



GTM GERMANY | GLOBAL DATA CENTERS EMEA

# Frankfurt 3 Data Center

Well served with fresh air

Site brochure



## Home to the cloud

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 3 Data Center offers the best network connection and a power supply from two different substations with two feeds at 110/20kV level. FRA3 is located centrally in the Rhine-Main region in Ruesselsheim, about 17 km from Frankfurt am Main Airport. Due to its proximity to our Frankfurt 1 Data

Center, about 25 km as the crow flies, the two sites are coupled directly with one another. As a result, it is possible to mirror the data they contain.

## A solution for every requirement

With a total of 28,200 sqm IT space and a maximum of 90 MVA, Frankfurt 3 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 3 holds multiple certifications and is connected to major carrier hubs and cloud networks. 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.

### Overview of our main product offerings:

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

## Infrastructure



### Data center space

- 4,700 sqm of IT space in building A (28,200 sqm once fully built out)
- 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, catering area, and showers
- separated and independent technical area's per data center building

### Cooling

- high efficient chiller systems with free-cooling integrated or separated coolers and own-programmed, weather-dependent energy management systems
- CRAH units in the suites and technical rooms
- 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

### Power

- on-site substation delivering 90 MVA of power
- maximum client IT load per building of 12 MW
- average power density of 2.5 kW/sqm
- power supply at 110/20 kV level from two substations with two feeds
- own substation with three 110/20 kV transformers n+1
- 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 a 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 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
- Carrier Access Rooms per building
- carrier mix from global tier 1 supplier to regional supplier

- connectivity to the major carrier hubs
- pre-spliced dark fibre 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 cloud 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
- 24/7 remote-hands services
- 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

### Technology Experience Lab

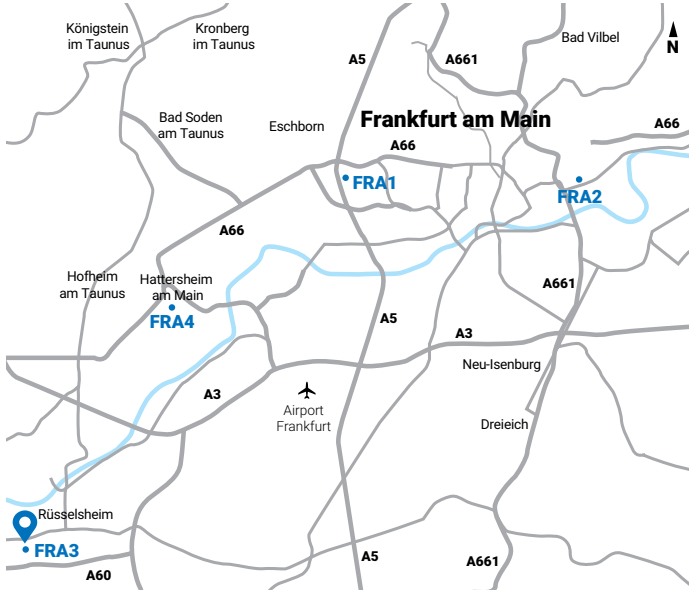
- **Technology spaces:** Globally available facilities in productive data centers of NTT that bring together more than 140 technology partners to enable prospects and clients to test and validate, but also innovate on the latest technologies.
- **Industry communities:** Today, information technologies 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.

### Hybrid external air cooling

In our Frankfurt 3 Data Center, the new hybrid external air cooling system has been developed according to the latest energy-related findings. The particularly efficient operation to cool computers places very high demands on the air conditioning and cooling systems, in terms of technical control, while requiring that the availability and redundancy should not be restricted. The combination of indirect, adiabatic external air cooling and water cooling, known as hybrid external air cooling, fulfills these requirements, while saving an additional approx. ¼ of the cooling energy costs in comparison with pure water cooling with free cooling.



## Locations in Frankfurt

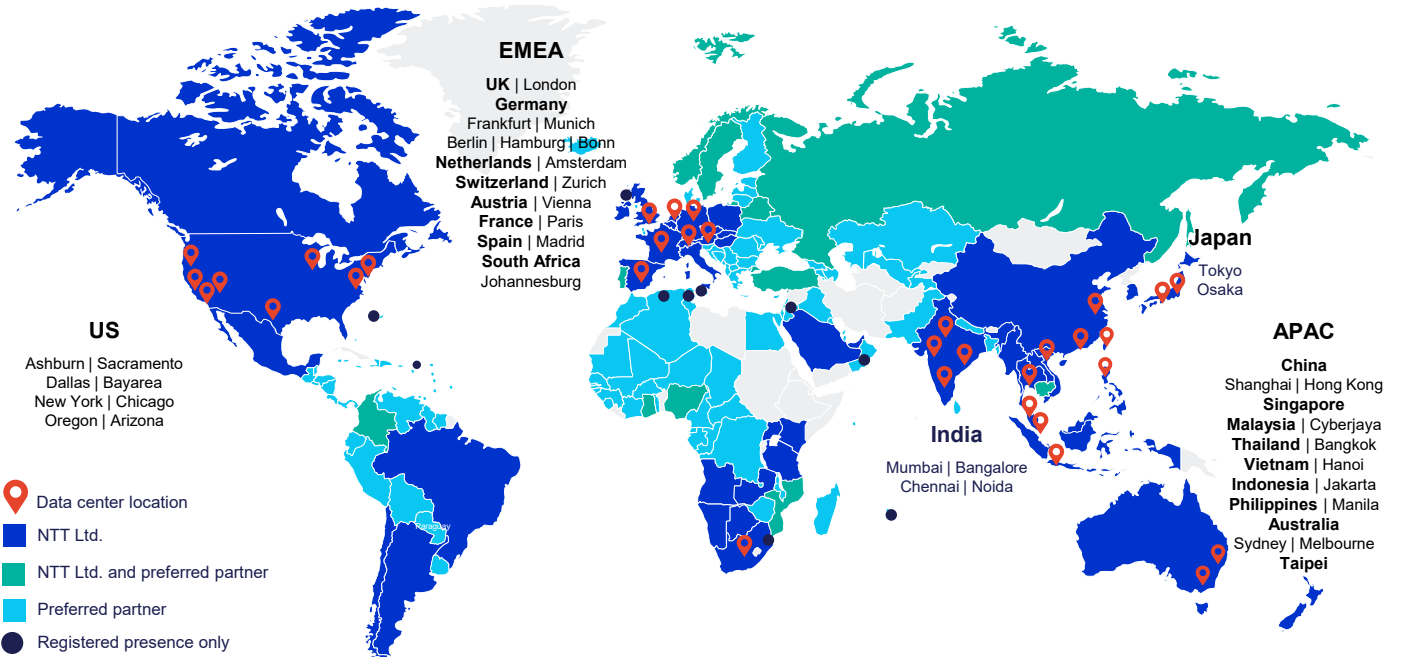


## About the Global Data Centers division of NTT Ltd.

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.



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