ISG Provider Lens™

Cloud Services

Public Cloud Infrastructure Managed Services

Quadrant Report

A research report comparing provider strengths, challenges and competitive differentiators

Customized report courtesy of:

Mindtree

December 2017

About this Report

Information Services Group, Inc. is solely responsible for the content of this report.

Unless otherwise cited, all content, including illustrations, research, conclusions, assertions and positions contained in this report were developed by and are the sole property of Information Services Group, Inc.

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 was current as of August 31, 2017. ISG recognizes that mergers and acquisitions have taken place since that time; those changes are not reflected in this report.

The lead authors for this report are Pankaj Kulkarni, Charlie Burns and Douglas Pollei. The report was edited by Jan Erik Aase and Namratha Dharshan. Researchers were Shashank Rajmane and Bhanwar Chauhan.

ISG Provider Lens™

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

ISG Provider Lens™

ISG Provider Lens™ delivers leading-edge and actionable research studies, reports and consulting services focused on technology and service providers' strengths and weaknesses and how they are positioned relative to their peers in the market. These reports provide influential insights accessed by our large pool of advisors who are actively advising outsourcing deals as well as large numbers of ISG enterprise clients who are potential outsourcers.

For more information about our studies, please email **ISGLens@isg-one.com**, call +1.203.454.3900, or visit **ISG Provider Lens™**

ISG Insights™

ISG Insights™ provides subscription research, advisory consulting and executive event services focused on market trends and disruptive technologies driving change in business computing. ISG Insights™ delivers guidance that helps business accelerate growth and create more business value.

For more information about ISG Insights subscriptions, please email Ask.ISGInsights@isg-one.com, call +1.203.454.3900, or visit insights.isg-one.com.

imagine your future®

1 Executive Summary

3 Introduction

11 Public Cloud Infrastructure Managed Services

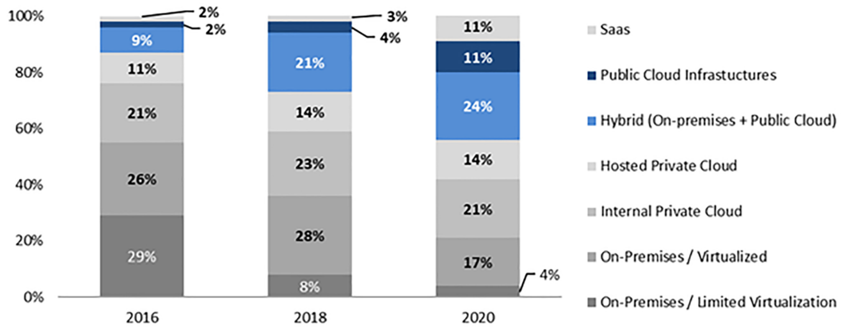
15 Methodology

© 2017 Information Services Group, Inc. All rights reserved. Reproduction of this publication in any form without prior permission is strictly prohibited. Information contained in this report is based on the best available and reliable resources. Opinions expressed in this report reflect ISG's judgment at the time of this report and are subject to change without notice. ISG has no liability for omissions, errors or completeness of information in this report. ISG Insights™ and ISG Provider Lens™ are trademarks of Information Services Group, Inc.

EXECUTIVE SUMMARY

Approximately 35 percent of enterprise workloads will either be on a hybrid cloud (public plus private/on-premises) or completely migrated to public cloud environments by 2020, according to the ISG Digital Platform Survey (June 2016). Additionally, ongoing interactions with ISG clients indicate this number could reach 50 percent in select organizations within the next few years.

Figure 1: 2016 IT Infrastructure Estimations and Projections



Source: ISG Insights; Digital Platform Survey, July 2016, n=352 (Global)

Key trends driving the rapid adoption of public cloud are:

- **Public cloud is no longer seen as a commodity:** Public cloud providers have quickly moved up from providing commodity compute and storage services to offer higher level services and plethora of features.
- **Public cloud partner ecosystem is growing:** Consequently, organizations that are using or planning to use a public cloud increasingly are seeking assistance to migrate their applications to the public cloud.
- **Organizations are prioritizing agility over cost:** An obvious premise of digital business is that companies will use software to build a competitive advantage. The drive to operate as nimbly as a startup means organizations need more than just lift-and-shift migrations from the public cloud partner ecosystem.
- **A scalable architecture is the gold standard:** Quite a few consulting and implementation service providers are now advising clients to focus less on forklift/lift-and-shift migrations and instead adopt a scalable architecture for their applications that will run on the public cloud.

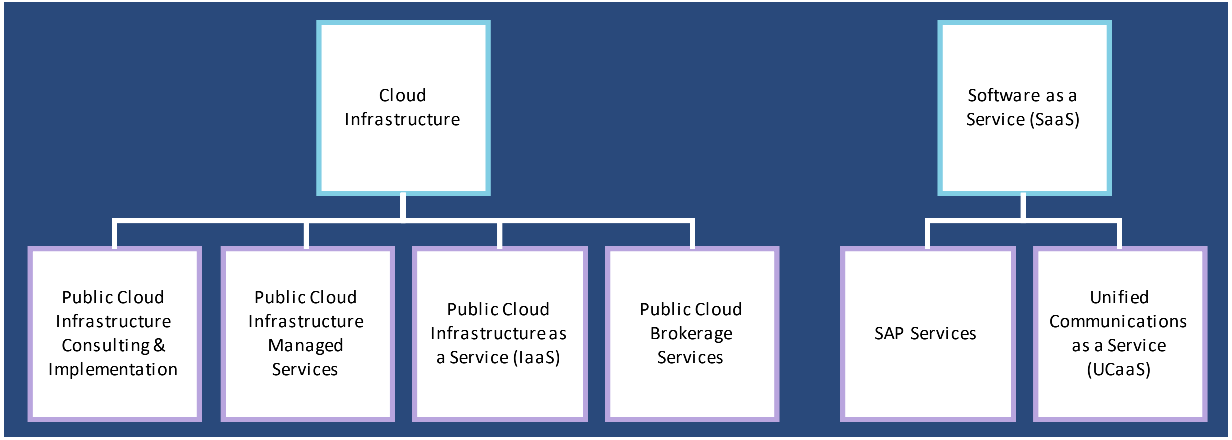
ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

- **Enterprises are embarking on the DevOps journey:** The public cloud partner ecosystem also is helping clients embark on their DevOps journeys. Increasingly, organizations are realizing that to be agile they need to deploy software frequently or at the least keep versions ready for deployment. This calls for a highly automated and orchestrated system, which is where some of the consulting and implementation service firms provide their greatest value. One of the key skills that services providers are building in this area is the use of "infrastructure as code" for infrastructure provisioning and configuration management.

- **Capabilities for enterprise workloads, including SAP services, are evolving rapidly:** ISG is seeing significant investments by services providers to improve their SAP services competencies on public cloud infrastructure. The market is moving away from commodity systems toward as-a-service models. This shift is fueling public cloud alliances, certifications, acquisitions and partnerships. **ISG's Cloud Comparison Index (October 2017, 2262)** provides an infrastructure cost analysis for a web content management workload on public cloud services. ISG projects a steady and significant increase in public cloud and hybrid infrastructure use through 2020. Of course, this projection assumes that public cloud offerings increasingly will become qualified for enterprise workloads, including SAP-related services.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Introduction



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. 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.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Definition (cont.)

Our studies are intended to anticipate the investigation efforts and buying decisions of typical enterprise clients. When contemplating a significant strategy transformation, making infrastructure purchase versus rent decisions, implementing agile practices or incorporating automation into their environments, enterprise clients will benefit from a study that examines an entire ecosystem for a certain service line. Our research looks into 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.

Therefore, ISG studies are comprised of multiple quadrants covering a spectrum of services that an enterprise client would require.

This study includes six quadrants that cover various cloud service models. The quadrants are:

- **Public Cloud Infrastructure Consulting & Implementation Services:** An assessment of services providers that provide advisory and migration services for public cloud infrastructure, primarily Amazon Web Services, Google Cloud Platform, Microsoft Azure.
- **Public Cloud Infrastructure 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.
- **Public Cloud Brokerage Services:** An assessment of providers that deliver tools and/or services for evaluating and selecting cloud-based offerings, or deliver combinations of multiple cloud-based offerings (for example, integration combined with data archiving).

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Definition (cont.)

- **SAP Services:** An assessment of providers of managed SAP services on public cloud or hosted environments.

- **Infrastructure as a Service (IaaS):** An assessment of services providers that deliver compute infrastructure (e.g., servers, memory, storage, network bandwidth) on a self-service, on-demand basis.

- **Unified Communications as a Service (UCaaS):** An assessment of providers of communication and collaboration applications tools that are delivered as a service.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Provider Classifications

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

Leader

The "leaders" among the vendors/services providers have a highly attractive product and service offerings and a very strong market and competitive position; they fulfill all requirements for successful market cultivation. As opinion leaders, they provide strategic impulses to the market. They also ensure innovative strength and stability.

Product Challenger

The "product challengers" offer a product and service portfolio that provide 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 weak footprint within the respective target segment.

Market Challenger

The "market challengers" are also very competitive, but still have significant portfolio potential and 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 portfolios and increase their attractiveness.

Contender

The "contenders" are still lacking mature products and services or sufficient depth and breadth in their offerings, while also showing some strengths and improvement potentials in their market cultivation efforts. These vendors are often generalists or niche players.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

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

The "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 team and understanding of the local market. This award is only given to vendors or service providers that have made extreme progress toward their goals within the last 12 months and are well positioned to reach the leader quadrant within the next 12 to 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.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Public Cloud Cross-Quadrant Provider Listing 1 of 3

	Public Cloud Infrastructure Consulting & Implementation Services	Public Cloud Infrastructure Managed Services	Public Cloud Brokerage Services	SAP Services	Infrastructure as a Service (IaaS)	Unified Communications as a Service (UCaaS)
2nd Watch	Leader	Leader	Not In	Not In	Not In	Not In
8x8	Not In	Not In	Not In	Not In	Not In	Leader
Accenture	Leader	Leader	Leader	Leader	Not In	Not In
AT&T	Not In	Not In	Not In	Not In	Not In	Market Challenger
Atos	Product Challenger	Product Challenger	Leader	Product Challenger	Leader	Rising Star
AWS	Not In	Not In	Not In	Not In	Leader	Not In
CenturyLink	Not In	Not In	Not In	Not In	Contender	Not In
CloudGenera	Not In	Not In	Rising Star	Not In	Not In	Not In
Cognizant	Leader	Leader	Leader	Leader	Not In	Not In
CSS Corp	Product Challenger	Contender	Contender	Not In	Not In	Not In
Datapipe	Leader	Leader	Not In	Not In	Not In	Not In
Deloitte	Not In	Not In	Not In	Leader	Not In	Not In
Dimension Data	Contender	Contender	Not In	Leader	Leader	Contender
DXC	Leader	Leader	Not In	Product Challenger	Not In	Product Challenger
EPAM	Not In	Not In	Not In	Contender	Not In	Not In

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Public Cloud Cross-Quadrant Provider Listing 2 of 3

	Public Cloud Infrastructure Consulting & Implementation Services	Public Cloud Infrastructure Managed Services	Public Cloud Brokerage Services	SAP Services	Infrastructure as a Service (IaaS)	Unified Communications as a Service (UCaaS)
Fuze	Not In	Not In	Not In	Not In	Not In	Rising Star
Google	Not In	Not In	Not In	Not In	Leader	Product Challenger
HCL	Rising Star	Leader	Leader	Leader	Not In	Not In
IBM	Not In	Not In	Leader	Leader	Leader	Not In
Infosys	Leader	Rising Star	Leader	Leader	Not In	Not In
ITC Infotech	Contender	Contender	Not In	Contender	Not In	Not In
Joyent	Not In	Not In	Not In	Not In	Contender	Not In
KPIT	Contender	Contender	Not In	Leader	Not In	Not In
LTI	Product Challenger	Product Challenger	Not In	Not In	Not In	Not In
Microland	Product Challenger	Contender	Not In	Not In	Not In	Not In
Microsoft	Not In	Not In	Not In	Not In	Leader	Product Challenger
Mindtree	Rising Star	Rising Star	Not In	Rising Star	Not In	Not In
Mitel	Not In	Not In	Not In	Not In	Not In	Product Challenger
Mphasis	Product Challenger	Product Challenger	Contender	Contender		Not In
NTT Communications	Contender	Contender	Not In	Rising Star	Leader	Leader

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Public Cloud Cross-Quadrant Provider Listing 3 of 3

	Public Cloud Infrastructure Consulting & Implementation Services	Public Cloud Infrastructure Managed Services	Public Cloud Brokerage Services	SAP Services	Infrastructure as a Service (IaaS)	Unified Communications as a Service (UCaaS)
NTT Data	Not In	Product Challenger	Not In	Not In	Not In	Not In
Oracle	Not In	Not In	Not In	Not In	Contender	Not In
Rackspace	Not In	Leader	Not In	Not In	Not In	Not In
Ring Central	Not In	Not In	Not In	Not In	Not In	Leader
Sonata	Contender	Contender	Not In	Not In	Not In	Not In
Star2Star	Not In	Not In	Not In	Not In	Not In	Contender
Trianz	Contender	Contender	Not In	Not In	Not In	Not In
Unisys	Contender	Product Challenger	Not In	Not In	Leader	Contender
Verizon	Not In	Not In	Not In	Not In	Not In	Leader
Virtusa	Product Challenger	Product Challenger	Not In	Not In	Not In	Not In
VMWare	Not In	Not In	Not In	Not In	Market Challenger	Not In
Vonage	Not In	Not In	Not In	Not In	Not In	Leader
West	Not In	Not In	Not In	Not In	Not In	Leader
Wipro	Leader	Leader	Leader	Leader	Not In	Not In
Zensar	Product Challenger	Product Challenger	Contender	Not In	Not In	Not In

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

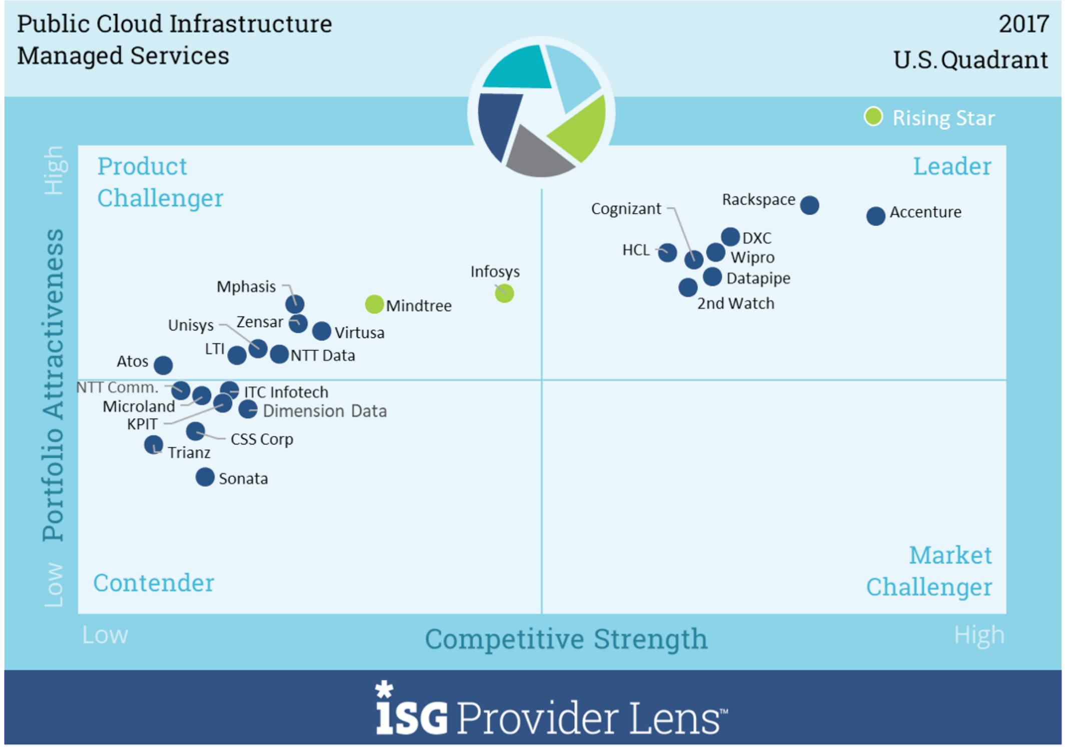
Public Cloud Infrastructure Managed Services

PUBLIC CLOUD INFRASTRUCTURE MANAGED SERVICES

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 etc.
- Upgrades and patching
- Expense management
- Governance, security and compliance management
- Cloud management platforms
- Support service such as incident management



Source: ISG Research 2017

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

PUBLIC CLOUD INFRASTRUCTURE MANAGED SERVICES

Observations

- Accenture and Rackspace enjoy a comfortable lead in provisioning services for operating public cloud environments. The Accenture cloud platform is one of the most mature management platforms and has found wide enterprise adoption. Rackspace's relentless focus on providing "fanatical support" is a key differentiator. Rackspace has also strengthened its commitment towards public cloud managed services through several certifications and accreditations from the leading public cloud providers.
- DXC and Wipro have strengthened their offering portfolios, especially around automation and their proprietary cloud management platforms.
- Cognizant is another provider with a robust cloud management platform. It has been experiencing a very high growth rate in its public cloud managed services practice over the last two to three years.
- HCL's automation and orchestration capabilities, underpinned by its DRYiCE™ framework, continue to gain traction among U.S. clients. While its focus in the past has primarily been Azure, HCL's managed service practice now has considerable presence across other public cloud providers such as AWS, GCP and Softlayer.
- Datapipe builds upon its rich experience of managing public cloud environments and has developed strong security and infrastructure monitoring practices and tools.
- 2nd Watch is among the service providers with the largest scale of operations in terms of virtual machines under management.
- Infosys and Mindtree are the rising stars in this category. Infosys has made considerable progress over the last year in terms of expanding partnerships with public cloud providers and developing infrastructure provider-specific tools for cloud monitoring and management. Mindtree has achieved considerable scale of operations backed by its automation capabilities and proprietary tools for cloud management.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

RISING STAR: MINDTREE

Overview

Mindtree has more than 50 public cloud managed services clients, most of which are U.S. based. The company has taken a cloud-first approach to its internal operations, with more than 70 percent of its applications hosted on a public cloud.

Strengths

Significant scale among midsized firms: Mindtree has a sizeable workforce for providing cloud managed services. It has approximately 450 FTEs in this practice for supporting U.S. clients.

Strong CMP testing capability: Mindtree's MWatch cloud management platform has been adopted by several clients for public cloud services. MWatch provides monitoring and ITIL service management capabilities. It has more than 250 automation scripts, which provides out-of-the-box levers towards No-Ops. Mindtree has also incorporated third-party cloud operations tools to provide a wide catalog of cloud services to end users through a single pane of glass.

Focus on tool- and process-driven operations: The company has been investing towards increasingautoma-tion and moving towards a vision of achieving a NoOps state, wherein cloud operations are largely driven by processes and tools.

Caution

Most of Mindtree's U.S. clients for managed services are in the Azure environment. The company's list of managed services clients on AWS is relatively small.

2017 ISG Provider Lens™ Rising Star

Mindtree has taken an automation-centric approach to cloud operations. It emphasizes a unified approach called "Applistructure" for managing both applications and infrastructure. Mindtree is gearing up its efforts in this area by developing and enhancing capabilities for managing applications and infrastructure from a common interface, proactively identifying and resolving issues and creating opportunities for cost savings and efficiencies.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Methodology

METHODOLOGY

The research study "ISG Provider Lens™ 2017 - Cloud Services" analyzes the relevant software vendors/service providers in the U.S. 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 the Public Cloud Services target market
2. Use of questionnaire-based surveys of service providers/vendor across all trend topics
3. Interactive discussions with service providers/vendors on capabilities and use cases
4. Leveraging of ISG's internal databases and advisor knowledge and experience (wherever applicable)
5. Detailed analysis and evaluation of services and service documentation based on the facts and figures received from providers and other sources.
6. Use of the following key evaluation criteria:
   - Strategy and Vision
   - Innovation
   - Brand Awareness and presence in the market
   - Sales and partner landscape
   - Breadth and Depth of portfolio of services offered
   - Technology Advancements

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Authors and Editors

Pankaj Kulkarni, Author

Lead Analyst, ISG Provider Lens™

Pankaj Kulkarni is an analyst specializing in research on IT in frastructure services. He is responsible for handling custom research assignments as well as analyst reports pertaining to his focus area. He has authored several thought leadership reports covering topics around datacenter services outsourcing, public cloud managed services and hybrid management platforms. He is also responsible for vendor capability assessments, providing ISG clients with an objective opinion of IT se rvice providers as well as technological and competitive trends in this space.

Charlie Burns, Author

Lead Analyst, ISG Provider Lens™

Charlie Burns has more than 30 years of experience in enterprise IT. Charlie's research focuses on the pragmatics of emerging technologies and trends such as cloud infrastructure offerings, converged and hyper-converged offerings, modernization of IT infrastructures and organizations to enable digital business transformation. Charlie is an expert in IT product and marketing management and in IT user issues a nd requirements.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Authors and Editors

Douglas Pollei, Author

Lead Analyst, ISG Provider Lens™

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.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

Authors and Editors

Jan Erik Aase, Editor

Director

Jan Erik Aase is a director and principal analyst for ISG. He has more than 35 years of collective experience as an enterprise client, a services provider, an ISG advisor and analyst. Jan Erik has overall accountability for the ISG Provider Lens™ reports, including both the buyer-centric archetype reports and the US-based quadrant reports focused on provider strengths and portfolio attractiveness. He sets the research agenda and ensures the quality and consistency of the Provider Lens team.

Namratha Dharshan, Editor

Principal Analyst

Namratha Dharshan is a manager and principal analyst for ISG. With more than 13 years of experience working with both service providers and consultants, Namratha has developed expertise in business processing outsourcing contact centers, specializing in customer experience. Her research focuses specifically on the customer experience as it relates to digital transformation, omnichannel, analytics, AI and automation.

ISG Confidential © 2017 Information Services Group, Inc. All Rights Reserved.

ISG Provider Lens™ | Quadrant Report
December 2017

Propietary and Confidential
ISG Confidential. © 2017 Information Services Group. Inc All Rights Reserved

ISG (Information Services Group) (NASDAQ: III) is a leading global technology research and advisory firm. A trusted business partner to more than 700 clients, including 75 of the top 100 enterprises in the world, ISG is committed to helping corporations, public sector organizations, and service and technology providers achieve operational excellence and faster growth. The firm specializes in digital transformation services, including automation, cloud and data analytics; sourcing advisory; managed governance and risk services; network carrier services; technology strategy and operations design; change management; market intelligence and technology research and analysis. Founded in 2006, and based in Stamford, Conn., ISG employs more than 1,300 professionals operating in more than 20 countries—a global team known for its innovative thinking, market influence, deep industry and technology expertise, and world-class research and analytical capabilities based on the industry's most comprehensive marketplace data.