

FRA3 CyrusOne Data Center

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Introduction

CyrusOne FRA3 is a brand-new purpose-built data center offering cloud providers, systems integrators and multinational corporations customised, secure and resilient data center solutions within a key business hub.

The facility is strategically located in Sossenheim, the preferred location for data centers in Frankfurt, Germany's "Digital City". It sits just 500 meters from CyrusOne FRA1 and FRA2, delivering 22 MW of IT power to 11,560 sq m (124,431 sq ft) of world-class technical space, with each data suite customised to individual client specifications.





Overview

- 22 MW of IT power delivered to 11,560 sq m (124,431 sq ft) of world-class technical space within two attached, four storey, data centers
- Active / Active 110 kV dual redundant power supplies with fully flexible IT power solutions
- Connection to the European high voltage grid via two independent substations (separate from Frankfurt I and II)
- Ultra-low PUE through the use of Indirect Adiabatic Air Cooling to each data hall
- Highly resilient, concurrently maintainable power and cooling to Tier III+
- Carrier neutral access and diverse fibre connectivity to active A&B Meet Me Rooms from multiple telecommunication providers
- Bespoke and scalable data halls
- Multilayer industry-leading levels of physical and electronic security
- Dedicated offices, buildroom and/or ancillary space adjacent to each hall
- Dedicated N+N electrical infrastructure to each data hall
- Secure managed delivery bays with 3 tonne goods lifts
- 24/7 year round onsite support



Technical Specifications

BUILDING

- 11,560 sq m (124,431 sq ft) of technical space within two attached, four storey, data centers
- Floor loading 12 kN per sq m
- Delivery bay with access to two 3-tonne goods lifts
- Bespoke and scalable data halls
- Dedicated offices, buildroom and/or ancillary space adjacent to each hall, built to your requirements
- On-site electric vehicle charging points

POWER

- Operated with 22 MW of IT power
- Active / Active 110 kV dual redundant power supplies with fully flexible IT power solutions
- Connection to the European high voltage grid via two independent substations
- N+N power solutions dedicated to each hall
- Minimum N+N UPS with 10-minute battery back-up as standard
- Fully rated N+1 MV back-up generators with 48-hour fuel autonomy at full load, capable of continuous running
- Re-fueling contracts in place to ensure timely replacement
- All IT power metered and charged as consumed at dedicated MV meters

COOLING

- N+1 Indirect Adiabatic Air Cooling to each data hall resulting in ultra-low PUE
- Cooling infrastructure individually managed and linked to BMS
- Independently regulated temperature and humidity to each space utilising hot aisle containment
- A&B Power Supplies to cooling equipment for full redundancy (local ATS's)

- Highly resilient, concurrently maintainable power and cooling to Tier III+
- 1,300 mm return air plenum with 4,400 mm clear height in the data hall

CONNECTIVITY

- Carrier neutral access and diverse fibre connectivity to active
- A&B Meet Me Rooms from multiple telecommunication providers
- Access to the world's largest Internet Exchange DE-CIX
- Diverse cable routing into facility to dual MMRs
- Strict cable management policy

ENERGY EFFICIENCY

- Ultra-low PUE through the use of Indirect Adiabatic Air Cooling to each data hall with free cooling capacity
- Scalable UPS capable of ECO and sequence modes
- Variable speed drive adiabatic fans
- ASHRAE T9 hall conditions
- Air cooled plant rooms with variable speed fans
- Rainwater recovery for reduced water usage

FIRE DETECTION AND SUPPRESSION

- Three-stage fire detection systems into data halls and UPS plant areas
- VESDA (Very Early Smoke Detection Apparatus) in data halls and UPS plant rooms for early warning
- Fire detection in all rooms, ceiling return air plenums and in voids as required
- Gas suppression to data halls and UPS rooms with dedicated bottles
- Double knock approach gas suppression to all areas, single zone activation
- Fire detection and suppression systems interconnected to central BMS

BUILDING AND ENERGY MANAGEMENT SYSTEMS (BMS AND EMS)

- Power and building monitoring systems to provide alarms
- Power surge management
- 24/7 year round on-site M&E engineers undertaking
 Planned Preventative Maintenance (PPM) programmes
- Real-time monitoring of electrical and mechanical systems

SECURITY

- High security perimeter fence
- External CCTV and Geoquip trembler wire to fence
- Dual vehicle locks to site entrance with dual gates and physical ram protection
- 24/7 year round on-site security located in secure control room
- Extensive CCTV and access control throughout the facility
- Progressive layers of security restrict access throughout the site and facility
- Mantraps with biometric readers into data halls if required

COMPLIANCE (OPERATED TO INTERNATIONAL STANDARDS)

- ISO 14001 Environmental Management
- ISO 27001 Information Security Management
- • ISO 9001 Quality Management
- ISO 50001 Energy Management

Floor Plan



