CDCAP®

Certified Data Center
Audit Professional

Pearson BTEC Level 5
Professional Certificate

5 Day Program

CNet Training
An Uptime Education Company

Global Leading Technical Education
for the Digital Infrastructure Industry

Program Objectives

Demonstrate advanced knowledge and ability to plan and implement a program of data center audits in line with the very latest industry requirements and standards to improve efficiency within the four key constraints of data center environments.

Learner Profile

This program is for data center professionals with the technical experience within the varying data center environments wishing to extend their knowledge, skills and certifications in this highly specialized area.

Pre-requisites

Experience of working within a data center environment is essential; preferably with two years experience in a technical IT or facilities 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 support team.

Learners are required to have:
▶ A webcam and microphone enabled laptop with unrestricted wireless internet connectivity and a pre-installed web browser
▶ A suitable application for reading/annotating PDFs and a suitable application for editing standard office documents such as Microsoft Word, PowerPoint, and Excel

Qualification

▶ Internationally and industry recognized Pearson BTEC Level 5 Professional Certificate in Certified Data Center Audit Professional

Certification

▶ Official Certified Data Center Audit Professional (CDCAP®) certification
▶ Use of the CDCAP post nominal title
▶ Use of the official CDCAP® digital badge
▶ Use of the CDCAP® logo

Certifications are a commitment to lifelong 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

▶ Continuing Professional Development (CPDs)
▶ 7 IEEE Continual Education Units (CEUs)

Certified Data Center Audit Professional (CDCAP®)

Plan and implement a strategic data center audit process. Analyze audit data to verify and baseline the status of the data center, and create an action plan to reduce risk and improve the operational capability to support business continuity.

Program Overview

The demand for a data center to run at its optimum capability in both an effective and efficient manner is an essential requirement for a business. This five-day program provides data center professionals with the skills, knowledge and competency to create a strategic plan and undertake a comprehensive audit of data center environments.

Gain an understanding of the importance of acquiring detailed and accurate information concerning the operational capability of the data center facilities. The program details the requirement to continually measure, monitor and collate data to identify the potential areas of risk, and the need to make recommendations to improve the availability, resilience and efficiency of a data center. This includes the physical infrastructure (IT, power and cooling), building facilities, asset management, documentation, processes and procedures.

A certified CDCAP® 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.

The CDCAP® program is led by one of CNet's expert Instructors and is available via remote attendance or classroom-based.

Program Duration

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

Program Format

75% Theory, 25% Case Study.

Certified Data Center Audit Professional (CDCAP®) Topics

The Business Needs
- Appreciate why audits are an essential business requirement
- Understand the importance of defining the current business needs
- Appreciate the need to define what the business actually has
- Understand the business (C-Level) against operational perceptions
- Ascertain whether the business understands their tier rating and that it actually meets the business need

Scoping the Audit
- Understand the impact of service level agreements (SLAs)
- Understand the business direction and the importance of identifying the key stakeholders
- Understand the interaction between the key stakeholders and the operational data center departments
- Appreciate the factors to be considered when formulating the audit scope
- Appreciate applicable supporting standards, regulations and industry best practices

Establishing the Audit Process
- Appreciate the need to understand the present capability against the business perception
- Appreciate the business expectations with the need for a continuous commissioning process
- Be able to define the framework of the audit process
- Understand the need to undertake an audit risk analysis process

- Be able to identify the audit lead and team requirements

Performing the Audit
- Appreciate the need to undertake documentation review
- Appreciate the impact of regulatory requirements and service level agreements (SLAs)
- Appreciate the operational and environmental structures within the data center structure
- Understand the key audit areas, the audit expectations and implementation of test sequences

Analysis and Recommendations
- Appreciate the need to evaluate the audit findings against the operational requirements of the business
- Identify the gaps in the operational capability
- Understand the need to evaluate policies, processes and procedures against business expectations
- Appreciate the need for operational documentation accuracy
- Appreciate the assessment of equipment against lifecycle costs, ROI and TCO
- Identification of business risks, operational weaknesses and areas of inefficiency

Action Plan and Reporting
- Understand the need to determine how the site measures up against the recognized industry best practices that are considered to be appropriate by the

auditor
- Understand how to assess the recommendations and formulate the supporting action plan

Measuring and Monitoring Progress
- Appreciate the importance of establishing an accurate baseline
- Appreciate the importance of establishing a structured measuring and monitoring strategy
- Appreciate the appropriate use of metrics
- Appreciate the need to re-evaluate the action plan

Follow on Actions
- Appreciate the need for forward planning
- Appreciate the actions to align the data center assets following the audit process
- Appreciate the need to review and align skill sets
- Appreciate industry guidance and accreditations

Audit Preparation
- Understand the importance of the business and key stakeholder demands
- Understand the need for an effective audit structure
- Understand the need to have an effective communication plan
- Understand the need to identify areas of concern and potential improvements

Mechanical (Power and Cooling) Audit
- Understand the electrical systems audit process
- Understand how to conduct an audit

- Importance of power quality
- Understand the data center electrical distribution system
- Understand electrical safety requirements in a data center
- Understand the data center mechanical systems audit process
- Understand what systems are included in a data center mechanical systems audit
- Appreciate the value of data center cooling metrics
- Understand the importance of the chilled water cooling circuit
- Understand the methods to conduct a cooling capacity check
- Understand the importance of air management in a data center
- Understand the benefits of performing a Computational Fluid Dynamic (CFD)

IT Infrastructure Audit
- Understand how to plan an IT audit
- Understand the different areas of an IT audit
- Understand the audit demands of the computer, storage and network environments
- Understand the supporting infrastructures that are required to be audited

Security Audit
- Understand the focus, segments and scope required to spell out security audit requirements
- Understand the training, certifications and experience of potential security

auditors or know where to look for guidance
- Scope and types of security audits
- Understand potential audit outcomes
- Evaluate the security auditor's report
- Understand how to distribute and archive the security audit

Building and Support Services Audit
- Understand the need to review the Building Automation Systems (BAS) and site maintenance
- Understand the key areas of measuring and monitoring
- Understand the implementation of the fire containment plan and emergency requirements
- Understand what support services are in place

Asset Management Audit
- Appreciate the importance of asset management
- Understand the need to develop an effective asset management strategy
- Understand the asset management control options
- Understand the impacts of MACs and decommissioning
- Understand the financial implications

Process, Procedures & Working Practices Audit
- Appreciate the structure of data center policies, processes and procedures
- Appreciate the need to review the policies, processes and procedures
- Evaluate whether they are fit for purpose and actions to escalate non-

compliance issues
- Appreciate the industry guidance to improve the effectiveness of the processes and procedures
- Appreciate the implementation of appropriate review cycles

Documentation Audit
- Understand the need to incorporate documentation into the audit process
- Understand the need for structured and accurate documentation
- Understand external and internal compliance documentation
- Understand how key operational structures are documented
- Understand whether the documentation is ultimately "fit for purpose"

Audit Closure Process
- Understand the need to effectively collate the audit data
- Understand the need to implement an effective action plan incorporating all interested parties
- Understand the need to have a structured approach to ensure a continual audit capability is implemented

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

CDCAP® Benefits for Individuals
- Can liaise with the data center manager or external customer to establish a scope for an effective audit plan
- Auditor is aware of all the tools available to be utilized throughout the audit process
- Ability to compile a full and complex audit report incorporating all measured values
- Can conduct detailed analysis and develop recommendations for the audit report

CDCAP® Benefits for Businesses
- Delivers a clear plan to the data center manager or external customer to ensure a smooth audit process
- Ensures a robust set of measurements are provided in accordance with the audit plan
- Able to present a detailed report in accordance with the audit plan in a timely manner
- Delivers a professional audit report to allow actions to be determined to improve operational capability

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