



Home to the cloud

Munich is the third-largest city in Germany and the capital and most populous city of the German federal state Bavaria. The city has the strongest economy out of all the German cities and has a significant financial center. As a result, it places itself as a solid, regional alternative to Frankfurt. It holds the headquarters of large companies such as Siemens, BMW, Allianz, MAN, Linde and MunichRE. Munich also boasts an important technology hub, with a presence of many large tech businesses such as Microsoft, Google, Amazon, IBM and Alibaba. The city is known as one of Germany's innovation hotspots with a large number of start-ups based in the city. There is a focus on the automotive industry, as this is a particularly vibrant industry within Munich.

The Munich 2 Data Center is situated in the north of Munich, in Unterschleißheim about 25 km as the crow flies from the Munich 1 Data Center site. The Munich 2 Data Center was planned as a dedicated data center new build and is being developed in several building stages. On a plot which is more than 18,000 sqm large, about 6,200 sqm of data center space is being developed in two building stages. The first building stage was completed in May 2017. The grand opening for building B is scheduled for Q4 2020.

A solution for every requirement

With a total of 6,200 sqm IT space and a maximum of 30 MVA from two different off-site substations, Munich 2 offers complete solutions for housing your IT and network systems in a secure, highavailability environment. We provide you with the best possible physical and technical infrastructure supported by 2N UPS systems, generator backup, as well as highly redundant cooling systems. Munich 2 holds multiple certifications and is connected to major carrier hubs and cloud networks, as well as to the DE-CIX. To validate hybrid cloud services and innovations faster and at lower cost, our Technology Experience Labs provide the perfect hosted ecosystem in a live data center environment.

Secure and flexible space built to your specifications

Your requirements are the most important aspect of our service offering. You choose, we deliver. Whether you select a building shell which you configure yourself, or we construct it according to your specifications, or even if you want to rent a single rack in our shared environment, we can accommodate your needs. We will also ensure the space is highly available through our years of engineering critical data centers while maintaining high levels of security to keep your infrastructure and data safe.

Technology Experience Lab

- **Technology spaces:** Globally available facilities in productive data centers of NTT that bring together more than 140 technology partners to enable prospects and clients to test and validate, but also innovate on the latest technologies.
- Industry communities: Today, information technologies are a key enabler to many organizations. Our industry communities help these organizations to identify relevant technology providers and connect with helpful contacts.
- Start-ups and venture capital: Many times, start-ups are major drivers when it
 comes to disrupting various industries. Our start-up unit brings together startups, corporates and venture capitalists to enable and accelerate innovation.

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Infrastructure

Data center space

- · 6,200 sqm of IT space in building A and B
- flexible colocation deployments: single rack colocation, cages, suites, turnkey build to suites, shell and core solutions
- ancillary spaces (offices, storages, and pre-installation rooms) available
- common areas such as meeting rooms and catering area
- separated and independent technical areas per data center building

Cooling

- high efficient chiller systems with free-cooling integrated or separated recoolers and own-programmed, weather-dependent energy management systems
- CRAH units in the suites and technical rooms
- additional ground water cooling for building A
- concurrently maintainable AHUs providing fresh air pressurization and humidity control to data suites
- cold aisle containment to support high densities and maximize efficiencies
- heat recovery with heating pumps for pre-heating the emergency standby power systems and offices

Power

- off-site substation delivering 30 MVA of power
- maximum client IT load of 14 MW for both data center buildings
- average power density of 1.5 2.0 kW/ sgm
- power supply at 20 kV level from two independent substations
- two separate UPS systems (A- and B-supply) with 2N redundancy
- redundantly designed emergency power system with diesel generators N+1 per building

Fire protection

- automatic digital fire alarm system on all levels with point and air aspiration detectors
- Very Early Smoke Detection Alarm Systems (VESDA) in the return air path
- firefighting system based on a nitrogen

- extinguishing gas system
- fire protection walls to a minimum of 90 minutes separation

Security

- Service Control Center for security and operation with 24/7 fallback to Frankfurt 1
- redundant monitoring of all critical functions underpinned by standardized security processes and the multilevel security zone principle secures the rental area and the technical operation
- palisade fencing supported by a security perimeter fence to protect the data center area
- video surveillance systems for the external perimeter, plant areas, and data halls
- ram-raid bollard protection in accordance to BS PAS 68:2013
- card swipe entry/exit to all doors and persons separation locks per data center building
- preventive risk assessment as well as continuous testing and training of operating personnel

Connectivity

- · carrier-neutral
- · redundant Carrier-Meet-Me-Rooms
- redundant Carrier Access Rooms per building
- carrier mix from global tier 1 supplier to regional supplier
- · connectivity to the major carrier hubs
- pre-spliced dark fiber available on demand
- · redundant, structural cabling

- infrastructure with diverse paths
- Pre-Cabling to support fast Cross Connect deployments
- · high-performance internet access
- inter data center connectivity between NTT data centers for geo-redundant solutions
- Multi Service Interconnection Platform to connect our clients to major cloud service providers such as Amazon Web Services, Microsoft Azure, and Google Cloud Platform

Additional services

- consulting, general and implementation planning for development projects
- client implementation
- installation services
- Remote Hands services provided by the technical infrastructure on-call service
- · facility services
- · additional security services

Global data center network

- part of the NTT family of over 160 data centers around the world
- connectivity options to the global NTT network
- access and use of Technology
 Experience Labs with a worldwide partner network

Service Level Agreement

- · 99.999% power uptime availability
- climate control conditions in line with ASHRAE guidelines
- · connectivity availability

Overview of our main product offerings:	
Fully-fitted	Colocation Rack Carrier Rack
	Dedicated Cage
	Dedicated Suite
Shell and core	Area
Supporting products and services	Multi Service Interconnection Platform
	Cross Connect
	Remote Hands





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Flexible connection to data centers and clouds: 20+ countries and 500,000 sqm server space



About the Global Data Centers division of NTT Ltd.

Global Data Centers is a division of NTT Ltd. and incorporates DPA, e-shelter, Gyron, NetMagic, NTT Indonesia Nexcenter, RagingWire and other NTT Communications group Data Center divisions. Our combined global platform is one of the largest in the world, with over 160 data centers spanning more than 20 countries and regions including North America, Europe, Africa and APAC. As a neutral operator, we offer access to multiple cloud providers, a large variety of Internet Exchanges and telecommunication network providers including our own IPv6 compliant, tier 1 global IP network. Our clients benefit from tailored infrastructure and experience consistent best practices in design and operations across all of our highly reliable, scalable, and customizable data centers.



Locations in Munich



Contact

Munich 2 Data Center NTT Global Data Centers EMEA GmbH Landshuter Straße 7 85716 Unterschleißheim Germany

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NTT in numbers and facts **Expertise** We help you to do great things. Over **40,000** people are working for NTT Ltd. worldwide. Delivering services in more than 200 countries.

300,000 people are part of the NTT Group.





Technology solution

We have a full suite of technology solutions to help you create value.



