Regional Colocation: The Catalyst for Neo-Cloud Enablement

Why modern companies are relying on the interaction of neo-cloud and edge colocation to reduce costs, gain control, and accelerate AI innovation

The cloud euphoria is over. After years of "cloud first" a change in thinking is underway: According to a 2024 Gartner survey, 69 percent of companies reported exceeding their cloud budgets. At the same time, the demand for AI infrastructure is increasing. The solution? Neo-cloud strategies combined with modern colocation data centers – a combination that unites cost control, data sovereignty and technological innovation.

Neo-cloud: The Paradigm Shift After the Cloud Hype

Neo-cloud translates the experience gained from a decade of cloud computing into a new, pragmatic strategy. The term describes specialized cloud providers and infrastructure models that focus on GPU computing power, low latency and flexible resources for AI and high-performance workloads. Unlike traditional public cloud providers such as AWS, neo-clouds rely on cost-effective GPU-as-a-Service models for the next generation of AI applications.

Even companies that had migrated entirely to the public cloud are now moving workloads back to their own or colocation data centers. The main reason: cost control. While the cloud may seem cheaper initially, long-term, compute-intensive applications can be operated much more economically in on-premises or colocation-based infrastructure.

Neo-cloud doesn't mean abandoning the cloud, but rather embracing cloud intelligence. Workloads are placed where they are best suited from a technical, economic and regulatory perspective. It's about hybrid models in which public cloud, private cloud, neo-cloud providers, edge computing and traditional infrastructure work together in an orchestrated manner. Gartner predicts that by 2027 around 90 percent of companies will be pursuing hybrid cloud strategies.

And this is precisely where colocation providers with modern regional edge data centers come into play.

Colocation as a strategic enabler for neo-cloud architecture

Colocation providers have evolved from mere "rack rental companies" to strategic infrastructure partners. Today, they offer far more than just rack space, power and cooling: cloud interconnects, flexible scaling options, carrier neutrality and a dense ecosystem of cloud, neo-cloud, network and digital service providers, making them the ideal hub for hybrid architectures.

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Hybrid models made easy: Modern colocation facilities offer direct on-ramp access to all major hyperscalers and neo-cloud providers. Cloud interconnects allow for low-latency, high-bandwidth connections to AWS, Microsoft Azure, Google Cloud and specialized GPU cloud providers. Colocation sites act as a physical interface, seamlessly connecting private and public cloud resources.

Cost control through transparency: A key advantage of colocation in neo-cloud architectures is predictability. While cloud bills can quickly spiral out of control due to variable usage patterns – according to Gartner, 69 percent of companies exceeded their cloud budgets in 2023 – colocation contracts offer fixed monthly costs. Companies know exactly what rack space, electricity and connectivity cost. For basic workloads with consistent load this model often pays for itself within just a few months compared to pure cloud usage.

Flexible scaling without vendor lock-in: Neo-cloud strategies thrive on agility. Colocation providers enable companies to quickly book additional capacity—whether for seasonal peaks, new AI projects or acquisitions. At the same time, companies retain control of their infrastructure: hardware, operating systems, virtualization layers, everything remains under their own control. This carrier and cloud neutrality prevents the dreaded vendor lock-in and enables multi-cloud strategies where different providers are used in parallel.

Physical proximity and ecosystem benefits: Regionally based colocation providers enable physical proximity to users, deep network peering ecosystems and maximum operational reliability. They also reduce lead times and investment risks as companies don't have to build their own data center, crucial factors in the fast-paced age of AI.

AI workloads: The game-changer for colocation

Artificial intelligence is the current driver of data center demand and this trend is increasing. According to the Bitkom Cloud Report 2024, 17 percent of German companies already use AI applications from the cloud and this share is expected to double to 34 percent within five years. These workloads are extremely resource-intensive: GPU clusters for machine learning training require enormous amounts of processing power.

For many companies, operating such infrastructures in their own data centers is neither technically nor economically feasible. While public cloud providers offer GPU instances the costs for high-end hardware quickly add up to substantial monthly fees. Colocation providers with modern facilities– designed for high performance densities – offer the ideal middle ground: Companies can operate their own or leased GPU servers in a professional environment, maintain full control over their data and models and only pay for the resources they actually use.

AI workloads will increasingly run in hybrid environments, a clear departure from pure cloud strategies. More and more, the training of large models is taking place in colocation

or edge data centers while inference workloads are flexibly distributed between on-premises, colocation and cloud. Hybrid cloud models, combining local colocation space with public cloud and neo-cloud resources, are considered key to the digitalization of industry, research and administration.

Data Sovereignty: Regulatory Imperatives Meet Technical Solutions

Data protection and data sovereignty are key drivers for neo-cloud strategies. The requirements of GDPR, the NIS2 Directive and industry-specific regulations are forcing many companies to keep critical data in Europe.

According to the Bitkom Cloud Report 2024, 81 percent of German companies already use cloud computing and another 14 percent are planning or discussing it. Data sovereignty is a crucial criterion when choosing a cloud strategy. While public cloud providers have established European regions, legal uncertainties – especially with US providers – remain. The Cloud Act and other regulations highlight compliance risks.

Colocation providers with locations in Germany and neighboring regions offer legal certainty. Data remains physically located there, is subject to German and European law and can be further protected by technical measures if necessary. For regulated sectors such as financial services, healthcare or critical infrastructure (KRITIS) this is non-negotiable.

At the same time, cloud interconnects from German colocation facilities enable the use of global cloud services for non-critical workloads – a true hybrid strategy that combines sovereignty and innovation.

In practice: How Neo-Cloud and Colocation work together

The advantages of neo-cloud strategies and colocation are proving their worth in real-world applications. Successful implementations reveal a clear pattern: Companies outsource core workloads with constant load (databases, file servers, ERP systems) to colocation environments. Variable, scalable workloads such as webshops, development environments or big data analytics tend to run in the public cloud. GPU-intensive AI workloads are operated in colocation environments or with specialized neo-cloud providers, depending on the requirements.

Cloud interconnects ensure seamless integration: An SQL database in a colocation rack delivers data to an analytics platform in the cloud without compromising latency or security. Backup data is cost-effectively outsourced to cloud object storage, while production systems run on-premises or in colocation.

These architectures offer the best of both worlds: cost control and data sovereignty on the one hand and agility and scalability on the other. They are not a future scenario but already standard practice in many companies.

Portus Data Centers: Regional Strength Meets International Connectivity

One example of a modern colocation provider is the Portus Data Centers Group. Since 2020, the company has offered carrier-neutral edge and colocation services in Germany and neighboring regions. With three strategically chosen locations in Hamburg, Munich and Luxembourg it creates the foundation for flexible, redundant IT infrastructures.

All Portus Data Centers locations are carrier-neutral and feature state-of-the-art security including access control, video surveillance and 24/7 monitoring. In addition, they offer a highly available, redundant power supply and efficient cooling systems. Portus Data Centers enables the operation of high-performance, low-latency IT architectures precisely where companies need their data.

The provider works closely with customers to support individual requirements and ensure that the needs of both the company and its end customers are met. The combination of best-in-class infrastructure, regional presence, international networking and carrier neutrality makes Portus Data Centers a partner that not only enables neo-cloud strategies but actively accelerates them.

The future is hybrid with colocation at its heart

Neo-cloud strategies are the logical consequence of a decade of cloud experience. Regional colocation providers are key enablers in this scenario. They provide the physical foundation for hybrid architectures, enable cost control without sacrificing flexibility, guarantee data sovereignty and drive IT innovation.

For IT decision-makers, choosing the location of their colocation partner is becoming a crucial factor in shaping their own AI roadmap. The neo-cloud is here. And colocation is its natural ally.

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