

About this paper

A Pathfinder paper navigates decision-makers through the issues surrounding a specific technology or business case, explores the business value of adoption, and recommends the range of considerations and concrete next steps in the decision-making process.

ABOUT THE AUTHOR



LIAM EAGLE

RESEARCH MANAGER, VOICE OF THE ENTERPRISE: CLOUD, HOSTING & MANAGED SERVICES

Liam Eagle is a Research Manager, VotE Cloud, Hosting and Managed Services. His research examines web and application hosting, managed hosting and cloud infrastructure. His research focuses in part on the adaptation of traditional hosting technologies and models to accommodate emerging needs. These include web presence SaaS, the focus on web professionals and the channel market for cloud infrastructure.



Executive Summary

Introduction

The managed services and hosting market includes a broad range of infrastructure, application and managed service types. While many of these are delivered using the cloud, a large portion is still delivered via non-cloud infrastructure and relies on operational management via traditional means. At the same time, the physical infrastructure on which services are built is becoming increasingly invisible.

Technology convergence, hardware virtualization and the rise of everything as a service have made awareness of compute, storage and networking functionality much less of a necessity for the consumers of these services. This is not to say the infrastructure component of delivery is less important, but that the managed delivery of these services has become more important to the customer than ever. The figure below shows the growing significance of the managed services market to European businesses, and where it is likely to go over the next several years.

Figure 1: Hosting, cloud and managed services – EMEA ($\ensuremath{\varepsilon}$ m)

Source: 451 Research Market Monitor & Forecast, Hosting Cloud & Managed Services





The technology vendors, service providers and distribution channel partners that make up the supply side of the managed services and hosting sectors will continue to face disruption as demand changes. New services will provide new opportunities, but also new competitors, including those moving in from adjacent markets. For those offering connectivity, the key aspects of service delivery – high availability, low latency and edge delivery – will become differentiating factors. Optimizing those components will provide competitive advantage and will open the door to new service capabilities.

Operational management – including monitoring and support – has been the bread and butter of a range of service providers for many years. But the cloud has provided new opportunities for service providers to offer managed services in additional areas. Traditional and cloud-based security are leading demand generators, particularly as digital transformation affects industries that carry a high component of risk management, as well as those exposed to the more hazardous aspects of cybercrime.

Elsewhere, telecom carriers continue to leverage network ownership to provide packaged offerings, while a growing dependence on web-based applications is highlighting the need to ensure application performance and availability. New types of vendors – e.g., DNS infrastructure providers – are coming into play, and more established markets – such as CDN – are developing outward to address API-based infrastructure platforms. At the same time, many mature sectors – such as the web and application hosting market – are beginning to integrate new kinds of cloud services into their product portfolios, taking into account the desire for functional expansion. This opens up new opportunities for integration and partnership across service categories, and new avenues for expansion.

Key Findings

- The market opportunity in EMEA for managed services and hosting will rise significantly to more than €50bn by 2022, driven by strong growth across infrastructure, application and managed services sectors. The most successful service providers will be those that effectively combine services across those three categories, tying them to the business requirements of customers.
- Cloud has become a key delivery mechanism and consumption model for almost all services
 and will become increasingly critical to how enterprise IT is executed. This will disrupt aspects
 of infrastructure and application service delivery. However, operational management, security,
 optimization and other enabling services will continue to be important aspects of hosted
 infrastructure and application services, and important areas of focus for service providers.
- As businesses seek to connect the dots across the hosted and cloud services they consume, the
 breadth of service provider product portfolios will become an increasingly critical differentiator.
 The competition to be among their customers' primary vendors for hosting and cloud services
 will require service providers to extend their portfolios through partnerships and other strategies.
- The IT distribution channel is making a comeback as it adapts to changing service management requirements, and it stands to gain from its transactional experience and ecosystem relationships in a multi-cloud world. Service providers should work more closely to sell with, rather than through, channel partners by establishing more complete offerings aimed at solving business problems rather than simply sourcing components.



Trends

Cloud Service Integration Drives Service Provider Strategy

MARKET IMPACT

Businesses are adopting an increasing variety of cloud-based platforms and services, and they are working to interconnect and interoperate those environments under multi-cloud or hybrid IT architectures and strategies. However, they may not want to spread their efforts, or their business, out across a larger number of vendors. Many businesses indicate a desire to consolidate their cloud transformation efforts with a smaller number of trusted providers. The security, management and strategic demands of hybrid IT may all benefit from the concentration of responsibility and accountability in a handful of relationships. The 'one stop shop' is not a new concept in this sector; it is becoming a more prevalent strategy for service providers looking to assume a primary role in their customers' cloud services operations and spending.

The ability to deliver a range of services across a broad spectrum of cloud service categories is an increasingly valuable position for managed service providers and the objective for a growing set of vendors – e.g., hosting providers, telecommunications providers, datacenter operators, managed service providers, VARs and systems integrators. Offering a broad portfolio of services to customers enables service providers to profit from stronger, stickier customer relationships, building more individually valuable customers as they shepherd those businesses through the process of digital transformation and cloud service adoption.

Engineering a broad service portfolio is a time- and resource-consuming prospect, and not necessarily one within the capabilities of all service providers. Larger providers have expanded product portfolios and geographic footprint via acquisition during the last several years, and this too may be outside the scope of the average provider. Nevertheless, bringing a broad portfolio of services to market is within the capabilities of service providers, provided they have the right partnerships in place. Partnering, and participating actively in an ecosystem of complementary services, is a key strategic consideration, even for those with the means to build or buy.

Serving as a primary service provider to a business means assuming the role of trusted advisor, which includes helping businesses to navigate a vast selection of technology choices, and ideally consolidating the supply and management of those services into a single bill, a single support contract and a significantly smaller set of SLAs. Vendors across the cloud service spectrum can partner on infrastructure, applications, facilities, network, security and other critical components to complete the one-stop shop for customers, and to address all the key trends facing customers.

WINNERS

- Vendors with the partners and tools to deliver a one-stop shop for services
- Service providers offering outcome-focused services backed by invisible infrastructure



RECOMMENDATIONS

Remaining among the primary technology vendors for clients is a critical concern for service providers as their customers undergo the cloud transformation journey. Customers are most likely to turn to these providers first to source new services. They are also more likely to continue the relationship and are more likely to increase spending with these vendors over time. To maintain this role, service providers must deliver a higher tier of value, including sourcing, managing and securing a broad set of services.

Managed Connectivity Boosts Interconnect Service Capabilities

MARKET IMPACT

As businesses move toward multi-cloud as standard IT practice, interconnection – the glue that connects services and the technology at the heart of service delivery – is becoming more elastic. Service providers are enabling seamless and secure hybrid delivery through investments in the network and the technologies that drive it, granting customers choice in areas such as security, regulation, efficiency and workload placement through self-service portals and other tools.

Service providers will continue developing interconnect technology that links the services delivered from and to third-party datacenters (both enterprise and cloud), as well as the interconnect technology inside their own facilities. This will occur more frequently as enterprise customers become more 'liquid' in the way they consume technology and seek greater control over data assets. As part of the commodification of the datacenter, service providers now see function overtaking the importance of infrastructure form – but only as new network functions are introduced to enable this.

The first wave of interconnectivity focused on ecosystems or brokerage environments inside the colocation or service provider datacenter. In the newer wave, levels of control – along with datacenter requirements – are scaling beyond centralized hubs to include metro connects, edge datacenter locations and remote offices. Scalability, redundancy and security are key tenets in this new, connected world in which the digitized business has its sights set on the Internet of Things (IoT) and big-data capabilities. This means customers are shifting their focus from cost efficiency, reliability and security initiatives to intelligence and agility, while service providers are seeking to meet their needs with customized platforms and networking capabilities.

Customers with hybrid IT architectures that include offices connecting into datacenters, which then connect out into public cloud, remote offices and SaaS services, are creating new connectivity requirements that go beyond the hub-and-spoke needs of the past. In these newer architectures, providers of connectivity are taking on more of the complex task of managing connectivity between those locations and services. Specialized industrial cases – such as factories or oil rigs generating telemetry and analyzing at edge datacenters – are one example where a service provider can bring targeted managed connectivity products to the market.



Service providers are developing dynamic connectivity options that can be deployed with the click of a button, and many of these will be baked into the wider (and, in some cases, higher-margin) service bundles. API-driven approaches will enable customers to easily scale their services up and down as they also consider the scalability and cost of their bandwidth requirements. Security will remain top of mind, however, as will IT governance and compliance.

WINNERS

- Vendors that already offer network capabilities or control network assets
- · Network-knowledgeable vendors that understand customer pain points

Recommendations

Interconnectivity is a tool for customer enablement, but not all customers are the same. Service providers should get to know their customers' needs, identify where those may change over time, and provide a consultative capability that helps to evaluate network and connectivity requirements. By tying network functions into their wider product portfolios, service providers enable customers to bind cloud requirements to network capabilities. Vendors can look to partnerships to extend these capabilities.

Multi-Cloud Security Management Becoming a Critical Enterprise Task

MARKET IMPACT

Enterprise IT is shifting toward multi-cloud models that involve a variety of internal and external resources and providers and enable workloads to move across platforms. This complexity creates new risks for the enterprise and demands expertise in protecting application and data migrations, securing distributed architectures, managing identities and access, and safeguarding APIs in dynamic and constantly changing environments.

Despite many benefits, a multi-cloud architecture can be difficult to manage and even more difficult to secure. Creating and maintaining a consistent security profile across the enterprise has been a challenge for many organizations, and the introduction of multiple clouds into IT architecture has exponentially complicated security efforts. Organizations will increasingly have multiple datacenters and clouds of various types spanning several regions – all connected through a composite of APIs, direct connections, VPN tunnels and other routes. This has resulted in a complex, distributed and highly elastic attack surface that will be the next major challenge for enterprises to protect.

Security concerns have been among the biggest roadblocks to the consumption of cloud services. The existing controls for traditional IT infrastructures – such as data security, firewalls and access controls – cannot easily be replicated in multi-cloud environments. Cloud service providers are increasingly addressing these concerns and limitations by providing various security services designed to protect and secure data and resources in the cloud. These services have often been elementary with limited capabilities, applicable only to specific cloud or SaaS services, resulting in isolated tools that make security policy enforcement, threat analysis and response more complicated and less effective. To effectively secure their digital footprints, organizations will



start to use tools, services and controls capable of providing consolidated security management across the entire lifecycle of services and across multiple cloud environments and networks, isolating security functions where needed, such as using hardware security modules for encryption key management.

The development of multi-cloud security management will be predicated by the speed with which organizations are adopting cloud services – often outpacing the hiring and development of cloud security expertise. To close the gap, organizations will be looking to invest in security automation, orchestration and visibility when developing intellectual property. They may bring together tools, workflows, knowledge and frameworks into a single platform, or partner with managed security service providers to augment existing capabilities while filling their security capability and skills gaps.

WINNERS

- · Vendors that can apply identity and access management across customer multi-cloud environments
- Service providers able to deliver security management across a variety of platform APIs

RECOMMENDATIONS

Service providers must ensure that their security services support a range of cloud offerings, going beyond the handful of leading platforms to provide production for a wide variety of SaaS, PaaS and laaS offerings, as well as hosted and on-premises infrastructure. They should focus these services on aligning compliance across venues and providing centralized network and security policies.

Operational Management and Service Automation Opportunities

MARKET IMPACT

As-a-service delivery of cloud resources extends the range of potential services that providers can offer beyond basic compute or low-margin operational services to other network, storage and security offerings. Disaster recovery, backup, monitoring and reporting are all strong candidates for managed delivery, and they provide higher-margin revenue as more enterprises seek cloud delivery that is transparent and integrated.

Managed services are rapidly emerging as a key way to add value in a complex landscape of technology vendors, partners and distribution channels. While traditional operational management of servers, storage, power, physical security and the like is still a core function of the service provider community, capabilities beyond 'keeping the lights on' will create the best opportunity for service growth. Companies that can provide managed forms of security, storage, disaster recovery, application services and hosting will see an appetite for services that offer higher margins. For those that can deliver such services as part of a bundle of managed or unmanaged offerings, demand will be higher still as clients look to further outsource operational components and reduce the complexity of their IT infrastructure.



Success will not come from simply adding further'as a service' components to existing portfolios, however. The best-positioned service providers will be those that serve strategic regional and vertical markets and can meet the desire for high automation, rapid provisioning and services that address complex enterprise needs, while retaining high-touch delivery. Not every provider will be able to (or want to) adapt its business model to access this opportunity, however, because doing so will require internal development, M&A or private investment to create service platforms, hire new talent, and pay for sales and marketing activities.

For those that make the move, this trend will drive transformation in the service provider landscape. Services specialists – which until now have largely used a mix of in-house SaaS and custom services – will start to offer standardized service delivery using repeatable components delivered via management consoles. At the same time, many systems integrators – for many years the platform-agnostic 'glue' behind IT infrastructure – will become 'service integrators,' taking a more prominent role in cloud service management and aggregation in the same way. finally, the technology vendors with legacy services divisions will either spin off these groups to joint ventures or trim their offerings to match highly strategic parts of their portfolios, increasingly working with service providers to deliver joint go-to-market offerings.

WINNERS

- · Vendors that can use automation to enable complex or custom services
- Service providers that can deliver bundles that include management and security

RECOMMENDATIONS

Service providers seeking to be enablers of cloud services should invest in building out services in areas adjacent to their existing competencies. For instance, providers with existing capabilities in storage can build on those with disaster recovery or backup services. Generalist security practices can be built out to include cloud-based security, network security or encryption services.

'Sell With' Becomes the New 'Sell Through'

MARKET IMPACT

The IT distribution channel has an important part to play in the development and delivery of managed services and hosting. Much more active participants than conduits for services, systems integrators, VARs and distributors will enable digital transformation via cloud in conjunction with technology vendors and ISVs. Service integration and aggregation play to the historical strengths of the channel – particularly its ability to take the best parts from multiple sources and produce something new in the process.

The era of cloud has brought disruption not only to the technology and tools used in IT service creation, but also to their delivery. The traditional supply chain – a straight line with the end user as the receiver – is becoming more circular as the lines between supplier and consumer blur. Cloud has brought self-service, pay-as-you-go access to enterprise services, with significant portions of the delivery mechanism becoming invisible to the end user. Enterprise IT departments can become internal service providers to their stakeholder teams; systems integrators can become service integration specialists, providing a front end for ISVs delivering complex SaaS offerings;



distributors can take a more active role in technology vendor arbitration, delivering platforms upon which VARs – the majority of which are infrastructure asset 'light' – can in turn host services via portals, etc. While this may sound like a service free-for-all, it is more a realignment of roles.

Key to the transformation of the channel model is the evolution of the relationship between suppliers of cloud services and their distributors. Instead of regarding channel partners via a simplistic sales perspective focused on margins and volume (sell-through), service providers must engage on a deeper level with partners (sell with), providing input on product development, support for sales and marketing efforts, and offering big-picture strategic insight that helps to illustrate the value of the ecosystems in which partners are participating.

Because much of physical distribution has been replaced with virtual delivery, the nature of service provisioning has, in turn, changed. Services based on supply, integration and management of physical assets have moved further up the stack as software becomes the controlling intelligence for compute, storage and networking infrastructure. There will always be a need for basic operational management – including space, power, hardware maintenance, etc. – but cloud has produced new opportunities for services created and delivered by a combination of providers, integrators, VARs and distributors. Services, including licensing and billing, application optimization, portfolio management, service orchestration and relationship brokering may not be something that individual vendors, providers or channel partners can offer, but they have elements that can be provided by two or more companies in partnership.

WINNERS

- · Vendors that offer more advanced cloud programs with co-marketing
- · Service providers that attract partners specializing in verticals or market segments

RECOMMENDATIONS

Adding channel value is about more than fulfilment. Service providers can focus on being the distribution channel for upstream cloud services while offering their own services through partner channels of their own. Those involved in enabling cloud must have a big-picture strategic view of their role in the channels of their suppliers, as well as the portfolios of their own distribution partners.



Conclusions and Recommendations

Businesses are transforming the methods by which they execute IT, increasingly adopting multi-cloud and hybrid IT environments. The shift to hybrid strategies and cloud infrastructure environments is introducing a variety of new technical requirements and creating a range of new challenges and opportunities for service providers involved in enabling cloud consumption.

The managed services role is shifting to one of overall enablement, where service providers must bring to the table capabilities for enabling multi-cloud architectures via management, security and connectivity. This complete set of services is outside the scope of most service providers, making partnership – participation in the partner ecosystems of upstream cloud platforms while relying on advanced channel partnership strategies to enhance distribution – a critical strategic move for many service providers.

Service providers striving to remain competitive in the world of hybrid IT and multi-cloud must evolve beyond individual infrastructure components and point solutions, combining technologies and services to help customers reach business objectives.

TREND	WINNERS
Cloud service integration drives service provider strategy	Service providers able to deliver a one-stop shop; providers offering outcome-focused services on invisible infrastructure
Managed connectivity boosts interconnect capabilities	Service providers with network assets and capabilities, focused on understanding customer pain points related to interconnection
Multi-cloud security management becomes critical	Service providers that can apply identity and access management across multi-cloud environments and via various platform APIs
Management and service automation opportunities	Service providers able to automate key parts of their customized services; vendors bundling in management and security
'Sell with' becomes the new 'sell through' for the channel	Service providers offering additional value to channel partners beyond distribution, and attracting specialized partners.

Service Provider Recommendations

- Service providers must seek out opportunities to establish themselves as the primary vendor to customers, building out broader portfolios of cloud services via partnership with other providers and integrating complementary services to create service bundles.
- Interconnectivity is a key enabling technology for multi-cloud and hybrid IT architectures. By providing network services, providers can enable customers to tie their cloud usage to network capabilities. Providers lacking network resources of their own should acquire the capabilities through partnership.



- Vendors must recognize that the scope of security requirements is expanding as customers
 adopt and interconnect a broader range of infrastructure and application services and need
 to extend security offerings to address the evolving requirements brought on by cloud.
 Consolidated security offerings that address a broad range of platforms are key to satisfying
 evolving customer requirements.
- In order to enable broader sets of managed services, providers should emphasize automating processes wherever possible. Automation is a critical component of customized and complex services. Building out capabilities adjacent and complementary to existing competencies is the first place that service providers should look when expanding their services.
- The channel opportunity around cloud services is expanding. Service providers can benefit
 from participating in the ecosystems of upstream platform vendors, including public cloud
 providers. At the same time, they should focus on offering advanced programs for channel
 distribution of their own services, providing sales, marketing and product development
 support for specialized partners.



About 451 Research

451 Research is a preeminent information technology research and advisory company. With a core focus on technology innovation and market disruption, we provide essential insight for leaders of the digital economy. More than 100 analysts and consultants deliver that insight via syndicated research, advisory services and live events to over 1,000 client organizations in North America, Europe and around the world. Founded in 2000 and headquartered in New York, 451 Research is a division of The 451 Group.

© 2019 451 Research, LLC and/or its Affiliates. All Rights Reserved. Reproduction and distribution of this publication, in whole or in part, in any form without prior written permission is forbidden. The terms of use regarding distribution, both internally and externally, shall be governed by the terms laid out in your Service Agreement with 451 Research and/or its Affiliates. The information contained herein has been obtained from sources believed to be reliable. 451 Research disclaims all warranties as to the accuracy, completeness or adequacy of such information. Although 451 Research may discuss legal issues related to the information technology business, 451 Research does not provide legal advice or services and their research should not be construed or used as such.

451 Research shall have no liability for errors, omissions or inadequacies in the information contained herein or for interpretations thereof. The reader assumes sole responsibility for the selection of these materials to achieve its intended results. The opinions expressed herein are subject to change without notice.



NEW YORK 1411 Broadway New York, NY 10018 +1 212 505 3030

SAN FRANCISCO140 Geary Street
San Francisco, CA 94108
+1 415 989 1555



LONDON
Paxton House
30, Artillery Lane
London, E1 7LS, UK
+44 (0) 203 929 5700

BOSTON75-101 Federal Street
Boston, MA 02110
+1 617 598 7200



