Austria | Global Data Centers

10 years of failure-free infrastructure for next layer

Client profile

next layer is an Austria-based internet service provider that designs and operates network and server structure solutions tailored to the needs of business clients. It helps companies achieve their business objectives with customized and flexible IT services, including cloud and colocation services. The company was founded in 2004 by IT specialists who have many years of experience in the industry and proven expertise in innovative technologies. next layer customers benefit from direct contact with highly qualified technicians. As an independent owner-managed Austrian company, next layer runs its fiber optic infrastructure in Vienna. It has network nodes in the Austrian state capitals and neighboring countries, and data centers at several locations. Its clients include leading banks, insurance companies, official agencies, IT service providers and system integrators.

Summary: For the many business customers of next layer, including those in the financial services and media industry, security and redundancy are extremely important. They are also key considerations for next layer when selecting colocation sites. As one of the first clients of NTT DATA's Vienna 1 Data Center, next layer operates a fully redundant network node. Their entire infrastructure has been running securely for more than 10 years, with no failures.

> "It takes experience to build and operate a secure data center. Even in our initial discussions with the people in charge, we sensed that they know exactly what they are doing. The expertise of NTT DATA won us over from the very outset. We have followed the construction of the data center, and our good impressions have been confirmed again and again over the last few years.
>
> **René Avi**, cofounder and CTO of next layer

Business need

Meet stringent security and availability requirements for critical infrastructure

Payment providers, airlines, banks and insurance companies have one thing in common: the need for a well-protected, fail-safe infrastructure with built-in redundancy. This is the only way to ensure that, in the event of a data center failure, their applications continue to run and data is securely transferred and stored.

As a provider of cloud, network and server infrastructure, next layer has been meeting the exacting requirements of its business customers for over 20 years. The company operates its own fiber optic infrastructure in Vienna as well as network nodes in the Austrian state capitals and neighboring countries.

About 10 years after the company started, next layer was leasing its own colocation spaces in several Viennese data centers. To support further growth, the business needed an additional location - one that could meet the requirements of customers in highly regulated or critical-infrastructure industries. next layer therefore placed a premium on high availability. They needed a data center with security provisions like a redundant electricity supply from separate grids, an emergency power supply, and round-the-clock monitoring. Reliable, fast connectivity was just as important as the security of the data center (and has become more important over time with the proliferation of cloud solutions.)

Solution

Data center facilities and services that support high business standards

next layer selected NTT DATA's Vienna 1 Data Center as early as the planning phase and was one of our first clients to sign a lease agreement. From the very beginning, next layer was impressed by our team's professionalism.

Technical features like the redundant power supply with a 20MVA transformer substation on site, the separate UPS, and extensive fire-protection measures like early warning smoke detection systems and nitrogen extinguishers in all fire compartments, convinced René Avi, cofounder and CTO, that Vienna 1 was the site of choice. "We looked closely at the drawings and their implementation and quickly recognized that every step is thought through very precisely," says Avi. "We, too, work very meticulously and value partners like NTT DATA that also apply extremely high standards."

Today, next layer rents three cages and an office in our ISO 27001–certified data center. For the service provider, the location is doubly important. Vienna 1 is an availability class 3 data center and is the first choice for all next layer customers requiring critical infrastructure. They can operate their own IT infrastructure in the data center, starting from one unit of a quarter rack (10 to 12 units of space).

next layer itself uses the colocation infrastructure in the Vienna 1 to operate its own cloud services, and the core of their carrier infrastructure is also located in this data center. In addition to high security standards, Vienna 1 offers comprehensive connectivity. It is directly linked to the most important carrier hubs and cloud networks as well as to the fiber optic backbone and the Vienna Internet eXchange (VIX3). next layer also maintains its own carrier rack at an NTT DATA facility in Frankfurt, from which it operates an additional internet node.

> "We are carriers ourselves and at the same time help companies to build and operate a secure and reliable IT infrastructure. In the colocation segment, we see ourselves as a data center 'upgrader'; in other words, we rent space in a colocation data center and offer it to businesses in a custom package with other exclusive services. To be able to deliver high-quality services ourselves, the basic services have to be right."
>
> **René Avi**, cofounder and CTO of next layer

Outcomes

Maximum availability, security and service quality for future

The security requirements of data center clients are becoming increasingly complex. Data is being processed and stored in the cloud, and AI-based applications are being used more and more. This makes the underlying IT infrastructure even more important.

As a provider, next layer works exclusively for businesses, many of which are part of Austria's critical infrastructure or are subject to strict regulatory requirements. The colocation space that the company has leased at NTT DATA's Vienna 1 Data Center plays an important role in meeting exacting security requirements, as René Avi explains: "We operate as a carrier and colocation provider and offer cloud services. The basis for all levels of value creation is a secure data center with high availability. At the NTT DATA Vienna 1 facility, there has never been a serious failure, and for us, that's service quality."

In addition to the security facilities provided by the data center, next layer installed additional sensors and implemented monitoring structures for its own cages to ensure the technical security of the racks at all times. In the event of a malfunction, experts from next layer are able to provide information to their customers at any time, and quickly rectify the causes of a failure if necessary.

Service quality is something that the company attaches particular importance to. Every support request in the next layer network operation center is received and answered directly by a technical expert - no queues or redirects.

Apart from the high availability of the NTT DATA data center, René Avi identifies another advantage in the location's connectivity: "Take an inquiry on a website hosted on a server in the data center. Every data packet of this kind of inquiry triggers the transport of 50 internal data packages in the metro area, on average. Our fast Ethernet and fiber channel connections in the metro area with bandwidths of up to 400 Gbit/s ensure that the latencies remain short."

For the next layer CTO, the trend is definitely moving towards high-availability colocation services. In his experience, companies' own on-premises data centers will not be able to accommodate the higher rack-power densities expected in the future, with their extensive cooling and power requirements. At the same time, more and more companies are implementing hybrid cloud solutions, whose connectivity requirements can generally be met only in colocation data centers.

The required resilience and reliability necessitate a data center with high availability - a data center like Vienna 1.

About Global Data Centers

Global Data Centers, a division of NTT DATA, operates one of the largest data center platforms in the world with more than 155 data centers in over 20 countries and regions spanning North America, Asia Pacific, EMEA, and India. As a neutral operator, we offer access to multiple cloud providers, a wide variety of internet exchanges, and telecommunication network providers, including our own IPv6-compliant Tier 1 Global IP Network.

As a global industry leader, we excel in powering large-scale high-density and AI infrastructures that deliver scalable power and cooling solutions with unmatched efficiency and reliability. We are ready to facilitate client adoption of next-generation technologies for computing at scale, virtualization, data migration, and cloud and B2B private connectivity regionally and globally.

We are committed to operating our data centers with net-zero emissions across our operations by 2030 and in the entire value chain by 2040, as recognized by SBTi (Science-Based Targets initiative). As part of this commitment, we aim to power our data centers with 100% renewable or low carbon energy by 2030.

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