

## Infrastructure of Datacenters (IDC)

**ID IDC** Price CHF 2,850.—(excl. VAT) Duration 3 days

### Who should attend

- IT managers whose data center has to reach the level of performance and availability required by their enterprise.
- Real estate managers who have to be ready for new power and thermal management required today
- Integrators who offer owner assistance and project management in line with international standardization and assure the sustainability of the proposed and installed solution.
- Manufacturers, their marketing, training, engineering and commercial staffs to integrate their solutions in this new environment.

### Prerequisites

This training requires a basic level for power, network cabling system over copper and fiber optics.

### Course Objectives

The information technology, initially to the automation of repetitive tasks of internal accounting dedicated, is now at the heart of the commercial or technical business throughout the world. Equipment manufacturers meet this new burden of data processing by the marketing of ever more powerful and consumer of energy computers. These equipments require entirely new computer rooms or data centres. Most of data centres don't meet these new technologies and are daily taking risks, including the major risk which is the total shutdown. This training meets all the concerns generated by the weak infrastructures of data centres, and can prepare for any refurbishment or new design with the main objectives of sustainability, availability and reduced energy consumption by more and more expensive. This formation provides you the knowledge and skills related to data centres infrastructures, urbanization, the pooling of different systems implemented, and their operation.

#### Introduction to data centres

- What is a data center according to the standard

- What are the different systems constituting the infrastructure of a data centre
- What is the first issues of a data centre

#### Standards

- TIA
- ISO
- Cenelec
- BICSI

#### Availability

- The "Tiers" or levels of availability
- The standards definition
  - Design N + 1
  - Design S + S
  - Concurrently maintainable
  - Fault tolerant

#### Thermal management

- Air conditioning
- The concept of hot / cold aisles
- Confined hot aisle
- Confined cold aisle
- Raised floor
- Suspended ceiling
- Cooling
- Blade servers management

#### Power Management

- Design
- Generators
- Uninterruptible Power Supplies
- Power Distribution Unit's

#### Hardware

- Cabinets
- Racks
- The top of row topology
- The end of row topology

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## Bonding and grounding

- Cabling system
- Cabinets
- Raised floor

## Pathways

- Topology
- Data cabling system
- Power cabling systems

## Data cabling system

- Topology
- Unshielded cabling system
- Shielded cabling system
- Multimode fibre optic cabling system
- Singlemode fibre optic cabling system
- Preconnectorized cabling system
- 10Gbps Ethernet
- 40Gbps Ethernet
- 100Gbps Ethernet
- Other technologies
- Patching

## Infrastructure management

- Maintenance
- Move, add and change

## « Green » and data centre efficiency

- Virtualization
- PUE & DCIE
- Economies in Euros

## Introduction to security

- Fire protection
- Video surveillance : The IP trend
  - Power over Ethernet
- Access control : The IP trend

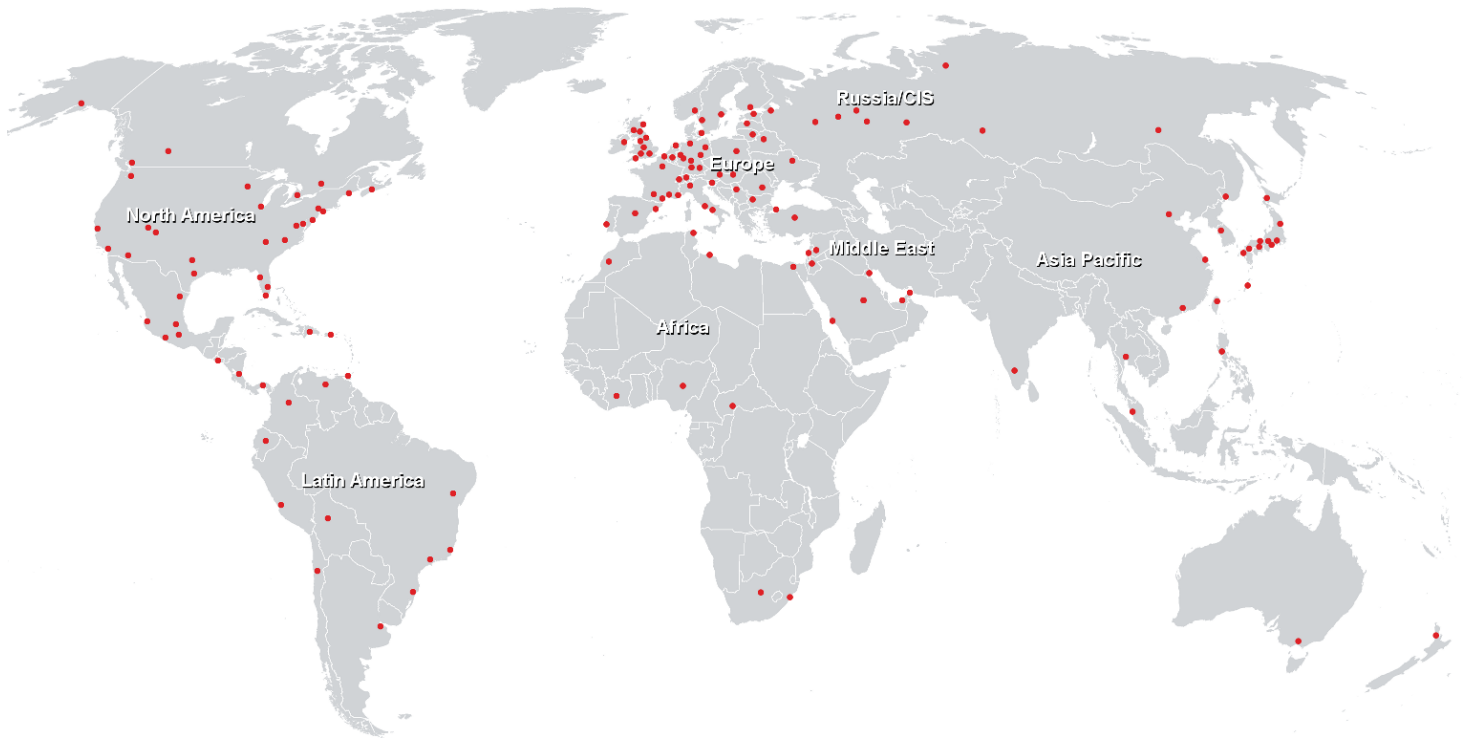
The Code of Conduct on Data Centres Energy Efficiency,  
European Commission, Directorate General Joint Research  
Centre, Institute for Energy, Renewable Energies Unit

- Environmental statement
- Aims and objectives
- Commitments and monitoring

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## Training Centres worldwide



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