

Next-Gen Private/Hybrid Cloud – Data Center Solutions & Services

Colocation Services for Large Accounts

A research report comparing provider strengths,
challenges, and competitive differentiators

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High demand for IT or cloud services in Germany

The infrastructure outsourcing market continues to grow, but unit prices are falling significantly. Providers are trying to use service automation to compensate for this price reduction, along with higher employee turnover and rising employee costs. In addition, cyber threats and the complexity of cloud landscapes are increasing.

The IT and business services market in Europe is growing steadily. The strong performance of the managed services segment continued in the first quarter of 2022. During this period, the overall market, which includes aaS and managed services segments,

grew by 24 percent year on year. ISG attributes this growth to an increase in IT and business process outsourcing. In addition, there were strong results in the U.K., France, Germany, Austria and Switzerland. In the IT outsourcing domain, the main contributors were ADM services or application development and maintenance, along with infrastructure services.

The rising demand for cloud services is driven by the growing use of digitalization, combined with the need for resilience and increased agility in modern enterprises. To improve agility, enterprises are using cloud technologies in data centers and hosting and colocation facilities to enable the rapid deployment of new services in the most suitable infrastructure. The demand for service support has increased, as the handling of such architectures and technologies is complex and, in most cases, cannot be managed by in-house

Rise in digitalization drives managed services and hosting markets



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staff. Enterprises are investing less in their own hardware and relying on the flexibility and scalability of cloud providers to reduce their capital expenditures. Most service providers offer both managed services and managed hosting. Hence, offerings overlap easily. Therefore, it is important for clients to choose the right provider that can offer comprehensive support in planning, implementation and operation.

Managed hosting providers that own and operate their own data centers are increasingly relying on colocation services. As a result, the need for additional colocation data centers is increasing. Clients include integrators, companies that are downsizing or closing their data centers and public cloud providers, some of which are no longer building their own data centers but use the space and services provided by colocation providers. More than 1,000

service providers or hosting providers in Germany, Austria and Switzerland look to win almost 100 million residents and more than five million midsize companies and corporations as their clients. Cloud-native applications are designed to use APIs and microservices to share data quickly. Legacy applications that reside outside the cloud infrastructure should not slow down these data transfers, for which they require low-latency networks. Hosting and colocation providers offer better networks than the ones configured on-premises by customers. Low-latency networks are essential for high-quality services over long distances.

The number of enterprises that require a maximum latency of 35 milliseconds or even less is growing and will continue to grow in the future due to ongoing digitalization projects.

Managed Services

Managing hybrid infrastructure requires tools for integrated infrastructure operations. In most cases, VMware and ServiceNow products serve as the foundation for service providers to run machine learning for automation development. Advanced service platforms automate incident analysis to suggest possible root causes, provide more contextual information to support teams and/or automate incident resolution, reducing the mean time to detection (MTTD) and mean time to repair (MTTR). Service providers will continue to automate operations to improve service levels and reduce costs. Midsize enterprises want to simplify infrastructure management and reduce their operational risk. On the other hand, large enterprises want to reduce service disruptions to improve their quality of service. Leading

service providers offer robust automation to improve quality and simplify management.

Managed services have evolved to support multicloud and multiplatform landscapes, regardless of private, public or hybrid cloud. In some cases, mainframe services are also integrated. As a result, infrastructure management has become complex. Managed service providers can help clients address these management issues, as they have well-trained experts with appropriate service, product-specific and partnership certifications. Relevant providers maintain partnerships with several hyperscalers, such as AWS and Microsoft Azure. Providers have enhanced their machine learning models to offer customers usage analytics and insights and optimize infrastructure through consolidation and right sizing.



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Large enterprises use the services of multiple public cloud providers, as they offer different functions. If one cloud goes down, the other can be used as a backup. Multicloud services are becoming more refined and are mainly distinguished by automation and intelligence to improve management quality, speed up production and improve security, while ensuring proactive management and self-healing in case of any failure.

Customers expect customized infrastructure services.

The challenge for service providers is to offer industry-specific technology stacks.

Leading providers for large enterprises in Germany are Accenture, Arvato Systems, Atos, Capgemini, Computacenter, DXC Technology, Fujitsu, IBM, Infosys and T-Systems.

Leading providers for SMEs in Germany are All for One Group, Axians, CANCOM, Claranet, DATAGROUP, Deutsche Telekom (TDG), Materna, PlusServer and q.beyond.

Managed Hosting

The study found more competitors in the managed hosting market in 2021. This market, once threatened by the emergence of public cloud hyperscalers, is now being reinvigorated with new technologies. Hosting providers offer automated, self-service platforms that mimic the public cloud services portfolio. Hosting platforms are integrated with cloud providers through hyper connectivity. High-end infrastructure technology makes hosting attractive for running stable applications that would not benefit from cloud services such as auto scaling. Many hosting providers offer bare metal servers on a pay-per-use basis to address customer requirements.

The asset-heavy nature of the business is leading to a widening gap between the large, established providers and new and smaller providers. It has been long since providers shifted their focus to cloud. The study focuses on private cloud hosting resources and their integration into hybrid operating models. Providers have developed their offerings and provide hybrid cloud services that can be combined as necessary and are operated on a single platform.

Many companies find it difficult to integrate legacy applications into public cloud infrastructure, and they prefer to run them on colocation data centers or migrate them to managed hosting services. Providers can manage colocation, hosting and cloud from a single AIOps platform and offer customers a cloud-like experience on any infrastructure.

Most providers have partnerships with at least one of the major public cloud providers, such as Microsoft. Depending on the size and configuration of the provider and customer requirements, there are additional public cloud partnerships with AWS, Google, IBM, Oracle or Alibaba. Providers' service experts are certified accordingly and take a comprehensive approach to operations across all cloud environments. Customers are supported when migrating to the cloud, in some cases, all the way from transformation to commissioning. In addition to housing services, some colocation providers have expanded their range of managed cloud hosting services.

With the trend toward managed services, some hosting companies give up all or part of their own data centers for various reasons, such as a lack of space for computing resources or an aging technical infrastructure that is currently difficult



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to upgrade without further investment in areas such as IoT and edge. In addition, adherence to compliance policies often become challenging, and some hosting companies prefer to rent dedicated space or cages in the highly secure and certified buildings of colocation providers. This offers a huge advantage to providers because colocation operators are highly specialized in data center infrastructure. Their core business is to take care of technical components, network and server hardware, physical building security, general data center standardization, carrier and public cloud connectivity, energy consumption, and CO2 levels. The disadvantage of this development is that the remaining service portfolio is significantly reduced, and only efficient providers survive.

Cloud operations are mainly supported with products from VMware, Nutanix, Red Hat or Microsoft. Providers develop

their offerings, increasing operational automation and acceleration with AI support and simplifying workloads with container management solutions such as Kubernetes. This makes management more secure and prevents business interruptions. The data is processed and stored on geo-redundant data centers for security reasons.

Leading providers for large enterprises in Germany are Atos, Arvato Systems, Fujitsu, IBM, Rackspace and T-Systems.

Leading providers for SMEs in Germany are Axians, CANCOM, Claranet, DATAGROUP, Deutsche Telekom (TDG), NTT DATA, PlusServer and q.beyond.

Colocation Services

Cloud computing accounts for one-third of the data center capacity in Germany. Several studies predict that cloud data centers will become the majority by

2025. This drives the expansion of digital networks and the rapid advancement of digitalization in Germany, which is clearly visible in the year-on-year comparison of the data throughput of the DE-CIX node in Frankfurt, one of the largest in the world. With around 1,100 connected customers, the throughput increased from 9.1 Tbit/s in 2020 to 10 Tbit/s in 2021, an increase of 1 Tbit/s for the second year in a row. Similar increases were also recorded in network nodes in Hamburg and Munich. DE-CIX handled a total of 38 exabytes worldwide. Topics such as integration and security have been successfully mastered and have reached a new standard. Last year's developments were, therefore, aimed at increasing usability to enable the easier handling of booked services.

Increasing demand, combined with a persistent shortage of resources, has led to new economic awareness regarding the construction of data centers in

recent years. In 2020, the average Power User Effectiveness (PUE) value was 1.63, but the average PUE value of each new data center is falling to 1.3 and below currently. In contrast, the number of installed workloads per kilowatt hour of electricity has increased fivefold since 2010. Data centers in Germany have a huge energy requirement and consume about three percent of country's electricity requirement. To achieve energy efficiency, modern cooling and passive concepts were created; technical innovations are not limited to the temperature. Within the racks, the focus is on optimal hardware interoperability, which increases the power density in the available space. The risk of fire has been significantly reduced, and existing hardware is used optimally and for a longer time.

Investments in data centers below 40 KW are no longer profitable, and the era of large data centers with more than 5



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MW has begun. There are currently about 90 of them in Germany, and they supply half of the capacity available in Germany. The urgent need for more capacity has given data center providers a financial advantage in terms of sustainability and should serve as an incentive to invest in the same. The German Federal Republic should not only supply reliable electricity but also make its sustainability policy lucrative. Advancing digitalization should be taken into account in the approval procedures because data center operators are still concerned about the complex procedures. Thus, the market in Germany is limiting innovations for more sustainability, although the issue was already addressed by the eco competence group in 2018.

Leading providers for large enterprises in Germany are CyrusOne, Datacenter One, Equinix, Interxion, ITENOS, maincubes,

noris network, NTT GDC and Telehouse. Atlas Edge is the Rising Star.

Leading providers for SMEs in Germany are KAMP, myLoc, PFALZKOM, PlusServer, STACKIT and TelemaxX. akquinet is the Rising Star.



Provider Positioning

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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
*um (Orange)	Contender	Not In	Product Challenger	Not In	Not In	Product Challenger
23 Media	Not In	Not In	Not In	Not In	Not In	Contender
3 U	Not In	Not In	Not In	Not In	Not In	Contender
Abilis IT	Not In	Contender	Not In	Not In	Not In	Not In
Accenture	Leader	Not In	Not In	Not In	Not In	Not In
ACP	Not In	Contender	Not In	Not In	Not In	Not In
Adacor	Not In	Not In	Not In	Product Challenger	Not In	Not In
Advanced Unibyte	Not In	Contender	Not In	Not In	Not In	Not In
akquinet	Not In	Not In	Not In	Not In	Not In	Rising Star ★
All for One Group	Not In	Leader	Not In	Not In	Not In	Not In



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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
Anexia	Not In	Not In	Contender	Not In	Not In	Not In
Arvato Systems	Leader	Not In	Leader	Not In	Not In	Not In
AtlasEdge	Not In	Not In	Not In	Not In	Rising Star ★	Not In
Atos	Leader	Not In	Leader	Not In	Not In	Not In
Axians	Not In	Leader	Not In	Leader	Not In	Not In
Baden - Cloud	Not In	Not In	Not In	Not In	Not In	Contender
Bechtle	Not In	Market Challenger	Not In	Market Challenger	Not In	Not In
BT	Not In	Not In	Product Challenger	Not In	Not In	Not In
BT es Global Unit	Contender	Not In	Not In	Not In	Product Challenger	Not In
BTC	Not In	Not In	Contender	Not In	Not In	Not In



Provider Positioning

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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
CANCOM	Not In	Leader	Not In	Leader	Not In	Not In
Capgemini	Leader	Not In	Not In	Not In	Not In	Not In
Cegeka	Contender	Not In	Not In	Not In	Not In	Not In
Cema	Not In	Contender	Not In	Not In	Not In	Not In
Centron	Not In	Contender	Not In	Contender	Not In	Contender
CGI	Market Challenger	Not In	Market Challenger	Not In	Not In	Not In
Claranet	Not In	Leader	Not In	Leader	Not In	Not In
Cognizant	Product Challenger	Not In	Not In	Not In	Not In	Not In
Colocation IX	Not In	Not In	Not In	Not In	Not In	Contender
Colt DCS	Not In	Not In	Not In	Not In	Product Challenger	Not In



Provider Positioning

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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
Computacenter	Leader	Not In	Not In	Not In	Not In	Not In
Conet	Not In	Contender	Not In	Not In	Not In	Not In
Controlware	Not In	Product Challenger	Not In	Not In	Not In	Not In
CyrusOne	Not In	Not In	Not In	Not In	Leader	Not In
Cyxtera	Not In	Not In	Not In	Not In	Not In	Product Challenger
DARZ	Not In	Not In	Not In	Product Challenger	Not In	Product Challenger
Datacenter Leipzig	Not In	Not In	Not In	Not In	Not In	Product Challenger
Datacenter One	Not In	Not In	Not In	Not In	Leader	Not In
DATAGROUP	Not In	Leader	Not In	Leader	Not In	Not In
Deutsche Telekom (TDG)	Not In	Leader	Not In	Leader	Not In	Not In



Provider Positioning

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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
DevoteamIAlegri	Contender	Not In	Not In	Not In	Not In	Not In
dokom21	Not In	Not In	Not In	Not In	Not In	Contender
Dunkel	Not In	Not In	Not In	Contender	Not In	Not In
DXC	Leader	Not In	Market Challenger	Not In	Not In	Not In
Ecotel	Not In	Not In	Not In	Not In	Not In	Contender
EMC Home of Data	Not In	Not In	Not In	Not In	Not In	Product Challenger
Ensono	Contender	Not In	Product Challenger	Not In	Not In	Not In
Equinix	Not In	Not In	Not In	Not In	Leader	Not In
Firstcolo	Not In	Not In	Not In	Not In	Not In	Contender
Fujitsu	Market Challenger	Not In	Leader	Not In	Not In	Not In



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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
Global Switch	Not In	Not In	Not In	Not In	Product Challenger	Not In
Grass-Merkur	Not In	Not In	Not In	Contender	Not In	Product Challenger
gridscale	Not In	Not In	Not In	Contender	Not In	Not In
gtt	Not In	Not In	Contender	Not In	Not In	Contender
HCL	Product Challenger	Not In	Not In	Not In	Not In	Not In
Hetzner Online	Not In	Not In	Not In	Market Challenger	Market Challenger	Not In
Hexaware	Contender	Not In	Not In	Not In	Not In	Not In
Hostserver	Not In	Not In	Not In	Contender	Not In	Not In
Hostway	Not In	Not In	Not In	Not In	Not In	Market Challenger
Infosys	Leader	Not In	Not In	Not In	Not In	Not In



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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
Interxion (Digital Realty)	Not In	Not In	Not In	Not In	Leader	Not In
Iron Mountain	Not In	Not In	Not In	Not In	Contender	Not In
ITENOS	Not In	Not In	Not In	Not In	Leader	Not In
KAMP	Not In	Not In	Not In	Not In	Not In	Leader
Kyndryl	Leader	Not In	Leader	Not In	Not In	Not In
Logicalis	Not In	Contender	Not In	Not In	Not In	Not In
Lumen	Not In	Not In	Product Challenger	Not In	Product Challenger	Not In
maincubes	Not In	Not In	Not In	Not In	Leader	Not In
Materna	Not In	Leader	Contender	Not In	Not In	Not In
Mivitec (WIIT)	Not In	Not In	Not In	Not In	Not In	Contender



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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
msg systems	Not In	Product Challenger	Not In	Not In	Not In	Not In
myLoc (WIIT)	Not In	Not In	Not In	Contender	Not In	Leader
Netfox	Not In	Not In	Not In	Contender	Not In	Not In
noris network	Not In	Not In	Not In	Not In	Leader	Not In
NorthC	Not In	Not In	Not In	Not In	Contender	Not In
NTT DATA	Product Challenger	Not In	Not In	Leader	Not In	Not In
NTT GDC	Not In	Not In	Not In	Not In	Leader	Not In
Operational Services	Not In	Not In	Contender	Not In	Not In	Not In
Pfalzkom	Not In	Not In	Not In	Not In	Not In	Leader
PlusServer	Not In	Leader	Not In	Leader	Not In	Leader



Provider Positioning

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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
Profi	Not In	Contender	Not In	Not In	Not In	Not In
q.beyond	Not In	Leader	Not In	Leader	Not In	Not In
Rackspace Technology	Product Challenger	Not In	Leader	Not In	Not In	Not In
ratiokontakt	Not In	Not In	Not In	Product Challenger	Not In	Contender
release42 (WIIT)	Not In	Product Challenger	Not In	Contender	Not In	Not In
ScaleUp Technologies	Not In	Not In	Not In	Contender	Product Challenger	Not In
Sievers	Not In	Contender	Not In	Not In	Not In	Not In
Sopra Steria	Product Challenger	Not In	Product Challenger	Not In	Not In	Not In
STACKIT	Not In	Not In	Not In	Not In	Not In	Leader
Syntax Systems	Not In	Product Challenger	Not In	Market Challenger	Not In	Not In





Provider Positioning

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	Managed Services for Large Accounts	Managed Services for Midmarket	Managed Hosting for Large Accounts	Managed Hosting for Midmarket	Colocation Services for Large Accounts	Colocation Services for Midmarket
TCS	Product Challenger	Not In	Product Challenger	Not In	Not In	Not In
Tech Mahindra	Product Challenger	Not In	Not In	Not In	Not In	Not In
Telehouse	Not In	Not In	Not In	Not In	Leader	Not In
TelemaxX	Not In	Not In	Not In	Contender	Not In	Leader
Trivadis (Accenture)	Product Challenger	Not In	Not In	Not In	Not In	Not In
T-Systems	Leader	Not In	Leader	Not In	Product Challenger	Not In
Unisys	Product Challenger	Not In	Product Challenger	Not In	Not In	Not In
Vantage Datacentres	Not In	Not In	Not In	Not In	Product Challenger	Not In
Vodafone	Contender	Not In	Contender	Not In	Not In	Not In
Wipro	Product Challenger	Not In	Not In	Not In	Not In	Not In



This study focuses on what ISG perceives as most critical in 2022 for Private/Hybrid Cloud Data Center Solutions & Services

Simplified Illustration Source: ISG 2022



Definition

Data center outsourcing is the process of outsourcing managing responsibility for the entire data center facilities to a third-party provider. This includes orchestration, integrated monitoring and management of compute, storage, database, middleware and other infrastructure resources. The data center may be owned by the enterprise, service provider, or colocation provider. Integrated monitoring and management services are typically delivered from the provider's site via an offshore, onshore or nearshore shared service center or dedicated delivery center model. They are classified as remote infrastructure management or RIM services.

A private cloud is an extension of an organization's existing computing environment, using investments already made in virtual infrastructure and

applications. Companies with strict security and governance requirements that need to process large volumes of data while ensuring tight integration of business applications and workflows, may prefer on premises or private cloud, with hardware hosted on site at the customer's premises. IT service providers can build private clouds using scalable virtual computing, networking, and storage resources running in their data centers or over shared infrastructure, but in an adequately configured and isolated environment.

A hybrid cloud combines the best of on-premises infrastructure with private and public cloud services. It combines existing on premises infrastructure services with a private or public cloud, or both. The goal is to combine services and data from different cloud models and set up a unified, automated and well managed computing environment. One of



the fundamental benefits of hybrid cloud deployment is the high level of control offered to the enterprise. Hybrid clouds allow enterprises to use the capabilities of public cloud platform providers without having to outsource all of their data to a third-party data center. As a result, they benefit from greater flexibility while still being able to operate key components within their own firewall.

Scope of the Report

In this ISG Provider Lens™ quadrant study, the following three quadrants are presented:

- Managed Services for Large Accounts
- Managed Services for Midmarket
- Managed Hosting for Large Accounts
- Managed Hosting for Midmarket

- Colocation Services for Large Accounts
- Colocation Services for Midmarket

The ISG Provider Lens™ study offers IT decision makers the following advantages:

- A differentiated provider positioning based on competitive strengths and portfolio attractiveness
- Focus on different markets, including the U.S., U.S. Public Sector, Germany, Switzerland, the U.K., the Nordic countries, Brazil, Australia, the Benelux countries, France, Malaysia and Singapore

ISG studies provide an essential decision-making basis for positioning, partnership and go to market considerations.

ISG Advisors and corporate customers also use information from these reports to evaluate their current and potential new supplier relationships.

Provider Classifications

Provider positioning reflects the suitability of the respective IT providers for a defined market segment or quadrant. Unless otherwise stated, the positioning applies to all company sizes and industries. If the IT service requirements of large enterprises and SMEs differ and the range of IT providers operating in the local market is large enough, IT providers will be further differentiated by service according to the target group for products and services. Either industry requirements or the number of employees as well as the corporate structures of the customers are taken into account and the IT providers are placed based on their focus. As a result, a distinction is made between two customer groups, which are defined as follows:

Midmarket: Companies with 100 to 4,999 employees or sales between U.S.\$20 million and U.S.\$999 million, headquartered in the respective country, mostly privately held.

Large Accounts: Multinational companies with more than 5,000 employees or more than U.S.\$ 1 billion in revenue, with worldwide operations and globally distributed decision-making structures.

The ISG Provider Lens™ quadrants are created based on a scoring matrix and contain four fields of provider classifications: Leader, product and market challenger and contender. Each quadrant of an ISG Provider Lens™ study may also include a provider that ISG believes has great potential to achieve a leader position. Those providers may be classified as rising stars.



Number of providers per quadrant:

ISG evaluates and places key providers according to the scope of consideration for each study; the number of providers per quadrant is limited to 25, but exceptions may apply.





Provider Classifications: Quadrant Key

Product Challengers offer a product and service portfolio that reflect excellent service and technology stacks. These providers and vendors deliver an unmatched broad and deep range of capabilities. They show evidence of investing to enhance their market presence and competitive strengths.

Contenders offer services and products meeting the evaluation criteria that qualifies them to be included in the IPL quadrant. These promising service providers or vendors show evidence of rapidly investing in products/services and a follow sensible market approach with a goal of becoming a Product or Market Challenger within 12 to 18 months.

Leaders have a comprehensive product and service offering, a strong market presence and established competitive position. The product portfolios and competitive strategies of Leaders are strongly positioned to win business in the markets covered by the study. The Leaders also represent innovative strength and competitive stability.

Market Challengers have a strong presence in the market and offer a significant edge over other vendors and providers based on competitive strength. Often, Market Challengers are the established and well-known vendors in the regions or vertical markets covered in the study.

★ **Rising Stars** have promising portfolios or the market experience to become a Leader, including the required roadmap and adequate focus on key market trends and customer requirements. Rising Stars also have excellent management and understanding of the local market in the studied region. These vendors and service providers give evidence of significant progress toward their goals in the last 12 months. ISG expects Rising Stars to reach the Leader quadrant within the next 12 to 24 months if they continue their delivery of above-average market impact and strength of innovation.

Not in means the service provider or vendor was not included in this quadrant. Among the possible reasons for this designation: ISG could not obtain enough information to position the company; the company does not provide the relevant service or solution as defined for each quadrant of a study; or the company did not meet the eligibility criteria for the study quadrant. Omission from the quadrant does not imply that the service provider or vendor does not offer or plan to offer this service or solution.





Colocation Services for Large Accounts

Colocation Services for Large Accounts

Who Should Read This

This quadrant is relevant to large enterprises across all industries in Germany for evaluating colocation service providers.

In this quadrant report, ISG defines the current market positioning of colocation service providers in Germany, and how they address key challenges faced by enterprises in the region.

Data sensitivity of some applications necessitates the use of dynamic private hybrid cloud solutions. A clear benefit of outsourcing infrastructure management is the freeing up of technical resources to focus on urgent business issues, especially for mission-critical mainframe applications that are difficult to migrate.

The demand for colocation and connectivity services in Germany continues to increase. Factors such as security, connectivity services that can be set up at short notice, high availability and adherence to compliance guidelines are driving this demand. Data center operators are striving to deploy high-efficiency cooling and UPS systems to minimize electricity costs and CO2 emissions and achieve a power usage effectiveness (PUE) value of 1.3 and below. Colocation providers might also be able to deliver services in proximity to key client locations, which can be beneficial for applications that are highly sensitive to latency.



IT and infrastructure leaders should read this report to better understand the relative strengths and weaknesses, along with the modernization and service capabilities, of colocation service providers, and how the advancements in the market impact enterprises' hybrid cloud strategies.

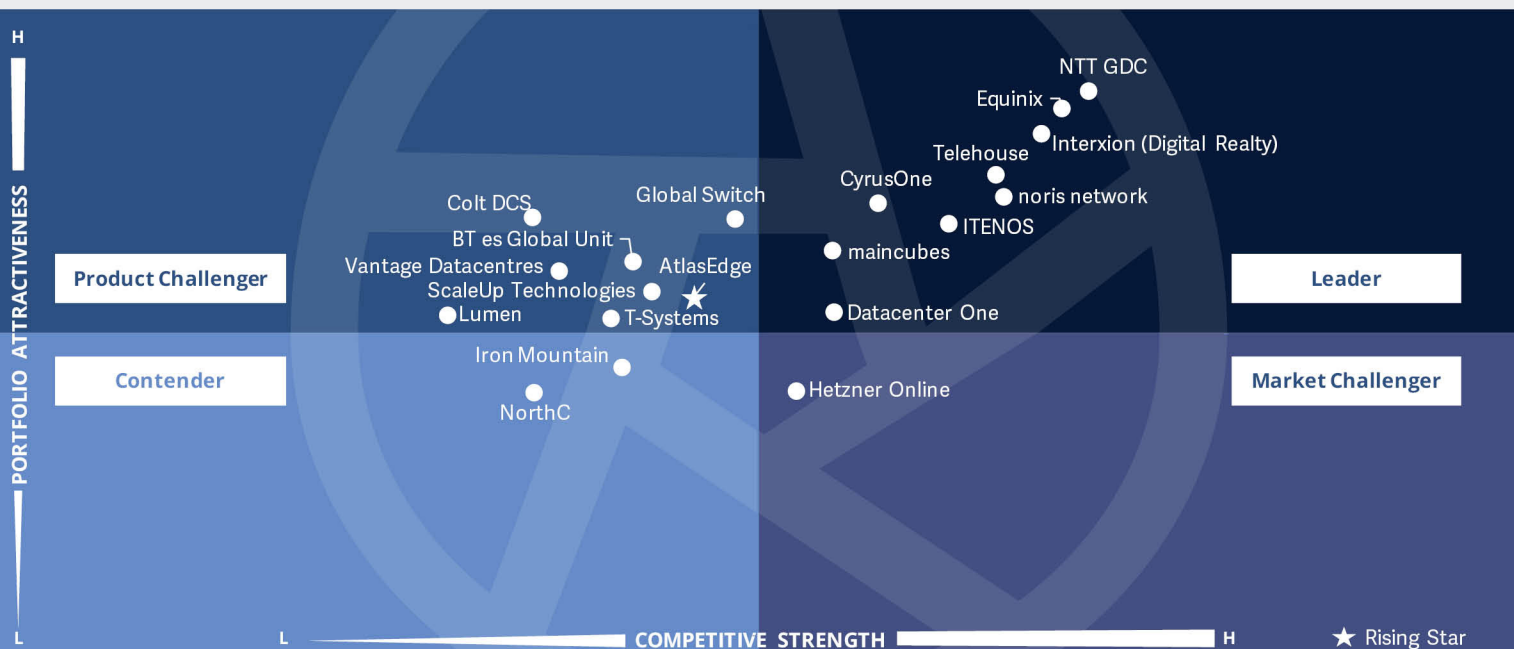


Software development and technology leaders should read this report to understand providers' positioning, their offerings and their impact on the ongoing infrastructure transformation initiatives, along with the availability and scalability of developed applications, tools, etc., within an enterprise.



Sourcing, procurement and vendor management professionals should read this report to better understand the current landscape and partner ecosystem of colocation service in Germany.





This quadrant evaluates colocation service providers that operate **multiple data centers globally, with more than 10,000 m² of total housing areas**, and also offer a wide range of services for enterprises and managed service providers that operate globally.

Ulrich Meister, Wolfgang Heinhaus



Colocation Services for Large Accounts

Definition

This quadrant evaluates providers that offer colocation services to midsize and large enterprise customers, including public sector companies in standardized data center operations. Participating companies offer community access points for hosting providers, system houses, carriers, cloud and telecommunications providers, and end users. Enterprise customers who choose colocation services expect data centers inside and outside metropolitan areas to have a standardized and sophisticated data center facility, numerous carrier options, low latency, and high bandwidth at affordable prices.

Eligibility Criteria

1. In house facilities that offer a standardized data center architecture design for colocation
2. Deployment of high-quality data networking technology, appliances and connectivity systems
3. Guaranteed power density, designed for current and future technologies
4. Provide at least five layers of physical security measures on premises
5. Demonstrate relevant certifications, such as SSAE 16, HIPAA, ISO 14001, ISO 22301, ISO 27001, ISO 50001, EN 50600, PCI DSS, NIST, FISMA, and security operation center Type I and II
6. Ability to securely manage and maintain all data center appliances and technology stacks
7. SLAs availability related to hands and feet support and hardware replacement
8. Availability of facilities with internet exchange points close to users and the cloud
9. Disaster recovery and backup solution offerings
10. Use of clean energy sources and solutions to reduce energy consumption, including zero carbon emissions and green data center initiatives



Colocation Services for Large Accounts

Observations

The demand for colocation services on secure data centers remains high in Germany. Companies, integrators and service and cloud providers are looking for suitable colocation providers. The land is becoming scarce in Frankfurt am Main, the location of DE-CIX, the world's leading Internet exchange node with more than 10 terabits per second in peak traffic. Many colocation providers have now turned their attention to the vicinity of Frankfurt and are buying properties in Offenbach, Hanau, Hattersheim and other municipalities as long as there is sufficient energy and low-latency connections to DE-CIX can be set up. Foreign providers and investors that find the search for land and the construction period time consuming are looking to acquire existing data centers. Iron Mountain, a U.S. colocation provider, has acquired two data centers from Keppel and Calcium

DC; Atlas Edge from the U.K. has acquired two from Colt; and North Group from the Netherlands has acquired two IP exchange data centers from q.beyond.

However, hot spots are forming not only in Frankfurt but also in other cities, which have become more attractive for colocation providers, especially Berlin, Dusseldorf and Munich. The providers are improving the portfolio and responding to increasing customer demands. Users expect a wide range of low-latency connectivity capabilities that can be provided promptly, comprehensive smart hands services, housing offerings and infrastructure deployment, primarily virtual machines, bare metal servers and high-performance computing solutions. Energy efficiency is gaining attention, with the goal of offering climate-neutral data centers by 2030.

Of the 100 service providers assessed for this study, 20 have qualified for this quadrant, with nine being Leaders and one Rising Star.

CyrusOne

CyrusOne is a U.S. colocation provider and operates approximately 40 data centers in the U.S., South America and Europe. The company is a strong and ideal partner for large enterprises and cloud providers. Four modern and high-performance data centers with a wide range of connectivity are available in Frankfurt am Main.

Datacenter One

Datacenter One is a company based in Stuttgart and offers a wide range of colocation services in four state-of-the-art and secure data centers. The energy-

efficient data centers have a modular design, and the space requirements can be scaled up or down during operation.

Equinix

Equinix is one of the world's largest providers, with 240 high-performance colocation data centers, and is growing further. Ten IBX data centers are located at four sites in Germany, with two under construction. Its diversified colocation services attract enterprises of all sizes from across industries. Its connectivity offering is unique.

Interxion a Digital Realty Company

Interxion a Digital Realty Company, has been successful in Europe for many years. In Germany, extensive services are offered on 23 data centers in Frankfurt and Dusseldorf. Interxion offers the largest number of line connections in Frankfurt am Main and globally.



Colocation Services for Large Accounts

ITENOS

ITENOS maintains seven high-performance and secure data centers in Germany and offers a wide range of colocation services, especially for SMEs and midmarket customer segments. Many customers from this sector and numerous industries greatly value the offer.

maincubes

maincubes is a successful colocation service provider with a data center in Offenbach. The strong demand for colocation services has prompted the company to build another data center in Frankfurt, which is already in the development phase. maincubes focuses on the sustainability of its data centers.

noris network

noris network is a successful colocation service provider in southern Germany. The company operates seven secure data centers in Nuremberg, Munich and Hof. Its offering is diverse; renowned companies appreciate the service quality. Sustainability is an important issue that is constantly being addressed.

NTT GDC

NTT GDC is an international colocation provider and is ranked third in the world. In Germany, the company offers the largest space for infrastructure operations. Its data centers are located at the most important locations. Its comprehensive service and connectivity offering provides ideal conditions for enterprises and cloud and other service providers.

Telehouse

Telehouse is a global player and is part of KDDI, a Japanese telecommunications provider. A total of 52,200 m² of colocation space is offered at the Telehouse Campus in Frankfurt am Main. Its extensive and customer-friendly offerings are used by enterprises from all industries, as well as cloud providers.

AtlasEdge

AtlasEdge (Rising Star) is a new player in the German market. The company is a British colocation provider and has acquired 11 data centers from Colt across Europe, and in Germany, it has facilities in Berlin and Hamburg. The company focuses on growing continuously and expanding its services in the market.





"ITENOS is an ideal colocation service partner for SMEs and the midmarket segment."

Ulrich Meister, Wolfgang Heinhaus

ITENOS

Overview

ITENOS has nearly 30 years of experience as a colocation service provider. The company is part of Deutsche Telekom but acts independently in the German market. With seven data centers in Frankfurt am Main, Dusseldorf, Hamburg, Leverkusen and Stuttgart, ITENOS has a total floor space of 31,200 m², which is used by more than 200 companies from the SME and midmarket segment, as well as by large customers and cloud and other service providers.

Strengths

Attractive service offering: The provider's services are tailored to customer requirements and provide professional support for relocation planning, implementation and infrastructure commissioning within a data center. ITENOS offers comprehensive services and remote hands services. It facilitates infrastructure administration for customers.

Secure data centers: Its high-availability data centers are designed with redundancy and ensure smooth operation. Compliance standards are guaranteed with the certifications

of ISO 9001 for quality management, ISO 27001 for information security, ISO 27017 for IT security procedures in cloud services and ISO 27018 for personal data processing on the cloud.

Extensive connectivity offering: The DataLogistIX platform can be used to set up a wide variety of technologies and connections through a single port; it provides access to 150 carriers, the DE-CIX Internet exchange node and secure connections to major hyperscalers.

Caution

The availability on some data centers only complies with Tier-2 classification. Upgrading to Tier 3 would increase customer confidence in security.





Appendix

Methodology & Team

The ISG Provider Lens™ 2022 – Next-Gen Private/Hybrid Cloud– Data Center Solutions & Services research study analyzes the relevant software vendors/ service providers in the German market, based on a multi-phased research and analysis process, and positions these providers based on the ISG Research methodology.

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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 May 2022, for providers who actively participated as well as for providers who did not. ISG recognizes that many mergers and acquisitions have taken place since that time, but those changes are not reflected in this report.

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

The study was divided into the following steps:

1. Definition of Next-Gen Private/ Hybrid Cloud– Data Center Solutions & Services
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. Use of Star of Excellence CX-Data
6. Detailed analysis & evaluation of services & service documentation based on the facts & figures received from providers & other sources.
7. Use of the following key evaluation criteria:
 - * Strategy & vision
 - * Tech Innovation
 - * Brand awareness and presence in the market
 - * Sales and partner landscape
 - * Breadth and depth of portfolio of services offered
 - * CX and Recommendation



Author & Editor Biographies

Author



Ulrich Meister
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Ulrich is closely involved with the ISG Provider Lens™ quadrant studies. He primarily writes around digital technology, IT services and cloud technology. His research agenda covers assessing impact of digital transformation, analysing market dynamics, provider positioning in the market, writing POV's, tracking software market and identifying opportunities for enterprises.

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Wolfgang Heinhaus has more than 25 years of IT infrastructure experience and was in a managerial role in a global food company. He has more than 8 years of extensive research experience in the fields of colocation services, IT infrastructure, IT security and cloud computing. He has written several IPL studies for the German and Swiss markets and also advises customers on these topics.



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Research Analyst

Katharina Kummer is a research analyst at ISG and is responsible for supporting and co-authoring Provider Lens™ studies on Public Cloud Transformational Services, Private Hybrid Cloud Data Centre, Data Analytics, Microsoft Ecosystem and Cloud Native – Container Services. Her areas of expertise lie in cloud, data center, cloud native services, digital linguistics and NLP. Katharina develops content from an enterprise perspective and author the global summary report. Along with this, she supports the lead analysts in the

research process and ad-hoc research assignments and writes articles about niche technologies, market trends and insights.



IPL Product Owner

Jan Erik Aase
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Mr. Aase brings extensive experience in the implementation and research of service integration and management of both IT and business processes. With over 35 years of experience, he is highly skilled at analyzing vendor governance trends and methodologies, identifying inefficiencies in current processes, and advising the industry. Jan Erik has experience on all four sides of the sourcing and vendor governance lifecycle - as a client, an industry analyst, a service provider and an advisor. Now as a research director, principal analyst and global

head of ISG Provider Lens™, he is very well positioned to assess and report on the state of the industry and make recommendations for both enterprises and service provider clients.



***ISG** Provider Lens™

The ISG Provider Lens™ Quadrant research series is the only service provider evaluation of its kind to combine empirical, data-driven research and market analysis with the real-world experience and observations of ISG's global advisory team. Enterprises will find a wealth of detailed data and market analysis to help guide their selection of appropriate sourcing partners, while ISG advisors use the reports to validate their own market knowledge and make recommendations to ISG's enterprise clients. The research currently covers providers offering their services across multiple geographies globally.

For more information about ISG Provider Lens™ research, please visit this [webpage](#).

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JUNE 2022

REPORT: NEXT-GEN PRIVATE/HYBRID CLOUD– DATA CENTER SOLUTIONS & SERVICES