
ABB DATA CENTER FORUM 2017, 11 JULY 2017, TUESDAY

Remote Power Panels with unique power density - giving you more in less space

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Data Center

At a glance

1.2-2.2

Typical PUE (power usage effectiveness)

On average, only 50% of all electrical usage in a data center is used by the IT infrastructure. The majority of the rest is used to cool the facility.

30X

Power usage

Data centers use 30X or more the power per square foot of the average office building.

95%

Data center outages

95% of data centers have experienced one or more unplanned outages over the past 24 months.

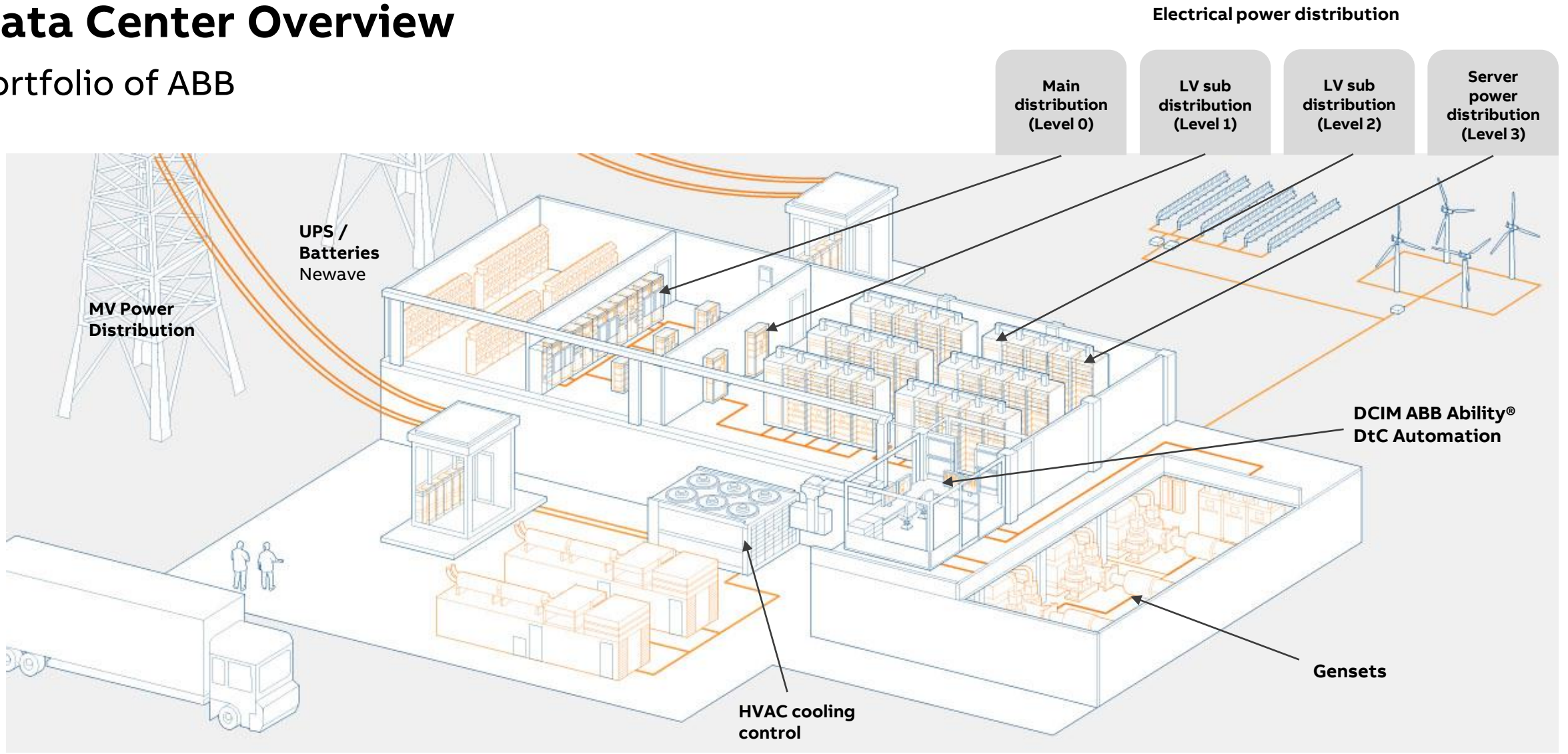
\$1,000,000

Cost of outages/hour

Many data center outages now cost more than most manufacturing facilities.

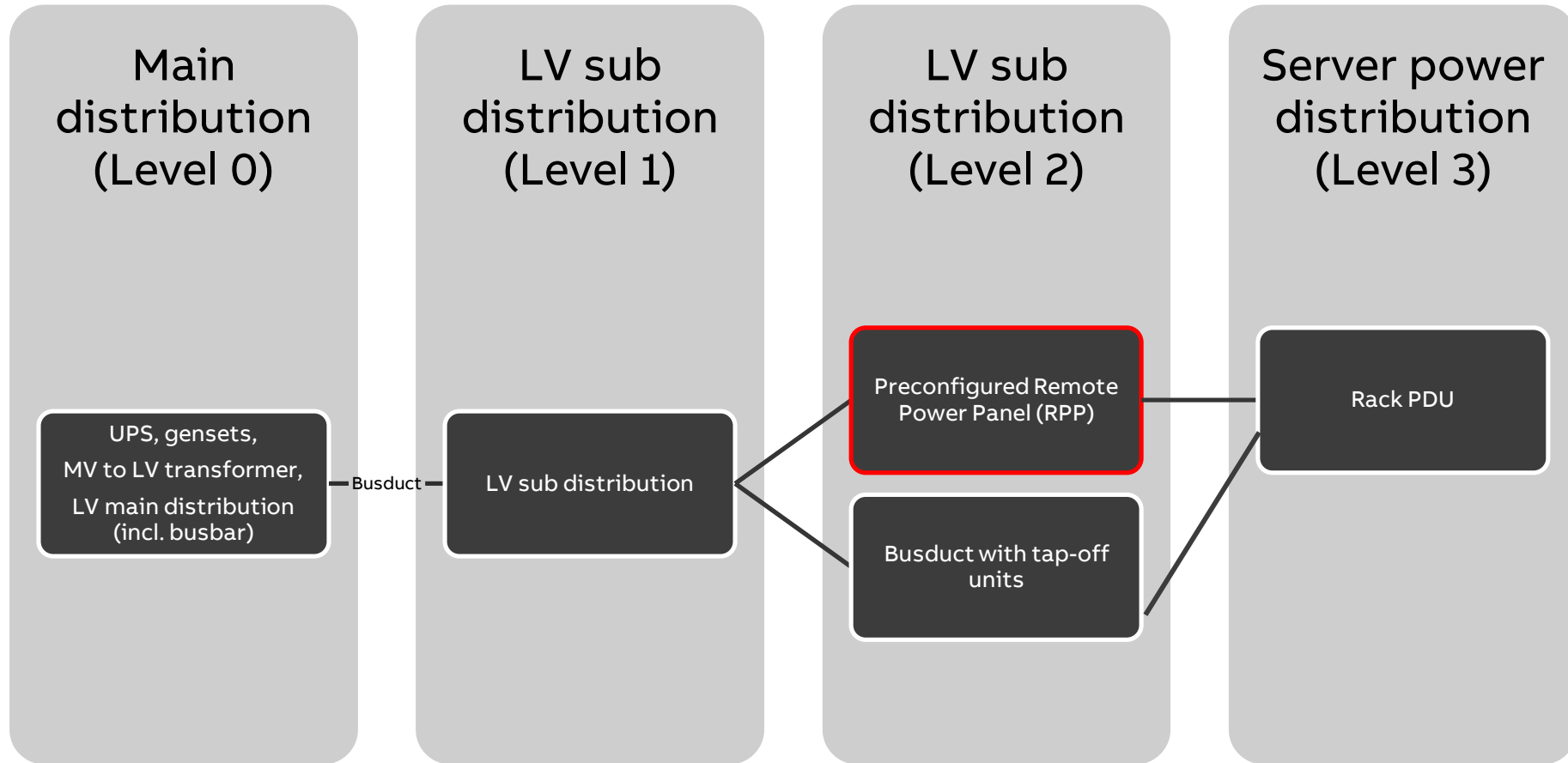
Data Center Overview

Portfolio of ABB



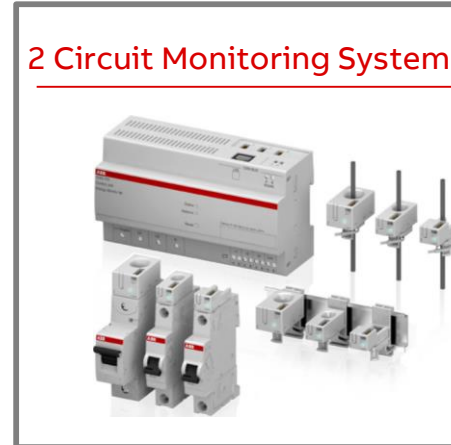
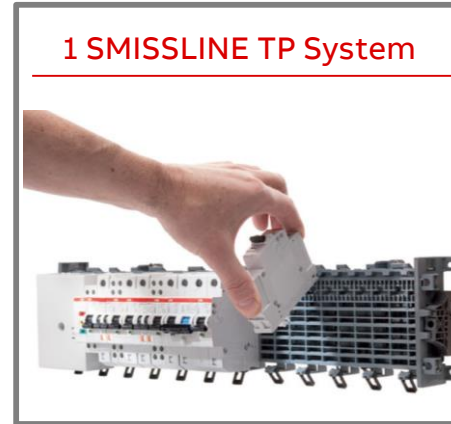
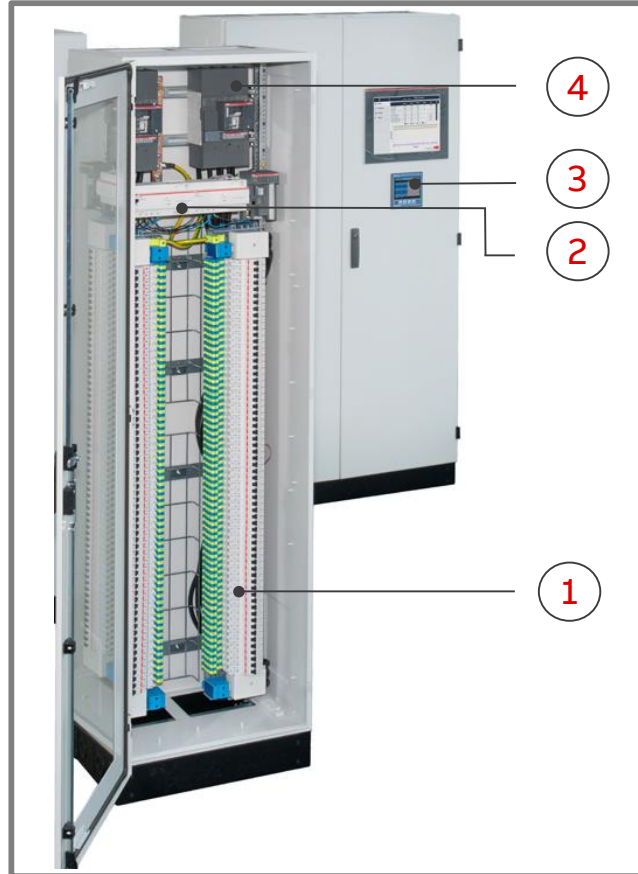
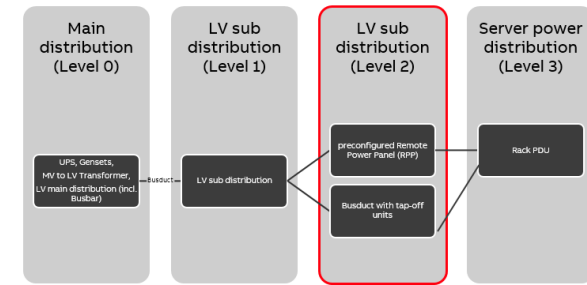
Data Center

Power distribution levels



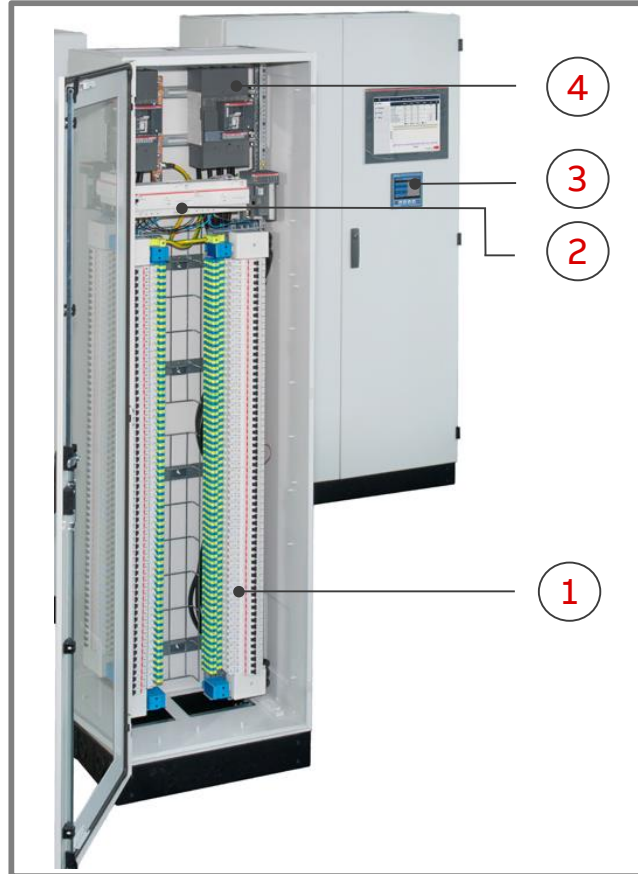
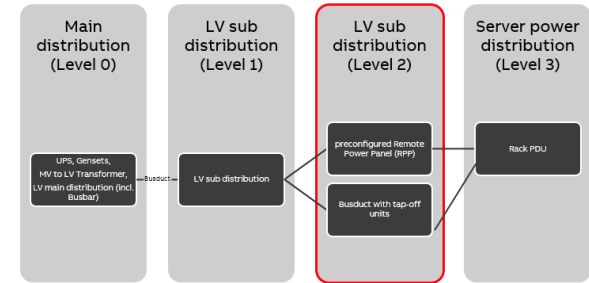
Remote Power Panel (RPP)

Overview of the main components

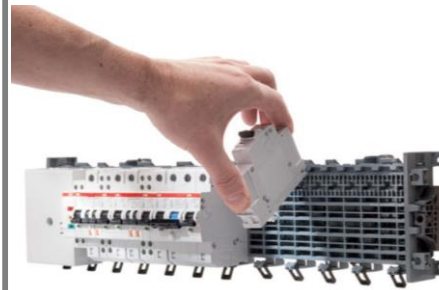


Remote Power Panel (RPP)

Main value proposition for different stakeholders



1 SMISLINE TP System



- Add or change devices under voltage
- Touch proof operation without gloves
- Load balancing by changing the phase
- 250A end feed and 400A double-end feed connection

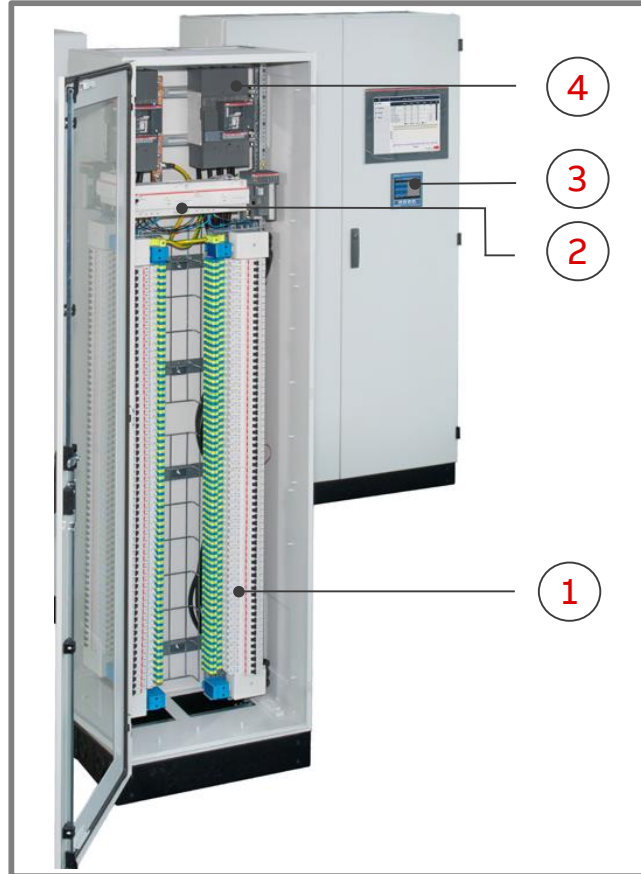
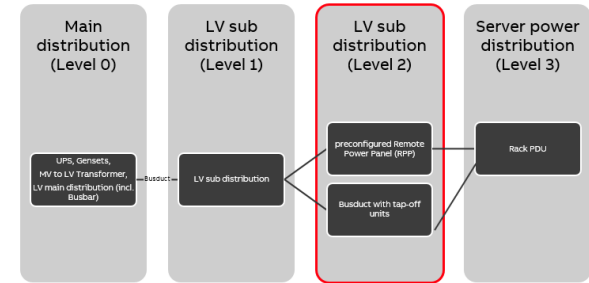
2 Circuit Monitoring System



- Retrofit into existing installations
- Easy commissioning with integrated webserver
- Encrypted SNMP v3 communication
- AC and DC measurement without additional space
- Scalable and flexible bus wiring

Remote Power Panel (RPP)

Main value proposition for different stakeholders



3 Power Quality Analyser



- Measure the efficiency and power consumption of your RPP
- All information about voltage and current on a quick sight
- Protocols like RS485 allow an integration in your control system

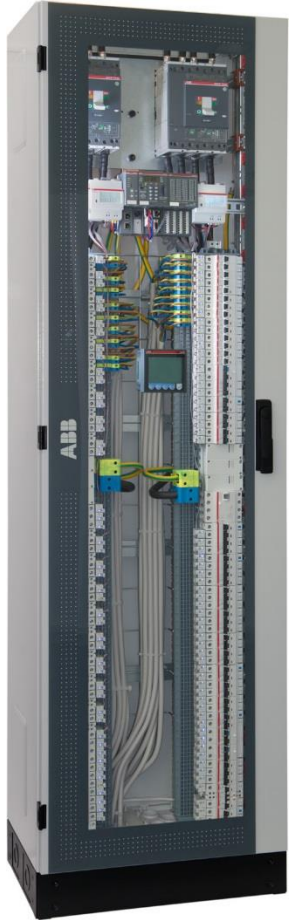
4 Molded Case Breaker



- High breaking capacity in compact dimensions
- Increased safety for your whole data center
- Ease of use and installation flexibility
- For more information add an intelligent module like the Ekip Display

3 boxes left, 3 boxes middle, picture box right

Preconfigured Remote Power Panels (RPP)



Mission

- Create a real value proposition for:
 - Panel builder
 - Electric planner
 - System integrator
- Safe time and reduce approval cost for the owner
- Meet 80% of the market applications with preconfigured remote power panel solutions

Technical performance

- 2 – 4 vertical SMISLINE modules with MCBs and CMS
- Can support between from 6 up to 256 poles to the rack PDUs
- Pre-type tested according to IEC 61439-2
- Dynamic drawing plan and bill of material for each configuration
- Unique Power density – half footprint compared to other vendors

Example applications

- UPS business: Data center, Hospital, Casino, TelCos, Airports

Remote Power Panel (RPP)

4 different cabinet sizes are available

RPP-1000A



RPP-750A



RPP-250A

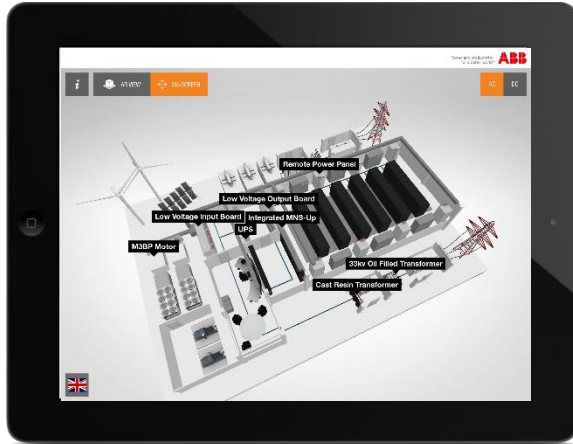


RPP-500A



«ABB Data Centers 3D» on iPad and Google Chrome Browser

Accelerate the planning and engineering

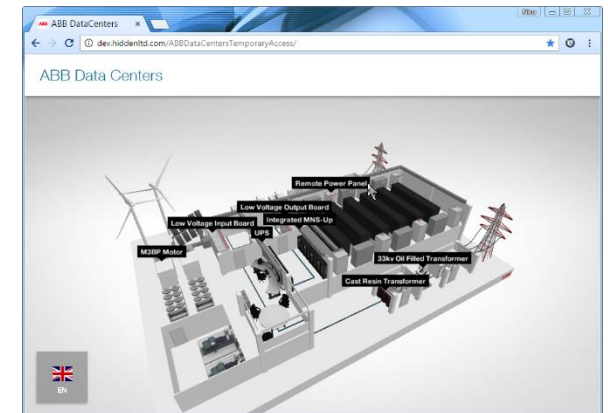
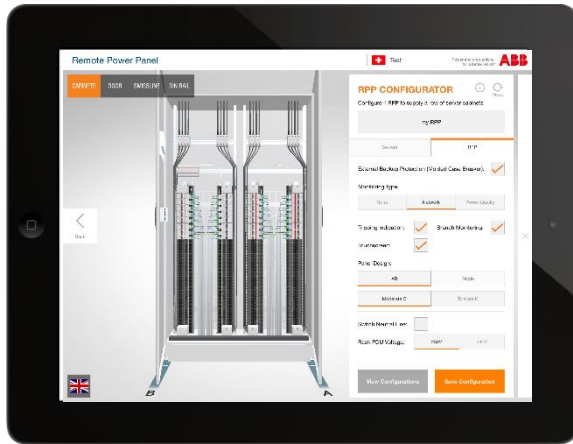


Today supported in 3 languages, more to come:

- German
- English
- Japanese

The user can configure:

- Number of servers and how many servers in a server cabinet
- Expected power consumption per server rack
- Optional features:
 - Select monitoring mode
 - Placement of MCCB (XT4 internal/external)
 - Select MCB variation
 - Remote tripping indication (on/off)
 - Touchscreen at the door
 - Branch Current Measuring
 - MID
 - Overvoltage protection
 - Rack Voltage (415/230 V)



«ABB Data Centers 3D» on iPad and Google Chrome Browser

Homework

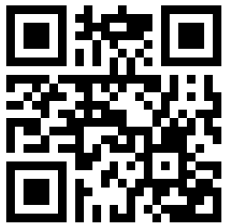


- Download the App to your iPad (if available)
- Or use the following link with the Chrome Browser:

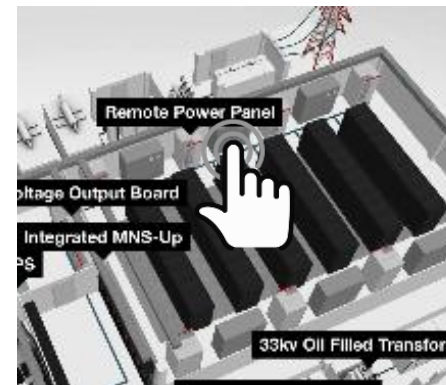
<http://abb.hiddenltd.com/ABBDDataCenters3D>

- Create the project and configure a Remote Power Panel using the build-in Configurator
- To get an offer, send the complete configuration as an e-mail to

CH-DataCenter@abb.com



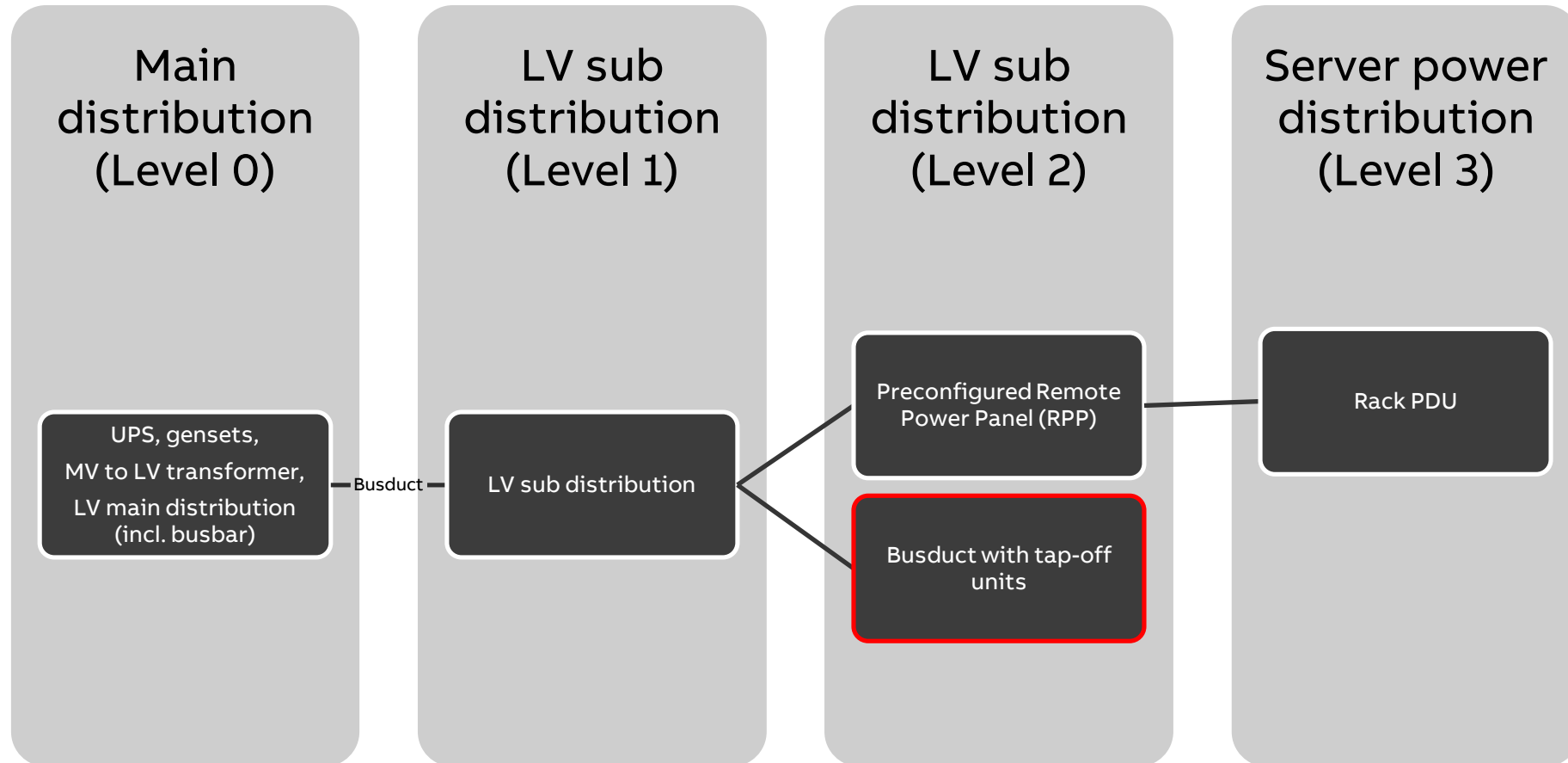
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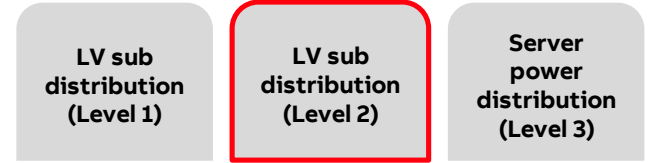
Data Centers

Power distribution levels



Distribution with Tap-Off Units

System overview of CMS integration

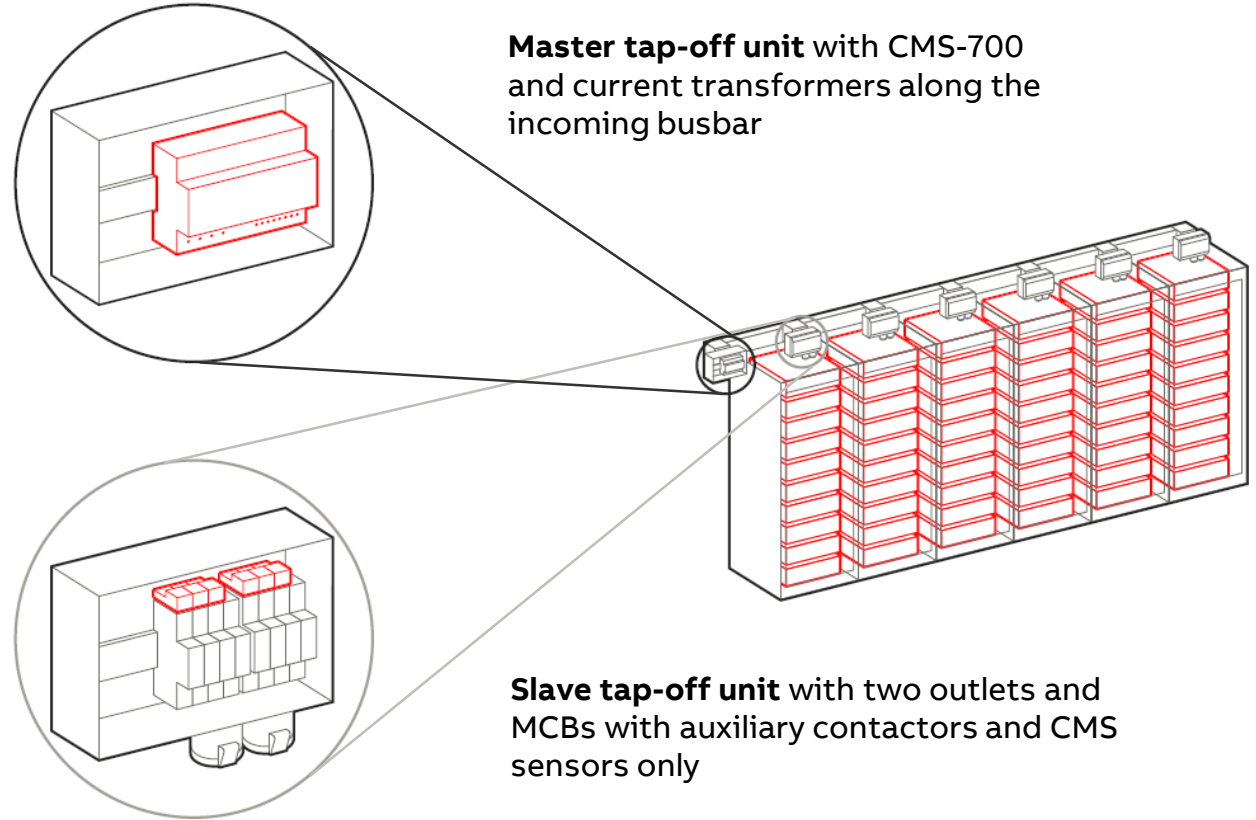


Product	Order code	Quantity*
Control Unit CMS-700	2CCA880700R0001	1
CMS Flat Cable 2m	2CCA880148R0001	1
S203M-C6NA MCB	2CDS273103R0064	1
CT PRO XT 250	2CSG225815R1101	4
M 16/12.P Rail mounted terminal	1SNA165130R2300	1
M 16/12.N Rail mounted terminal	1SNA125129R1600	1

*One tap-off unit for three channels

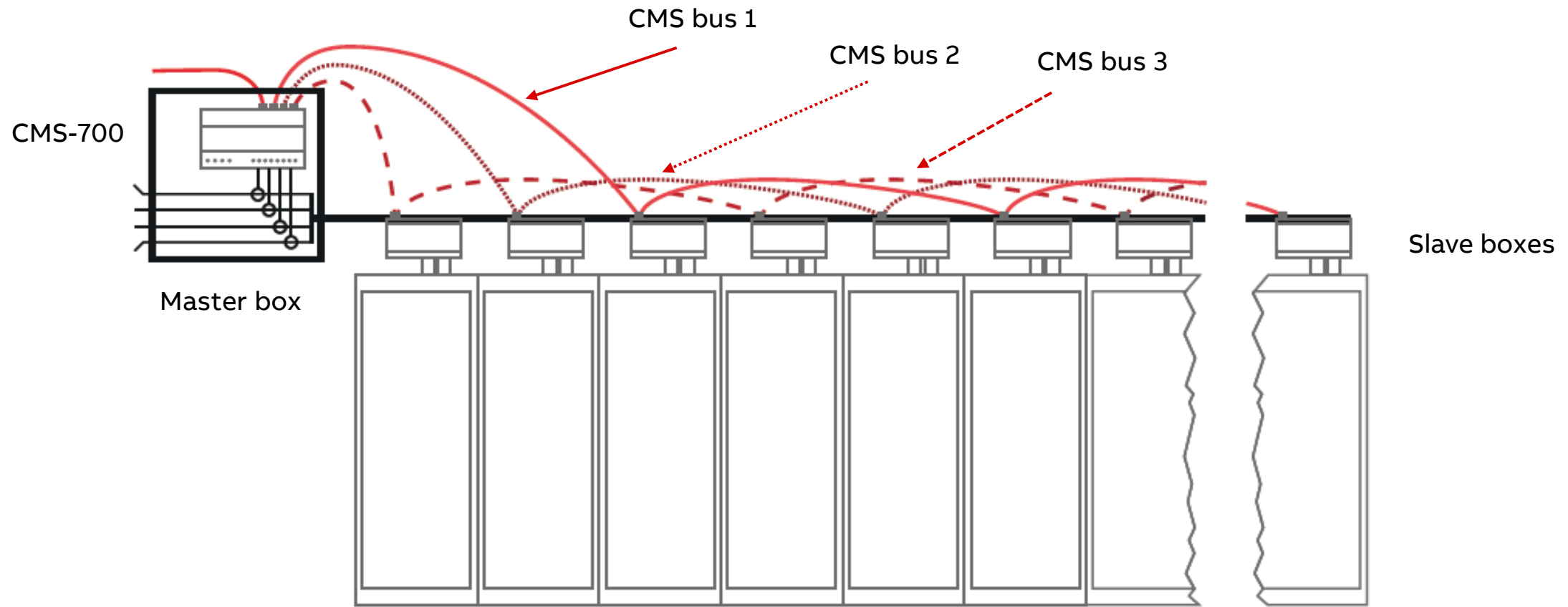
Product	Order code	Quantity*
S203M-C32NA MCB	2CDS273103R0324	10
Current Sensor CMS-121PS	2CCA880211R0001	30
CMS Connector Set	2CCA880145R0001	1
CMS Flat Cable 2m	2CCA880148R0001	3
CEE Socket 432RU6	2CMA193259R1000	10
M 16/12.P Rail mounted terminal	1SNA165130R2300	10
M 16/12.N Rail mounted terminal	1SNA125129R1600	10

*One tap-off unit for one channel



Distribution with Tap-Off Units

System overview of CMS integration



Sub-Distribution with Tap-Off Units or Remote Power Panels

Integrated inside the tap-off units or power panels of our partners

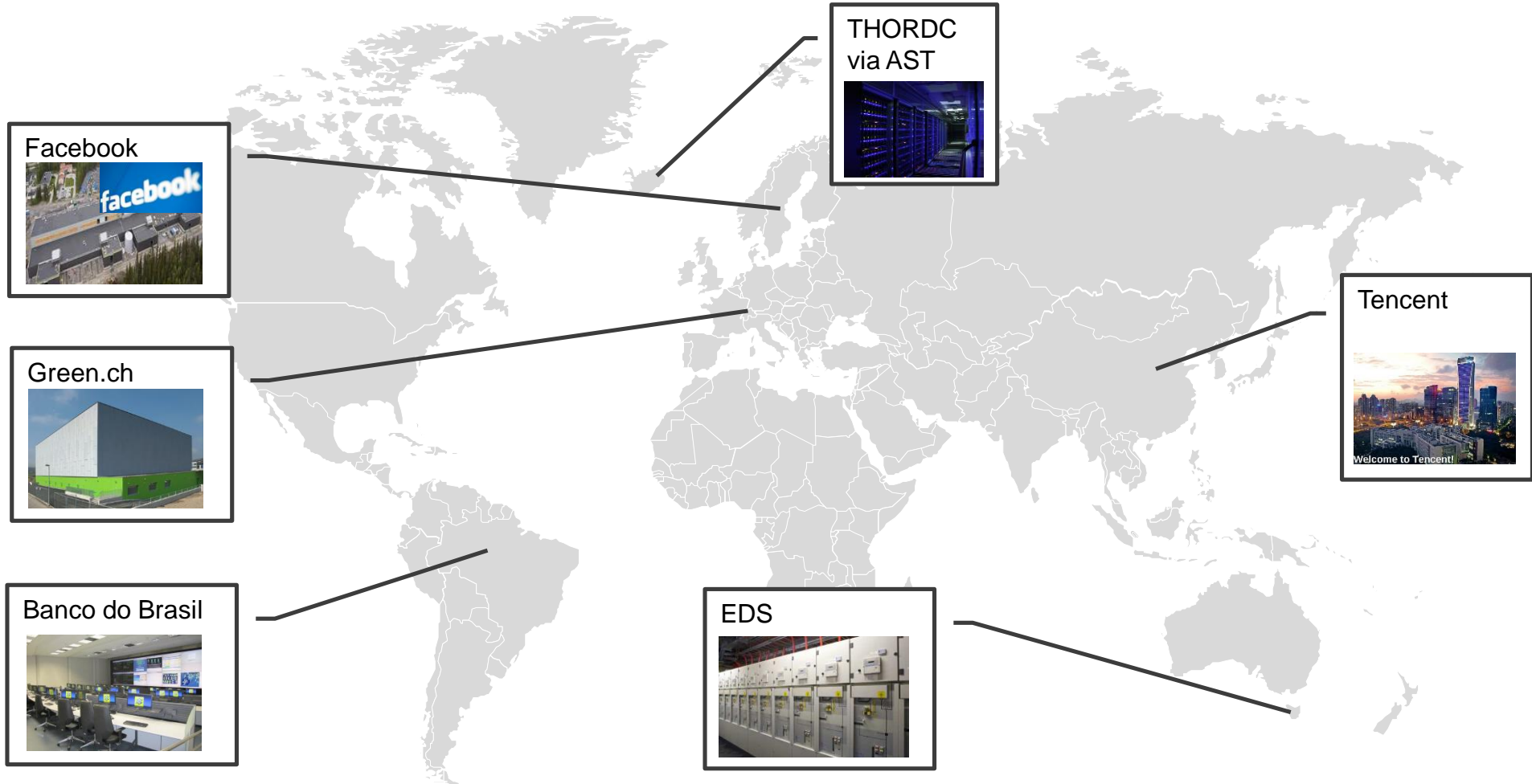


or



Success stories

ABB supports building data centers around the world





ABB