中国移动

China Mobile





One-stop infrastructure-based solutions to expand your business globally



About us | CMCC

China Mobile Communications Corporation (CMCC)

- China Mobile Communications Corporation was established on April 20, 2000. It has a registered capital of 300 billion Yuan and assets of more than one trillion Yuan.
- China Mobile owns 72.72% of China Mobile Limited which is listed on the New York Stock Exchange (NYSE:CHL) and The Stock of Hong Kong Limited (HKEx: 0941).
- China Mobile boasts the world's largest network and customer base with high market and brand value.



4G Base Stations

775MILLION*4G Customers





*As of Dec 2020





264 COUNTRIES
International
Roaming

941 MILLIONMobile Subscribers





No.27



No.56

| About us | CMI



isoLUTIONS

Enterprise

Market



China Mobile International Limited (CMI)

- China Mobile International Limited (CMI) is a wholly-owned subsidiary of China Mobile Limited, mainly responsible for the operation of China Mobile's international business.
- In order to provide better services to meet the growing demand in the
 international telecommunications market, China Mobile established a subsidiary,
 CMI, in December 2010. Leveraging the strong support by China Mobile, CMI is a
 trusted partner that provides comprehensive international telecom services and
 solutions to international enterprisers, carriers and mobile users.
- Headquartered in Hong Kong, CMI has expanded our footprint in 22 countries and regions.

Our Vision

A seamless, carefree and borderless digital life globally

Our Mission

To be a future contributor of China Mobile's global value and a trustworthy partner in the industry



37 Footprints Worldwide

APAC

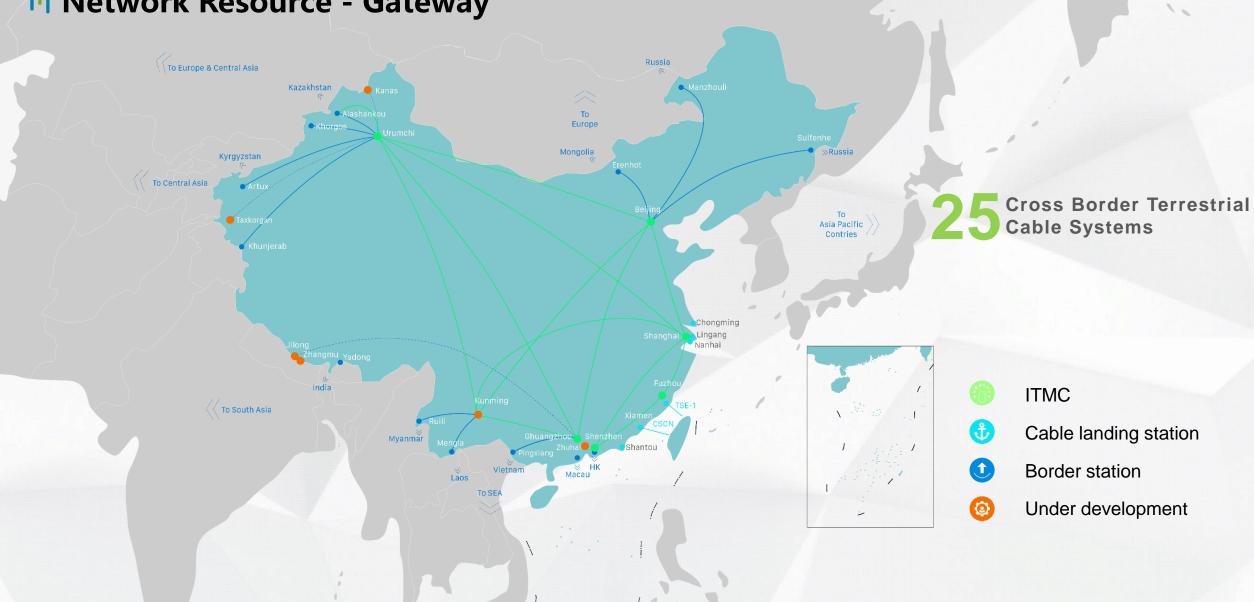
China (4) I Singapore I Malaysia I Thailand I Sri Lanka I Bangladesh I Japan I Korea I Australia I Indonesia I Philippines I India I Vietnam I Cambodia I Laos I Myanmar

- Europe
 - U.K. I Germany I France I Russia I Kazakhstan I Luxembourg I The Netherlands I Spain I Italy
- Africa and the Middle East Kenya I South Africa I U.A.E.
- Americas
 U.S. (3) | Canada | Brazil | Mexico



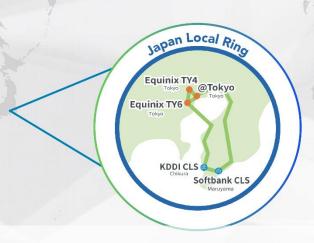
Network Resources | Cable Systems FASTER SJC2 NCP CSCN APG International Cable Resources Worldwide Self-built Terrestrial Transmission Submarine Cable Cable Investment Bandwidth

Network Resource - Gateway



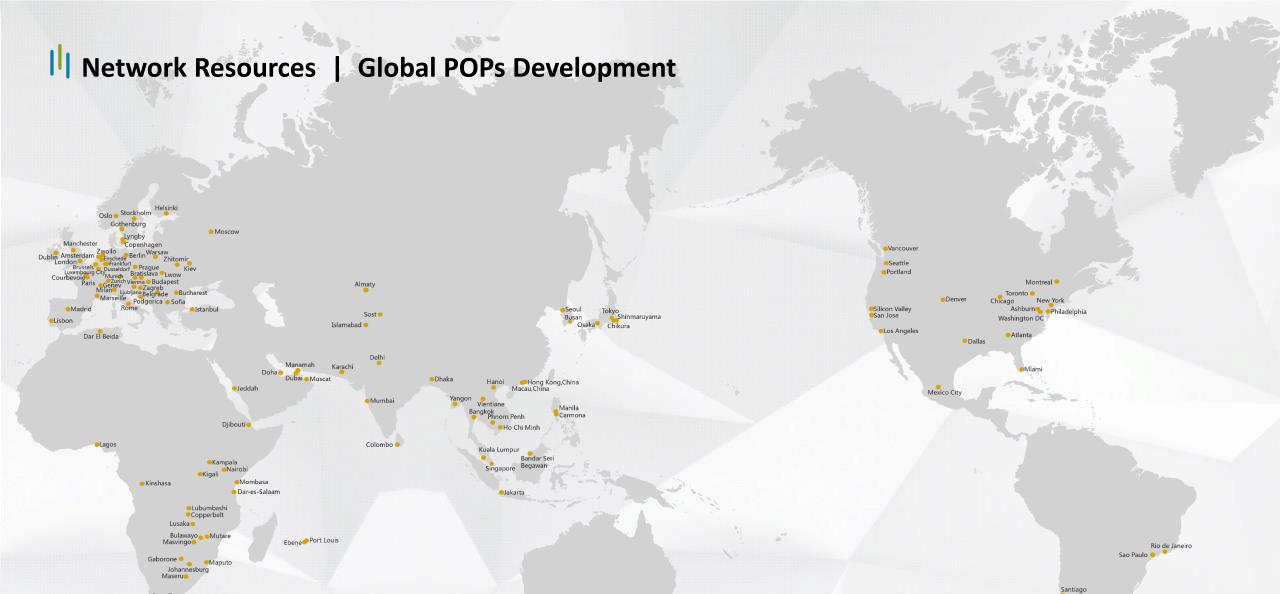
Network Resources | Intelligent Connectivity – Local Ring





- 4 Local Rings intelligently connected
- Hong Kong Local Ring
- Japan Local Ring
- Singapore Local Ring
- Europe Local Ring

have been established with total bandwidth of 30T



180+ PoPs Worldwide

54 In APAC Melbourne 62 In Europe

36 In Americas 28 In Africa and the Middle East

Buenos Aires

| Enterprise Solutions | CMI

iS LUTIONS Your one-stop solution



iSolutions Cloud

- Cloud Connect
- Multi-Cloud
- Cloud Marketplace
- · SD-WAN
- Application Acceleration Network
- Cloud SMS & VoIP

iSolutions Connectivity

- IPLC/IEPL
- MPLS VPN
- EVPN
- IP Transit
- iFinancial LLC

iSolutions Data Center

- Hong Kong GNC
- Singapore DC
- London DC
- Frankfurt DC

iSolutions ICT

- Office Setup
- Equipment Purchase
- Unified Communication
- Professional Service
- Managed Service

iSolutions IoT

- IoT SIM Card
- Smart Devices
- One-stop Solutions





i SÇLUTIONS

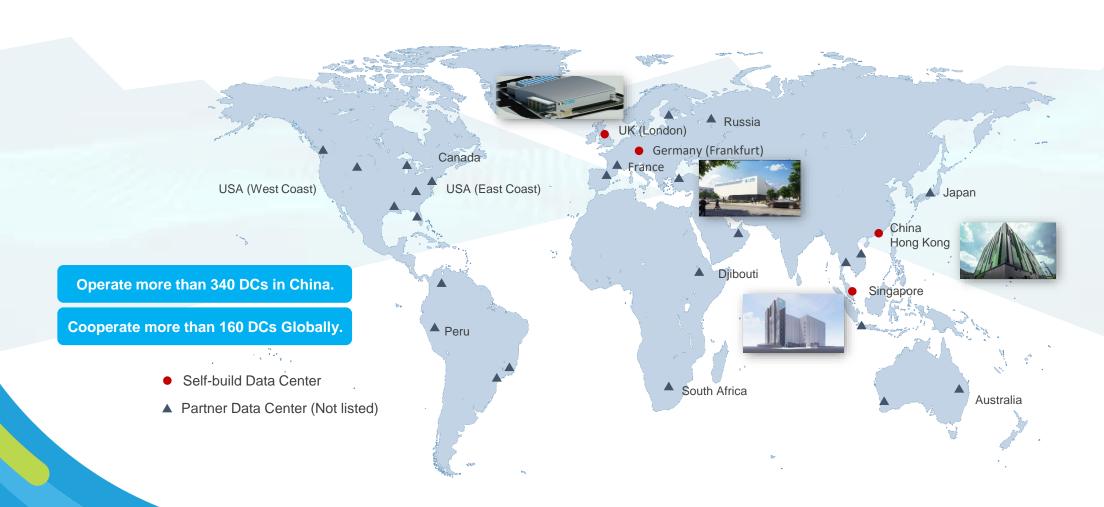
CMI Global Data Center Service

- Hong Kong
- Singapore
- London
- Frankfurt



| CMI IDC IDC Distribution Plan

CMI self-build data center globally, collaborating with global reliable data center providers, relying on high quality networks and professional IT services covering the world. Providing customers with one-stop secure and stable data center service.



IDC Services



London



Hong Kong, China



Singapore

Location: Slough Trading Estate,

LDN

Opening: End of October 2019

Capacity: >1,680 racks

Total Gross Floor Area: ~ 9,615 m²

Standard: Tier III+ (Tier IV ready)

- CMI leased-owned property with purpose built
- Over 900 million mobile subscribers
- · Serves as the hub of International Network Exchange and Internet Data Center (IDC) in one building
- · 3 Individual Cable Lead-in
- Direct connect to major data centers in London as well as CMI Local Rings in Europe
- · High-standard 9-layers Security Control

Location: Tseung Kwan O Inds. Estate

Opening: November 2014

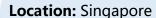
Capacity: > 2,530 racks

Total gross Floor Area: ~ 24,355 m²

Standard: Tier III+ (Tier IV ready)

- CMI self-owned property with data center purpose built
- Over 900 million mobile subscribers
- Serves as the hub of International Network Exchange, Internet Data Center (IDC) and Global Network Operation Center (GNOC) in one building
- Direct connect to all the cities in 31 Mainland Provinces, CMI's Hong Kong Local Ring and major data centers in Hong Kong
- The landing station for APG, seamlessly connects with 12 Asian countries and regions
- Closely connect with SJC & SJC2
- · High-standard 9-layers Security Control





Opening: End of May 2019

Capacity: > 2,100 racks

Total gross Floor Area: ~ 17,490 m²

Standard: Tier III+ (Tier IV ready)

- · CMI self-owned property
- Over 900 million mobile subscribers
- Serves as the hub of International **Network Exchange and Internet Data** Center (IDC) in one building
- Direct connect to major data centers and CMI Local Rings in Singapore
- Closely connect with APG, SJC, SJC2 and SMW5 in order to seamlessly connect with Asia-Pacific (APAC), Indian Ocean as well as Europe, the Middle East and Africa (EMEA) countries /regions
- High-standard 9-layers Security Control





















II Product & Service One-stop-shop Solution

CMI can provide not only a secure and stable hosting environment for the equipment, but also professional service at every step of customer's business digital transformation.

Seamless Network Access

- Large bandwidth, fast access to all cities in China
- Direct connect to China Mobile's global network and cloud resources
- Access to CMNET, direct reach to 800 million+ Chinese mobile users
- GNC is the only landing station of APG in Hong Kong, access to 12 Asian
 countries and regions
- Connected to main data centers in HK through loop ring
- Carrier neutral

Professional Service

- Server and accessory device installation/unmount
- Assist in configuring IP address related information
- DNS configuration
- VLAN assignment
- Switch port assignment
- Fiber connectivity test
- Maintenance service

Advanced Cloud Service

- Server and accessory device installation/unmount
- Assist in configuring IP address related information
- DNS configuration
- VLAN assignment
- Switch port assignment
- Fiber connectivity test
- Maintenance service

Hosting Service

- 7x24 server/network device restart
- Preliminary diagnosis of managed server system and hardware failure
- Antivirus software/firewall installation and test
- 7x24 authorized login operation
- Server system security service
- Server System Vulnerability and Security Settings Service
- Server traffic monitoring and website filing services

IDC Service Hong Kong







Advantages

- CMI self-owned property with data center purpose built
- Over 946 million* mobile subscribers
- Serves as the hub of International Network Exchange, Internet Data Center (IDC) and Global Network Operation Center (GNOC) in one building
- Direct connect to all the cities in 31 Mainland Provinces, CMI's Hong Kong Local Ring and major data centers in Hong Kong
- The landing station for APG, seamlessly connects with 12 Asian countries and regions
- Closely connect with SJC & SJC2
- High-standard 9-layers Security Control



Features

- Location: Tseung Kwan O Industrial Estate
- Opening: November 2014
- Capacity: >2,530 racks
- Total Gross Floor Area: ~24,355 m2
- Standard: Tier III+ (Tier IV ready)



Qualification

- ISO/IEC 27001:2013 Information Security Management Systems
- ISO 9001:2015 Quality Management Systems
- Uptime Institute Tier III Tier Certification of Design Documents (TCDD)
- Uptime Institute Tier III Tier Certification of Constructed Facility (TCCF)
- Leadership in Energy & Environmental Design (LEED) Gold
- Building Environmental Assessment Method (BEAM) Plus Certification
- Payment Card Industry Data Security Standard (PCI-DSS)













Hong Kong IDC | Overall Specification

Floor Height

- Slab to Slab Height: 6,250 mm
- Clear Height: 3,600 mm
- · Raised Floor Height: 800 mm

Power

- Power Capacity: 22MVA From Dual Power Substation With Diversity Path
- 2N Transformer
- Dual UPS Supplies to Rack
- Dual PDU with STS per Rack
- 2N UPS System with 15 Minutes Backup at Full Load
- N + 1 Diesel Generator with Fuel Storage for 22 Hours Backup at Full Load
- Fuel Refill Contract with Supplier for Fuel Delivery within 4 Hours

Fire Detection and Protection

- Very Early Smoke Detection Apparatus (VESDA)
- · Smoke Detector and Heat Detector
- FM200

Data Hall

- ~285 m2 Raised Floor Area per Data Hall
- Dual Separated and Dedicated Service Corridor

Cooling

- N + 1 Water Cooled Chiller System
- N + 1 Cooling Tower
- N + 1 CRAC System
- Down Flow System with Hot and Cold Aisles
- Temperature: 22 +/- 2oC
- Humidity: 50% +/- 10%

Connectivity

- Carrier Neutral
- Dual TBE and Meet-Me Room
- Dual Lead-In to Building with Diversity Path
- Dual Cable Trunking to Data Hall with Diversity Path
- APG Cable Landing Station
- Connection to SJC and SJC2 and Local Fiber Ring in Hong Kong

IDC Service Singapore







- Dedicated data center building without windows in data hall areas
- Satisfy current and future need of data center market development
- 7 x International Standard Certificates *
- 9-Layer Security Control
- Meet the highest safety, operations, maintenance and regulatory requirements
- Dual Lead-In on both electrical and fiber networks, achieving the highest standards in the industry



- Serves as the Hub of International Network Exchange and Internet Data Center (IDC)
- Ground Area: ~7,330 m2 / ~78,900 ft2
- Internal Space: ~17,490 m2 / ~188,260 ft2
- Racks: 2,100+
- IT Load: 10.5 MW+
- Electricity Capacity: 20 MVA+
- Opening: July 2019
- · Standard: Tier III

Qualification

- ISO/IEC 27001:2013 Information Security Management Systems
- ISO 9001:2015 Quality Management Systems
- Uptime Institute Tier III Tier Certification of Design Documents (TCDD)
- Uptime Institute Tier III Tier Certification of Constructed Facility (TCCF)
- Threat, Vulnerability And Risk Assessment (TVRA)
- BCA Green Mark
- Payment Card Industry Data Security Standard (PCI-DSS)











Singapore IDC | Overall Specification

Building

- Dedicated Data Center Building
- 15A Tai Seng Drive, Singapore 535225
- Tier III
- Total Gross Floor Area: ~ 17,490 m2 / 188,260 ft2
- Land Lease Till Year 2053
- Launch Around July 2019

Floor Height

- Slab to Slab Height: 4,800 mm
- Clear Height: 2,600 mm
- Raised Floor Height: 800 mm

Rack, Cage and Data Hall

- Capacity: 2,162 Racks
- Standard Rack Size: 600mm (W) x 1,200mm (D) x 52U (H)
- Floor Loading (Raised Floor): 12.5kPa
- Floor Loading (Slab): 10kPa
- On Demand Modular Cage or Whole Data Hall
- Dedicated Dual CRAC Corridors (4-6/F)

Power

- Power Capacity: 20MVA from Dual Different Power Substations with Diversity Paths
- 2N Transformers
- Dual UPS and PDU Supplies to Each Rack
- 2N UPS System with 15 Minutes Backup under Full-load
- N + 1 Diesel Generator with Fuel Storage for 24 Hours Backup under Full-load
- Fuel Refill Contract with Supplier for Fuel Delivery within 4 Hours

Fire Detection and Protection

- Very Early Smoke Detection Apparatus (VESDA)
- Smoke Detectors and Heat Detectors
- Dry Pre-action Fire Suppression System
- NOVEC 1230 Suppression System

Singapore IDC | Overall Specification

Connectivity

- Carrier Neutral
- Dual MDF Rooms / Dual Telecom-Entrance-Rooms / Dual Meet-Me-Rooms
- Dual Fiber Lead-In to Building with Diversity Paths
- Dual Cable Trunkings to Data Hall with Diversity Paths
- Support for Additional Independent Dedicated Vertical Cable Trunking
- Direct Access to APG, SJC, SJC2 and SMW5 Submarine Cables
- Direct connect to major data centers in Singapore and CMI Singapore Local Fiber Ring

Other Facilities/Services

- Professional Remote Hand Support
- Installation and Structured Cabling
- On-Loan Tools and Accessories
- Wi-Fi Internet Access
- Meeting Rooms, Rest Area, Staging Rooms, Loading Bay Areas and Pantries
- Cargo and Passenger Lifts

Cooling

- N + 1 Water Cooled Chiller System with Continuous Cooling
- N + 1 Cooling Tower
- N + 2 CRAC System
- Down Flow System with Hot and Cold Aisles
- Temperature: 24 oC +/- 2oC
- Humidity: 50% +/- 20%

IDC Service London







- Newly-built dedicated data centre building without windows in data hall areas
- Satisfy current and future need of data centre market development.
- Powerful data centre platform to meet the needs of the financial industry, the internet industry and other industries, now and in future
- 5 x International Standard Certificates
- 9-Layer Security Control
- 3 Individual Lead-In on Fibre Cables as well as Dual Lead-in on Electrical Networks, achieving the highest standards in the industry

* For reference only



- Serves as the Hub of International Network Exchange and Internet Data Centre (IDC)
- Ground Area: ~ 10,000 m2 / 107,639 ft2
 Internal Space: ~ 9,735 m2 / 104,787 ft2
- Racks: 1,680+IT Load: 9.66 MW+
- Electricity Capacity: 15 MVA+
- Opening: December 2019
- Standard: Tier III



- ISO/IEC 27001:2013 Information Security Management Systems
- ISO 9001:2015 Quality Management Systems
- Uptime Institute Tier III Tier Certification of Design Documents (TCDD)
- Uptime Institute Tier III Tier Certification of Constructed Facility (TCCF)
- Payment Card Industry Data Security Standard (PCI-DSS)*

*Under Application









London IDC | Overall Specification

Building

- Newly-built Dedicated Data Centre building
- 536 Ipswich Road, Slough, SL1 4EP, UK
- Tier III
- Total Gross Floor Area: ~ 9,735 m2 / 104,787 ft2
- Land Lease Till Year 2049
- Launch Around December 2019

Floor Height

- Slab to Slab Height: 5,960 mm
- Clear Height: 3,700 mm
- Raised Floor Height: 1,000 mm

Rack, Cage and Data Hall

- Capacity: 1,680 Racks
- Standard Rack Size: 600mm (W) x 1,200mm (D) x 52U (H)
- Ground Floor Loading (Raised Floor): 12.5 kPa
- Ground Floor Loading (Slab): 25 kPa
- First Floor Loading (Raised Floor): 12.5 kPa
- First Floor Loading (Slab): 12.5 kPa
- On Demand Modular Cage or Whole Data Hall
- Dedicated Dual CRAC Corridors

Power

Utility Supply

- Power Capacity: 15MVA+ Dual Power Supply from Dual Different Power Substations with Diversity Paths
- 2N Transformer

Generator and Oil Tank

- N + 1 Diesel Generator with Fuel Storage for 24 Hours Backup under Full-load
- Fuel Refill Contract with Supplier for Fuel Delivery within 4 Hours

UPS

- All UPS are configured in 2N design
- 10 Minutes Battery Backup under Full-Load

Data Hall

- Dual UPS Supplies and Dual Overhead Bus Bars to Each Rack
 - o Hall 4 5.14kW / Rack
 - o Hall 3 5.95kW / Rack
 - Hall 2 5.95kW / Rack
 - Hall 1 5.95kW / Rack

London IDC | Overall Specification

Cooling System

- N + 1 Air Cooled Chiller System with Free-Cooling Features Support
- 2 Buffer Vessels for 3+3 Minutes Continuous Cooling Support
- N + 2 CRAC System (All CRAC Units are Chilled Water Type)
- Down Flow System with Hot and Cold Aisles
- Temperature: 24 °C +/- 2°
- Humidity: 50% +/- 20%

Connectivity

- Carrier Neutral
- Dual Fibre Intake Rooms / Dual Telco Rooms / Dual Meet-Me-Rooms
- 3 Individual Fibre Cable Lead-in with Dual Diversity Paths
- Dual Cable Trunkings to Data Hall with Diversity Paths
- Direct connect to major data centres in UK and CMI UK Local Fibre Ring

Fire Detection and Protection

- Very Early Smoke Detection Apparatus (VESDA)
- Smoke Detectors and Heat Detectors
- NOVEC 1230 Suppression System

Other Facilities / Services

- Professional Remote Hand Support
- Installation and Structured Cabling
- On-Loan Tools and Accessories
- Wi-Fi Internet Access
- Meeting Rooms, Rest Area and Pantries
- Staging Rooms, Store Rooms and Loading Bay Areas
- Parking Space for Cars, Lorry and Containers
- Cargo and Passenger Lifts

| IDC Service Frankfurt, Germany



- CMI self-owned property
- Serves as the hub of International Network Exchange and Internet Data Center in one building
- Direct connect to major data centers in Frankfurt and CMI Local Rings in Europe
- Closely connect with ERMC, TEA3, TRA4 and SMW5 in order to seamlessly connect with Asia-Pacific as well as Europe, the Middle East and Africa regions
- High-standard 9-layer Security Control



Features

Location: MörfeldenOpening: Q4, 2020

• Site Area/ GFA: ~ 6,230m² / 9,601m²

• Capacity: >1360 Racks

• IT Loading/ utility Feed: ~6.8 MW / 12MVA+

• Standard: Tier III



Qualification

- ISO/IEC 27001:2013 Information Security Management Systems #
- ISO 9001:2015 Quality Management Systems #
- Uptime Institute Tier III Tier Certification of Design Documents (TCDD)
- Uptime Institute Tier III Tier Certification of Constructed Facility (TCCF) #
- Payment Card Industry Data Security Standard (PCI-DSS)
- TÜViT Trusted Site Infrastructure (TSI) Level 3 #













Frankfurt IDC | Overall Specification

Building

- Dedicated Data Center Building Without Window
- Starkenburgstraße 12, 64546 Mörfelden, Germany
- Freehold Property
- Total Gross Floor Area: ~ 6,230 m2 / 67,059 ft2
- Launch Around Q4 2020
- Tier III
- High-standard 9-Layer Security Control

Rack and Data Hall

- Capacity: 1,360 Racks
- Standard Rack Size: 600mm (W) x 1,200mm (D) x 52U (H)
- 1/F Floor Loading (Slab): 12.5 kN/m2
- G/F Floor Loading (Slab): 12.5 kN/m2
- On Demand Modular Cage or Whole Data Hall
- Dedicated Dual CRAC Corridors

Floor Height

- Slab to Slab Height: 5,400 mm
- Clear Height: 4,000 mm

Power

- Power Capacity: 12MVA Dual Power Supply from Dual Different Power Substations with Diversity Paths
- 2N Transformers
- 2N UPS System with 6 Minutes Backup under Fullload
- Dual UPS Supplies and Dual PDU Supplies to Each Rack
- N + 1 Diesel Generator with Fuel Storage for 48 Hours Backup under Full-load

Frankfurt IDC | Overall Specification

Cooling

- N + 1 Air Cooled Chiller System with Free-Cooling Features Support
- Buffer Vessels for 6 Minutes Continuous Cooling Support
- N + 2 CRAC System (All CRAC Units are Chilled Water Type)
- Front Flow System with Hot and Cold Aisles
- Temperature: 24 oC +/- 2°C
- Humidity: 50% +/- 20%

Connectivity

- Carrier Neutral
- Dual Fiber Intake Rooms / Dual Telco Rooms / Dual Meet-Me-Rooms
- 2 Individual Fiber Cable Lead-in with Dual Diversity Paths
- Dual Cable Trunkings to Data Hall with Diversity Paths
- Direct connect to major data centers in Frankfurt and CMI Local Fiber Ring in Europe

Fire Detection and Protection

- Very Early Smoke Detection Apparatus (VESDA)
- Smoke Detectors and Heat Detectors
- Nitrogen Suppression System

Other Facilities / Services

- Professional Remote Hand Support
- Installation and Structured Cabling
- On-Loan Tools and Accessories
- Wi-Fi Internet Access
- Meeting Rooms and Pantries
- Staging Rooms, Store Rooms and Loading Bay Areas
- Cargo and Passenger Lifts







Thank You!

www.cmi.chinamobile.com infouk@cmi.chinamobile.com

Confidential and proprietary material for authorized CMI personnel only. Use, disclosure or distribution of this material is not permitted to any unauthorized persons or third parties except by written agreement. Copyright © CMI 2020. All rights reserved.

