



*Training Course:
Certified Data Center Design Professional
(CDCDP)*

12 - 16 October 2025

Dubai (UAE)

Residence Inn by Marriott Sheikh Zayed Road, Dubai

Training Course: Certified Data Center Design Professional (CDCDP)

Training Course code: IT236066 From: 12 - 16 October 2025 Venue: Dubai (UAE) - Residence Inn by Marriott Sheikh Zayed Road, Dubai Training Course Fees: 4900 € Euro

Introduction

The Certified Data Center Design Professional CDCDP training course equips participants with the knowledge and competencies required to design a data center that is resilient, secure, cost-effective, and aligned with business needs. This course provides advanced design principles, operational best practices, and global standards to ensure reliable and scalable data center infrastructure. The program covers physical infrastructure design, power and cooling strategies, redundancy, Tier classification, risk mitigation, and sustainability approaches.

Target Audience

- Data Center Designers and Architects
- Facility Managers and Infrastructure Engineers
- IT and Network Consultants
- Project Managers involved in data center projects
- Electrical and Mechanical Engineers
- Data Center Operations and Technical Staff

Training Objectives

By the end of this course, participants will be able to:

- Apply best practices in data center design and engineering
- Interpret and apply international standards e.g., TIA-942, Uptime Institute
- Design power, cooling, and network systems with redundancy and scalability
- Perform risk assessment and capacity planning for existing or new data centers
- Design layouts for physical infrastructure, zoning, and security
- Understand environmental, sustainability, and green IT factors in design

Training Program Outline

Day 1

Foundations of Data Center Design

- Overview of data center roles in IT and business continuity
- Types of data centers enterprise, colocation, cloud, hyperscale
- Key standards and guidelines TIA-942, Uptime Tier, ANSI, BICSI
- Data center lifecycle phases
- High-level design principles and stakeholder requirements
- Site selection considerations: location, geology, utilities, and risk

Day 2

Electrical Power Systems and Redundancy

- Power infrastructure components: UPS, generators, PDUs, ATS
- Tier levels and power path redundancy models
- Power capacity planning and load calculations
- Dual power feed design and fault tolerance
- Grounding and bonding
- Energy efficiency: PUE, modular power design

Day 3

Cooling and Environmental Controls

- Cooling technologies: CRAC, CRAH, in-row cooling, chilled water systems
- Airflow management: hot aisle/cold aisle, containment strategies
- Thermal design considerations and monitoring systems

- ASHRAE thermal guidelines
- Cooling redundancy and efficiency metrics e.g., COP
- Humidity control and contamination mitigation

Day 4

Physical Infrastructure, Layout, and Cabling

- Raised floor vs. slab design
- Space planning and functional zoning white space, gray space, etc.
- Rack layouts, aisle spacing, and future scalability
- Structured cabling systems copper/fiber
- Cable management best practices
- Security zoning: physical access controls, surveillance, perimeter design

Day 5

Risk, Sustainability, and Final Design Integration

- Risk management and business continuity planning
- Environmental and regulatory compliance e.g., LEED, ISO 14001
- Fire protection systems and detection strategies
- Monitoring and control systems DCIM tools
- Sustainability and energy efficiency strategies
- Integrating all systems into a cohesive, scalable design
- Review case studies and conduct a design workshop

Registration form on the Training Course: Certified Data Center Design Professional (CDCDP)

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