



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

## Certified Data Center Management Professional (CDCMP®)

### 7 DAY PROGRAM

#### Split into:

- ▶ 3 Day Core Unit (CDCM®)
- ▶ 4 Day Professional Unit (CDCMP®)

Combined: 60% Theory 40% Practical

The CDCMP® Program consists of 698 pages of rich technical content.

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

#### Learner Profile

The program is designed for individuals wishing to enhance their ability to effectively manage, control and improve the operational effectiveness of a data center environment.

#### Pre-Requisites

Experience of working within a data center environment is essential.

#### Program Objectives

Upon completion successful learners will have an unrivalled understanding of how to effectively manage a data center environment to optimize its effectiveness in a more efficient manner whilst meeting the operation demands of the business.

#### Program Requirements

Learner are required to bring a laptop with internet connectivity.

#### Qualification

- ▶ Internationally and industry recognized BTEC Level 5 Professional Award Certified Data Center Management Professional

#### Certification

- ▶ Official Certified Data Center Management Professional (CDCMP®) certification
- ▶ Use of CDCMP post nominal title
- ▶ Use of the CDCMP® 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)
- ▶ 7 IEEE Continual Education Units (CEUs)

## Certified Data Center Management Professional (CDCMP®)

### Program Overview

**Learn best practice principles for achieving effective operational management of the complex technical environments of a data center facility. Learn how to ensure that the business strategy is delivered through effective IT service management, maximizing the operational capability of the data center.**

The Certified Data Center Management Professional (CDCMP®) program is a comprehensive program that explores and addresses the management of the complex, but complementary, element of a data center facility.

Starting with a solid grounding in the basic design principles, the program progresses to provide an in-depth overview of the physical infrastructure elements through to project management principles for the delivery of data center projects. It also explores the efficient management of the sometimes conflicting operational and maintenance demands required in order to continuously deliver the business needs. Regulatory compliance, data center strategies, audit demands and codes of practice are also thoroughly examined. Real-life case studies are used to demonstrate putting theory into practice.

The CDCMP® program is an essential tool for Data Center Managers, Operations Managers, Facilities Managers and IT & Network Managers. Senior engineering personnel responsible for the strategic delivery of the business, operational and maintenance solutions will also find this program highly beneficial.

The CDCMP® is continually updated to reflect the current and key sector developments. It also takes into account the requirements of the current BS EN 50600 and TIA 942-B standards, industry best practice documentation and codes of conduct.

During the program learners will also have access to current standards for reference purposes.

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

“The content of the program itself, both the CDCM® and the CDCMP®, hit the mark exactly. This program provided a higher level of thinking and provided additional information that has empowered me to perform my new duties. I am very impressed by CNet Training and look forward to attending more training in the future.”

DATA CENTER MANAGER



Certificate no: 095972

## Core Unit

### What is a Data Center?

- ▶ Data center definition
- ▶ Data center options
- ▶ Business demands
- ▶ Growth and demand challenges

### Understanding Basic Design Principles

- ▶ Identifying the business need
- ▶ Building a business case
- ▶ National and international standards
- ▶ Site and building considerations
- ▶ Tier levels
- ▶ Criticality and availability
- ▶ Determining data center capacities

### Physical Infrastructure

- ▶ Power infrastructure
- ▶ Static and automatic transfer switches
- ▶ Measuring and monitoring

- ▶ Cooling infrastructure
- ▶ Cooling management options
- ▶ Cable infrastructure considerations
- ▶ IT systems and services
- ▶ Storage management
- ▶ IT security
- ▶ Access and security

### Implementing Data Center Projects

- ▶ Business case
- ▶ The project cycle
- ▶ Prioritization of activities
- ▶ Triple constraints
- ▶ Customer value
- ▶ Quantative risk analysis
- ▶ Rolling wave planning
- ▶ Decomposition
- ▶ Change management
- ▶ Documentation

### Managing the Data Center

- ▶ Regulations, standards, processes
- ▶ Service management frameworks
- ▶ Service life cycles
- ▶ OLA, SLA and KPIs
- ▶ Process and procedures:
  - ▶ Moves, adds, changes
  - ▶ Energy efficiency
  - ▶ System availability
  - ▶ Decommissioning
- ▶ Transformation programs
  - ▶ Consolidation
  - ▶ Virtualization
  - ▶ Cloud computing
  - ▶ Relocation
- ▶ Data Center facility management
  - ▶ Facility operations
  - ▶ Building Management Systems (BMS)
  - ▶ Fire safety compliance
  - ▶ Fire suppression

## Professional Unit

### Purpose

- ▶ The data center stack
- ▶ The key constraints (power, cooling, space and IT connectivity)
- ▶ System availability
- ▶ Efficiency metrics
- ▶ Importance of commissioning
- ▶ Importance of capacity management
- ▶ Managing initial design principles

### Management of Processes

- ▶ Introduction to ITIL
- ▶ DCO & FM framework
- ▶ Key performance indicators (KPIs)
- ▶ RACI matrices

### Management of People

- ▶ Appreciation of different skill-sets
- ▶ Creating a multi-disciplinary team
- ▶ Constructing a data center team

### Management of Plant

- ▶ Management of plant overview
- ▶ Power management
- ▶ IT environment management
- ▶ Cooling management

### Energy Efficiency

- ▶ Understanding what is attainable and prioritization
- ▶ Efficiency demands
- ▶ Efficiency measures
- ▶ Validation of processes and procedures

### Management of Services

- ▶ Management of SLA's
- ▶ Data center service management
- ▶ Automated tools
- ▶ Activity planning

### Business Strategy

- ▶ Data center strategic context
- ▶ Strategic planning
- ▶ Drivers for the business and IT strategies
- ▶ The impact on the data center
- ▶ Aligning IT with the business strategy

### IT Strategy

- ▶ The link between business and data centers
- ▶ IT strategy framework
- ▶ Portfolio management
- ▶ Execution plan

### Supporting Strategies

- ▶ Strategic planning processes and techniques
- ▶ Supporting strategy examples
  - ▶ Power continuity
  - ▶ Cooling continuity
  - ▶ Finance
  - ▶ Fire safety
  - ▶ Security and access control
  - ▶ Business continuity/disaster recover
  - ▶ Cleaning

### Legislation and Regulations

- ▶ Data protection
- ▶ General Data Protection Regulation (GDPR)
- ▶ Computer Misuse Act
- ▶ Freedom of Information Act
- ▶ Cloud service provider legislation
- ▶ Electricity regulations
- ▶ Electricity at work regulations, national electrical code
- ▶ Building and regulations
- ▶ Health and Safety
- ▶ Environmental legislation

### Codes of Practice

- ▶ EU code of conduct
- ▶ DoE DCEP (Data Center Energy Practitioner)
  - Green Grid maturity model

### Standards and Accreditations

- ▶ National and international standards
- ▶ Accreditations
  - ▶ Uptime Institute
  - ▶ Certified Energy Efficient Data Center Award (CEEDA)
  - ▶ Building Research Establishment Environmental Assessment Method (BREEAM)
  - ▶ Leadership in Energy and Environmental Design (LEED) ISO 50001 & 14001

### The Audit Process

- ▶ What is an audit?
- ▶ Defining the business requirement
- ▶ What should be audited?
- ▶ Audit outcomes
- ▶ Potential risk evaluation

### Auditing the Data Center Physical Infrastructure

- ▶ Audit guidance
- ▶ Site specific activities
- ▶ Evaluating the key environments
- ▶ Commissioning
- ▶ Functional testing
- ▶ Trend analysis
- ▶ Recommended practices

### Performance Audits

- ▶ Current industry metrics
- ▶ Modeling calculations
- ▶ Bin analysis

### Environmental Audits

- ▶ The need to measure and monitor
- ▶ Site specific monitoring
- ▶ Energy use and monitoring

### Asset Management

- ▶ Areas of asset management
- ▶ Asset management strategy and life cycle
- ▶ Asset management tools

### Professional Program Review

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