



# **Data Center Fundamentals**

## **Program Overview**

De-mystify the complex world of data centers.

Gain a structured overview of the data center environments, the role of a data center and key operational aspects.

Data centers play such significant roles in our business and personal lives, yet not many people really know what they are. Often referred to as "the cloud" where our data is stored and processed, they are much more than this; they power the internet giving us the ability to pay bills online, access our emails, obtain money from ATM machines, watch movies, communicate around the world and to carry on what is now considered a normal, fiercely technological lifestyle.

This program has been designed to help de-mystify the complex world of data centers. It provides an overview of what data centers are, what they do and why we need them. Key aspects relating to basic design and design philosophies are also examined and the essential considerations of data center management such as operational processes, energy management and facility management are explored along with their relationships to overall business strategy. The data center sector as a whole is also explained including the value of the sector today, the significant growth it has experienced and how this will continue in the future.

This program is available either as a 1 day instructor-led remote attendance program or as a fully video narrated 8 hour distance learning program. For the distance learning program study can be undertaken at your convenience over a period of time. Once booked, an online link with a password is sent to you which unlocks the relevant material for you to start your study.

# **Data Center Fundamentals**

The Global Leader in Technical Education for the Digital Infrastructure Industry

**8 Hours Distance Learning or** 

1 Day Instructor-led

### **Learner Profile**

This program has been designed for individuals who are either new to the data center sector (technicians with limited experience or exposure to data centre facilities) or for those who sell products and services to the data centre sector. If you would like to discuss your experience or suitability for this program please contact us.

#### **Pre-requisites**

There are no specific pre-requisites for this program however some awareness of the data center industry would be advantageous.

### **Program Requirements**

As a distance learner, you will also need a suitable computer with internet connection, together with sufficient IT competence to make effective use of word processing, internet and email. Instructor-led learners via remote attendance, are 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**

To provide an overview of the data center sector, the functional requirements of the data center facilities, the key aspects of data center working infrastructure and their management and the facilities relationship to the delivery business strategy.

#### Certification

- ► CNet Training Certificate
- ► Use of the official Data Center Fundamentals Digital Badge

# **Data Center Fundamentals Topics:**

### What is a Data Center?

- ▶ Define a data center
- ► Identify the main data center types
- ▶ Identify the business service options
- ► Emerging delivery and future demands

### The Role and Objectives of a Data Center

- Driving factors for a data center
- Data center standards
- ▶ Data center availability models and considerations
- Location and building considerations

#### **Design Overview**

- Criticality and availability considerations
- ► The four key constraints (4C's) Power Cooling, IT Infrastructure and Space

### Managing a Data Center

- Regulations, best practices and operational processes
- Move, adds and change processes
- ▶ Efficient energy management
- Decommissioning processes
- IT & physical security

# The Data Center Industry and Market

- ► The size of the market
- Market drivers and trends
- Powering the internet