ecosystem by delivering all-in-one device forecast intelligence.

On-Device Artificial Intelligence

Consumer devices deliver AI-powered experiences in many different ways. Benchmarking AI-capabilities is particularly challenging as it is constantly evolving and new use cases emerge all the time. Our trackers, case study reports and AI-capable devices forecast helps focus on the AI features that matter most and how they are implemented on-device.

The future of the home

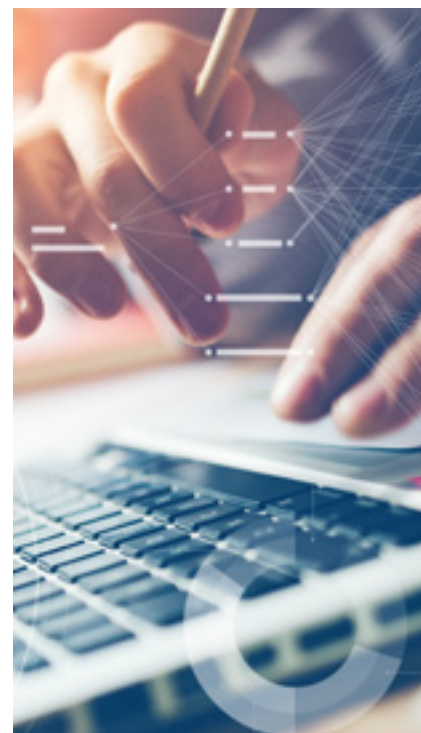
The next technological revolution will be in the home. As it becomes more connected and gains the ability to see, hear, identify people and their location, the home will come to life as a virtual entity. Our research helps track that evolution and prepare for technology changes to come.

Disruptive innovation that matters

The pace of innovation continues to accelerate as barriers to entry for tech development and funding are lowered. The resulting countless number of start-ups focusing on AI, IoT, AR/VR and wearables makes it difficult to track impactful innovation. Our research helps filter through the noise and provides targeted partnership/acquisition recommendations.

New roles for service providers in consumer tech

Service providers have a critical influence on device purchase intentions and are best positioned to evangelise new technology to consumers,



particularly in the home. Our research tracks the device distribution channels of service providers and analyses the emergence of “device-as-a-service” business models, such as Amazon Echo and Snapchat Spectacles.

What's new

Investment and start-up tracker – monitoring key acquisitions, investments and startups in consumer tech

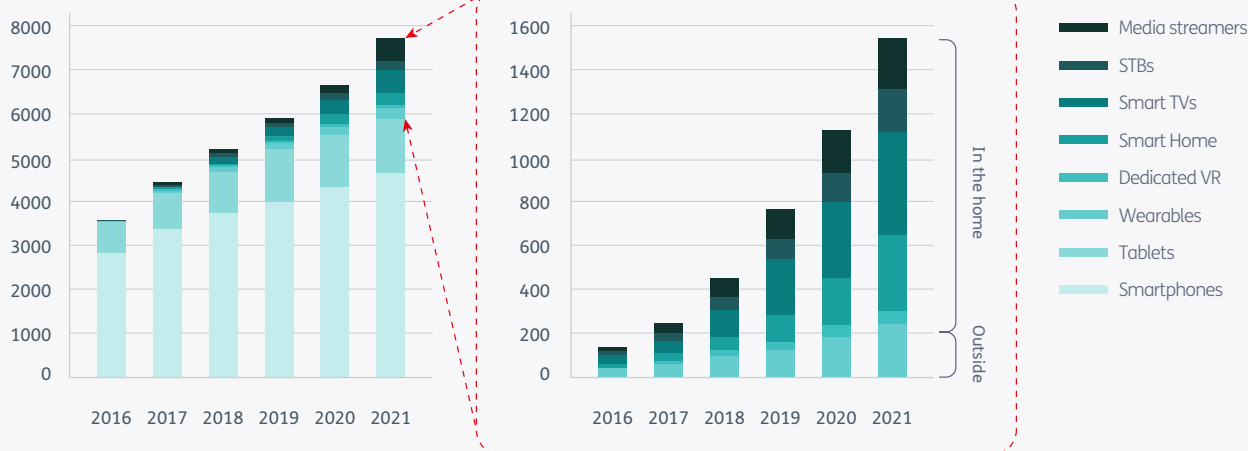
Home hub report series – analysing operator and vendor strategies for next-generation customer premise equipment (CPE)

Expanded forecasts – including smart audio speakers in smart home, country-level data for wearables and virtual reality headsets

In order to showcase some of our data or a conceptual diagram exploring a critical market dynamic. This needs to include:

Voice-AI capable devices offer a large untapped opportunity for digital assistance

Voice AI capable device installed base forecast (millions*)



The Market Challenge

The payments industry is in the midst of huge change, driving considerable acceleration in IT investment. The need to deliver on growing customer expectations and regulatory-driven infrastructure and competition initiatives is driving institutions to create the capabilities for rapid innovation in their offerings for corporate, retail, and SME customers.

Open banking and immediate payments, are the most important catalysts for change, with many institutions now looking to develop significant new capabilities across the middle and back office to support the future of their customer facing offering. Distributed ledger technology and blockchain continues to prove its worth in niche areas, and will become a more important part of serious discussions about the future of certain areas of market infrastructure in particular. However, it is the opportunities that open APIs present to deliver entirely new products, services, and business models is the area that will dominate investment priorities in 2018.



Kieran Hines
Head of Industries

How Ovum helps you

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving payments IT investment agendas at a country and regional level.

Benchmark against your competition, with independent verification of the market leaders, challengers and followers in Ovum's Decision Matrix series.

Stay ahead of the competition, by understanding where and how new entrants, digital service providers and established vendors are bringing new products and services to market.

Key Deliverables

ICT Enterprise Insights – Global survey of payment provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for payments IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendors solutions in

“
Total IT spending on payments-related software and services will reach \$56 billion in 2021
”

key areas, including card management platforms, white label digital wallets, and payment switch

Themes for 2018

Payments and Open Banking: Gateway to the future value chain

With institutions in all territories now actively formulating their open API strategies (the majority regulator-driven), the focus is turning to what this will mean for industry. In the short term, implementation strategy, service innovation (both in retail and corporate), security, data protection and standards are key issues, and will drive the majority of investment decisions. However more essential questions remain, most critically around what open banking really means for revenues, the value chain and future role of banks within it.

Infrastructure to Innovation: Investing to deliver the next generation of payment services

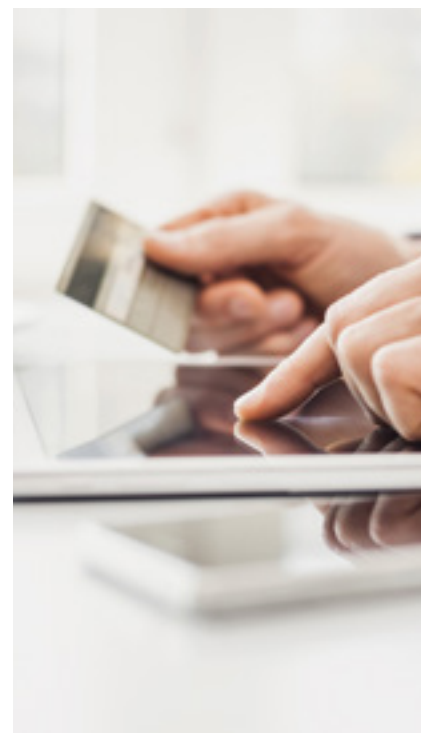
Growing complexity in the payments industry will increasingly require modern, flexible underlying systems and architecture to support growth. In addition to the investment needed to deliver against customer expectations for real-time and digital first services, major initiatives such as immediate/real-time payments and steady growth in the development of blockchain/distributed ledger technology across correspondent banking and trade finance in particular will be key drivers of activity.

Identity, security and payment fraud threat: Finding opportunities in risk mitigation

Managing the risks around fraud and financial crime are core to the business model, but the evolving nature of the threat and growing challenge of cyber-security put these high on the industry agenda. In retail payments, the need to balance risk against the customer experience means that biometric authentication, artificial intelligence, predictive analytics, and the technologies like 3D Secure 2.0 will prove critical. At the same time, interest in supporting digital identity assurance will provide clear opportunities to provide new solutions to customers.

Reducing frictions and driving transactions: The changing role of payments in an omnichannel world

With the customer experience now the focal point for innovation, if not outright survival in many merchant segments, payments has a key role to play in how businesses of all types interact with their customers. Merchants will increasingly demand payment services that can be



seamlessly embedded within any number of commerce experiences, devices and contexts. For the industry, the need to support this diversity of options will require new thinking and particularly around security. Developments in high growth markets such as China and India will provide important lessons for the rest of the world.

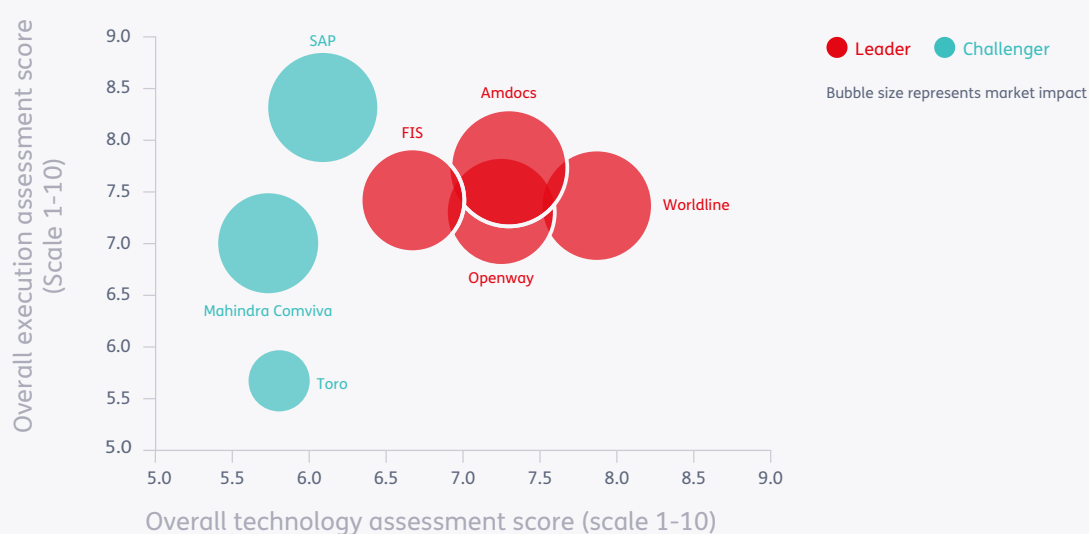
Analyzing global services contracts

We track the evolution of ICT managed services as these expand to include applications services and performance management, and cloud-based service delivery. Ovum maintains an IT services contracts database (ITSCA) as well as uniquely monitoring global services deals from telcos. Together, these provide the most comprehensive picture of the changing shape of the deal in enterprise managed services, in region and globally.

What's new

Payments Software Contracts Analytics – Global analysis of packaged software deals, segmented by institution, vendor and solution area

White-label mobile wallet solutions, 2016-17



Enterprise Services

Advanced Digital Services	45
Network Transformation & Cloud	48
Workspace Services	51
SoHo & SME Services	54
Customer Engagement	57



Evan Kirchheimer

Research Director

Enterprise Services

“ Ever-more businesses are running existing and buying new ICT as managed or cloud-based services. Digitization means that providers, whether IT or telecoms-heritage, must also transform themselves, and how they build, sell and support their services ”

The Market Challenge

For years, cost management, network resilience, and security have been the overriding priorities in enterprise network investment. Variations on these themes have appeared as top three user priorities every year in Ovum's research. That focus has changed as the driver for enterprise IT investment has switched from operational criteria to business outcomes. Now, next-gen services such as cloud computing, mobility, and the digitization of business processes are setting the pace for business productivity. But how do enterprise buyers decide priorities for technology investment?



David Molony
Practice Leader

How Ovum helps you

Showing how enterprises can undertake to be agile, cloud-based, and increasingly automated as part of their digital business transformation.

Identifying new developments in enterprise digital services, and show where enterprises can get support for applications modernization and migration to cloud.

Growing digital connectedness makes multinational enterprises an appealing target for cybercriminals. We look at where enterprises can get help in managed security services like threat intelligence.

Transforming customer experience and place the customer at the heart of decisions about business process and new product/service development.

Key Deliverables

Ovum Decision Matrix – helping enterprises selecting a service provider partner for managed security.

IT services contracts analytics – weekly updated tool covering contracts signed by major service providers.

Enterprise CIO surveys – covering services priorities for large enterprises and MNCs, in multiple geographies and industries.

Forecasts for digital and cloud services – enterprise IT services and cloud services forecasts split by company size, country, and industry vertical; telco-managed ICT services forecasts by service type, to geographic region and industry vertical.

“

More than 40% of large businesses have outsourced applications modernization in 2017/18 for core workloads, overtaking data center and end-user compute

”

Service provider strategy updates – analysis of new digital services and business services models from top providers, with a particular focus on strategies in applications services and managing customer experience for multinationals.

Themes for 2018

Application services modernization

Business applications modernization and agile process transformation go hand in hand when it comes to building the adaptive enterprise. We examine how global systems integrators and other service providers are changing the way they deliver and maintain offers in managed business applications, especially Oracle, SAP and Salesforce. At the same time, we evaluate the features of these applications vendors' own platform-based offers and assess whether they are competitive with service providers and SIs, or will require new forms of partnership.

Application of automation technologies

We examine how service providers are putting automation technologies to use where it matters. Their tools may be RDA, RPA, AI and cognitive techniques, chatbots and intelligent assistants, but what they use is less important than the proof points and use cases for improved services. We track and evaluate service providers' automation capabilities and their ability to serve customers with industry-specific requirements.

Successful service management

Service provider success depends on placing the customer at the heart of decisions about business process and new product/service development. In this stream we examine how service providers are building out infrastructure and services to support the business customer throughout their digital transformation.

Securing the hybrid organization

Cyber-attacks have sent many enterprises into disaster recovery mode, and are a particular concern in C-suites. In this stream we describe service provider efforts to combat malware and data theft by deploying advanced cybersecurity analytics and threat intelligence as part of a managed security services portfolio that includes security operations centers (SOCs) for central monitoring and customer relationship management to support response teams, process compliance management, and conduct real-time risk analysis across the business.



Analyzing global services contracts

We track the evolution of ICT managed services as these expand to include applications services and performance management, and cloud-based service delivery. Ovum maintains an IT services contracts database (ITSCA) as well as uniquely monitoring global services deals from telcos. Together, these provide the most comprehensive picture of the changing shape of the deal in enterprise managed services, in region and globally.

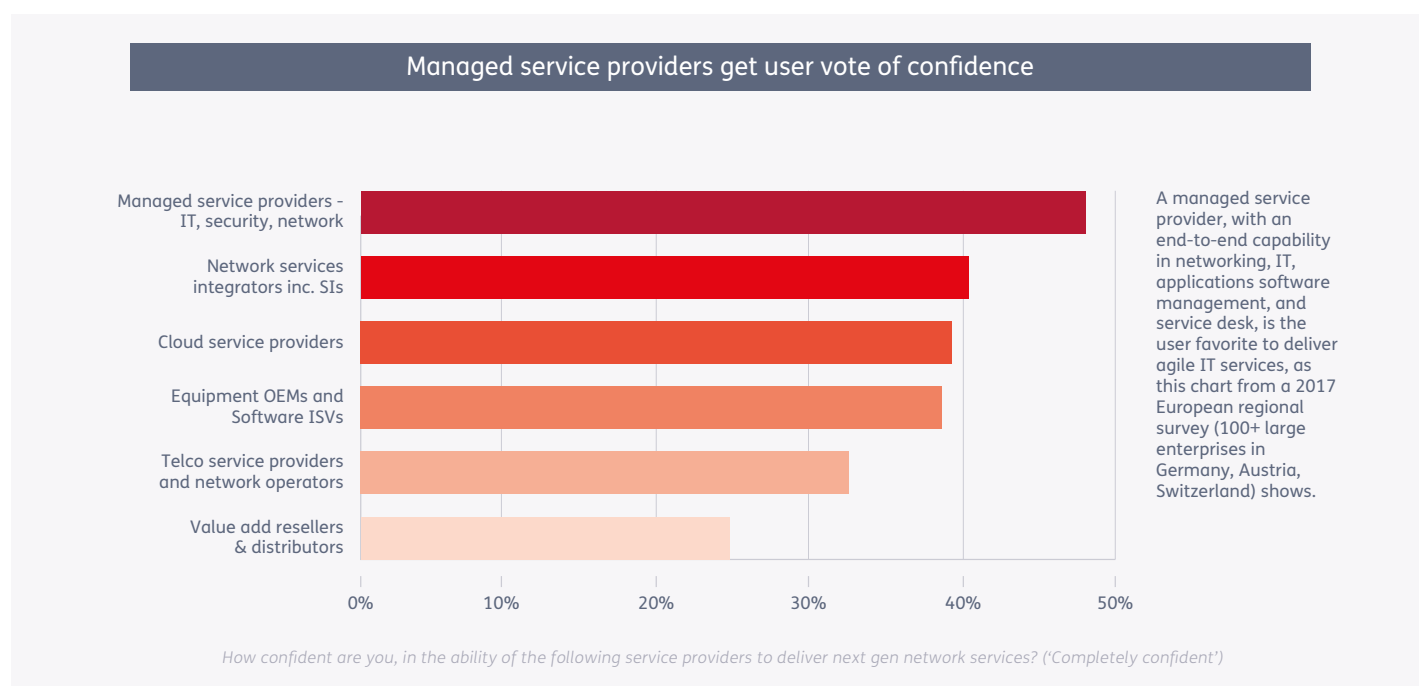
What's new

Cloud innovation services out of Asia-Pac – extending our case studies to examine the overall market impact of new cloud services

SI strategies in IoT integration services – most SIs are betting big on IoT as they recalibrate their strategies. How will partner ecosystems change and what can a vendor do to adapt?

Digital platforms – tracking the emergence of digital platform-based service models

The convergence of provider types – changing partnership and competitive models between telcos, systems integrators, and webscale players



The Market Challenge

Network and cloud combined let enterprises bond together local and remote IT resources. But providers' big and bold top-down attempts to force cloud and network together so far have gone badly. Cloud computing is led by a few dominant providers that let enterprises centralize, virtualize and automate IT infrastructure efficiently. Network providers are separately wrestling with fundamental changes, as their logical and physical networks must migrate to software and greater automation. Evidence shows that cloud and network do succeed together when they consider customer needs, and provide services that secure, remove complexity and lower costs for enterprises' highly complex heterogeneous IT environments.



Brian Washburn
Practice Leader

How Ovum helps you

Understand how competing service providers are re-engineering their networks to provide more adaptable, software-based WAN services.

Determine the customer requirement for evolving network services and invest accordingly.

Identify the partners required to deliver a transformational network service.

Compare the managed services strategies of leading cloud service providers.

Explore enterprise decision-maker managed and hybrid requirements.

Key Deliverables

Network Service Provider Update – track the emergence of transformational network services from leading providers

Cloud Service Provider Update – understand the complex provider landscape for managed hybrid services

VPN and SD-WAN forecasts – size the market for evolving network services and plan for growth by segment

Cloud and Network CIO Insights – get into the heads of key enterprise decision makers

“

Together, both increased adoption of public cloud services and the need to drive more insight out of enterprise and customer data using analytics are identified by over 50% of enterprises as key drivers of further network investment

”

Service provider innovation case studies – short insights into leading-edge providers deploying new technologies and services

Themes for 2018

Emerging multi-cloud and programmable network environments

Enterprises consume services from a range of providers. Cloud providers and integrators are looking to manage and orchestrate enterprises' multi-cloud and hybrid IT environments. Network providers aim to participate, assigning bandwidth and other resources on-demand. We focus on the provider models and enterprise services that justify investment, while keeping in focus the counter-strategies of commodity services.

Security and resilience to protect enterprise assets

Enterprise customers have grown more confident in the security and resilience of public cloud platforms. The challenges we cover include how to architect secure enterprise-class solutions for those platforms; how enterprises integrate those elements within their wider IT estate; and how they maintain and manage security of IT assets in an environment where perimeters are no longer fixed.

Innovative Commercial and Operational Service Models

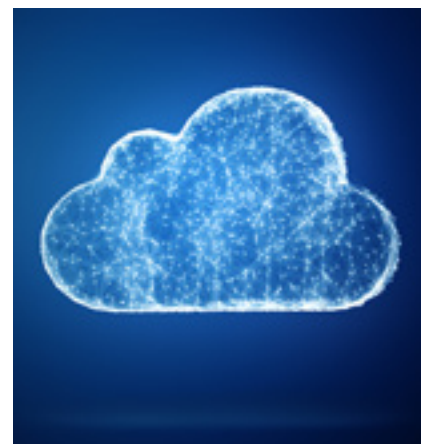
Enterprises demand simplified ways of buying, operating and managing their cloud and network resources. We follow the best practices adopted by service providers to streamline their operations, identify and engage customer leads, partner strategically to deliver against customer needs, and provide high-quality support.

Successful Service Models for Virtualization

Virtualization is the future, but providers must build their own roadmap for effective resource usage, whether their goal is building software defined data centers or the software defined network. We monitor the inflection points for providers to orchestrate and manage applications and workloads in a flexible hybrid IT environment.

End-to-end Transaction Performances

Enterprise buyers have been increasingly interested in turnkey services, driven by the applications platform. We assess best practices of service providers aiming to deliver end-to-end transaction performance for applications, workloads and micro-services.



What's new

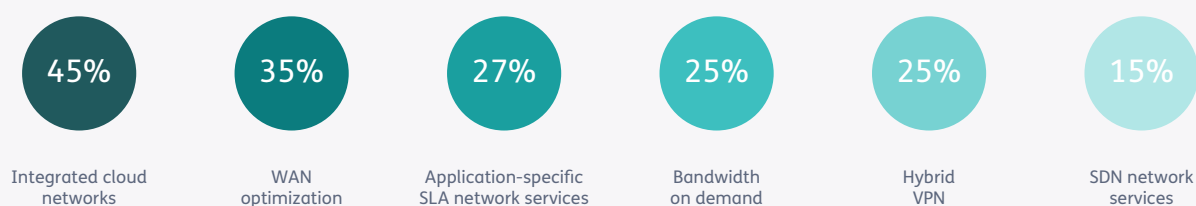
Increased coverage of transformational network services (SD-WAN)

Enhanced focus on network and cloud services management

Improved insight into service provider evolving commercial models

Will any of the following network services be more important to your organization?

(Top 6 below; respondents picked top 2)



High levels of public cloud adoption will lead to increased adoption of converged network/cloud services, such as those enabled by Amazon Direct Connect or Azure Cloud Connector.

The Market Challenge

Enterprises looking to transform business processes typically want to improve employee productivity, enhance customer service and reduce costs. The introduction of new workplace technology and services goes hand-in-hand with new ways of working. Businesses are looking for service providers that can help them make this difficult and complex transition.

Service providers are building on their traditional enterprise mobility, UC&C, workspace virtualization and managed security capabilities. They need to build their capabilities beyond these services into new areas of technology and into a professional services-led approach if they are to be successful partners for enterprises. It is an increasingly complex play.



Pauline Trotter
Practice Leader

How Ovum helps you

Ovum's research will help service providers build their workspace services offers and help enterprises select service provider partners that meet their needs.

Identify the growth markets for workspaces – size the market opportunity and identify which verticals and geographies will be key.

Build the portfolio – the important technologies and services identified through our research with enterprises.

Transform services – advice on where to partner and where to build expertise, how to improve delivery and support.

“

North America will remain the top market for uc services, valued at \$12bn by 2021

”

Key Deliverables

Ovum Decision Matrix – aimed at enterprises selecting a service provider partner for workspace services.

Enterprise CIO surveys – covering both large enterprises and SMEs in multiple geographies and industries.

Forecasts for enterprise communication services – enterprise mobility and unified communications and collaboration forecasts split by company size, country, and industry vertical.

Case studies – real enterprise experience in evaluating, selecting, implementing, and measuring benefits from advanced communications services.

Tracker – workspace services tracker keeps you up to date on market events, new services, partnerships and deals.

Service Provider strategy updates – provide insight and analysis on new workspace services and new business models for the top providers.

Themes for 2018

Evolution of mobile workspace services

Service providers have been evolving their mobile workspace offers to incorporate UC&C services, workspace virtualization, adding managed security, service delivery and end user support. As this market evolves, we expect service providers (including telcos, SIs, ITSPs and specialist managed service providers) to focus on helping enterprises deliver on their mobile workspace strategies. This includes building up their professional services skills, integrating new technologies, applications and tools into their services and bringing in new types of partner.

Workspace services for SMEs get more sophisticated

Service providers have traditionally served their SME customers with unsophisticated communications services. Many are now focusing strongly on the SME opportunity and are building richer services, adding messaging, collaboration, conferencing and other functionality to voice. We expect offers to mature further as SMEs, like their larger counterparts, look to improve their competitiveness through the introduction of new technology. This will meet the demands of a younger workforce looking for more flexible and mobile ways of working.

Enterprise priorities in workspace services

As enterprises worldwide continue to act on their digital transformation strategies we anticipate continued investment in services and technologies to support employees with new flexible and mobile ways of working. Many companies are interested in what place new technologies – such as workplace IoT, mixed reality, machine learning and automation – can have within their organisations in driving innovation, greater productivity, and improved customer service.

Evolution of enterprise communications

How businesses consume communications services and deploy communications technology will considerably change over coming years. Solutions dedicated to communications and collaboration will continue to be sold to businesses. But more and more communications will be embedded into a diverse set of software. For example, CPaaS will integrate communications into business apps, IoT will trigger communications events based on alerts, and natural language



interfaces will provide new ways for employees and customers interface with collaboration apps.

Mobilizing the workforce

Technology evolutions and continuously changing employee needs are driving new approaches to how enterprises manage and secure devices, apps, identity, and the data that runs across them. Enterprise mobility solutions are evolving, offering new capabilities such as cognitive analytics, identity management and single-sign on, unified endpoint management features, and advanced group policy management functionality. These advancements will support enterprises in more effectively managing a more diverse device, OS, and data estate.

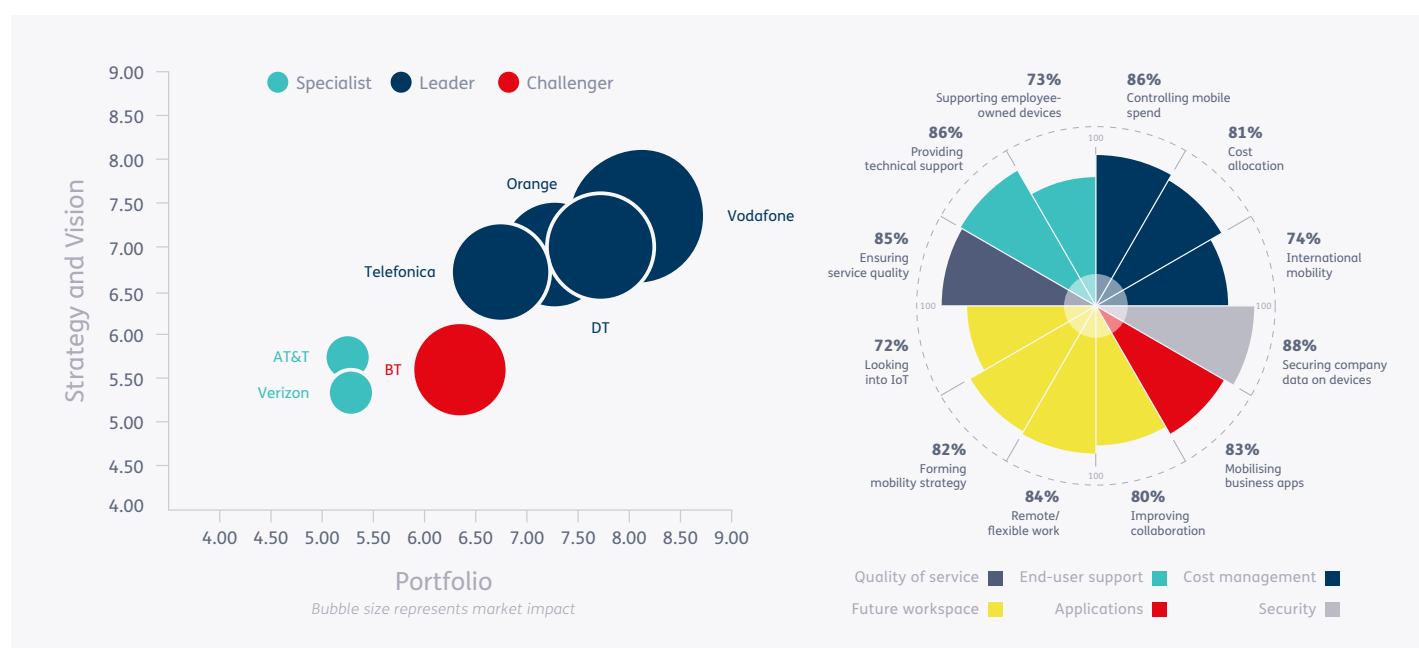
What's new

The place of new technologies in the workplace – extended coverage into new areas

Service provider strategy updates – case studies of new services and business models from service providers

Whole market view – the enterprise workspace market in the context of the whole market

New provider types – coverage of new entrants and SI competitors



The Market Challenge

For digital service providers, reaching the small business universe presents unique challenges: they often look like mass market customers, but have more complex needs. Their technology requirements vary by industry but their internal IT is often under-skilled or absent. They crave support, but don't have the customer lifetime value to justify a dedicated account manager.

Most irritating, these realities add up to a customer that – for now at least – won't usually self serve.

Cracking this profit conundrum demands the right channel mix, a value proposition calibrated to the right buyer persona and a pitch with a light industry-specific veneer.



Camile Mendler
Practice Leader

How Ovum helps you

Empower – identify compelling, profitable digital services that help smaller businesses thrive.

Simplify – craft integrated propositions that overcome digital service providers' internal silos to address customers' validated needs.

Engage – determine the correct blend of physical and virtual channels to engage different buyer personas.

Support – help bridge the digital skills gap between small and large businesses, and accelerate transformation.

“

Nine of 10 SMEs believe digital services can improve their business – but half say they are digitally illiterate

”

Key Deliverables

SoHo and SMEs Insights – digital demand perspectives across developed and growth economies.

Profiles and case studies – highlighting success and key learnings in addressing the small business universe.

Telecom Cloud Monitor – tracking key cloud-related activities among 400 CSPs around the world.

Forecasts across major B2B services – consistent segmentation for SoHo and SMEs across core cloud, UC, broadband services.

Rapid analysis – the implications of key market happenings.

Themes for 2018

Virtualizing the SME

Small businesses are increasingly dependent on the capex light, as-a-service model. But deploying the right blend of digital services remains a challenge for buyers and sellers alike. Ovum continues to deliver pragmatic guidance which match service bundles – such as cloud apps, collaboration tools, security, SD WAN, etc – to the right customer through ongoing end-user research and supply side analysis.

Superfast SMEs

New superfast services based on G.Fast, FTTP, dark fiber unbundling – and not least 5G – should transform small businesses productivity. Through end-user research and market benchmarking, Ovum will help service providers develop compelling value propositions that go beyond high speed and low prices in order to capture attention and loyalty.

Architecting the B2B channel

Sales through partner channels are rising, but so is competition to sign up the best partner. Service providers must identify the best fit of partner to complement their portfolio and deliver the client intimacy that small businesses demand. Not least, they must also develop value propositions, tools and systems to make their channels loyal and productive. Ovum assesses partners and partner programs focusing on the small business universe.

Digital engagement with small businesses

Nine out of 10 service providers identify delivering a personalized customer experience as a top business challenge. Extending this aim to the small business segment – a difficult hybrid of consumer and business needs – presents special problems. Ovum can guide on best practice based on end-user research and case studies addressing key themes in digital engagement, online reputation building and self service.

Monetizing the informal economy

The informal economy of traders, craftsmen and other unconventional entrepreneurs is a potentially vast opportunity for service providers in emerging markets. Based on field research and benchmarking, Ovum offers practical approaches to mining this shadowy segment.

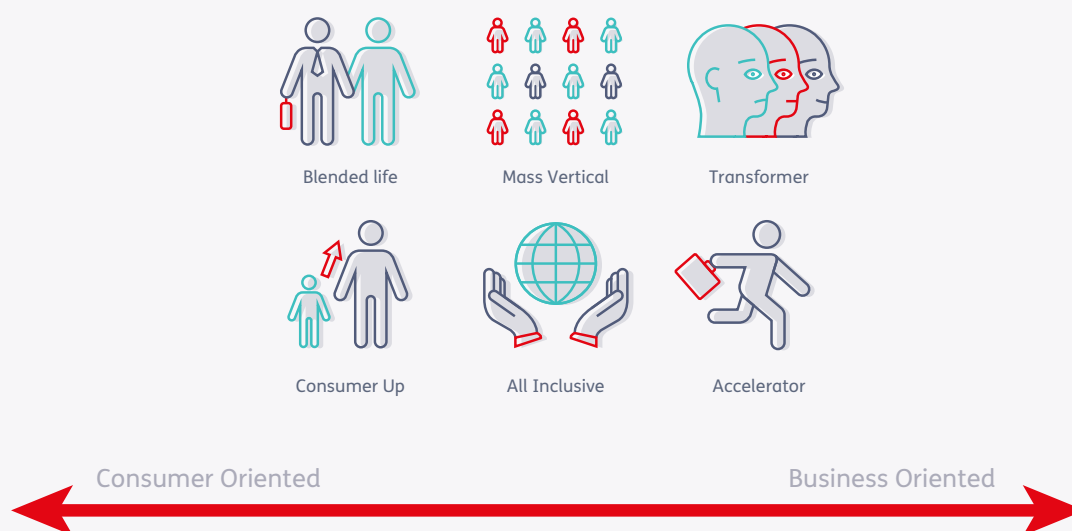


What's new

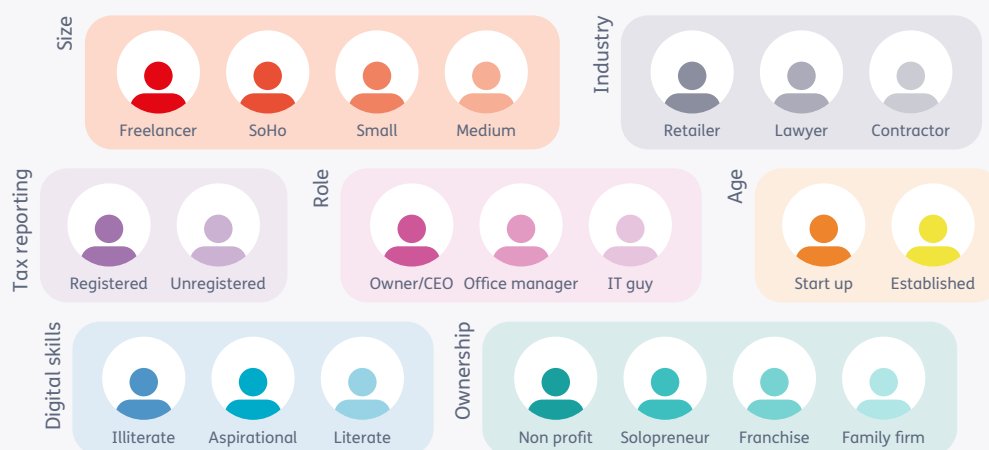
Channel programs – identifying the right partner, comparing approaches to boosting productivity and loyalty

Global B2B Demographics Tool – a Rosetta Stone to the global B2B universe to support targeting and opportunity sizing – will be upgraded with additional countries, and estimates on the informal economy

Selling to SoHos and SMEs: Value proposition



The diverse facets of the small business universe



*Non exhaustive



The Market Challenge

The fundamental challenge for any enterprise is to meet the expectations of its customers, patients, citizens or students. This perennial challenge is getting harder, as customers, empowered by technology and digital experiences demand more. Enterprises which fail to meet this challenge run the risk of irrelevancy.

To keep pace with technology and meet customers' expectations, enterprises must continuously evolve their approach to service delivery. They must build an agile architecture that allows them to quickly scale, enables frictionless experiences across all channels and devices, and be able to respond in real time to customers when and where they need assistance. No enterprise can afford to be a customer service follower, and to remain relevant should strive to engage with the customer proactively, not reactively.



Tom Pringle
Head of Applications Research

How Ovum helps you

Understand – and act on the challenge of moving beyond omnichannel to maintain relevancy in the digital age.

Learn – about continuous innovation and the culture required to support it to deliver on customers' expectations.

Explore – and plan for a customer-centric architecture that composes unique customer experiences without compromising standards.

Identify – and evaluate practices and technologies for keeping up with constantly evolving customer behaviors.

Understand – enabling technologies and vendors which can help enterprises orchestrate customer engagement across any combination of channels.

Key Deliverables

How to building the omnichannel foundation – analysis and guidance on developing the omnichannel foundation

How to create the conditions for rapid adaptation – through innovation in products, services and business models

The role of ecosystems in continuous innovation – how to develop an effective ecosystem of partners for continuous innovation

“
90% Of enterprises are failing to create and deliver new digital services yet top line growth is the number one business challenge
”

Leadership roles in digital transformation – who should help the CEO transform the enterprise?

Themes for 2018

Building an omnichannel platform foundation for customer engagement

Enterprises must proactively engage with customers along their digital and physical journeys at the right time, place, and device. This can be achieved with the building blocks of an omnichannel foundation; including integrating modern CRM platforms with back office, logistics and systems of engagement, and deploying technologies to enhance in-context collaboration and create personalized experiences. With this foundation in place, omnichannel can be augmented with supporting technologies from Robotic Process Automation to eliminate repetitive tasks and integration of AI and machine learning to dynamically orchestrate the customer experience, through Virtual Assistants to support intelligent customer self service.



Developing a customer-centric culture for the adaptive enterprise

Enabling omnichannel must begin by developing a cultural and organizational orientation around the voice of the customer before architecting the customer journey. For a customer-first enterprise to take hold, enterprises must align people, processes, and technologies via the vehicle of digital transformation, to deliver proactive customer engagement. Customer-first thinking must be infused into every aspect of the organization, standards and policies must deliver on CX, and culture must link to the mission. Unification and open access of technologies must occur through unified interfaces, customer engagement hubs, and cloud-based workforce management so the customer journey is always in view.

Designing a flexible, scalable architecture for composing personalized customer experiences

Changes in the fundamental structure of customer engagement – hardware to software, on-premises to cloud, live-agent assistance to artificial intelligence-powered chat bots, analytics, and mobile everything – is driving change in the architecture and processes of customer engagement. Global reach and scale is a necessity as customers expect standardization across international organizations: they also expect a tailored experience. To achieve this requires a flexible architecture, built upon a concert of services which allow for constant technology evolution, and the delivery of a market, geographic, and enterprise-specific “composable” personalized experience in real-time –

while adhering to the framework of corporate standards and compliance requirements.

Customer engagement solutions must prioritize superior security and privacy to build customer trust

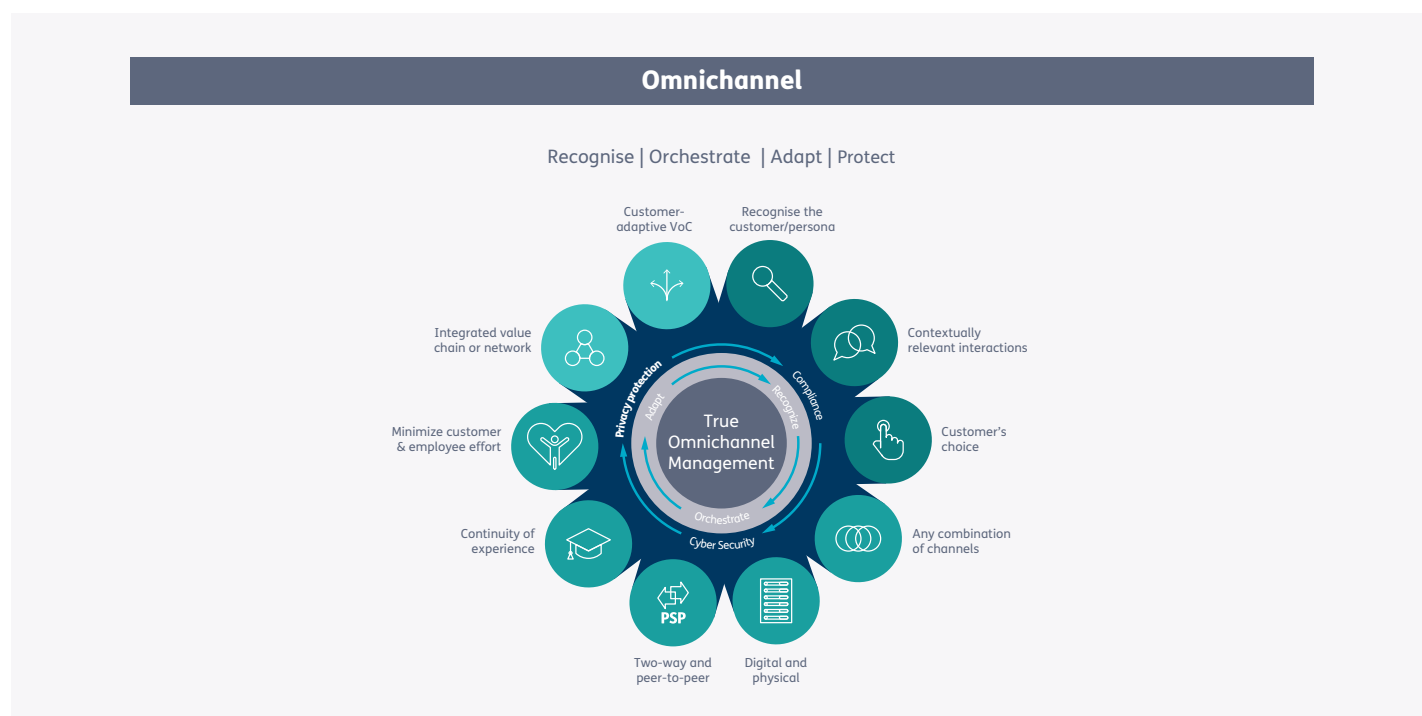
Whether through accident or malfeasance, sensitive data can be exposed through holes in the expanding digital marketplace, with potentially great harm to customer and enterprise alike. Enterprises must ensure compliance with regulation regarding customers' identifying data, such as GDPR, and respect privacy choices. Taking this approach will realize the benefits of being a trusted brand. Technological answers for enterprises need to cover considerable ground, from applying big data analytics and machine learning to fraud detection, through implementing unified privacy standards across multiple databases, applications and a growing device landscape encompassing the IoT.

What's new

Understand how CX microservices can be consumed to adapt and augment omnichannel customer engagement

Consider Robotic Process Automation and how it can be used to boost customer engagement capabilities and improve the working environment for employees

Explore the possibilities to harness a portfolio of feedback mechanisms to drive customer relevance and rapid adaptation



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Alexandra Rehak

Practice Leader

IoT and team

“ As the IoT market evolves, industry players must see past the ‘big numbers’ hype to pinpoint the right market approach – where to play in the value chain, how to flexibly support multiple technologies and partnerships, how to help different industries manage the impact, and how to reorient business models to maximize benefits from IoT investments ”

The Market Challenge

The IoT Markets and Ecosystems channel helps customers understand major trends driving the IoT market. Focus areas include how different IoT services and component technologies are growing, where to position, and the most important areas for partnering and investment. We provide expert views on which industry verticals are first adopters, fast followers or late arrivals to the IoT party.

Sizing the different elements and opportunities within the IoT market is critical for understanding IoT growth in different geographies and technologies. Enterprise and public sector customers, as well as providers, are also facing the challenge of working with (or being disrupted by) transformational business models enabled by the IoT. Industry enablers – including investment trends, ecosystems around key IoT technologies and verticals, and the impact of regulation – are also important for IoT market development.

How Ovum helps you

Understand and identify the right positioning in the IoT value chain and ecosystem – Ovum's IoT analysis and forecasts help technology and service providers to leverage their particular strengths, understand the size of the different opportunities and evaluate the options for partnering versus own-build solutions.

Develop successful, informed product and services strategies – our trackers and reports provide examples, case studies and recommendations, whether providers are looking to offer full end-to-end solutions for their customers or instead focus on just one or two layers of the stack, or on specific verticals.

Build go-to-market strategies that cut through the IoT hype – Ovum's competitive analyses, surveys, and market overviews provide a detailed view on market gaps, customer pain points and best-practice marketing and channel strategies, to help providers sharpen and communicate the unique value they are offering.



Alexandra Rehak
Practice Leader, IoT

“

87% Of companies deploying iot projects are doing so across multiple areas of their businesses, although only 38% see iot as part of a wider transformation initiative

”

Key Deliverables

IoT Market 5-year Forecasts – size the market, prepare for technology and vertical growth, identify key revenue opportunities

IoT Insight Survey 2018 – deep-dive understanding of enterprise buyer trends, preferences, drivers and challenges

IoT Technology, investment and contracts trackers – stay up to date with competitor, investor, and deployment activity

IoT Service Provider and Vendor Strategy profiles – in-depth profiles of the leading market players and how their strategies are evolving

Connected cars and smart cities data and reports – understand these key vertical markets with forecasts, project and partnership databases, forward-looking technology and trends overviews



Themes for 2018

Making the right technology choices

The Internet of Things is not going to be a single-technology market. M2M and LPWA, short-range and satellite – the variety of IoT technologies, platforms, and associated use cases continues to proliferate. There is also a multiplicity of options around analytics, security, and cloud integration. Making informed IoT technology choices is complex, for providers and their enterprise customers. Understanding which technologies suit which IoT use cases and environments will be important for all market players, and critical to maximizing the chance of successful IoT deployments that deliver business and social benefits.

IoT as a multi-speed market

There will be multiple paths to success in the IoT market, as different service providers and technology players are starting from different positions and bring different strengths to the table. For some, it will make sense to build and own as many elements of the IoT solution stack as possible. For others, a wholesale or reseller route may be more effective, or focusing solely on the domestic market or a limited number of verticals may be appropriate. On the demand side, different industries will move at different speeds, for IoT adoption, and providers must be flexible enough to adjust their approach.

Transformational IoT business models

From usage-based insurance to lighting-as-a-service, the IoT is enabling a variety of new business models in both fast-moving and more traditional industries. Service and technology providers need to understand these business models, and help their customers to implement and manage the transformation. As the IoT moves into the next phase, business models built around leveraging IoT data in various ways will also become an important – and disruptive – force in many industries.

The competitive IoT landscape – coopetition and partnering

Partnering and acquisition are important elements of strategy for IoT technology and services providers, allowing players to fill in gaps in their portfolios and deliver end-to-end IoT solutions for customers seeking simple, clear propositions. But partnering for the IoT will require unprecedented breadth and flexibility, as service and technology providers must work with a wide variety of players to address different use cases and customer types. Ovum's 2018 research will explore the most successful strategies for IoT partnering, the ecosystems developing around key verticals and technologies, and how 'coopetition' can be an effective strategy for success.

Analyzing global services contracts

We track the evolution of ICT managed services as these expand to include applications services and performance management, and cloud-based service delivery. Ovum maintains an IT services contracts database (ITSCA) as well as uniquely monitoring global services deals from telcos. Together, these provide the most comprehensive picture of the changing shape of the deal in enterprise managed services, in region and globally.

What's new

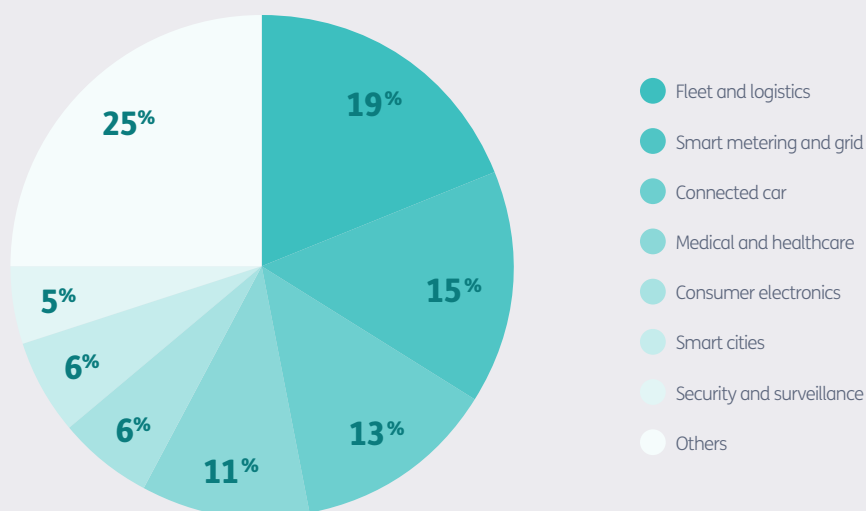
IoT Total Addressable Market Forecast – Vertical, technology, applications breakouts

Connected Car deep-dive coverage – detailed sector forecasts, trends analysis for autonomous driving and connected car ecosystems, competitive and OEM strategies

Smart Cities database and strategy reports – detailed smart cities project database, investment opportunities analysis, and holistic views of smart cities opportunities, strategies, go-to-market and procurement approaches

Enabling Next-Gen Technologies report – IoT and AI, IoT Analytics, IoT Security, IoT and Blockchain

Share of contract awards by application vertical, 2009 - 16



The Market Challenge

Platforms and technologies sit at the heart of the transformational capabilities of the IoT. Making appropriate technology choices for IoT deployments and applications, and understanding which technologies suit which verticals and situations, are critical for both providers and end customers. Likewise, gaining a view on the initial and ongoing costs of both hardware and services are core challenges. Understanding the options and implications of associated and enabling IoT technologies including security, analytics, blockchain and AI, is also critical.

For providers, the challenge is to deliver flexibility and functional differentiation in IoT technology offerings, in the context of a maturing but still highly-charged IoT market. Success requires a clear view on M2M and LPWA technology deployments and take-up, the most important IoT platforms and how these are evolving and becoming more modular, and the different technology strategies of leading industry players.



Alexandra Rehak
Practice Leader, IoT

Service Provider Strategies

The Market Challenge

Competitive and partner analysis of the strategies of leading communications service providers in the IoT market is a key ingredient for any successful IoT provider. Service providers have many choices to make in developing IoT strategies. Fundamentally, how (and how far) to move beyond the connectivity-only approach to serving IoT customers is the core question. There are a number of potential paths to success depending on the service provider's positioning, relationships, technology strategy and overall approach to market.

Competitive analysis and best-practice case studies offer insight on how leading players are building their IoT organizations, how partnerships are struck and structured, which areas service providers are investing in, and where they sit on the 'build-vs-buy-vs-partner' spectrum in their approach to the IoT market – all core questions for market players.

The Market Challenge

Vendors targeting the IoT market face a number of important challenges. These include how to develop, and support, multiple technologies for IoT; how to ensure smooth integration with a much wider variety of customers, partners and existing IT and operational environments; and how far to progress down the path to service delivery vs hardware provisioning. The IoT demands a more flexible and software-centric approach to network and application deployment – and a far deeper understanding of customer business processes.

At the same time, vendors need to find a path to scalability, in building out their IoT solutions. Doing so, in a diverse, complex, and rapidly evolving IoT market, will depend heavily on making the right choices – for investment, for partnering and for market positioning.

Industry Verticals

The Market Challenge

The key challenge for end-user organizations, and for providers, is that IoT take-up, applications, technologies and business models look very different across different vertical industries. Understanding how to accelerate IoT adoption and impact in those verticals where it is most appropriate to do so, and what technologies and business models can enable that, will be a key differentiator for technology providers.

The most important questions in each vertical include: what is the benefit of IoT for our organization and customers? How can we translate this to a compelling, sustainable business case? How much will the IoT disrupt our business and my industry – and how can we position to benefit from that rather than being left behind? And how can we leverage it to deliver not only cost savings and efficiency, but greater customer satisfaction and new revenue streams?

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Nicole Englebert

Director of Research & Analysis
Technology

“ Service providers and their vendor partners are grappling with an era of business model and network transformation, where technology is critical to market success ”

The Market Challenge

Communications service providers (CSPs) are under intense pressure to transform their IT systems, software and business processes to compete in the digital world.

CSPs will need to deliver a personalized and contextual customer experience, bolstered by improved partner management systems, customer journey mapping and omnichannel strategies. Digital transformation will also require the adoption of SDN/NFV and cloud-based delivery models. To support these CSPs will need to streamline and automate telco IT systems and make effective use of AI and advanced analytics tools. These changes will also have a fundamental impact on CSP operations as they shift to DevOps, microservices and cloud native practices.



Kris Szaniawski
Practice Leader

How Ovum helps you

Help telcos understand their business and digital transformation priorities and position themselves against their peers.

Support telcos with their IT investment and buying decisions, including product assessments.

Identify telcos' decision criteria for selecting platform and service partners to enable digital transformation.

Understand the main growth opportunities across the complex telco IT landscape.

Evaluate vendor competitive position in key solution areas versus peers from NEP, ISV, and CSI backgrounds.

Identify new product, service, and partnering opportunities in a rapidly changing and increasingly complex ecosystem.

“

Launching digital services and creating a personalized customer experience are top priorities for over 80% of CSPs

”

Key Deliverables

Coordinated set of forecasts covering Telco IT (OSS/BSS) revenues, telco vendor services (network and IT services) revenues and Telco spend.

Research on changing telco operations, including the impact of SDN/NFV on telco IT systems, preparing CSPs for the transition to microservices and making the move to DevOps.

Research on improving the customer experience, including strategies for managing and monetizing the growing telco partnership ecosystem and customer journey management.

Ovum Decision Matrices evaluating leading telco IT solutions, including BSS and analytics.

ICT Enterprise Insights in the Telecoms Industry CIO insights and investment plans in key telco IT areas.

OSS/BSS contract analytics interactive tool with global coverage.

Themes for 2018

Successful strategies for digital transformation and the impact on telco IT

Digital transformation is a priority for telcos, but many are still unclear how to undertake this journey. Through a series of industry case studies, thought-leadership pieces, and surveys; Ovum will provide guidance on how CSPs can make the transition to DSP and identify vendor opportunities.

Making the move to intelligent telco operations

Intelligence and automation will play an important role in the transformation of CSP operations as they aim to “work smart”. Ovum will explore the potential of technologies such as AI and analytics to enhance and automate CSP operations and will evaluate vendor solutions for the telecoms industry. Ovum will also explore the changes telcos need to make to support IoT, 5G and digital services.

Strategies and technologies for the delivery of a personalized telco customer experience

CSPs must deliver a personalized and contextual customer experience to compete in the digital services market. Ovum will explore how CSPs can leverage OSS, BSS, and intelligence to understand and personalize the customer journey. Focus will be placed on how CSPs can improve customer experience for both B2C and B2B customers and the impact of emerging areas such as IoT on the growing CSP partner ecosystem. Ovum will provide thought-leadership on strategies for improving the customer experience and vendor analysis.



Vendor services evolve to support new modes of telco IT operations

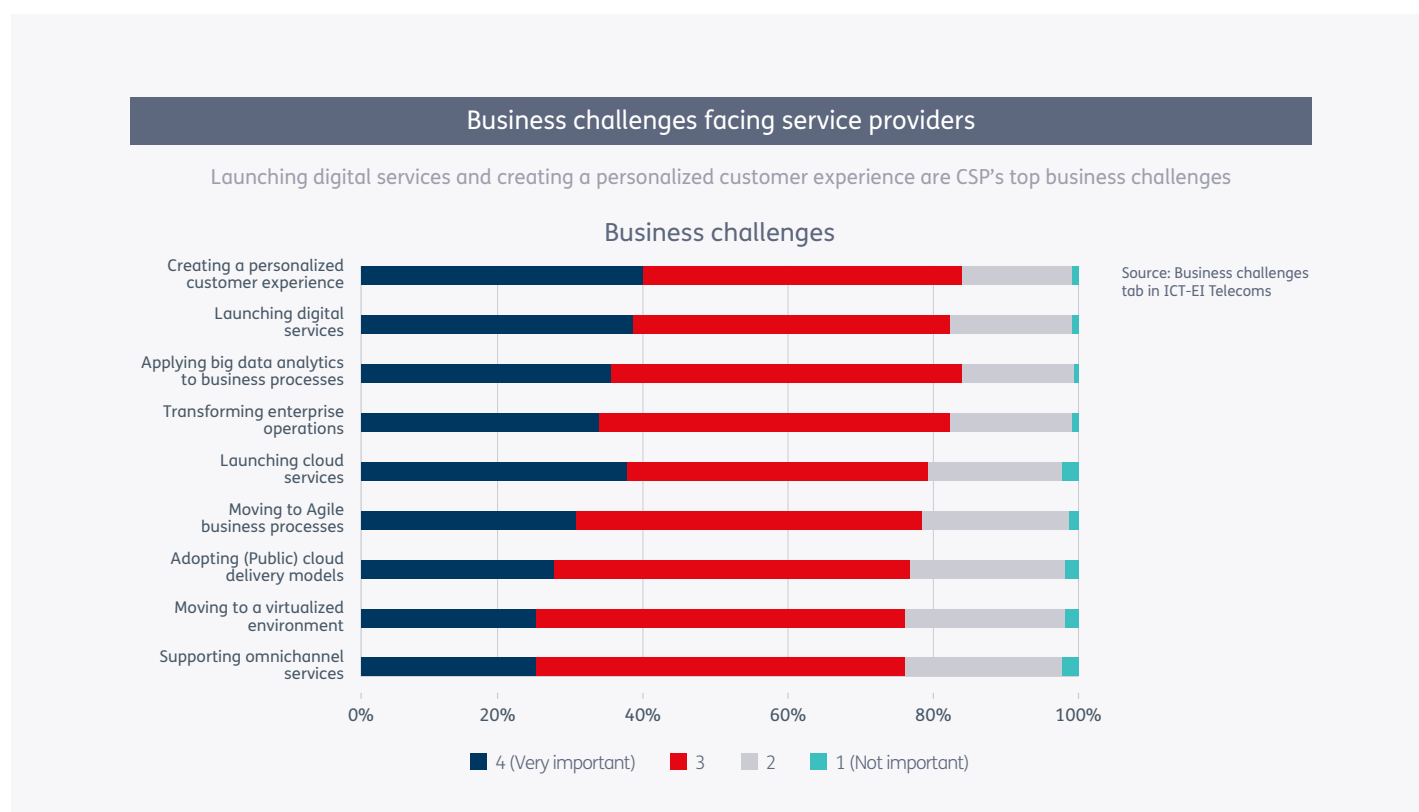
Vendor services portfolios and capabilities will evolve to support new types of operations. Vendors and professional services partners will need to help telcos with the shift to DevOps, SDN/NFV and microservices, as well as support telcos' digital transformation journey. Ovum will explore the changing role of vendors in the telecoms industry as services such as SaaS and consulting grow in importance. We will provide analysis of changing vendor service portfolios, market share and forecasts.

What's new

Digital transformation insights – including CSP case studies, surveys and insights

Vendor product reviews – assessments of product, vendor positioning, customers, use cases and market context. These focus on offerings supporting digital transformation e.g. cloud based telco IT solutions

New forecasts and increased granularity – new Telco IT spend forecast and new segments in OSS/BSS forecast



The Market Challenge

Premium media asset owners are undergoing major change as they shift to a digital first strategy.

Broadcast TV & video providers, ICPs and digital service providers are grappling with two core business priorities – how to enhance operating margins and extend their reach into new growth areas. This is forcing media providers to respond by migrating their audience engagement ecosystem to IP, unifying the content supply chain and leveraging big data and AI technologies. Major change is required to support the launch of real-time digital services and exploit new monetization avenues such as the enterprise video and sports franchise segments.



Kedar Mohite
Senior Analyst

How Ovum helps you

Helping media enterprises to compare business and technology road-maps.

Showing media companies how to re-engineering their partner ecosystem.

Providing media transformation journey support and assisting with the selection of technology vendors and ICT service providers.

Market and competitor assessment across the media content supply chain.

Delivering insights on media technology trends and changing adoption cycles.

Identifying new market opportunities in the video space across diverse segments such as sports franchise, broadcast TV & video, and digital service providers.

“

The media transformation ICT services market is forecast to reach \$27.4Bn by 2022. The sports franchise segment will be one of the fastest-growing, with CAGR of 5.3%

”

Key Deliverables

Media transformation ICT Services forecast (2017-2022) with addition of publishing companies such as newspaper, magazine, and B2B to existing database encompassing sports franchises, digital service providers (cable TV, satellite TV, and telecommunication multimedia services business) and TV & video broadcasters.

Extending On the Radar deliverables across new technologies enabling the media transformation journey, especially those supporting the end to end content supply chain.

Strategic viewpoint and competitive benchmarking of vendors offering media AI and big data solutions, and analysis of technology vendors serving this space.

Research notes and short reports on the proliferation of media technology vendors in the enterprise video space.

Extending innovative case studies on media transformation projects with special emphasis on ICT services deployments across the sports franchise segment.

Themes for 2018

The media content supply chain shifts to IP

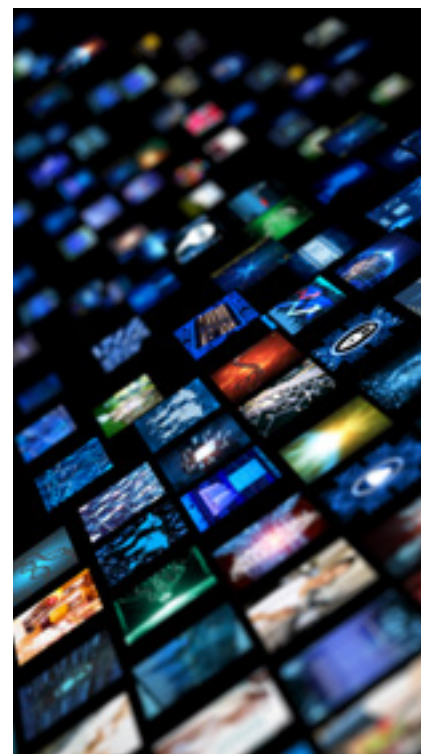
An increasing number of media enterprises are migrating aspects of their content supply chain to IP. The shift to IP is a highly complex transformation. Ovum will analyse the areas of the content supply chain leading the push, such as media acquisition and distribution, as well as emerging areas such as media preparation. We will investigate migration roadmaps and identify what technology partners need to offer in order to enable the transition.

The next wave of personalization in media technology

As media enterprises move from a first to a second wave of personalization this will create demand for more granular data insights. Customer retention will become a key concern due to the proliferation of distribution channels, so driving media enterprises to adopt technologies that help to create in-depth and contextual audience engagement. These will be key drivers for the adoption of big data and AI technologies and recommendation services in the media sector over the next 18-24 months.

Video will drive convergence in the media and entertainment sector

Video is a key driver of convergence within the media and entertainment sector as well as across multiple vertical sectors. Video is becoming the primary engagement tool, creating new opportunities for both media providers and media & broadcast technology vendors. These vendors are seeking to re-engineer their go-to-market strategy, and technology road-maps to target new vertical segments. Ovum will analyse this technology transformation.



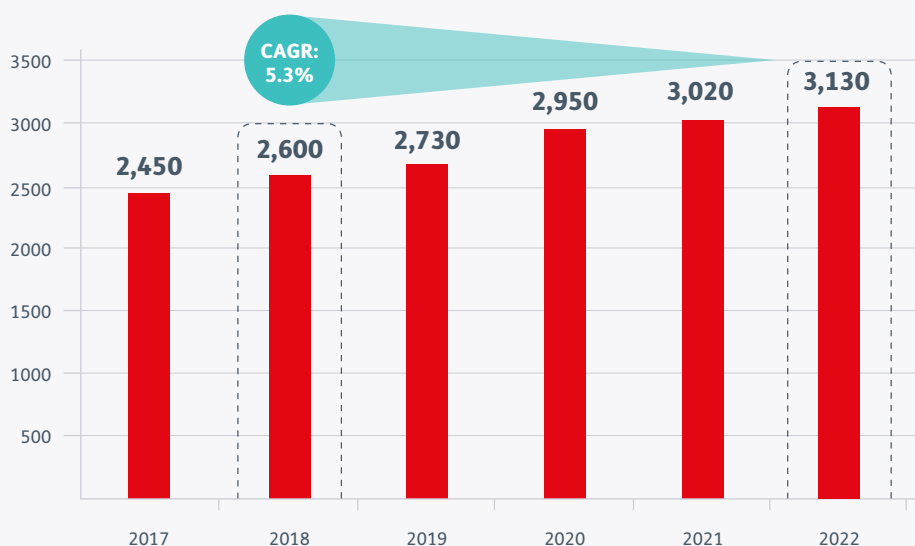
We will also investigate growth areas such as sports franchises, exploring how companies in this space are embarking on a hyper personalization wave, and assessing how ICT services will support this growth.

What's new

Ovum Decision Matrix on live streaming services enabling enterprises to quickly select the right project partner for their premium media assets especially sports content

Managed video logistics forecast (2017-2022) – extended to encompass seven major sectors leveraging video as the core engagement tool i.e. education, healthcare, BFSI, Government, consumer products, Utilities & Energy, and media & entertainment

The next growth frontier: Sports Franchises ICT Services (\$m)



The Market Challenge

Communication service providers are facing end-to-end questions around network transformation. They must make strategic decisions around investing in trusted legacy systems versus putting money into newer, but less trusted, network technologies. Moving too soon on change or betting on the wrong technology can have a drastically negative impact on these service providers. Concurrently, being too slow to adopt new technologies can hinder their abilities to launch new services and leave them vulnerable to competitors.

For equipment vendors, this transformation is just as fraught with challenges as those their service provider customers face. How do they introduce new networking technologies without out destroying their existing revenue base? Vendors' technology bets are similar to those of their service provider customers when it comes to risk and reward.

How Ovum helps you

Provide insight into which network technologies are hype and which ones will have a long and impactful life

Size different network domains and learn which ones are growing and which ones aren't

Learn how operators are coping with the introduction of new technologies and what they have gained from those technologies

Articulate leading CSP and ICP network target architectures

Highlight key differentiating and winning vendor strategies such as bringing Purpose Built DCI products to market

Enable data driven decision making; e.g. Ovum delivers market sizing and growth forecasts in concert with vendor by vendor market share, enabling informed market entry-expansion decisions

Key Deliverables

Quarterly equipment market share reports

Annual equipment forecasts



Daryl Schoolar
Practice Leader



Ian Redpath
Principal Analyst

“

Ovum forecasts that by 2022 5g revenues will be approaching 40% of total ran expenditures

”

Technology trend reports providing market updates and vendor activities

Thought leadership pieces based on new technology advances

Industry baseline datasets: vendor contract database, GDCA

Key conference and event summaries and briefs

Themes for 2018

Next Generation broadband access

Broadband access provides the crucial link between the service provider and the end-user. As data consumption increases so too have the performance requirements for broadband access both fixed and mobile. One of the major challenge for communications providers is how to manage their transitions to newer access technologies like 4.5G, 5G, G.fast, FTTx, 10G-EPON, and even fixed wireless access.

Network digital transformation with SDN and NFV

The move from hardware centric to software centric networks is on every communications service providers and equipment vendors' radar. This presents major challenges for every involved. For example when, where, and how to start this transformation can greatly vary between communication service providers. The approach of different vendors will vary as well based on their own areas of network expertise and legacy network considerations.

Seeking product re-convergence and profitability in a splintered CSP-ICP market

Over the last two years, the data center interconnect market has bifurcated into two markets: one for the CSPs and one for the ICPs. In the long run, this is untenable for the vendor community, as supporting two product streams splinters the market, driving up cost and lowering profitability. The vendors need to strive to bring these markets back together for the next generation of data center interconnect solutions, rationalizing an irrational market.

Mobile any-haul for the 5G-IoT era

As the radio access world transitions to a 5G-IoT era, mobile backhaul networks will need to radically transform to keep pace. Mobile backhaul will evolve to front-mid-back haul "any-haul", structure, to enable cost effective, latency optimized, agile and intelligent traffic carriage.



The Terabit arms race in the core

Optical networks are powered by the coherent transmission Digital Signal Processors (DSPs). DSP development is an expensive proposition and arms race. All the leading vendors are involved and one misstep immediately relegates a vendor to second tier status. The race is on for Terabit wavelength transmission.

Equipment vendors expand their reach by moving into new industry verticals

Communications service providers are not significantly increasing their network spending. This has created a major challenge for equipment vendors under pressure to grow revenues. Because of this, equipment vendors are looking for opportunities to sell their gear into new industry verticals like utilities, education, and manufacturing.

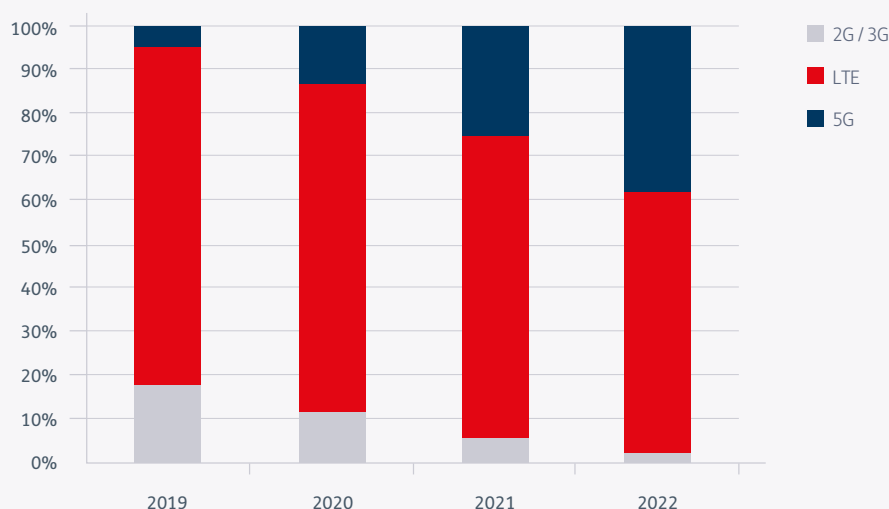
What's new

Expanded coverage of SDN/NFV and network orchestration

More in-depth coverage on metro small cells

Any haul for 5G

2G/3G, LTE, and 5G as percent of total RAN market revenues



The Market Challenge

The optical component market is bifurcated between the Communications Service Providers and the Internet Content Providers. Traditionally, product development has followed the well-defined path of the CSPs. However, with the expansion of the data center market, component vendors now have two markets with differing requirements, cost structures and time to market timelines. ICPs need more product faster and are constantly looking for the next technology advancements to support build out of the global high capacity data center optical networks. Supporting both markets has placed onerous demands on the component manufacturers, pressuring component vendors' margins while challenging the vendors to select winning technologies for their splintered client base.



Kevin Lefebvre
Principal Analyst

How Ovum helps you

Provide insight into component technologies and platforms volume, revenue and market trends.

Sizing different component market segments and guide towards the high growth segments.

Identifying new disruptive technologies and market threats.

Highlighting key differentiating and winning component technologies and vendor strategies.

Articulating how the CSPs and ICPs are planning for the introduction of new technologies.

Articulating leading CSP and ICP network target architectures.

Enabling data driven decision making on markets, new technologies, product development and manufacturing needs.

Key Deliverables

Quarterly optical components market share reports

Annual optical components forecasts



Ian Redpath
Principal Analyst



Optical component vendors need a platform to optimize price, power and size for their demanding customer base. Photonics integration is the platform



Technology trend reports providing market updates and vendor activities

Thought leadership pieces based on new technology advances

Industry baseline datasets: vendor contract database, GDCA

Key conference and event summaries and briefs

Themes for 2018

New technologies and materials enable fundamental product advances

The network requirements are changing rapidly. ICPs and CSPs are asking for the next greatest technology even before they have installed the existing technology. To keep up with the changes, component manufacturers need to invest in R&D and manufacturing but need to understand which technology to invest in and when. Our service answers the questions on what technology is on the horizon and what is the demand so that the optical component companies can make informed investment decisions.

Technologies such as Graphene, InP, Meta-materials Silicon Photonics, On Board Optics, modulation formats and testing techniques are researched and analysed along with the market demand and competition. This will allow component vendors to more accurately allocate R&D and manufacturing assets to address the market demands.

Data center optical intra connect fabrics

The leading data center operators, ICPs, continue to build scale data centers. In addition, the ICPs rapidly change over to the next generations of data center architectures to take advantage of the increase in server port speeds and server density, resulting in a constant rotation in the intra data center optical fabric. The scale of the opportunity has created its own market. In addition to the speed race, reach advances can enable fundamental architectural changes to potentially an evolution beyond today's leaf and spine architecture to a TOR-less future. Ovum continuously engages with the network visionaries and the ecosystem to highlight to clients the next shifts in the sector.



Optical Components enabling the optical WAN

The core of the access, metro, long haul and data center optical networks are the optical components. To plan for manufacturing and R&D, system providers and component vendors both rely on accurate data that determines the demand, technologies, competition, future technologies and requirements. Without this information, component suppliers will not be able to keep up with the demand that is needed to support the increasing expansion in bandwidth usage.

Our service continuously monitors the demand of optical components needed to support the bandwidth demands, giving the component suppliers and the system vendors the necessary information to accurately predict product demand and timing. This will allow the component vendor to maximize their margins and profit.

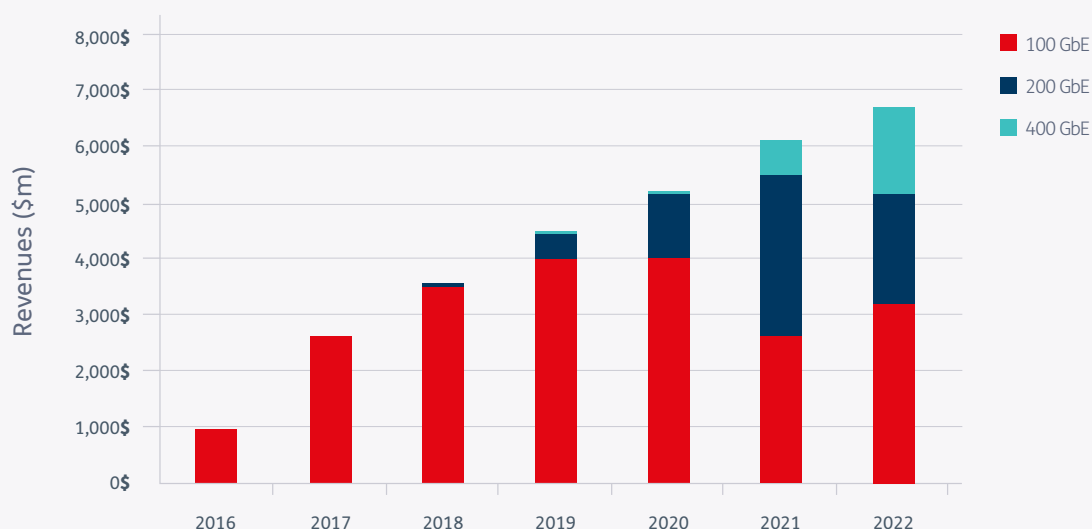
What's new

Photonics integration

On-board optics

Materials advances

Datcom revenue forecast



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Enterprise ICT Management	90
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Customer Engagement	93
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Nicole Englebert

Director of Research & Analysis
Technology

“ To support the ongoing digitization of both customer-facing and back-office processes, enterprises and their vendor partners must develop and deliver a coherent portfolio of business-aligned IT services ”

The Market Challenge

Enterprises are faced with two seemingly conflicting drivers: meeting regulatory demands for the tight control of information, and the business pull to liberate that same information for use in value-adding analytics. However, these objectives need not be at odds. Comprehensive control of data has downstream benefits for the entire enterprise, delivering both analytics-led business value and compliance.

It is not just a technology problem, culture is at the heart of the issue as well. As the enterprise looks towards digital transformation and the implementation of new technologies like artificial intelligence, the culture of the enterprise will need to be receptive before business value can be realized. By managing data at the source, whether on-premises or in the cloud, business drivers can be aligned and data leveraged equally both reactively and proactively.



Tom Pringle
Head of Applications Research

How Ovum helps you

Explore and understand how compliance can be a driver to business value not just a matter of ticking boxes.

Learn best practices for building a data-driven enterprise culture that does not compromise governance.

Marshal the march to the cloud with a multi-cloud approach to delivering data and analytics.

Evaluate emerging data science & artificial intelligence technologies that can augment and improve everyday business processes.

Understand why mobility is a vital digital transformation pillar and how it can be exploited in modernizing legacy systems and optimizing business processes.

Key Deliverables

Protecting information for business value – best practices and hands-on advice for effective protection of information to help achieve compliance and business value

Cloud platforms for data and analytics – market landscapes and vendor assessments of key cloud data and analytics solutions to successfully navigate the transition to the cloud

“

Cloud bi & analytics software spend across industry verticals will hit \$7.1Bn by 2021

”

Data science and AI – practical thought leadership tackling the challenge of new AI-powered capabilities and data science, their adoption and finding enterprise value

Building the digital workspace – frameworks and blueprints for building the data-driven digital workspace

Themes for 2018

Compliance as a source of competitive advantage

Compliance has traditionally been approached in a reactive manner, missing the business benefits that compliance can achieve. Most regulatory imperatives, such as the EU's GDPR, are about driving better enterprise control and accountability for data. Compliance and information management technology are intertwined, tools like metadata management, NLP, machine learning, cataloging, and data masking/protection are all critical to making sense of an enterprise's data. Compliance goals, when closely integrated with business strategy, can amplify analytics outcomes and drive profitability.

Defining a viable multi-cloud strategy for data management and analytics

As enterprises move business-critical workloads and the data that powers them to the cloud, they will be making de facto platform decisions. They are facing a repeat of the same generational platform migrations decisions that enterprises faced when they conducted their "open systems" migrations. This strongly influences data management & analytics because, increasingly, analytics are being pushed into the data tier. The goal should be implementing viable multi-cloud strategies that maximize the benefits of data and analytics in, and out of the cloud, while minimizing the risk of cloud platform lock-in and creating new data silos.

Using AI and data science to accelerate digital transformation

The future of AI – and the data science that is its foundation – in the enterprise is a story of integration and orchestration across enterprise applications. Digital transformations have begun, powered by the transition to cloud and a proliferation of connections: from and between consumer to business to device or application. These connections generate reams of data – consuming, analyzing and acting upon such vast and fast-moving data is beyond human capability. Integrating AI into enterprises' applications will tackle this opportunity through automation. For those who can orchestrate multiple AI, a benefit greater than the sum of its component parts is waiting.



Fostering a strong data culture for effective enterprise analytics

Enterprises must establish and nurture a strong data culture to harness and profit from the wealth of data, and the myriad tools to access and analyze it. Data management technology and governance frameworks are required to mitigate risk, and successfully integrate data-driven decision making into enterprises' everyday business – freeing users to seek and find value without compromising corporate or compliance standards. Data initiatives – whether technology, people or process related – demand sponsorship at the C-level, helping foster a sense of business ownership of data. The tools for non-expert users to source and explore data are here, enterprises must now make what they can achieve part of their culture.

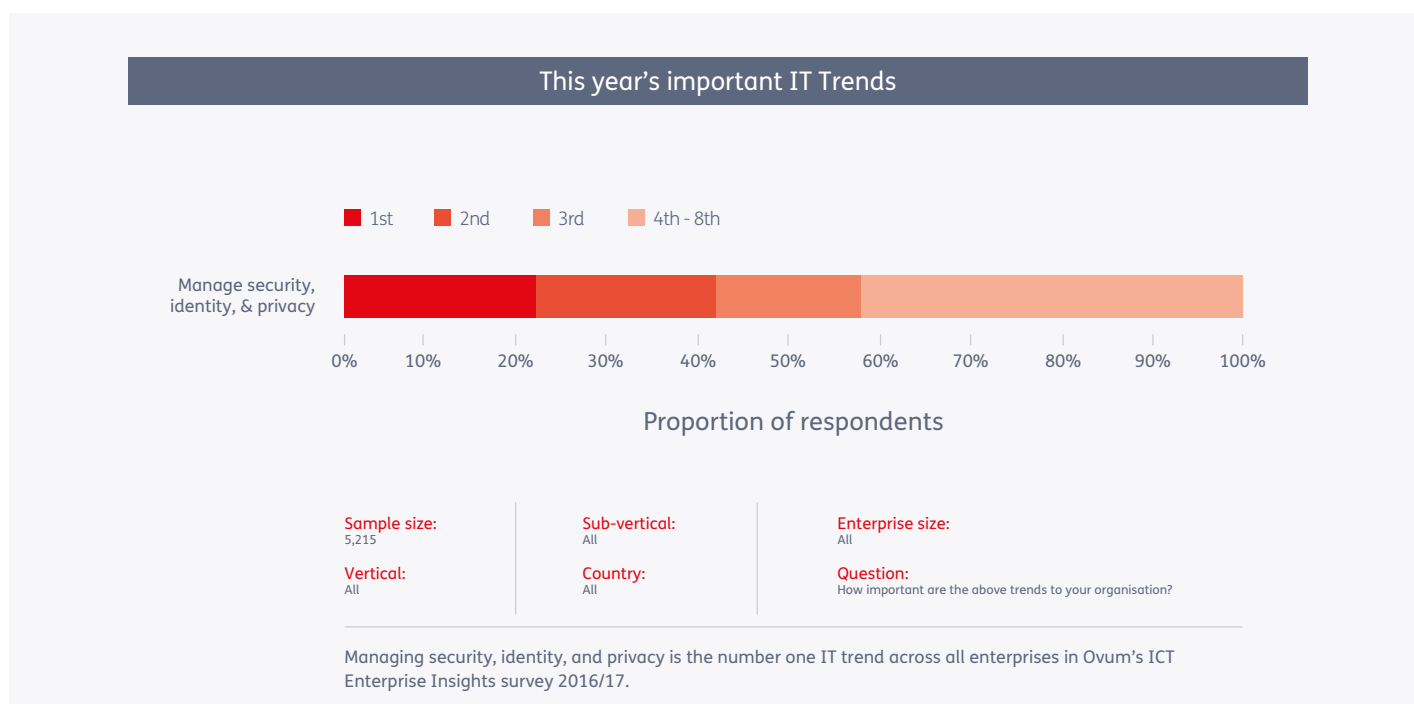
What's new

Track the transition to the cloud – with new cloud market forecasts covering data & content management, BI, analytics and big data

New topic packs of research covering key enterprise challenges – including GDPR and Artificial Intelligence

Understand enterprise investment plans for cloud deployments – in Information Management with an expanded ICT Enterprise Insights survey

Managing security, identity, and privacy is the number one IT trend across all enterprises in Ovum's ICT Enterprise Insights survey 2016/17



The Market Challenge

Software needs to be front and centre for every enterprise today. Organizations that cannot move fast enough to modernize their platforms and systems, provide everything on demand, and compete with cloud-native rivals will suffer.

While at an early stage of adoption for many, a cloud-centric approach is the future. The shift to cloud continues to gather pace and is very much a story of how to exploit and manage multiple clouds.

If software is at the heart of the organization, then data is very much its life blood and most valuable resource. Data must be protected and meet compliance needs when at rest, in motion, and in use.



Mark Blowers
Practice Leader

How Ovum helps you

Bolster network and data protection with an end-to-end proactive security architecture.

Make software development a core capability.

Improve the speed of service/software delivery through the use of agile and DevOps.

Understand the impact of digital transformation on the IT function.

Develop a strategy to modernise core systems.

Define the criteria to use when selecting cloud-based services.

Understand and adopt the latest integration approaches.

Meet compliance obligations across all technology deployments.

Key Deliverables

Ovum Decision Matrix – Comparative evaluation of the leading enterprise technology solutions.

Market Radar – Solution capability comparisons for emerging technology areas.

“

70% of companies with 10,000+ employees are modernising legacy software

”

Case Study – Recommendations, best practice, and advice from real-world solution deployments.

Software Market Forecast – A five-year view on growth in the infrastructure software markets, segmented by vertical, region, and function, and updated annually.

Themes for 2018

Increasing cyberattacks impacts data protection and network security

In every industry, security breaches are increasingly inevitable which means capability that enables data protection is a priority, especially with GDPR in 2018. The effectiveness of a signatures-based approach to security continues to wane and distributed denial-of-service (DDoS) attacks get bigger and more frequent. Organizations need to upgrade network security to counter the onslaught of more, and more varied, forms of exploits.

Adopting a cloud-native approach is the new differentiator

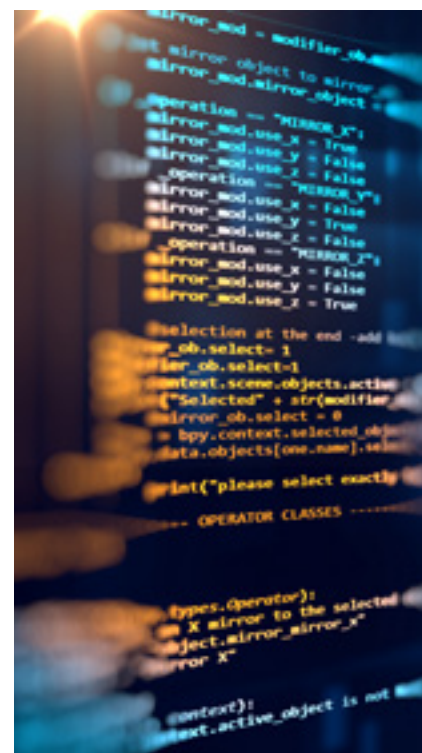
Becoming cloud-centric means the use of microservices, and containers, as well as exploiting multiple clouds and everything-as-a-service to improve flexibility, and reducing waste by only paying for what is used. Organizations also need to assess their strategy for developing and deploying software in the wake of the new paradigms that are sweeping through IT. Digital transformation, has turned the spotlight on software, and integration.

Utilizing intelligent software to foster innovation in IT

The adoption of AI technology continues to grow rapidly with the fast pace of technology transfer from research into products and services. AI encompasses a number of technologies with software robotics and machine/assisted intelligence making waves at the moment, of which deep learning is gaining traction within machine learning algorithms.

Modernising core systems by breaking up the monolith

One of the biggest challenges for traditional businesses is how to exploit cloud technologies and platforms with monolithic core applications. Many organizations are adopting software architecture that comprises of many independent and loosely coupled parts, alongside an API-centric approach. Once inside containers, these applications can gain some benefits, such as portability, and can use continuous delivery and infrastructure-as-code styles of development.



Mitigating the impact of IoT on platforms and infrastructure

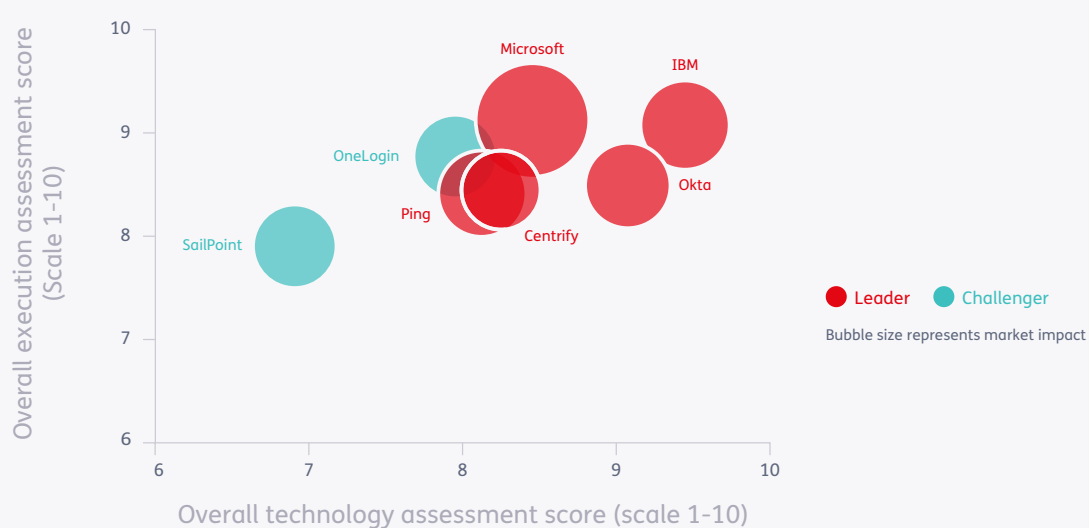
IoT represents a paradigm shift for security challenges, as potentially billions of new devices connect to the web. It has created an urgent need for scalable and secure platforms to support the increased data volumes. IoT is also a big driver for the use of automation and edge computing in the IT environment.

What's new

New Ovum Decision Matrix – Selecting a Network Security Solution

Expanded – coverage of enabling technology for artificial intelligence

Ovum Decision Matrix: Selecting an Identity-as-a-Service (IDaaS)



The Market Challenge

Ovum continues to witness the evolution of the CIO's role in terms of delivering IT services at a faster and more flexible pace for business outcomes. Digital transformation is unlike prior technology trends because the need to address it comes from an ongoing evolution in how consumers/clients/citizens engage holistically with organizations. This continues to exert pressure on organizations to adapt and react quicker to this external shift in business engagement across industries and countries.

Suppliers can no longer position their value purely in terms of technology capability alone but rather messaging, and engagements, must be primarily focused on how they support business level outcomes through technology and/or services. It is essential for suppliers to understand how IT leaders are evolving IT functions and service delivery in support of digital agendas to address increased levels of business change occurring across industries.



Spencer Izard
Chief Analyst

How Ovum helps you

Gain insight into how Ovum is advising enterprise decision makers to enhance how you engage with enterprises.

Learn how enterprise decision makers are structuring their IT organizations in response to their digital journey.

Understand the major technology and organizational trends impacting enterprise decision makers to provide insight for how suppliers should improve their engagements with enterprises.

Discover how IT management best practices are being applied to maximize the value of IT-enabled business investments.

Key Deliverables

Trends to Watch – reports for major industry and technology domains.

Enterprise Case Studies – explain how peers have used technology to solve business challenges.

“

90% of enterprises have started creating a clearly articulated strategy but only 22% consider themselves well advanced in their digital journey

”

ICT Enterprise Insights – shows key trends based on over 6,000 interviews.

Ovum Decision Matrices – provide comparative evaluation of the leading enterprise solutions and services.

On the Radar – reports highlight new solutions and providers of emerging technologies.

How-to-Guides and Maturity Models – help you to understand best practices for technology deployment and management.

Themes for 2018

Pivoting IT to support digital business goals

No matter which direction an organization chose to orient its business strategy, with regard to digital, very few organizations analysed their IT function to determine how it would need to evolve. Leading to many organizations trying to achieve their perception of digital without having an IT function that was fully prepared to deliver and manage services from both operational and cultural perspectives.

The journey from producing solutions to delivering services

Bespoke technology deployments should not be considered the norm for a modern IT function but rather the last resort where a commodity technology will not suffice, where the cost of bespoke versus commodity over the lifetime of the IT service is lower, and/or where tangible competitive business advantage can be demonstrated. IT functions no longer need to operate internally in a manner akin to an external cloud or outsource service provider. The majority of IT services required by an organization are common across all organizations.

Refining the perception of the CIO's role

At the heart of creating, realizing, and managing an organization's digital agenda is the role of the Chief information officer (CIO). It can be debated whether the title needs to change from information to digital, or another label, but the role of the CIO is essential to the success of digital. However, for many CIOs the challenge is how to refine the perception of the role at the C-suite level to become a valued digital leader.

Using enterprise architecture to avoid digital chaos

Research shows that as businesses adopt digital strategies, the complexity of the technology landscape can increase significantly, with



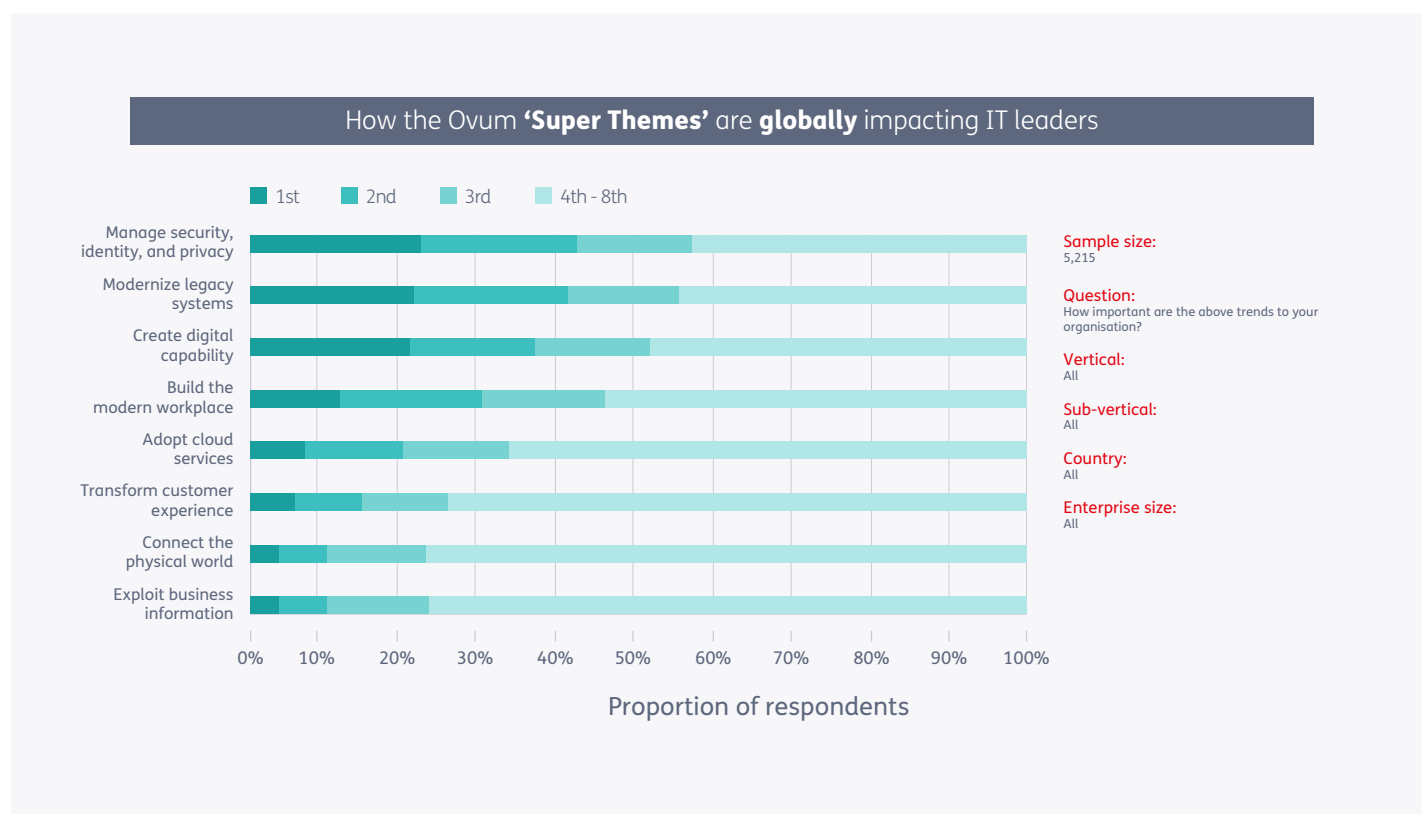
increased integration points and a proliferation of services. Enterprise architecture can provide a valuable framework in which to set digital initiatives, improving the degree of coordination across digital services and core systems.

What's new

Expanded coverage of the vital role the CIO provides to an enterprises ongoing digital journey.

Updated enterprise IT spend benchmark.

Identifying the differing dynamics of industry trends in relation to how, and when, they provide the most benefit and relevance for enterprises.



The Market Challenge

The fundamental challenge for any enterprise is to meet the expectations of its customers, patients, citizens or students. This perennial challenge is getting harder, as customers, empowered by technology and digital experiences demand more. Enterprises which fail to meet this challenge run the risk of irrelevancy.

To keep pace with technology and meet customers' expectations, enterprises must continuously evolve their approach to service delivery. They must build an agile architecture that allows them to quickly scale, enables frictionless experiences across all channels and devices, and be able to respond in real time to customers when and where they need assistance. No enterprise can afford to be a customer service follower, and to remain relevant should strive to engage with the customer proactively, not reactively.



Tom Pringle
Head of Applications Research

How Ovum helps you

Understand – and act on the challenge of moving beyond omnichannel to maintain relevancy in the digital age.

Learn – about continuous innovation and the culture required to support it to deliver on customers' expectations.

Explore – and plan for a customer-centric architecture that composes unique customer experiences without compromising standards.

Identify – and evaluate practices and technologies for keeping up with constantly evolving customer behaviors.

Understand – enabling technologies and vendors which can help enterprises orchestrate customer engagement across any combination of channels.

Key Deliverables

How to building the omnichannel foundation – analysis and guidance on developing the omnichannel foundation

How to create the conditions for rapid adaptation – through innovation in products, services and business models

“

90% Of enterprises are failing to create and deliver new digital services yet top line growth is the number one business challenge

”

The role of ecosystems in continuous innovation – how to develop an effective ecosystem of partners for continuous innovation

Leadership roles in digital transformation – who should help the CEO transform the enterprise?

Themes for 2018

Building an omnichannel platform foundation for customer engagement

Enterprises must proactively engage with customers along their digital and physical journeys at the right time, place, and device. This can be achieved with the building blocks of an omnichannel foundation; including integrating modern CRM platforms with back office, logistics and systems of engagement, and deploying technologies to enhance in-context collaboration and create personalized experiences. With this foundation in place, omnichannel can be augmented with supporting technologies from Robotic Process Automation to eliminate repetitive tasks and integration of AI and machine learning to dynamically orchestrate the customer experience, through Virtual Assistants to support intelligent customer self service.

Developing a customer-centric culture for the adaptive enterprise

Enabling omnichannel must begin by developing a cultural and organizational orientation around the voice of the customer before architecting the customer journey. For a customer-first enterprise to take hold, enterprises must align people, processes, and technologies via the vehicle of digital transformation, to deliver proactive customer engagement. Customer-first thinking must be infused into every aspect of the organization, standards and policies must deliver on CX, and culture must link to the mission. Unification and open access of technologies must occur through unified interfaces, customer engagement hubs, and cloud-based workforce management so the customer journey is always in view.

Designing a flexible, scalable architecture for composing personalized customer experiences

Changes in the fundamental structure of customer engagement – hardware to software, on-premises to cloud, live-agent assistance to artificial intelligence-powered chat bots, analytics, and mobile everything – is driving change in the architecture and processes of customer engagement. Global reach and scale is a necessity as customers expect standardization across international organizations: they also expect a tailored experience. To achieve this requires a flexible



architecture, built upon a concert of services which allow for constant technology evolution, and the delivery of a market, geographic, and enterprise-specific “composable” personalized experience in real-time – while adhering to the framework of corporate standards and compliance requirements.

Customer engagement solutions must prioritize superior security and privacy to build customer trust

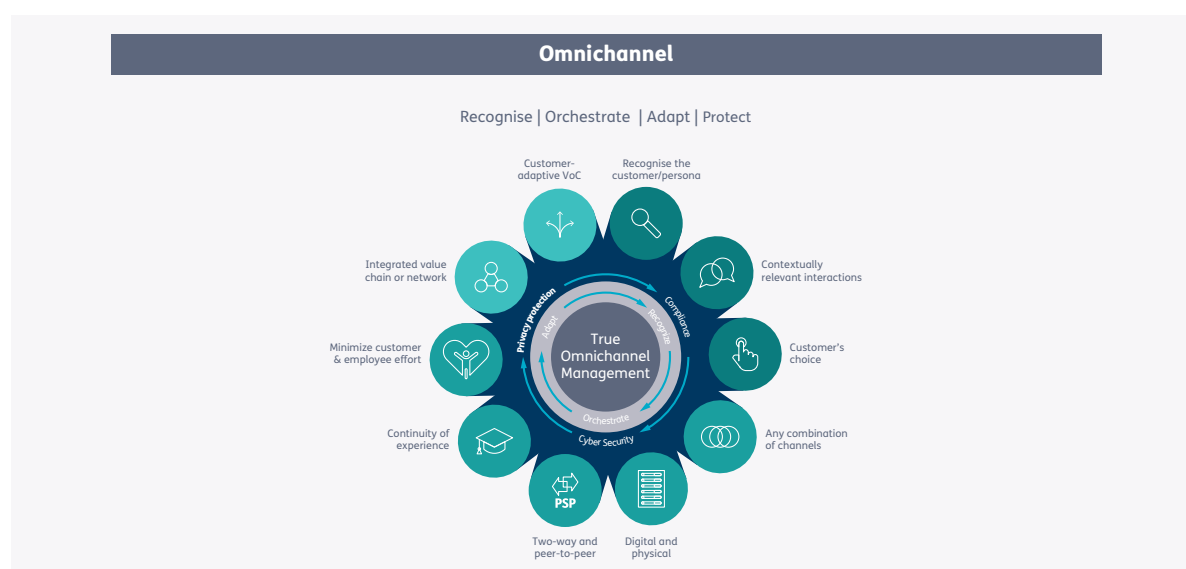
Whether through accident or malfeasance, sensitive data can be exposed through holes in the expanding digital marketplace, with potentially great harm to customer and enterprise alike. Enterprises must ensure compliance with regulation regarding customers’ identifying data, such as GDPR, and respect privacy choices. Taking this approach will realize the benefits of being a trusted brand. Technological answers for enterprises need to cover considerable ground, from applying big data analytics and machine learning to fraud detection, through implementing unified privacy standards across multiple databases, applications and a growing device landscape encompassing the IoT.

What’s new

Understand how CX microservices can be consumed to adapt and augment omnichannel customer engagement

Consider Robotic Process Automation and how it can be used to boost customer engagement capabilities and improve the working environment for employees

Explore the possibilities to harness a portfolio of feedback mechanisms to drive customer relevance and rapid adaptation



Enterprise Verticals

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Kieran Hines
Head of Industries

“ Enterprises in every industry are facing challenges unique to the market, product, regulatory and competitive situation of their vertical. However, while the journey that each needs to make will be influenced by the specific industry dynamics, the outcome – successfully navigating the route from analogue to digital business – and the core technologies that will underpin this remain the same ”

The Market Challenge

With the economic backdrop of ultra-low interest rates set to continue, achieving top-line revenue growth will remain a challenge and driving efficiency improvement will persist as key driver for driving financial return. However, the industry itself is being disrupted. Regulatory change is forcing banks to expose their systems through APIs, challenging banks as to where they play in the value chain, which is also being cherry-picked by FinTechs benefiting from the cost advantages of cloud and reach of mobile-based models.

This while the imperatives of regulatory compliance and efficiency remain, driving through digital transformation and delivering innovation has shifted from important to critical.



Daniel Mayo
Director, Ovum IT Data Tools
& Insights

How Ovum helps you

Understand how regulatory imperatives and digital transformation strategies will drive ICT investment priorities for 2018.

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving retail bank IT investment agendas at a country and regional level.

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of retail banks.

Key Deliverables

ICT Enterprise Insights – Global survey of retail bank pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for retail bank IT spending, segmented by country, source and line of business

Banking Software Contracts Analytics – Global analysis of packaged software deals, segmented by institution, vendor and solution area

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas, including digital channel platforms, and financial crime

“

The top 1,000 retail banks will spend over \$125bn on technology in 2018

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Themes for 2018

Delivering the digital customer experience

Attention to the digital experience has focused on mobile and online channels for most banks, however, this has shifted to realization that actual customer experience in the digital economy extends to all channels and customer-facing processes that support these. Delivering a seamless, straight-through experience that supports the wider customer journey is critical, but requires platforms that can manage the user-experience, taking advantage of new technologies in biometrics, augmented reality, natural language processing and AI-based services to enhance both human and direct customer engagement.

Driving through digital transformation

As banks realize digital is about the bank itself rather than a channel, there has been increasing assessment of how culture, governance, processes, and structures enable banks to operate in a digital world. While such transformation must occur at the business level, this is also driving significant change for technology, requiring platform modernization, new approaches to delivery, and ability to source and adopt new technologies and systems more effectively. The ability to leverage cloud and extract value from data will be critical.

Managing risk, security and compliance

The basics of banking – managing risk and providing security – remain core tenets of the digital world, with challenges intensifying as connectivity and external threats increase. Simultaneously, regulatory demands around financial crime and compliance management continue to escalate in breadth and reach with GDPR an important project for institutions with customers in Europe. Technology advances with Big Data, Artificial intelligence, data streaming processing and security offer potential solutions to balance the pressures of mandatory requirements and cost, but understanding real use cases and developing strategies to ensure these fit together effectively is critical for actually delivering potential benefits.

Embracing the API revolution

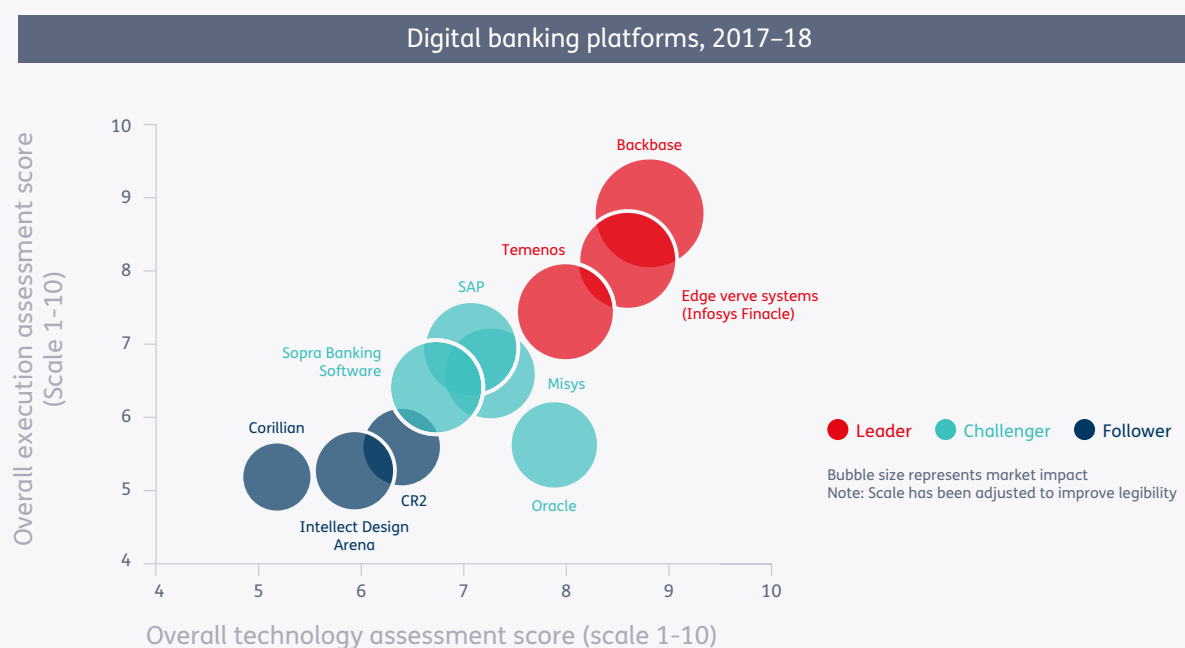
With regulatory interest in driving open APIs in banking quickly pervading across the globe, banks are realizing that open banking is not just another compliance requirement, but one that potentially will have significant impact on the industry itself. At an operational level, there is important considerations to be made around API management, but it is also driving wider focus around potential to create new services and work differently with the emerging FinTech ecosystem.



What's new

Banking ICT Spending Predictor understand institution specific across digital banking, payments and other business function areas

Understand bank focus and priorities for deploying AI across the institution



The Market Challenge

In Ovum's view the global insurance industry is entering a distinct new phase characterized by the emergence of innovative new insurance products, novel ways of interacting with customers, and the threat of new entrants. As an insurer, your organization must respond to these challenges.

Having already experienced major change over the last decade through regulation, radically changed customer expectations and new technology, how do insurers respond as technology change continues to accelerate yet further over the next five years?

The imperatives for today's insurer are to understand the potential threats and opportunities posed by technology, how it can be effectively exploited and who are the most appropriate partners when addressing these challenges?

How Ovum helps you

Understand how key technologies will impact your particular insurance sector, region and organization.

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving insurer IT investment agendas at a country and regional level.

Stay ahead of the competition, by understanding how to effectively align technology offerings to your customers' needs.

Key Deliverables

ICT Enterprise Insights – Global survey of insurer pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for insurance IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendor solutions in key areas, including IoT Insurance Service Providers



Charles Juniper
Principal Analyst

“

71% Of north American and European insurers see companies like Google, Amazon and Facebook as a more significant competitive threat than their peer insurers in terms of delivering an IOT-based insurance proposition

”

Themes for 2018

IoT and the move to Insurance 2.0

The vehicle insurance sector has used telematics and IoT to offer usage-based insurance (UBI), but now insurers need to build on this to not only enhance today's vehicle offerings, but also to deliver IoT based proposition across other sectors such as home, commercial and life insurance. IoT insurance 2.0 will allow insurers to move from today's product-focused, retrospective compensation offerings, towards that of a proactive and personalized risk management proposition characterized by an ongoing dialogue that adds value for the policy holder.

Value-based engagement and the future of the customer experience

With increasing competition, how can the insurance industry deliver a seamless, convenient and innovative digital customer experience that is seen to be of meaningful value by the customer? Critical to this will be the role played by technologies such as RPA, machine learning , natural language processing, and augmented reality, to deliver a highly personalised and contextually relevant insurance proposition. Small and mid-size insurers in particular need to find ways to effectively exploit new technology and to not get left behind in the 'technology race' by large well-resourced carriers or agile 'insurtech' start-ups.

Becoming the digital insurer

Carriers need to fully utilize technologies such as cloud, SaaS and RPA at the core of their operations to provide the organizational agility needed in response to the changes demanded by customers, regulators, competitors and emerging competitive threats.

As the market dynamics continue to exert pressure on insurers, resolving the perennial issue of legacy modernization becomes even more critical. Ovum's research can help insurers to understand how best to deploy these technologies and map a route to becoming a digital insurer.

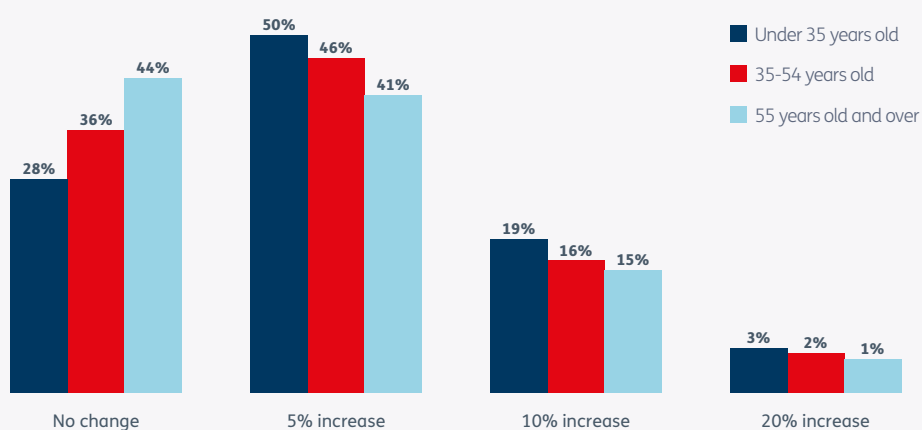


What's new

Deep focus on the opportunities presented by artificial intelligence and IoT technology; the biggest drivers for change across the global insurance industry

Insurance Software Contracts Analytics – monthly analysis of insurer and vendor partnerships

If an insurer provided the most important services you selected, how much additional premium would you be prepared to pay?



The Market Challenge

Retail is an industry undergoing rapid transformation. The impact of digital commerce pure-plays has been felt both at the top line and also in growing customer expectations around the digital experience and its role in-store. In turn, this is driving rapid change in the products, services and shopping experience retailers must deliver.

The need to deliver a personalized customer experience alongside a streamlined and responsive purchasing journey will create opportunities across the ecosystem. The need for support in wholesale digitalization will drive a need for solutions across all areas, but particularly digital commerce and payments, CRM and customer lifecycle management, and an integrated real-time view of orders and inventory.



Kieran Hines
Head of Industries

How Ovum helps you

Understand how customer engagement and digital transformation strategies will drive ICT investment priorities for 2018.

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving retailer IT investment agendas at a country and regional level.

Stay ahead of the competition, by understanding where and how new entrants, digital service providers and established vendors are bringing new products and services to market.

Key Deliverables

ICT Enterprise Insights – Global survey of retailer pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for retailer IT spending, segmented by country, source and line of business

Themes for 2018

Changes in Store: The future of the physical outlet

While the growth of ecommerce has created a challenge to the role of traditional physical outlets in the future distribution mix, reports of the

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The need to deliver a truly personalised and integrated cross-channel customer experience will see global ict spend by retailers reach \$226 Billion by 2021

”

demise of this channel are exaggerated. The opportunity to transform both how customers experience the store as part of a cross-channel purchasing journey, and also how value is returned to the retailer are substantial. IoT, AI, augmented reality and customer analytics will be core topics on the customer experience side, while the ability to more intelligently manage inventory will be equally transformational for the role of store employees.

Intelligent forecasting: Leveraging data as a strategic asset

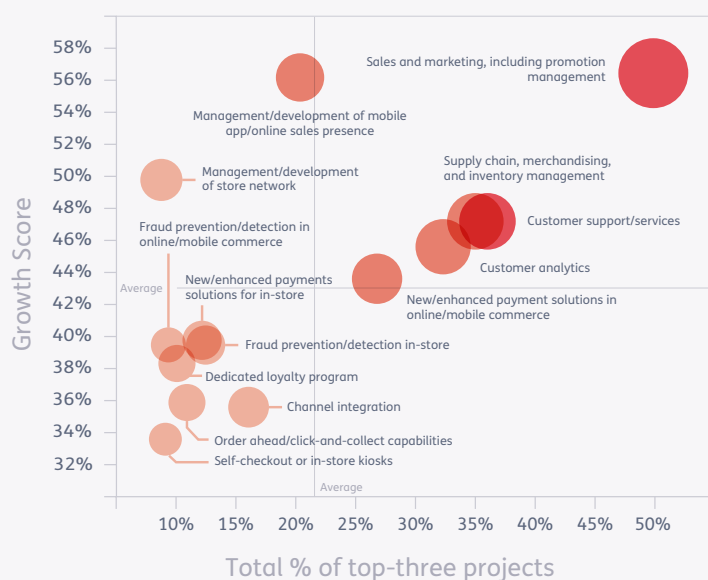
Turning data into strategic insight is at the core of all retailers digital journey. The opportunity for retailers is no longer in applying data analytics to pools of data within retail channels but rather looking for innovative and disruptive opportunities to drive operating efficiencies and customer engagement across all retail channels equally. By establishing a omni-channel data analytics strategy retailers can combine store, channel, logistics, staffing, and sourcing dynamics together to identify new revenue generating opportunities for retail growth.

Payment innovation: Delivering a frictionless transaction experience

As retailers invest in transforming their customer experience, the ability to offer a frictionless payment process has become increasingly important. Integral to both delivering on customer expectations in the online and mobile channels, this will grow in importance within the store environment too. Investments in payment technology, to take advantage of regulatory changes, and particularly where providers can deliver incremental sales growth and deliver valuable customer data, will be high on the agenda.



IT prioritization



Sample size:
348

Question:
X-axis - What are the top-three IT projects (in terms of total investment value) for the next 18 months?

Y-axis - What are your IT spending plans for each of the above technologies during the next 18 months? (Growth score = % increasing - % decreasing)

The bubble size represent the relative investment priority.

Vertical:
Retail

Type of retail organisation:
All

Country:
All

Enterprise:
All

The Market Challenge

The adoption of digital services has been driven out of necessity rather than choice due to the fiscal challenges that have shaped the world since 2008. As the fiscal pressure eases a new challenge has risen, that of an electorate that is increasingly dissatisfied with the value that is being delivered by their governments. In response, governments are looking for improvements into the way services are joined up across the back office, increasing the use of analytics to help focus resources, and allowing for greater automation and self-service. The time has come for digital government to deliver more substantial outcomes for citizens.



Kevin Noonan
Lead Analyst

How Ovum helps you

Understand how automation, analytics and cloud strategies will drive ICT investment priorities for 2018.

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving government IT investment agendas at a country and regional level.

Stay ahead of the competition, by understanding how to effectively position technology offerings to the policy and service needs of government agencies.

Key Deliverables

ICT Enterprise Insights – Global survey of payment provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for payments IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas

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The three biggest barriers to agencies undertaking digital programs are security, lack of internal skills, and too many other programs on the go

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Themes for 2018

AI and automation: Making government smarter

Adoption of AI and automation technologies is increasing, and not just within large federal departments; smaller agencies are experimenting

with these emerging technologies to aid improvements to service delivery. Yet, many agencies struggle to know where to start, and are held back by concerns on where to make investments that drive efficiencies and productivity change. Uncovering the hidden insights requires agencies to better understand and manage their data, ask the right questions, and augment existing data with new information.

Building the foundations for change: Digital transformation 2.0

As governments digital agendas move from the front office to the back office the use of automated, flexible open, cloud-native platforms is becoming increasingly widespread. Integrating these with existing IT architecture, managing security and user access is a challenge for government agencies. Strategic picks on which platform to adopt have to be made. Help is needed with identifying which service is best suited to which platform and how agencies develop a culture that supports agile approaches to development of cloud services.

Journey to the cloud: The cloudification of government networks

Thanks to the connected world of today, government networks can no longer be viewed simply as the plumbing that transports data from one data centre to another. In the digital world, networks built with rigid architectures to support legacy systems and are no longer fit for purpose. CIO's and CTO's are having to consider how the network can support transformation of public services, while addressing the demands for better performance, agility, security and delivering efficiencies.

Smart Cities – The power to transform the citizen experience

Cities must combine data from devices and services with citizen engagement if they are to realise the potential of smart city projects. The platforming of cities is tied to the adoption of “as-a-service” approach to IT that can support an array of sensor and information sources, such as from the IoT, to create new models for providing services. Success in platforming cities requires a measured approach that allows agencies to develop good practice, retain security over data and access, and supports the deliver of unified view of services within vertical towers such as transport, lighting, and environmental services.



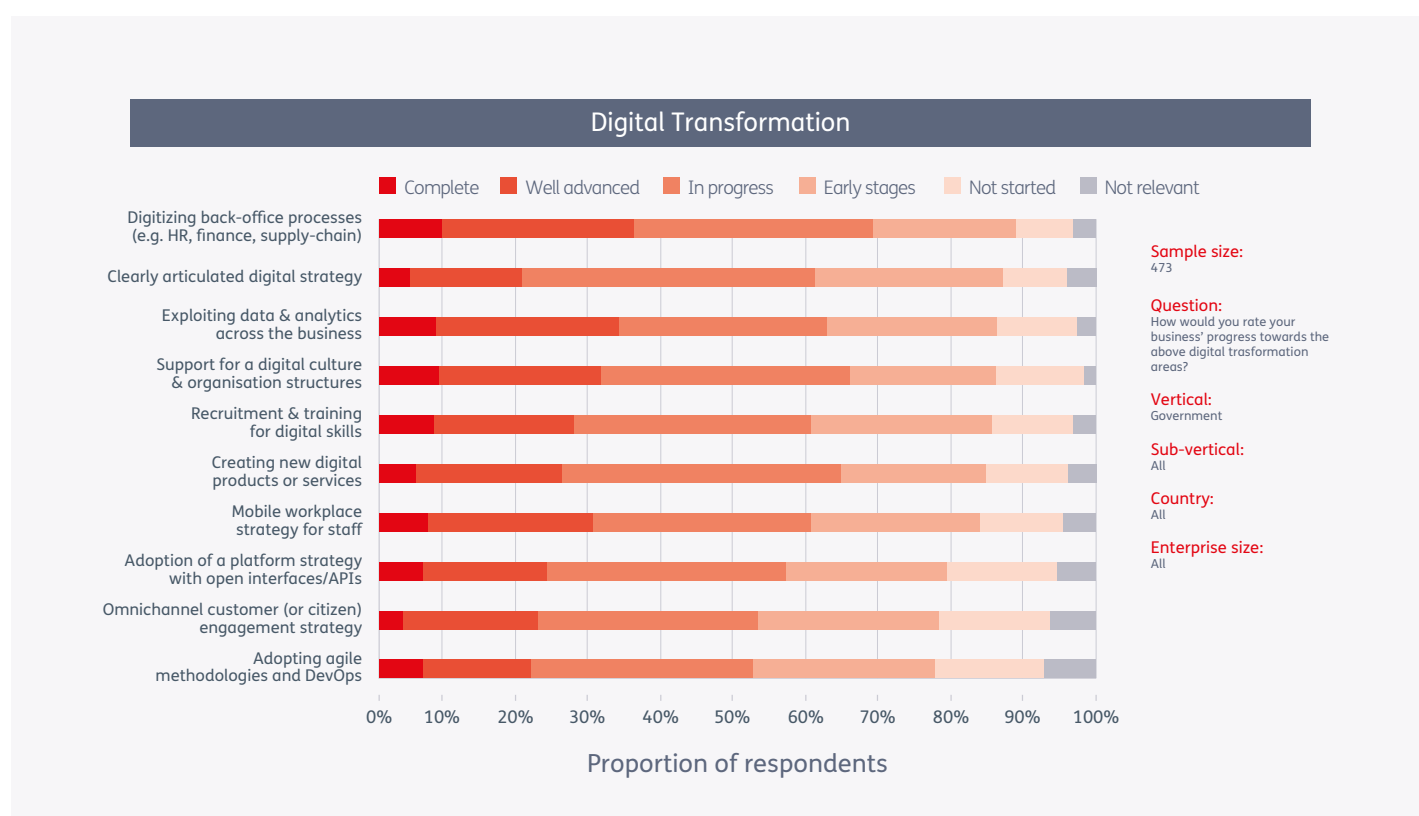
What's new

Digital Transformation Maturity Framework a structure that allows agencies to benchmark current and future strategies, and helps getting the balance right between people, process, technology

Strategic reports that provide insight into how digital government policy is helping to drive improvements to service delivery

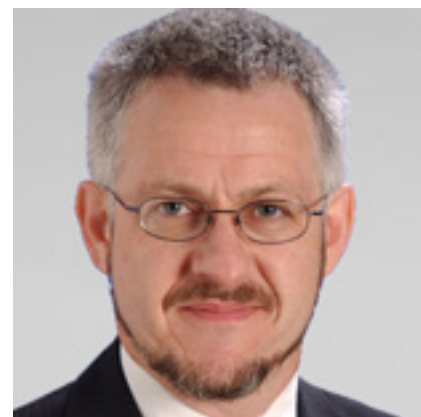
Case studies that will provide insight into how the four roles of government: purchaser of services, provider of services, regulator, policy maker are changing thanks to digital tools

Set of line of business forecasts for government



The Market Challenge

The higher education sector has reached a point of profound change. This change is being driven as much by increased competition, changing demographics, new patterns of employment and the changing needs of employers as much as it is by the innovative use of technology to deliver education services. These forces for change present new opportunities for institutions that can construct better, more engaging, and more compelling learning experiences for students. The ability of technology to marry administrative, classroom and – increasingly – consumer technology is critical to improving the flow of information which is required to inform and support the delivery of superior learning experiences.



Richard Palmer
Principal Analyst

How Ovum helps you

Learn why institutions are focusing on improving institutional agility, flexibility, and capacity for innovation, and what this means for ICT investment priorities for 2018.

Gain insight into the best ways to combine systems that contain student information with management and communication tools to create better student experiences.

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of educational institutions.

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Global spending on education it will reach \$34bn by 2021

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Key Deliverables

ICT Enterprise Insights – Global survey of educational institution pain points and IT buying intentions for 2018-19

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas, including student success solutions and online learning platforms

Themes for 2018

Tailoring to the individual: Using data insights to personalize the education experience

Higher education is at a pivotal point. The combination of trends in college attendance, completion rates, and rising student debt mean that colleges need to provide enhanced experiences to students. This means looking beyond information held in learner management systems to include administration, connected devices (IoT) and other data sources too. Institutions then need to harness this data and exploit it using analytics to build better experiences and outcomes for students.

Driving institutional transformation through the cloud migration of mission-critical enterprise applications

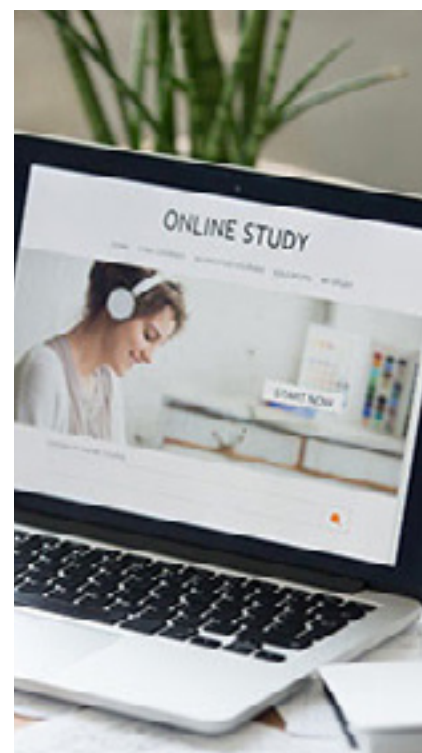
The higher education industry stands on the precipice of profound change, with a myriad of forces calling into question established beliefs about its role in society. In order to thrive or even survive in this environment, colleges and universities must reconsider how they deliver education services and support back-office operations to set themselves apart. The adoption of cloud deployment models and new, cloud-native solutions will be a critical part of achieving this goal. However, important questions remain about effective cloud migration strategies, including ones about solution and partner selection, in what order to take the CRM, ERP, LMS, and SIS to the cloud, and how to manage relations between IT and line of business leadership in a post cloud world.

Managing student experience to support life long learning

The ability to demonstrate value to students is a difficult conundrum for institutions to solve, and can include a range of factors. Key to this though is the student experience. Student expectations of the learning experience continue to evolve, making it difficult for institutions to ensure specific cohorts do not experience worse access to core services. Managing the student lifecycle is an important part in student success, and in turn the profitability of colleges. Technology supports better engagement with students, even before they have set foot on the campus. Responsibility for the student experience does rest with alumni alone. Institutions need to focus on joining the dots between the different information and interaction points to ensure consistency and increasingly personalization of services.

Video as a disruptive force in higher education

Institutions preference for traditional learning technology systems is slowly being replaced by learning experience platforms that combine tools to delivery content and learning materials through new mediums, such as video. Video, while a slow burn, is starting to disrupt the delivery of education content by replacing lectures, one-to-



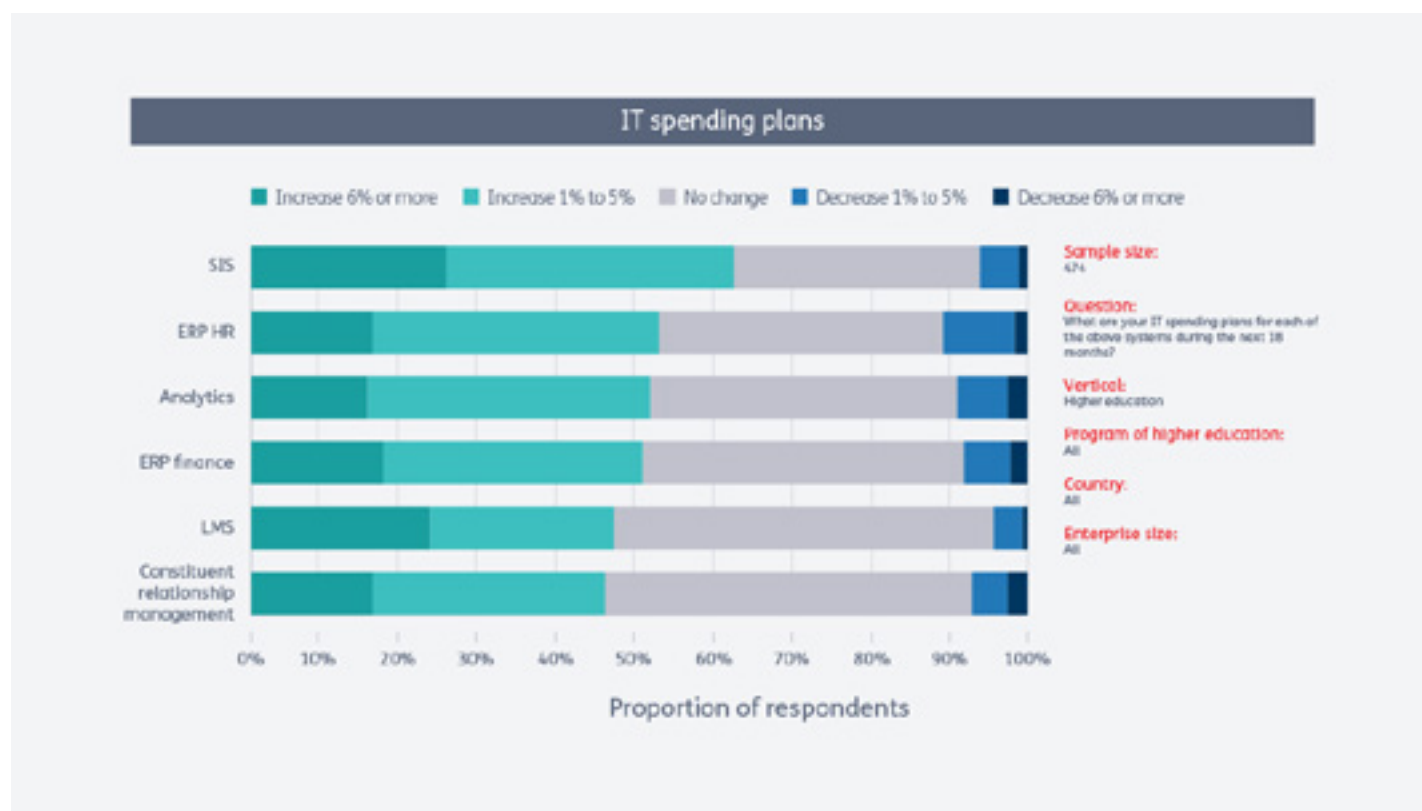
one interactions between alumni and students, and making content available in digestible chunks.

As the volume of learning materials available through video rises, institutions must consider ways to integrate video into their strategy for network services. Investment into technologies such as POL (Passive Optical LANs) can bring fibre into every classroom at a lower cost point than traditional services.

What's new

ICT Spending Forecasts – Global 5 year projections for education IT spending, segmented by country, source and line of business.

Transforming higher education core business services is already underway



The Market Challenge

The higher education sector has reached a point of profound change. This change is being driven as much by increased competition, changing demographics, new patterns of employment and the changing needs of employers as much as it is by the innovative use of technology to deliver education services. These forces for change present new opportunities for institutions that can construct better, more engaging, and more compelling learning experiences for students. The ability of technology to marry administrative, classroom and – increasingly – consumer technology is critical to improving the flow of information which is required to inform and support the delivery of superior learning experiences.



Kevin Noonan
Chief Analyst &
Global Practice Leader

How Ovum helps you

Identify the areas where investment in cloud services, automation and use of data analytics/AI, and what this means for ICT investment priorities in 2018.

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving healthcare IT investment agendas at a country and regional level.

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of healthcare providers.

Key Deliverables

ICT Enterprise Insights – Global survey of healthcare provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for healthcare IT spending, segmented by country, source and line of business

Enterprise Case Studies – Highlighting global best practice and innovation in the healthcare sector

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Global spend on healthcare it will reach \$208bn by 2021

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Themes for 2018

Machine learning and automation: Transforming the provision of care

The need to remove waste, inefficiencies and raise productivity are driving interest in AI and automation across healthcare markets. Many processes in healthcare are repetitive and structured, perfect for automating. The combination of analytics, machine learning, and the rise in IoT/connected devices and sensors is providing healthcare providers with the opportunity to drive advances in effective care delivery at the patient level.

De-risking IoT in healthcare: Ensuring Security in the Medical Internet of Things

The number of medical connected devices continues to grow, to such an extent that we are on the cusp of an era that will see the rise of the Medical Internet of Things (MIoT), giving rise to distinct threats and security issues. Most Healthcare providers approach to security continues to be tactical in approach rather than strategic, with providers only taking a strategic approach once they have been the subject of a successful attack. Beating cyber criminals requires collaboration across the various stakeholder silos and an understanding of the use of connected medical devices across the estate.

Personalised care for the masses: Using IoT and patient engagement tools to unlock outcomes

The use of population healthcare management practices is increasing the need to for healthcare providers to engage more deeply with consumers and patients. Sometimes these are one in the same, in others they are not. Some consumers, with the right communication, will never become patients. Consumers and patients cannot be segmented into tidy groups, they require personalised and targeted communications. The adoption of Patient Relationship Management (PRM) tools and the ability to leverage mobile and other connected devices as part of personalised care programs are being pursued as a means to addressing these challenges. Facilitating the interaction between existing and future patients of the healthcare provider, and helping to organize and automate the activities that support the patient experience.

Transforming outcomes with data: Using AI and advanced analytics to enhance diagnostics, clinical trials and drug development

As the delivery of healthcare expands beyond the traditional

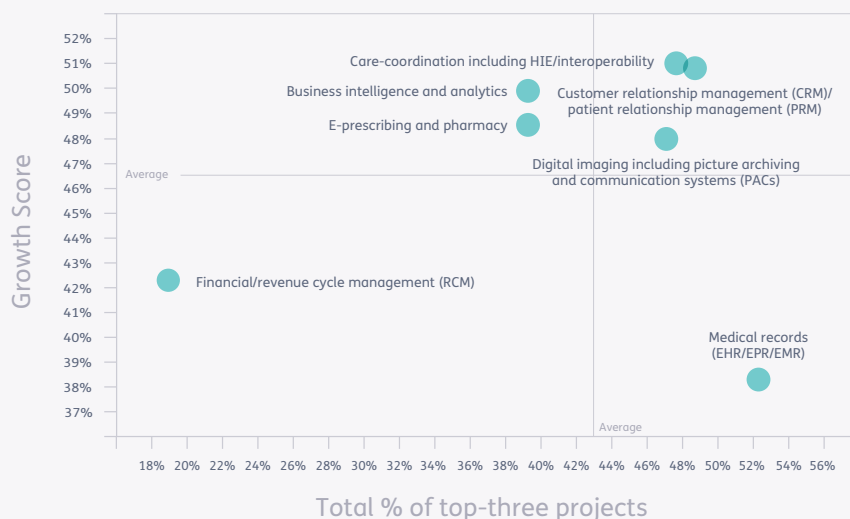


confines of hospitals and doctors surgeries, and treatments become increasingly personalized the gap between pharmaceutical companies and healthcare providers is shrinking. At the same time the use of digital tools, automation, analytics, data, etc., is enabling the creation of healthcare markets that connect groups of consumers with providers and supports the expansion of wellness and population health management activities. This approach is supported by the shift to focus on outcomes from healthcare. This requires greater co-operation between pharma companies and healthcare providers to enhance clinical trials and drug development, create more targeted and personalized care choices, including preventative care.

What's new

PRM Adoption Framework – to help providers better understand the opportunities

IT prioritization



Sample size:
461

Question:
X-axis - What are your top-three IT projects (in terms of total investment value) for the next 18 months?

Y-axis - What are your IT spending plans for each of the above domains during the next 18 months? (Growth score = % increasing - % decreasing)

The bubble size represent the relative investment priority.

Vertical:
Healthcare

Healthcare establishment type:
All

Country:
All

Enterprise size:
All

The Market Challenge

Smart metering, smart grids and smart home services are just some of the examples of emerging new business models that are driving transformation amongst utilities and creating more complex relationships with customers. For the majority of utilities the reality is that they are just beginning the journey to adopting digital tools that will allow them to take advantage of opportunities presented by these changes. These new complex relationships require more complex but flexible administration and customer communication systems to support new business models. However, the risk and cost of replacing these are holding many utilities back from adopting platforms that would support new business models. Replacing these is likely to be one of the biggest and most risky projects for utilities over the next few years.



Kieran Hines
Head of Industries

How Ovum helps you

Understand how utilities are investing to improve the customer experience and to meet the challenges of this rapidly evolving industry, and what this means for ICT investment priorities in 2018.

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving the IT investment agendas of utilities at a country and regional level.

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of utilities.

Key Deliverables

ICT Enterprise Insights – Global survey of pain points and IT buying intentions among utilities for 2018-19

Enterprise Case Studies – Highlighting global best practice and innovation in the utilities sector

“Data management is a core investment area for the industry, with 41% of utilities prioritising as a top three it priority for 2018”

Themes for 2018

Rethinking data in support of transformation

The traditional utilities business model is no longer fit for purpose. An increasing focus on customer experience, IoT, electric transport, and the growth in distributed energy technologies are just some of the major drivers of change. Data management aspects of transformation are a particular challenge to utilities. The industry has to improve governance and quality, especially as the number of smart devices grows. Data management and security should not be afterthoughts in a digital transformation.

Putting ‘relationship’ back into CRM for utilities

The clock is ticking for today’s utilities. Disruption from technology is changing the business model, lower barriers to entry, developments in IoT and Smart spaces (homes, businesses, cities) are presenting opportunities for new services. If utilities are to withstand the changes they need to adapt their approach to customer engagement and management, an area that has suffered from under investment despite the increasing level of competition. No longer though, investment is rapidly increasing, especially around digital channels.

Utilities rethink IT service delivery with adoption of “as a service” model

Digital transformation does not just occur. It is a lengthy, and sometimes painful process. The adoption of “as a service” model by utilities is a case in point. Given the conservative nature of utilities, it is no surprise that some of the biggest barriers to adoption have not always been technical, in many cases they have been cultural. However, things are changing, and “as a service” delivery of IT services are starting to be adopted more widely across utilities estates, especially as reliance on in-house IT services diminishes as utilities start to look towards self-service capabilities for provisioning IT.

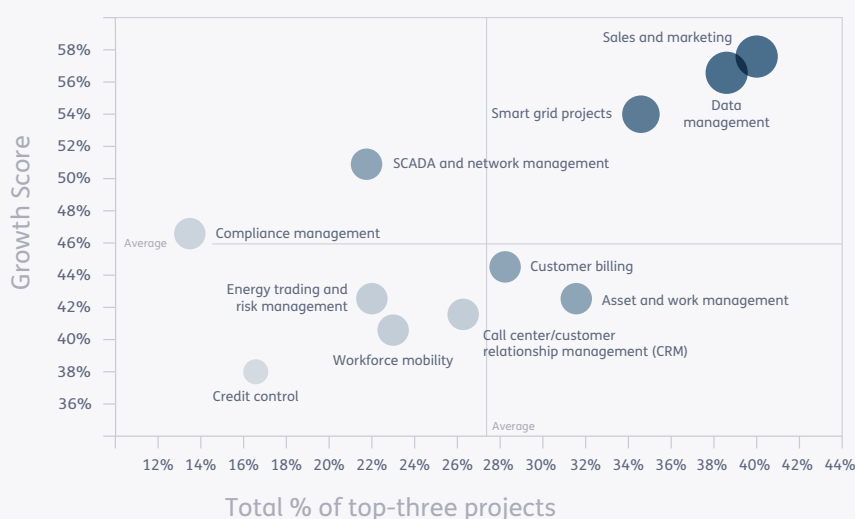


What's new

ICT Spending Forecasts – Global 5 year projections for education IT spending, segmented by country, source and line of business.

Utilities are unshackling themselves from legacy systems

IT prioritization



Sample size:
467

Question:
X-axis - What are your top-three IT projects (in terms of total investment value) for the next 18 months?

Y-axis - What are your IT spending plans for each of the above systems during the next 18 months? (Growth score = % increasing - % decreasing)

The bubble size represent the relative investment priority.

Vertical:
Financial markets

Organisation type:
All

Country:
All

Enterprise size:
All

The Market Challenge

The payments industry is in the midst of huge change, driving considerable acceleration in IT investment. The need to deliver on growing customer expectations and regulatory-driven infrastructure and competition initiatives is driving institutions to create the capabilities for rapid innovation in their offerings for corporate, retail, and SME customers. Open banking and immediate payments, are the most important catalysts for change, with many institutions now looking to develop significant new capabilities across the middle and back office to support the future of their customer facing offering. Distributed ledger technology and blockchain continues to prove its worth in niche areas, and will become a more important part of serious discussions about the future of certain areas of market infrastructure in particular. However, it is the opportunities that open APIs present to deliver entirely new products, services, and business models is the area that will dominate investment priorities in 2018.



Kieran Hines
Head of Industries

How Ovum helps you

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving payments IT investment agendas at a country and regional level

Benchmark against your competition, with independent verification of the market leaders, challengers and followers in Ovum's Decision Matrix series

Stay ahead of the competition, by understanding where and how new entrants, digital service providers and established vendors are bringing new products and services to market

Key Deliverables

ICT Enterprise Insights – Global survey of payment provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for payments IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas, including card management platforms, white label digital wallets, and payment switch

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Total IT spending on payments-related software and services will reach \$56 billion in 2021

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Themes for 2018

Payments and Open Banking: Gateway to the future value chain

With institutions in all territories now actively formulating their open API strategies (the majority regulator-driven), the focus is turning to what this will mean for industry. In the short term, implementation strategy, service innovation (both in retail and corporate), security, data protection and standards are key issues, and will drive the majority of investment decisions. However more essential questions remain, most critically around what open banking really means for revenues, the value chain and future role of banks within it.

Infrastructure to Innovation: Investing to deliver the next generation of payment services

Growing complexity in the payments industry will increasingly require modern, flexible underlying systems and architecture to support growth. In addition to the investment needed to deliver against customer expectations for real-time and digital first services, major initiatives such as immediate/real-time payments and steady growth in the development of blockchain/distributed ledger technology across correspondent banking and trade finance in particular will be key drivers of activity.

Identity, security and payment fraud threat: Finding opportunities in risk mitigation

Managing the risks around fraud and financial crime are core to the business model, but the evolving nature of the threat and growing challenge of cyber-security put these high on the industry agenda. In retail payments, the need to balance risk against the customer experience means that biometric authentication, artificial intelligence, predictive analytics, and the technologies like 3D Secure 2.0 will prove critical. At the same time, interest in supporting digital identity assurance will provide clear opportunities to provide new solutions to customers.

Reducing frictions and driving transactions: The changing role of payments in an omnichannel world

With the customer experience now the focal point for innovation, if not outright survival in many merchant segments, payments has a key role to play in how businesses of all types interact with their customers. Merchants will increasingly demand payment services that can be seamlessly embedded within any number of commerce experiences, devices and contexts. For the industry, the need to support this diversity of options will require new thinking and particularly around



security. Developments in high growth markets such as China and India will provide important lessons for the rest of the world.

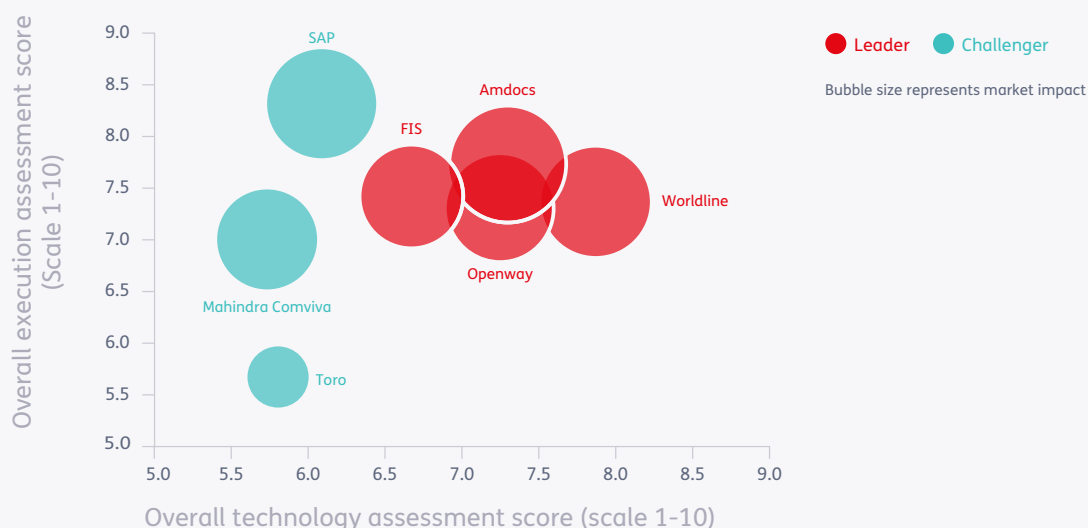
Analyzing global services contracts

We track the evolution of ICT managed services as these expand to include applications services and performance management, and cloud-based service delivery. Ovum maintains an IT services contracts database (ITSCA) as well as uniquely monitoring global services deals from telcos. Together, these provide the most comprehensive picture of the changing shape of the deal in enterprise managed services, in region and globally.

What's new

Payments Software Contracts Analytics – Global analysis of packaged software deals, segmented by institution, vendor and solution area

White-label mobile wallet solutions, 2016-17



Enterprise Decision Maker

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Spencer Izard

Chief Analyst

“ As digital transformation gathers pace, enterprises face the twin challenge of transitioning both the IT function and the technology environment to an as-a-service model ”

The Market Challenge

Enterprises are faced with two seemingly conflicting drivers: meeting regulatory demands for the tight control of information, and the business pull to liberate that same information for use in value-adding analytics. However, these objectives need not be at odds. Comprehensive control of data has downstream benefits for the entire enterprise, delivering both analytics-led business value and compliance.

It is not just a technology problem, culture is at the heart of the issue as well. As the enterprise looks towards digital transformation and the implementation of new technologies like artificial intelligence, the culture of the enterprise will need to be receptive before business value can be realized. By managing data at the source, whether on-premises or in the cloud, business drivers can be aligned and data leveraged equally both reactively and proactively.



Tom Pringle
Head of Applications Research

How Ovum helps you

Explore and understand how compliance can be a driver to business value not just a matter of ticking boxes.

Learn best practices for building a data-driven enterprise culture that does not compromise governance.

Marshal the march to the cloud with a multi-cloud approach to delivering data and analytics.

Evaluate emerging data science & artificial intelligence technologies that can augment and improve everyday business processes.

Understand why mobility is a vital digital transformation pillar and how it can be exploited in modernizing legacy systems and optimizing business processes.

Key Deliverables

Protecting information for business value – best practices and hands-on advice for effective protection of information to help achieve compliance and business value

Cloud platforms for data and analytics – market landscapes and vendor assessments of key cloud data and analytics solutions to successfully navigate the transition to the cloud

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Cloud bi & analytics software spend across industry verticals will hit \$7.1Bn by 2021

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Data science and AI – practical thought leadership tackling the challenge of new AI-powered capabilities and data science, their adoption and finding enterprise value

Building the digital workspace – frameworks and blueprints for building the data-driven digital workspace

Themes for 2018

Compliance as a source of competitive advantage

Compliance has traditionally been approached in a reactive manner, missing the business benefits that compliance can achieve. Most regulatory imperatives, such as the EU's GDPR, are about driving better enterprise control and accountability for data. Compliance and information management technology are intertwined, tools like metadata management, NLP, machine learning, cataloging, and data masking/protection are all critical to making sense of an enterprise's data. Compliance goals, when closely integrated with business strategy, can amplify analytics outcomes and drive profitability.

Defining a viable multi-cloud strategy for data management and analytics

As enterprises move business-critical workloads and the data that powers them to the cloud, they will be making de facto platform decisions. They are facing a repeat of the same generational platform migrations decisions that enterprises faced when they conducted their "open systems" migrations. This strongly influences data management & analytics because, increasingly, analytics are being pushed into the data tier. The goal should be implementing viable multi-cloud strategies that maximize the benefits of data and analytics in, and out of the cloud, while minimizing the risk of cloud platform lock-in and creating new data silos.

Using AI and data science to accelerate digital transformation

The future of AI – and the data science that is its foundation – in the enterprise is a story of integration and orchestration across enterprise applications. Digital transformations have begun, powered by the transition to cloud and a proliferation of connections: from and between consumer to business to device or application. These connections generate reams of data – consuming, analyzing and acting upon such vast and fast-moving data is beyond human capability. Integrating AI into enterprises' applications will tackle this opportunity through automation. For those who can orchestrate multiple AI, a benefit greater than the sum of its component parts is waiting.



Fostering a strong data culture for effective enterprise analytics

Enterprises must establish and nurture a strong data culture to harness and profit from the wealth of data, and the myriad tools to access and analyze it. Data management technology and governance frameworks are required to mitigate risk, and successfully integrate data-driven decision making into enterprises' everyday business – freeing users to seek and find value without compromising corporate or compliance standards. Data initiatives – whether technology, people or process related – demand sponsorship at the C-level, helping foster a sense of business ownership of data. The tools for non-expert users to source and explore data are here, enterprises must now make what they can achieve part of their culture.

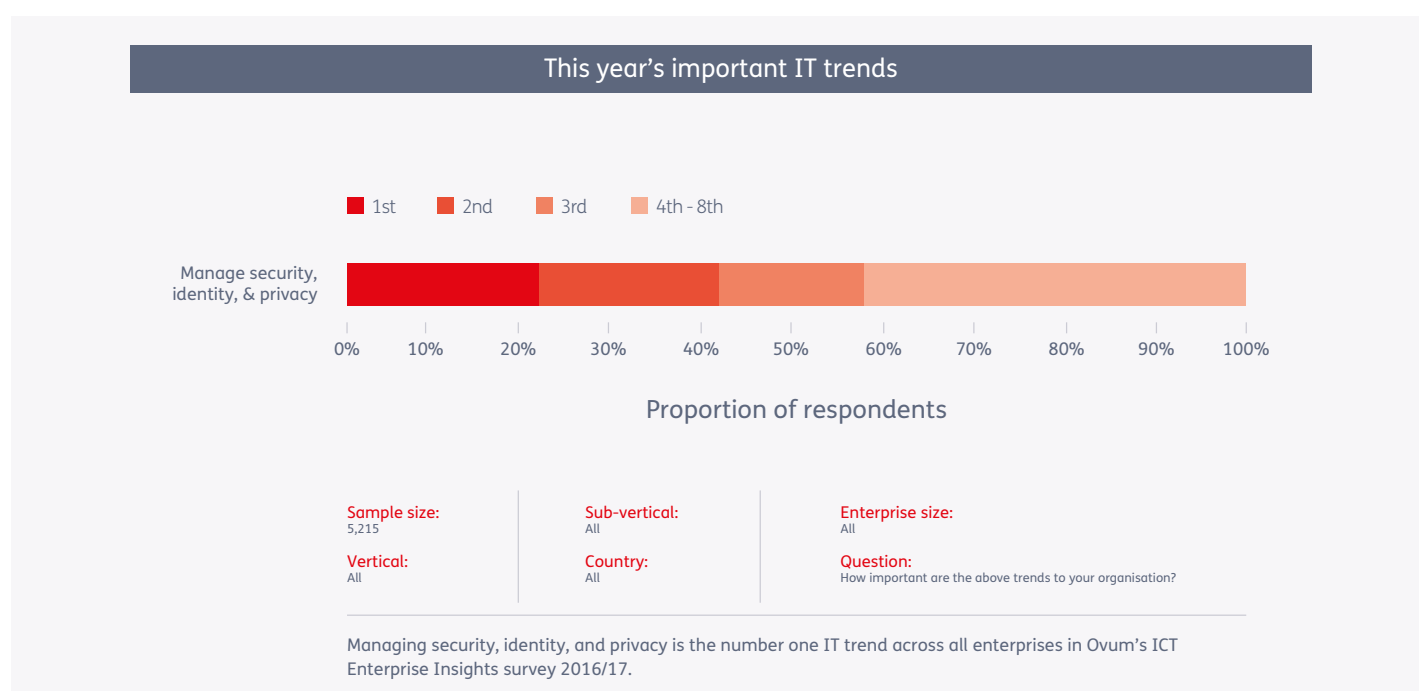
What's new

Track the transition to the cloud – with new cloud market forecasts covering data & content management, BI, analytics and big data

New topic packs of research covering key enterprise challenges – including GDPR and Artificial Intelligence

Understand enterprise investment plans for cloud deployments – in Information Management with an expanded ICT Enterprise Insights survey

Managing security, identity, and privacy is the number one IT trend across all enterprises in Ovum's ICT Enterprise Insights survey 2016/17



The Market Challenge

Software needs to be front and centre for every enterprise today. Organizations that cannot move fast enough to modernize their platforms and systems, provide everything on demand, and compete with cloud-native rivals will suffer.

While at an early stage of adoption for many, a cloud-centric approach is the future. The shift to cloud continues to gather pace and is very much a story of how to exploit and manage multiple clouds.

If software is at the heart of the organization, then data is very much its life blood and most valuable resource. Data must be protected and meet compliance needs when at rest, in motion, and in use.



Mark Blowers
Practice Leader

How Ovum helps you

Bolster network and data protection with an end-to-end proactive security architecture

Make software development a core capability

Improve the speed of service/software delivery through the use of agile and DevOps

Understand the impact of digital transformation on the IT function

Develop a strategy to modernise core systems

Define the criteria to use when selecting cloud-based services

Understand and adopt the latest integration approaches

Meet compliance obligations across all technology deployments

Key Deliverables

Ovum Decision Matrix – Comparative evaluation of the leading enterprise technology solutions.

Market Radar – Solution capability comparisons for emerging technology areas.

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70% Of
companies
with 10,000+
employees are
modernising
legacy software
”

Case Study – Recommendations, best practice, and advice from real-world solution deployments.

Software Market Forecast – A five-year view on growth in the infrastructure software markets, segmented by vertical, region, and function, and updated annually.

Themes for 2018

Increasing cyberattacks impacts data protection and network security

In every industry, security breaches are increasingly inevitable which means capability that enables data protection is a priority, especially with GDPR in 2018. The effectiveness of a signatures-based approach to security continues to wane and distributed denial-of-service (DDoS) attacks get bigger and more frequent. Organizations need to upgrade network security to counter the onslaught of more, and more varied, forms of exploits.

Adopting a cloud-native approach is the new differentiator

Becoming cloud-centric means the use of microservices, and containers, as well as exploiting multiple clouds and everything-as-a-service to improve flexibility, and reducing waste by only paying for what is used. Organizations also need to assess their strategy for developing and deploying software in the wake of the new paradigms that are sweeping through IT. Digital transformation, has turned the spotlight on software, and integration.

Utilizing intelligent software to foster innovation in IT

The adoption of AI technology continues to grow rapidly with the fast pace of technology transfer from research into products and services. AI encompasses a number of technologies with software robotics and machine/assisted intelligence making waves at the moment, of which deep learning is gaining traction within machine learning algorithms.

Modernising core systems by breaking up the monolith

One of the biggest challenges for traditional businesses is how to exploit cloud technologies and platforms with monolithic core applications. Many organizations are adopting software architecture that comprises of many independent and loosely coupled parts, alongside an API-centric approach. Once inside containers, these applications can gain some benefits, such as portability, and can use continuous delivery and infrastructure-as-code styles of development.



Mitigating the impact of IoT on platforms and infrastructure

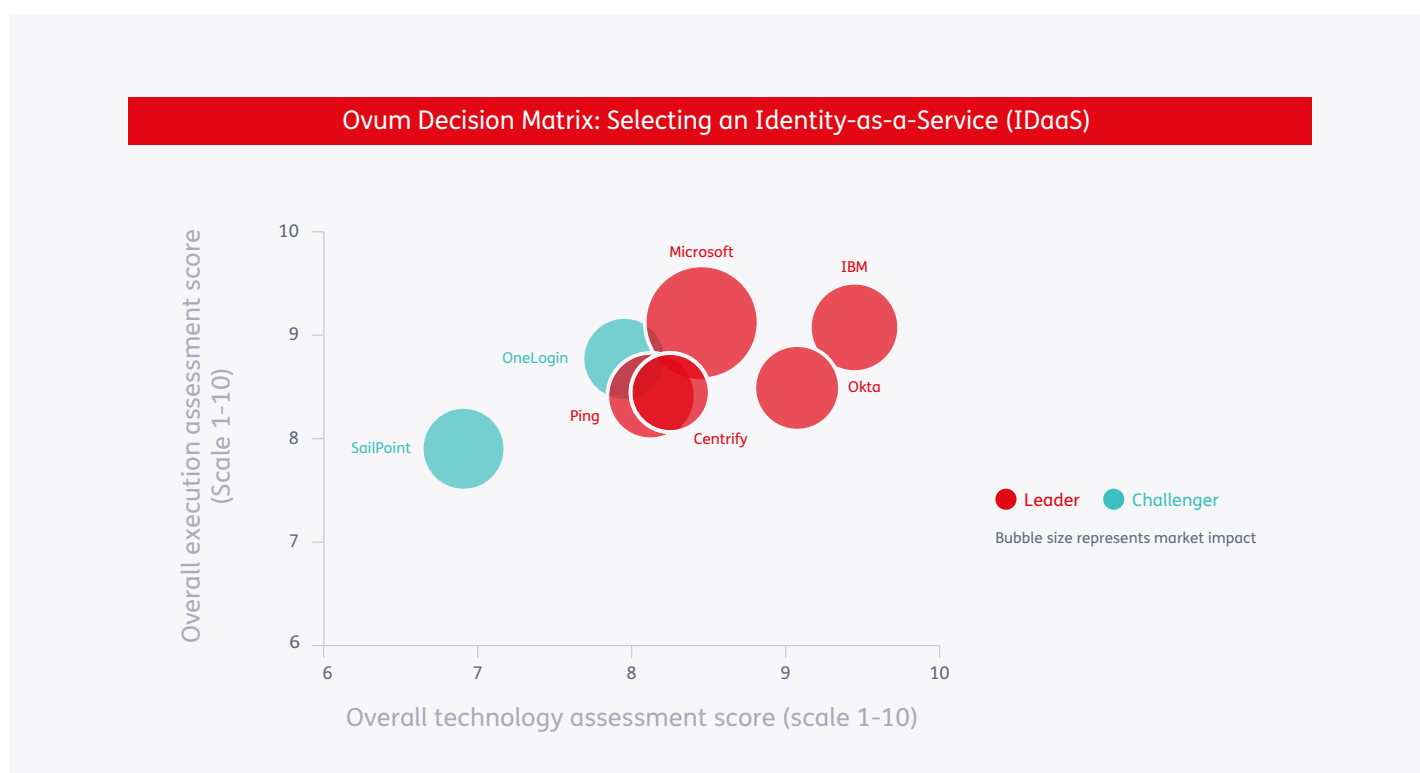
IoT represents a paradigm shift for security challenges, as potentially billions of new devices connect to the web. It has created an urgent need for scalable and secure platforms to support the increased data volumes. IoT is also a big driver for the use of automation and edge computing in the IT environment.

What's new

New Ovum Decision Matrix – Selecting a Network Security Solution

Expanded – coverage of enabling technology for artificial intelligence

Ovum Decision Matrix: Selecting an Identity-as-a-Service (IDaaS)



The Market Challenge

Ovum continues to witness the evolution of the CIO's role in terms of delivering IT services at a faster and more flexible pace for business outcomes. Digital transformation is unlike prior technology trends because the need to address it comes from an ongoing evolution in how consumers/clients/citizens engage holistically with organizations. This continues to exert pressure on organizations to adapt and react quicker to this external shift in business engagement across industries and countries. Suppliers can no longer position their value purely in terms of technology capability alone but rather messaging, and engagements, must be primarily focused on how they support business level outcomes through technology and/or services. It is essential for suppliers to understand how IT leaders are evolving IT functions and service delivery in support of digital agendas to address increased levels of business change occurring across industries.



Spencer Izard
Chief Analyst

How Ovum helps you

Gain insight into how Ovum is advising enterprise decision makers to enhance how you engage with enterprises.

Learn how enterprise decision makers are structuring their IT organizations in response to their digital journey.

Understand the major technology and organizational trends impacting enterprise decision makers to provide insight for how suppliers should improve their engagements with enterprises.

Discover how IT management best practices are being applied to maximize the value of IT-enabled business investments.

Key Deliverables

Trends to Watch – reports for major industry and technology domains.

Enterprise Case Studies – explain how peers have used technology to solve business challenges.

ICT Enterprise Insights – shows key trends based on over 6,000 interviews.

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90% Of enterprises have started creating a clearly articulated strategy but only 22% consider themselves well advanced in their digital journey

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Ovum Decision Matrices – provide comparative evaluation of the leading enterprise solutions and services.

On the Radar – reports highlight new solutions and providers of emerging technologies.

How-to-Guides and Maturity Models – help you to understand best practices for technology deployment and management.

Themes for 2018

Pivoting IT to support digital business goals

No matter which direction an organization chose to orient its business strategy, with regard to digital, very few organizations analysed their IT function to determine how it would need to evolve. Leading to many organizations trying to achieve their perception of digital without having an IT function that was fully prepared to deliver and manage services from both operational and cultural perspectives.

The journey from producing solutions to delivering services

Bespoke technology deployments should not be considered the norm for a modern IT function but rather the last resort where a commodity technology will not suffice, where the cost of bespoke versus commodity over the lifetime of the IT service is lower, and/or where tangible competitive business advantage can be demonstrated. IT functions no longer need to operate internally in a manner akin to an external cloud or outsource service provider. The majority of IT services required by an organization are common across all organizations.

Refining the perception of the CIO's role

At the heart of creating, realizing, and managing an organization's digital agenda is the role of the Chief information officer (CIO). It can be debated whether the title needs to change from information to digital, or another label, but the role of the CIO is essential to the success of digital. However, for many CIOs the challenge is how to refine the perception of the role at the C-suite level to become a valued digital leader.

Using enterprise architecture to avoid digital chaos

Research shows that as businesses adopt digital strategies, the complexity of the technology landscape can increase significantly, with increased integration points and a proliferation of services. Enterprise architecture can provide a valuable framework in which to set digital



initiatives, improving the degree of coordination across digital services and core systems.

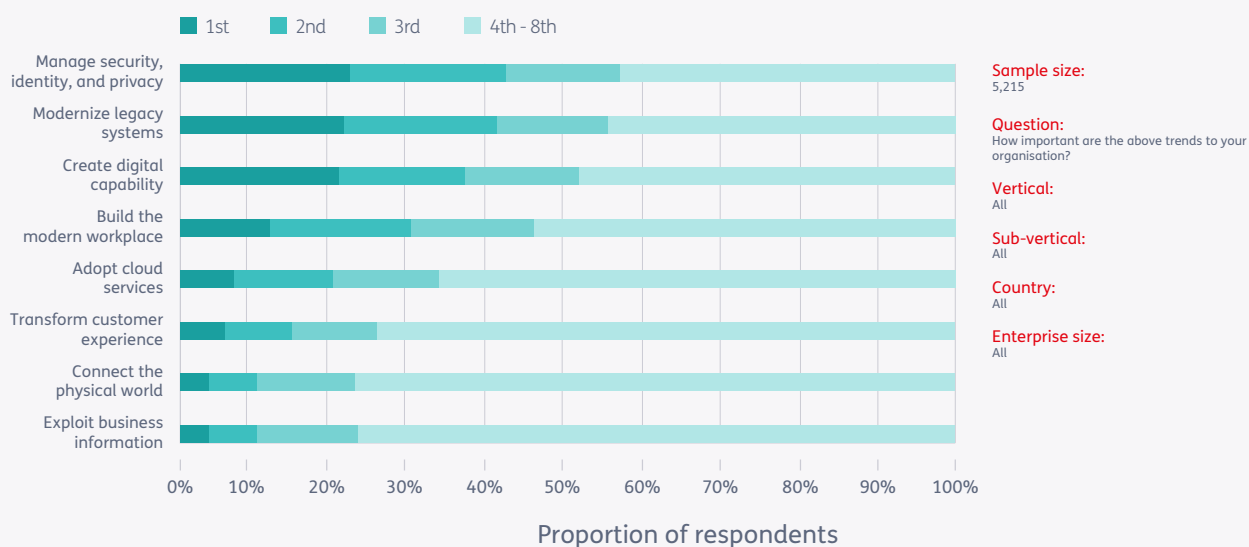
What's new

Expanded coverage of the vital role the CIO provides to an enterprises ongoing digital journey.

Updated enterprise IT spend benchmark.

Identifying the differing dynamics of industry trends in relation to how, and when, they provide the most benefit and relevance for enterprises.

How the Ovum 'Super Themes' are globally impacting IT leaders



The Market Challenge

The fundamental challenge for any enterprise is to meet the expectations of its customers, patients, citizens or students. This perennial challenge is getting harder, as customers, empowered by technology and digital experiences demand more. Enterprises which fail to meet this challenge run the risk of irrelevancy.

To keep pace with technology and meet customers' expectations, enterprises must continuously evolve their approach to service delivery. They must build an agile architecture that allows them to quickly scale, enables frictionless experiences across all channels and devices, and be able to respond in real time to customers when and where they need assistance. No enterprise can afford to be a customer service follower, and to remain relevant should strive to engage with the customer proactively, not reactively.



Tom Pringle
Head of Applications Research

How Ovum helps you

Understand – and act on the challenge of moving beyond omnichannel to maintain relevancy in the digital age.

Learn – about continuous innovation and the culture required to support it to deliver on customers' expectations.

Explore – and plan for a customer-centric architecture that composes unique customer experiences without compromising standards.

Identify – and evaluate practices and technologies for keeping up with constantly evolving customer behaviors.

Understand – enabling technologies and vendors which can help enterprises orchestrate customer engagement across any combination of channels.

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90% Of enterprises are failing to create and deliver new digital services yet top line growth is the number one business challenge

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Key Deliverables

How to building the omnichannel foundation – analysis and guidance on developing the omnichannel foundation

How to create the conditions for rapid adaptation – through innovation in products, services and business models

The role of ecosystems in continuous innovation – how to develop an effective ecosystem of partners for continuous innovation

Leadership roles in digital transformation – who should help the CEO transform the enterprise?

Themes for 2018

Building an omnichannel platform foundation for customer engagement

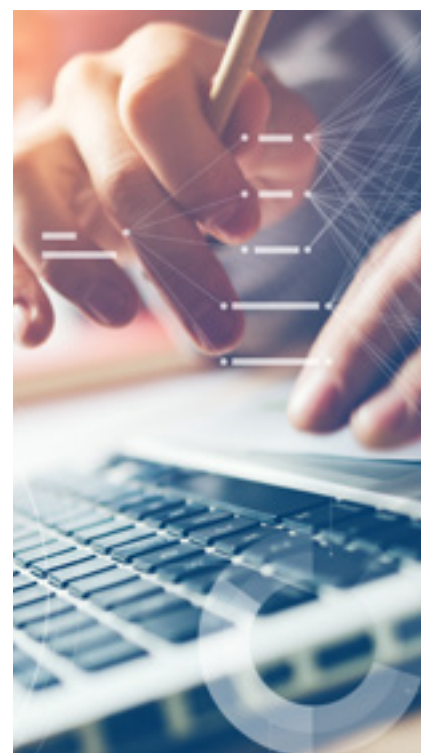
Enterprises must proactively engage with customers along their digital and physical journeys at the right time, place, and device. This can be achieved with the building blocks of an omnichannel foundation; including integrating modern CRM platforms with back office, logistics and systems of engagement, and deploying technologies to enhance in-context collaboration and create personalized experiences. With this foundation in place, omnichannel can be augmented with supporting technologies from Robotic Process Automation to eliminate repetitive tasks and integration of AI and machine learning to dynamically orchestrate the customer experience, through Virtual Assistants to support intelligent customer self service.

Developing a customer-centric culture for the adaptive enterprise

Enabling omnichannel must begin by developing a cultural and organizational orientation around the voice of the customer before architecting the customer journey. For a customer-first enterprise to take hold, enterprises must align people, processes, and technologies via the vehicle of digital transformation, to deliver proactive customer engagement. Customer-first thinking must be infused into every aspect of the organization, standards and policies must deliver on CX, and culture must link to the mission. Unification and open access of technologies must occur through unified interfaces, customer engagement hubs, and cloud-based workforce management so the customer journey is always in view.

Designing a flexible, scalable architecture for composing personalized customer experiences

Changes in the fundamental structure of customer engagement – hardware to software, on-premises to cloud, live-agent assistance to artificial intelligence-powered chat bots, analytics, and mobile everything – is driving change in the architecture and processes of customer engagement. Global reach and scale is a necessity as customers expect standardization across international organizations:



they also expect a tailored experience. To achieve this requires a flexible architecture, built upon a concert of services which allow for constant technology evolution, and the delivery of a market, geographic, and enterprise-specific “composable” personalized experience in real-time – while adhering to the framework of corporate standards and compliance requirements.

Customer engagement solutions must prioritize superior security and privacy to build customer trust

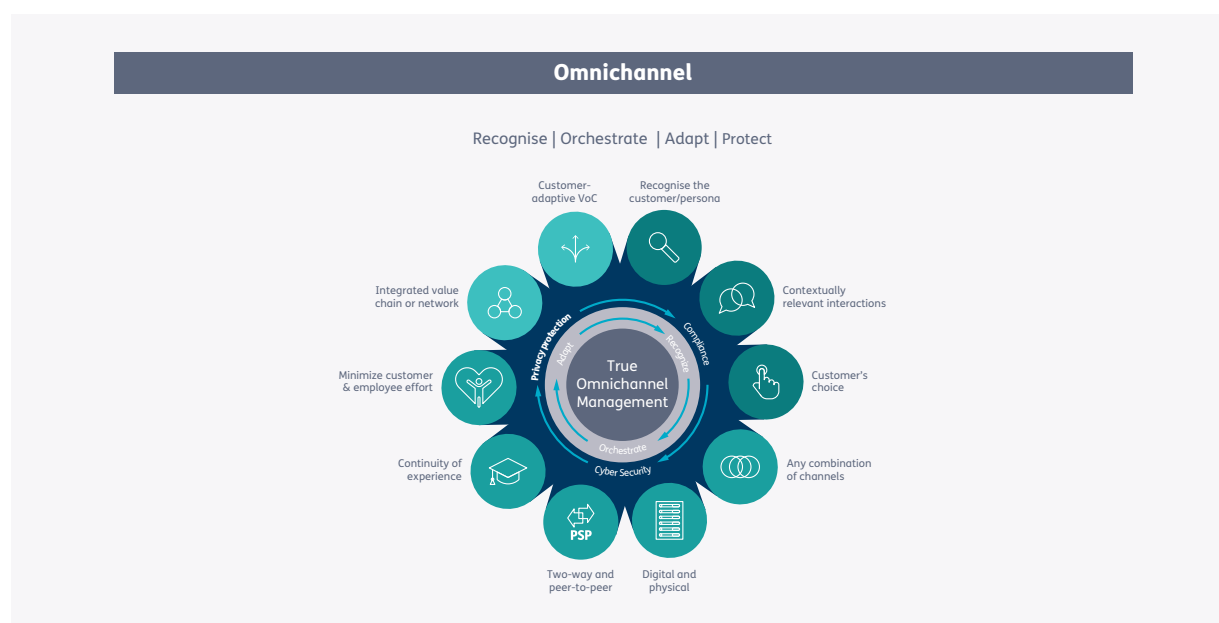
Whether through accident or malfeasance, sensitive data can be exposed through holes in the expanding digital marketplace, with potentially great harm to customer and enterprise alike. Enterprises must ensure compliance with regulation regarding customers’ identifying data, such as GDPR, and respect privacy choices. Taking this approach will realize the benefits of being a trusted brand. Technological answers for enterprises need to cover considerable ground, from applying big data analytics and machine learning to fraud detection, through implementing unified privacy standards across multiple databases, applications and a growing device landscape encompassing the IoT.

What’s new

Understand how CX microservices can be consumed to adapt and augment omnichannel customer engagement

Consider Robotic Process Automation and how it can be used to boost customer engagement capabilities and improve the working environment for employees

Explore the possibilities to harness a portfolio of feedback mechanisms to drive customer relevance and rapid adaptation



The Market Challenge

Enterprises looking to transform business processes typically want to improve employee productivity, enhance customer service and reduce costs. The introduction of new workplace technology and services goes hand-in-hand with new ways of working. Businesses are looking for service providers that can help them make this difficult and complex transition.

Service providers are building on their traditional enterprise mobility, UC&C, workspace virtualization and managed security capabilities. They need to build their capabilities beyond these services into new areas of technology and into a professional services-led approach if they are to be successful partners for enterprises. It is an increasingly complex play.



Pauline Trotter
Practice Leader

How Ovum helps you

Ovum's research will help service providers build their workspace services offers and help enterprises select service provider partners that meet their needs.

Identify the growth markets for workspaces – size the market opportunity and identify which verticals and geographies will be key

Build the portfolio – the important technologies and services identified through our research with enterprises

Transform services – advice on where to partner and where to build expertise, how to improve delivery and support

“

North America will remain the top market for UC services, valued at \$12bn by 2021

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Key Deliverables

Ovum Decision Matrix – aimed at enterprises selecting a service provider partner for workspace services.

Enterprise CIO surveys – covering both large enterprises and SMEs in multiple geographies and industries.

Forecasts for enterprise communication services – enterprise mobility and unified communications and collaboration forecasts split by company size, country, and industry vertical.

Case studies – real enterprise experience in evaluating, selecting,

implementing, and measuring benefits from advanced communications services.

Tracker – workspace services tracker keeps you up to date on market events, new services, partnerships and deals.

Service Provider strategy updates – provide insight and analysis on new workspace services and new business models for of the top providers.

Themes for 2018

Evolution of mobile workspace services

Service providers have been evolving their mobile workspace offers to incorporate UC&C services, workspace virtualization, adding managed security, service delivery and end user support. As this market evolves, we expect service providers (including telcos, SIs, ITSPs and specialist managed service providers) to focus on helping enterprises deliver on their mobile workspace strategies. This includes building up their professional services skills, integrating new technologies, applications and tools into their services and bringing in new types of partner.

Workspace services for SMEs get more sophisticated

Service providers have traditionally served their SME customers with unsophisticated communications services. Many are now focusing strongly on the SME opportunity and are building richer services, adding messaging, collaboration, conferencing and other functionality to voice. We expect offers to mature further as SMEs, like their larger counterparts, look to improve their competitiveness through the introduction of new technology. This will meet the demands of a younger workforce looking for more flexible and mobile ways of working.

Enterprise priorities in workspace services

As enterprises worldwide continue to act on their digital transformation strategies we anticipate continued investment in services and technologies to support employees with new flexible and mobile ways of working. Many companies are interested in what place new technologies – such as workplace IoT, mixed reality, machine learning and automation – can have within their organisations in driving innovation, greater productivity, and improved customer service.

Evolution of enterprise communications

How businesses consume communications services and deploy communications technology will considerably over coming years. Solutions dedicated to communications and collaboration will continue to be sold to businesses. But more and more communications will



be embedded into a diverse set of software. For example, CPaaS will integrate communications into business apps, IoT will trigger communications events based on alerts, and natural language interfaces will provide new ways for employees and customers interface with collaboration apps.

Mobilizing the workforce

Technology evolutions and continuously changing employee needs are driving new approaches to how enterprises manage and secure devices, apps, identity, and the data that runs across them. Enterprise mobility solutions are evolving, offering new capabilities such as cognitive analytics, identity management and single-sign on, unified endpoint management features, and advanced group policy management functionality. These advancements will support enterprises in more effectively managing a more diverse device, OS, and data estate.

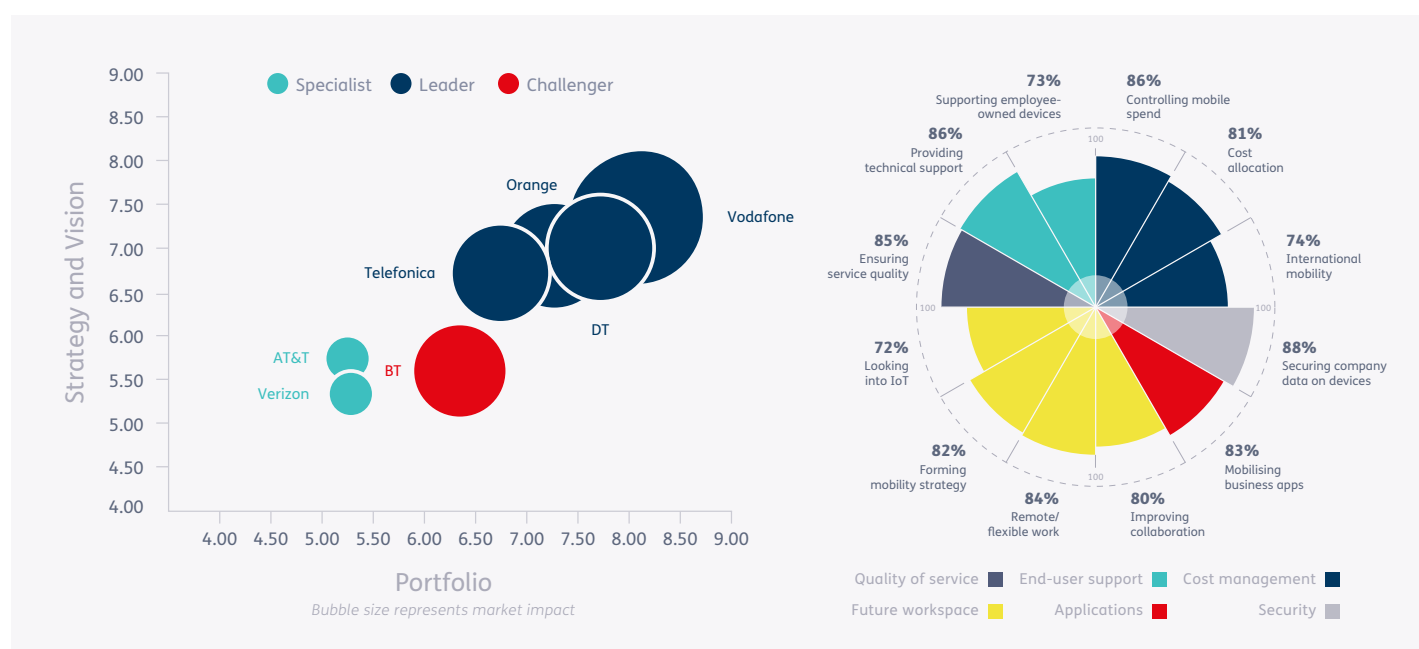
What's new

The place of new technologies in the workplace – extended coverage into new areas

Service provider strategy updates – case studies of new services and business models from service providers

Whole market view – the enterprise workspace market in the context of the whole market

New provider types – coverage of new entrants and SI competitors



The Market Challenge

For years, cost management, network resilience, and security have been the overriding priorities in enterprise network investment. Variations on these themes have appeared as top three user priorities every year in Ovum's research. That focus has changed as the driver for enterprise IT investment has switched from operational criteria to business outcomes. Now, next-gen services such as cloud computing, mobility, and the digitization of business processes are setting the pace for business productivity. But how do enterprise buyers decide priorities for technology investment?



David Molony
Practice Leader

How Ovum helps you

Showing how enterprises can undertake to be agile, cloud-based, and increasingly automated as part of their digital business transformation.

Identifying new developments in enterprise digital services, and show where enterprises can get support for applications modernization and migration to cloud.

Growing digital connectedness makes multinational enterprises an appealing target for cybercriminals. We look at where enterprises can get help in managed security services like threat intelligence.

Transforming customer experience and place the customer at the heart of decisions about business process and new product/service development.

Key Deliverables

Ovum Decision Matrix – helping enterprises selecting a service provider partner for managed security.

IT services contracts analytics – weekly updated tool covering contracts signed by major service providers.

Enterprise CIO surveys – covering services priorities for large enterprises and MNCs, in multiple geographies and industries.

Forecasts for digital and cloud services – enterprise IT services and cloud services forecasts split by company size, country, and industry vertical; telco-managed ICT services forecasts by service type, to geographic region and industry vertical.

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More than 40% of large businesses have outsourced applications modernization in 2017/18 for core workloads, overtaking data center and end-user compute

”

Service provider strategy updates – analysis of new digital services and business services models from top providers, with a particular focus on strategies in applications services and managing customer experience for multinationals.

Themes for 2018

Application services modernization

Business applications modernization and agile process transformation go hand in hand when it comes to building the adaptive enterprise. We examine how global systems integrators and other service providers are changing the way they deliver and maintain offers in managed business applications, especially Oracle, SAP and Salesforce. At the same time, we evaluate the features of these applications vendors' own platform-based offers and assess whether they are competitive with service providers and SIs, or will require new forms of partnership.

Application of automation technologies

We examine how service providers are putting automation technologies to use where it matters. Their tools may be RDA, RPA, AI and cognitive techniques, chatbots and intelligent assistants, but what they use is less important than the proof points and use cases for improved services. We track and evaluate service providers' automation capabilities and their ability to serve customers with industry-specific requirements.

Successful service management

Service provider success depends on placing the customer at the heart of decisions about business process and new product/service development. In this stream we examine how service providers are building out infrastructure and services to support the business customer throughout their digital transformation.

Securing the hybrid organization

Cyber-attacks have sent many enterprises into disaster recovery mode, and are a particular concern in C-suites. In this stream we describe service provider efforts to combat malware and data theft by deploying advanced cybersecurity analytics and threat intelligence as part of a managed security services portfolio that includes security operations centers (SOCs) for central monitoring and customer relationship management to support response teams, process compliance management, and conduct real-time risk analysis across the business.

Analyzing global services contracts

We track the evolution of ICT managed services as these expand to



include applications services and performance management, and cloud-based service delivery. Ovum maintains an IT services contracts database (ITSCA) as well as uniquely monitoring global services deals from telcos. Together, these provide the most comprehensive picture of the changing shape of the deal in enterprise managed services, in region and globally.

What's new

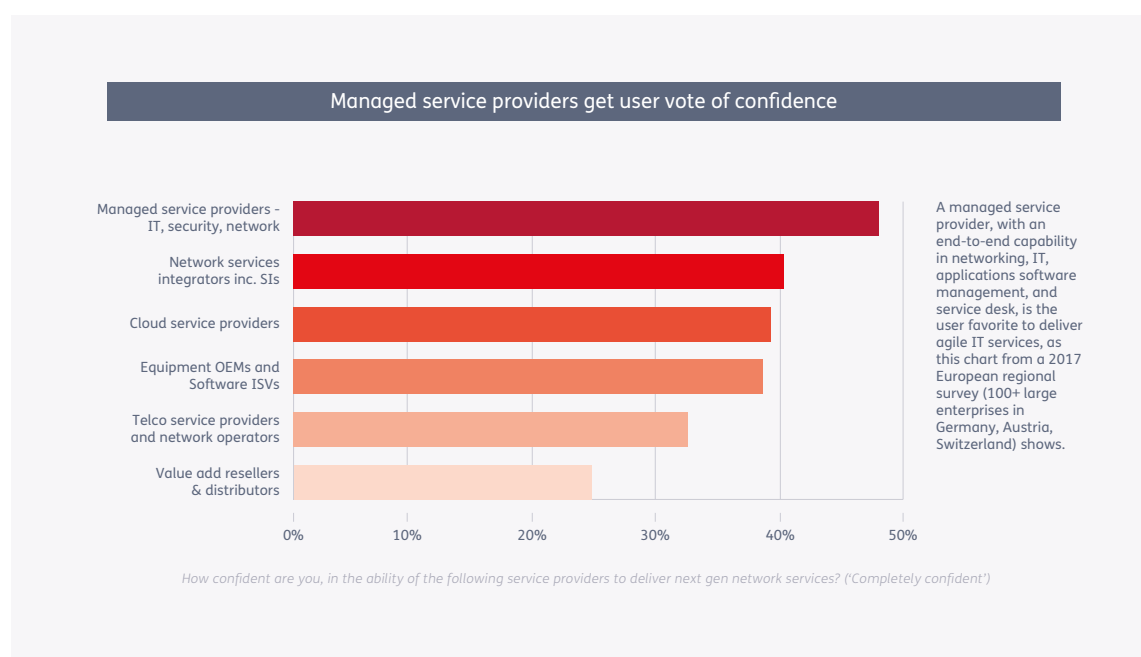
Cloud innovation services out of Asia-Pac – extending our case studies to examine the overall market impact of new cloud services

SI strategies in IoT integration services – most SIs are betting big on IoT as they recalibrate their strategies. How will partner ecosystems change and what can a vendor do to adapt?

Digital platforms – tracking the emergence of digital platform-based service models

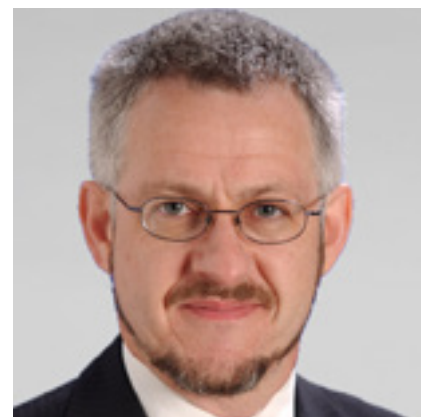
The convergence of provider types – changing partnership and competitive models between telcos, systems integrators, and webscale players

A managed service provider, with an end-to-end capability in networking, IT, applications software management, and service desk, is the user favorite to deliver agile IT services, as this chart from a 2017 European regional survey (100+ large enterprises in Germany, Austria, Switzerland) shows.



The Market Challenge

For years, cost management, network resilience, and security have been the overriding priorities in enterprise network investment. Variations on these themes have appeared as top three user priorities every year in Ovum's research. That focus has changed as the driver for enterprise IT investment has switched from operational criteria to business outcomes. Now, next-gen services such as cloud computing, mobility, and the digitization of business processes are setting the pace for business productivity. But how do enterprise buyers decide priorities for technology investment?



Richard Palmer
Principal Analyst

How Ovum helps you

Learn why institutions are focusing on improving institutional agility, flexibility, and capacity for innovation, and what this means for ICT investment priorities for 2018

Gain insight into the best ways to combine systems that contain student information with management and communication tools to create better student experiences

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of educational institutions

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Global spending on education it will reach \$34Bn by 2021

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Key Deliverables

ICT Enterprise Insights – Global survey of educational institution pain points and IT buying intentions for 2018-19

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas, including student success solutions and online learning platforms

Themes for 2018

Tailoring to the individual: Using data insights to personalize the education experience

Higher education is at a pivotal point. The combination of trends in college attendance, completion rates, and rising student debt mean that colleges need to provide enhanced experiences to students. This means looking beyond information held in learner management systems to

include administration, connected devices (IoT) and other data sources too. Institutions then need to harness this data and exploit it using analytics to build better experiences and outcomes for students.

Driving institutional transformation through the cloud migration of mission-critical enterprise applications

The higher education industry stands on the precipice of profound change, with a myriad of forces calling into question established beliefs about its role in society. In order to thrive or even survive in this environment, colleges and universities must reconsider how they deliver education services and support back-office operations to set themselves apart. The adoption of cloud deployment models and new, cloud-native solutions will be a critical part of achieving this goal. However, important questions remain about effective cloud migration strategies, including ones about solution and partner selection, in what order to take the CRM, ERP, LMS, and SIS to the cloud, and how to manage relations between IT and line of business leadership in a post cloud world.

Managing student experience to support life long learning

The ability to demonstrate value to students is a difficult conundrum for institutions to solve, and can include a range of factors. Key to this though is the student experience. Student expectations of the learning experience continue to evolve, making it difficult for institutions to ensure specific cohorts do not experience worse access to core services. Managing the student lifecycle is an important part in student success, and in turn the profitability of colleges. Technology supports better engagement with students, even before they have set foot on the campus. Responsibility for the student experience does rest with alumni alone. Institutions need to focus on joining the dots between the different information and interaction points to ensure consistency and increasingly personalization of services.

Video as a disruptive force in higher education

Institutions preference for traditional learning technology systems is slowly being replaced by learning experience platforms that combine tools to delivery content and learning materials through new mediums, such as video. Video, while a slow burn, is starting to disrupt the delivery of education content by replacing lectures, one-to-one interactions between alumni and students, and making content available in digestible chunks.

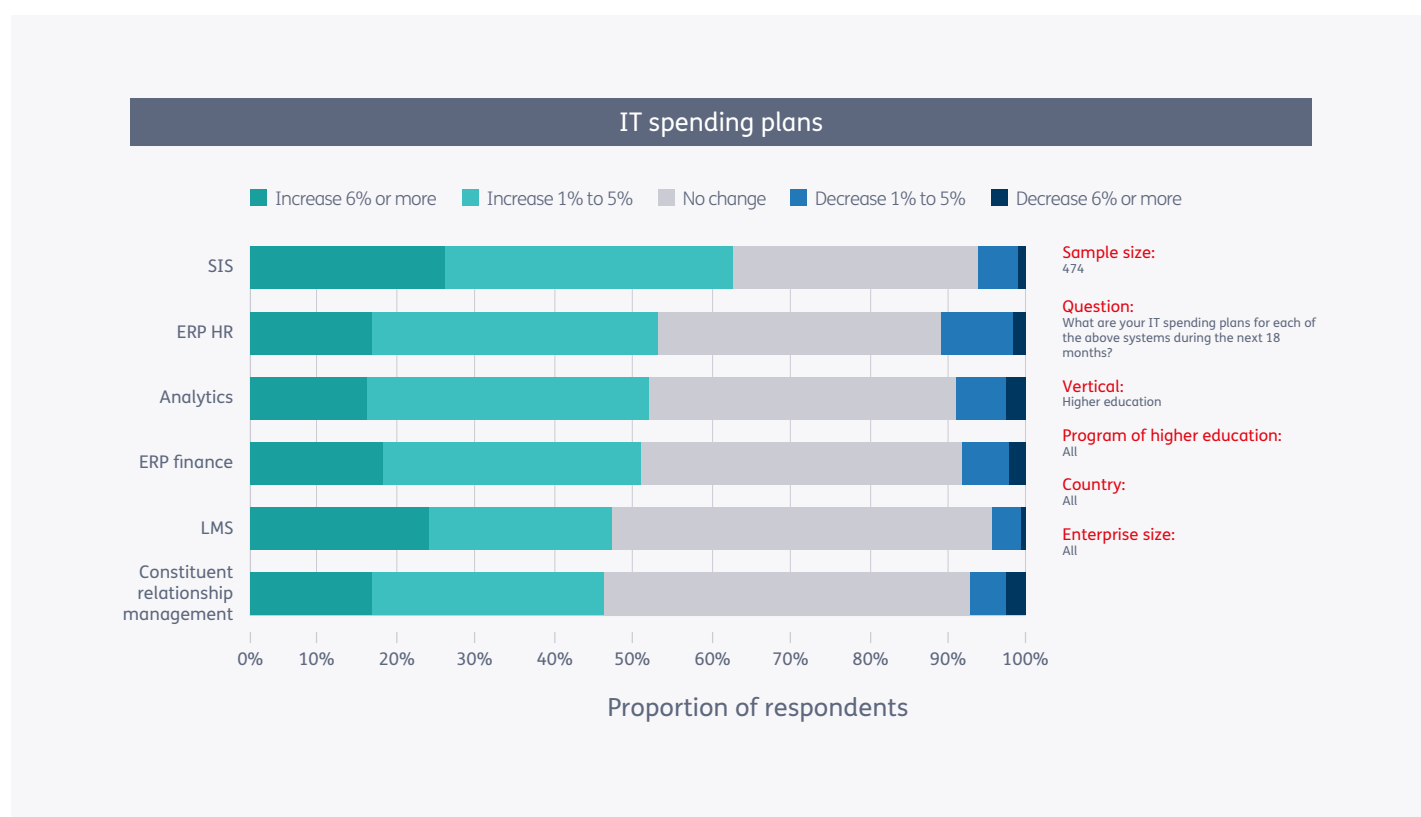
As the volume of learning materials available through video rises, institutions must consider ways to integrate video into their strategy for network services. Investment into technologies such as POL (Passive Optical LANs) can bring fibre into every classroom at a lower cost point than traditional services.



What's new

ICT Spending Forecasts – Global 5 year projections for education IT spending, segmented by country, source and line of business.

Transforming higher education core business services is already underway



The Market Challenge

The payments industry is in the midst of huge change, driving considerable acceleration in IT investment. The need to deliver on growing customer expectations and regulatory-driven infrastructure and competition initiatives is driving institutions to create the capabilities for rapid innovation in their offerings for corporate, retail, and SME customers. Open banking and immediate payments, are the most important catalysts for change, with many institutions now looking to develop significant new capabilities across the middle and back office to support the future of their customer facing offering. Distributed ledger technology and blockchain continues to prove its worth in niche areas, and will become a more important part of serious discussions about the future of certain areas of market infrastructure in particular. However, it is the opportunities that open APIs present to deliver entirely new products, services, and business models is the area that will dominate investment priorities in 2018.



Kieran Hines
Head of Industries

How Ovum helps you

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving payments IT investment agendas at a country and regional level

Benchmark against your competition, with independent verification of the market leaders, challengers and followers in Ovum's Decision Matrix series

Stay ahead of the competition, by understanding where and how new entrants, digital service providers and established vendors are bringing new products and services to market

Key Deliverables

ICT Enterprise Insights – Global survey of payment provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for payments IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas, including card management platforms, white label digital wallets, and payment switch

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Total IT spending on payments-related software and services will reach \$56 Billion in 2021

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Themes for 2018

Payments and Open Banking: Gateway to the future value chain

With institutions in all territories now actively formulating their open API strategies (the majority regulator-driven), the focus is turning to what this will mean for industry. In the short term, implementation strategy, service innovation (both in retail and corporate), security, data protection and standards are key issues, and will drive the majority of investment decisions. However more essential questions remain, most critically around what open banking really means for revenues, the value chain and future role of banks within it.

Infrastructure to Innovation: Investing to deliver the next generation of payment services

Growing complexity in the payments industry will increasingly require modern, flexible underlying systems and architecture to support growth. In addition to the investment needed to deliver against customer expectations for real-time and digital first services, major initiatives such as immediate/real-time payments and steady growth in the development of blockchain/distributed ledger technology across correspondent banking and trade finance in particular will be key drivers of activity.

Identity, security and payment fraud threat: Finding opportunities in risk mitigation

Managing the risks around fraud and financial crime are core to the business model, but the evolving nature of the threat and growing challenge of cyber-security put these high on the industry agenda. In retail payments, the need to balance risk against the customer experience means that biometric authentication, artificial intelligence, predictive analytics, and the technologies like 3D Secure 2.0 will prove critical. At the same time, interest in supporting digital identity assurance will provide clear opportunities to provide new solutions to customers.

Reducing frictions and driving transactions: The changing role of payments in an omnichannel world

With the customer experience now the focal point for innovation, if not outright survival in many merchant segments, payments has a key role to play in how businesses of all types interact with their customers. Merchants will increasingly demand payment services that can be seamlessly embedded within any number of commerce experiences, devices and contexts. For the industry, the need to support this diversity of options will require new thinking and particularly around security. Developments in high growth markets such as China and India will provide important lessons for the rest of the world.



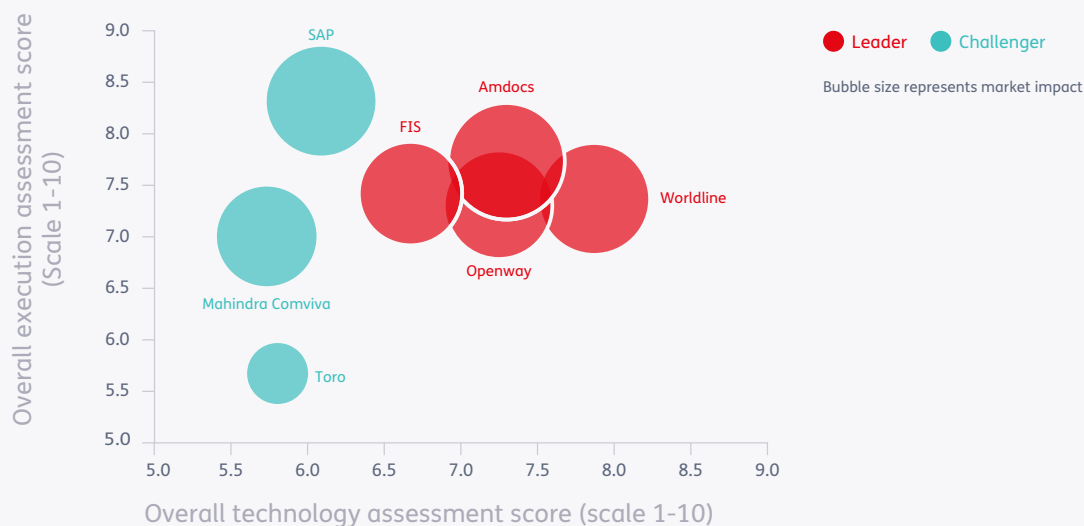
Analyzing global services contracts

We track the evolution of ICT managed services as these expand to include applications services and performance management, and cloud-based service delivery. Ovum maintains an IT services contracts database (ITSCA) as well as uniquely monitoring global services deals from telcos. Together, these provide the most comprehensive picture of the changing shape of the deal in enterprise managed services, in region and globally.

What's new

Payments Software Contracts Analytics – Global analysis of packaged software deals, segmented by institution, vendor and solution area

White-label mobile wallet solutions, 2016–17



The Market Challenge

The speed of regulatory and commercial change in the sector continues to drive the need for innovation. The drive towards value-based care and the changes to reimbursement models are accelerating the need for greater insight into how healthcare is delivered. Aligned to this is the need for the better use of communication channels to prevent chronic health issues from developing, and the use of data to inform AI initiatives. The commercial value of healthcare information coupled with inadequate security measures are enticing an increasing number of cyber attacks and there continue to be reasonable questions around security and the handling of healthcare data that needs to be addressed.



Kevin Noonan
Chief Analyst &
Global Practice Leader

How Ovum helps you

Identify the areas where investment in cloud services, automation and use of data analytics/AI, and what this means for ICT investment priorities in 2018

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving healthcare IT investment agendas at a country and regional level

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of healthcare providers

“

Global spend on healthcare it will reach \$208bn by 2021

”

Key Deliverables

ICT Enterprise Insights – Global survey of healthcare provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for healthcare IT spending, segmented by country, source and line of business

Enterprise Case Studies – Highlighting global best practice and innovation in the healthcare sector

Themes for 2018

Machine learning and automation: Transforming the provision of care

The need to remove waste, inefficiencies and raise productivity are driving interest in AI and automation across healthcare markets. Many processes in healthcare are repetitive and structured, perfect for automating. The combination of analytics, machine learning, and the rise in IoT/connected devices and sensors is providing healthcare providers with the opportunity to drive advances in effective care delivery at the patient level.

De-risking IoT in healthcare: Ensuring Security in the Medical Internet of Things

The number of medical connected devices continues to grow, to such an extent that we are on the cusp of an era that will see the rise of the Medical Internet of Things (MIoT), giving rise to distinct threats and security issues. Most Healthcare providers approach to security continues to be tactical in approach rather than strategic, with providers only taking a strategic approach once they have been the subject of a successful attack. Beating cyber criminals requires collaboration across the various stakeholder silos and an understanding of the use of connected medical devices across the estate.

Personalised care for the masses: Using IoT and patient engagement tools to unlock outcomes

The use of population healthcare management practices is increasing the need to for healthcare providers to engage more deeply with consumers and patients. Sometimes these are one in the same, in others they are not. Some consumers, with the right communication, will never become patients. Consumers and patients cannot be segmented into tidy groups, they require personalised and targeted communications. The adoption of Patient Relationship Management (PRM) tools and the ability to leverage mobile and other connected devices as part of personalised care programs are being pursued as a means to addressing these challenges. Facilitating the interaction between existing and future patients of the healthcare provider, and helping to organize and automate the activities that support the patient experience.

Transforming outcomes with data: Using AI and advanced analytics to enhance diagnostics, clinical trials and drug development

As the delivery of healthcare expands beyond the traditional confines of hospitals and doctors surgeries, and treatments become increasingly personalized the gap between pharmaceutical companies and healthcare providers is shrinking. At the same time the use of digital

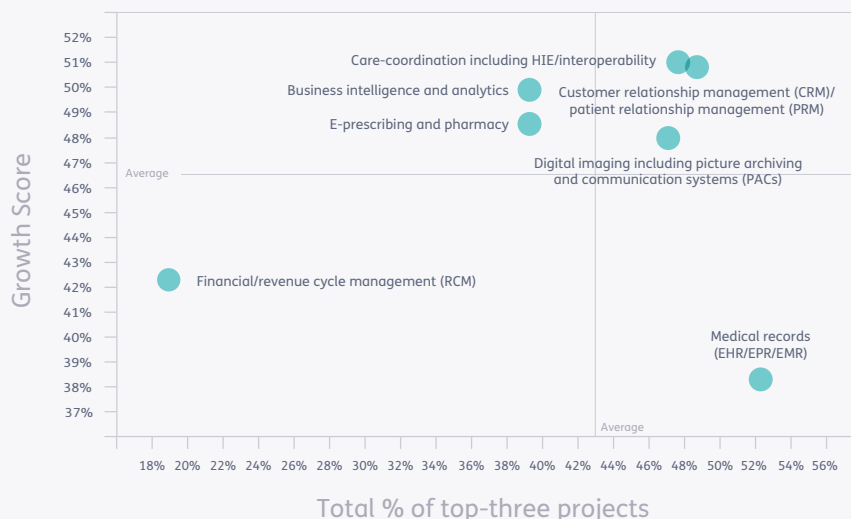


tools, automation, analytics, data, etc., is enabling the creation of healthcare markets that connect groups of consumers with providers and supports the expansion of wellness and population health management activities. This approach is supported by the shift to focus on outcomes from healthcare. This requires greater co-operation between pharma companies and healthcare providers to enhance clinical trials and drug development, create more targeted and personalized care choices, including preventative care.

What's new

PRM Adoption Framework – to help providers better understand the opportunities

IT prioritization



Sample size:
461

Question:
X-axis - What are your top-three IT projects (in terms of total investment value) for the next 18 months?

Y-axis - What are your IT spending plans for each of the above domains during the next 18 months? (Growth score = % increasing - % decreasing)

The bubble size represent the relative investment priority.

Vertical:
Healthcare

Healthcare establishment type:
All

Country:
All

Enterprise size:
All

Government

The adoption of digital services has been driven out of necessity rather than choice due to the fiscal challenges that have shaped the world since 2008. As the fiscal pressure eases a new challenge has risen, that of an electorate that is increasingly dissatisfied with the value that is being delivered by their governments. In response, governments are looking for improvements into the way services are joined up across the back office, increasing the use of analytics to help focus resources, and allowing for greater automation and self-service. The time has come for digital government to deliver more substantial outcomes for citizens.



Kevin Noonan
Lead Analyst

How Ovum helps you

Understand how automation, analytics and cloud strategies will drive ICT investment priorities for 2018

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving government IT investment agendas at a country and regional level

Stay ahead of the competition, by understanding how to effectively position technology offerings to the policy and service needs of government agencies

Key Deliverables

ICT Enterprise Insights – Global survey of payment provider pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for payments IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas

“

The three biggest barriers to agencies undertaking digital programs are security, lack of internal skills, and too many other programs on the go

”

Themes for 2018

AI and automation: Making government smarter

Adoption of AI and automation technologies is increasing, and not just within large federal departments; smaller agencies are experimenting with these emerging technologies to aid improvements to service delivery. Yet, many agencies struggle to know where to start, and are held back by concerns on where to make investments that drive efficiencies and productivity change. Uncovering the hidden insights requires agencies to better understand and manage their data, ask the right questions, and augment existing data with new information.

Building the foundations for change: Digital transformation 2.0

As governments digital agendas move from the front office to the back office the use of automated, flexible open, cloud-native platforms is becoming increasingly widespread. Integrating these with existing IT architecture, managing security and user access is a challenge for government agencies. Strategic picks on which platform to adopt have to be made. Help is needed with identifying which service is best suited to which platform and how agencies develop a culture that supports agile approaches to development of cloud services.

Journey to the cloud: The cloudification of government networks

Thanks to the connected world of today, government networks can no longer be viewed simply as the plumbing that transports data from one data centre to another. In the digital world, networks built with rigid architectures to support legacy systems and are no longer fit for purpose. CIO's and CTO's are having to consider how the network can support transformation of public services, while addressing the demands for better performance, agility, security and delivering efficiencies.

Smart Cities – The power to transform the citizen experience

Cities must combine data from devices and services with citizen engagement if they are to realise the potential of smart city projects. The platforming of cities is tied to the adoption of “as-a-service” approach to IT that can support an array of sensor and information sources, such as from the IoT, to create new models for providing services. Success in platforming cities requires a measured approach that allows agencies to develop good practice, retain security over data and access, and supports the deliver of unified view of services within vertical towers such as transport, lighting, and environmental services.



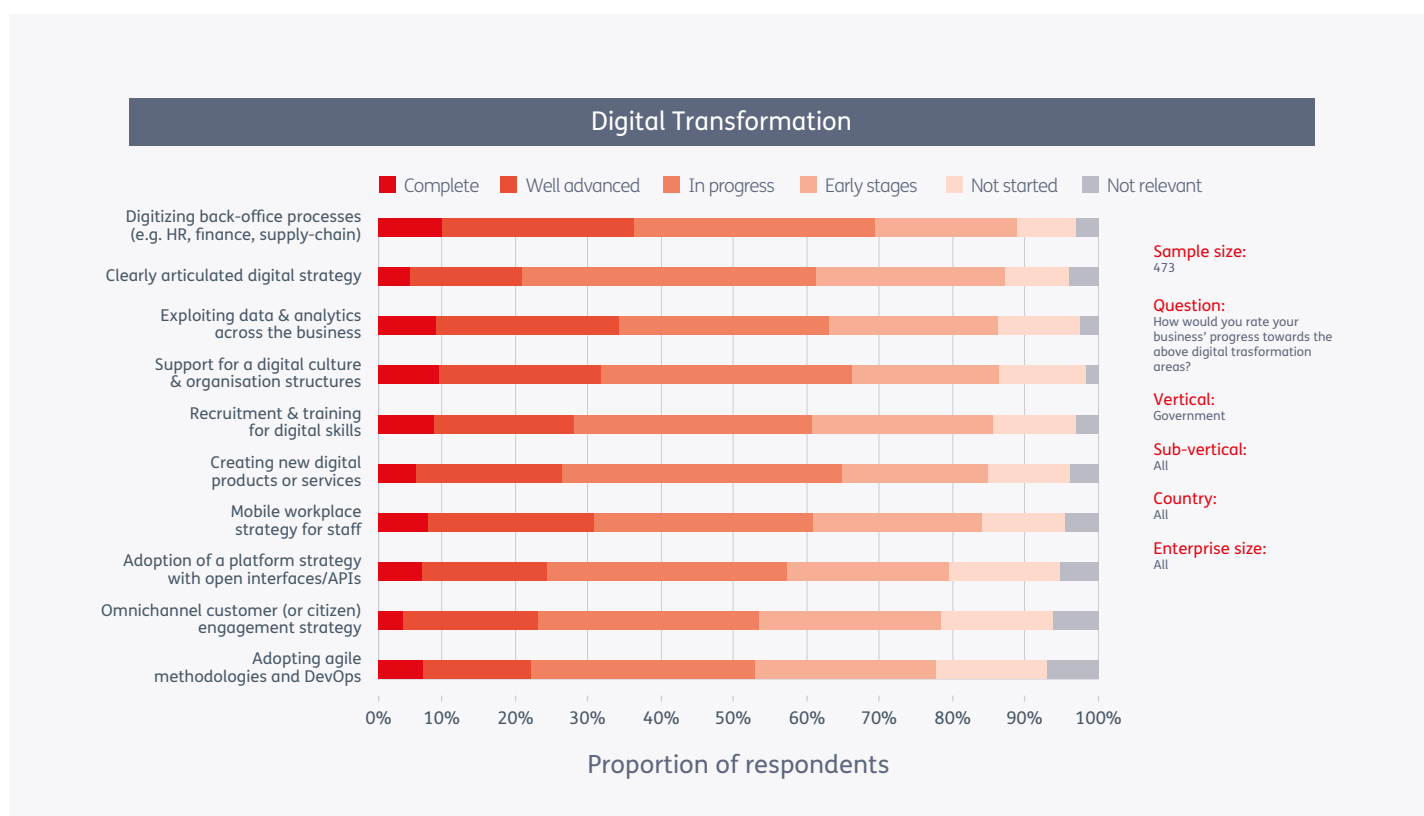
What's New

Digital Transformation Maturity Framework a structure that allows agencies to benchmark current and future strategies, and helps getting the balance right between people, process, technology

Strategic reports that provide insight into how digital government policy is helping to drive improvements to service delivery

Case studies that will provide insight into how the four roles of government: purchaser of services, provider of services, regulator, policy maker are changing thanks to digital tools

Set of line of business forecasts for government



The Market Challenge

In Ovum's view the global insurance industry is entering a distinct new phase characterized by the emergence of innovative new insurance products, novel ways of interacting with customers, and the threat of new entrants. As an insurer, your organization must respond to these challenges.

Having already experienced major change over the last decade through regulation, radically changed customer expectations and new technology, how do insurers respond as technology change continues to accelerate yet further over the next five years?

The imperatives for today's insurer are to understand the potential threats and opportunities posed by technology, how it can be effectively exploited and who are the most appropriate partners when addressing these challenges?

How Ovum helps you

Understand how key technologies will impact your particular insurance sector, region and organization

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving insurer IT investment agendas at a country and regional level

Stay ahead of the competition, by understanding how to effectively align technology offerings to your customers' needs

Key Deliverables

ICT Enterprise Insights – Global survey of insurer pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for insurance IT spending, segmented by country, source and line of business

Ovum Decision Matrix – Analysis of the leading vendor solutions in key areas, including IoT Insurance Service Providers



Charles Juniper
Principal Analyst



71% of North American and European insurers see companies like Google, Amazon and Facebook as a more significant competitive threat than their peer insurers in terms of delivering an IOT-based insurance proposition



Themes for 2018

IoT and the move to Insurance 2.0

The vehicle insurance sector has used telematics and IoT to offer usage-based insurance (UBI), but now insurers need to build on this to not only enhance today's vehicle offerings, but also to deliver IoT based proposition across other sectors such as home, commercial and life insurance. IoT insurance 2.0 will allow insurers to move from today's product-focused, retrospective compensation offerings, towards that of a proactive and personalized risk management proposition characterized by an ongoing dialogue that adds value for the policy holder.

Value-based engagement and the future of the customer experience

With increasing competition, how can the insurance industry deliver a seamless, convenient and innovative digital customer experience that is seen to be of meaningful value by the customer? Critical to this will be the role played by technologies such as RPA, machine learning , natural language processing, and augmented reality, to deliver a highly personalised and contextually relevant insurance proposition. Small and mid-size insurers in particular need to find ways to effectively exploit new technology and to not get left behind in the 'technology race' by large well-resourced carriers or agile 'insurtech' start-ups.

Becoming the digital insurer

Carriers need to fully utilize technologies such as cloud, SaaS and RPA at the core of their operations to provide the organizational agility needed in response to the changes demanded by customers, regulators, competitors and emerging competitive threats.

As the market dynamics continue to exert pressure on insurers, resolving the perennial issue of legacy modernization becomes even more critical. Ovum's research can help insurers to understand how best to deploy these technologies and map a route to becoming a digital insurer.

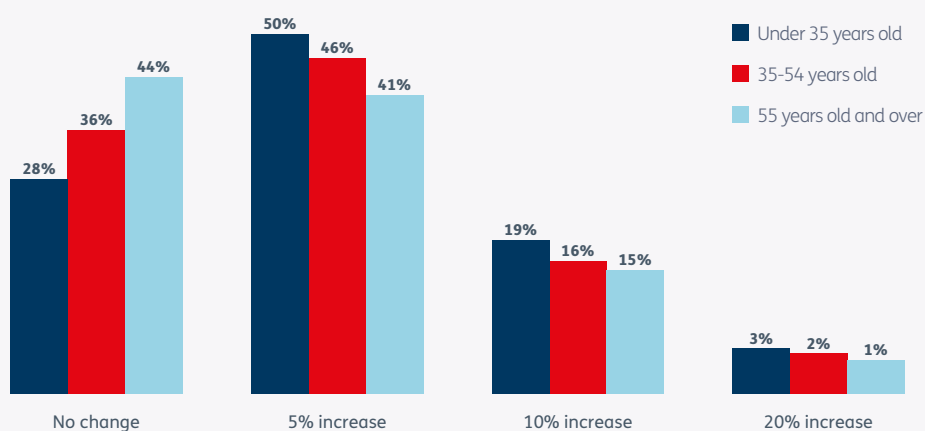


What's New

Deep focus on the opportunities presented by artificial intelligence and IoT technology; the biggest drivers for change across the global insurance industry

Insurance Software Contracts Analytics – monthly analysis of insurer and vendor partnerships

If an insurer provided the most important services you selected, how much additional premium would you be prepared to pay?



The Market Challenge

With the economic backdrop of ultra-low interest rates set to continue, achieving top-line revenue growth will remain a challenge and driving efficiency improvement will persist as key driver for driving financial return. However, the industry itself is being disrupted. Regulatory change is forcing banks to expose their systems through APIs, challenging banks as to where they play in the value chain, which is also being cherry-picked by FinTechs benefiting from the cost advantages of cloud and reach of mobile-based models.

This while the imperatives of regulatory compliance and efficiency remain, driving through digital transformation and delivering innovation has shifted from important to critical.



Daniel Mayo

Director Ovum IT Data Tools & Insights

How Ovum helps you

Understand how regulatory imperatives and digital transformation strategies will drive ICT investment priorities for 2018

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving retail bank IT investment agendas at a country and regional level

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of retail banks

Key Deliverables

ICT Enterprise Insights – Global survey of retail bank pain points and IT buying intentions for 2018-19

ICT Spending Forecasts – Global 5 year projections for retail bank IT spending, segmented by country, source and line of business

Banking Software Contracts Analytics – Global analysis of packaged software deals, segmented by institution, vendor and solution area

Ovum Decision Matrix – Analysis of the leading vendors solutions in key areas, including digital channel platforms, and financial crime

“

The top 1,000 retail banks will spend over \$125bn on technology in 2018

”

Themes for 2018

Delivering the digital customer experience

Attention to the digital experience has focused on mobile and online channels for most banks, however, this has shifted to realization that actual customer experience in the digital economy extends to all channels and customer-facing processes that support these. Delivering a seamless, straight-through experience that supports the wider customer journey is critical, but requires platforms that can manage the user-experience, taking advantage of new technologies in biometrics, augmented reality, natural language processing and AI-based services to enhance both human and direct customer engagement.

Driving through digital transformation

As banks realize digital is about the bank itself rather than a channel, there has been increasing assessment of how culture, governance, processes, and structures enable banks to operate in a digital world. While such transformation must occur at the business level, this is also driving significant change for technology, requiring platform modernization, new approaches to delivery, and ability to source and adopt new technologies and systems more effectively. The ability to leverage cloud and extract value from data will be critical.

Managing risk, security and compliance

The basics of banking – managing risk and providing security – remain core tenets of the digital world, with challenges intensifying as connectivity and external threats increase. Simultaneously, regulatory demands around financial crime and compliance management continue to escalate in breadth and reach with GDPR an important project for institutions with customers in Europe. Technology advances with Big Data, Artificial intelligence, data streaming processing and security offer potential solutions to balance the pressures of mandatory requirements and cost, but understanding real use cases and developing strategies to ensure these fit together effectively is critical for actually delivering potential benefits.

Embracing the API revolution

With regulatory interest in driving open APIs in banking quickly pervading across the globe, banks are realizing that open banking is not just another compliance requirement, but one that potentially will have significant impact on the industry itself. At an operational level, there is important considerations to be made around API management, but it is also driving wider focus around potential to create new services and work differently with the emerging FinTech ecosystem.

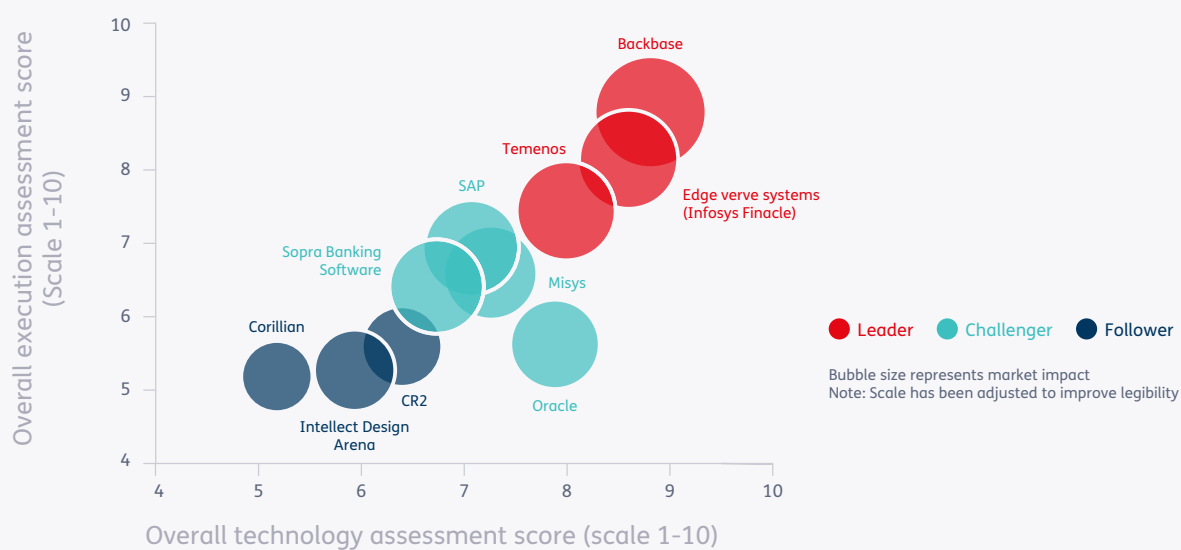


What's New

Banking ICT Spending Predictor understand institution specific across digital banking, payments and other business function areas

Understand bank focus and priorities for deploying AI across the institution

Digital banking platforms, 2017-18



The Market Challenge

Premium media asset owners are undergoing major change as they shift to a digital first strategy.

Broadcast TV & video providers, ICPs and digital service providers are grappling with two core business priorities – how to enhance operating margins and extend their reach into new growth areas. This is forcing media providers to respond by migrating their audience engagement ecosystem to IP, unifying the content supply chain and leveraging big data and AI technologies. Major change is required to support the launch of real-time digital services and exploit new monetization avenues such as the enterprise video and sports franchise segments.



Kedar Mohite
Senior Analyst

How Ovum helps you

Helping media enterprises to compare business and technology road-maps

Showing media companies how to re-engineering their partner ecosystem

Providing media transformation journey support and assisting with the selection of technology vendors and ICT service providers

Market and competitor assessment across the media content supply chain

Delivering insights on media technology trends and changing adoption cycles

Identifying new market opportunities in the video space across diverse segments such as sports franchise, broadcast TV & video, and digital service providers

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The media transformation ict services market is forecast to reach \$27.4Bn by 2022. The sports franchise segment will be one of the fastest-growing, with cagr of 5.3%

”

Key Deliverables

Media transformation ICT Services forecast (2017-2022) with addition of publishing companies such as newspaper, magazine, and B2B to existing database encompassing sports franchises, digital service providers (cable TV, satellite TV, and telecommunication multimedia services business) and TV & video broadcasters.

Extending On the Radar deliverables across new technologies enabling the media transformation journey, especially those supporting the end to end content supply chain

Strategic viewpoint and competitive benchmarking of vendors offering media AI and big data solutions, and analysis of technology vendors serving this space

Research notes and short reports on the proliferation of media technology vendors in the enterprise video space

Extending innovative case studies on media transformation projects with special emphasis on ICT services deployments across the sports franchise segment.



Themes for 2018

The media content supply chain shifts to IP

An increasing number of media enterprises are migrating aspects of their content supply chain to IP. The shift to IP is a highly complex transformation. Ovum will analyse the areas of the content supply chain leading the push, such as media acquisition and distribution, as well as emerging areas such as media preparation. We will investigate migration roadmaps and identify what technology partners need to offer in order to enable the transition

The next wave of personalization in media technology

As media enterprises move from a first to a second wave of personalization this will create demand for more granular data insights. Customer retention will become a key concern due to the proliferation of distribution channels, so driving media enterprises to adopt technologies that help to create in-depth and contextual audience engagement. These will be key drivers for the adoption of big data and AI technologies and recommendation services in the media sector over the next 18-24 months.

Video will drive convergence in the media and entertainment sector

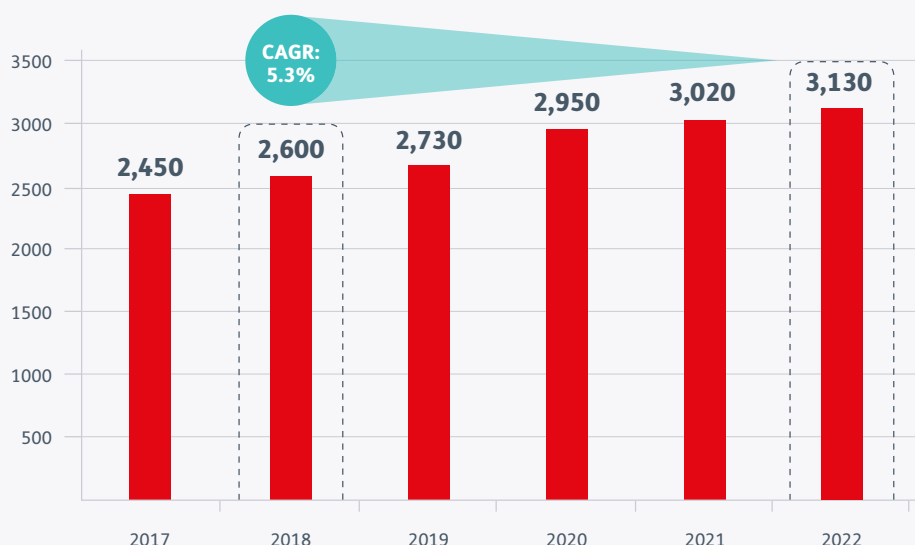
Video is a key driver of convergence within the media and entertainment sector as well as across multiple vertical sectors. Video is becoming the primary engagement tool, creating new opportunities for both media providers and media & broadcast technology vendors. These vendors are seeking to re-engineer their go-to-market strategy, and technology road-maps to target new vertical segments. Ovum will analyse this technology transformation. We will also investigate growth areas such as sports franchises, exploring how companies in this space are embarking on a hyper personalization wave, and assessing how ICT services will support this growth.

What's New

Ovum Decision Matrix on live streaming services enabling enterprises to quickly select the right project partner for their premium media assets especially sports content

Managed video logistics forecast (2017-2022) – extended to encompass seven major sectors leveraging video as the core engagement tool i.e. education, healthcare, BFSI, Government, consumer products, Utilities & Energy, and media & entertainment

The next growth frontier: Sports Franchises ICT Services (\$m)



The Market Challenge

Smart metering, smart grids and smart home services are just some of the examples of emerging new business models that are driving transformation amongst utilities and creating more complex relationships with customers. For the majority of utilities the reality is that they are just beginning the journey to adopting digital tools that will allow them to take advantage of opportunities presented by these changes. These new complex relationships require more complex but flexible administration and customer communication systems to support new business models. However, the risk and cost of replacing these are holding many utilities back from adopting platforms that would support new business models. Replacing these is likely to be one of the biggest and most risky projects for utilities over the next few years.



Kieran Hines
Head of Industries

How Ovum helps you

Understand how utilities are investing to improve the customer experience and to meet the challenges of this rapidly evolving industry, and what this means for ICT investment priorities in 2018

Maximise your market impact, by using Ovum's independent research to understand exactly what is driving the IT investment agendas of utilities at a country and regional level

Stay ahead of the competition, by understanding how to effectively position technology offerings to the business needs of utilities

Key Deliverables

ICT Enterprise Insights – Global survey of pain points and IT buying intentions among utilities for 2018-19

Enterprise Case Studies – Highlighting global best practice and innovation in the utilities sector

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Data management is a core investment area for the industry, with 41% of utilities prioritising as a top three it priority for 2018

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Themes for 2018

Rethinking data in support of transformation

The traditional utilities business model is no longer fit for purpose. An increasing focus on customer experience, IoT, electric transport, and the growth in distributed energy technologies are just some of the major drivers of change. Data management aspects of transformation are a particular challenge to utilities. The industry has to improve governance and quality, especially as the number of smart devices grows. Data management and security should not be afterthoughts in a digital transformation.

Putting 'relationship' back into CRM for utilities

The clock is ticking for today's utilities. Disruption from technology is changing the business model, lower barriers to entry, developments in IoT and Smart spaces (homes, businesses, cities) are presenting opportunities for new services. If utilities are to withstand the changes they need to adapt their approach to customer engagement and management, an area that has suffered from under investment despite the increasing level of competition. No longer though, investment is rapidly increasing, especially around digital channels.

Utilities rethink IT service delivery with adoption of "as a service" model

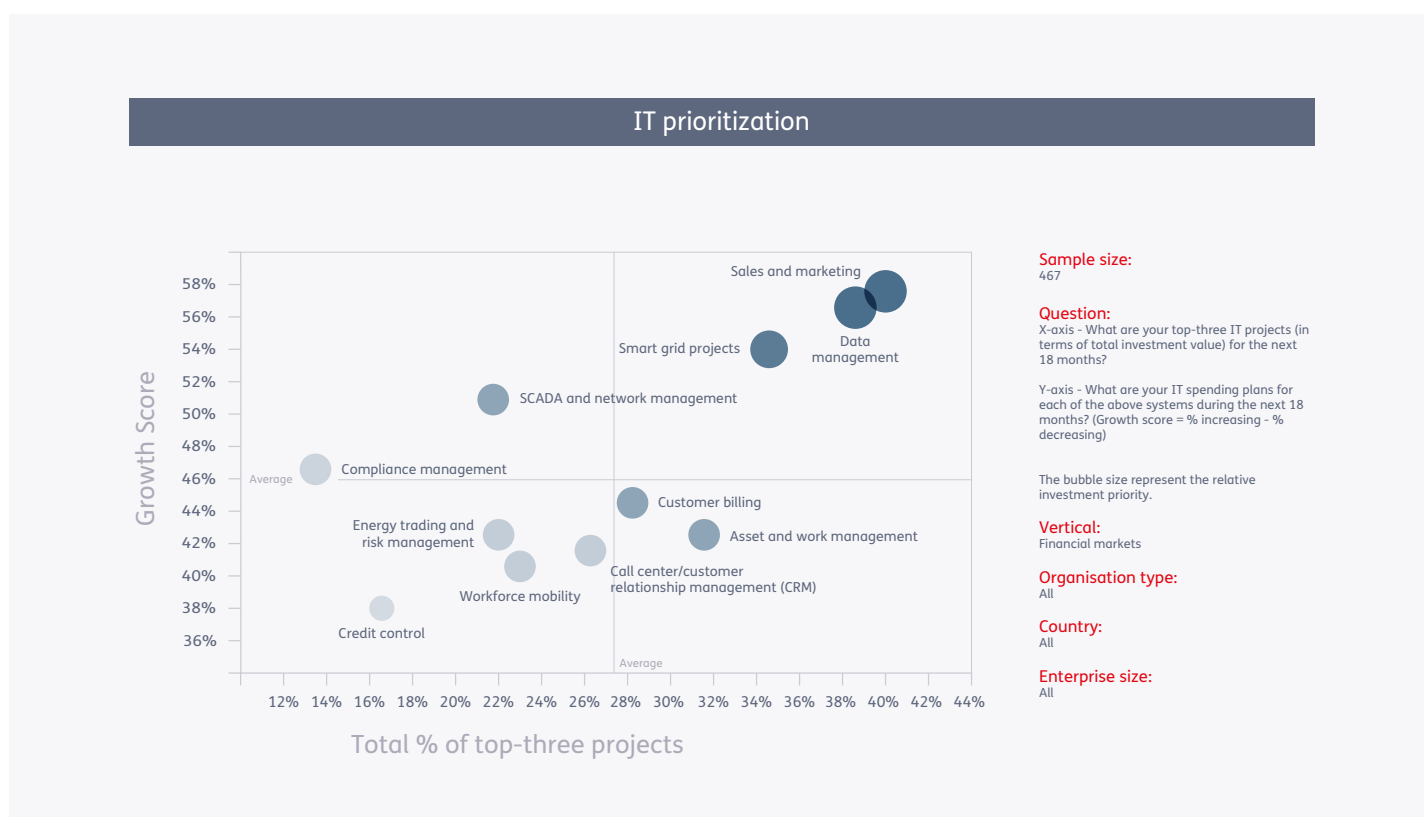
Digital transformation does not just occur. It is a lengthy, and sometimes painful process. The adoption of "as a service" model by utilities is a case in point. Given the conservative nature of utilities, it is no surprise that some of the biggest barriers to adoption have not always been technical, in many cases they have been cultural. However, things are changing, and "as a service" delivery of IT services are starting to be adopted more widely across utilities estates, especially as reliance on in-house IT services diminishes as utilities start to look towards self-service capabilities for provisioning IT.



What's New

ICT Spending Forecasts – Global 5 year projections for education IT spending, segmented by country, source and line of business.

Utilities are unshackling themselves from legacy systems



The Market Challenge

Communications service providers (CSPs) are under intense pressure to transform their IT systems, software and business processes to compete in the digital world.

CSPs will need to deliver a personalized and contextual customer experience, bolstered by improved partner management systems, customer journey mapping and omnichannel strategies. Digital transformation will also require the adoption of SDN/NFV and cloud-based delivery models. To support these CSPs will need to streamline and automate telco IT systems and make effective use of AI and advanced analytics tools. These changes will also have a fundamental impact on CSP operations as they shift to DevOps, microservices and cloud native practices.



Kris Szaniawski
Practice Leader

How Ovum helps you

Help telcos understand their business and digital transformation priorities and position themselves against their peers.

Support telcos with their IT investment and buying decisions, including product assessments.

Identify telcos' decision criteria for selecting platform and service partners to enable digital transformation.

Understand the main growth opportunities across the complex telco IT landscape.

Evaluate vendor competitive position in key solution areas versus peers from NEP, ISV, and CSI backgrounds.

Identify new product, service, and partnering opportunities in a rapidly changing and increasingly complex ecosystem.

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Launching digital services and creating a personalized customer experience are top priorities for over 80% of CSPs
”

Key Deliverables

Coordinated set of forecasts covering Telco IT (OSS/BSS) revenues, telco vendor services (network and IT services) revenues and Telco spend.

Research on changing telco operations, including the impact of SDN/NFV on telco IT systems, preparing CSPs for the transition to microservices and making the move to DevOps.

Research on improving the customer experience, including strategies for managing and monetizing the growing telco partnership ecosystem and customer journey management.

Ovum Decision Matrices evaluating leading telco IT solutions, including BSS and analytics.

ICT Enterprise Insights in the Telecoms Industry CIO insights and investment plans in key telco IT areas.

OSS/BSS contract analytics interactive tool with global coverage.



Themes for 2018

Successful strategies for digital transformation and the impact on telco IT

Digital transformation is a priority for telcos, but many are still unclear how to undertake this journey. Through a series of industry case studies, thought-leadership pieces, and surveys; Ovum will provide guidance on how CSPs can make the transition to DSP and identify vendor opportunities.

Making the move to intelligent telco operations

Intelligence and automation will play an important role in the transformation of CSP operations as they aim to “work smart”. Ovum will explore the potential of technologies such as AI and analytics to enhance and automate CSP operations and will evaluate vendor solutions for the telecoms industry. Ovum will also explore the changes telcos need to make to support IoT, 5G and digital services.

Strategies and technologies for the delivery of a personalized telco customer experience

CSPs must deliver a personalized and contextual customer experience to compete in the digital services market. Ovum will explore how CSPs can leverage OSS, BSS, and intelligence to understand and personalize the customer journey. Focus will be placed on how CSPs can improve customer experience for both B2C and B2B customers and the impact of

emerging areas such as IoT on the growing CSP partner ecosystem. Ovum will provide thought-leadership on strategies for improving the customer experience and vendor analysis.

Vendor services evolve to support new modes of telco IT operations

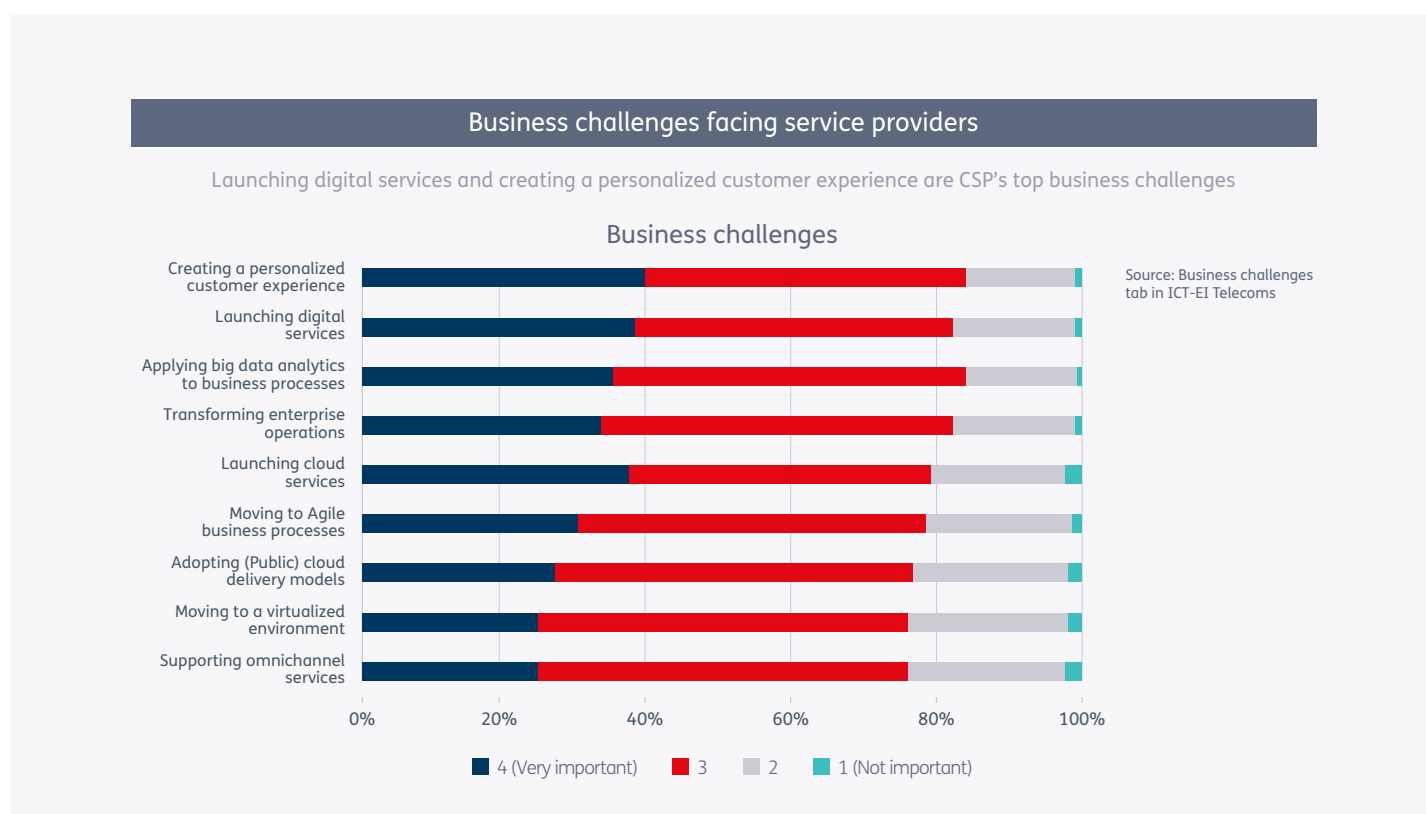
Vendor services portfolios and capabilities will evolve to support new types of operations. Vendors and professional services partners will need to help telcos with the shift to DevOps, SDN/NFV and microservices, as well as support telcos' digital transformation journey. Ovum will explore the changing role of vendors in the telecoms industry as services such as SaaS and consulting grow in importance. We will provide analysis of changing vendor service portfolios, market share and forecasts.

What's New

Digital transformation insights – including CSP case studies, surveys and insights

Vendor product reviews – assessments of product, vendor positioning, customers, use cases and market context. These focus on offerings supporting digital transformation e.g. cloud based telco IT solutions

New forecasts and increased granularity – new Telco IT spend forecast and new segments in OSS/BSS forecast



The Market Challenge

For digital service providers, reaching the small business universe presents unique challenges: they often look like mass market customers, but have more complex needs. Their technology requirements vary by industry but their internal IT is often under-skilled or absent. They crave support, but don't have the customer lifetime value to justify a dedicated account manager.

Most irritating, these realities add up to a customer that – for now at least – won't usually self serve.

Cracking this profit conundrum demands the right channel mix, a value proposition calibrated to the right buyer persona and a pitch with a light industry-specific veneer.

How Ovum helps you

Empower – identify compelling, profitable digital services that help smaller businesses thrive.

Simplify – craft integrated propositions that overcome digital service providers' internal silos to address customers' validated needs.

Engage – determine the correct blend of physical and virtual channels to engage different buyer personas.

Support – help bridge the digital skills gap between small and large businesses, and accelerate transformation.



Camille Mendler
Practice Leader

“

Nine of 10 SMEs believe digital services can improve their business – but half say they are digitally illiterate

”

Key Deliverables

SoHo and SMEs Insights – digital demand perspectives across developed and growth economies.

Profiles and case studies – highlighting success and key learnings in addressing the small business universe.

Telecom Cloud Monitor – tracking key cloud-related activities among 400 CSPs around the world.

Forecasts across major B2B services – consistent segmentation for SoHo and SMEs across core cloud, UC, broadband services.

Rapid analysis – the implications of key market happenings.

Themes for 2018

Virtualizing the SME

Small businesses are increasingly dependent on the capex light, as-a-service model. But deploying the right blend of digital services remains a challenge for buyers and sellers alike. Ovum continues to deliver pragmatic guidance which match service bundles – such as cloud apps, collaboration tools, security, SD WAN, etc – to the right customer through ongoing end-user research and supply side analysis.

Superfast SMEs

New superfast services based on G.Fast, FTTP, dark fiber unbundling – and not least 5G – should transform small businesses productivity. Through end-user research and market benchmarking, Ovum will help service providers develop compelling value propositions that go beyond high speed and low prices in order to capture attention and loyalty.

Architecting the B2B channel

Sales through partner channels are rising, but so is competition to sign up the best partner. Service providers must identify the best fit of partner to complement their portfolio and deliver the client intimacy that small businesses demand. Not least, they must also develop value propositions, tools and systems to make their channels loyal and productive. Ovum assesses partners and partner programs focusing on the small business universe.



Digital engagement with small businesses

Nine out of 10 service providers identify delivering a personalized customer experience as a top business challenge. Extending this aim to the small business segment – a difficult hybrid of consumer and business needs – presents special problems. Ovum can guide on best practice based on end-user research and case studies addressing key themes in digital engagement, online reputation building and self service.

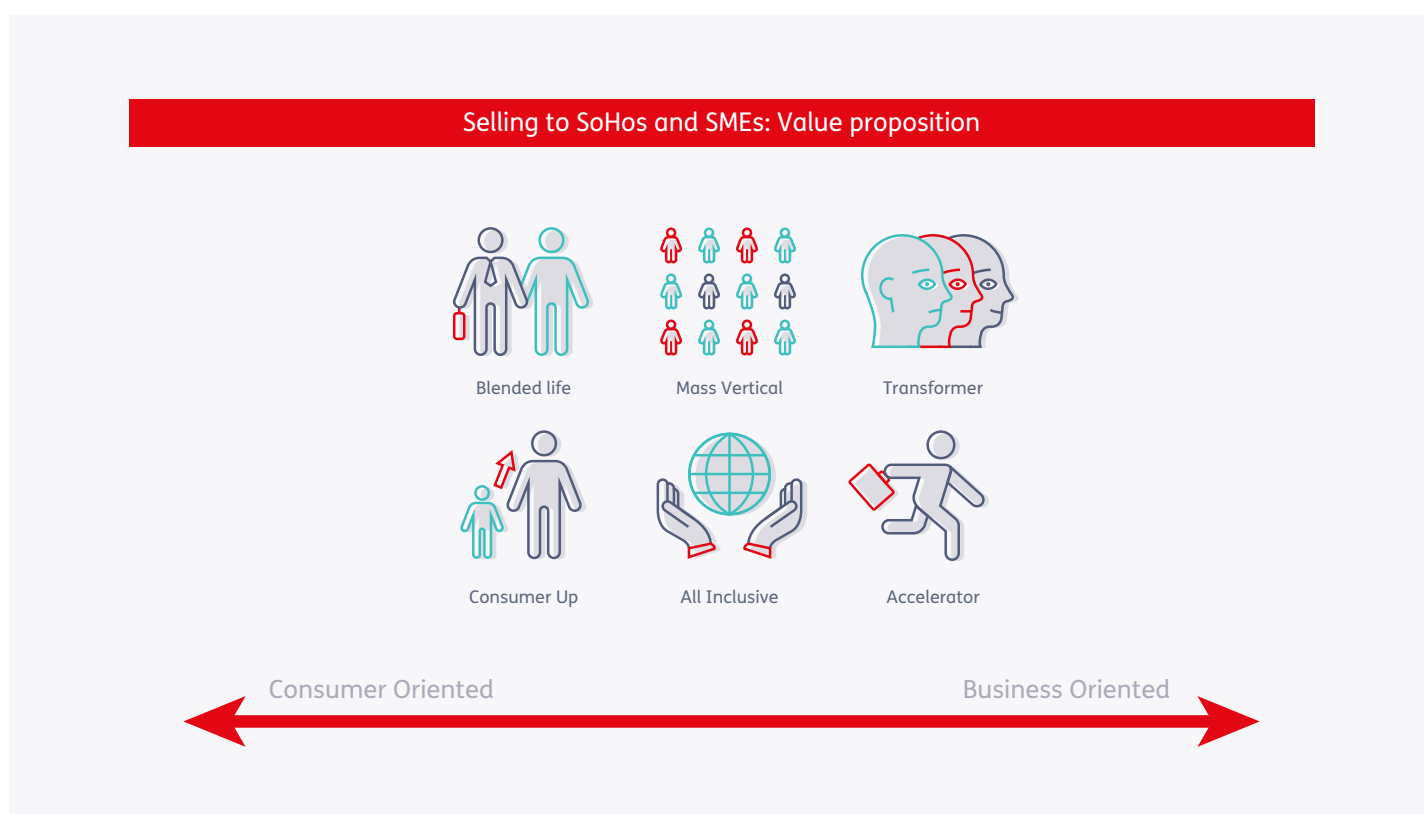
Monetizing the informal economy

The informal economy of traders, craftsmen and other unconventional entrepreneurs is a potentially vast opportunity for service providers in emerging markets. Based on field research and benchmarking, Ovum offers practical approaches to mining this shadowy segment.

What's New

Channel programs – identifying the right partner, comparing approaches to boosting productivity and loyalty.

Global B2B Demographics Tool – a Rosetta Stone to the global B2B universe to support targeting and opportunity sizing – will be upgraded with additional countries, and estimates on the informal economy.



The Market Challenge

Network and cloud combined let enterprises bond together local and remote IT resources. But providers' big and bold top-down attempts to force cloud and network together so far have gone badly. Cloud computing is led by a few dominant providers that let enterprises centralize, virtualize and automate IT infrastructure efficiently. Network providers are separately wrestling with fundamental changes, as their logical and physical networks must migrate to software and greater automation. Evidence shows that cloud and network do succeed together when they consider customer needs, and provide services that secure, remove complexity and lower costs for enterprises' highly complex heterogeneous IT environments.



Brian Washburn
Practice Leader

How Ovum helps you

Understand how competing service providers are re-engineering their networks to provide more adaptable, software-based WAN services

Determine the customer requirement for evolving network services and invest accordingly

Identify the partners required to deliver a transformational network service

Compare the managed services strategies of leading cloud service providers

Explore enterprise decision-maker managed and hybrid requirements

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Together, both increased adoption of public cloud services and the need to drive more insight out of enterprise and customer data using analytics are identified by over 50% of enterprises as key drivers of further network investment

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Key Deliverables

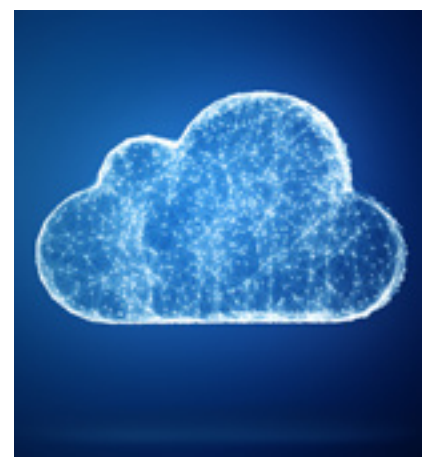
Network Service Provider Update – track the emergence of transformational network services from leading providers

Cloud Service Provider Update – understand the complex provider landscape for managed hybrid services

VPN and SD-WAN forecasts – size the market for evolving network services and plan for growth by segment

Cloud and Network CIO Insights – get into the heads of key enterprise decision makers

Service provider innovation case studies – short insights into leading-edge providers deploying new technologies and services



Themes for 2018

Emerging multi-cloud and programmable network environments

Enterprises consume services from a range of providers. Cloud providers and integrators are looking to manage and orchestrate enterprises' multi-cloud and hybrid IT environments. Network providers aim to participate, assigning bandwidth and other resources on-demand. We focus on the provider models and enterprise services that justify investment, while keeping in focus the counter-strategies of commodity services.

Security and resilience to protect enterprise assets

Enterprise customers have grown more confident in the security and resilience of public cloud platforms. The challenges we cover include how to architect secure enterprise-class solutions for those platforms; how enterprises integrate those elements within their wider IT estate; and how they maintain and manage security of IT assets in an environment where perimeters are no longer fixed.

Innovative Commercial and Operational Service Models

Enterprises demand simplified ways of buying, operating and managing their cloud and network resources. We follow the best practices adopted by service providers to streamline their operations, identify and engage customer leads, partner strategically to deliver against customer needs, and provide high-quality support.

Successful Service Models for Virtualization

Virtualization is the future, but providers must build their own roadmap for effective resource usage, whether their goal is building software defined data centers or the software defined network. We monitor the inflection points for providers to orchestrate and manage applications and workloads in a flexible hybrid IT environment.

End-to-end Transaction Performances

Enterprise buyers have been increasingly interested in turnkey services, driven by the applications platform. We assess best practices of service providers aiming to deliver end-to-end transaction performance for applications, workloads and micro-services.

What's New

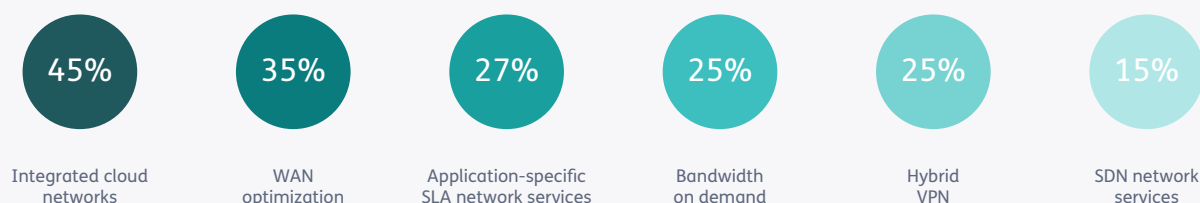
Increased coverage of transformational network services (SD-WAN)

Enhanced focus on network and cloud services management

Improved insight into service provider evolving commercial models

Will any of the following network services be more important to your organization?

(Top 6 below; respondents picked top 2)



High levels of public cloud adoption will lead to increased adoption of converged network/cloud services, such as those enabled by Amazon Direct Connect or Azure Cloud Connector.



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decision-making with
a complete view of
the converging
TMT market

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About Ovum



Ovum is a market-leading research and consulting firm focused on helping digital service providers and their technology partners thrive in the connected digital economy.

Through our 150 analysts and consultants worldwide, we offer expert analysis and strategic insight across the telecoms, media and technology industries. Founded in 1985, Ovum has one of the most experienced analyst teams in the industry and is a respected source of guidance for business leaders, CIOs, vendors, service providers, and regulators looking for comprehensive, accurate, and insightful market data, research, and consulting.

With 23 locations across six continents, Ovum offers a truly global perspective and works with organizations on every continent. We can also help you create business advantage by supporting your business planning, product development and go-to-market initiatives.

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