

***ISG** Provider Lens™

Cloud Transformation/ Operation Services & XaaS

U.S. 2019

Quadrant
Report



A research report
comparing provider
strengths, challenges
and competitive
differentiators

Customized report courtesy of:



November 2018

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The research and analysis presented in this report includes research from the ISG Provider Lens™ program, ongoing ISG Research programs, interviews with ISG advisors, briefings with services providers and analysis of publicly available market information from multiple sources. The data collected for this report represents information that ISG believes to be current as of September 2018, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time but those changes are not reflected in this report.

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| | |
|-----------|---------------------------------|
| 1 | Executive Summary |
| 3 | Introduction |
| 12 | Public Cloud Transformation |
| 17 | Managed Public Cloud Service |
| 21 | IaaS – Public Cloud Hyperscaler |
| 25 | IaaS – Enterprise Cloud |
| 29 | Methodology |

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EXECUTIVE SUMMARY

In 2018, enterprise organizations are quickly advancing their multi-cloud strategies using public cloud providers. Large companies are now willing to trade in their old capital expenditure models of managing data centers and servers in exchange for more speed, cost flexibility and a great amount of elasticity, the key ingredients of public cloud offerings.

At a recent cloud conference, a multinational financial services firm discussed its multi-cloud strategy, a good illustration of how the market is developing. The organization uses each major cloud provider for different purposes. The company stressed the importance of having multiple suppliers to meet regulatory requirements and of expanding its IT organization to become increasingly multiskilled. The company uses one provider for the client's data warehousing and its communications platform, another for applications as well as testing and development, and another for enterprise cloud software required for specific geographic locations. ISG observes that this new, complex, multi-cloud, multi-skilled approach is now the standard in business and a key trend driving enterprise organizations.

In the first six months of 2018, the combined annual contract value (ACV) for outsourcing in the Americas commercial sector was up more than 30 percent year-over-year for both traditional sourcing and as-a-service engagements, according to the July 2018 ISG Index™ report. ISG's quarterly ISG Index™ report covers wider cloud trends and the state of the global IT services, both the traditional sourcing market and the as-a-service market (both infrastructure-as-a-service and software-as-a-service). The July 2018 Index revealed that ACV

from IaaS contracts in the Americas continues to grow. The year-over-year ACV totals for the first six months of the past three years were \$1.6 billion in 2016, \$2.6 billion for the first half of 2017 and \$3.5 billion in the first half of 2018. The full report provides market-place intelligence related to real sourcing contract data and knowledge of outsourcing transaction structures and terms, industry adoption, geographic prevalence and service provider performance. ISG's Contracts Knowledgebase is used to determine placements based on the annual value of commercial contracts awarded in the past 12 months.

This Provider Lens report provides deeper insight into the U.S. public cloud market. Key trends and observations in this cloud transformation report are summarized below.

Providers are essential to help enterprises with cloud complexity: Enterprise organizations can't keep up with the complexity and thousands of yearly offerings being released by the hyperscale and other public cloud providers. ISG sees that the flood of innovation makes it extremely important that enterprise clients receive provider guidance for public cloud consulting and implementation.

Service providers with extensive hyperscale cloud partnerships are becoming more important to enterprises: Enterprises planning large and complex cloud transformation projects are looking beyond providers' technical capabilities. Key factors for enterprise partner selection and service retention include depth of hyperscale joint partnerships, certifications, industry specializations and the providers' cloud business unit growth.

Technology vendors are also placing high emphasis on ecosystems and partner-led deals by increasing their collaborative joint ventures, business units and centers of excellence (CoEs). Technology vendors are also placing high emphasis on partner led deals and ecosystems by increasing collaborative joint ventures, business units, and centers of excellence (CoEs).

Multi-cloud enterprise strategies are key driver: As much as hyperscale cloud providers would like enterprises to exclusively go “all in” with one provider, clients are increasingly shifting toward multi-cloud services with numerous vendors. The specialization of hyperscale provider offerings gives enterprises choices for the right service to match the application or business need. As cloud providers expand their service lines to compete, enterprises should anticipate reduced costs and increased flexibility to attract their business.

Hyperscale investments into new platforms: Hyperscale cloud providers have started to offer modern software-defined network (SDN) architectures, hybrid cloud offerings and container readiness in combination with Kubernetes and serverless code deployments.

Continued IaaS market contraction: The hyperscale IaaS public cloud market will continue to contract and be dominated by a few players. Providers are building cloud practices primarily around Amazon Web Services (AWS), Microsoft Azure and Google Cloud Platform (GCP). These organizations are making the largest infrastructure investments globally. Chinese hyperscale provider Alibaba announced in August 2018 it would not expand in the U.S. due to recent tariffs and regulation fears.

The majority of cloud business is still within the U.S., but Europe is gaining. The U.S. is currently the largest market for public cloud adoption by enterprise organizations migrating applications to various platforms as part of a multi-cloud strategy. Europe is gaining in as-a-service market share, but current regulations may hinder large gains in the region.

Midsized provider specialization and large provider optimization: Midsized managed service providers (MSPs) with deep technology expertise can win larger deals where specialization and not scale is most important to customers. The specialization trend continues to disrupt larger, more established providers. Enterprises will rely heavily on MSPs to manage their global application requirements and geographic compliance as services become more complex.

Enterprises are continuing their DevOps journey: The public cloud partner ecosystem is essential to enterprises on their DevOps journeys. This calls for a highly automated and orchestrated system, which is where MSPs and implementation service firms provide their greatest value. .

Introduction

Simplified illustration

| Cloud Transformation/Operation Services & XaaS 2019 (US) | | |
|--|-------------------------------|---------------------------------|
| Transformation | Public Cloud Transformation | |
| Operations | Managed Public Cloud Services | |
| IaaS | IaaS – Enterprise Cloud | IaaS – Public Cloud Hyperscaler |

Source: ISG 2018

Definition

Cloud computing services include the Internet-based provisioning of infrastructure (compute, storage and networking), platforms (environments to build and integrate applications) and software (hosted applications). A broadly accepted set of characteristics that define a cloud has been laid out by the U.S. National Institute of Standards and Technology (NIST). These characteristics are: on-demand self-service, broad network access, resource pooling, rapid elasticity or expansion and measured service.

A public cloud is a multi-tenant environment shared by different organizations. A private cloud is for the dedicated use of a single client. In this study, we focus primarily on the public cloud and associated services.

Definition (cont.)

Our studies are intended to anticipate the investigation efforts and buying decisions of typical enterprise clients. Enterprise clients will benefit from a study that examines an entire ecosystem for a certain service line when contemplating a significant strategy transformation, making infrastructure purchase-versus-rent decisions, implementing agile practices or incorporating automation into their environments. Therefore, ISG studies are comprised of multiple quadrants covering a spectrum of services that an enterprise client would require. Our research investigates several of the service models (infrastructure, platforms and software) and the ecosystem of partners that provide consulting and managed services on top of the public cloud infrastructure.

Scope Of The Report

The Cloud Transformation/Operations Services & XaaS 2019 Global report will assist buyers when reviewing a significant cloud transformation strategy as well as capable service providers in numerous geographies. Enterprise clients will also benefit from the study because it incorporates ISG's strengths in global sourcing advisory, contract knowledge databases, regional research and expertise in technology ecosystems and innovations.

This study includes various reports from nine quadrants that cover cloud service models. Not all quadrants are covered within each geography. Coverage depends on provider responses, participation and relevance. Quadrants not covered in a geographic region may be covered in future studies. Geographic report areas include U.K., Germany, Switzerland, Australia/New Zealand, Brazil and the U.S.

The full set of quadrants covered in various geographic versions of this study are:

- **Public Cloud Transformation – Consulting and Integration:**
 - An assessment of providers of advisory and migration services for public cloud infrastructure, primarily Amazon Web Services, Google Cloud Platform and Microsoft Azure.

- **Public Cloud Operations – Managed Services:**
 - An assessment of companies that provide ongoing management and support services on top of public cloud infrastructure, primarily Amazon Web Services, Google Cloud and Microsoft Azure.

Definition (cont.)

■ IaaS – Enterprise IaaS:

- Infrastructure-as-a-Service (IaaS) is a form of cloud computing called public cloud. The cloud compute form of IaaS called hyperscale computing is offered by the largest cloud service providers globally, which are sometimes referred to as hyperscalers..

■ IaaS – Public Cloud Hyperscale IaaS:

- An assessment of services providers that provide on-demand infrastructure commonly referred to hosted private cloud (enterprise cloud). Enterprise cloud providers can supply multiple clouds that are customized at the customer's request including the use of hybrid, multiple public and multiple private cloud providers.

The U.S. Cloud Transformation/Operations Services & XaaS 2019 report covers four quadrants: Public Cloud Transformation – Consulting and Integration; Public Cloud Operations Managed Services; Public Cloud Hyperscale IaaS; IaaS – Enterprise IaaS.



Provider Classifications

The ISG Provider Lens™ quadrants were created using an evaluation matrix containing four segments, where the providers are positioned accordingly.

Leader

The “leaders” among the vendors/providers have a highly attractive product and service offering and a very strong market and competitive position; they fulfill all requirements for successful market cultivation. They can be regarded as opinion leaders, providing strategic impulses to the market. They also ensure innovative strength and stability.

Product Challenger

The “product challengers” offer a product and service portfolio that provides an above-average coverage of corporate requirements, but are not able to provide the same resources and strengths as the leaders regarding the individual market cultivation categories. Often, this is due to the respective vendor’s size or their weak footprint within the respective target segment.

Market Challenger

“Market challengers” are also very competitive, but there is still significant portfolio potential and they clearly lag behind the “leaders”. Often, the market challengers are established vendors that are somewhat slow to address new trends, due to their size and company structure, and have therefore still some potential to optimize their portfolio and increase their attractiveness.

Contender

“Contenders” are still lacking mature products and services or sufficient depth and breadth of their offering, while also showing some strengths and improvement potentials in their market cultivation efforts. These vendors are often generalists or niche players.

Provider Classifications (cont.)

Each ISG Provider Lens™ quadrant may include a service provider(s) who ISG believes has a strong potential to move into the leader's quadrant.

Rising Star

Rising Stars are mostly product challengers with high future potential. When receiving the "Rising Star" award, such companies have a promising portfolio, including the required roadmap and an adequate focus on key market trends and customer requirements. Also, the "Rising Star" has an excellent management and understanding of the local market. This award is only given to vendors or service providers that have made extreme progress towards their goals within the last 12 months and are on a good way to reach the leader quadrant within the next 12-24 months, due to their above-average impact and innovative strength.

Not In

This service provider or vendor was not included in this quadrant as ISG could not obtain enough information to position them. This omission does not imply that the service provider or vendor does not provide this service.

Cloud Transformation/Operation Services & XaaS -Quadrant Provider Listing 1 of 3

| | Public Cloud Transformation | Managed Public Cloud Services | IaaS - Enterprise Cloud | IaaS - Public Cloud Hyperscaler |
|--------------|-----------------------------|-------------------------------|-------------------------|---------------------------------|
| 2nd Watch | ● PC | ● PC | ● Not in | ● Not in |
| Accenture | ● L | ● L | ● Not in | ● Not in |
| Atos | ● PC | ● PC | ● L | ● Not in |
| AWS | ● Not in | ● Not in | ● Not in | ● L |
| Capgemini | ● L | ● L | ● MC | ● Not in |
| CenturyLink | ● Not in | ● Not in | ● PC | ● Not in |
| Cloudreach | ● PC | ● PC | ● Not in | ● Not in |
| Cognizant | ● L | ● L | ● PC | ● Not in |
| DigitalOcean | ● Not in | ● Not in | ● Not in | ● C |
| DXC | ● L | ● L | ● L | ● Not in |
| Faction | ● Not in | ● Not in | ● C | ● Not in |
| Flexential | ● Not in | ● Not in | ● PC | ● Not in |
| Fujitsu | ● C | ● C | ● PC | ● C |

● L - Leader / ● PC - Product Challenger / ● C - Contender / ● MC - Market Challenger / ● RS - Rising Star

Cloud Transformation/Operation Services & XaaS -Quadrant Provider Listing 2 of 3

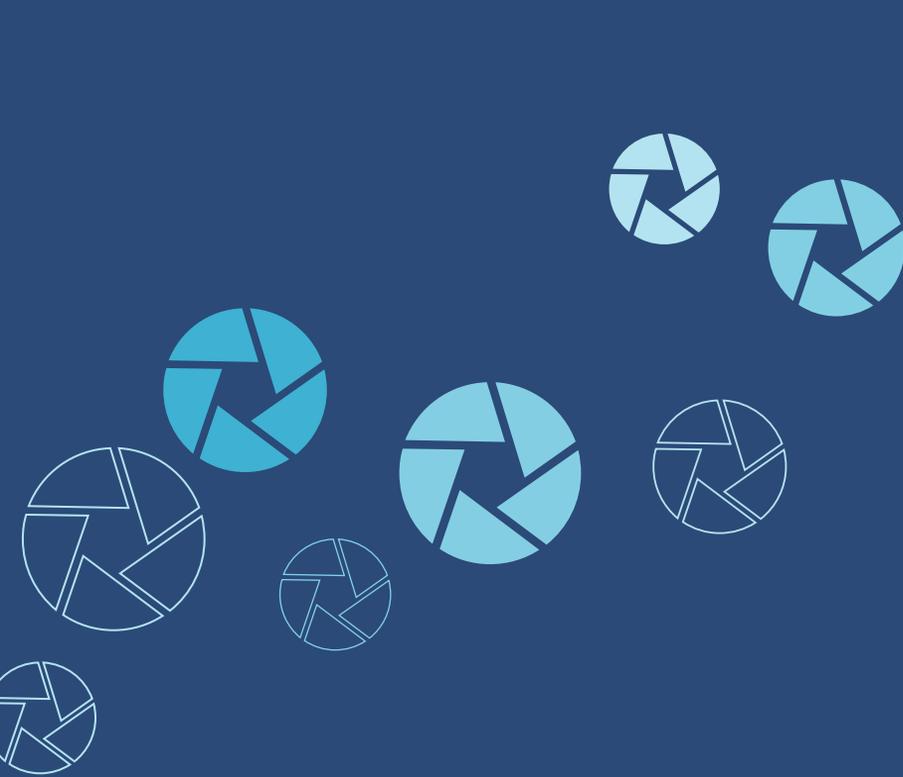
| | Public Cloud Transformation | Managed Public Cloud Services | IaaS - Enterprise Cloud | IaaS - Public Cloud Hyperscaler |
|-----------------|-----------------------------|-------------------------------|-------------------------|---------------------------------|
| GDT | ● Not in | ● Not in | ● C | ● Not in |
| Google | ● Not in | ● Not in | ● Not in | ● L |
| HCL | ● L | ● L | ● L | ● Not in |
| IBM | ● Not in | ● MC | ● L | ● L |
| INAP | ● Not in | ● Not in | ● C | ● Not in |
| Infinite | ● Not in | ● C | ● Not in | ● Not in |
| Infosys | ● MC | ● L | ● Not in | ● Not in |
| Joyent (Triton) | ● Not in | ● Not in | ● Not in | ● C |
| KPIT | ● MC | ● C | ● Not in | ● Not in |
| LTI | ● C | ● PC | ● Not in | ● Not in |
| Microland | ● C | ● C | ● Not in | ● Not in |
| Microsoft | ● Not in | ● Not in | ● Not in | ● L |
| Mindtree | ● RS | ● RS | ● Not in | ● Not in |

● L - Leader / ● PC - Product Challenger / ● C - Contender / ● MC - Market Challenger / ● RS - Rising Star

Cloud Transformation/Operation Services & XaaS -Quadrant Provider Listing 3 of 3

| | Public Cloud Transformation | Managed Public Cloud Services | IaaS - Enterprise Cloud | IaaS - Public Cloud Hyperscaler |
|---------------|-----------------------------|-------------------------------|-------------------------|---------------------------------|
| Mphasis | ● C | ● MC | ● Not in | ● Not in |
| NTT | ● PC | ● RS | ● L | ● Not in |
| Oracle | ● Not in | ● Not in | ● Not in | ● PC |
| Rackspace | ● Not in | ● L | ● L | ● Not in |
| TCS | ● L | ● L | ● RS | ● Not in |
| Tech Mahindra | ● RS | ● PC | ● PC | ● Not in |
| Tierpoint | ● Not in | ● Not in | ● C | ● Not in |
| Trianz | ● C | ● PC | ● Not in | ● Not in |
| Wipro | ● L | ● L | ● Not in | ● Not in |
| Zayo | ● Not in | ● Not in | ● C | ● Not in |
| Zensar | ● C | ● C | ● Not in | ● Not in |

● L - Leader / ● PC - Product Challenger / ● C - Contender / ● MC - Market Challenger / ● RS - Rising Star



Cloud Transformation/ Operation Services & XaaS Quadrants

PUBLIC CLOUD TRANSFORMATION

Definition

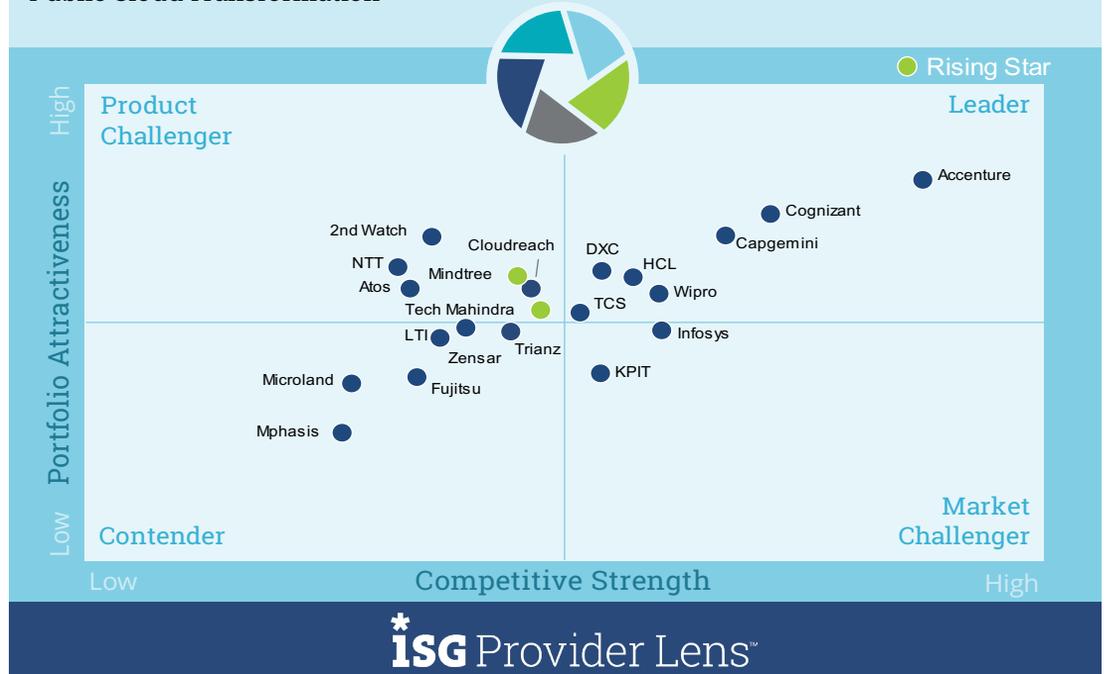
Firms providing public cloud infrastructure consulting and implementation services assist enterprises in navigating the complexities of adopting a public cloud computing environment. Their services typically include the following:

- Advisory services: creating a business case for cloud, identifying workloads for migration, assessing organizational impact, addressing risk and compliance issues and/or advising on migrating applications from the existing environment to a public cloud provider.
- Implementation services: configuring the cloud environment, migrating and integrating applications and/or optimizing the architecture to exploit the cloud computing features and benefits.

For this quadrant, we exclude the creation of private clouds, as they are covered in a separate study on data center outsourcing and transformation. Accordingly, the Public Cloud Consulting and Implementation quadrant is confined to the adoption of public cloud services and their integration with on-premises environments, which can include private clouds.

Cloud Transformation/Operation Services & XaaS
Public Cloud Transformation

2019
US



Source: ISG Research 2018

PUBLIC CLOUD TRANSFORMATION

Observations

In our U.S. study, we are observing the increased growth and investment by providers into their public cloud practices. Many providers started initially scaling their AWS and Azure teams to assist growing enterprise requests for public cloud services. Providers are now starting to expand into additional hyperscale competencies as the revenue growth with these other providers increases. ISG is also seeing the emergence of smaller, specialized, cloud-native providers servicing larger global organizations.

Enterprise organizations can't keep up with the complexity of offerings that public cloud providers are releasing. AWS alone released 1,430 new services and features in 2017. AWS also maintains overlapping products within its service offerings. ISG sees that the flood of innovation makes it very important for enterprise clients to receive provider guidance for public cloud consulting and implementation. Providers serve as an extension of the IT organization to guide them through the options, migrations and transformation process.

- Accenture, with its strong public cloud alliances and business unit development with hyperscale providers, maintains its leadership status for consulting and implementation. Accenture has been recognized for additional service awards by ISG, including designation as a 2018 U.S. ADM leader for Agile Development and Continuous Testing, 2018 leader in IoT Services, 2018 global leader in Infrastructure and Managed Services and 2018 U.S. leader in S/4HANA services.
- Capgemini continues to expand its U.S. presence for cloud services and enters our Leader category for public cloud consulting. Capgemini has also been recognized by ISG in 2018 for ADM End-to-End Application Development & Maintenance and Agile Application Testing, as a 2018 leader in IoT Services, a 2018 global leader in Infrastructure and Managed Services and a 2018 U.S. leader in BW/4HANA services.
- Cognizant has invested heavily in its leading AWS advisory practice. The company has also expanded its DevOps advisory and application lifecycle management abilities. Cognizant won ISG's Special Award for Paragon Provider of the Year for significant contribution to the sourcing industry. ISG also recognized Cognizant as leader for ADM Services in Agile Development & Continuous Testing and as a 2018 U.S. leader in Managed Digital Workplace Services.

PUBLIC CLOUD TRANSFORMATION

Observations (cont.)

- DXC's U.S.-leading Microsoft advisory practice is one of the largest globally. The company has expanded specialization with AWS to offer a broader range of transformation and workload advisory services. DXC is also a 2018 recipient of ISG's award for U.S. leadership in Digital Workplace Consulting, U.S. ADM End-to-End Application Development and Maintenance, U.S. IoT Services, U.S. global leader in Infrastructure and Managed Services and U.S. S/4HANA services.
- HCL's leadership in hyperscale partnerships, certifications and migration tooling is fueling its U.S. cloud advisory growth. HCL is recognized for additional service awards with ISG, including as a 2018 U.S. leader for Application Testing, ADM Application Development, 2018 U.S. leader in IoT Services, 2018 global leader in Digital Workplace Consulting, 2018 Global Infrastructure and Data Center Managed Services and 2018 U.S. leader in S/4HANA services.
- TCS enters this year's quadrant as a cloud advisory leader with strengths in application discovery, design and build processes through its 360-degree approach. HCL has also won additional

service awards with ISG including 2018 ADM U.S. 2018 leader for Application Testing, ADM Application Development, 2018 U.S. leader in IoT Services, 2018 global leader in Digital Workplace Consulting, 2018 global leader Infrastructure and Data Center Managed Services and 2018 U.S. leader in S/4HANA services.

- Wipro continues conducting reskilling programs to carve out a well-defined competitive advantage in the cloud advisory market. Wipro has also gained momentum for its cloud advisory and consulting practice with recent contracts and global wins. Wipro has participated in additional ISG studies. A sample of its leadership awards include the 2018 ADM U.S. 2018 Application Testing, ADM Application Development, 2018 U.S. leader in IoT Services, Healthcare IoT, 2018 global leader in Digital Workplace Large Enterprises (Mobile Management), Digital Workplace Consulting, 2018 Global Infrastructure and Data Center Managed Services and 2018 U.S. leader in S/4HANA services.
- Mindtree continues as a rising star in the cloud advisory category. The company was recognized as a Microsoft Azure Innovation Partner and Salesforce Marketing Innovation Partner. ISG recently awarded Mindtree and its client P&G the 2018 U.S. Paragon Award for Collaboration, and Mindtree also received the excellence award for delivery by a service provider with Cisco. Additional 2018 ISG awards for Mindtree include leadership in the U.S. for SAP HANA in SAP Cloud Platform services, Application Development and Maintenance U.S. for Next-Gen ADM Services and Agile Development and ADM Continuous Testing.

PUBLIC CLOUD TRANSFORMATION

Observations (cont.)

- Tech Mahindra has advanced in its cloud advisory practice to become a rising star. The company is part of a new group of up-and-coming providers with significant growth in the past two years that appeal to enterprises and hyperscale organizations for their service capabilities. Tech Mahindra has also been awarded by ISG for 2018 ADM End-to-End Application Development & Maintenance, 2018 U.S. leader in IoT Services and 2018 global leader in Infrastructure & Data Center Managed Services and Transformation.



RISING STAR: MINDTREE

Overview

Mindtree is a cloud-native provider that specializes in cloud transformation and advisory services. Mindtree has more than 1,500 certified cloud experts to support 12 specific industry areas. Mindtree places a high emphasis on innovation and scale relevant to its cloud factory design, evaluation and delivery operations. Mindtree was recognized as a Microsoft Azure Innovation Partner and Salesforce Marketing Innovation Partner. In conjunction with Stanford University, Mindtree is funding an academic research endowment in artificial intelligence (AI). Globally Mindtree has more than 19,000 FTEs, and upwards of 55 percent of its customer business is in the U.S.

Strengths

Hyperscale relationships: Mindtree is part of the AWS Channel Reseller Program, AWS Service Delivery Program and AWS Advanced Partner with competencies in Big Data and DevOps. Mindtree is a Gold certified Microsoft Azure Partner, Google Cloud Platform System Integration Partner, IBM Premium Business Partner and Oracle Gold Partner.

Migration experience: Mindtree has deep experience in cloud migration, recording more than 4,000 projects related to migration and cloud transformation. Mindtree has additional depth in DevOps CI/CD automation for larger enterprise rollouts and big data applications.

SAP cloud advisory: In addition to traditional application migration experience, Mindtree has advanced SAP migration transformation experience with numerous hyperscale providers through its Bluefin acquisition. Mindtree provides SAP services to enterprises and supports hyperscalers with its SAP platforms and needs. Mindtree is one of Azure's internal SAP partners.

Caution

Mindtree's experience in cloud migration and advisory is deep but the company has not completed AWS Premier certification or industry competencies outside of Big data and DevOps with AWS. Mindtree is working on advanced certifications with additional hyperscale partners including Google.



2019 ISG Provider Lens™ Rising Star

Mindtree's cloud-first innovation approach appeals to enterprises that are looking for industry-specific cloud migration and advisory experience from its data science team, especially with big data, SAP and analytics on hyperscale services. Mindtree also has the experience of developing, managing and supporting the underlying infrastructure for multiple public cloud providers.

MANAGED PUBLIC CLOUD SERVICE

Definition

Public cloud managed services providers (MSPs) provide managed services on top of third-party public cloud IaaS platforms. At a broad level, these services include proactive monitoring, automation and management of the customer's cloud environment, aiming to maximize the performance of the workloads in the cloud, reduce costs and ensure compliance and security. Services provided typically include:

- Monitoring of CPU, storage, memory, databases, operating systems and more
- Upgrades and patching
- Expense management
- Governance, security and compliance management
- Cloud management platforms (CMPs)
- Support services such as incident management, configuration, security services and automation setup
- Deep knowledge and service practice with public cloud providers

Cloud Transformation/Operation Services & XaaS Managed Public Cloud Services

2019
US



Source: ISG Research 2018

MANAGED PUBLIC CLOUD SERVICE

Observations

The U.S. is currently the largest market for enterprise public cloud adoption, in part because organizations are migrating applications to various platforms as part of a multi-cloud strategy. In a maturing market where many applications have migrated to public cloud environments, companies are looking to managed service providers (MSPs) to help them solve the complexity of ongoing cloud management, consumption, cost transparency, compliance management, security and automation.

As more applications move to public cloud services, enterprises will rely heavily on MSPs to manage their global compliance and application requirements. There is a trend toward greater specialization. Enterprise clients should watch for technology expertise in midsize MSPs, which will enable wins on larger deals where specialization and not scale is most important to customers. The specialization trend continues to disrupt larger, more established providers.

- Accenture is a U.S. and global leader in managed services for public cloud. The company offers multiple cloud management services through its unique Accenture Cloud platform (ACP) portal. ACP is one of the most mature management platforms in the industry.

Accenture has also created two unique business groups with AWS and Google.

- Rackspace recently acquired managed cloud competitor Datapipe. The Datapipe acquisition expanded Rackspace into new geographies, enterprise clients and government services. Rackspace has also strengthened its commitment towards public cloud managed services through several certifications and accreditations.
- Capgemini and TCS, large global cloud management leaders, have strengthened their U.S. presence and offerings for enterprise customers. Capgemini continues its solid relationship with Microsoft and its Azure practice.
- Cognizant has ramped up its public cloud managed services practice and has seen an increase in U.S. customers and global cloud revenue.
- DXC has solid experience and resources for the Azure environment and also has considerable staff focused on AWS.
- HCL recently improved its Google partnerships to Premier status. As a Google Next sponsor, HCL spotlighted its suite of offerings under the HCL DRYiCETM platform. HCL has made advancements in its cloud practice with regard to its cloud-related tools.

MANAGED PUBLIC CLOUD SERVICE

Observations (cont.)

- Wipro continues its leadership in managed services. In March 2018, Wipro opened an innovation facility in Plano, Texas. Wipro is making significant investments in its U.S. operations and staff to support a large push toward public cloud managed services.
- Infosys is expanding its U.S. operations, and its Infrastructure Management Solution (IMS) Suite is an effective tool for managing multi-cloud and hybrid infrastructures.
- Mindtree, as a rising star, has made considerable progress over the last year in expanding services with public cloud providers and developing infrastructure provider-specific tools for cloud monitoring and management. Mindtree has achieved considerable operational scale that is backed by its automation capabilities and proprietary tools for cloud management.
- NTT Inc. is a rising star. NTT Corporation is combining Dimension Data, NTT Communications, NTT Data, NTT Security and NTT's innovation lab under one brand, NTT Inc. Together the organizations bring all their cloud management strengths to clients within the U.S. NTT made progress in cloud management for enterprises seeking specialized industry solutions including HIPAA and government certified environments.

RISING STAR: MINDTREE

Overview

Mindtree has built a solid cloud management practice with a heavy focus on enterprise clients in travel and transportation, business services, financial services and consumer packaged goods. Mindtree also specializes in strategic management projects for systems integrators and hyperscale partners. Mindtree has more than 1,500 cloud-certified experts to support 12 industry specific areas. Mindtree was recognized as a Microsoft Azure Innovation Partner and Salesforce Marketing Innovation Partner.

Mindtree has more than 19,000 FTEs globally, and approximately 55 percent of its customer business is in the U.S. Mindtree matches or surpasses the public cloud managed services revenue of some of the larger providers.

Strengths

Strong Azure management practice: The majority of Mindtree's cloud management practice is with Microsoft Azure and AWS. For enterprise customers and strategic technology partners, Mindtree manages more than 6,000 core application releases per month on a specialized DevOps framework for one of their clients. Mindtree has also managed strategic cloud services in China and Germany and for the 2014 Winter Olympics.

Multiple alliances for cloud management: Mindtree is part of the AWS Channel Reseller Program, AWS Service Delivery Program, AWS Public Sector Partner Program, AWS Managed Service Program, AWS Advanced Consulting Partner, and has achieved Big Data Competency and DevOps Competency. Mindtree is a Gold certified Microsoft Azure Partner, Google Cloud Platform System Integration Partner, IBM Premium Business Partner and Oracle Gold Partner.

Complimentary migration experience: In addition to cloud management services, Mindtree has deep experience in cloud migration, recording more than 4,000 projects related to migration and cloud transformation.

Caution

Mindtree's existing managed service customer base is mainly on Azure. The company needs to expand with AWS, Google Cloud Platform, IBM and other technology partners. Mindtree is also working on additional industry certifications with existing hyperscale partners, including GCP.



2019 ISG Provider Lens™ Rising Star

Mindtree's strong Azure and AWS cloud management practice, CMS tooling, process-driven operations and automation-centric approach to cloud operations make the organization a strong provider in the category.

Its MWatch cloud management platform is expanding with additional API integrations and has been adopted by several clients for public cloud services. Mindtree MWatch enables hybrid, multi-cloud management providing integrated cloud operations and governance. Additionally,

MWatch provides catalogue driven onboarding, committed service performance, and security compliance driving lower TCO for their clients. Mindtree is winning larger deals where specialization and not scale is most important to customers.

IAAS – PUBLIC CLOUD HYPERSCALER

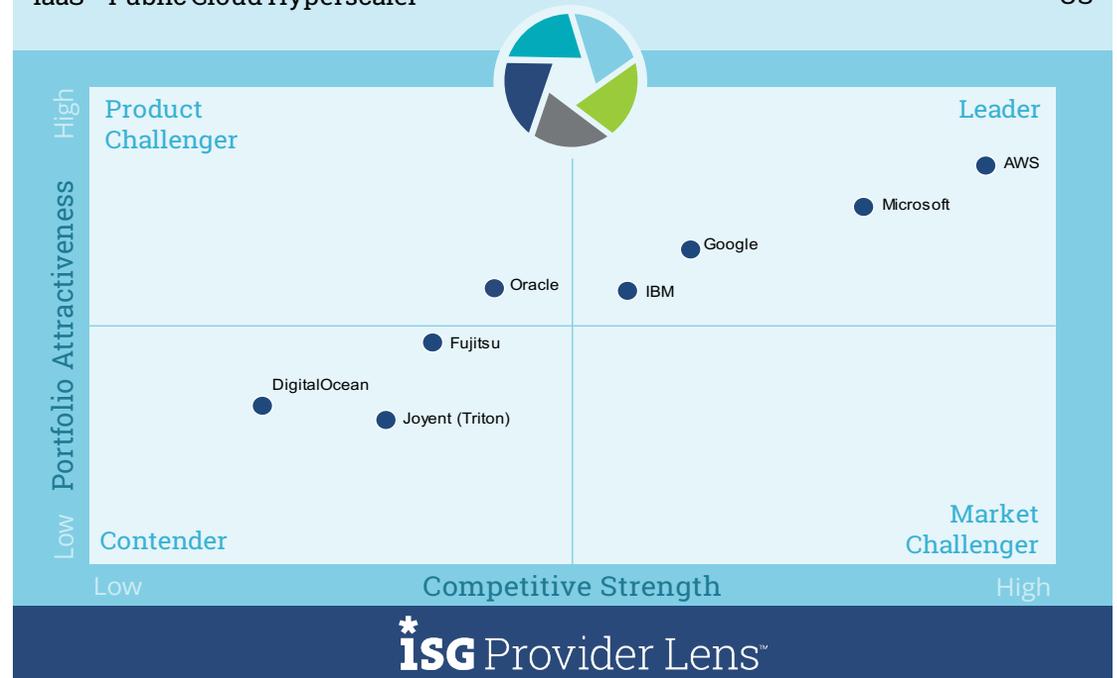
Definition

Infrastructure-as-a-Service (IaaS) is a form of cloud computing sometimes referred to as the public cloud. In this quadrant, we are focusing on the cloud compute form of IaaS called hyperscale computing offered by the largest cloud service providers in the U.S., sometimes referred to as hyperscalers. Hyperscale is cloud architecture that can scale on demand and provision multiple resources including memory, compute, storage and networking services. Hyperscale computing is usually required by large distributed cloud services and by applications requiring scalable and distributed services.

ISG defines IaaS as a highly automated offering wherein IT infrastructure resources are owned by a provider and offered for use by each customer on demand, typically in a self-service mode. The infrastructure resources can be rapidly provisioned to a user. They are rapidly scalable (both up and down) and usage is metered and charged based on a pricing structure. The customer has a self-service interface for requesting resources from the multitenant “pool” of resources hosted by the service provider. An IaaS offering

Cloud Transformation/Operation Services & XaaS
IaaS - Public Cloud Hyperscaler

2019
US



Source: ISG Research 2018

IAAS – PUBLIC CLOUD HYPERSCALER

Definition (cont.)

enables customers to obtain a virtual image or server or machine (VM) and load it with an operating system, middleware and applications that are selected by the customer. In IaaS, the customer typically retains most of the responsibility for IT operations.

This quadrant covers the largest hyperscale cloud providers and their U.S. offerings. The hyperscale IaaS quadrant does not include companies that provide the hardware and software that may be used to build an IaaS offering. The coverage includes an evaluation of the IaaS providers' overall cloud computing investments and scale. The number of providers in this category has significantly been reduced in the last year. We observe that trend is the direct result of only a select number of companies capable of scaling, innovating and investing globally at the highest level, eliminating lower-level IaaS public cloud competitors in the process.

This quadrant includes evaluation of the cloud IaaS environment, including the infrastructure resources and the automated management of those resources. However, this quadrant does not include

professional or managed services offered directly by some IaaS providers. Such services include managed hosting and data center outsourcing.

IaaS offerings are considered from the perspective of requirements of typical ISG clients. We have attempted to include our perspective on the common IaaS uses, including operating production application workloads (from legacy applications to web-serving applications), application development and testing and disaster recovery. Analysis covers not only the hosting of single-application workloads, but also replacing traditional enterprise data centers with cloud environments that can support a highly diverse range of workloads.

This quadrant also considers typical enterprise buyers and their motivations or objectives for using IaaS. These range from IT organizations seeking reduced infrastructure cost to business departments that are trying to increase agility and accelerate response to business requirements.

IAAS – PUBLIC CLOUD HYPERSCALER

Observations

Most global hyperscale organizations are based in the U.S. and operate numerous availability zones covering major strategic areas within the country. Hyperscale cloud leaders all offer the full stack of IaaS, PaaS and SaaS services. ISG, through our attendance at yearly global hyperscale events, private briefings and other interactions with providers and clients, also sees an increasing trend of extensive ecosystems being built around each hyperscale provider. Ecosystems include ISV marketplaces, managed cloud providers, consulting providers, professional services firms and systems integrators (SIs).

Another trend ISG sees is the push by hyperscale cloud providers to offer modern software defined network architectures, hybrid cloud offerings, as well as container readiness in combination with Kubernetes and serverless code deployments. Those services come in addition to providing the typical IaaS resources (memory, compute, storage and networking).

The hyperscale IaaS public cloud market will continue to contract and be dominated by a small number of players. Chinese hyperscale provider Alibaba announced in August 2018 it would not expand in the U.S. due to recent tariffs and regulation fears.

- Major providers evaluated in this quadrant offer public cloud IaaS (compute, storage and networking infrastructure resources) that are secondary to core company offerings and revenue. Only providers of size and scale can participate in this capital-intensive cloud market.
- Amazon Web Services (AWS) continues to dominate the IaaS market globally and in the U.S. In 2017, its global revenue was \$17.2 billion and 2018 revenue is estimated at \$21.7 billion. AWS maintained an extreme pace of innovation and released 1,430 new services and features in 2017. AWS has the largest ISV marketplace within the industry (4,200 software listings from 1,400 ISVs). ISG anticipates AWS's U.S. market share to flatten as other providers catch up.
- Microsoft Azure is gaining on AWS in the U.S. IaaS public cloud market share. From our research within the Azure provider community, ISG sees a recent trend of top managed service providers (MSPs) placing additional emphasis on Azure program growth and investment. Azure Intelligent Cloud revenues were \$9.6 billion in 2017, up 89 percent from the previous year. Azure Stack hybrid services appeal to enterprises familiar with exiting Microsoft's services, teams and contract process.

IAAS – PUBLIC CLOUD HYPERSCALER

Observations (Cont.)

- Google's massive IaaS global scale and technology services are now being complemented by new internal competencies to service large enterprise accounts. Google Cloud Platform (GCP) is strengthening systems integrator partnerships and investing in business groups with several providers. Although smaller in market share, ISG anticipates growth in 2019 through GCP's strong competencies in artificial intelligence (AI) and machine learning (ML).
- IBM continues upward growth in the public cloud space. The company now has 60 data centers in 19 countries, including multiple data centers in the U.S. IBM has spent the past year consolidating all cloud services under the IBM Cloud to simplify complex brands and offerings. To create differentiation, IBM is placing high emphasis on global compliance and certification standards for their country-specific services. IBM now offers GDPR compliance.



IAAS – ENTERPRISE CLOUD

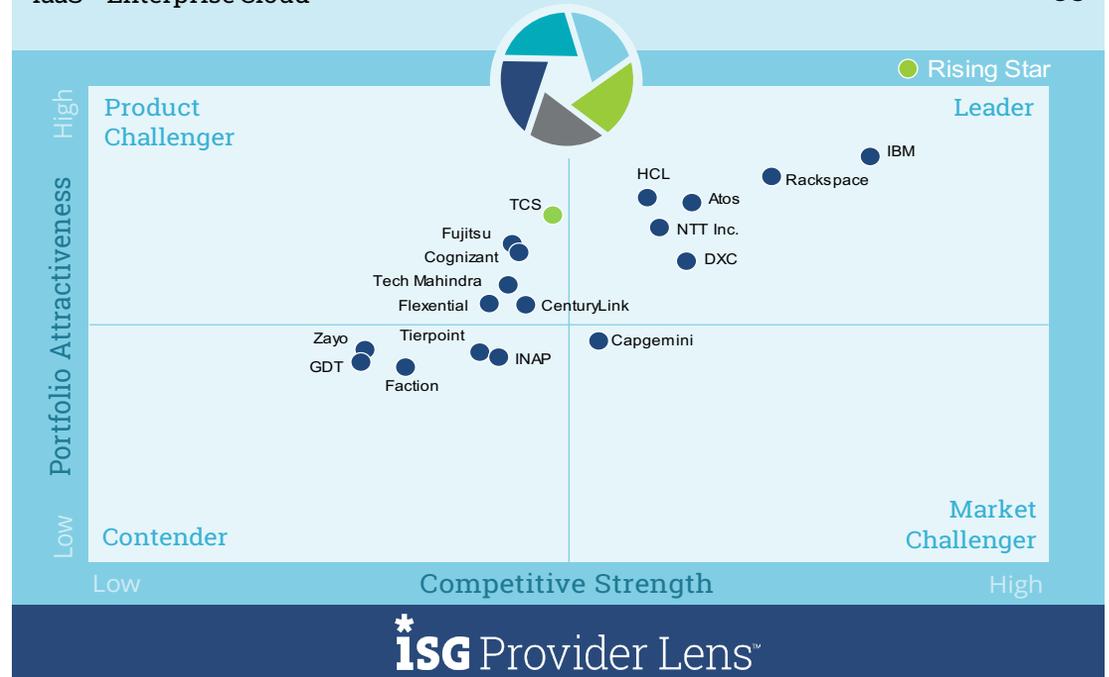
Definition

Enterprise cloud providers offer on-demand infrastructure, which is commonly referred to as enterprise cloud, including specialized services customized to enterprise specifications. The infrastructure offerings typically include user-specifiable quantities of server, memory, storage and network capacity. Some offerings may include optional software management (such as operating system, database and others) and optional functionality to ensure availability (for example, data redundancy). There are various pricing and contracting options for these offerings, such as on-demand and reserved resources.

Workloads in this category are not enabled within hyperscale public cloud services. This allows for increased enterprise flexibility with contracts, security, regulatory compliance, pricing, location, hardware choice and other options not potentially available with hyperscale services. The enterprise cloud quadrant does not include services provided for on-premises data centers owned by the customer, but may include a combination of hybrid cloud connections with private and public cloud offerings.

Cloud Transformation/Operation Services & XaaS
IaaS - Enterprise Cloud

2019
US



Source: ISG Research 2018

IAAS – ENTERPRISE CLOUD

Definition (cont.)

The majority of niche IaaS providers within the enterprise cloud category do not compete directly with hyperscale providers on global infrastructure, innovation investments, product scale and marketplace ecosystems.

Enterprise cloud providers are increasingly becoming more specialized. Specialization can include regional data centers and clouds, higher market share and brand awareness in specific regions, specific industries (for example, financial services, healthcare, consumer packaged goods), certifications for specific industries and regions, and technology and services meeting enterprise requirements (security, firewall, VPN, interconnections).

Another area of specialization by enterprise cloud providers includes the ability to service clients on cloud legal issues. These include compliance to laws related to restrictions on data processing and storage in countries of origin, border restrictions for application data, market and application licensing requirements, procurement policies, specialized customer support and language requirements and physical data center security.

Many businesses also look to enterprise cloud providers for customized SLAs and flexible pricing that are not available from hyperscale providers. Midsized specialized organizations can also dedicate teams to large accounts that require more full-time support for their services as an extension of their existing IT group.

IAAS – ENTERPRISE CLOUD

Observations

While the majority of the top 1,000 enterprises are selecting public cloud as their top priority, enterprise cloud services are also part of their current strategies through the use of hybrid, multiple public and multiple private cloud providers. Although the hyperscale public cloud remains dominant, ISG sees a slight increase in enterprise cloud adoption with existing providers. Enterprise cloud providers can supply multiple clouds customized at the customer's request. With slow and sustained growth, enterprise cloud providers exist in the marketplace to enable choice and the specialization mentioned.

Another trend ISG is observing is additional growth for enterprise cloud providers with extensive data centers and global networks. Such providers are increasing revenue through strategic partnerships with their hyperscale cloud provider clients. To speed the global buildout of major cloud services, hyperscale cloud providers are partnering with enterprise cloud and data center providers in selected geographic areas for cloud infrastructure, networks, undersea cable systems and compliant data centers.

- Atos is making progress in advancing its U.S. service reach, global cloud offerings (Digital Private Cloud and Hybrid Azure Cloud) and strategic alliances. In 2018 Atos and Google Cloud formed a global partnership to deliver secure hybrid cloud solutions to enterprises. ISG foresees additional growth for Atos through the partnership.
- DXC's Virtual Private Cloud (VPC) is its core enterprise cloud service. The customized infrastructure offerings in combination with managed services are marketed to global multinationals.
- HCL Technologies offers more than 250 data centers across the world through a strong partner network that includes cloud exchange providers for hybrid cloud connectivity options. HCL has been successful with recent large client wins in the U.S.
- IBM's global cloud compliance, security and machine learning capabilities stand out as key differentiators. IBM cloud services are spread throughout 54 countries, with eight data centers in the U.S. Watch for IBM to scale its cloud management capabilities with other providers in a push to hybrid enterprise cloud management.

IAAS – ENTERPRISE CLOUD

Observations (cont.)

- NTT Corporation is now combining Dimension Data, NTT Communications, NTT Data, NTT Security and NTT's innovation lab under one brand, NTT Inc. The combination creates a new IT powerhouse. Watch for additional growth in the U.S. and throughout the Americas through alliances and partnerships.
- With its recent pivot and heavy focus on partnerships, strategic acquisitions and certifications, Rackspace is a unique leader for clients requiring enterprise cloud in many forms. Hybrid services can include AWS, Azure or Google Cloud Platform.
- TCS, as a rising star in the U.S., has been successful at developing multiple enterprise cloud offerings for large global customers across numerous vertical industries.





Methodology

METHODOLOGY

The ISG Provider Lens™ 2018 – Cloud Transformation/Operation Services & XaaS research study analyses the relevant software vendors and service providers in the US market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

The study was divided into the following steps:

1. Definition of Cloud Transformation/Operation Services & XaaS market
2. Use of questionnaire-based surveys of service providers/vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities & use cases
4. Leverage ISG's internal databases & advisor knowledge & experience (wherever applicable)
5. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
6. Use of the following key evaluation criteria:
 - Strategy & vision
 - Innovation
 - Brand awareness and presence in the market
 - Sales and partner landscape
 - Breadth and depth of portfolio of services offered
 - Technology advancements



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Douglas Pollei is part of the ISG Provider Lens team with responsibilities for research and technology advisory services. He has previous senior management and vice president experience with a background in alliances, business development, corporate decisions and governance, as well as experience managing cross-functional international teams, external partner relationships, P&L and budgets. Douglas has a strong consultative background in cloud services and a focus on international enterprises. He was instrumental in driving strategic planning to optimize new business initiatives, product development and collaborative partnerships.



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Editor

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