

# SEARCH

# ANALYSIS

Information Technology



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IT





# 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

# **Data & Enterprise Intelligence**

# 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 valueadding 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.

## 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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**Tom Pringle** Head of Applications Research

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.

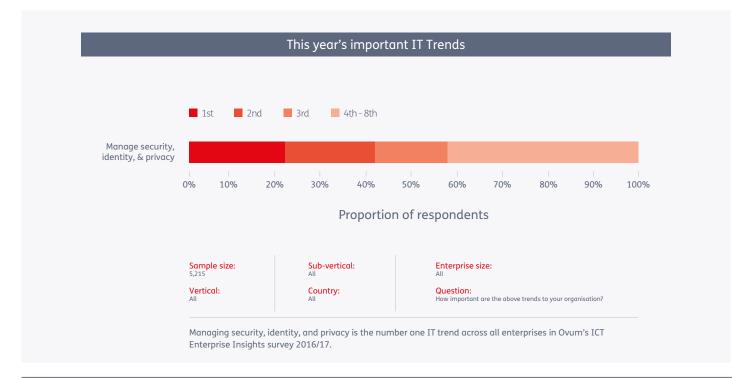
## What's new

**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



# **Infrastructure Solutions**

# 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.

# 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.



TMT intelligence | inf

Mark Blowers Practice Leader

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**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 APIcentric 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.





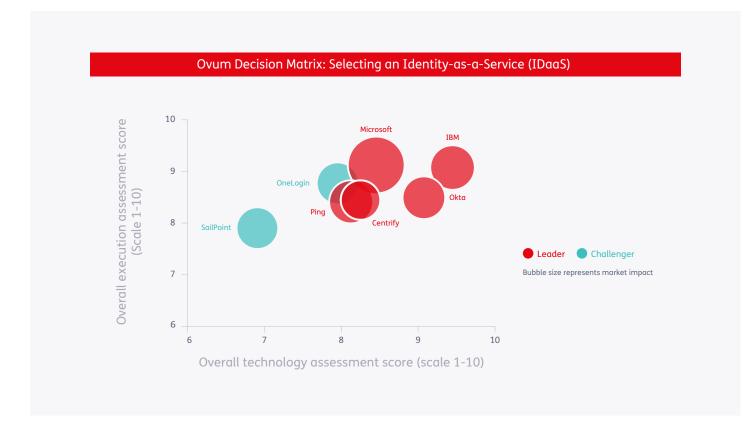
### Mitigating the impact of IoT on platforms and infrastructure

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



# **Enterprise ICT Management**



# 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.

# 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.



**Spencer Izard** Chief Analyst

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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



**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





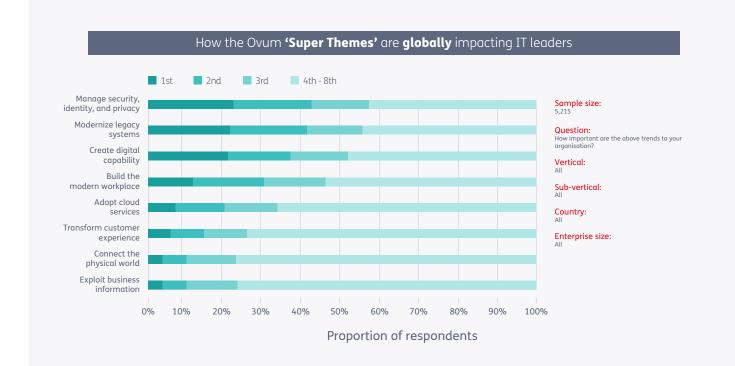
increased integration points and a proliferation of services. Enterprise architecture can provide a valuable framework in which to set digital initiatives, improving the degree of coordination across digital services and core systems.

## 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.



# **Customer Engagement**

# **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.

# 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

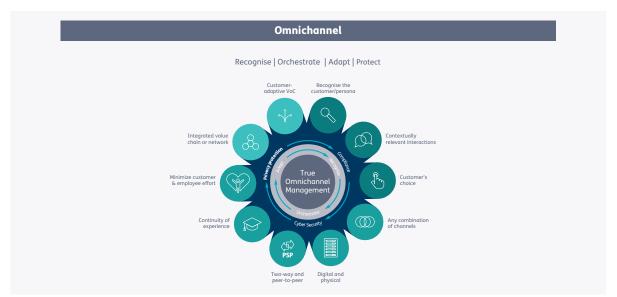
Whether through accident or malfeasance, sensitive data can be exposed through holes in the expanding digital marketplace, with potentially great harm to customer and enterprise alike. Enterprises must ensure compliance with regulation regarding customers' identifying data, such as GDPR, and respect 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



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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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