# Certified Data Centre Technician Professional (CDCTP®) Training

Duration: **5 Day**

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## Overview

Develop the knowledge and technical capability required to become an effective member of a highly skilled team responsible for maximising data centre operational performance and productivity while responding to the changing requirements of the business.

Maintaining uninterrupted operation within a mission-critical data centre depends on competent and confident technicians who can consistently apply strong technical knowledge and practical skills. Highly capable technicians therefore play an increasingly important role in ensuring that modern data centre operations continue to run reliably and efficiently.

The five-day Certified Data Centre Technician Professional (CDCTP®) program is designed for professionals working within mission-critical data centre facilities. It covers a broad range of technical and operational subjects relevant to the responsibilities of a data centre technician.

The program examines data centre operating environments in detail, with particular attention given to the four key areas that influence operational effectiveness: **power, cooling, IT connectivity and space**. Learners also explore the operational policies and procedures required within the facility, together with compliance requirements arising from legislation, national and international standards, and relevant codes of conduct. During the program, learners have the opportunity to access and review current industry standards.

Certified technicians are expected to develop a detailed understanding of facility components and their operating parameters, enabling them to recognise potential causes of failure before they develop into more serious operational issues. The program also develops the ability to identify, analyse and resolve problems quickly, accurately and decisively when they occur. This approach can help reduce the risk of costly repairs and service disruption.

After completing the program, learners are encouraged to continue their professional development. Progression through The Global Digital Infrastructure Education Framework enables professionals to further develop their knowledge and skills while working towards additional recognised certifications and qualifications supporting career advancement throughout the network infrastructure and data centre sectors.

## Prerequisites

Previous experience of working within a data centre environment is essential.

If you would like to discuss whether your existing experience is appropriate for the program or require further information about suitability, please contact us.

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## What You Will Learn

Individuals who successfully achieve the CDCTP® certification will develop the knowledge, expertise and technical skills considered essential for supporting the operation and maintenance of a data centre facility to the highest possible standards.

The program helps learners strengthen their understanding of data centre infrastructure, carry out operational activities safely and systematically, monitor critical environments and effectively support maintenance activities.

## Outline

### Data Centre Fundamentals

- Understanding what a data centre is
- Fundamental data centre design requirements
- Availability and resilience measures
- Practices that support availability and resilience

### Compliance

- Codes and regulations
- National and international standards
- Industry guidelines and best practices
- Certification and accreditation

### Physical Infrastructure

The four key data centre environments:

- Power
- Cooling
- IT connectivity
- Space

### Power

- Data centre power infrastructure
- Electrical distribution within the facility

### Cooling

- Data centre cooling infrastructure
- Airflow management
- Overview of different cooling system technologies

### IT Connectivity

#### Active Network

- Active network infrastructure
- Equipment configuration
- Servers, software and services
- Storage infrastructure
- Data centre networks
- Distribution options

**Physical Network**

- IT cabinets and frames
- Cable containment
- Data centre topologies
- Structured cabling
- Fibre optic cabling

## Space

- Relationship between white space and grey space environments
- Physical security
- Access control

## Working in the Data Centre

- Essential safety considerations
- Risk Assessments and Method Statements
- Environmental health and safety
- Personal Protective Equipment (PPE)
- Life safety systems
- Fire detection and suppression systems

## Task Preparation

- Understanding the operational structure
- Operational processes and procedures
- Moves, Adds & Changes (MACs)
- Decommissioning activities

## Operational Measurement and Monitoring

- Asset management
- Management tools and administration
- Change management

## Data Centre Maintenance

- Understanding the need for maintenance
- Maintenance strategies
- Preventive maintenance
- Predictive maintenance
- Reliability-centred maintenance
- Condition-based maintenance
- Power infrastructure maintenance
- Cooling infrastructure maintenance

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- IT connectivity maintenance

### Advanced Power

- Electrical safety
- Power infrastructure systems
- Distribution paths and components
- Backup power infrastructure
- Earthing and bonding
- Measurement, monitoring and routine checks
- Benchmarking and data centre metrics

### Advanced Cooling

- Understanding data centre cooling requirements
- Data centre cooling architectures and systems
- Air cooling
- Economiser modes
- Liquid cooling
- Chilled water systems
- Cooling towers
- Measurement, monitoring and routine checks
- Relationship between HVAC efficiency and Power Usage Effectiveness (PUE)

### Case Studies

A range of individual and group case studies are incorporated throughout the program, allowing learners to apply the technical and operational knowledge covered during the course to practical data centre scenarios.