

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 infrastructure solutions tailored to the needs of business clients. It helps companies achieve their business objectives with customized, flexible IT services, including cloud and colocation services. The company was founded in 2004 by IT specialists with many years of industry experience, 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 Austrian state capitals and neighboring countries, and data centers in several locations. Its clients include leading banks, insurance companies, government agencies, IT service providers and system integrators.

For the many business customers of next layer, including those in the financial services and media industries, 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 knew exactly what they were doing. The expertise of NTT DATA won us over from the outset. We followed the construction of the data center, and our good impression has been confirmed again and again over the past few years.”

René Avi
Cofounder and CTO, 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 secure, 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 Austrian state capitals and neighboring countries.

About 10 years after the company was founded, next layer leased 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 already selected NTT DATA's Vienna 1 Data Center in the planning phase. They were one of our first clients to sign a lease agreement. From the beginning, next layer was impressed by our team's professionalism.

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

Today, next layer rents three cages and an office in our ISO 27001-certified data center. For the service provider, 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 with a quarter rack, or 10 to 12 units of space.

next layer itself uses the colocation infrastructure in 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. At the same time, we help companies build and operate 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 tailored package with other dedicated services. To deliver high-quality services ourselves, the underlying services have to be right.”

René Avi
Cofounder and CTO, next layer

Outcomes

Maximum availability, security and service quality for the 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 than before.

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 our 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. A secure, highly available data center forms the basis of all levels of value creation. At the NTT DATA Vienna 1 facility, there has never been a serious failure, and for us, that's service quality."

To supplement the security capabilities provided by the data center, next layer installed additional sensors and implemented monitoring systems 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 can provide updates to their customers at any time and, if needed, quickly resolve the cause of a failure.

The company attaches particular importance to service quality. Every support request in the next layer network operations center is received and answered directly by a technical expert — with no queues or redirects.

In addition to our data center's high availability, 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 an average of 50 internal data packages in the metro area, on average. Our high-speed Ethernet and fiber channel connections in the metro area with bandwidths of up to 400Gbit/s ensure that latencies remain low."

For the next layer CTO, the trend is to move toward highly available colocation services. Based on his own experience, companies' own on-premises data centers will not be able to accommodate the higher power densities per rack expected in the future, with their extensive cooling and power requirements. At the same time, more and more companies are implementing hybrid cloud solutions. Their connectivity requirements can generally be met only in colocation data centers.

The required resilience and reliability demand a highly available data center — like Vienna 1.

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