

Technician



Certified Data Center  
Technician Professional

BTEC Level 4  
Professional Award

The **Global Leader of Technical Education**  
for the **Digital Infrastructure Industry**

## Certified Data Center Technician Professional (CDCTP®)

### 5 DAY PROGRAM

#### Split into:

- ▶ 3 Day Core Unit (CDCTP®)
- ▶ 2 Day Professional Unit (CDCTP®)

Combined: 70% Theory 30% Practical

The CDCTP® Program consists of 334 pages of rich technical content.

You must successfully complete the (CDCTP®) core unit before moving on to the (CDCTP®) professional unit.

#### Learner Profile

This program has been specifically designed for individuals wishing to acquire skills of the highest caliber in order to carry out their data center related activities. CDCTP® certification is beneficial to technical personnel who are responsible for the day-to-day smooth operation of the mission critical facility.

#### Pre-Requisites

Experience of working within a data center environment is essential.

#### Program Requirements

Learners are not required to bring anything.

#### Program Objectives

CDCTP® certified individuals possess the knowledge, expertise and skills that are considered essential in ensuring that a data center facility is operated and maintained to the highest possible standards.

#### Qualification

- ▶ Internationally and industry recognized BTEC Level 4 Professional Award Certified Data Center Technician Professional

#### Certification

- ▶ Official Certified Data Center Technician Professional (CDCTP®) certification
- ▶ Use of CDCTP post nominal title
- ▶ Use of the CDCTP® logo

Certifications are a commitment to life-long learning and offer the perfect portal to ensure knowledge, skills and certification remain current and up-to-date. Each certification gained requires re-certifying every three years via an online learning management system.

#### Additional Awards

- ▶ Continual Professional Development (CPDs)
- ▶ 5 IEEE Continual Education Units (CEUs)



## Certified Data Center Technician Professional (CDCTP®)

### Program Overview

**Learn how to increase the operational capability and productivity of the data center to continually meet the demands of the business.**

The Certified Data Center Technician Professional (CDCTP®) program is aimed at the numerous technicians across the spectrum of mission critical data center facilities. It provides a holistic understanding of the key environments and the dependencies and inter-dependencies they have upon one another.

The program is designed to address the need for a designation that allows individuals to demonstrate unrivaled levels of skill and knowledge and to assist them to become key operational assets in their organization and data center facility.

Ensuring zero downtime within a mission critical data center environment involves having highly competent technicians who demonstrate unrivaled technical knowledge and skills. Those with CDCTP® certification are increasingly seen as a vital component to the smooth running of any data center operation and this program gives learners the ability to identify, decipher, impact assess and remedy potential problems quickly, decisively and accurately.

This program explores the wide range of subjects relevant to the data center technician including a detailed breakdown of the key operating environments (power, cooling, IT and supporting systems), the necessary operational policies, procedures and compliance based on legislation, standards (national & international) and codes of conduct, as well as detailed analysis of current measuring, monitoring and auditing techniques.

This is a content rich program where the technical content is continually updated to reflect developments covering installation, maintenance (routine and preventative planned) and decommissioning working practices. The CDCTP® also takes into account the requirements of the BS EN 50600 and TIA 942-B standards, industry best practice documentation and codes of conduct.

The CDCTP® program is classroom based and led by one of CNet Training's expert Instructors.

“The CDCTP® program was excellent, got everything I wanted from the program. The Instructor was very helpful and delivered the program excellently.”

**DATA CENTER TECHNICIAN**

## Core Unit

### Data Center Fundamentals

- ▶ What is a data center?
- ▶ Understanding the basic design requirements
- ▶ Availability and resilience measures and practices

### Compliance

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

### The Physical Infrastructure

- ▶ The Four Key Environments (Power, Cooling, IT Connectivity and Space)
  - ▶ **Power**
    - ▶ Power infrastructure (data center electrical distribution)
  - ▶ **Cooling**
    - ▶ Cooling infrastructure and airflow management
    - ▶ Overview of different cooling system technologies
  - ▶ **IT Connectivity**
    - ▶ Active network
      - ▶ Equipment configuration
      - ▶ Servers, software and services
      - ▶ Storage infrastructure
      - ▶ Data center networks
      - ▶ Distribution options
    - ▶ Physical Network
      - ▶ IT cabinets and frames
      - ▶ Cable containment
      - ▶ Data center topologies
      - ▶ structured wiring
      - ▶ Fiberoptical cabling
  - ▶ **Space**
    - ▶ Relationship between white and grey space environments
    - ▶ Physical security and access control

### Working in the Data Center

- ▶ Safety Consideration
  - ▶ Risk assessment and method statements
  - ▶ Environmental health and safety
  - ▶ Personal protective equipment
  - ▶ Life safety systems (fire detection and suppression)
- ▶ Task Preparation
  - ▶ Understanding the operation structure
  - ▶ Operational processes and procedures
  - ▶ Move, Adds and Changes (MACs)
  - ▶ Decommissioning
  - ▶ Operational measuring and monitoring
- ▶ Asset Management
  - ▶ Management tools, administration
  - ▶ Change management

### Data Center Maintenance

- ▶ The need for maintenance
- ▶ Maintenance strategies
  - ▶ Preventative maintenance
  - ▶ Predictive maintenance
  - ▶ Reliability centered maintenance
  - ▶ Condition-based maintenance
- ▶ Power maintenance
- ▶ Cooling maintenance
- ▶ IT connectivity maintenance

## Professional Unit

### Advanced Power

- ▶ Electrical safety
- ▶ Power infrastructure systems (distribution path and components)
- ▶ Back-up power infrastructures
- ▶ Earthing and bonding
- ▶ Measuring, monitoring and routine checks
- ▶ Benchmarking and data center metrics

### Advanced Cooling

- ▶ Understanding the need for cooling
- ▶ Data center cooling architectures and systems
- ▶ Air cooling
- ▶ Economiser modes
- ▶ Liquid cooling
- ▶ Chilled water plant
- ▶ Cooling towers
- ▶ Measuring, monitoring and routine checks
- ▶ HVAC efficiency and Power Usage Effectiveness (PUE) relationship

There are a number of group and individual case studies throughout this program

“ The CDCTP® program was well organised and delivered by my Instructor. The workshop was really good for demonstrating what was taught in the classroom. ”

**DATA CENTER SPECIALIST**

