



GTM GERMANY | GLOBAL DATA CENTERS EMEA

Frankfurt 1 Data Center

Plan for every second

Site brochure



Home to the cloud

Europe's largest individual data center

Frankfurt is the largest city in the German state »Hessen«, and the fifth-largest city in Germany, in terms of population. The city is regarded as an alpha world city and is Germany's financial capital, as well as the major financial center of continental Europe. Major banks headquartered in the city include European Central Bank, Deutsche Bundesbank, Frankfurt Stock Exchange, Deutsche Bank, DZ Bank, KfW and Commerzbank. By market capitalization, the Frankfurt stock exchange is one of the world's largest stock exchanges.

Frankfurt is also a major tech hub, as the city is rich in fiber and is home to the DE-CIX, one of the world's largest internet exchange points. The city is also a vibrant start-up hub with a natural disposition for FinTech companies. Frankfurt is the leading data center market in Germany and is one of the largest data center markets in Europe. The city's geographic location allows connections to Eastern and Western Europe, along with the

Nordics and the Middle East (via Turkey), making it a very well-connected hub.

The Frankfurt 1 Data Center is the main site of NTT, which has a total of more than 60,000 sqm of data center and technical space. This makes our campus Europe's largest individual data center site. Our campus offers space for seven free-standing buildings which have been constructed and equipped especially for use as data centers. The latest building, component H, has been opened in November 2017. The Campus also houses an office building and an event center. Due to its size, there is always enough capacity to expand in the campus. Particularly noteworthy is the direct fiber optic connection to the Frankfurt 3 Data Center in Rüsselsheim and Frankfurt 4 Data Center in Hattersheim, whereby a dual hall concept is possible.

In addition, our first Technology Experience Lab was founded in 2017 at our campus FRA1. Beyond space, power, and security, we offer new ways for technology providers, business partners,

and end users to innovate with cloud technology in a vibrant community.

The Technology Experience Lab provides the setting for clients to test and validate distributed cloud architectures in a real-world production environment faster, with greater flexibility, and with lower up-front investment. A rapidly growing network of cloud, technology and integration partners is bringing private and hybrid cloud scenarios to life in the lab, where clients and partners are able to test proven »use cases« on preinstalled IT platforms. Clients also have the ability to design »proof of concepts« that specifically target their business goals, which can then be quickly migrated to the production environment. The Technology Experience Lab reduces the initial investment in complex new scenarios, enables IT departments to measure the impact on IT service delivery, and helps accelerate time to market deployment.

A solution for every requirement

With a total of 52,000 sqm IT space and a maximum of 120 MVA with an own substation 110/20kV, Frankfurt 1 offers complete solutions for housing your IT and network systems in a secure, high availability environment. We provide you with the best possible physical and technical infrastructure supported by 2n UPS systems, n+1 generator backup, as well as highly redundant cooling systems for each data center building. Frankfurt 1 holds multiple certifications and is connected to major carrier hubs and cloud networks, as well as to the DE-CIX.



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.

Overview of our main product offerings:

Fully-fitted	Colocation rack Carrier rack
	Cage
	Suite
Shell and core	Area
Supporting products and services	Multi service interconnection platform
	Cross connects
	Remote-hands

Infrastructure



Data center space

- 52,000 sqm of IT space
- 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 coolers and own-programmed, weather-dependent energy management systems
- peripheral ventilation and deventilation systems with energy-optimized operating points (rotation speed control, humidity-dependent control etc.)
- CRAH units in the suites and technical rooms
- peripheral humidifying and dehumidifying systems with low energy expenditure managing the humidity of IT areas

- cooling and cold water loops with redundant pumps, FU controlled
- heat recovery with heating pumps for pre-heating the emergency standby power systems and offices

Power

- on-site substation delivering 120 MVA of power
- power supply at 110 kV level from two substations with two feeds
- own substation with three 110/20 kV transformers n+1
- maximum client IT load of 8 - 12 MW per data center building
- average power density of 1 - 3 kW/sqm
- separate, dual UPS systems (A- and B-supply) with 2n redundancy per data center building
- redundantly designed emergency power system with diesel generators for each 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 an argon or nitrogen extinguishing gas system
- fire protection walls to a minimum of 90 minutes separation

Security

- 24/7 Security Operations Center and Operation Control Center
- 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 campus
- 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
- 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 (350+ carriers)
- connectivity to the major carrier hubs, as well as to the DE-CIX
- via our partner IX Reach direct connection to international internet exchanges
- 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 DC connectivity between NTT data centers for geo-redundant solutions
- multi cloud interconnection platform to connect our clients to major cloud service providers such as Amazon Web Services, Microsoft Azure, and Google Cloud Platform

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 start-ups, corporates and venture capitalists to enable and accelerate innovation.

Additional services

- consulting, general and implementation planning for development projects
- client implementation
- installation services
- 24/7 remote-hands services
- facility services
- additional security services

- access and use of Technology Experience Labs with a worldwide partner network

Service Level Agreement

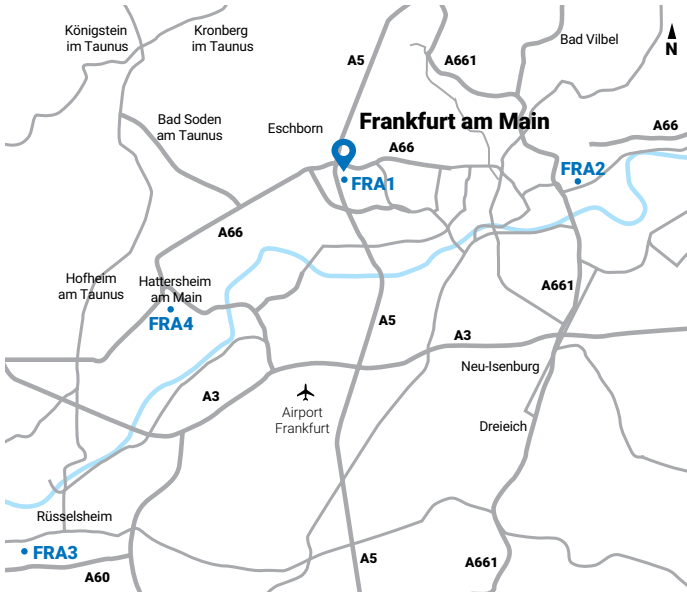
- 99.999% power uptime availability
- climate control conditions in line with ASHRAE guidelines
- connectivity availability

Global data center network

- part of the NTT family of over 160 data centers around the world
- connectivity options to the global NTT network



Locations in Frankfurt

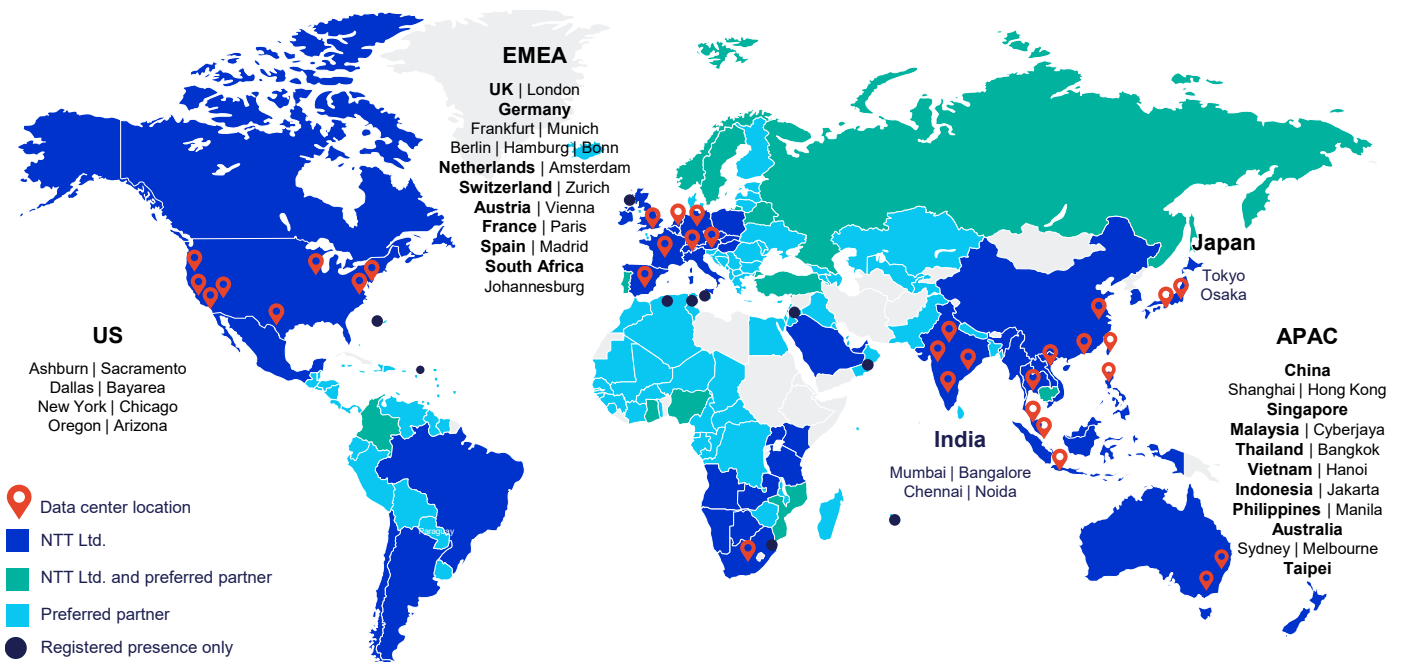


About the Global Data Centers division of NTT Ltd.

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.



Flexible connection to data centers and clouds: 20+ countries and 450,000 sqm server space



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.



Partner

We work together with you.
We're an extension for your business.



Intelligent

For us, intelligent means helping you to be data driven, connected, digital, and secure.



5

regions



Globally

We are wherever you are, making it easier for you to focus on your core business.



120

years of heritage in the NTT Group



Outcomes

We shape the outcomes you're looking for.



Contact

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