

Management



Certified Data Center  
Management Professional

BTEC Level 5  
Professional Award



## Certified Data Center Management Professional (CDCMP®)

### Program Overview

**Gain unparalleled knowledge, skills and competency to manage the complex technical environments of a data center facility and the ability to optimize its effectiveness by driving efficiencies. Create a credible business strategy and apply strong leadership to maximize the operational capability of the data center whilst continuing to meet the on-going demands of the business.**

The five-day Certified Data Center Management Professional (CDCMP®) is a comprehensive program that investigates the functionality of all elements of a data center facility and the relationships and dependencies between them, with a focus on maintaining consistent reliability, security and integrity of data and the availability of service.

Opening with a solid grounding in the basic design principles, the program progresses to provide an overview of the physical infrastructure elements, through to an understanding of the project management methodology required to deliver complex data center projects.

It also explores the efficient management of the often conflicting operational and maintenance demands required of the data center plant to continuously deliver the business needs. The challenges of regulatory compliance, data center strategies and audit demands are also thoroughly examined. Real-life case studies are used to demonstrate putting theory into practice.

A certified CDCMP® also considers the requirements for compliance, having a full understanding of national and international regulations, codes and standards. During the program, learners will be provided a valuable opportunity to access the latest industry standards.

Following this program, you are encouraged to continue your professional development by advancing your knowledge and skills to gain further official certifications and qualifications by progressing through The Global Digital Infrastructure Education Framework which maps education programs to career advancement throughout the network infrastructure and data center sectors.

“ What a fantastic program, great material, great instructor and great in class network. It was good to meet other industry professionals and discuss data center management practices. ”

DATA CENTER MANAGER

## Certified Data Center Management Professional (CDCMP®)

### 5 DAY PROGRAM

#### Program Duration

5 day class requiring pre-class study of approximately 20 hours.

#### Learner Profile

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

#### Pre-requisites

Experience of working within a data center environment is essential; preferably with two years experience in a technical IT or operations role. If you would like to discuss your experience or suitability for this program please contact us.

#### Program Requirements

Learners are required to undertake pre-class study, which is fully supported by an experienced and dedicated online Tutor. Learners are also required to have a webcam enabled laptop or suitable device with unrestricted wireless internet connectivity, the latest internet browser and suitable applications for reading/annotating PDFs and editing standard office documents.

#### Program Objectives

Upon completion, successful learners will have an unrivaled knowledge of how to effectively manage a data center environment to optimize its effectiveness in a more efficient manner whilst meeting the strategic operational demands of the business.

#### 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
- ▶ Use of the official Certified Data Center Management Professional (CDCMP®) Digital Badge

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)

- ▶ The ability to develop a management strategy that aligns with the business operational requirements
- ▶ Recognises the need to develop a multi-disciplinary team supporting all operational functions of the data center
- ▶ Can identify the processes within data center operations that ensure consistent reliability, security and integrity of data and the availability of service.

- ▶ Establish confidence that the data center manager is competent to strategically manage data center processes and procedures through continual improvement planning to meet the operational demands of the business
- ▶ Confidence that the data center manager can build a strong team to effectively deliver all operational requirements to ensure maximum service uptime
- ▶ Ensures that service levels agreements and key performance indicators are consistently met, to establish and improve customer satisfaction

## Certified Data Center Management Professional (CDCMP®) Topics

### CDCMP®

#### 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
- ▶ Quantitative 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

#### 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.