

***ISG** Provider Lens™

Public Cloud – Solutions & Service Partners

Germany 2019

Quadrant
Report



A research report
comparing provider
strengths, challenges
and competitive
differentiators

November 2019

About this Report

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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 August 2019 for providers who actively participated and 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.

All revenue references are in U.S. dollars (\$US) unless noted.

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EXECUTIVE SUMMARY

With the rise in digital innovations, enterprises are undertaking many digital initiatives, which is leading to increased cloud spending. According to the Q2 2019 ISG Index, the global IaaS and SaaS markets have grown in double digits with a 14 percent year-over-year increase. Germany even enjoys higher growth rates of more than 24 percent. ISG has observed that public cloud spending is rapidly increasing due to an increase in workloads being migrated to and operated on the public cloud. In Germany, workload migration continues to be relevant for CRM, unified communications, cloud productivity and, increasingly, core ERP applications such as those from SAP. This is due to the growing use of application-centric PaaS services by the developer community and the increase in data generation points such as IoT, edge technology and cheaper internet consumption, which all produce a significant amount of customer data. This data is being analyzed with the help of analytics tools that are available on the cloud. In Germany, local data storage, which is now available for all top hyperscalers, is contributing greatly to this development. Microsoft was the latest provider to follow and has been offering Azure services from Germany since 2019. Office 365 and other services will follow in 2020.

Different criteria to evaluate a cloud vendor: During discussions with the service provider community, ISG has noted that European countries are prioritizing data center location, managed services support and contract flexibility, while the companies based in the U.S. are more focused on the portfolio of features provided. It has also been observed how easy it is to integrate with the existing infrastructure ecosystem. European firms are

more concerned about the data protection laws that mandate them to keep data within a boundary. Because American companies have been using cloud services for a longer time, they have been able to select a public cloud vendor based on the breadth of features available from various competitors. Before selecting a cloud managed services provider, enterprises are also seeking MSP certifications from hyperscalers. Certainly, companies are increasingly relying on the public cloud and related technologies, innovations and other changes within the project management or collaboration context to master business challenges and be technologically up-to-date.

Focus on optimizing cloud costs: As cloud consumption is rising, so is cloud spending. The top priority of enterprises has been to control, manage and optimize cloud expenses. Many enterprises are finding it difficult to manage their cloud spend due to the complex and vast cloud ecosystem. Service providers are playing an important role here, and are helping enterprises to manage costs efficiently, as they have vast experience in managing cloud infrastructure and assets over many years for several customers. Service providers also provide enterprises with a long-term option where they help them create a roadmap in which they suggest whether the workload needs a lift-and-shift, or needs to be re-architected or re-platformed for getting the best performance and reduced costs for running the workload. In Germany, we can differentiate between two groups of providers: on one hand are providers with roots in the infrastructure and hosting business, and on the other hand, providers that have long been managing platforms and using them for

application development and modernization purposes. For the latter, it is much easier to plan and implement more complex re-platforming or re-architecting tasks.

Enterprises experimenting with multi-cloud strategy: More than half of all enterprises that consume public cloud have been using a multi-cloud environment. This trend is expected to surge irrespective of the enterprise size. However, there are some barriers to a multi-cloud set-up. Orchestration is challenging as it involves several moving parts and a complex set-up to be operated on a public cloud environment. Many users find it difficult to manage multi-cloud environments, citing complexity as one of the biggest barriers. Users are increasing adopting various tools to try managing this complexity but these are not mature enough. Other barriers included vendor lock-in by the public cloud provider and limited interoperability between two or more public cloud providers. In Germany, the trend to use two or three public cloud service providers is driving providers' specialization on individual platforms or hyperscale providers to address specific customer requirements, depending on the respective platform. Customers from Germany, and ultimately, worldwide benefit from close partnerships with their managed service or transformation providers, since such platform-specific services, SLAs or contracts help generate added value or innovation and also higher security for customers.

Rapid changes in managed services partner (MSP) market: The public cloud MSP ecosystem has been growing and increasingly adding more service providers. Early entrants have an advantage here, but small and mid-sized providers are gaining traction with their unique offerings of public cloud managed services for multi-cloud environments. The trend toward dedicated brands and startups from Germany for Azure-, AWS- or GCP-

related services in Germany is gaining momentum. Several smaller providers have been acquired by large system integrators to either eliminate the competition and absorb them or to acquire that niche/unique capability or client segment. This consolidation in the MSP market will prevail as technologies evolve. Public cloud providers have MSP certifications that every other system integrator is striving to acquire. To differentiate among MSPs, hyperscalers are conducting yearly audits and making the eligibility criteria even more stringent to get an MSP certification. Service providers are also differentiating themselves by creating their own IP and bringing in vertical-specific expertise, or having strategic partnerships with public cloud providers. From a German perspective it is interesting to observe that AWS has been able to quickly build up a broader and more highly qualified and certified partner network than its competitors. While Microsoft is gaining ground and has supported many hosting and cloud service provider partners from the early days, the company has been left behind compared to AWS' cloud-specific partner programs. Google is also on the right track for Germany and the DACH and EMEA regions, but is still lagging Azure and especially AWS quantitatively. Other local public cloud offerings rarely include a notable local partner ecosystem for individual, platform-specific strategy consulting, implementation or operations.

Additional features in the cloud management platforms (CMP): CMPs have been an integral component of cloud managed services. Their primary role is to provide enterprises with a portfolio of cloud operation services and the flexibility of working with the right cloud environment (private and public cloud). The CMP has a complete tool set

for cloud-native development, application programming interface (API) management and integration, which is specifically useful for hybrid cloud scenarios and the combination of heterogeneous services. DevOps, integrated platform as a service (iPaaS) and container management are key assets each cloud management platform provider needs to have. A CMP should be a cloud-agnostic and vendor-neutral platform with a robust security layer overarching all the features and services provided. Often, there is a lack of security expertise or AIOps technologies for automation and user experience optimization. Service providers are either leveraging third-party platforms and tweaking the CMP to add features and white label, it or are creating their in-house product and selling it as a standalone product. They can differentiate themselves with the help of a robust CMP in front of a potential client. Customers that use a service provider's CMP rather than a vendor's risk respective vendor lock-in. On the other hand, customers from Germany often demand an aggregated management interface with self-service components and cost center billing functionality. In Germany, there are the large, long-standing service providers that mostly have developed their own CMP or have bought respective operations licenses. The group of cloud-native service providers that focus on infrastructure as a service, DevOps and a maximum agility mostly do not offer such comprehensive platforms by conviction.

Rise of PaaS: Many organizations are taking the initiative to modernize existing applications and create new greenfield applications. Meeting the need for experienced and high-cost administrators for the platform becomes a challenge for some organizations that don't want to make the investment and would rather focus on their application

development and features. PaaS has helped several enterprises to centralize application development and operations and adopt a managed container platform. The ease of using cloud-native technologies such as low-code/no-code offerings, serverless platforms and microservices on PaaS enables applications to have agility and undergo continuous innovation with a faster time to market. However, the PaaS market still needs a standardized approach and should mature to improve adoption.

IaaS market continues to grow: With the organizational need to go digital in all aspects and the need for enhanced data security on public cloud, enterprises have started to migrate their critical workloads to public cloud platforms. The public cloud adoption growth is also due to cloud-native application development, including the increased use of containerization and microservices technologies for application development and deployment. This has led enterprises to achieve their cloud journey much easier and faster. In this segment, AWS has the first-mover advantage as it has been in the public cloud infrastructure domain for more than a decade. AWS also has a leading position as a developer of new services that enhance and deepen the portfolio, for example in IaaS. AWS offers appliances for hybrid on-premise operations (Outpost) and specialized proprietary chips for higher compute and storage performance. Microsoft Azure's offerings are gaining more traction, especially with large enterprises that have legacy dependencies (Microsoft Office, Windows integration, etc.). Azure has thus become a far more popular choice with the increased adoption and is quickly catching up with AWS. German customers benefit from Microsoft's broad partner network for small, mid-sized and large companies and from the Office 365 flagship product, and because the integration of further services that can be obtained or developed via Azure.

Introduction

Definition

The growth of public cloud adoption by enterprises and the maturity of the cloud industry are having a major impact on organizations, both enterprises and IT service providers, and on business models. This requires increased market adaptation and could lead to obsolescence. Considering the widespread as-a-service adoption, enterprises must continuously evaluate cloud service and IT providers on a global level.

ISG reports that the continual strong demand for digital transformation is driving global contracts for cloud products and services, including infrastructure-as-a-service (IaaS) and platform-as-a-service (PaaS). The ISG Index™, which tracks global commercial contracts, recorded annual contract value (ACV) of \$13.5 billion in Q1 2019, an increase of 12 percent from the previous quarter. These global numbers include as-a-service

Simplified illustration

Public Cloud – Solutions & Service Partners		
Transformation	Public Cloud Transformation Services	Midmarket
		Large Accounts
Operations	Managed Public Cloud Services	Midmarket
		Large Accounts
PaaS	aPaaS - Application Development Platforms as a Service	
IaaS	IaaS – (Hyperscale) Infrastructure as a Service	

Source: ISG 2019

Definition (cont.)

and traditional sourcing by large enterprises. The global combined market ACV rose 12 percent year over year, fueled by a robust IaaS market. The massive as-a-service growth numbers indicate the continual shift and momentum to digital technologies to lower costs, increase developer productivity, improve responsiveness to business requirements, improve service to end users and ultimately drive innovation.

Scope of This Report

The Public Cloud – Solutions and Service 2019 report for Germany will assist buyers while reviewing a significant cloud transformation strategy and the capable service providers.

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 six quadrants that cover cloud service models. The coverage depends on provider responses, participation and relevance. The quadrants that are not covered in a region may be included in future studies. The full set of quadrants covered in various geographic versions of this study are: global, Germany, U.S., U.K., Switzerland, Nordics, Europe, Australia/New Zealand (ANZ), Brazil and Latin America (LATAM).

Definition (cont.)

Within this study, the following quadrants are covered:

Public Cloud Transformation Services: The separate quadrants for the midmarket and the large accounts segments assess the providers of advisory and migration services for public cloud infrastructure, primarily AWS, Google Cloud Platform (GCP) and Microsoft Azure.

Managed Public Cloud Services: The separate quadrants for the midmarket and the large accounts segments cover companies that provide ongoing management and support services on top of public cloud infrastructure, primarily AWS, GCP and Microsoft Azure.

PaaS – Application Development Platforms (PaaS): This quadrant has a focus on platform-as-a-service (PaaS) providers that help create, operate and monitor applications. The aPaaS market offerings cover application centric services, low-code/no-code development, and testing scenarios – all based on public clouds or variations of hosted private clouds.

IaaS – (Hyperscale) Infrastructure as a Service: This quadrant assesses those services providers that provide on-demand infrastructure, commonly referred to as a 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.



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 stars” 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 stars” 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.

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 1 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
*um (an Orange Business Services company)	● Not In	● Not In	● Not In	● Rising Star	● Not In	● Not In
2nd Watch	● Not In	● Not In	● Not In	● Contender	● Not In	● Not In
7P	● Contender	● Not In	● Not In	● Not In	● Not In	● Not In
Accenture	● Not In	● Leader	● Not In	● Leader	● Not In	● Not In
ACP	● Not In	● Not In	● Contender	● Not In	● Not In	● Not In
ADLON	● Contender	● Not In	● Contender	● Not In	● Not In	● Not In
Alibaba	● Not In	● Not In	● Not In	● Not In	● Contender	● Contender
All for One Group	● Leader	● Not In	● Market Challenger	● Not In	● Not In	● Not In
AllCloud	● Contender	● Not In	● Product Challenger	● Not In	● Not In	● Not In
Allgeier ES	● Not In	● Not In	● Not In	● Contender	● Not In	● Not In
Arvato Systems	● Not In	● Leader	● Not In	● Leader	● Not In	● Not In

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 2 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
Atos	● Not In	● Leader	● Not In	● Leader	● Not In	● Not In
Avanade	● Market Challenger	● Not In	● Not In	● Not In	● Not In	● Not In
AWS	● Not In	● Not In	● Not In	● Not In	● Leader	● Leader
Axians	● Leader	● Not In	● Leader	● Not In	● Not In	● Not In
BearingPoint	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
Bechtle	● Market Challenger	● Not In	● Market Challenger	● Not In	● Not In	● Not In
beck et al.	● Not In	● Not In	● Contender	● Not In	● Not In	● Not In
BT	● Not In	● Contender	● Not In	● Contender	● Not In	● Not In
BTC	● Not In	● Not In	● Rising Star	● Not In	● Not In	● Not In
CANCOM	● Leader	● Not In	● Leader	● Not In	● Not In	● Not In
Capgemini	● Not In	● Leader	● Not In	● Leader	● Not In	● Not In

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 3 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
CenturyLink	● Not In	● Not In	● Not In	● Not In	● Contender	● Not In
CGI	● Not In	● Product Challenger	● Not In	● Not In	● Not In	● Not In
Claranet	● Not In	● Not In	● Leader	● Not In	● Not In	● Not In
Cloudreach	● Not In	● Not In	● Not In	● Product Challenger	● Not In	● Not In
CloudSigma	● Not In	● Not In	● Not In	● Not In	● Not In	● Contender
Cognizant	● Not In	● Product Challenger	● Not In	● Not In	● Not In	● Not In
Computacenter	● Not In	● Leader	● Not In	● Contender	● Not In	● Not In
Data One	● Contender	● Not In	● Not In	● Not In	● Not In	● Not In
DATAGROUP	● Not In	● Not In	● Contender	● Not In	● Not In	● Not In
Deloitte	● Not In	● Market Challenger	● Not In	● Not In	● Not In	● Not In
Deutsche Telekom	● Not In	● Not In	● Not In	● Not In	● Product Challenger	● Leader

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 4 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
Deutsche Telekom (TDG + TSI)	● Leader	● Not In	● Leader	● Not In	● Not In	● Not In
Deutsche Telekom (TSI)	● Not In	● Leader	● Leader	● Leader	● Not In	● Not In
Devoteam Alegri	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
Digital Ocean	● Not In	● Not In	● Not In	● Not In	● Not In	● Contender
direkt gruppe	● Product Challenger	● Not In	● Product Challenger	● Not In	● Not In	● Not In
DXC	● Not In	● Leader	● Not In	● Leader	● Not In	● Not In
Engine Yard	● Not In	● Not In	● Not In	● Not In	● Contender	● Not In
Exoscale	● Not In	● Not In	● Not In	● Not In	● Not In	● Contender
Fujitsu	● Not In	● Product Challenger	● Not In	● Leader	● Not In	● Not In
Giant Swarm	● Not In	● Not In	● Product Challenger	● Not In	● Not In	● Not In
Google	● Not In	● Not In	● Not In	● Not In	● Rising Star	● Leader

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 5 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
Heroku	● Not In	● Not In	● Not In	● Not In	● Product Challenger	● Not In
IONOS	● Not In	● Not In	● Not In	● Not In	● Not In	● Rising Star
IBM	● Not In	● Leader	● Not In	● Market Challenger	● Leader	● Product Challenger
Infinite	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
Infosys	● Not In	● Not In	● Not In	● Product Challenger	● Not In	● Not In
kreuzwerker	● Contender	● Not In	● Not In	● Not In	● Not In	● Not In
Logicalis (Orange Business)	● Product Challenger	● Not In	● Contender	● Not In	● Not In	● Not In
Materna	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
Microsoft	● Not In	● Not In	● Not In	● Not In	● Leader	● Leader
Mindtree	● Not In	● Product Challenger	● Not In	● Not In	● Not In	● Not In
Netlution	● Rising Star	● Not In	● Not In	● Not In	● Not In	● Not In

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 6 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
Nordcloud	● Not In	● Rising Star	● Not In	● Leader	● Not In	● Not In
NTT Data	● Not In	● Market Challenger	● Not In	● Not In	● Not In	● Not In
NTT	● Market Challenger	● Not In	● Leader	● Not In	● Not In	● Not In
Oracle	● Not In	● Not In	● Not In	● Not In	● Market Challenger	● Product Challenger
OVH	● Not In	● Not In	● Not In	● Not In	● Not In	● Contender
Pivotal	● Not In	● Not In	● Not In	● Not In	● Product Challenger	● Not In
PlusServer	● Not In	● Not In	● Leader	● Not In	● Not In	● Not In
PwC	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
QSC	● Leader	● Not In	● Product Challenger	● Not In	● Not In	● Not In
Rackspace	● Not In	● Product Challenger	● Not In	● Leader	● Not In	● Not In
ratiokontakt	● Not In	● Not In	● Product Challenger	● Not In	● Not In	● Not In

Public Cloud – Solutions & Service Partners - Quadrant Provider Listing 7 of 7

	Public Cloud Transformation Services for Midmarket	Public Cloud Transformation Services for Large Accounts	Managed Public Cloud Services for Midmarket	Managed Public Cloud Services for Large Accounts	aPaaS - Application Development Platforms as a Service	IaaS - (Hyperscale) Infrastructure as a Service
Red Hat	● Not In	● Not In	● Not In	● Not In	● Leader	● Not In
Reply	● Leader	● Not In	● Leader	● Not In	● Not In	● Not In
root360	● Not In	● Not In	● Not In	● Contender	● Not In	● Not In
SAP	● Not In	● Not In	● Not In	● Not In	● Market Challenger	● Not In
SoftwareOne	● Market Challenger	● Not In	● Not In	● Product Challenger	● Not In	● Not In
Syntax Systems	● Market Challenger	● Not In	● Market Challenger	● Not In	● Not In	● Not In
TCS	● Not In	● Product Challenger	● Not In	● Not In	● Not In	● Not In
Tech Mahindra	● Not In	● Product Challenger	● Not In	● Not In	● Not In	● Not In
tecRacer	● Product Challenger	● Not In	● Leader	● Not In	● Not In	● Not In
Unisys	● Not In	● Contender	● Not In	● Not In	● Not In	● Not In
Wipro	● Not In	● Leader	● Not In	● Leader	● Not In	● Not In



Public Cloud – Solutions & Service Partners Quadrants



PUBLIC CLOUD TRANSFORMATION SERVICES FOR MIDMARKET

Definition

Public cloud enables enterprises to achieve agility and scalability without having to invest in their own infrastructure, making it an integral and important driver for digital transformation. Consulting and implementation service providers partner with public cloud providers to manage the customer-specific complexity of adopting and deploying public cloud solutions. Their services typically include the following:

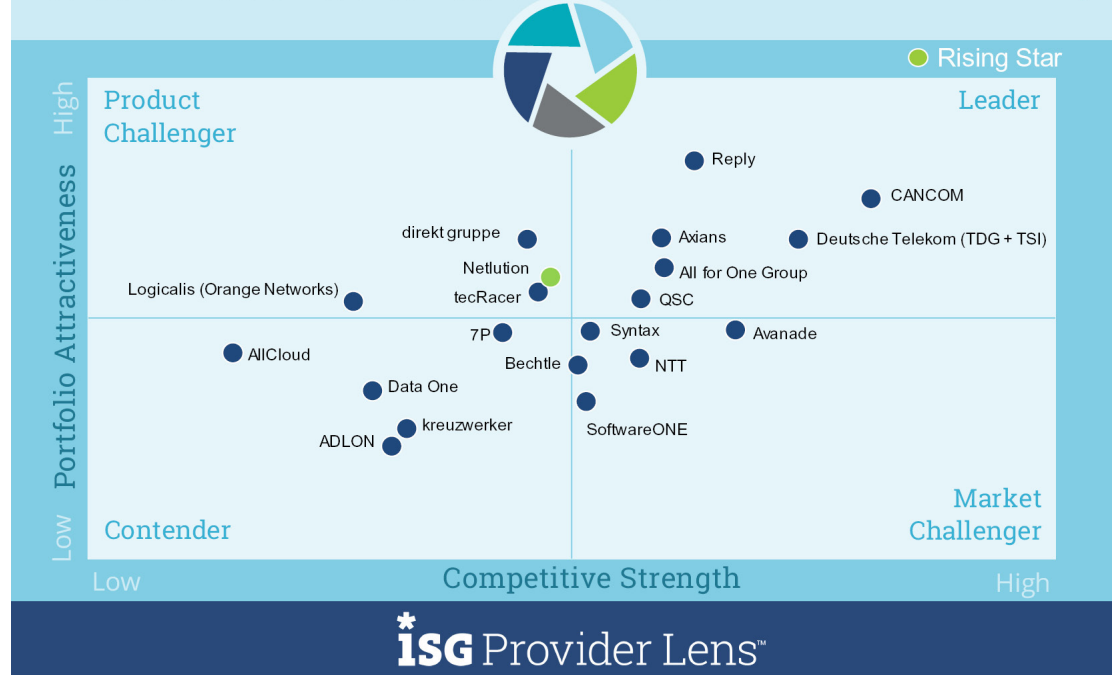
- Consulting services:** These services involve designing a business case for cloud, identifying workloads for migration, building a transformation roadmap, which includes assessing organizational impact, addressing risk and compliance issues, and advising on migrating applications from the existing environment to a public cloud provider.
- Implementation services:** These services include architecting and building the cloud environments, migrating and integrating applications, and optimizing the architecture to exploit the cloud computing features and benefits.

Public Cloud - Solutions & Service Partners

2019

Public Cloud Transformation Services for Midmarket

Germany



Source: ISG Research 2019

PUBLIC CLOUD TRANSFORMATION SERVICES FOR MIDMARKET

Definition (cont.)

For this quadrant, we exclude the creation of private clouds as they are covered in a separate Provider Lens study on Private/Hybrid Cloud Data Center Service and Solution Providers. This quadrant analysis is confined to the adoption of public cloud services and their integration with on-premises environments, which can include private clouds.

Eligibility Criteria

- Innovative thinking and image within the cloud transformation context;
- Strategic focus on the public cloud and related partner programs, based on a solution-oriented perspective;
- Application migration experience (templates, automation engines and ISV partnerships);
- Certified providers of public cloud services and enterprise architects;
- Methodologies and frameworks for analyzing the customer's situation;
- Customer references and projects or use cases;
- Cloud strategy consulting to determine the type of cloud to be used;
- Consulting and competence for multi-cloud infrastructure implementation;
- Vertical (industry) and horizontal (technology) competence.

PUBLIC CLOUD TRANSFORMATION SERVICES FOR MIDMARKET

Observations

Many public cloud services providers offer strategic consulting, architecture and implementation services and managed services. The declared goal of leading transformation providers – regardless of the target group – is always to transition customers from the consulting and implementation phase to managed services, because providers want the recurring revenues with their high margins. Cost and TCO calculations are still a challenge for many IT service providers and, interestingly enough, are not always the decisive criterion for selection. While practically all customers want to achieve cost reductions when evaluating public clouds, they often do not appreciate the significantly increased speed of innovation and possibilities of scalability, complementary partner services or potential related to location- and time-independent customer access based on standardized delivery models and regions. In Germany, we can distinguish between two types of transformation providers:

- Established IT service providers with longstanding connections to the software industry and in-depth partnerships with providers of critical IT systems of record such as IBM, SAP, Oracle or (within the ERP

context) Microsoft. This type of provider often contributes industry-specific business process knowledge. These providers had to undergo profound changes and search for new talent to break up silos and adopt trends and best practices from the cloud and software industry, not only concerning information sharing, but also project management approaches such as Scrum and DevOps as a “must have” methodology for digital service lifecycle management. These capabilities are requirements to enable established IT service providers to excel at meeting customer expectations and pursue an agile project management approach.

- Cloud-native providers, for whom software development and all related implications and philosophies are imperatives for themselves and their customers. Most cloud-native providers were founded after 2010. Increasingly, these providers use automated code deployment, infrastructure as code (IaC) and machine learning (ML) as the basis for setting up added-value services within their “people business.” Code-based services consume an increasing share of available manpower. Many of these providers are specialized in dedicated public cloud services and are regarded as highly innovative and attractive vendors. Often, they have in-depth accreditations from the three top public cloud providers and have container management and serverless computing approaches in their DNA. They live the DevOps philosophy and shift away from the ITIL frameworks, which are deemed outdated.

PUBLIC CLOUD TRANSFORMATION SERVICES FOR MIDMARKET

Observations (cont.)

- **All for One Group** is a public cloud transformation leader. Its customers benefit from the provider's extensive SAP knowledge, business expertise and knowledge of Microsoft's productivity and collaboration solutions.
- **Axians** has achieved a leadership position due to its understanding of specific digital and public cloud IT trends and their impact on innovative architecture planning initiatives, and of the pitfalls to avoid during actual implementations for customers across multiple industries.
- **CANCOM** has again been positioned as leader; for years, CANCOM has been a private, hybrid and public cloud thought leader and has conducted numerous transformation projects across all industries.
- **Deutsche Telekom (TDG + TSI)** is a leader for the German midmarket with comprehensive expertise to help customers transform their business processes and IT and migrate them into public cloud environments; the provider's cloud governance competence is another strength.
- **QSC**, last year's Rising Star, was able to achieve a leadership position in 2019, which is proof of its innovative management and above-average portfolio attractiveness.
- **Reply**, as a consulting company for midmarket businesses, is among the leaders and demonstrates a highly attractive portfolio that is based on close public cloud partnerships and the provider's internal legacy knowledge.
- **Netlution** is the Rising Star of the cloud transformation quadrant for midmarket businesses; the provider's strengths include its innovative company culture and extensive expertise in helping customers build, plan and advance all kinds of public cloud services.

ALL FOR ONE GROUP

Overview

All for One Group AG, formerly All For One Steeb, is a group of consulting and IT service companies headquartered in Filderstadt, Germany. The portfolio includes management, process and IT consulting and IT services for midmarket businesses in the DACH region and beyond. The company has a focus on SAP and Microsoft. With almost 1,700 employees and revenues of approximately €300 million, All for One Group was able to achieve significant revenue increases (22 percent) in 2018, specifically within its cloud services and support business.

Strengths

Process, technology and collaboration expertise: With its Allfoye Management Consulting unit, All for One Group offers customers a broad and in-depth portfolio that addresses business model innovations, promotes agility and ensures harmonized interaction and collaboration among people, strategies, processes, data and systems.

Stability and positioning: Once the Group has digested organizational changes accordingly, already obvious changes in high-margin revenue components and the continuous addition of new technological expertise will increase All for One Group's resilience to economic influences.

Selected partnerships: All for One Group is a well-known SAP service provider, with Microsoft as its second major ISV business segment. The company also has outstanding knowledge of IBM and related systems. As a trusted partner for critical applications in midmarket businesses, All for One Group can demonstrate numerous public cloud transformation projects and knowledge of hybrid system landscapes and their operations.

ALL FOR ONE GROUP

Cautions

To date, All for One Group's capabilities for customer use cases with a focus on AWS and Google are relatively weak - there is an urgent need for improvements to provide full coverage of the top three public cloud infrastructure providers and to be able to advise customers on the use of multiple cloud providers.

The implementation of the planned strategy offensive for 2022 to reach €600 million in revenue must now be pursued continuously; the development of in-depth cloud competencies is a key to success and must be combined and driven with Microsoft productivity solutions and core SAP application processes. However, All for One Group is renowned for its SAP knowledge, rather than for its hyperscale cloud competence.

All for One Steeb was renamed into All for One Group and now the provider must work to convince its main customer segment of midmarket businesses of its continuity and the benefits of this new brand and its innovative strength, based on the "one idea ahead" theme. The provider also must prove the success and sustainability of other brands in the group, such as the ability to integrate the management consulting firm and others into a consistent customer dialog. However, building up individual brands is in line with current developments and trends.



2019 ISG Provider Lens™ Leader

All for One has gone on the offensive with a new brand for the group, which is fully committed to the digital transformation.

AXIANS

Overview

Axians had 2018 revenues of €2.3 billion (a 15 percent increase) and 10,000 employees in 22 countries. Its associated IT service unit produced revenues of €553 million (up 9 percent), had 1,968 employees in 28 cities. It operates as VINCI Energies Group's IT department and as an IT service provider for small and midmarket businesses and others. Axians' ICT offerings range from IT infrastructure, IT solutions and industry software to IT operations and services.

Strengths

Above-average portfolio size and industry expertise: Axians offers clients a complete cloud consulting portfolio, from strategy analysis to architecture planning. The provider has excellent knowledge of the manufacturing and logistics industries, ensuring high quality services for its customers.

Public cloud partnerships: As an AWS Consulting Partner and a highly certified Microsoft Partner (Gold Collaboration and Content, Cloud Productivity, Cloud Platform, Application Development and Silver Data Analytics), Axians offers individual and professional consulting for a Microsoft-oriented cloud strategy, which is often highly relevant for midmarket businesses.

Frameworks: Axians provides clients with accelerators and proven situational analysis methodologies to save time and money in cloud transformation initiatives.

Cautions

Axians must improve its branding and core message to communicate its competitive differentiation. Despite the company's size and experience there still is a lack of customer awareness. Cooperation with Google, which has not been initiated officially yet, could be a key to success considering the strong momentum Google has and its role as a Microsoft alternative in collaboration scenarios.

The provider could enhance its experience with continuous integration and development and DevOps projects, a requirement for using the public cloud as a digital enabler.



2019 ISG Provider Lens™ Leader

Axians is an innovative provider and leverages assets such as its EuroCloud Germany membership, which plays a major role within the transformation context, to drive new ideas.

CANCOM

Overview

CANCOM is a Germany-based IT solution integrator, managed service and hosting provider and consulting company with roots in the system house market. CANCOM offers business-oriented IT solutions for multiple industries. The range of consulting and cloud services has a focus on midmarket and larger businesses. CANCOM has more than 30 offices with more than 3,500 employees (up 500 compared to the previous year) in Germany and neighboring EU countries and generates revenues of nearly €1.4 billion, which represents a 18.7 percent increase. The company group is expanding its international activities and is listed on tecDAX through CANCOM SE.

Strengths

Comprehensive portfolio: CANCOM offers strategic and technical consulting plus additional services covering digital business processes, IT infrastructures, IT applications and system integration, including planning and implementation. The portfolio also includes IT procurement and e-procurement services change competencies.

Innovations: CANCOM provides comprehensive expertise and a high degree of innovation within the context of hybrid and public clouds and related topics such as cloud workplaces, cloud security governance and cloud-based IoT edge computing scenarios. Offerings are based on close partnerships with almost all relevant and leading public cloud providers plus CANCOM's unique implementation and integration expertise.

Partnerships: CANCOM is a member of EuroCloud, ECO, BitMi, DECIX and cloud ecosystem alliances, which enables the provider to translate customer challenges and problems into tangible solutions.

Pioneering work: Based on its high level of expertise in the German midmarket, CANCOM can provide comprehensive and finely tuned cloud assessment and transformation frameworks. A cloud optimization suite is used to address specific industry challenges and generates added value.

Cautions

Public cloud partnerships must be intensified to maximize customers' benefit for their specific situation and the performance of individual public clouds. For this purpose, CANCOM must intensify partner certifications (for example, become an AWS Premier Consulting Partner) and add further specializations, such as industry or technology expertise, to ensure that its consulting quality beyond infrastructure topics remains equal to or above the offerings from leading competitors.

CANCOM claims to be an international service provider but must prove these claims with relevant customer cases for transformation projects outside of Germany. New acquisitions, also outside of Germany, must be integrated more strongly and made available to the group, while centralized services must be defined and made available to subsidiaries.



2019 ISG Provider Lens™ Leader

CANCOM is a financially sound German cloud pioneer with high innovative strength who continues to enjoy above-average growth rates.

DEUTSCHE TELEKOM (TDG+TSI)

Overview

Deutsche Telekom (TDG +TSI) delivers telecommunications services, public cloud services, cloud platform development and operations services, best practices and transformation consulting for building up IaaS, PaaS and SaaS services in private, hybrid or public cloud environments. In 2018 the provider's digital unit was again able to achieve double-digit growth for its digital and innovative cloud business.

Strengths

Many experts: Customers benefit from Deutsche Telekom's many experts for leading public cloud SaaS providers such as Microsoft, SAP, and increasingly, AWS. The offering comprises sophisticated blueprints from the provider's longstanding consulting business as a secure basis for any public cloud transformation project – from processes and people to the latest technologies.

Product-based services: Services such as the proprietary Cloudifier offering, a modular kit for cloud assessments, strategy consulting, blueprinting and implementation, are tested, proven and support customers' journeys into the cloud.

Cloud governance and security focus: As an accredited security service provider, Deutsche Telekom is the perfect partner to customers for analyzing security risks related to public cloud transition and developing a target architecture, including the required products, which can be purchased from a single provider based on the large partner ecosystem.

DEUTSCHE TELEKOM (TDG+TSI)

Cautions

While Deutsche Telekom has many important initiatives for its internal reorganization and innovation management purposes, the company must better drive and communicate these efforts and develop dedicated public cloud transformation offerings based on these initiatives. Digitization is important and the public cloud is often the first step.

Deutsche Telekom relies on the public cloud expertise of T-Systems and other subsidiaries, and these various divisions must collaborate closely to act as a delivery unit for small and midmarket businesses on eye level with its customers. Deutsche Telekom is challenged to better combine and connect these units to meet highly heterogeneous midmarket requirements, provide respective trainings and address this target group.

There are many points of contact for customers, which must be consolidated significantly. Deutsche Telekom also must avoid being perceived as a vendor that wants to sell products and infrastructure services. Deutsche Telekom has retail stores which could be better leveraged to win new customers.



2019 ISG Provider Lens™ Leader

Deutsche Telekom is evolving to meet its goal of being the “Employer of Choice for IT Talents” and is slowly and steadily reaping the benefits of the group’s reorganization – customers are in safe hands.

QSC

 Overview

QSC is an IT service provider founded in 1997 as an IT and telecommunications operator. Since then, the company has evolved into a German full-service IT provider; its Plusnet telecommunications subsidiary has been sold. The QSC portfolio includes consulting and managed services for digitization, SAP, cloud, IoT and cybersecurity. In 2019 QSC expects to generate revenues of more than €150 million with its IT and IoT business, an increase of approximately 15 percent.

 Strengths

Cloud partnerships: QSC offers customers expertise for SAP, Microsoft and AWS environments. QSC is a listed consulting partner with various competencies for AWS and Microsoft Azure.

Consulting to drive agility: QSC has a specific focus on business productivity development and operations; the provider relies on experienced consultants for public and multi-cloud environments. QSC sees itself as a digitizer for midmarket businesses and always pursues a holistic and integrated approach to address customer situations.

Strong cloud growth: The fast-growing, technically experienced QSC team has an in-depth understanding of future cloud trends and is familiar with industry-specific processes in the SMB segment. QSC's marketing is excellent and the provider is adding impressive reference customers.

 Cautions

QSC's existing public cloud partnerships and respective certified experts are not yet sufficient to provide full support to the heterogeneous midmarket segment in every situation. The provider also must communicate the added value of multiple public cloud platforms and transfer this value to develop customer-specific use cases. QSC should therefore drive partnerships with Google and IBM and intensify its existing partnership with AWS, which is still the leading cloud provider for IaaS in Germany.

QSC must work to improve its image as a strategic cloud transformation service provider that has the capabilities to address complex challenges across multiple trends to ensure future stability and growth.



2019 ISG Provider Lens™ Leader

QSC is a digitizer for midmarket businesses that is prepared to support customers with services that go far beyond infrastructures and accompany customers securely into the public cloud.

REPLY

 Overview

Reply is a company group specializing in consulting, systems integration and digital services with a focus on the design and development of solutions based on new communications channels and digital media. Headquartered in Italy (Turin), the group comprises many individual brands and related activities in Germany, mainly in the Gütersloh area and in Munich. The parent company has offices in Italy, Great Britain, Germany, Belgium, the Netherlands and Luxembourg. Total revenues amount to more than €1 billion and the company has 7,600 employees. With individual brands such as Storm Reply, Cluster Reply, Go Reply and others, Reply follows the trend towards hyperscale specialization and offers dedicated teams of experts.

 Strengths

High-quality consulting: With its specific skills and expertise in areas such as artificial intelligence, technology platforms, digital experience and strategic consulting from business process to operations management, Reply helps clients find, understand, select and implement the most appropriate and sustainable option.

Co-innovation and brand differentiation: Reply works with leading industry partners to define evolving business models based on new technological and communications paradigms, such as artificial intelligence, big data and public cloud computing. Reply brands such as Storm, Cluster and Go are a very good approach to achieve the required public cloud specialization. Hardly any other provider is currently pursuing this approach as consistently as Reply.

Vertical and security expertise: Reply has a strong focus on industry insights and specific processes, which are supported by state-of-the-art, disruptive technologies and are newly developed to address digital transformation challenges. The CSPI and MCG Systems acquisitions strengthen Reply's security and cloud governance portfolio, which is currently in high demand.

 Cautions

While Reply was able to establish its new brands for tailored hyperscale services and is gaining traction, we perceive a lack of transparency, which somewhat slows success. The provider should work on this issue, which would be rather easy within the digital customer journey context.

Reply certainly has access to large accounts and renowned German and international midmarket customers, but does not leverage opportunities to show customer references and link them to existing competencies.



2019 ISG Provider Lens™ Leader

Reply addresses topics across multiple disciplines, and has a focus on open and tech-oriented cultural innovation and inherent flexibility to maximize its clients' success.

RISING STAR: NETLUTION

Overview

Netlution is a Mannheim-based provider of consulting and application operations services on multi-cloud and public cloud architectures. The company perceives itself as an external partner for highly complex IT services. Netlution also pursues activities outside of Germany and has many renowned customers that use the provider's adaptive and transparent services. In 2018, revenues increased to €20 million, which was generated with 180 employees. The company focuses on agile, digital, highly automated IT infrastructures and innovative technologies.

Strengths

Solid consulting portfolio: Netlution offers all kinds of services for building, planning and developing public cloud services, and can combine them with serverless architecture (deployed with AWS Lambda) and DevOps knowledge, infrastructure (compute and data processing services) and database services.

Transparency and customer focus: Cloud services are presented and adjusted based on roles, customer requirements and individual, but highly standardized service contracts, which is a competitive differentiation.

Innovation culture: Netlution is always striving to address new, highly complex and innovative topics, which are integrated continuously into offerings and professional services, thus ensuring adaptive implementation. This is achieved through means such as internal technology forums, which help Netlution to identify and present new topics and IT trends and raise its staff's enthusiasm, with the goal to build up knowledge and align services accordingly.

Cautions

Netlution must work to improve its market visibility and present customer names and references linked to projects and use cases. While Netlution has customers and the required market knowledge and services, there is no "story" to win new customers through their trust in this provider. Netlution's parent company n-value group provides many options, but organizational structures lack clarity and transparency, which makes it difficult to build up a brand and optimize Netlution's position as a public cloud service provider.

Netlution has not sufficiently leveraged its recurring revenue potential from transitioning customers from consulting to managed services, which is clearly reflected in the ratio between revenues and the number of employees. Netlution should address this issue to increase profits and free resources for the required innovation R&D initiatives. Therefore, the provider must strive to optimize its managed services portfolio (certifications) and the solution sales approach.

The number of service and support locations could be increased to bring the company closer to midmarket customers.



2019 ISG Provider Lens™ Rising Star

Netlution is a star on the rise and is now challenged to set the course for future growth.

PUBLIC CLOUD TRANSFORMATION SERVICES FOR LARGE ACCOUNTS

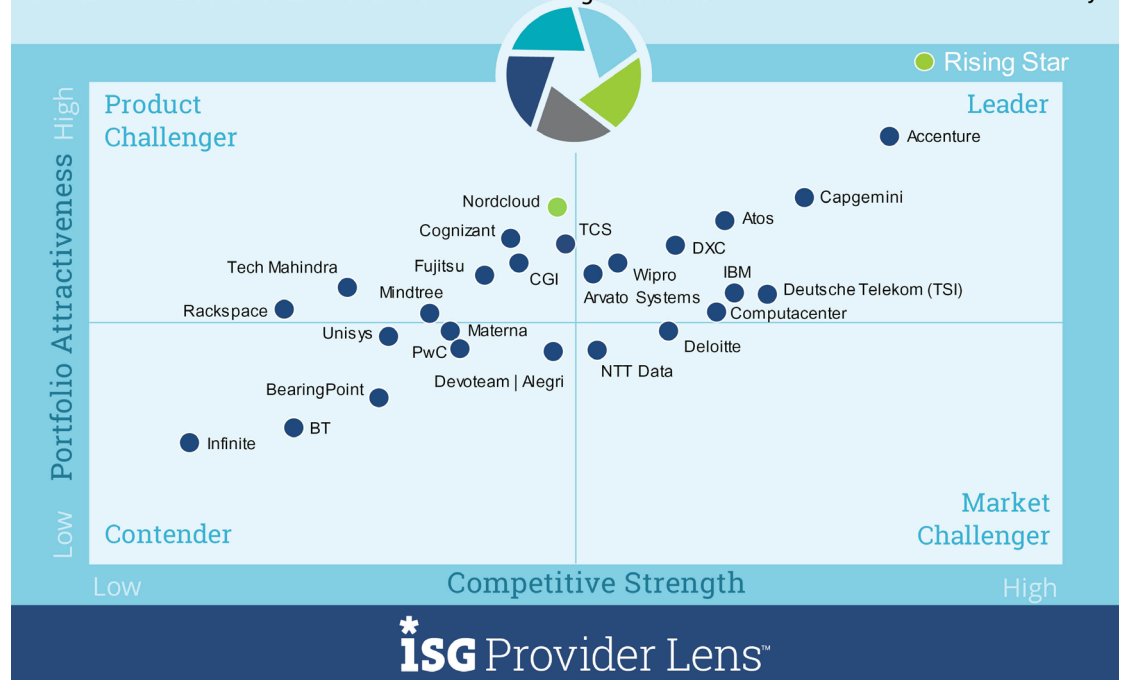
Definition

Public cloud enables enterprises to achieve agility and scalability without having to invest into their own infrastructure, making it an integral and important driver for digital transformation. Consulting and Implementation service providers partner with public cloud providers to manage the customer-specific complexity of adopting and deploying public cloud solutions. Their services typically include the following:

- Consulting services:** These services involve designing a business case for cloud, identifying workloads for migration, building a transformation roadmap, which includes assessing organizational impact, addressing risk and compliance issues and advising on migrating applications from the existing environment to a public cloud provider.
- Implementation services:** These services include architecting and building the cloud environments, migrating and integrating applications, and optimizing the architecture to exploit the cloud computing features and benefits.

Public Cloud - Solutions & Service Partners
Public Cloud Transformation Services for Large Accounts

2019
Germany



Source: ISG Research 2019

PUBLIC CLOUD TRANSFORMATION SERVICES FOR LARGE ACCOUNTS

Definition (cont.)

For this quadrant, we exclude the creation of private clouds as they are covered in a separate Provider Lens study on Private/Hybrid Cloud Data Center Service and Solution Providers. This quadrant analysis is confined to the adoption of public cloud services and their integration with on-premises environments, which can include private clouds.

Eligibility Criteria

- Innovative thinking and image within the cloud transformation context;
- Strategic focus on the public cloud and related partner programs, based on a solution-oriented perspective;
- Application migration experience (templates, automation engines and ISV partnerships);
- Certified providers of public cloud services and enterprise architects;
- Methodologies and frameworks for analyzing the customer's situation;
- Customer references and projects or use cases;
- Cloud strategy consulting to determine the type of cloud to be used;
- Consulting and competence on multi-cloud infrastructure implementation;
- Vertical (industry) and horizontal (technology) competence.

PUBLIC CLOUD TRANSFORMATION SERVICES FOR LARGE ACCOUNTS

Observation

Many public cloud services providers offer strategic consulting and architecture and implementation services and managed services. The declared goal of leading transformation providers – regardless of the target group – is always to transition customers from the consulting and implementation phase to managed services, because providers want the recurring revenues with their high margins. Cost and TCO calculations are still a challenge for many IT service providers and, interestingly enough, are not always the decisive criterion for selection. While practically all customers want to achieve cost reductions when evaluating public clouds, they often do not appreciate the significantly increased speed of innovation and possibilities of scalability, complementary partner services or potential related to location- and time-independent customer access based on standardized delivery models and regions. In Germany, we can distinguish between two types of transformation providers:

- 1) Established IT service providers with longstanding connections to the software industry and in-depth partnerships with providers of critical IT systems of record such as IBM, SAP, Oracle or (within the ERP context) Microsoft. This type of providers often contributes industry-specific business process knowledge. These providers had to undergo profound changes and search for new talent to break up silos and adopt trends and best practices from the cloud and software industry, not only concerning information sharing, but also project management approaches such as Scrum and DevOps as a “must have” methodology for digital service lifecycle management. These capabilities are requirements to enable established IT service providers to excel at meeting customer expectations and pursue an agile project management approach.
- 2) Cloud-native providers, for whom software development and all related implications and philosophies are imperatives for themselves and their customers. Most cloud-native providers were founded after 2010. Increasingly, these providers use automated code deployment, infrastructure as code (IaC) and machine learning as the basis for setting up added-value services within their “people business.” Code-based services consume an increasing share of available manpower. Many of these providers are specialized in dedicated public cloud services and are regarded as highly innovative and attractive vendors. Often, they have in-depth accreditations from the three top public cloud providers and have container management and serverless computing approaches in their DNA. They live the DevOps philosophy and shift away from the ITIL frameworks, which are deemed outdated.

PUBLIC CLOUD TRANSFORMATION SERVICES FOR LARGE ACCOUNTS

■ Observation (cont.)

- **Accenture** is a leading strategy expert that maintains strategic business units for all major public cloud providers to ensure state-of-the-art consulting services for its customers.
- **Arvato Systems** has made it into the Leader quadrant and demonstrates great momentum in the public cloud segment, helped by its industry knowledge and additional knowledge such as SAP.
- **Atos** was able to strengthen its leadership position through deeper public cloud partnerships to provide updates to its customers and ensure hybrid cloud flexibility, based on their specific requirements.
- **Capgemini** is a leader with great understanding and longstanding experience with applications and clean migration into the public cloud.
- **Computacenter** is a leading provider in Germany and pursues innovative but highly secure public cloud transformation approaches, combined with hybrid and multi-cloud expertise.
- **Deutsche Telekom (TSI)** is able to maintain its leadership position and combines multiple methodologies for customer analysis with security understanding and state-of-the-art public cloud services, which are complemented by lift-and-shift offerings for legacy systems and their respective integration.
- **DXC** is a consulting and implementation expert for hybrid and pure public cloud projects and is a clear public cloud transformation leader.
- **IBM** has maintained its thought leader position for many years and conducts high-quality, sustainable and innovative cloud transformation projects that address multiple customer requirements.
- **Wipro** has advanced significantly and has evolved into a leading provider of public-cloud-specific consulting services in Germany.
- **Nordcloud** is the Rising Star of this quadrant. It is one of only a few young, cloud-native service providers from Europe with a remarkable track record and many renowned large customers and public cloud transformation projects.

ACCENTURE

Overview

Accenture is a global professional services company incorporated in Dublin, Ireland, with an annual revenue of \$43.2 billion and overall growth of 9 percent.

Its portfolio includes consulting and integration of cloud services, platforms and technologies. Accenture employs more than 80,000 cloud experts worldwide to help clients. In Germany, Accenture has offices in Kronenberg/Frankfurt, Munich, Düsseldorf, Berlin, Hamburg, Kaiserslautern, Stuttgart and other cities.

Strengths

Hyperscale focus and partnerships: Accenture has achieved the highest partnership levels from the five top hyperscale providers. Accenture has established specific business groups for AWS, Google and Microsoft to develop co-innovations and offer high-quality services. These business groups have been set up to intensify cooperation and ensure added value for clients through advanced knowledge of new features or best practices.

Many experts: Accenture's highly qualified and experienced process and technology experts are easily able to address any cloud transformation and migration challenge, from infrastructures and platforms to apps, processes and organizational change. Accenture has doubled its number of local public cloud experts within the last year.

Agility, DevOps and containers support: Accenture was among the container management pioneers. As a result it was also early to cooperate with public cloud providers and gain knowledge of required organizational changes and the related involvement of customers, partners and multiple business divisions. This helps Accenture ensure its success and client satisfaction, since projects are managed with a maximum degree of autonomy, based on flat hierarchies and on small-scale project sizes. Key stakeholders are always involved continuously and from the early phases of a project, specifically for SAP migration projects.

Cloud security and governance: In Germany, Accenture employs more than 30 security specialists that contribute significantly to many client projects. Accenture is very able to cover the security aspects of public cloud transformation projects in the DACH region with its own staff, while many competitors need the help and advice of external partners.

ACCENTURE

Cautions

Accenture has been perceived to be an expensive provider due to its complementary offering of premium consulting services. Although some large enterprises don't mind paying the premium, for clients that are solely focused on lowering costs, Accenture can be cost competitive but will not be the lowest-cost provider.

Accenture could improve customers' perception of lifecycle management (and implementation) offering for SaaS and PaaS software.

A roadmap for training and certifying local Alibaba cloud experts does not exist, but should be developed to maintain this differentiation for Germany and its industrial companies expanding to China.



2019 ISG Provider Lens™ Leader

Accenture is a public cloud pioneer and a leading provider that is easily able to address all modern and innovative topics and has always a focus on generating added value for customers.

ARVATO SYSTEMS

Overview

Arvato Systems is part of the Bertelsmann Group and includes the Arvato service division, with sales of €4.1 billion Euro (up 4.1 percent), including 39 percent from Germany. Arvato Systems has more than 2,500 employees that provide IT and cloud services, both internally and for external companies in 20 countries worldwide. With revenues of nearly €400 million in 2018, mainly generated in Germany, Arvato Systems offers technical knowledge, industry expertise and a clear focus on digital and innovative topics. Arvato Systems has many ISO certifications.

Strengths

Public cloud focus: Arvato Systems is evolving into a public cloud specialist and provides strategic and tactical support to customers to address needs related to AWS and Azure clouds, including strategy development, implementation and optional operations or professional services. The company is not only a partner for small microservices, but also for heavyweight and highly complex projects such as SAP migrations.

International success: Arvato Systems is an internationally active IT specialist and multi-cloud service provider that supports renowned companies with approximately 150 Microsoft experts, 50 AWS experts, and recently, 30 Google architects.

Momentum: The group has not only made internal progress such as earning important DevOps certifications, but has also gained new respected reference customers for agile projects. Continuous high growth rates justify additional future investments.

Cloud-native and AI skills: Arvato Systems has the essential skills required for public cloud consulting and implementation projects, based on tangible, long-term automation and AI components and competencies. It has technical skills and platform integration expertise, competency in data homogenization and its use for business purposes, and sophisticated process and industry knowledge to optimize time-to-market with lightweight apps and continuously improving services.

Cautions

Arvato Systems still lacks comprehensive knowledge of GCP and the respective certifications, which customers are increasingly requesting and could also be used for the provider's internal, captive business with its RTL Group media unit.

Awareness as a public cloud specialist and strategy consultant is gaining momentum, but must be increased and driven through marketing events in cooperation with public cloud providers. Google could be added to existing AWS and Azure offerings and the cloud transformation expertise must be integrated more deeply into the corporate structure and potential service catalogs. Arvato Systems must work to improve its image and drive its current approach – the market does not yet perceive the brand as a thought leader for public cloud and next-gen services.



2019 ISG Provider Lens™ Leader

In the last year Arvato Systems progressed from the Rising Star position into the Leader quadrant and currently there is no doubt about the continued success of this IT service provider from the Bertelsmann Group.

ATOS

Overview

Atos is a French, globally active digital IT services provider that aims to strengthen customer focus through a reinforced vertical go-to-market approach. Atos employs 120,000 people in 73 countries; in 2018, revenues amounted to €12.3 billion, including €2.1 billion that was generated in Germany. Atos offers a very broad and deep range of end-to-end cloud services – from consulting and implementation to operating private, hybrid and public cloud services. Atos has a pool of more than 1,000 certified engineers for the top public cloud providers and more than 3,000 cloud and 4,500 security experts. Atos Canopy is the flagship portfolio that comprises public and hybrid cloud services.

Strengths

Public cloud transformation with a good grasp of IoT and security: Atos' IoT cybersecurity initiatives are a step in the right direction as companies increasingly invest in and use the cloud for IoT-based transformation projects. Atos has demonstrated excellence in securing these services, from design to implementation and rollout. The need to analyze data locally and globally as quickly as possible and exchange data based on connected infrastructure processes are core requirements of many companies, and Atos is well able to address these issues.

Hyperscale cloud partnerships and DevOps expertise: Based on robust IaaS hyperscale partnerships and DevOps capabilities, Atos provides a broad range of state-of-the-art transformation capabilities for cloud and non-cloud environments. Atos is not only an Advanced Consulting Partner for AWS and a Microsoft Azure Gold Partner, but has also become a leading certified Google Cloud Platform (GCP) service provider. Atos leverages strategic GCP and G Suite partnership within hybrid transformation projects with a focus on analytics and workplace projects to offer a full range of services, from infrastructure consulting, migration and application transformation to service orchestration, backed by reliable cybersecurity expertise, which has been demonstrated at the Olympic Games and related public cloud services.

Transformation with in-house products and services: The Atos Decision Factory and the Cloud Migration Factory are good examples of a well-structured and mature service portfolio that supports a wide range of cloud topics, including cybersecurity, big data, collaboration and artificial intelligence (AI).

Cautions

Atos has made new investments in training employees on AWS, Azure and Google. The company should continue to work on specialized solution accreditations and awards such as the significant AWS Application Migration certification, which would help Atos to change its image as an infrastructure-focused and specialized IT service provider and strengthen attention to applications and business processes. It takes a long time to build thought leadership. The Google partnership will help to accelerate this process, since Google has always had a focus on platforms, applications, analytics and AI.



2019 ISG Provider Lens™ Leader

Atos is a transformation service provider with a good understanding and grasp of IoT and edge scenarios within public cloud projects. The provider has already built up and is continuously expanding the required hyperscale expertise.

CAPGEMINI

Overview

Capgemini is a global IT service provider and integrator with 210,000 employees and headquarters in Paris. In 2018 the company generated revenues of €13.2 billion, which was an 8.1 percent increase. Its global revenues from public cloud services in 2018 amounted to approximately \$300 million. Capgemini is an AWS Premier Consulting Partner and Gold Azure Partner. Capgemini has more than 5,000 employees working to deliver cloud services.

Strengths

360-degree approach: Capgemini uses a sophisticated approach to capture customer situations, transform or modernize systems and processes, migrate operations and also take care of them if the customer desires. The target operating model (TOM) is checked and a financial impact or TCO is calculated. Capgemini also has a focus on using cloud-based technologies such as artificial intelligence, Internet of Things and blockchain to improve and transform customers' business results, based on a strategic approach.

More than infrastructure transformation: Capgemini pursues a workload-centric rather than infrastructure-centric cloud transformation approach. It takes a top-down view of the applications portfolio to determine the right cloud option for each application within an integrated end-to-end solution. Capgemini has exceptional application modernization and cloud-native application development expertise, based on DevOps methodologies, and its proprietary eAPM decision-making framework is an important asset. The eAPM approach brings together a robust assessment methodology, tooling for analysis and decision making and experts from Capgemini to address transformation challenges, including the move to cloud.

Invent as core component: The Capgemini Invent consulting brand pursues a vertical or industry-specific approach that combines generic offerings for customer interaction, technology, organizational change and other key digital and cloud transformation disciplines.

Staffing investment: Capgemini has more than 5,000 public cloud experts worldwide, including almost 200 in Germany. These experts are trained and certified for all relevant platforms including AWS, Azure, GCP, IBM Cloud and others.

Cautions

Customers do not perceive Capgemini Invent, Capgemini's new consulting brand, as perfectly integrated. The clean integration of all acquired subsidiaries within this brand remains a task that has to be mastered to successfully increase digital and cloud revenues.

GCP and G Suite certifications need to be enhanced and are already on the roadmap. Specifically, customers from the retail sector and others have a focus on data analytics and evaluating or monetizing data and information are demanding these certifications.



2019 ISG Provider Lens™ Leader

Capgemini is an ethical role model and also one of few IT service providers with knowledge across processes, people and technologies.

COMPUTACENTER

Overview

Computacenter is part of a group with approximately 15,000 employees. In Germany, Computacenter has approximately 5,800 employees at 24 locations, including 70 percent in the service division. In 2018 Computacenter increased revenues in Germany by more than 8 percent to €2.1 billion. Based on longstanding partnerships over more than 20 years covering software, hardware, security, networks, physical infrastructure and other areas, Computacenter is in a good position to help companies on their transformation journey and provide development and operations services for multi-cloud and public cloud environments.

Strengths

Guided step-by-step transformation: Computacenter provides professional and secure support that are based on architecture and design patterns and a best-of-breed cloud adoption framework to prepare customers for AWS and Azure service onboarding and usage. Computacenter leverages vendor-specific best practices, combined with its longstanding experience with strategic and operational cloud use within hybrid and multi-cloud workload use cases.

Investments: Computacenter invests in its state-of-the-art integration center in Kerpen to gather specialists, improve teamwork and continuously advance the service portfolio.

Public cloud strategy: While the public cloud became a priority for Computacenter relatively late, the company is making good progress. It has changed course to deepen its public cloud partnerships and leverage market dynamics in the segment accordingly. Based on this new strategy, Computacenter can also position itself as a highly innovative hybrid and multi-cloud specialist.

Vertical expertise: In the cloud segment, Computacenter has significant experience with customers from the manufacturing, banking and insurance and retail sectors and has already migrated many critical e-commerce and banking and production-related applications into the public cloud.

Cautions

Computacenter must continue to work on strategies to combat the continuing lack of talent so it can ensure scalability to achieve organic growth.

Computacenter could drive more public cloud transformation projects in the public and education sectors, where the provider has not yet leveraged access to existing accounts effectively to support customers with their public cloud transformation initiatives. Computacenter could also work to transition customers into professional operations, based on a strategic and structural approach.

Computacenter lacks flagship projects and peak events or a cloud center of excellence in the DACH region. Such assets would increase awareness of the company and help it become a thought leader, which would trigger internal change and attract external attention.

Public cloud partnerships could be deepened. The provider is working on GCP competencies and certifications that are expected to be available to customers by end of 2019. Considering Computacenter's legacy competencies, an IBM partnership for IBM's SaaS and Watson/AI and analytics services would also be a good step.



2019 ISG Provider Lens™ Leader

Computacenter is evolving into a public cloud specialist and pursues a very promising hybrid and multi-cloud approach.

DEUTSCHE TELEKOM (TSI)

Overview

Deutsche Telekom, or T-Systems (TSI), has a focus on large accounts and provides telecommunications services and services for all kinds of trending IT topics. Cloud services comprise cloud platform development, operations services and transformation consulting to help customers build IaaS, PaaS and SaaS services in private, hybrid and public cloud environments. In 2018 T-Systems generated nearly €7 billion in revenues; the provider has 37,467 employees. In 2018 its digital unit was again able to achieve a doubled-digit growth rate for the digital and innovative cloud business. About one seventh of overall revenues, or €1 billion, is generated with cloud services; one third of those cloud revenues are made up of public cloud services and the managed service business.

Strengths

Many experts: Customers benefit from the provider's large number of experts for Microsoft, VMware, SAP and, increasingly, AWS offerings to ensure transformation of processes, people and technologies, based on sophisticated blueprints derived from many years of consulting experience.

Legacy and public cloud expertise: T-Systems and the entire group have a long history and have undergone a lot of internal transformation themselves. In 2018 the company changed course to provide strategic support for public cloud platforms from third-party providers such as AWS and Azure. T-Systems has caught up and has trained and certified many experts. Meanwhile, customers benefit from the provider's extensive expertise with hybrid and multi-cloud architectures, available public cloud certifications and DevOps skills. T-Systems transforms critical ERP (SAP) and mainframe systems into the public cloud and supports cloud-native projects, using an agile and DevOps-centric approach.

Proven and tested consulting and implementation methodology: T-Systems is enhancing its tested and proven CLOUDIFIER service offering with a focus on the customer. The offering comprises the full scope of services, from strategy consulting and architecture concepts to application transformation, managed services and a proprietary platform and intensified cooperation with external public cloud service providers.

Cautions

T-Systems must intensify, enhance and communicate its existing skills, including certifications for all public clouds; the best approach would be through customers and use cases. To date, support for Google is missing, but should be added to the roadmap in 2020.

Marketing is still too focused on technical topics, managed services and the proprietary cloud, and T-Systems is missing the chance to position itself as a cloud-agnostic IT service provider and thought leader. The company lacks peak events and partner awards, which T-Systems could easily integrate into marketing communications.



2019 ISG Provider Lens™ Leader

T-Systems is changing and opening up to leading, innovative public cloud providers – customers can rely on Deutsche Telekom's/T-Systems' "Public Cloud First" strategy.

DXC

 Overview

DXC is a global IT service provider headquartered in near Washington, DC. Total revenues in fiscal 2018 amounted to \$20.7 billion. The company employs 130,000 people and has presence in more than 70 countries, including more than 20 offices in Germany that were formerly owned by HPE and CSC. DXC has more than 6,000 employees that are certified for the top public cloud platforms. The company has more than 800 managed services customers worldwide. Its Managed Service and Transformation portfolio has focus on large enterprises and the public sector.

 Strengths

Automotive industry knowledge: Unlike the global, U.S. and U.K.-centric delivery units, DXC Germany has close connections to the automotive industry, helping vehicle manufacturers and suppliers meet digital and cloud challenges. DXC combines process knowledge with technology and service competence.

Change management support: The provider offers strategic support through readiness assessments and change management services for all the leading public cloud platforms for which DXC is highly accredited.

Price-performance mix based on nearshore and offshore resources: DXC excels in customer projects through local resources and expertise and international delivery centers. An optimized mix of costs and quality can be achieved, for example through low-cost delivery centers that can be involved, depending on the respective customer project.

Certified security: To ensure clients' compliance with standards, DXC works with industry-certified professionals with extensive compliance expertise. DXC has SOX, HIPAA, PCI DSS, ISO27001, CISSP, SANS and CCSK/CCSP certifications and other partner-specific accreditations.

 Cautions

DXC must continue to work on knowledge transfer and on achieving accreditations for individual business units. For example, AWS-related quality and manpower in Germany can certainly be improved to be prepared for all customer requirements.

DXC is currently working on deepening its Google partnerships. Customers can expect a complete service catalog by the end of 2019 and certified architects by 2020.

The provider must enhance DevOps certifications to ensure the required quality, specifically within the context of today's agile projects.



2019 ISG Provider Lens™ Leader

DXC customers benefit from the company's legacy knowledge, which it combines with innovation and vision within the context of serverless computing scenarios.

IBM

Overview

IBM is a global IT hardware, software and service provider. IBM is one of the largest consulting firms and, as a full-service provider, holds relevant market shares in all market segments. The company currently has 350,000 employees worldwide. IBM Germany employs approximately 13,000 people at 40 locations; they generate revenues of approximately €1.7 billion. In 2018, the company acquired Red Hat. IBM's cloud revenues in 2018 amounted to around \$19 billion worldwide, which was a 12 percent year-over-year increase.

Strengths

Cloud Garage for co-innovation with customers: The IBM Cloud Garage facilities in Munich and Milan help customers to quickly gain experience with new cloud technologies and organizational challenges. IBM has a very broad portfolio and knowledge of related topics that are of great importance for customers' cloud transformation. This includes expertise in the customer journey and experience in areas such as data analytics, automation, artificial intelligence and IoT use cases.

Cloud security and governance expertise: IBM consultants offer first-class consulting beyond technology that provides high-quality coverage of organizational and governance aspects. IBM has excellent security and compliance knowledge, and knowledge in areas such as user experience and business innovation.

Close partnerships: IBM has a focus on large accounts and their needs; the provider has ServiceNow experience, is a Gold Microsoft Cloud Platform Partner and AWS Premier Consulting Partner and has ISV and SaaS provider certifications for Workday, Salesforce and SAP.

Cautions

Although IBM has high certifications for the top hyperscalers, the provider does not always seem to promote external clouds such as Azure, AWS or GCP with the necessary interest or present them as a possible solution for transformation projects, specifically compared to other leading cloud transformation service providers. This is understandable, because IBM is the only provider with its own public cloud infrastructure and platform-as-a-service assets. However, IBM is increasingly opening up and allowing its AI and blockchain services to operate on other clouds.



2019 ISG Provider Lens™ Leader

IBM has proven its position as a thought leader that is continually evolving and even reinventing itself, which is demonstrated through numerous customer projects and the Cloud Garage concept.

WIPRO

Overview

Wipro is one of India's leading IT service providers and is headquartered in Bangalore. The company's total revenues amount to \$8.3 billion. Wipro has presence in more than 30 countries and has four offices in Germany with more than 1,500 employees. Wipro has a comparatively strong market presence in the DACH region. The provider employs more than 4,000 public cloud certified engineers worldwide; about 2,500 of these experts are certified for AWS and almost 1,500 for the Azure platform and more than 200 for Google Cloud. About 100 certified full-time employees are available for managed cloud services.

Strengths

Migration factory specialist: Wipro has developed numerous tools and frameworks within the public cloud transformation context and offers customers ready-to-use application blueprints for faster as-is analysis and application migration. These supporting assets are based on a highly industrialized approach that uses reference architectures, cloud-native application development and integration services automation. Specifically, Wipro has several accelerators for cloud readiness assessments and data migration tasks. The Cloud Studio solution is available to support extensive migrations. The company has created blueprints for a DevOps practice and has pre-defined most activities based on its own tools.

Close hyperscaler relationships: Wipro is engaged in close cooperation with all major public cloud hyperscale providers and maintains strategic alliances with AWS, Microsoft Azure and Google Cloud to pursue a joint go-to-market strategy. The company is an AWS Premier Consulting Partner and plays an important role within the partner network. With respect to Microsoft and specifically Azure, Wipro has expertise on all levels and maintains Gold Partner status. Wipro has also established joint innovation centers for AWS and Microsoft Azure to maximize the added value of each platform for customers.

Additional partnerships: Wipro is also in close contact with numerous ISVs and can therefore contribute other competencies such as SAP knowledge and has a respective Global Strategic Services Partnership for application transformation purposes. Another strength is Wipro's OpenShift expertise, which can accelerate digital business models based on cloud-native applications and microservices.

Cautions

The planned tripling of Wipro experts available in Germany has not been achieved yet. Wipro and other comparable providers are well advised to pursue more cautious marketing and commitments about their capabilities. Every provider has gaps and showing these weaknesses might not be altogether bad, since doing so increases customers' trust in the provider's credibility.

While Wipro's AWS and Azure partnerships are well advanced, the provider needs to strengthen its Google partnership. Its amount of certified GCP experts is rather limited, even on a global level, and revenues in Germany are still missing. Considering Google's recently initiated and expanded EMEA Partner Program, such an approach would provide great opportunities for Wipro.



2019 ISG Provider Lens™ Leader

Wipro is one of the leading global IT service providers with respective scalability, high-level hyperscale certifications and an in-depth understanding of local requirements in Germany.

RISING STAR: NORDCLOUD

Overview

Nordcloud is an IT and cloud service provider with European roots and a focus on public cloud consulting, professional and managed services and cloud-native application development, including artificial intelligence (AI), machine learning (ML) and IoT. Nordcloud has a focus on AWS, Azure and GCP and maintains the highest partnership levels for them. Nordcloud supports customers during their whole public cloud journey, from strategy development to governance, cost management, digital transformation and DevOps to operations. Currently, Nordcloud has presence in Finland, Denmark, Germany (DACH), the Netherlands, Norway, Poland, Great Britain and Sweden.

Strengths

Tested and proven, widely used approach: Nordcloud relies on analysis, strategy identification and implementation and management or managed services. It provides customers a complete cloud journey that is based on agile, cloud-native best practices.

Cloud-native governance: Nordcloud uses cloud-first and cloud-native best practices and serverless architectures to identify strategy, and for developing applications and solutions for customers. It addresses the top three platforms, AWS, Azure and GCP. Customers appreciate the provider's cloud governance knowledge, which plays a highly relevant role in practically any cloud transformation initiative.

Training and more: Nordcloud is a DevOps tool specialist and is familiar with almost any available tools. As strategic partner during the implementation phase, the provider can contribute this specialized knowledge to ensure customers' long-term success. For this purpose, Nordcloud has 60 experts with a focus on Chef, Puppet, Jenkins and other CI/CD skills such as Kubernetes.

Cautions

In most cases, Nordcloud does not offer a free proof-of-concept project, and the provider may miss opportunities to win customers accordingly. The provider also does not commit itself to outcome-based contracts, although some customers would like their service provider to make such guarantees.

Compared to competitors, Nordcloud must significantly deepen its strategy consulting expertise and gain the required competencies and image, which would help it gain more large deals.

Compared to other providers, local manpower could be increased. Nordcloud has already taken steps with a double-digit increase in hiring new to improve its scalability for consulting projects.



2019 ISG Provider Lens™ Rising Star

Nordcloud provides customers concentrated knowledge on their journey into the innovative and future-oriented public cloud, for AWS, Azure and GCP; Nordcloud is a specialist for all three of these top hyperscale platforms.

MANAGED PUBLIC CLOUD SERVICES FOR MIDMARKET

Definition (cont.)

The services provided typically include:

- Professional services for the management and monitoring of CPU, storage, memory, databases, operating systems as standalone or microservices or virtual machine and container services;
- Operating system, middleware and application upgrades and patching services;
- Service portal for expense management (chargeback and show back) and identity management or IT service management (ITSM);
- Governance and compliance management;
- Support services such as incident management, configuration, security services and automation set-up.

Eligibility Criteria

- Operational excellence and well-defined professional services;
- Expertise in configuration management of platforms, systems and containers;
- Experience in building and managing public and multi-cloud environments;
- Support for software code development, cloud-native and legacy system integration;
- DevOps experience;
- Experience with API-enabled automation and cloud analytics;
- Mature security processes;
- Support for different client roles such as IT technicians and developers;
- Partnerships with relevant public cloud providers and respective managed service provider (MSP) certificates for AWS, Azure, GCP or others. Typically, MSPs must showcase customer cases and a certain amount of consumption-driven and recurring revenue in addition to participating in joint business planning sessions and passing multiple certifications and audits to ensure the skills and knowledge for each of these hyperscale platforms:

MANAGED PUBLIC CLOUD SERVICES FOR MIDMARKET

Eligibility Criteria (cont.)

- Azure CSP 1 or 2 — Silver, Gold or Expert partners: Administrator, Solutions Architect, Developer, DevOps/security/AI/Data Engineer, domain specialization and cloud platform;
- AWS: Registered, Advanced or Premier partners: Solution Architect, DevOps Engineer, Developer, SysOps Administrator, migration consulting/delivery, domain specialization;
- GCP: Registered, Premier partners: Cloud Architect, Data Engineer, DevOps competency, domain specialization.

Observation

Midmarket businesses are looking for partners that provide individual, local and international support for all kinds of platforms (AWS, Azure or GCP) and applications such as Salesforce, Workday or SAP. DevOps methodologies, which are implemented for this purpose, ensure a high degree of flexibility and speed of customer systems operations. In recent years, this kind of expertise has been decisive for helping many IT providers achieve healthy and above-average growth rates, independent of customer sizes, from startups and large companies to the public sector. Accreditations such as AWS Premier Consulting Partner or Salesforce Platinum Partner and Azure Expert MSPs are excellent resources for the required competitive differentiation.

ISG believes that the completeness of a managed service vision is based on a deep understanding of dynamic customer requirements that must be translated into robust processes, specifically within the context of cloud security and governance, DevOps and automation and cost control, and modular, standardized and increasingly intelligent managed services.

IT service requirements management is a discipline that requires close customer involvement. The discipline is changing, specifically when it comes to public cloud services with their various and innovative underlying technologies, and as the business side comes up with different requirements for connectivity and system dependency, data continuity, timeliness, availability, platform compliance and user experience than could be addressed with traditional infrastructures and associated managed service contracts. MSPs used to focus primarily on patches, incident

MANAGED PUBLIC CLOUD SERVICES FOR MIDMARKET

Observation (cont.)

management, security, change management and business continuity, and rarely included SLAs at the application outcome level. However, today cloud-native providers have a much stronger focus on the time-to-market, the innovation rate, increased flexibility and mandatory system automation and scalability – simply to achieve internal cost savings and profitability. Leading service providers also tend to take advantage of continuous integration and continuous delivery (CI/CD) within DevOps approaches, embed AIOps, master container management and Kubernetes and rely on microservices or a serverless architecture. Managed public cloud service providers also participate in the public cloud consumption of each customer and set up contracts with end customers accordingly – they benefit from customers' high utilization rates.

Similar to DevOps, site reliability engineering, another feature of next-gen or cloud-native providers, applies certain aspects of software engineering to systems management and operations. The main goal is to develop and operate quality services with high degrees of

reliability and scalability while also achieving strong innovation rates. It requires reducing silos in the customer dialog and optimizing the flow of information across departments and partners. Service providers can contribute their industry and other knowledge and best practices to protect customers from repeating the same mistakes. Increasingly, providers' customer teams are trained to enable customers to resume operations themselves.

- In Germany, **Axians** is one of the leading midmarket managed service providers with high consulting and implementation expertise and innovative, industrially hardened, public cloud operations management.
- **CANCOM** was able to maintain its leadership position with its solution-oriented approach. The provider uses annual recurring revenue as a KPI for business management to take actions closely related to the respective server and to be able to manage customer responses quickly and proactively.
- **Claranet** was not only able to maintain its leadership position in 2019, but could also improve its market position due to its high specialization in cloud-native managed services, which are provided as platform-specific services with application outcome SLAs.

MANAGED PUBLIC CLOUD SERVICES FOR MIDMARKET

Observation (cont.)

- **Deutsche Telekom (TDG + TSI)** is a leading managed public cloud services provider with IaaS, PaaS and SaaS knowledge, a high degree of scalability and established and intensified hyperscale partnerships and accreditations.
- **NTT Group** is on a very good path and provides customers professional public cloud operations management services.
- **PlusServer** has become a leader for German midmarket businesses and has experienced an extremely good and fast development. PlusServer provides a next-gen-enabled MSP portfolio for the top three public cloud infrastructure providers.
- **Reply** is a leader with a first-class portfolio and individual brands for the globally leading, top hyperscale platforms to ensure individualized and highly platform-agnostic operations for customers.
- **tecRacer** has become a leader in the managed public cloud services sector. Customers appreciate and profit from the provider's enormous depth and quality of services for AWS and other public cloud managed services and training programs.
- **BTC** is a Rising Star and a very interesting managed service provider that promises customers innovation and agility, combined with a high degree of security and a low vendor lock-in.

AXIANS

Overview

Axians had 2018 revenues of €2.3 billion (a 15 percent gain) and 10,000 employees in 22 countries. Axians and the associated IT service unit (which produced €553 million in revenue and had 1,968 employees in 28 cities) operate as the VINCI Energies Group's IT department and as an IT service provider in the external market for small, midmarket and other businesses. Axians' ICT solutions range from IT infrastructure, IT solutions and industry software to IT operations and services.

Strengths

Deep, broad and innovative portfolio: The provider's managed services for public cloud environments cover a wide range of functions, from workload migration to application and infrastructure monitoring, patch management and generic AIOps components required to automate operations processes, to the continuous improvement of the infrastructure (lifecycle management) and profound protection against hacker attacks.

Platform management and self-service The new version of Axians' Digitalhub IT platform provides an opportunity to boost recurring revenues from public cloud services. Customers will benefit from increased transparency and self-service functionality that meets the needs of midmarket businesses.

Guaranteed security for critical midmarket customers: Axians' cybersecurity governance expertise and capabilities to analyze and evaluate potential improvements are strengths. Its recommendations are incorporated into innovative architecture proposals and contracts for running public cloud environments for critical infrastructure. Axians also helps customers to monetize data, not only for collaboration, but also through capabilities in data analytics, data platform and DevOps.

AXIANS

 Cautions

Cooperation with Google, which has not been initiated yet, could be a key to success considering Google's strong momentum and its role as a Microsoft alternative. The AWS partnership should also be improved by increasing the number of certified employees and project references and by adding service and solution competencies such as ticketing, automation, AI/ML and DevOps. DevOps-based guidelines and consulting within the context of cloud-native managed services are not yet sufficient and should be advanced accordingly to be on par with cloud-native managed service providers.

Axians must improve its branding and core message, especially its competitive differentiation. Customer awareness of Axians is insufficient – the provider could improve its thought leadership position for public cloud hyperscale environments and cloud-native managed services and should better communicate how its competencies can be combined.

Axians IT Solutions and the Digitalhub are undergoing organizational change, which affects people, roles, structures and processes. This should not be too obvious for customers or the market to maintain Axians' usual high service delivery quality and not slow its public cloud go to market.



2019 ISG Provider Lens™ Leader

Axians is a managed services partner and digital enabler for customers, with a focus on Microsoft Azure and collaboration.

CANCOM

Overview

CANCOM is a Germany-based IT solution integrator, managed service and hosting provider and consulting company with roots in the system house market. It offers business-oriented IT solutions for multiple industries. The managed cloud service offering has a focus on midmarket and larger businesses. CANCOM has more than 30 offices with more than 3,500 employees (it had a net gain of 500 compared to the previous year) in Germany and neighboring EU countries, and generates revenues of nearly €1.4 billion Euro (+18.7 percent). The company group is expanding international activities and is listed on tecDAX through CANCOM SE.

Strengths

Comprehensive public cloud expertise: CANCOM offers any kind of managed service, from traditional to modern, cloud-native options. The customer environments CANCOM manages are always cloud-agnostic and equipped with an API. From CANCOM's DevOps methodologies and machine learning features via the CloudCheckr platform to the numerous certifications for AWS, Azure, GCP or the IBM Cloud, customers benefit from lean architectures and UI-based cloud marketplace connectivity.

Focus on managed services: The acquisitions of Ocean Intelligent Communications, The Organised Group (OCSL) in the U.K. and synaix, and many other operational and strategic measures demonstrate CANCOM's strategic transformation. The acquisitions strengthen the managed services portfolio, support the further internationalization of the CANCOM Group and have a focus on the high-margin managed services segment. synaix contributes specific container expertise.

Customer proximity and safety: Thanks to continuous acquisition activities, CANCOM's best-of-breed solutions ensure excellent services and great customer proximity and service quality. Critical customers receive end-to-end support for any security cloud governance issues.

CANCOM

Cautions

We still perceive a lack of in-depth managed service accreditations and the provider must do more or acquire respective companies to be able to provide fast, cloud-native managed services with all rights and obligations, specifically for DevOps-driven site reliability engineering services.

Machine learning knowledge and AIOps-enabled public cloud management, for example via the cloud marketplace, must be developed continuously and quickly to offer customers transparency and potential cost savings.

While marketing cooperates with internal cloud management experts to keep the market and customers informed of new developments across multiple channels, a lot needs to be done to optimize awareness of the company as a public cloud expert.



2019 ISG Provider Lens™ Leader

CANCOM demonstrates a very good development path and continued willingness to early identify new trends and build related expertise quickly.

CLARANET

Overview

Claranet is a managed service provider that was founded in 1996 in the U.K. and has had a German presence since 2000. With offices in nine countries and 2,200 employees, Claranet achieves annual group revenues of €425 million, including 5 percent which are generated in Germany. Over three years, Claranet has experienced a 39 percent increase in its cloud business, which amounts to €250 million in cloud-related revenues, approximately 25 percent of which were generated with the public cloud. Claranet Germany has extensive industry knowledge in the e-commerce/retail and logistics markets.

Strengths

Cloud planning and migration: Claranet provides dedicated support for cloud planning and migration initiatives to ensure clean planning and help customers with essential knowledge of DevOps and cloud management tools and respective partnerships. Claranet stands for innovative technologies, including DevOps, Docker containers, Kubernetes, native automation tools (infrastructure-as-code) and serverless computing.

High-level, cloud-agnostic services: Claranet started to address AWS and build up respective competencies relatively early and added Google, followed by Azure and related accreditations. To date, Claranet is an AWS Premier Consulting Partner and MSP Partner, Google Cloud Premier Partner, Microsoft Gold Partner and, based on the Azure Expert MSP Award, one of the highest qualified Azure service providers in Germany. Its additional designations include qualification as AWS Migration Consulting Partner and Google Cloud EMEA Partner of the Year for 2019.

Many trained experts: Claranet has access to many certified employees for public cloud management, consulting and migration. The Claranet Group provides training at the strategic level and keeps employees up-to-date with the latest trends and technologies, ensuring fast, adequate and above-average support for customers.

Cautions

Claranet does not have a proprietary cloud management platform to provide customers with a single point of contact for increased service transparency, self-service options and compliance, and a point of contact for billing processes and cost optimization recommendations. Such offerings are highly appreciated by customers, especially those from the upper midmarket segment and for larger-scale, highly complex use cases in hybrid system landscapes.

Claranet Germany should continue to work on independent services and use cases, while also transferring the group's knowledge and strengthening manpower and thought leadership.



2019 ISG Provider Lens™ Leader

Claranet is highly specialized and supports customers with high-quality services on hybrid or public cloud journey – for AWS, Google and Azure-based environments.

DEUTSCHE TELEKOM (TDG+TSI)

Overview

Deutsche Telekom (TDG + TSI) and Scanplus, a very closely associated partner company, have a focus on German SMB customers. Their offering includes hosting, consulting, implementation and operations for IaaS, PaaS and SaaS services in private, hybrid and public cloud environments. In 2018, Deutsche Telekom's digital unit was again able to achieve double-digit growth for digital and innovative cloud business. About one seventh of overall revenues were generated with cloud services; one third of which came for public cloud services and the managed service business.

Strengths

Many experts: Customers benefit from the company's large number of Microsoft, SAP and, increasingly, AWS cloud experts. The offering comprises sophisticated blueprints from the provider's longstanding consulting business for public cloud transformation projects and addresses processes, people and the latest technologies.

Customer portals: Deutsche Telekom already offers customers close monitoring of cloud resources, transparent cost management and unique public cloud governance expertise, a key challenge for midmarket customers.

Cloud-native: Based on Deutsche Telekom's "Cloud-Native" philosophy, customers are now provided a high level of automation and innovation, while highly complex customer requirements related to their brownfield environments can also be addressed and implemented based on a ServiceNow implementation.

DEUTSCHE TELEKOM (TDG+TSI)

Cautions

While Deutsche Telekom has initiated many important initiatives for internal reorganization and innovation management purposes, it must better drive these efforts and develop dedicated offerings based on these initiatives. Specifically, it should develop more offerings for managed public cloud services and the secure takeover of increasingly complex hyperscale environments and integration into existing systems. Therefore, the provider should combine infrastructure- and platform-related managed public cloud skills with existing software competencies, specifically, Microsoft Office 365, and offer respective bundles accordingly.

The managed services certifications must be deepened to compete with small, agile cloud-native competitors. Deutsche Telekom is challenged to better combine and connect various capabilities to act as a delivery unit for smaller and midmarket businesses on eye level. While T-Systems provides fabulous services, they cannot always be used out of the box by highly cost-sensitive small and medium-sized businesses with less complex requirements and corporate structures. Deutsche Telekom has many points of contacts for customers; it must work to not be perceived as a vendor that wants to sell products and infrastructure services.



2019 ISG Provider Lens™ Leader

Deutsche Telekom is evolving to meet its goal of being the “Employer of Choice for IT Talents” and is slowly and steadily reaping the benefits of the group’s reorganization – customers are in safe hands.

NTT

 Overview

NTT currently is consolidating 28 international service subsidiaries such as NTT Com, NTT Security and Dimension Data. The group generates a total of \$11 billion with 40,000 employees in more than 70 countries. Besides Dimension Data, the NTT Group in Germany also comprises Arkadin, e-shelter, itelligence, NTT Communications, NTT DATA (which has not been integrated yet) and NTT Security. In Germany, the NTT Group generates revenues of more than €1.2 billion with approximately 5,300 employees. Dimension Data provides IT and cloud services, from planning and procurement to operations management.

 Strengths

Comprehensive platforms and tools for customers: NTT's proprietary cloud management platform helps to provide managed services and can also be used for hybrid system environments while ensuring high performance and security based on the provider's network competence. Dedicated application operations services allow managing migration to the public cloud for one or all of client's applications, while tech ops services help customers focus on innovation rather than infrastructure maintenance.

High innovation strength: In cooperation with a variety of research facilities, the strong companies and financial strength of NTT Group enable it to act locally and scale globally. Customers also benefit from NTT's productivity, unified communications and collaboration (UCC) and applications expertise.

Specialized partnerships: The offering comprises a wide range of services with AWS and, increasingly, Google certifications. The provider has also been engaged in a Microsoft partnership for quite some time on even deeper levels. Important competencies include cloud assessment and migration services, custom application development, strategic and IT consulting and systems integration.

NTT

 Cautions

Dedicated serverless competencies must be emphasized more clearly and presented within the context of the company's own cloud management platform – customers are increasingly looking for and using cloud-native offerings.

At present, there is a lack of good references and related stories for Germany, which might enable the provider to profit more quickly from available specializations. The provider is a Microsoft partner but lacks the MSP Azure Expert certification to demonstrate competence.

While the NTT Group consolidation might increase customers' uncertainty, it should be communicated early and proactively, positioning the consolidation as a key to success and competitive differentiation and eliminating any doubt about its positive impact.

The share of recurring revenues generated by transitioning consulting projects into managed service projects is still too low, which reduces margins and prevents the company from freeing up resources that could be used for new investments and innovations.



2019 ISG Provider Lens™ Leader

NTT is on a very good path and provides customers professional public cloud operations management services.

PLUSSERVER

Overview

PlusServer is an IT service and managed cloud provider that was founded 20 years ago and is headquartered in Cologne, Germany. The provider has a focus on cloud hosting and offers all kinds of cloud services out of its own data centers, including public cloud resource management for SMBs and large accounts. Customers from any industry benefit from seven locations and 450 employees, which generated revenues of more than €120 million in 2018.

Strengths

Rounded managed services portfolio: PlusServer offers transition and transformation services, migrates system landscapes and takes over the management of the customer landscape based on a 24x7 support model and independent of the underlying (public) cloud. Proactive fault clearance and clean patch management complete the offering.

Azure Gold, AWS Advanced and Google partnerships: As a longstanding IT hosting expert, PlusServer is also able to scale across multiple platforms with trained experts for public cloud management: With 50 AWS experts, including architects, SysOps to DevOps administrators and DevOps engineers, nine Azure and 15 Google experts, PlusServer is already very well positioned and is continuing to strengthen this position.

Customer flexibility: PlusServer's strategic approach is to advise and provide services to customers based on a cloud-agnostic strategy to easily transition existing architectures to another platform, saving customers' time and money.

PLUSSERVER

Cautions

PlusServer should work to increase awareness as a managed service provider for native cloud design and respective architectures and philosophies. It should provide more in-depth coverage of these approaches in its external communications and in product portfolio design of the managed public cloud services, while also adding public cloud certifications.

Application and database knowledge and modern AIOps competencies could be enhanced – PlusServer is currently addressing this issue for individual opportunities, rather than on the strategic level.

PlusServer could add strategy and consulting competencies to be able to provide platform-specific, rather than only agnostic support during the planning phase. Some added values of public cloud platforms are difficult to achieve with agnostic approaches. PlusServer could also add more in-depth industry-specific offerings and portfolio elements to better understand customer processes and their needs and pains on the line-of-business (LOB) level.



2019 ISG Provider Lens™ Leader

Over the past two years PlusServer has undergone a very dynamic and positive development and offers customers a high-quality portfolio for the three top public cloud infrastructure providers.

REPLY

 Overview

Reply is a company group specializing in consultancy, systems integration and digital services with a focus on designing and developing solutions based on new communications channels and digital media. Headquartered in Italy (Turin), the group comprises many individual brands and related activities in Germany, mainly in the Gütersloh area and in Munich. The parent company has offices in Italy, Great Britain, Germany, Belgium, the Netherlands and Luxembourg. Total revenues amount to more than €1 billion and the company has 7,600 employees. With individual brands such as Storm Reply, Cluster Reply, Go Reply and others, Reply follows the trend towards hyperscale specialization and offers dedicated teams of experts.

 Strengths

Strong public cloud partnerships: Storm Reply is a Premier AWS Partner that recently secured DevOps expertise. Another Reply subsidiary, Arlanis Reply, became a Salesforce Platinum Partner in 2016, while a third subsidiary, Go Reply, was appointed Premier Google Cloud Partner in 2017. Cluster Reply is a Microsoft Gold Partner for the provider's cloud platform. Customers benefit from this broad and certified competence within the Reply company group.

Growth and innovation strength: With double-digit growth rates and local sales of approximately €200 million in the cloud market segment MSPs in Germany, Reply is increasingly reaping the rewards of research and development investments and its continuous review and advancement of its services.

Vertical and security expertise: Reply has a strong focus on industry insights and specific processes, which are supported by state-of-the-art, disruptive technologies and are newly developed to address digital transformation challenges. The CSPI and MCG Systems acquisitions strengthen Reply's security and cloud governance portfolio, which is currently in high demand.

REPLY

Cautions

Reply is one of the few providers in Germany with AWS Accelerated Application Migration expertise, but does not market that competitive edge to actively drive momentum and further differentiate itself. The accreditation is a highly relevant and complex topic that the great majority of providers, including many hosting service providers, cannot match.

While Reply was able to establish new brands for customized hyperscale services and is gaining traction, we perceive a lack of transparency, which somewhat slows success. The provider should work on this issue, which would be rather easy within the digital customer journey context.

Reply certainly has access to large accounts and renowned German and international midmarket customers, but does not leverage opportunities to show customer references and link them with existing competencies.



2019 ISG Provider Lens™ Leader

Reply offers first-class managed services fully tailored to individual public clouds – there are hardly any competitors with such a sophisticated and advanced strategy in Germany.

TECRACER

Overview

tecRacer is a German cloud enabler, consulting and managed service partner with a focus on AWS. tecRacer was founded in 2001 and has nearly 100 employees (including approximately 30 cloud architects, 20 cloud developers and 30 cloud consultants with AWS certifications). The ambitious company offers AWS training in Germany and is renowned for next-gen managed services and its big data and DevOps competencies. tecRacer is a cloud-native provider.

Strengths

Broad and in-depth next-gen managed cloud portfolio: Customers rely on tecRacer as a trusted provider of customer-centric managed hosting services in the public cloud on AWS and other clouds. tecRacer leverages practically all available means and tools to ensure the innovative, flexible, cost-effective, transparent and secure management of customers' cloud environments.

Longstanding experience with public cloud pioneer AWS: As an AWS Premier Partner, tecRacer offers great training and knowledge as a consulting partner to support customers with onboarding and transitioning operations to a DevOps model.

MSP partner and analytics specialist: Competitive strengths include competencies in big data, agile web and mobile app development, which are important or even the main reasons that drive customers to engage in public cloud transformation and adoption projects.

Cautions

tecRacer is growing strongly, but must continue to work on its local footprint and awareness. The provider should ensure more up-to-date and consistent marketing material. Midmarket businesses also prefer managed service partners with a close proximity to customers, and tecRacer should set up additional offices to address this requirement.

tecRacer is heavily dependent on AWS and should work to achieve certification for Azure and Google – if necessary, via a holding company or new start-ups to prevent diluting the brand. The required portfolio enhancement should also address business-critical applications and associated ISVs that are used or planned by customers, such as SAP, Workday or Microsoft. As a continuous automation specialist, tecRacer would benefit long-term from intensified SaaS partnerships and should, as a next step, build additional, heterogeneous offerings to ensure future success.



2019 ISG Provider Lens™ Leader

tecRacer is a cloud-native training, consulting and managed service provider for the public cloud that offers future-oriented next-generation services to customers.

RISING STAR: BTC

Overview

BTC Business Technology Consulting is an IT consultancy and managed service provider from Germany with more than 1,700 employees. BTC offers consulting, system integration, application and system management and managed services. The focus is on managing state-of-the-art information technologies. Current cloud and managed public cloud revenues, generated by approximately 70 employees, are in the low double-digit million range.

Strengths

Partnerships: BTC is AWS Consulting Partner and Gold Partner of SAP and Microsoft. Customers can be sure to always receive a high-level of platform-specific services. BTC also offers a cloud-native and -agnostic management approach based on APIs or infrastructure-as-code to offer customers full speed with a low vendor lock-in.

Agility, flexibility and standardization: BTC provides a structured offering that can be flexibly adapted to individual needs, based on container and serverless architectures, to drive customers' use of microservices. BTC offers customers native cloud computing services based on the latest serverless architectures with a high degree of automation based on AWS Lambda, CloudTrail or bots, ensuring high performance and a low vendor lock-in in cases where the customer later wants to switch to another platform .

Security through cybersecurity focus: BTC conducts independent audits and can therefore provide first-class advice on all cybersecurity aspects and potential risks.

Cautions

BTC and its relatively young and rather small cloud unit, with its focus on digital trend topics, need more visibility and awareness. Riding on the public cloud wave through cooperation with hyperscale providers and respective partner awards would be one way to increase this awareness.

Some customers are missing an integrated cloud management platform for billing and ticketing. BTC should consider such an offering, specifically within the context of multi-cloud and hybrid cloud use cases. This would also help BTC to integrate existing competencies and generate additional cross-selling revenue potential.

Certification levels for partnerships with AWS and Azure and Google must be improved and the provider should enhance its team for large public cloud engagements to ensure the required scalability.



2019 ISG Provider Lens™ Rising Star

BTC has become a very agile and advanced managed public cloud service provider, offering customers innovation and agility combined with a high degree of security.

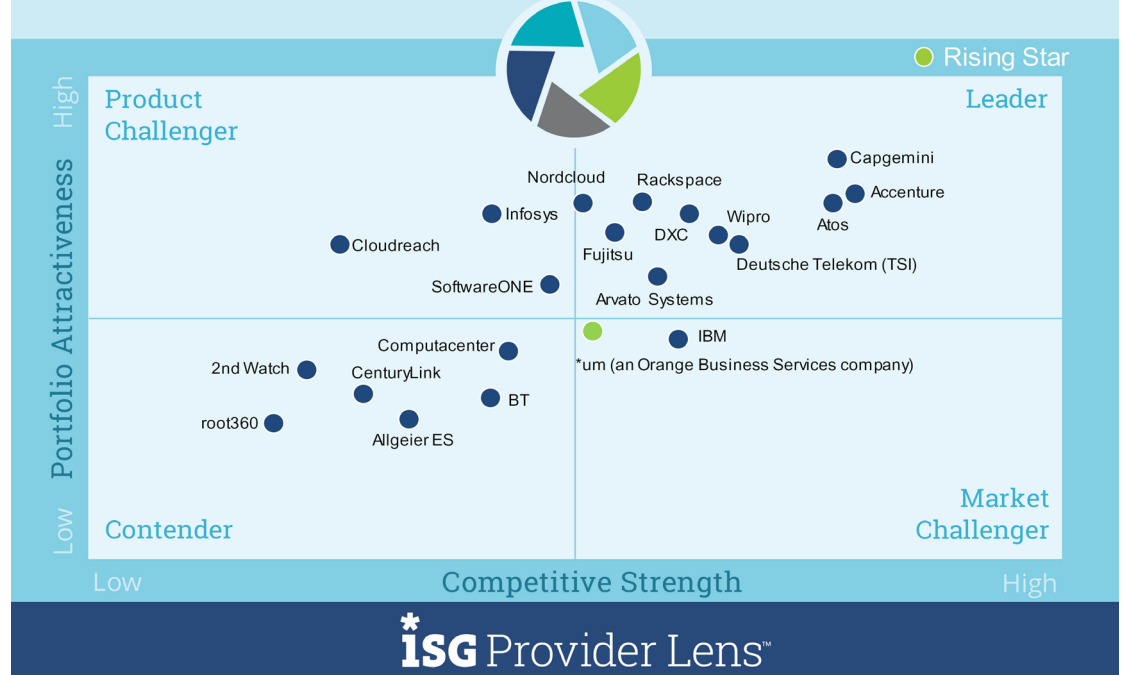
MANAGED PUBLIC CLOUD SERVICES FOR LARGE ACCOUNTS

Definition

Managed services providers (MSPs) for public cloud provide professional and managed services on top of third-party public cloud IaaS and PaaS hyperscale platforms. At a broad level, these services include provisioning, real-time and predictive analysis and monitoring and operational management of the customer's public and multi-cloud environments. The providers are aiming to maximize workload performance in the cloud, reduce costs and ensure compliance and security. Specially developed or licensed cloud management platforms and tools are used to serve customers with the maximum amount of automation, and to provide the necessary transparency on the managed cloud resource pool in terms of capacity utilization and costs, including self-service administration.

Public Cloud - Solutions & Service Partners
Managed Public Cloud Services for Large Accounts

2019
Germany



Source: ISG Research 2019

MANAGED PUBLIC CLOUD SERVICES FOR LARGE ACCOUNTS

Definition (cont.)

The services provided typically include:

- Professional services for the management and monitoring of CPU, storage, memory, databases, operating systems as standalone or microservices or virtual machine and container services;
- Operating system, middleware and application upgrades and patching services;
- Service portal for expense management (chargeback and show back) and identity management or IT service management (ITSM);
- Governance and compliance management;
- Support services such as incident management, configuration, security services and automation set-up.

Eligibility Criteria

- Operational excellence and well-defined professional services;
- Expertise in configuration management of platforms, systems and containers;
- Experience in building and managing public and multi-cloud environments ;
- Support for software code development, cloud-native and legacy system integration;
- DevOps experience;
- Experience with API-enabled automation and cloud analytics;
- Mature security processes;
- Support for different client roles such as IT technicians and developers;

MANAGED PUBLIC CLOUD SERVICES FOR LARGE ACCOUNTS

Eligibility Criteria (cont.)

- Partnerships with relevant public cloud providers and respective managed service provider (MSP) certificates for AWS, Azure, GCP or others. Typically, MSPs must showcase customer cases and a certain amount of consumption-driven and recurring revenue in addition to participating in joint business planning sessions and passing multiple certifications and audits to ensure the skills and knowledge for each of these hyperscale platforms:
 - Azure CSP 1 or 2 — Silver, Gold or Expert partners: Administrator, Solutions Architect, Developer, DevOps/security/AI/Data Engineer, domain specialization and cloud platform;
 - AWS: Registered, Advanced or Premier partners: Solution Architect, DevOps Engineer, Developer, SysOps Administrator, migration consulting/delivery, domain specialization;
 - GCP: Registered, Premier partners: Cloud Architect, Data Engineer, DevOps competency, domain specialization.

Observation

Large enterprises are looking for partners that provide globally scalable operations for all kinds of platforms (AWS, Azure or GCP) and applications such as Salesforce, Workday or SAP. Many large enterprises have already started to implement DevOps methodologies for this purpose, ensuring a high degree of flexibility and speed in systems operations. In recent years, having this kind of expertise has been decisive for helping many IT providers to achieve healthy and above-average growth rates with customers of all sizes, from startups and large companies to the public sector. Accreditations such as AWS Premier Consulting Partner or Salesforce Platinum Partner and Azure Expert MSPs are excellent resources for the required competitive differentiation.

ISG believes that the completeness of a managed service vision is based on a deep understanding of dynamic customer requirements that must be translated into robust processes, specifically within the context of cloud security and governance, DevOps and automation, cost control and modular, standardized and increasingly intelligent managed services. The trend in all industries is towards infrastructure-independent environments with more complex and distributed security and automation challenges; therefore, all MSPs and their customers must adapt to learning and delivery processes.

IT service requirements management is a discipline that requires close customer involvement. The discipline is changing, specifically when it comes to public cloud services with their various and

MANAGED PUBLIC CLOUD SERVICES FOR LARGE ACCOUNTS

Observation (cont.)

innovative underlying technologies, and as the business side comes up with different requirements for connectivity and system dependency, data continuity, timeliness, availability, platform compliance and user experience than could be addressed with traditional infrastructures and associated managed service contracts. MSPs used to focus primarily on patches, incident management, security, change management and business continuity, and rarely included SLAs at the application outcome level. However, today cloud-native providers have a much stronger focus on the time-to-market, the innovation rate, increased flexibility and the mandatory system automation and scalability – simply to achieve internal cost savings and profitability. Leading service providers also tend to take advantage of continuous integration and continuous delivery (CI/CD) within DevOps approaches, embed AIOps, master container management and Kubernetes and rely on microservices or a serverless architecture. Managed public cloud service providers also participate in the public cloud consumption of each customer and set up contracts with end customers accordingly – they benefit from customers' high utilization rates.

Similar to DevOps, site reliability engineering, another feature of next-gen or cloud-native providers, applies certain aspects of software engineering to systems management and operations. The main goal is to develop and operate quality services with high degrees of reliability and scalability while also achieving strong innovation rates. It requires reducing silos in the customer dialog and optimizing the flow of information across departments and partners. Service providers can contribute their industry and other knowledge and best practices to protect customers from repeating the same mistakes. Increasingly, providers' customer teams are trained to enable customers to resume operations themselves.

- **Accenture** was able to maintain its leader position in Germany and on a global level. Accenture customers benefit from the provider's enormous experience, industry insights and industrialized cloud management tasks, a requirements to address the large accounts segment.
- Last year's Rising Star **Arvato Systems** has made it into the Leader quadrant. The company responds to market requirements very flexibly and quickly, provides innovations within the context of specific and future-oriented disciplines such as AI or blockchain and has extensive SAP and Microsoft application knowledge and skills.

MANAGED PUBLIC CLOUD SERVICES FOR LARGE ACCOUNTS

Observation (cont.)

- **Atos** is a leading provider that manages private, hybrid and, increasingly, public cloud platforms. It applies cloud security and governance, automation and intelligence services based on its proprietary cloud management platform.
- Leader **Capgemini** has achieved higher competitive strength ratings, has enhanced its public-cloud-specific MSP certifications and provides hybrid cloud competencies, including advanced automation capabilities, based on an excellent tooling approach.
- **Deutsche Telekom (TSI)** is a leader in the managed public cloud services segment and has longstanding experience with multiple public cloud platforms while also providing support for third-party platforms and providers and acquiring respective certifications.
- **DXC** is gaining ground in Germany and has been positioned as a leader with cloud-native operations, close cooperation with the leading hyperscale providers and proprietary industry and legacy applications knowledge.
- **Fujitsu** is a leader in the German large accounts segment and benefits from its group's digital transformation and public cloud initiatives, including offerings that can be implemented and refined to address local requirements.
- **Nordcloud** made it into the Leader quadrant due to its position as one of the best-qualified managed public cloud providers through its available managed services programs for AWS, Azure and GCP.
- **Rackspace** is a cloud pioneer with a product-oriented and highly transparent service portfolio. The provider is further strengthening its presence in Germany and is certainly one of the leading providers for large accounts and midmarket businesses.
- The unbelievable Machine Company (also known as ***um – an Orange Business Services Company**) is the Rising Star of this category in Germany, based on its comprehensive public cloud and analytics knowledge. [Editor's note: "unbelievable" is part of the company name and is not ISG's description of the company.] In the wake of its recent acquisition by Orange Business Services, the company is evolving into a globally acting IT service provider with great plans for the future.

ACCENTURE

Overview

Accenture is a global professional services company incorporated in Dublin, with annual revenue of \$43.2 billion and overall growth of 9 percent. Its portfolio includes consulting and integration of cloud services, platforms and technologies. Accenture employs more than 80,000 cloud experts worldwide to help its clients. In Germany, Accenture has offices in Kronenberg/Frankfurt, Munich, Düsseldorf, Berlin, Hamburg, Kaiserslautern, Stuttgart and other cities.

Strengths

Strategic partnerships with hyperscalers: Through the Accenture AWS Business Group (AABG), the company helps customers securely operate large-scale applications on AWS. Accenture has formed similar business groups with Google (Accenture Google Cloud Business Group) and with Microsoft (Accenture Microsoft Business Group). Worldwide, Accenture has more than 13,000 trained employees and over 3,400 AWS certified professionals, and more than 1,000 GCP-trained practitioners. In addition, through cooperation with Avanade, Accenture has access to approximately 45,000 Microsoft-oriented professionals, more than 5,000 of which are trained and certified exclusively for Azure Managed Services. Accenture intends to double its total public cloud professionals in the coming year. In Germany, more than 100 experts are already available to customers.

Public cloud competencies and intelligent cloud management: Accenture provides services for public cloud platforms with a high degree of automation and intensive use of AIOps to accelerate standard processes and secure integration of multiple or hybrid cloud systems via the proprietary Accenture Cloud Platform (ACP).

Local consulting expertise and refined managed services: Accenture is a strategy consultant that provides clients with the necessary foresight and thought leadership to address operational issues and take over operational services regardless of technology or cloud platform. This always includes industry insights and best practices that help clients accelerate and reduce the cost of working with Accenture. A cost-effective support model based on many locally available public cloud experts ensures quality and scalability. Accenture supports German customers through nearshore and offshore locations. Accenture also holds the most industry- and solution-specific competency certifications from AWS, Microsoft Azure and GCP. With these industry-specific competencies, Accenture has demonstrated its maturity and understanding for managing customer workloads in public cloud environments.

SLAs for applications and delivery quality: Accenture combines many years of managed services experience with the required contracting knowledge and state-of-the-art DevOps understanding. Accenture's clients benefit from structured delivery terms and story points, which are governed by SLAs and ensure that services are always delivered in accordance with contractual obligations.

ACCENTURE

Cautions

Accenture is a very large, complex service company and is challenged to reduce its complexity while ensuring the necessary transparency, speed and innovation. Customers may be overwhelmed by the multitude of offerings and options.

A leader such as Accenture needs to standardize its services to scale accordingly, but also needs to be flexible and able to recognize and address individual customer requirements. This is a constant challenge for Accenture, and requires the right balance between local (i.e., expensive) and lower-cost offshore resources.

Accenture offers a very wide range of services and maintains many partnerships, and can leverage strategic business groups or receive support accordingly. The provider is now challenged to really “live” these partnerships and ensure their sustainability. Accenture is closely involved with Microsoft through their Avanade joint venture, and must also ensure the continuity and consistency of processes and customer satisfaction within this constellation.



2019 ISG Provider Lens™ Leader

Accenture is a managed public cloud expert for all platforms and always offers customers the required strategy support to ensure their future viability.

ARVATO SYSTEMS

Overview

Arvato Systems is part of the Bertelsmann Group and includes the Arvato service division, with sales of €4.1 billion Euro (up 4.1 percent), including 39 percent from Germany. Arvato Systems has more than 2,500 employees that provide IT and cloud services, both internally and for companies in 20 countries worldwide. With revenues of nearly €400 million in 2018, mainly generated in Germany, Arvato Systems offers technical knowledge, industry expertise and a clear focus on digital and innovative topics. Arvato Systems has many ISO certifications.

Strengths

Strategic managed services portfolio: Arvato Systems refines common “plan-build-run” procedures both on the tactical and strategic levels to help reduce customers’ cost of operations, increase quality and flexibility and accelerate the go-to-market speed. Services are based on state-of-the-art methodologies, tools and the provider’s migration and service knowledge for Microsoft and SAP. Arvato Systems customers from multiple industries request and get multi-cloud, and increasingly, public cloud expertise.

Comprehensive and innovative cloud management: The cloud management platform design is based on third-party tools and APIs, and provides all important features such as service requirements management, provisioning, orchestration, automation, governance and guidelines, consumption monitoring and measurement, resource utilization optimization, access management and service level management and monitoring.

Successful transformation and hyperscale certifications: Arvato Systems has MSP and DevOps certifications for public cloud providers AWS and Azure and also employs local public cloud and innovation experts, including for Google.

Organizational change: The provider has set up an internal delivery community and increased marketing efforts to win new customers. Meanwhile, customers benefit from the end-to-end responsibility Arvato Systems has implemented, from the first contact to operations, including continued development and maintenance.

ARVATO SYSTEMS

Cautions

Arvato Systems still faces challenges to recruit, certify and retain experienced staff. While talent management is a difficult task, it also helps increase the delivery quality and scalability and is driving relevant innovation. Arvato Systems must provide new incentives and focus on partner awards by AWS, Azure and Google to increase its visibility and traction.

The AWS Advanced Consulting Partner status is the minimum requirement for a managed public cloud leader, but Arvato Systems must strive to also achieve accreditation as an AWS Managed Service Partner and other specializations for industries or solutions, and increase respective investments accordingly. While the ongoing certification for AWS DevOps competence is important, it is not sufficient. Arvato Systems needs to build up an in-depth partnership with Google so it can service the three top platforms with the same quality of service.



2019 ISG Provider Lens™ Leader

In its dialog with customers, Arvato Systems has a focus on perspectives, BizDevOps and speed through end-to-end responsibility across multiple public clouds.

ATOS

Overview

Atos is a French, globally active digital IT services provider that aims to strengthen customer focus through a reinforced vertical go-to-market approach. Atos employs 120,000 people in 73 countries; in 2018, revenues amounted to €12.3 billion, including €2.1 billion that was generated in Germany. Atos offers a very broad and deep range of end-to-end cloud services – from consulting and implementation to operating private, hybrid and public cloud services, Atos has a pool of more than 1,000 certified engineers for the top public cloud providers and more than 3,000 cloud and 4,500 security experts. Atos Canopy is the flagship portfolio that comprises public and hybrid cloud services.

Strengths

Cloud security and governance: As a security expert, Atos offers customers an extensive and deep portfolio of managed security and cloud governance services, including accelerators in the form of best practices for almost all cloud platforms. Thousands of experts provide customers with comprehensive security monitoring and alerting support that are fully integrated into the Atos Global Security Operations Center. Atos always ensures compliance with corporate data governance standards.

Highly professional management of all platforms: Atos is an AWS MSP Partner that has again achieved the highest ratings. It is also an Azure Expert MSP and Google Premier Partner and is pursuing a strategic partnership with Google.

Cloud platform management: Leveraging leading tools such as Ansible, Chef, Puppet, ServiceNow and PowerShell, Atos offers customers a fully integrated platform, ranging from simple automation of repetitive tasks to intelligence integration and AI-guided automation.

Cautions

Atos continues to market the Atos Canopy Managed Public Cloud Services brand, but does not use this name consistently enough to create added value.

Atos' AWS competencies are not on the same level as Microsoft Azure, and Atos must continue to work on its Google certifications and respective knowledge transfer among employees across divisions and regions. However, the current AWS MSP status was recently renewed and confirmed with high ratings. In Germany, the provider must work to achieve 100 percent scalability of its AWS knowledge.



2019 ISG Provider Lens™ Leader

Atos has undergone very strong development and has expanded its private and hybrid cloud management expertise to comprise practically any public cloud. It provides an impressive offering with state-of-the-art automation and enterprise-grade integration.

CAPGEMINI

Overview

Capgemini is a global IT service provider and integrator with 210,000 employees and headquarters in Paris. In 2018 the company generated revenues of €13.2 billion, which was an 8.1 percent increase. Its global revenues from public cloud services in 2018 amounted to approximately \$300 million. Capgemini is an AWS Premier Consulting Partner and Gold Azure Partner. Capgemini has more than 5,000 employees working to deliver cloud services. In 2018 global revenues with public cloud services amounted to approximately \$300 million.

Strengths

Relevant MSP experts and certifications: In the last year Capgemini has doubled the number of local cloud experts and received the Azure Expert MSP certification. The provider has at least a dozen top-class cloud architects that are the spearhead of the community in Germany, consisting of 6,000 architects that are familiar with the latest approaches to public cloud migration. Capgemini is one of only few very experienced managed service partners for SAP on hyperscaler clouds. With Gold certifications for Microsoft, including Cloud Platform, Cloud Productivity, CRM and Datacenter, and the Google Cloud Premier status, Capgemini is prepared to address all kinds of requirements.

Automation as healing mechanism: To improve operational excellence, Capgemini has developed a unique program with a strong focus on task automation. Capgemini was able to reduce the MTTR (mean time to response) rate by 50 percent and resolving 35 percent of all incidents through automated healing mechanisms, which has reduced downtime for customers and has increased their productivity, while reducing the error rate. The company has also implemented low-touch and zero-touch capabilities.

Agnostic cloud platform with many features: Capgemini Cloud Platform provides enterprises with cloud operations services and the flexibility they need to manage multi-cloud and hybrid cloud environments through

24/7 next-gen cloud operations. It effectively monitors cloud environments to safeguard the client's IaaS, PaaS or SaaS services. It also includes a tool set for cloud-native development, API management and integration, DevOps, iPaaS and container management. Client scripting tools such as ARM Template, CloudFormation, Terraform and custom scripts are available to allow for the use of native cloud APIs. Customers can use Capgemini's DevOps-as-a-service tool stack to speed their own infrastructure-as-code capabilities. The platform also features resource consumption monitoring to ensure cost transparency for customers. Open-source tools are combined to provide services based on a consumption-based payment model to offer customers maximum flexibility, innovation and a cloud philosophy.

CAPGEMINI

Cautions

Capgemini has made only limited progress in providing services on Google Cloud Platform. Compared to the competition, its revenues and customers are still insufficient. Capgemini also needs to improve the number of GCP-certified engineers, train a sales solution team for Google and its specific services, and develop use cases accordingly.

The Intelligent Automation Management Platform (CIAM) is a very attractive service that is frequently requested by enterprise customers, but lacks integration with the cloud management platform and is currently rather perceived as a complementary offering.



2019 ISG Provider Lens™ Leader

Capgemini is an accomplished managed public cloud provider with hybrid cloud competencies and advanced automation based on high-quality tool orchestration capabilities.

DEUTSCHE TELEKOM (TSI)

Overview

Deutsche Telekom, or T-Systems (TSI), has a focus on large accounts and provides telecommunications and other services for all kinds of IT trend topics. Cloud services comprise cloud platform development, operations services and transformation consulting to help customers build IaaS, PaaS and SaaS services in private, hybrid and public cloud environments. In 2018, T-Systems generated nearly €7 billion in revenues and had 37,467 employees. In 2018, the provider's digital unit was again able to achieve double-digit growth rates for its digital and innovative cloud business. About one seventh of overall revenues, or €1 billion, is generated with cloud services; one third of those cloud revenues are made up of public cloud services and the managed service business.

Strengths

Managed service and public cloud expertise: In 2018 the provider announced its strategic support of public cloud platforms such as AWS and Azure. The move was rather late, but pursued with great commitment. T-Systems has many years of experience and has been familiar with public clouds and their management, even before it trained and certified many experts. Meanwhile, customers benefit from the provider's extensive expertise with hybrid and multi-cloud architectures, available public cloud certifications and DevOps skills. T-Systems' cloud project services are based on an agile and DevOps approach.

Cloud management: T-Systems provides cloud-native and infrastructure-as-a-code based operations for cloud developers and DevOps teams, and gives business users modern dashboards for its operations services. Customers receive cross-cloud monitoring, cost and governance management and access to shared services and IT service management, plus important long-term and archive storage options and access to the cloud marketplace. T-Systems is an innovative integrator with the goal of ensuring zero outage for customers and SLA-compliant operations based on machine learning components.

Research funds: Deutsche Telekom (TSI) is renowned for its secure and reliable managed infrastructure, platform and integrated orchestration services in hybrid and pure public cloud environments. Future growth will be supported by approved investments in research and development of managed public cloud services.

DEUTSCHE TELEKOM (TSI)

Cautions

T-Systems must intensify, enhance and communicate its existing skills, including certifications for all public clouds; the best approach would be through customers and use cases. To date, support for Google is missing, but should be added to the roadmap in 2020. IBM and Alibaba should also be considered as future partners in the medium-term. T-Systems could better communicate its very intense ISV and public SaaS-oriented partnerships to the market.

Marketing is still too focused on technical topics, managed services and the proprietary cloud, and T-Systems is missing the chance to position itself as a cloud-agnostic IT service provider and thought leader. The company lacks peak events and partner awards, which T-Systems could easily integrate into marketing communications. The ongoing reorganization must focus on the provider's own data center assets and its management within all organizational units, and the company is challenged to redefine KPIs and increase its awareness as an independent, future-oriented service provider.

Capabilities such as available ServiceNow platform competencies for enterprise-grade cloud management and billing reports should be communicated to the market – customers are struggling with these challenges and T-Systems is ready and capable to address these needs with enterprise-level hybrid and multi-cloud management offerings.



2019 ISG Provider Lens™ Leader

T-Systems provides a comprehensive managed cloud service portfolio and has added hyperscale public cloud accreditations, which is exactly what customers want.

DXC

 Overview

DXC is a global IT service provider headquartered near Washington, DC. Total revenues in fiscal 2018 amounted to \$20.7 billion. The company employs 130,000 people and has presence in more than 70 countries, including more than 20 offices in Germany that were formerly owned by HPE and CSC. DXC has more than 6,000 employees that are certified for the top public cloud platforms. The company has more than 800 managed services customers worldwide. Its Managed Service and Transformation portfolio has focus on large enterprises and the public sector.

 Strengths

Innovative, KPI-based managed cloud services: DXC Bionix and EMMA Services automate cloud infrastructure deployment, management and governance. DevOps pipelines in deployment environments for the software development life cycle (SDLC) are also part of the solution. Besides machine learning components, additional strengths include seamless integration into service catalogs and approval workflows, and budget and cost management in combination with ServiceNow. EMMA also relies on self-learning algorithms and proposes profound solutions.

Technological independence and enterprise readiness: DXC provides clients global and local access to many talents and an extensive partner network. The company has 2,500 public cloud experts to professionally manage AWS, Azure, Google and VMware platforms. DXC also has an SAP practice and ServiceNow partnership, which are relevant for many enterprise customers. The ability to develop cloud applications and seamlessly integrate hybrid cloud environments is another DXC advantage that is often required by large enterprises.

Improved hyperscaler relationships: DXC has implemented an Azure and an AWS Academy training program and has continuously enhanced its skills for the top hyperscaler offerings. DXC is a Microsoft Preferred Gold Partner and an Azure Expert Managed Services Partner. In 2018, the DXC-AWS Business Group was established with the goal of developing digital transformation services for enterprise customers; in 2019, analysis workload migration capabilities were developed on Azure. In 2019 DXC has also partnered with Google (attaining Premier Google Cloud Partner status), Alibaba and Oracle. These partnerships demonstrate the provider's commitment to mastering public cloud services for customers at the highest level.

DXC

 Cautions

The partnership with Google heralds the launch of the Google Cloud Platform Centers of Excellence (COE) and a Google Cloud Artificial Intelligence (AI) COE. While it is a good step to build on Google as a strategic partner, the provider must actively drive and sustain all partnerships. Considering the many existing high-level partnerships, this is a difficult task that could not always be accomplished in the past.

DXC's go-to-market and the portfolio presentation partly lack structure; for example, trend topic competencies such as cloud are mixed with common service catalog categories such as consulting and presented on a single level. The service catalog is only available in English. In this context, DXC must sharpen its focus and also prepare local references or case studies and position them accordingly.



2019 ISG Provider Lens™ Leader

DXC is highly accredited for any hyperscale platform and for ITSM; the provider relies on in-depth partnerships that deliver added value to customers.

FUJITSU

Overview

Fujitsu is a Japanese information and telecommunications provider with 132,000 employees; in 2018, the company generated revenues of \$36 billion. Headquartered in Munich, Fujitsu Central Europe offers a portfolio of technology products, solutions and services that range from terminal equipment and data center solutions to managed and maintenance services, cloud solutions and outsourcing. Fujitsu acts as an independent consultant for the major public cloud platforms, but also offers its own cloud infrastructure services out of Germany based on hybrid service models.

Strengths

Portfolio with a focus on market requirements: Fujitsu has completely revised its portfolio and has made big progress. The AWS and Azure Managed Services partnerships are on a very high level. They cover native cloud computing management and specialized knowledge of SAP and VMware workloads. Fujitsu therefore is able to cover hybrid cloud scenarios without any problems.

Comprehensive multi-cloud services: Fujitsu offers its customers certified public cloud management capabilities, from planning to deployment, integration and operations in hybrid and multi-cloud environments.

Digital co-creation and application management: Fujitsu offers managed services for infrastructure and for the software and applications running on the infrastructure, including ERP solutions, IoT and analytics. It can provide application provisioning, including lifecycle management.

Cautions

While local manpower and knowledge at Fujitsu Germany have been expanded significantly, there is still room for improvement compared to global standards when it comes to demanding customers and large account management. The visibility of available support for code development and API-based automation is insufficient.

The experience of the provider's broad channel network should be used to gain customer access more quickly and to demonstrate local references. Closer cooperation with local AWS, Microsoft and especially Google partners could also lead to success.

Fujitsu offers a healthy balance of pure public cloud managed services and specialized SAP and VMware or Oracle workload services. An IBM partnership could be useful to enhance capabilities to address enterprise-grade workloads and provide access to state-of-the-art AI services. The same applies for the Google partnership for GCP, G Suite and Google Analytics Services.



2019 ISG Provider Lens™ Leader

Fujitsu Germany can leverage the group's competencies and has built up a highly attractive and transparent portfolio of native managed public cloud services.

NORDCLOUD

Overview

Nordcloud is an IT and cloud service provider with European roots and a focus on public cloud consulting, professional and managed services and cloud-native application development, including AI/ML and IoT. Nordcloud maintains the highest partnership levels with AWS, Azure and Google. Nordcloud supports customers during their entire public cloud journey, from strategy development to governance, cost management, digital transformation and DevOps to operations. Currently, Nordcloud has presence in Finland, Denmark, Germany (DACH), the Netherlands, Norway, Poland, Great Britain and Sweden.

Strengths

Cloud-native resource management: Nordcloud uses the infrastructure-as-code principle for any operations and always combines it with native cloud platform solutions such as CloudFormation, ARM and third-party tools such as Terraform for building and maintaining the infrastructure.

Predictive operations: Nordcloud ensures clean pipeline management to provide customers with reliable transaction verification, auditing and processing.

Operational excellence: Service delivery managers, cloud solution architects, cost optimization engineers and project managers are taking care of service delivery, which results in improved system environments, increased security, a higher degree of automation, and ultimately cost savings.

Exemplary hyperscale partnerships: Nordcloud is an Azure Expert MSP, AWS Premier Consulting Partner and MSP and Google Premier Partner. It stays up-to-date on the latest functional updates of the individual platforms to ensure innovation, efficiency and cost savings for customers.

Proprietary IP reflected in service levels and contracts: Nordcloud has a focus on building its own IP for managed services automation, cloud cost optimization and security. It offers customers clearly structured and calculated managed service packages that are completely flexible and professional and are based on consumption, fixed prices or T&M.

NORDCLOUD

Cautions

Nordcloud lacks a cloud management platform as a point of contact for customers for its professionalized hybrid vendor management or to provision self-service options for the cloud resource pool. However, the company is continuously working to develop such a platform, which will soon provide customers with additional managed services functions in the self-service mode.

By nature, Nordcloud has little affinity with legacy infrastructures and respective migration projects and the operations of rather traditional core business applications. The provider could add experts to expand its portfolio and to better address such customer requirements for SAP or other ERP migrations and optional operations to generate recurring revenues.

The number of trained Azure and Google experts for Germany is not sufficient. Nordcloud is striving to always ensure the highest partner certifications and should pursue this strategy accordingly.



2019 ISG Provider Lens™ Leader

Nordcloud is one of few cloud-native service providers with convincing and innovative operations models and philosophies.

RACKSPACE

Overview

Rackspace is a managed cloud and hosting provider based in the U.S. state of Texas. The company operates in 10 countries worldwide and has more than 2,000 certified cloud experts that support its managed services business. Revenues in 2018 were \$2.6 billion and about one-third were generated in EMEA. Rackspace manages multi-cloud environments based on a product-oriented approach and supports customers of all sizes and industries in its "cloudified" digital transformation or platform operations. In addition to consulting services, the portfolio covers services for infrastructure, applications, data and security. Rackspace is highly specialized and certified for all leading hyperscale providers.

Strengths

Product-oriented, "Fanatical" support: Rackspace is an experienced provider and has received several awards for its "Fanatical" support model. Customers benefit from Rackspace' extensive experience, both globally and locally. Rackspace has certified engineers that provide support for AWS, Microsoft, Google, Alibaba and other platforms.

Native cloud management based on self-service elements: Based on AIOps and self-service elements for control and monitoring, Rackspace works with solutions such as CloudHealth for cost optimization or Terraform CI/CD pipelines for agile service integration and delivery, relying on best-of-breed partnerships to offer customers high quality and reliability.

Cloud and architecture reengineering skills: Rackspace helps customers analyze applications, configure target platforms accordingly and to ensure connections via rather complex integrations; this is done within almost 20 percent of all managed service contracts. Its partnership with MuleSoft helps to ensure fast and stable integrations.

High quality of service: Rackspace manages many customer platforms, servers and data and offers excellent quality with clear contract and price structures based on its longstanding experience in this market. Rackspace provides customers with a direct contact person and proactive updates and problem solutions. Cost control is another essential aspect of the Rackspace service offering.

RACKSPACE

Cautions

While Rackspace is an experienced provider with strong global marketing messages, there is a lack of local success stories to convince customers of its stability and implementation capabilities, including use cases for SAP and Oracle workloads, which are already on the roadmap for Q4 and demonstrate the company's knowledge above the infrastructure level.

Rackspace is building up additional offices and recruiting more German-speaking experts and is well on its way, but must do so more quickly when compared to other leading providers, specifically when it comes to Azure and GCP experts and projects.

Some customers would prefer a mixed billing model based on T&M, fixed price and cloud resource consumption rates. Rackspace has already taken this feedback to heart and has launched services as discrete subscriptions to enable customers to adapt services or scale them flexibly as required. However, some components are still missing.



2019 ISG Provider Lens™ Leader

Rackspace is one of few service providers with clear structures, transparent pricing and the goal to put operations management back into the hands of its customers.

WIPRO

 Overview

Wipro is one of India's leading IT service providers and is headquartered in Bangalore. The company's total revenues amount to \$8.3 billion. Wipro has presences in more than 30 countries and has four offices in Germany with over 1,500 employees. Wipro has a comparatively strong market presence in the DACH region. The provider employs more than 4,000 public cloud certified engineers worldwide; about 2,500 of these experts are certified for AWS and almost 1,500 for the Azure platform and more than 200 for Google Cloud. About 100 certified full-time employees are available for managed cloud services. Last year, the provider's managed cloud service revenues achieved a growth rate of 114 percent.

 Strengths

More than infrastructure support: Wipro's main strengths include application-level SLAs and a great deal of expertise in connecting and integrating applications through the Dynatrace partnership. Wipro also offers multi-cloud self-service management and best-practice incident and problem management based on ITIL to address both legacy- and stability-oriented preferences. It appeals to agile and innovation-driven users that are open for DevOps approaches. In Germany, Wipro can rely on its cellent GmbH acquisition for its respective application and industry expertise.

Deepening the BoundaryLess approach: The company's "BoundaryLess" services have been optimized for data centers, data security, containers and Cloud Exchange. Specific strengths include automated workload evaluation, migration, DevOps pipeline creation and containerized platform services, complemented by the continuous optimization of cloud costs and resource utilization efficiency.

Dedicated centers of excellence: Based on partnerships with Red Hat and AWS, Wipro can leverage various cloud centers of excellence for testing all kinds of use cases, such as automation in the provisioning, orchestration, configuration and IT resource lifecycle management. Workloads can be tested and developed continuously within multi-cloud and public cloud scenarios, ensuring failsafe and innovative services for customers.

Native cloud focus: Wipro has a focus on driving native cloud services to modernize workloads and extend them through the "DevLite" DevSecOps platform. Wipro has extensive native cloud services capabilities and a special Cloud Studio division that resolves monolithic applications through container-based integration solutions into microservices architectures.

WIPRO

 Cautions

Wipro does not offer global services such as real-time and predictive analytics from Germany. It should ensure a faster global rollout, especially for this important discipline, which ensures security in multi-cloud and public cloud scenarios. DACH customers attach great importance to security and the use of state-of-the-art analytics for the predictive analysis of systems or potential anomalies. Certification according to the BSI C5 standard might be a worthwhile option and should be evaluated accordingly.

The planned tripling of Wipro experts available in Germany has not been achieved yet. Wipro and other comparable providers are well advised to pursue more cautious marketing and commitments about their capabilities. Every provider has gaps, and showing these weaknesses might not be altogether bad, since doing so increases customers' trust in the provider's credibility.

While Wipro's AWS and Azure partnerships are well advanced, the provider needs to strengthen Google its partnership. Its amount of certified GCP experts is rather limited, even on a global level, and revenues in Germany are still missing. Considering Google's recently initiated and expanded EMEA Partner Program, such an approach would provide great opportunities for Wipro.



2019 ISG Provider Lens™ Leader

Wipro is an innovative provider that offers customers qualified and highly automated managed public cloud services; German customers benefit specifically from Wipro's industry expertise.

RISING STAR: *UM (AN ORANGE BUSINESS SERVICES COMPANY)

 Overview

The unbelievable Machine Company (*um) is a subsidiary of Orange Business Services (OBS), an IT service provider of the Orange Group with a focus on telecommunications services and related managed services. Orange Business Services is evolving into a global player with an offering of end-to-end IT and integration services. In 2018, the company generated revenues of €7.3 billion. Recent cloud-related acquisitions include Basefarm (which had acquired *um in 2017), which gives OBS more customers and operations in Germany and elsewhere in Europe. *um continues to act as an independent company. It now has access to a total of 2,200 cloud experts. Orange Business Services wants to strengthen its global and regional presence in the IT services segment by leveraging its IoT, cloud, data and AI, application development and cybersecurity expertise.

 Strengths

Managed service competence: In Germany, *um offers 24/7 services for Internet applications, professional operations, system landscape expansion and continuous optimization. Customers receive profound support and the associated monitoring through a qualified team that takes agile operating methods such as DevOps and Kanban to heart.

Cloud partnerships and analytics focus: OBS and *um are AWS Advanced Consulting Partners and Cloud Solution Providers for Microsoft and Azure and provide corresponding managed services. Their analytics and data science competencies are of specific relevance for many customers.

Secure cloud management: Orange Cyberdefense has a comprehensive cloud security offering for multi-cloud customers. The provider invested heavily in cybersecurity operations centers (SOCs) to eliminate risks and threats to customers in the public cloud.

Reality and vision go hand in hand: In Germany, the company relies on accomplished experts for its managed services and cloud and analytics consulting offering. *um has made a name for itself as a longstanding specialist in the market. OBS has also developed a robust, production-oriented roadmap based on the acquisition of IT service management companies.

RISING STAR: *UM (AN ORANGE BUSINESS SERVICES COMPANY)

 Cautions

Orange Business Services is still a telco integrator and is not yet known as a cloud service provider; the provider must quickly integrate the acquired business units without destroying their image and success. The local units must be granted a certain degree of autonomy, while globally standardized services must also be defined and implemented satisfactorily for all parties.

Orange Business Services has a focus on cloud, cybersecurity and AI for data analysis. The company will soon have to disclose figures to show that it is on the way to shifting revenues from a 60-percent telco share to a 60 percent-share of IT services business within the next five years.

No member of the comparatively young company OBS has received official hyperscaler MSP accreditation yet, which is urgently needed for the company to evolve into a leading managed public cloud service provider.



2019 ISG Provider Lens™ Rising Star

Orange Business Services provides a high degree of security, end-to-end services and managed service competence for public cloud infrastructures and platforms.

IAAS – (HYPERSCALE) INFRASTRUCTURE AS A SERVICE

Definition

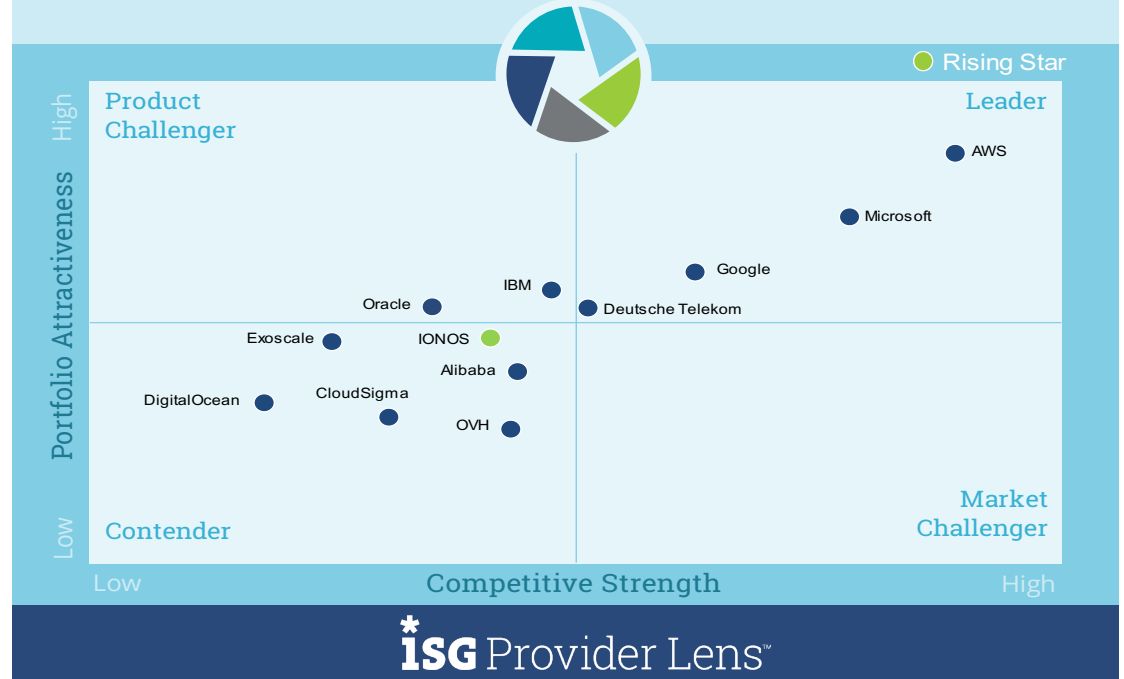
This quadrant covers the hyperscale public cloud providers and their global and local offerings. The hyperscale IaaS quadrant includes companies that provide virtual compute and software resources on a public cloud platform that are used to build an IaaS offering. The coverage includes an evaluation of the overall cloud computing investments and scale of IaaS public cloud providers. It also evaluates the public cloud IaaS coverage in terms of availability zones and various data regulation policies across geographies. However, it does not include professional or managed services offered directly by some providers.

Public Cloud - Solutions & Service Partners

2019

IaaS - (Hyperscale) Infrastructure as a Service

Germany



Source: ISG Research 2019

IAAS – (HYPERSCALE) INFRASTRUCTURE AS A SERVICE

Eligibility Criteria

- Innovative portfolio of infrastructure services (compute power, storage, network, backup, etc.);
- Powerful and elastic data center infrastructure around the globe;
- Enterprise integration and migration support through partnerships and solution guidelines;
- Easy access, price transparency, dynamic (usage-based) and fixed (reserved) billing models;
- Acknowledged industry standards and certifications, strong data privacy commitment and sophisticated cybersecurity approach;
- IaaS as code and serverless computing support in conjunction with highly automated provisioning, event triggering and failover concepts;
- Container compatibility and management services for easy migration and to run applications;
- Specialized partner program with a broad partner ecosystem to support local customer requests.

IAAS – (HYPERSCALE) INFRASTRUCTURE AS A SERVICE

Observation

Hyperscale providers deliver global services and also run cloud data centers in practically all major economic regions. Where blank spots exist, hyperscale providers are increasingly partnering with data center operators or highly standardized and professional colocation providers to improve the latency and security of services for potential new customers in those areas. Providers are clearly pursuing an IoT edge or hybrid cloud strategy that allows customers to either gain on-premises experience or to connect critical systems in a private cloud to the public cloud. VMware partnerships are an effective means for this approach and are appreciated by customers, as is SAP compatibility, which is achieved through SAP partners.

Customers can expect many innovations and shorter project cycles, especially for lift-and-shift projects. The trend is towards serverless computing elements, Kubernetes compatibility and self-controlling or

intelligent tools, including data trading and preconfigured algorithms. Providers are advancing their portfolios, including database systems, to increase independence from third-party vendors and prevent lock-in.

- **AWS** remains a leading hyperscale infrastructure-as-a-service provider that is highly innovative, close to customers and their needs, and provides a very dynamic partner environment with in-depth qualifications.
- Open Telekom Cloud (OTC) by **Deutsche Telekom** has been advanced and is operated by T-Systems. It is one of the few local platforms that bear great relevance and enjoy good adoption in Germany, specifically with its wide range of storage offerings.
- **Google** has made it into the Leader quadrant with its focused, state-of-the-art offering that is convincing both partners and customers alike; customers can expect good prices and attractive PaaS and machine learning features.

IAAS – (HYPERSCALE) INFRASTRUCTURE AS A SERVICE

Observation (cont.)

- Azure by **Microsoft** is gaining ground and is among the leaders in Germany. The company's new data center and its discontinuation of the Deutschland Cloud through T-Systems, plus its extensive IaaS features will also help it to achieve impressive growth rates.
- **IONOS** took over ProfitBricks, a German IaaS specialist, and offers a very powerful, relatively limited IaaS portfolio at attractive prices. It is the Rising Star in the segment. The portfolio is tailored to address German customer requirements.



AWS

 Overview

Amazon Web Services (AWS), an Amazon subsidiary, is based in Seattle, USA. AWS is one of the largest public cloud providers. In 2018, the company generated revenues of 25 billion USD, which is an increase of 47 percent, compared to the previous year. As of to date, AWS has more than 69 availability zones in 22 geographical regions and is expanding continuously across the globe. The AWS offering includes all kinds of services, from bare-metal servers, VMs and containers to database services, machine learning, cloud workplaces and a cloud marketplace to add third-party solutions. AWS is used by more than 80% of the DAX30 companies from Germany. Through the European AWS S.à.r.l. subsidiary customers can conclude European contracts.

 Strengths

Breadth and depth – the offering is maturing strongly, including core components: Thanks to the provider's early involvement and the high R&D budget, the innovation rate continues to be far above the market average. In addition to significant serverless computing and Lambda enhancements, also for mainframes, and new services such as "AWS Transit Gateway", which enables customers to connect and transparently manage VPCs with their local networks via a single gateway, other differentiators include the new Global Accelerator service for app scalability and performance control as well as the Cloud Map service. This kind of services accelerates adoption for critical infrastructures, business apps and high-performance computing cases that benefit from EC2 C5n instances with up to 100 Gbps network throughput and use the proprietary "Nitro" processor design to introduce a new and innovative approach to virtualization. Based on Amazon S3 Glacier Deep Archive, data that are accessed only rarely can be stored long-term and cost-effectively. AWS thus enhances their own standard!

Direct, fast, secure and hybrid-ready AWS connection: With nearly 90 AWS direct connect locations (worldwide) and close partnerships with local colocation and hosting service providers, AWS is moving its public cloud infrastructure closer to customers' important private clouds, including IoT/edge computing use cases. AWS provides a software-defined environment with low latency and meets country-specific compliance requirements. New services such as AWS Outpost provide native AWS services, infrastructure, and operating models for local computing needs.

Suitable for all company sizes and industries: AWS IaaS Services are in demand among start-ups as well as midmarket companies and large accounts and also offer great advantages for SAP and/or VMware customers thanks to a tailored architecture and cooperation for these kinds of workloads.

AWS

Cautions

AWS has strong Software/SaaS partnerships including a long-standing collaboration with Microsoft and close partnership with SAP, dating back to 2011. Customers can also leverage a continuously expanding number of SaaS products running on AWS through the AWS Marketplace. Nevertheless it still does not offer the same amount of own business applications such as those developed or offered by SAP or Microsoft and therefore still has room for improvement.

AWS could drive use cases and solutions and provide best practices and guidelines per role, per user and per industry to help customers become more familiar with the wide range of opportunities more quickly and also drive up consumption rates accordingly.



2019 ISG Provider Lens™ Leader

AWS offers the broadest and deepest as well as most innovative public cloud platform, is far ahead of other leading providers and benefits from a booming partner ecosystem that acts as helping hand for all kinds of customers.

DEUTSCHE TELEKOM

Overview

Open Telekom Cloud (OTC) is a European public cloud service by T-Systems/Deutsche Telekom. The cloud-based deployment models cover public, private, managed and hybrid cloud services. Strengths include the security for services out of German data centers and respective operations by a German provider, and OpenStack as the platform for the IaaS and PaaS services. The offering is available in 32 European countries, based on the provider's twin-core data center and its Zero Outage program, and is provided from locations in Magdeburg, Biere and Singapore.

Strengths

Security and openness: Open Telekom Cloud features openness, based on OpenStack, local data storage and high security from the provider's data centers in Magdeburg and Biere. Customers trust the provider's reliable services and compliance with European data protection and privacy regulations and any kind of security tests. T-Systems performs regular cloud service audits.

Solid service catalog: The breadth of OTC IaaS services (compute, storage and network) and management features is sufficient. Services include image management, container management, bare-metal services, widely used storage classes and back-end services. Software-defined network (SDN) components ensure high performance and scalability and direct connectivity to other external or customer data centers.

Transparency and pricing model: OTC pricing is attractive, and a web-based price calculator with easy-to-use, drag-and-drop functionality is available. Combined with OTC's mature management and billing engine, customers benefit from an end-to-end, calculable public cloud experience without any negative surprises.

DEUTSCHE TELEKOM

Cautions

Open Telekom Cloud needs better marketing and a dedicated and widely used partner program to drive adoption and revenue growth. The secure and cost-efficient storage options are already used by many customers, so the provider should have a focus on other, non-storage use cases.

While the transmission speed of 60 Gbit/s is sufficient for many use cases, it is not at the level of the top leaders, which support up to 100 Gbit/s. OTC could improve its speed to win demanding customers.

Other leading cloud providers offer more new and specialized services such as machine learning. To keep up with the competition, the provider should accelerate innovation and increase its R&D budgets quickly. Customers are looking for data analytics use cases for monetizing data and information.

The number of data center regions could be increased significantly through close cooperation with colocation providers in Europe and beyond. Georedundancy in Germany cannot be ensured with the Magdeburg and Biere data centers; since 2019, the BSI has requested a distance of 200 km between respective data centers.



2019 ISG Provider Lens™ Leader

Deutsche Telekom maintains its position as the German alternative to the U.S.-based hyperscale cloud providers and offers an interesting portfolio with maximum security.

GOOGLE

 Overview

Google is a U.S.-based technology company headquartered in California. Google offers cloud computing services through the Google Cloud Platform (GCP), which initially started with PaaS services and now also provides IaaS services. GCP is available in 20 regions with over 60 zones in more than 210 countries – including Germany, which now has well over 100 employees. GCP is known for its aggressive pricing policy and its focus on data analytics and machine learning.

 Strengths

Special GCP focus: Although GCP offers IaaS, Google focuses on PaaS and higher-value services and hybrid cloud management. In line with its "Build. Innovate. Scale." slogan, the portfolio includes core computing and hosting, storage, networking, big data and machine learning. The Cloud Services Platform enables customers to efficiently manage workloads in hybrid environments; with the new Anthos service, run rules created once can be transferred to multiple clouds. Customers gain great management and operations flexibility for multi-cloud environments based on Kubernetes. Anthos can be regarded as a major differentiator and accelerator for GCP or public and hybrid cloud.

Performance, latency and local data storage/analysis: Google is using or expanding its own undersea cables in the Atlantic (currently under construction) and Pacific to ensure full control over data throughput, prioritization and security for customers. The data center established in 2018 is paying off: Reduced latencies and local data storage are important for end users in the DACH region and have motivated customers to use the Google data center and permanently store critical data. In the Frankfurt region, there are three availability zones for compute services, application distribution and storage, app development and the use of developer tools.

GOOGLE

 Cautions

While the EMEA partner program is making progress, the German GCP program is certainly not comparable to the AWS and Azure programs. There is still a lack of consulting and managed service partners and training facilities, and the community needs to be optimized. Customers also have difficulties finding the right partner for them.

In Germany and other regions outside the U.S., availability of new and attractive GCP services is delayed. Google must ensure that the German availability zone expands faster to make GCP as attractive as it is in other regions and to avoid latency issues that customers cannot afford with business-critical workloads. Essential feature updates, such as the event-driven serverless computing platform (Google Cloud Functions), are not available in Germany yet for compute services; Google must also work to optimize the global rollout when launching such features.

Media, entertainment and retail companies still make up the majority of Google's customers, and the company must continue to work to increase its footprint in other industries such as manufacturing, including IoT and edge computing services. For practically all public cloud hyperscale providers it is important to migrate SAP systems into their respective cloud, but GCP only plays a minor role in that area. Currently, Google is deepening its SAP partnership, which will gradually change this situation.



2019 ISG Provider Lens™ Leader

Google is making progress with GCP and is experiencing enormous demand, specifically when it comes to its app development, data analytics and AI/ML features.

MICROSOFT

 Overview

Microsoft is a large, global IT manufacturer and service provider headquartered in Redmond, Washington, USA. Microsoft Deutschland has six regional offices with approximately 2,700 employees in Germany. In cooperation with more than 30,000 partner companies, clients of all sizes and industries benefit from standard software and cloud services or Office 365 for productivity services. Microsoft operates 54 Azure data center regions and provides access to cloud services to customers in 140 countries; in 2019 it added one region for Germany. In 2018 Microsoft's Azure revenues grew at a very high double-digit rate. Microsoft made 14 major acquisitions that year, with a strong focus on cloud, AI and machine learning (ML).

 Strengths

More than solid cloud IaaS services: Microsoft Azure offers a wide range of storage options and ensures perfect connectivity to Microsoft on-premise systems. Microsoft also has a strong focus on Kubernetes, AI/ML topics and services for developers and DevOps teams.

Expansion in Europe and Africa: Microsoft plans to open new regions in Switzerland, Norway and Africa within the next few years to strengthen its presence. Recently, the provider has opened a data center in Germany to facilitate local data storage.

Cost transparency: Azure Cost Management Budgets now allows customers to track expenses. Budget plans can be created based on interaction with the responsible Azure resources. Cost plans can be created from a billing account, management group and even resource group perspective.

Edge computing services: Microsoft recently launched Azure Data Box Edge, an edge computer hardware component of Azure Stack. It demonstrates Microsoft's IoT-related efforts and commitment, as do its major acquisitions such as Express Logic.

MICROSOFT

 Cautions

While AzureStack is available as a private cloud appliance as an entry point into Microsoft's public cloud, the added value of this solution is not explained sufficiently and, thus, usage is comparatively low. The license model should be revised to provide scalability for customers. OEM, hardware and reseller-oriented partners focus on this appliance, but hardly any transformation or managed service providers do.

The feature for searching for and finding appropriate consulting partners and managed service providers was implemented relatively poorly, which prevents prospects from quickly finding the right partner for their digital customer journey.

Serverless computing and associated architectures, event processing services for maximum automation, and scalability to ensure and proactively manage cost reductions for customers are important topics that Microsoft should address more strongly. While recent advances have been made through KEDA (Kubernetes-Based Event-Driven Autoscaling), such efforts must be communicated better and must be implemented as standard for Azure.



2019 ISG Provider Lens™ Leader

While Microsoft Azure is not always the first choice for IaaS hyperscale RFPs, Microsoft does everything right in critical disciplines such as cloud apps and productivity and therefore knows how to raise customers' enthusiasm about Azure IaaS.

RISING STAR: IONOS

Overview

The merger of 1&1 Internet and IaaS specialist ProfitBricks to form IONOS has led to a new organization driven out of Germany. IONOS is backed by United Internet (UI), a listed company with more than 9,000 employees at more than 40 locations worldwide. Total revenues in fiscal 2018 amounted to \$5.7 billion. IONOS is part of the Business Applications division of UI Group. In Europe, this division is active in all major markets except Italy. Other markets are the U.S., Canada and Mexico. In the 2018 financial year, this division generated revenues of more than \$940 million; the cloud segment contributed 10 percent. The provider also offers broadband and 5G mobile networks.

Strengths

Own cloud stack and performance: IONOS is a German IaaS cloud provider with a proprietary code stack and a lot of infrastructure hosting experience. It offers full S3-compatible object storage that is billed by GB and accessible via API.

Local offering for midmarket businesses: IONOS addresses mid-sized businesses with ease of use, a good price/performance ratio and good scalability. The underlying IT infrastructure is managed by IONOS at high speed and with high service levels in the pay-per-use mode. User-friendliness and efficiency are adequate, ensuring easy access, also to customers without technical experience.

German standard and security: IONOS uses ISO-certified data centers for data protection. It provides fully GDPR-compliant delivery and has an information security management system that follows ISO 27001 and TISAX.

Services and support: IONOS offers customers free 24/7 support with personal agents via e-mail or telephone. Costs are highly transparent and are based on usage per month.

RISING STAR: IONOS

Cautions

Data encryption is still missing; this feature is in high demand and needs to be implemented quickly.

Automatic system configuration for high utilization as a smart and intelligent feature should be added. This would enable the provider to pass on potential cost savings to customers directly in cases where resource utilization is very dynamic and therefore difficult to predict and system resources are not utilized permanently.

Some services, such as OS and middleware updates and maintenance or complex and innovative machine learning components, have not been implemented and should be added quickly for IONOS to remain competitive and to catch up with local leaders.

Integration of the ProfitBricks products and existing 1&1 services has not been completed, which may confuse customers. Integration must be resolved quickly, especially for services related to the digital customer journey, so the company does not lose any time in this highly competitive market and potentially miss customers and revenues.



2019 ISG Provider Lens™ Rising Star

From a price/performance and local data protection perspective, IONOS provides an extremely attractive public cloud offering with easy access and high performance.

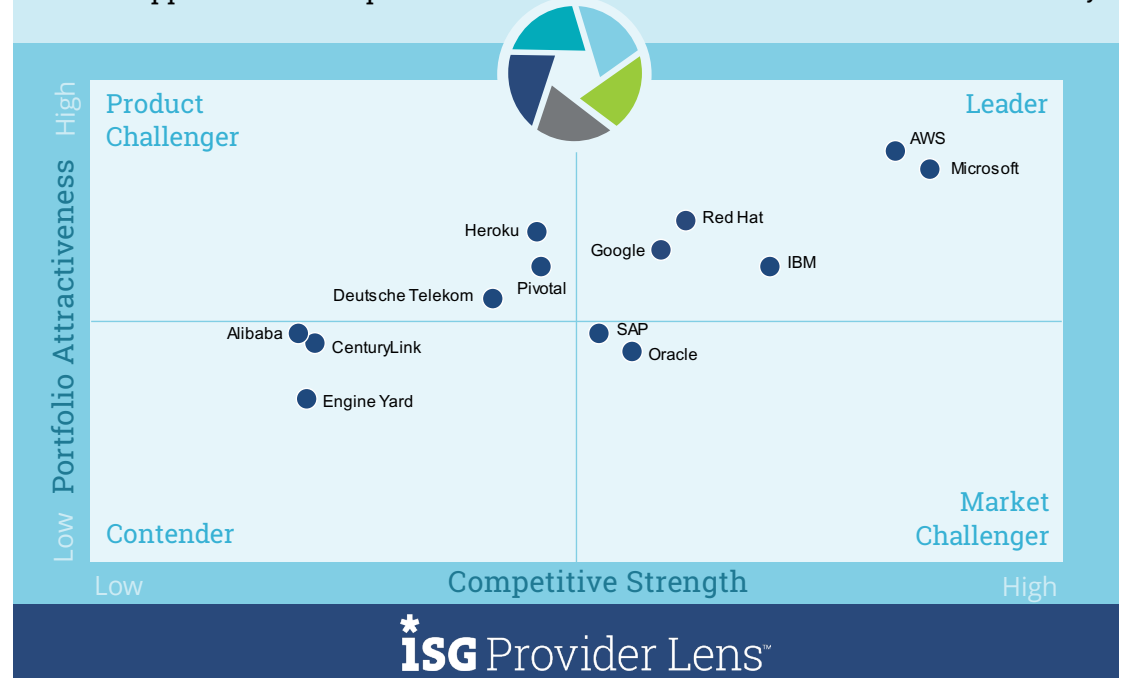
APAAS - APPLICATION DEVELOPMENT PLATFORMS AS A SERVICE

Definition

Platform as a service (PaaS), usually located between the SaaS and the IaaS layer, is a solution-oriented environment that offers multiple microservices and runtime engines for cloud-based application test and development processes that typically address all life cycle needs that a developer aims for. The services include the middleware, persistent resources, business process management, collaboration networks, databases, analytics and machine learning (ML) functions, and marketplaces for distribution purposes. PaaS providers support and guide independent software vendors (ISVs) in their go-to-market execution, and provide financial and marketing support.

Public Cloud – Solutions & Service Partners
aPaaS - Application Development Platforms as a Service

2019
Germany



Source: ISG Research 2019

APAAS - APPLICATION DEVELOPMENT PLATFORMS AS A SERVICE

Eligibility Criteria

- Highly complex test and development options, including workflows and reporting functionality for rollouts;
- Support of multiple development tools, operating systems and technologies plus platform management automation;
- Workflow support for agile development methodologies (Scrum) and DevOps;
- Open architecture, interoperability and well-documented (web service) APIs, middleware or an integration layer to merge multiple clouds, services and platforms;
- Security architecture and features including single sign-on (SSO);
- Container connection and integration;
- Innovative thinking, awareness and image in the PaaS segment.

Observation

Hyperscale public cloud platforms have a focus on application development, based on programming languages and runtime environments such as .NET Core, Java, Ruby, Node.js, PHP, Python, Go and others. Another important feature is integration of the development environment into other services, sometimes simply persistent storage options. For example, Azure Web Apps for Windows and App Engine Flexible offer good Visual Studio integration. For developers, other important options are SSH/CMD commands for fast and easy access to VMs or containers. Low-code platforms, on the other hand, often address business developers without in-depth knowledge beyond graphical user interfaces (GUI).

In addition to IDE integration, platforms provide easy-to-use command line interface (CLI) tools both in the client and in the browser. Auto-scaling for modern and microservice-oriented apps is as important as load balancing and security, in addition to flexible CPU/memory configuration and automated management of operating system components that are standard features in the PaaS segment. Intelligent access management, monitoring, seamless network access and other standards facilitate development and allow developers to concentrate on modern function and feature management, while continuous integration and continuous deployment (CI/CD) are core DevOps features that must be supported by any PaaS platform.

APAAS - APPLICATION DEVELOPMENT PLATFORMS AS A SERVICE

Observation (cont.)

Based on increasing automation, an increase in (general) intelligence and exploding ecosystems, new technology architectures are flooding the market. They reflect key native elements of the cloud philosophy: To manage IT requirements, services require and accelerate agility, continuous innovation, rapid deployment and new forms of collaboration – between IT administrators or the operations unit on the one hand, and software development or IT service management on the other. Everything related to serverless computing, microservices and low-code solutions can be regarded as cloud-native.

Corporate IT departments are also increasingly required to provide access to development platforms to enable DevOps-centric innovation teams that accelerate the time to market and to customers.

- **AWS** continues to catch up with an extremely broad and deep offering of AI- and ML-based PaaS services, which are appreciated by many developers in Germany and worldwide.
- In 2019 **Google** evolved into a Leader for PaaS services in Germany and enjoys increasing acceptance among developers, which appreciate Google's analytics, ML, AI and container offerings.
- **IBM** is a leader with an PaaS solution based on Cloud Foundry that not only supports the Mendix low-code offering but also offers many use cases and third-party solutions for refinement purposes.
- **Microsoft** is a PaaS pioneer and, as a software company, has long been one of the few leading hyperscale public cloud providers that not only offer their own app development tools and suites but have a strategic open-source focus and are engaged in many partnerships with vendors such as Red Hat and others.
- **Red Hat's** OpenShift offering is a leading and very popular platform for developing modern apps and for container management.

AWS

Overview

Amazon Web Services (AWS), an Amazon subsidiary, is based in Seattle, USA. AWS is one of the largest public cloud providers worldwide. In 2018, the company generated revenues of 25 billion USD, which is an increase of 47 percent, compared to the previous year. As of to date, AWS has 69 availability zones in 22 geographical regions and is expanding continuously across the globe. The AWS offering includes all kinds of services, from bare-metal servers, VMs and containers to database services, machine learning, cloud workplaces and a cloud marketplace to add third-party solutions. AWS is used by more than 80% of the DAX30 companies from Germany. Through the European AWS S.à.r.l. subsidiary customers can conclude European contracts.

Strengths

Exceptional focus on Germany: AWS has a very strong focus on Germany which is demonstrated through local certifications such as C5; AWS develops innovations out of Germany and introduces them into the worldwide AWS cloud. AWS makes exemplary use of their access to local customers to address their requirements and optimize the portfolio accordingly. For AWS, Germany is a very important data center/availability zones region. Many customers have already discovered and use AWS and the manifold possibilities of this platform; they are aware that the price/performance relationship for developers on AWS is very good and that the costs are often only a fraction of what is paid for on-premise or traditional hosting services.

Robust and innovative PaaS offering: AWS provides tools for the entire development process and multiple container concepts. The core component is the AWS Elastic Beanstalk offering as a runtime environment for apps and docker images, which is used to deploy and scale web applications and services developed with Java, .NET, PHP, Node.js, Python, Ruby, Go and Docker on well-known servers such as Apache, Nginx, Passenger and IIS. Developers don't have to worry about deploying and configuring the AWS infrastructure or about load balancing, health monitoring, analysis, debugging, or logging issues - AWS handles these tasks at no additional cost.

Developer-friendly platform: AWS developer tools are designed for developers working in the DevOps mode to quickly and securely deploy an application with continuous updates. Additional features include version control of the application's source code and automated help for creating, testing, and deploying the app within AWS or local environments. The company also offers AWS Cloud9, an integrated development environment (IDE) for writing, running, and debugging code via the web browser, AWS CodeStar (develops, builds, and implements applications), and AWS X-Ray (analyzes and debugs production applications).

PaaS ecosystem: AWS has a large ecosystem of developer tools, combined with a container orchestration system and a range of enterprise PaaS offerings to automate build (CloudFormation, code pipelines), deployment (CodeDeploy), API management (Amazon API Gateway) and run scenarios. With tools such as AWS Mobile Hub, AWS Amplify and Amazon Cognito, the company is also helping customers to optimize their back-end functions for mobile application development.

AWS

Cautions

Cloud9, the development environment provided by AWS free of charge, only works online – AWS could add an asynchronous or on-premise desktop variant. However, AWS also supports several other IDEs via Plug-Ins.

AWS provides PaaS solutions and services to the developer community but has fewer industry-specific functionality. Last year, the company, introduced Amazon Comprehend Medical, a machine learning to extract medical information from unstructured text; Amazon Forecast increases forecast accuracy through machine learning - BFSI, retail and healthcare industries, are the first companies to experiment with innovative application development approaches.

Many AWS customers would like to have an optimized administration dashboard, especially in terms of access and billing transparency for consumed services and accessibility for business users.



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AWS is constantly adding new features and expanding its range of agile and innovative app and service development offerings at breath-taking speed – the multitude of offerings is literally exploding.

GOOGLE

Overview

Google is a U.S.-based technology company headquartered in California. Google offers cloud computing services through the Google Cloud Platform (GCP), which initially started with PaaS services and now also provides IaaS services. GCP is available in 20 regions with over 60 zones in more than 210 countries – including Germany, which now has well over 100 employees. GCP is known for its aggressive pricing policy and its focus on data analytics and machine learning.

Strengths

Open source: Google has announced strategic partnerships with open-source technology vendors, which is a significant shift away from the pure focus on technologies developed by Google and is an extremely positive step.

Suitable for all types of users: Google App Engine addresses all kinds of businesses. App Engine can be regarded as the most important part of the GCP service offering and the core for developing intelligent services. Google itself runs internal services on the platform. GCP provides support for demanding and cloud-native workloads, especially for customers in the media industry and companies that are equipping current development activities or projects with data scientists.

Optimized data management: GCP now offers a Cloud Data Catalog to simplify data discovery and management or governance on GCP. Cloud Data Fusion provides a fully managed, code-free and cloud-native data integration service. The Data Warehouse Migration Service for BigQuery provides automated data migration from traditional and cloud data warehouses to BigQuery. There are also BigQuery Data Transfer Services for integration with SaaS applications. Customers have access to nearly 100 connectors to many public SaaS app vendors. The DataFlow FlexRS Resource Planner provides the ability to perform batch operations at significantly lower costs, while DataFlow SQL also introduces support for SQL in DataFlow pipelines.

Industry solutions: Google supports customers on their digital transformation journey. In this context, Google publishes new industry-specific services and new and improved AI capabilities. GCP has significantly advanced its AI capabilities with a new collaboration service and enhancements to existing services.

High flexibility: Google App Engine provides users with a cloud-based platform that enables them to create, automate and scale applications without having to worry about servers or individual maintenance tasks. The service provides support for a variety of programming languages, including GO. Both standard and flexible environments are supported.

GOOGLE

Cautions

Google's own and partner-based training offerings for using the Google Cloud Platform's App-Engine services are very limited. Improving training would be a proven, scalable way to increase aPaaS services and IaaS services consumption. There are no examples with "how to" explanations to make it easier for customers to get started.

Compared to competitive solutions, configuration options for Google's offering are limited; customers need to accept a higher vendor lock-in concerning platform-specific options and fine-tuning than is the case with other platforms. Google App Engine lacks openness and integration and Google should continue to work on the interoperability of App Engine to facilitate more stable connections to third party tools such as Dropbox, Kiss, Datalog or Chef.

The documentation is not always up-to-date with the latest changes to the service. During the last few years, Google App Engine has undergone many changes and sometimes customers are surprised by new features, since they have not been informed proactively by Google or partners. By implication, the possibilities for using the platform are also restricted, which costs customers time and money. There is only poor or no documentation available for certain functionality, which is a risk for critical applications.



2019 ISG Provider Lens™ Leader

Google Cloud Platform or App Engine is functionally well positioned and is a highly interesting solution, especially for cloud-native developments and data scientists.

IBM

 Overview

IBM is one of the largest consulting firms and, as a full-service provider, holds relevant market shares in all major segments. The company currently has 350,000 employees worldwide and operates 60 data centers. IBM Germany employs approximately 13,000 people at 40 locations; they generate revenues €1.7 billion. IBM's cloud revenues in 2018 amounted to around \$19 billion worldwide, which was a 12 percent gain. IBM Cloud provides hyperscale IaaS services, application PaaS and enterprise integration PaaS. IBM offers Application Integration Suite, combined with its enterprise integration PaaS, within its IBM Cloud offering. In 2018, the company acquired Red Hat.

 Strengths

Easy application management and development: Cloud Foundry on IBM Cloud offers a variety of options to develop and easily manage applications. Customers benefit from multiple environments such as staging and production to focus on development and optimization rather than managing implementations.

Local and global delivery: IBM's cloud computing platform combines platform as a service (PaaS) with infrastructure as a service (IaaS) offerings delivered from the IBM cloud regions Frankfurt, U.K., U.S. South, U.S. East, and Sydney.

Comprehensive service catalog: IBM Cloud provides customers a language- and run-time-independent environment for delivering applications with a simple user interface. Nearly 200 services are available, from bare metal and containers to serverless computing, hyperscale infrastructure, blockchain and AI/ML/Watson, and are combined with a high level of security. The platform is based on Cloud Foundry.

Business user access: In addition to the Cloud Foundry PaaS, IBM also supports and distributes the Mendix low-code platform, which enables business users to create code or applications using a visual drag-and-drop interface.

 Cautions

The Bluemix brand is history and cloud services have been brought together under the IBM Cloud brand. This has caused confusion among customers, as Bluemix was a well-known brand in the market. App development is based on Cloud Foundry, but customers wonder how IBM will integrate Red Hat's OpenShift, the Cloud Foundry competitor, into its offering and how transition from one platform to the other will be achieved.

Customers criticize the weak app scalability on IBM Cloud and the lack of internal integration of additional services, which would allow customers to easily leverage all the platform's available options.

IBM should continue to enhance integration of third party apps and APIs and improve the catalog to provide a marketplace with a better overview for customers.



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IBM's cloud offering is diverse, and the Red Hat acquisition is expected to bring another positive change within the provider's PaaS offering.

MICROSOFT

Overview

Microsoft is a large, global IT manufacturer and service provider headquartered in Redmond, Washington in the U.S. Microsoft Deutschland has six regional offices with approximately 2,700 employees in Germany. Microsoft cooperates with 30,000 partner companies, so customers of all sizes and industries benefit from standard software and cloud services or Office 365 for productivity services. Microsoft operates 54 Azure data center regions and provides access to cloud services to customers in 140 countries; one region for Germany was added in 2019. In 2018, Microsoft's Azure revenues grew at a very high double-digit rate. Microsoft made 14 major acquisitions that year, with a strong focus on cloud and AI and machine learning.

Strengths

Comprehensive and consistent PaaS portfolio: The portfolio covers cloud application and services development, testing, deployment and management. It is based on a global network of data centers managed by Microsoft, including centers in Germany. It supports the entire application lifecycle, from creation, testing and deployment to continuous updates. Microsoft offers a wide scope of tools for developing microservice-oriented applications and supports all common languages such as .Net, Java, PHP, Python and others. Various source management options are available, including TFS, GitHub, BitBucket and others. They help drive continuous integration and development within teams and beyond corporate boundaries. Open datasets are now available to accelerate data trading for machine learning-based apps.

Familiarity and ease of use: For customers who run Windows Server and Active Directory, Azure is the obvious cloud platform of choice due to its tight integration with Microsoft's portfolio and its high usability, which means fast productivity for customers. A major strength is Azure's seamless integration with other Microsoft ecosystem products and hybrid system constellations such as Azure Stack. Azure also offers many tutorials and trainings linked to use cases and solutions and has a highly experienced and large local partner ecosystem.

Stronger PaaS offering through acquisitions: Microsoft's strategy of strategic new acquisitions such as jClarity, the leading participant in the AdoptOpenJDK project, and GitHub demonstrate its strong commitment to open source as the core of modern application development. Azure is one of the fastest growing cloud services worldwide and in Germany. Specific services such as Azure AI and Machine Learning are drivers that are attracting customers to the platform and are being offered and explained by Microsoft in an exemplary manner, both for technically savvy users and beginners.

MICROSOFT

Cautions

Although Microsoft is still struggling with mostly unjustified reservations about the lack of integration and acceptance of open source, the provider is on the right track, supported by numerous changes in business policies and acquisitions. The purchase of GitHub, for example, gave Microsoft access to a large developer community, and Microsoft is now challenged to draw their attention to Azure. Critics also point out that Microsoft Azure is often used by .Net and Microsoft software users because of the insufficient in-depth integration of open-source tools and languages.

While Azure is a well-documented and well-structured developer platform with many innovations, which are addressed promptly through (partner) trainings, the price model is somewhat complex. Some developers complain that the console seems overloaded. It seems that users and developers need more help in tracking down app programming bugs; this is easier on other platforms and services, saving customers time and, ultimately, money.



2019 ISG Provider Lens™ Leader

Microsoft's development platform offers a highly attractive overall portfolio and a great integrated development environment with a focus on collaboration and integration.

RED HAT

Overview

Red Hat, an IBM subsidiary, is a U.S.-based provider of open-source Linux operating systems and other enterprise IT solutions. The focus is on professional services for open-source products and their distribution, cloud platforms and management tools. In 2018, the company generated revenues of \$2.9 billion in 35 countries and with 95 offices worldwide. German offices are in Berlin, Düsseldorf, Frankfurt, Munich and Stuttgart. Red Hat was acquired by IBM in a deal that closed in July 2019. Red Hat will remain an independent company following the acquisition by IBM.

OpenShift by Red Hat is a software product for container-based software deployment and management. It is a supported Kubernetes distribution using Docker containers and DevOps tools for faster application development.

Strengths

Strong market position and services: OpenShift has established itself as a leading Kubernetes platform. OpenShift Origin is a multi-language open-source platform based on an as-a service model and is the foundation of Red Hat xPaaS. Red Hat has a dedicated global Site Reliability Engineering (SRE) team to ensure the continuity and security of the OpenShift platform.

Azure Red Hat OpenShift (ARO): This hosted service is jointly developed, operated, and supported by Microsoft and Red Hat and includes integrated support. This strategy helped both companies maximize their customer base and revenues, not only in Germany. During the last one to two years, OpenShift has enjoyed very good awareness and market acceptance.

Significant partnerships: Red Hat maintains strategic partnerships with AWS, Azure and GCP and with several regional cloud service providers and system integrators (Accenture, DXC, Atos, Wipro, Deloitte etc.). The OpenShift Dedicated (OSD) offering already runs on AWS, Azure and GCP. Red Hat also relies on strategic partnerships and serves OEMs. For example, Atos Managed OpenShift AMOS, DXC Managed Container Platform as a Service, Lenovo DevOps Solution, Wipro Cloud Application Factory, the Accenture DevOps Platform, HCL Technologies and others use and integrate the Red Hat OpenShift container platform.

RED HAT

Cautions

Compared to similar services, Red Hat OpenShift is confusing for end users, especially outside of Microsoft Azure. At first glance, the as-a service development environment and long-term storage or an IaaS offering for the productive operations of a developed application are missing. While OpenShift can be operated platform-independently, customers find it rather difficult to reach the platform to start with cloud app development directly or at the push of a button. Red Hat must continue to work on the go-to-market to facilitate such entry. The IBM acquisition might be helpful to achieve this.

OpenShift's analytics, AI/ML and workflow capabilities are very limited, as is the important collaboration during the development process. Companies must invest in third-party application performance management (APM) tools to integrate solutions with OpenShift, which increases overall development costs. IBM may be able to help Red Hat address these issues.

Considering the urgent need to protect apps and content, services to improve app security are still missing and should be addressed and offered early during the OpenShift development process.



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Red Hat OpenShift has set up an optimal basis for microservice-oriented app development, specifically for container development.



Methodology

METHODOLOGY

The research study “ISG Provider Lens™ 2019 – Public Cloud Solutions & Service Partners - Germany” analyzes the relevant software vendors/service providers in German 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 Public Cloud – Solutions & Service 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



Author



Heiko Henkes, Author

Director Advisor

Mr. Henkes is a Director Advisor at ISG; in this role, he is responsible for strategic business management and acts as leader of ISG's team of research advisors. He is also in charge of bringing together IT trend topics within the digital transformation context and acts as keynote speaker on current and future IT trends.

Since 2013, Heiko has advised both ICT providers and users on current digital transformation topics such as Cloud Computing, Artificial Intelligence and the Mobile Enterprise.

In his work with IT Providers, he has a focus on go-to-market strategies and strategic portfolio development as well as on the strategic marketing and sales development. Heiko also analyzes and evaluates business processes, product-specific target markets and IT provider through classical competitive analyses. Within this context, Heiko supports companies to undergo continuous transformation, combining IT competencies with sustainable business strategies and change management.

His primarily focus lies on business development activities, further development and internationalization of the ISG Provider Lens™ (IPL) product-related processes beside his role as IPL Topic Leader to guide and sync all analyst team members.

Before joining ISG (Experton Group), Heiko worked as analyst manager for TechConsult GmbH.

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He has authored articles around the best practices in the cloud services domain and infrastructure services. Along with this Shashank helps ISG's enterprise clients' with their cloud strategy, service provider selection, contracts negotiation, etc. He also works with advisors and clients' requests for ad-hoc research assignments in the cloud domain, across industries, predominantly in Automotive, BFSI, Retail CPG and Energy sectors.

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