2017

Enterprise Management Associates Research Calendar

2017 EMA™ Research Studies

Table of Contents

2017 EMA™ Research Studies

Table of Contents (continued)

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2017 EMA™ Research Studies

APPLICATION AND BUSINESS SERVICES

User, Customer, and Digital Experience: Where Service and Business Performance Come Together

Quarter 4, 2016

Dennis Drogseth
VP Research
IT Megatrends, Analytics and CMDB Systems

Julie Craig
Research Director
Application Management

Leading IT analyst firm Enterprise Management Associates (EMA) took an in-depth look at the technical, business, and organizational dynamics of user and customer experience management (UEM) in 2008 and 2012. This new research will revisit these dynamics in the context of the digital age.

To do this, EMA will examine how business and IT stakeholders are working (together and separately) to optimize business value through transaction-driven insights, social media, and other sources. Topics examined will include application performance and the behaviors and priorities of internal and external service consumers, as well as competitive intelligence and other insights from business planning.

SecOps: Integrated Security for Performance and Change Management: Two Views

Quarter 1, 2017

Dennis Drogseth
VP Research
IT Megatrends, Analytics and CMDB Systems

David Monahan
Research Director
Security and Risk Management

EMA will examine how security and operations teams approach common challenges in terms of minimizing risks associated with application/service performance, as well as change and compliance in cloud and legacy environments. Differing and shared technologies, processes, and metrics across a balanced population of security and operations professionals and executives will also be examined.

Tooling the DevOps/Continuous Delivery Era: How Cross-Functional Collaboration is Impacting Modern Business

Quarter 1, 2017

Julie Craig
Research Director
Application Management

EMA research has repeatedly demonstrated strong links between the quality of Dev and Ops collaborations and business health. It has uncovered similar links between Continuous Delivery and business health, as development organizations accelerate the rate at which new business ideas can be brought to market.

This new research will explore the role of tools in facilitating DevOps and Continuous Delivery, and the impact the "right" processes and tools can make on business differentiation and revenue growth.

Next-Generation IT Service Management: How Real Is it Today, and Where is It Going in the Future?

Quarter 2, 2017

Dennis Drogseth
VP Research
IT Megatrends, Analytics and CMDB Systems

EMA is witnessing a growing number of environments where IT service management (ITSM) teams are taking a central position in helping IT organizations as a whole perform more consistently and effectively.

This research will further EMA's prior work and go more deeply into the dynamics, toolset priorities, organizational models, and process priorities that are placing some ITSM teams in a more central role. It will also examine, for contrast, what qualities are impeding other ITSM teams in fulfilling this broader mission. In particular, EMA will look at the impacts of cloud, agile, mobile, and digital transformation.

EMA will also examine unique technology requirements, such as service modeling, endpoint optimization, automation, IT analytics, and associated metrics for governance and performance. Integrated support for lifecycle asset management, enterprise process efficiencies, and the Internet of Things (IoT) will also be examined.

2017 EMA™ Research Studies

APPLICATION AND BUSINESS SERVICES	
Performance Management for the Connected Business: Hybrid Cloud, APIs, and Systems of Engagement Become "Business as Usual" **Quarter 2, 2017** Julie Craig Research Director Application Management	Application and data integration technologies are becoming increasingly fundamental to the process of connecting application ecosystems with those of suppliers, partners, and customers. However, few companies, as yet, have invested in management solutions capable of tracking and monitoring the complex integrations that act as the "connective tissue" supporting modern business interactions. This new research will focus on the key integration technologies connecting business to business, business to consumer, and business to cloud, and the management solutions that are critical to monitoring performance, availability, and the user experience.
Digital War Room in the Age of IT Analytics—an Oxymoron or a Next -Generation Reality? **Quarter 3, 2017** Dennis Drogseth VP Research IT Megatrends, Analytics and CMDB Systems	This research will examine the New War Room's technology adoption and communication needs, with a focus on how advanced IT analytics (AIA) are beginning to transform the processes of triage, diagnostics, remediation, and application/infrastructure optimization. It will also look at technologies for automation, dashboarding, and integrated support groups outside of operations, such as development and ITSM teams. It will also address the very real impacts of cloud and changing infrastructure and application technologies on the New War Room, along with growing pressures for improved business alignment and far more proactive support for digital transformation.
Application Performance Management (APM) and User Experience Management (UEM) Strategies for Public Cloud **Quarter 3, 2017** Julie Craig Research Director Application Management	Today, almost 50% of companies are leveraging public cloud for production use cases, yet "homegrown tools" are the #1 way cloud-delivered applications are currently being managed. While it is true that the cloud vendor assumes responsibility for application hosting, a wide range of factors outside the vendor's control can radically impact performance and availability. WAN and LAN connections, "the Internet," carrier issues, and even end user devices can all impact performance—and are very difficult to triage with tools originally designed to support on-premise delivered services. This new IT-facing research will focus on the key monitoring and management technologies required to track and manage public cloud-delivered services and to rapidly triage issues to their underlying root causes. It will assess the key requirements of IT organizations leveraging public cloud for production, and match those requirements to specific APM- and UEM-related tooling capabilities.
Managing Change in the DevOps/Agile Era—as Two Traditions Collide **Quarter 4, 2017** Dennis Drogseth VP Research IT Megatrends, Analytics and CMDB Systems	The word "DevOps" combines development and operations, but these groups have inherently separate cultures, metrics, mindsets, and tools. Moreover, effective change management often resides with IT Service Management teams for added support in governance, process consistency, and continuity. This research will address how change management is evolving to support agile and DevOps requirements to optimize speed, relevance, value, and cost-effectiveness in terms of organizational change, process changes, toolset consolidation (or lack thereof), and shared metrics across all teams. It will also address the impacts of cloud, mobile, and digital transformation as part of the underlying technology and business landscape. Shared technology options in terms of discovery, provisioning, automation, and analytics will be examined in-depth as well.

BUSINESS INTELLIGENCE AND DATA WAREHOUSING	
Self-service Data Preparation **Quarter 4, 2016** John Myers Managing Research Director Business Intelligence and Data Warehousing	Data transformation and preparation was once solely the purview of technologists and scripting languages. It was a long process to manage new data sources and changes to existing ones. Then with spreadsheets, the adventurous business analysts could make adjustments on their own, but those adjustments were dependent on complex transformations and did not scale. Now, with the emergence of self-service data preparation platforms and toolsets, business stakeholders have not only the interest in managing their own datasets, but scalable options to make that happen. Self-service data preparation brings the technical structure of data to those who know the business meaning of data best and allows for IT departments to scale and manage the all-important metadata associated with data transformations. In this research, EMA will look at the best practices and options available for self-service data preparation and provide guidance on how organizations should view this emerging option for data management.
Business Value of Analytics **Quarter 4, 2016** Lyndsay Wise Research Director Business Intelligence and Data Warehousing	Much comparative information exists on product capabilities, but few evaluate the business value associated with business intelligence and analytics implementations. This case study series evaluates the business value achieved through business intelligence projects. Success will be measured by finding use cases across the business intelligence spectrum to identify how organizations are achieving overarching success in their BI-related projects and develop an overall best practices approach to provide insight to organizations struggling with overall success.
Internet of Things **Quarter 1, 2017** John Myers Managing Research Director Business Intelligence and Data Warehousing	Very soon, the Internet of Things (IoT) will produce sensor and device data at an alarming rate. How an organization takes advantage of that data to impact their internal processes, such as manufacturing or supply chain, their product development to find new uses and markets for products, and how to improve customer operations of oil fields, transportation, or simply home appliances will determine if they are ready to make the leap in competitive advantage that IoT promises. Extending from IoT analytics research published in 2016, EMA's 2017 IoT research will look at how organizations are capturing sensor and device data, and how they analyze that data from both an operational visibility/control approach and from a historical analytics perspective. This research will provide visibility on the business and technology drivers of organizations implementing IoT around the globe, as well as trends on the success of those implementations.

2017 EMA™ Research Studies

BUSINESS INTELLIGENCE AND DATA WAREHOUSING	
Healthcare Analytics **Quarter 1, 2017** Lyndsay Wise Research Director Business Intelligence and Data Warehousing	Healthcare organizations struggle with information visibility and managing the complexities of their data. This struggle involves their ability to capture and store data from medical devices, electronic medical records, facility management, and all related data points to manage the value chain of patient care. This study will identify trends in analytics adoption, the various needs of healthcare, and the intricacies involved in managing the diverse analytical and data storage requirements. By identifying the trends in adoption, this study will also gain insight into how these organizations are gaining business value from these initiatives.
EMA Radar for Business Intelligence **Quarter 2, 2017** John Myers Managing Research Director Business Intelligence and Data Warehousing Lyndsay Wise Research Director Business Intelligence and Data Warehousing **⊘EMA RADAR**™	This EMA Radar Report delivers an in-depth analysis of industry-leading vendors and vendor products, including their overall market position in comparison with other vendors. This Radar will focus on the broad BI marketplace, with solutions targeting all organizations and different roles, as well as how BI solutions meet their needs in relation to how they leverage BI and analytics applications. This information is laid out in an easy-to-decipher, detailed Radar chart, which includes the composite score for each vendor – making it simple to see how vendors measure up in the market, as well as against other vendors.
Data Science **Quarter 2, 2017** John Myers Managing Research Director Business Intelligence and Data Warehousing	The practice of data science is growing not only in its importance to organizations, but also for those who are capable of providing data science 'services.' Yet, data science has many moving parts associated with it. The practice of data science has elements of transformation, profiling, analysis, processing, and evaluation. Bringing all of these elements together can be a daunting challenge for organizations hoping to scale their data science teams to meet the challenges of data-driven business stakeholders and corporate strategies. In this research, EMA will profile data scientists, best practices, and lessons learned from companies who are on their data science journey. Organizations will gain insights into how those data science teams get started and attributes associated with successful (and not so successful) initiatives, as well as which tools and platforms contributed to those data science programs.
Cloud Analytics **Quarter 3, 2017** Lyndsay Wise Research Director Business Intelligence and Data Warehousing	Expanding on 2015 research, this primary research report will identify market adoption, usage patterns, and trends based on four years of market research. The research will identify expansion of adoption and potential industry gaps.

EMA™ *IT & DATA MANAGEMENT RESEARCH,*
INDUSTRY ANALYSIS & CONSULTING

Page 4

2017 EMA™ Research Studies

BUSINESS INTELLIGENCE AND DATA WAREHOUSING	
Big Data 2017 **Quarter 3, 2017** John Myers Managing Research Director Business Intelligence and Data Warehousing	No longer is big data considered a fringe discipline. Big data has gone "big time." The domain of big data has grown from an online archive of data that organizations wanted to explore and analyze to the potential backbone of mission-critical analytical and operational applications throughout an organization. 2017 promises to show even more growth in terms of how big data impacts the business operations and strategies, and the technology implementations. In this year's research report, EMA will provide trending information from over five years of big data implementations from end users around the globe. Business, technology, and financial drivers of those organizations will be explored, as well as how organizations implement metadata management, advanced analytics, and streaming integration to best utilize their Hybrid Data Ecosystems. The report will also delve into different data consumers and stakeholders of big data implementations and how they evolved from the humble beginnings of big data to today.
Data Governance **Quarter 4, 2017** Lyndsay Wise Research Director Business Intelligence and Data Warehousing	This study will examine data governance adoption and use within organizations to identify how and where data governance is being applied, and how and where the gaps are. This examination will include exploring: • What are the key business and technical drivers for data governance? What are the stumbling blocks? • What are the business challenges and technical drivers for governance adoption? • How are organizations building up their governance framework? What resources are they using?
Data Discovery **Quarter 4, 2017** John Myers Managing Research Director Business Intelligence and Data Warehousing	Technologists and members of the IT department know the structure and "shape" of data. Business analysts and other line of business stakeholders understand the value and meaning of data. However, there are barriers between these two groups that often center around a "circular argument" of "what data do you have?" and "what data do you need?" Data discovery platforms and toolsets provide the ability of business stakeholders to explore and discover new links in datasets without having to detail the things "they don't know they don't know." In these environments, they can test, analyze, and confirm/deny assumptions about and uses for data without the costly implementation of data into a production environment or a traditional "sandbox" environment. In this research, EMA will evaluate the state of the market for data discovery options both as standalone implementations and part of wider data management solutions. This research will also provide organizations with information on how to best utilize the advantages and mitigate the risks of data discovery as both technology and practice.

IT & DATA MANAGEMENT RESEARCH,
INDUSTRY ANALYSIS & CONSULTING

2017 EMA™ Research Studies

ENTERPRISE MOBILE AND ENDPOINT MANAGEMENT	
Application Delivery in the Age of Cloud and Mobility **Quarter 4, 2016** Steve Brasen Managing Research Director Systems Management	Traditional methods of provisioning user applications involved the direct download of software from a hosting server to a PC endpoint. Today, however, software is distributed across internal server, private cloud, public cloud, and hybrid hosting environments and served to users in a variety of delivery formats, including standalone apps, secure apps, virtual apps, and web apps. In addition, users expect self-service in the selection and acquisition of business applications. Enterprise app stores, app catalogs, and other app delivery systems provide customizable environments for serving disparate software resources to end users, but which approaches provide the best return on investment? This EMA primary research will identify best practices for application delivery for meeting these evolving requirements. Included will be discussions on profile management, app store integration, and user experience preferences.
Office 365: Transitioning to Cloud-Hosted Business Productivity Tools **Quarter 1, 2017** Steve Brasen Managing Research Director Systems Management	Organizations are increasingly reliant on cloud-hosted applications to perform the most essential business processes. Nowhere is this more evident than with the broad adoption of Office 365, Microsoft's Azure-hosted edition of its popular productivity tool suite (including Microsoft Outlook, Microsoft Word, Microsoft Excel, and Microsoft PowerPoint). In this primary research project, organizations across a wide variety of industry demographics will be surveyed to determine current completed and planned adoption rates for Office 365 and identify the primary motivations for transitioning from the installed edition of Office, along with satisfaction rates and value achieved. Additionally, current management practices will be reviewed to identify optimal solutions for administering an Office 365 environment. The research data will also provide insight into challenges and advantages with the broader adoption of cloud-hosted software solutions, including market perspectives on subscription versus perpetual licenses, the importance of off-line capabilities, and concerns about security and reliability.
Enabling and Managing Devices Across the Internet of Things (IoT) **Quarter 2, 2017** Steve Brasen Managing Research Director Systems Management	Manufacturers are broadly imbedding chips into an increasing number of products to enable remote connectivity, usage intelligence gathering, and a variety of "smart" functionality. Enabling this technology typically requires software development and support in three key areas: on the embedded chips, on a cloud-hosted management console, and on mobile end user applications. Additionally, points of integration must be established with data analytics tools, asset management systems, third-party data information systems, and a number of additional digital resources necessary to bring value to the product's unique capabilities. In this primary research project, EMA will survey providers of IoT-connected devices to determine the primary challenges they experience in developing and providing ongoing maintenance for their device. The research will also identify which types of IoT management solutions provide the most value to manufactures and their customers across a wide variety of industry verticals and horizontals.

ENTERPRISE MOBILE AND ENDPOINT MANAGEMENT

PCs versus Tablets: Adoption, Use, and Management in the Modern Workplace

Quarter 3, 2017

Steve Brasen
Managing Research Director
Systems Management

Mobile device manufacturers continue to accelerate the performance and capabilities of their tablet platforms, and businesses are increasingly adopting tablet devices as a more cost-effective and portable replacement for PC laptops and desktops. Additionally, applications have become more commonly accessible from web and cloud-hosted services, making them more accessible from any device type. However, form factor (e.g., screen size, keyboards, graphics acceleration, etc.) is very relevant in many business use cases and favors the more powerful PC platforms. The focus of this survey-based research project is to gauge the current business use of tablet devices in comparison to the reliance on PC platforms. EMA will be reviewing hardware platforms, operating systems, and application adoption rates and comparing results against historical data to determine current trends across industry verticals and horizontals. The reasons behind particular device selection will be explored, as will device uses and user satisfaction rates. Enterprise management requirements and solutions for supporting both device types will also be reviewed with a particular focus on the interest, adoption, and value of Unified Endpoint Management solutions that enable centralized administration of both PC and mobile endpoints.

The Rise of Wearables: Securing and Managing Emerging Devices in the Workplace

Quarter 4, 2017

Steve Brasen
Managing Research Director
Systems Management

Wearable devices—such as smartwatches, smart bracelets, smart glasses, smart rings, smart clothing, wearable cameras, and a variety of other networked or Bluetooth connected devices—are increasingly being used to access business data and perform job tasks. Sales of smartwatches alone grew into a $29 billion business, and a principle use of these devices is to display business-related emails and messages. Processes for managing and securing these devices in an enterprise setting are largely undefined today. This primary research will conduct a survey of business professionals to identify the breadth of current and planned wearable device adoption, along with how they are being used in business environments. An additional survey targeting IT managers will be conducted to identify existing administration and security requirements and practices for supporting business-used wearable devices.

HYBRID CLOUD, SOFTWARE-DEFINED INFRASTRUCTURE, AND MACHINE LEARNING

Optimize TCO, Business Agility, and Compliance Through Hybrid Cloud and the Software-Defined Data Center Quarter 1, 2017 Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	In late 2015, EMA found that the majority of early enterprise adopters of data center SDN and NFV lacked network management tools that could fully support these new technologies. One year later, EMA will advance these findings. With SDN adoption growing and users gaining experience, "Managing Tomorrow's Networks: The Impacts of Data Center SDN and NFV" will examine the progress enterprises are making with engineering and managing SDN and NFV in the data center. How are enterprises planning and operating these new networks? What challenges do they face and what benefits have they experienced with the technology? Depending on the interest of subscribers, we may also survey communications service providers on their progress with SDN and NFV in their networks.
EMA Intelligent Cloud Series – Part 1: Smart IT Operations Management Solutions for a Business-Defined Data Center and Hybrid Cloud Quarter 1, 2017 Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This EMA Thought Leadership report will show how "business-aware" operations dynamically align the different disciplines of data centers and cloud infrastructure management with temporary and permanent corporate goals. For example, one would expect a company with aggressive market share goals in a certain industry to ensure optimal response times, security, and availability of all apps and data sources used by these customers. This "aggressive industry-specific growth" goal affects specific applications and impacts which server, network, storage, security, and software components are selected and how they are deployed, configured, and operated. Key Focus: Identify solutions that align the different areas of IT operations management with business goals. These solutions will typically take advantage of machine learning, cognitive computing, and advanced predictive analytics.
EMA Innovators Report: Business-Centric Hybrid Cloud and SDDC Management Quarter 1, 2017 Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This EMA Innovators award goes to vendors offering especially valuable tools and solutions to harness the business value of hybrid cloud and the SDDC. Key Focus: Business-centric management of VMware, OpenStack, Amazon, Microsoft, Softlayer, and similar SDDC and cloud infrastructure platforms.
EMA Intelligent Cloud Series – Part 2: Revolutionize Business User Productivity Through Machine Learning and Cognitive Computing Quarter 1, 2017 Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	How can the introduction of machine learning and cognitive computing in enterprise IT make end users more productive? This report will take a fresh look at the old question of how IT can provide strong competitive advantages to the business by predicting what end users need for optimal productivity. Key Focus: Connect the dots between end user needs and the myriad of IT management systems in the hybrid cloud. Ultimately, machine learning must answer the question of how the server, storage, network, and security infrastructure of each application environment should be deployed and configured to optimally support business goals.

2017 EMA™ Research Studies

HYBRID CLOUD, SOFTWARE-DEFINED INFRASTRUCTURE, AND MACHINE LEARNING	
EMA Innovators Report: Machine Learning and Artificial Intelligence in Hybrid Cloud and SDDC **Quarter 1, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	EMA will select key innovators leveraging machine learning and cognitive computing to more closely align data center and hybrid cloud with business goals or to significantly increase end user productivity.
Machine Learning and AI in the Software-Defined Data Center and the Hybrid Cloud – Lower Operations Cost and Boost Business Productivity **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This EMA Landmark research will deliver data points around how vendor offerings that leverage different aspects of machine learning, advanced analytics, and artificial intelligence enable customers to lower their IT operations cost and boost business results. Key Focus: Identify technologies and vendors that enable the radical alignment of SDDC infrastructure and hybrid cloud with the customer's business priorities and goals. Corporate executives and board members no longer see it as optional for the CTO to justify IT expenses. In this research report, EMA will explore how the IT department can evaluate the business alignment of their current environment and how future choices can be guided by business goals.
EMA Innovators Report: Converged, Hyper-Converged, and Hyper-Scale Infrastructure **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	EMA selects the top innovators in the converged, hyper-converged, and hyper-scale infrastructure field. EMA Innovators are vendors that positively change the economics for their customers by leveraging a new approach toward solving existing customer pain points.
Hybrid Cloud Management Solutions – Market Landscape and Decision Guide **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	The EMA Market Landscape report and decision guide provides buyers with a cheat sheet of what to watch out for when buying cloud management software. Key Focus: This research report clusters groups of relevant software vendors offering solutions in the following areas: • Cloud management platforms • Cloud brokerage • Intelligent workload placement • Cloud migration and workload mobility

2017 EMA™ Research Studies

HYBRID CLOUD, SOFTWARE-DEFINED INFRASTRUCTURE, AND MACHINE LEARNING

EMA Market 360: Dynamic Application Workload Management Solutions – the Brain of the Software-Defined Data Center **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	Hybrid cloud, containers, and the software-defined data center changed the game in capacity management. This EMA spotlight will outline what needs to happen next on our journey to a data center and hybrid cloud concept that inherently enables application workloads to find their ideal home, without manual intervention. Key Focus: Provide a market overview of solutions that contribute to dynamic policy-driven application workload placement and infrastructure sizing.
EMA Innovators: Container Management **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	Based on 2016 EMA research, containers are by now widely adopted for production workloads. Evaluating container management technologies is a task that is on the agenda of almost any CTO today. The EMA Innovators report will recognize container management solutions that unlock additional value for end users and contribute to an accelerated pace of container adoption.
Intelligent Cloud Series – Part 3: Market Landscape for Intelligent Operations Management Software for Hybrid Cloud and the SDDC **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	The EMA Market Landscape on intelligent and business-centric operations management will review products in the following IT management disciplines: VM and hypervisor management, capacity management, performance management, dynamic app placement, service management, DevOps, network management, security, endpoint management, and hybrid cloud. Key Focus: This research will review today's vendor landscape of intelligent machine learning and artificial intelligence-enabled management tools for hybrid cloud and the SDDC.
OpenStack Revisited – Economic Impact Study and Case Studies **Quarter 2, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This EMA Economic Impact study will explore the conditions for a financially successful adoption of OpenStack and will focus on quantifying the economic impact of adopting OpenStack, as well as determining scenarios where the adoption of OpenStack makes financial sense.
Machine Learning in IT Operations – Decision Guide **Quarter 3, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This EMA Decision Guide provides buyers with a cheat sheet of how to buy intelligent IT operations software that is able to automate and orchestrate data center and hybrid cloud tasks based on specific business requirements.

2017 EMA™ Research Studies

HYBRID CLOUD, SOFTWARE-DEFINED INFRASTRUCTURE, AND MACHINE LEARNING	
Economic Impact of Machine Learning on Hybrid Cloud and SDDC – Case Studies **Quarter 3, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	EMA will publish a compilation of customer case studies around the impact of machine learning on hybrid cloud and SDDC management.
The Role of Converged, Hyper-Converged, and Hyper-Scale Computing in Hybrid Cloud **Quarter 3, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This research will cut through the marketing hype around converged, hyper-converged, and hyper-scale infrastructure by comparing advantages in terms of cost, speed, reliability, scalability, and security to traditional infrastructure environments.
Economics, Security, and Performance of Public Cloud + Customer Case Studies **Quarter 4, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This EMA Thought Leadership report provides guidance for all customers wondering which application workload is suitable for which public cloud.
Economic Impact Study on the Cost and Benefit of Container Management Software **Quarter 4, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	This study will be an economic analysis based on customer case studies of how containers can change the economics of a) software development, b) release management of custom and off-the-shelf software, and c) desktop software versus web apps.
Virtual Machine Backup, Recovery, and High Availability – Decision Guide **Quarter 4, 2017** Torsten Volk Managing Research Director Hybrid Cloud, Software Defined Infrastructure, and Machine Learning	Backup, recovery, and high availability of virtual machines is critical today. This EMA Decision Guide will provide customers with guidance regarding how to select the most suitable business continuity solution for their business.

2017 EMA™ Research Studies

NETWORK MANAGEMENT	
Network Management Outsourcing: Drivers, Methods, and Outcomes **Quarter 4, 2016** Shamus McGillicuddy Senior Analyst Network Management	The typical enterprise is no stranger to outsourcing. Its prevalence rises and falls with changes in technology, the economy, the labor market, and other factors. An enterprise might outsource a process or service to save money or to improve focus on their core business, or they might do it because they cannot find employees with the skills they need to manage the outsourced service internally. Leading IT analyst firm EMA observed a particular rise in outsourcing of network management functions. EMA research shows that outsourcing network management to a management services provider increased from 36% of enterprises in 2014 to 51% in 2016. The research also found that enterprises that outsource network management functionality tend to be less effective with network operations. With this new research project, "Network Management Outsourcing: Drivers, Methods, and Outcomes," EMA will explore why enterprises are outsourcing network management, how they do it, and whether it improves or degrades network operations.
Managing Tomorrow's Networks: The Impacts of Data Center SDN and NFV **Quarter 1, 2017** Shamus McGillicuddy Senior Analyst Network Management	In late 2015, EMA found that the majority of early enterprise adopters of data center SDN and NFV lacked network management tools that could fully support these new technologies. One year later, EMA will advance these findings. With SDN adoption growing and users gaining experience, "Managing Tomorrow's Networks: The Impacts of Data Center SDN and NFV" will examine the progress enterprises are making with engineering and managing SDN and NFV in the data center. How are enterprises planning and operating these new networks? What challenges do they face and what benefits have they experienced with the technology? Depending on the interest of subscribers, we may also survey communications service providers on their progress with SDN and NFV in their networks.
EMA Radar for Hybrid Infrastructure Availability and Performance Monitoring Systems **Quarter 2, 2017** Shamus McGillicuddy Senior Analyst Network Management 	Many network monitoring platforms have evolved to serve hybrid infrastructure, extending their visibility beyond the network into systems, storage, applications, and the external cloud. EMA analysts define the term "hybrid infrastructure availability and performance monitoring system" to include monitoring solutions that are used by enterprise IT operations and engineering teams to discover, monitor, assess, troubleshoot, and manage medium to hybrid infrastructures comprising legacy data centers, private clouds, and public clouds. These solutions are often rooted in network monitoring, but they were adapted and extended to provide insight into the entire infrastructure stack, as well as external cloud services. Using primary research, this EMA Radar report will assess the core capabilities and features that address a hybrid infrastructure operator's needs to ensure the health and performance of the infrastructure. It will also examine the overall practitioner experience in procuring, deploying, administering, and using specific hybrid infrastructure monitoring products. More than a dozen products will be reviewed and compared in this study.

2017 EMA™ Research Studies

NETWORK MANAGEMENT	
Network Engineering and Operations in the Cloud Era **Quarter 2, 2017** Shamus McGillicuddy Senior Analyst Network Management	EMA research has revealed that cloud transformation is impacting network infrastructure teams in countless ways. First of all, 44% of all network traffic now originates from external cloud services and applications. The migration of applications to the external cloud prompted most network infrastructure teams to collaborate more closely with IT service management teams, and the majority of network teams are adopting cloud-specific network monitoring and network optimization solutions. This new research project will dive into the technological and organizational changes that network infrastructure teams are grappling with as more and more applications are delivered from the cloud rather than an on-premises data center. Specifically, it will identify the new engineering and management solutions that networking teams are adopting and the new functional requirements they have for their existing solutions. It will also examine the impact of "shadow IT" initiatives (e.g. line-of-business led cloud adoption) on network operations.
The Unplugged Network: Wi-Fi and the Evolving Network Access Layer **Quarter 3, 2017** Shamus McGillicuddy Senior Analyst Network Management	Enterprises are transitioning away from a wired network access layer in campus networks. End users traded in desktops for laptops, tablets, and smartphones. Even the desk phone is becoming a relic in some companies. Meanwhile, wireless LAN technologies advanced toward gigabit speeds with 802.11ac. The network access layer is evolving, which means network operations must adapt. This research will examine the changes that hit network engineering and operations when an enterprise moves toward an all-wireless network access layer. EMA will identify the rates of change in physical infrastructure and examine how these changes affect the tools and practices network infrastructure teams apply to planning, engineering, monitoring, and troubleshooting network connectivity and services. It will also identify the organizational impacts of this trend, including acquisition of new skills, impacts on budgets, and the use of external partners and managed services.
Applying Network Data to the Business: Advanced Network Analytics **Quarter 4, 2017** Shamus McGillicuddy Senior Analyst Network Management	In 2016, EMA research found that nearly half of enterprises apply advanced analytics to network infrastructure data. They apply these initiatives to a variety of use cases, most commonly network security monitoring, network optimization, and business process optimization. EMA believes that many enterprises have identified network data as a valuable source of business intelligence. This new research project will explore advanced network analytics in depth. It will identify the network data that enterprises analyze and the tools they use to capture, store, and analyze the data. EMA will explore the challenges and benefits of such initiatives, and it will examine how some enterprises are using network analytics to improve business performance and support digital transformation.

SECURITY	
SecOps: Integrated Security for Performance and Change Management: Two Views **Quarter 1, 2017** David Monahan Research Director Security and Risk Management Dennis Drogseth VP Research IT Megatrends, Analytics and CMDB Systems	EMA will examine how security and operations teams approach common challenges in terms of minimizing risks associated with application/service performance, as well as change and compliance in cloud and legacy environments. Differing and shared technologies, processes, and metrics across a balanced population of security and operations professionals and executives will also be examined.
Next-Generation Endpoint Security **Quarter 1, 2017** David Monahan Research Director Security and Risk Management	This vendor-related research focuses on solution providers that are delivering proactive next generation endpoint security services covering prevention, detection, and response. Seventy-seven percent of the vendors competing in this space emerged in the last five or fewer years, making this a highly volatile, dynamic, and competitive market with explosive growth. The next generation endpoint security (NGES) market has evolved from legacy endpoint security. It is most similar to the endpoint threat detection and response (EDR) market identified by Gartner, but also overlaps the specialized threat analysis and protection (STAP) market identified by IDC. NGES is contained within the broader endpoint software security market, which includes traditional antivirus—also identified by IDC—and the even larger endpoint security market identified by MarketsandMarkets, which includes all of the aforementioned markets plus firewall, endpoint device control, and more. The fast-growing NGES segment is important and warrants a separate, discreet definition from broader legacy endpoint security market definitions. Protection services offered by these solutions are far beyond those of traditional antivirus and look to overtake antivirus as an enterprise staple, creating a multi-billion dollar opportunity for these providers.

SECURITY

Data-Driven Security Report Series: Insights into Technology Drivers, Use Perception, and Value

Quarter 2, 2017

David Monahan
Research Director
Security and Risk Management

The threat landscape is changing at a breakneck pace. Security professionals are caught between a rock and a hard place. Legacy tools are struggling with a daunting array of exposures and threats that are evolving and adapting to stay beneath the radar.

In this research series, EMA seeks to identify market penetration for a number of key security areas, explore why organizations are investing in these solutions, and expose customer value perceptions and dissatisfaction with the solutions. The research will also investigate how both the tools and the security programs are adapting to the business requirements for not only better protection, but also better insights and reporting to business stakeholders.

In this research series, EMA will gather insight from over 200 IT and security practitioners and managers, ranging from the SMBs to the enterprise markets across key industry verticals, including financial, retail, federal government and aerospace, local government, technology, manufacturing, and utilities and infrastructure. EMA explores how data-driven security continues to evolve security tactics, security management and strategy, and the data sources fueling those efforts.

Complete research reports on each of the following areas will be available:

- Bot Defense
- DDoS Protection
- Deception Technologies
- Identity and Access Management (IAM, IDM, PIM, etc.)
- Incident Response Platform
- Network Admission Control (NAC)/Network and Endpoint Visibility
- Network-based APT detection
- Network Security Policy Management
- Next Generation Endpoint Security (NGES/EDR/EPP/STAP)
- Security Analytics (UBA/UEBA, Behavioral Analytics/Predictive Analytics)
- Security Incident and Event Management (SIEM)
- Third-party/Vendor Risk Management
- Threat Intelligence Platform
- Threat Intelligence Service
- Vulnerability Management
- Web Application Firewalls (WAF)

2017 EMA™ Research Studies

SECURITY	
IoT Security: Issues of Protecting our Data and our Lives From IoT—Perceptions and Reality **Quarter 3, 2017** David Monahan Research Director Security and Risk Management	In the last year or so, the topic of the Internet of Things (IoT) received a lot of attention. Both the concept of the topic and scope of what should be included in IoT changed dramatically in that time. The first commercialization of IoT were wearables such as GoogleGlass. Shortly thereafter came the next wave, with devices such as smart watches. The first security concerns were focused on personal safety due to user distractions, similar to those voiced when smartphones became popular, and then came the invasion of privacy concerns. Hackers were able to infiltrate these devices and identify attacks to gather data from them. As a result, the concept of IoT was actually much broader and had more significant impacts than privacy. This EMA research will delve into both the perceptions and reality of IoT security issues and the gap between them.
Cloud Security: Delivering Security for and Through the Cloud **Quarter 4, 2017** David Monahan Research Director Security and Risk Management	Undoubtedly, cloud service usage is growing. Some organizations embrace this growth and are fully engaged in public and hybrid cloud adoption. Other organizations, however, are hesitant to dive in, especially if their intellectual property, private records, or other sensitive data will be in the cloud. In recent research conducted by EMA titled "Open Cloud Technologies," respondents indicated that security was a top concern. This new research continues where the "Open Cloud Technologies" report left off by looking into what consumer expectations and concerns are regarding cloud security. Some of the questions this new research will answer include: • Are there specific security features cloud consumers are looking for as service differentiators? • Why does it appear that people are more risk-tolerant with their personal data than with their business data? • Is the perceived difference in adoption for personal use and business use really as large as it seems?

STORAGE MANAGEMENT	
The Role of Hyper-Convergence in Meeting Enterprise Growth **Quarter 4, 2016** Jim Miller Senior Analyst Storage Management	IT staff are required to bring new applications and infrastructure online more quickly than ever with the agility to rapidly scale compute, storage, and network resources as necessary to meet changing business needs. Pre-configured hyper-converged solutions free up IT staff from evaluating and deploying server storage, networking, and virtualization software, greatly reducing the time to deploy new infrastructure. This EMA research will identify IT professional and management understanding of hyper convergence, as well as the use cases for which of these solutions are being deployed. Requirements and objectives will be identified, along with how well hyper-converged solutions are meeting expectations. Both software- and appliance-based solutions will be explored.

2017 EMA™ Research Studies

STORAGE MANAGEMENT	
Disaster Recovery as a Service. It's all About Business Continuance Quarter 1, 2017 Jim Miller Senior Analyst Storage Management	Primary research from EMA shows backup and disaster recovery to be the greatest storage challenge to the data center. Whereas onsite backups are used to recover from data corruption, a hardware failure, or accidental erasure, disaster recovery is how companies protect themselves in the event that there is a loss of access to the primary data center compute or storage resources. For most businesses, disaster recovery has never and may never be used, but the stakes are high when the primary data center is not. The cost of downtime can vary from as much as $90,000 to $6 million an hour, depending on the industry and its application environment. Disaster Recovery as a Service (DRaaS) is the replication and hosting of physical or virtual servers by a third party to provide failover in the event of a man-made or natural catastrophe. This EMA research will be conducted with IT professionals and management users of DRaaS. Requirements, recovery objectives, cost, IT ecosystem (core enterprise, remote sites, and branch offices) and decision makers will be identified, along with how well the DRaaS is meeting expectations.
Leveraging OpenStack Storage to Achieve Cloud Benefits on Premise Quarter 2, 2017 Jim Miller Senior Analyst Storage Management	The cloud has attained significant traction in the market as IT management is attracted to the self-service, on-demand, and elastic provisioning of the cloud. However, all workloads are not suitable for the public cloud. Long-term cost, security, compliance, and performance needs all play a role in the suitable location for both workloads and storage. IT organizations are looking to achieve the functionality, flexibility, and economical befts of the cloud within their own data centers. OpenStack is a set of software tools for building and managing cloud computing platforms for both public and private clouds. It controls large pools of compute, storage, and networking resources throughout a datacenter. This EMA research taps private cloud OpenStack users to identify requirements, storage choices, orchestration tools, and the degree of success in deploying OpenStack storage within the enterprise.
EMA Radar for Software-Defined Storage Quarter 3, 2017 Jim Miller Senior Analyst Storage Management 	A key element driving storage growth is the rate that applications are being created to exploit new and existing use cases. In order to achieve or maintain competitive advantage, these new applications must be developed, launched, and enhanced as quickly as possible. To support this dynamic environment, IT resources, including storage, must be provisioned rapidly and resources adjusted in real-time to meet changing business conditions. Software-defined storage (SDS) enables storage to be application-aware, allowing server administrators, application managers, and developers to provision storage in a policy-driven, automated, and self-service manner. This Radar Report identifies key vendors within the software-defined market, and empirically compares and grades them against a broad range of measurements to determine overall product strengths and cost efficiencies.

Learn More

For more information on upcoming EMA research studies, please contact an EMA business development manager at +1.303.543.9500 or sales@enterprisemanagement.com.

About Enterprise Management Associates (EMA)

Founded in 1996, EMA is a leading industry analyst firm that provides deep insight across the full spectrum of IT and data management technologies. EMA analysts leverage a unique combination of practical experience, insight into industry best practices, and in-depth knowledge of current and planned vendor solutions to help EMA's clients achieve their goals. Learn more about EMA research, analysis, and consulting services for enterprise line of business users, IT professionals and IT vendors at www.enterprisemanagement.com or blogs.enterprisemanagement.com. You can also follow EMA on Twitter, Facebook or LinkedIn.