Certified Data Centre Audit Professional (CDCAP®) Training

Duration: **5 Day**

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Overview

Develop the ability to plan and implement a strategic data centre audit process. Analyse audit information to verify and baseline the current condition of the data centre, then establish an action plan designed to reduce risk and strengthen operational capability in support of business continuity.

Operating a data centre at optimum capability while maintaining both effectiveness and efficiency is a critical requirement for modern organisations. The five-day Certified Data Centre Audit Professional (CDCAP®) program provides data centre professionals with the knowledge, skills and competency required to establish a strategic audit plan and conduct comprehensive assessments of data centre environments.

The program examines the importance of obtaining detailed and accurate information about the operational capability of data centre facilities. Learners explore how continuous measurement, monitoring and data collection can be used to identify potential risk areas and support recommendations aimed at improving data centre availability, resilience and efficiency.

The audit approach extends beyond physical infrastructure. In addition to IT, power and cooling environments, the program addresses building facilities, asset management, documentation, operational processes and procedures, providing a comprehensive view of data centre audit requirements.

Certified CDCAP® professionals are also expected to consider compliance requirements and maintain a thorough understanding of relevant national and international regulations, codes and standards. During the program, learners have an opportunity to access and review current industry standards.

Following completion of the program, learners are encouraged to continue their professional development. Progression through The Global Digital Infrastructure Education Framework provides opportunities to advance knowledge and skills and work towards further recognised certifications and qualifications supporting career development across the network infrastructure and data centre sectors.

Prerequisites

Previous experience of working within a data centre environment is essential. Ideally, learners should have approximately two years of experience in a technical IT or facilities role.

If you would like to discuss whether your existing experience is suitable for the program, please contact us.

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What You Will Learn

Successful learners will demonstrate advanced knowledge and capability in planning and implementing data centre audit programs in line with current industry requirements and standards.

Learners will develop the ability to use audit findings to improve efficiency across the four key constraints of data centre environments and translate identified issues into structured improvement activities.

Outline

Understanding Business Needs

- Recognising why audits are an essential business requirement
- Defining current business needs
- Establishing what infrastructure and capability the business currently has
- Comparing C-level business expectations with operational perceptions
- Determining whether the organisation understands its tier rating and whether that rating meets actual business requirements

Scoping the Audit

- Understanding the impact of business Service Level Agreements (SLAs)
- Considering business direction and identifying key stakeholders
- Understanding interaction between key stakeholders and operational data centre departments
- Identifying the factors that should be considered when defining audit scope
- Reviewing applicable standards, regulations and recognised industry best practices

Establishing the Audit Process

- Comparing current operational capability with business perceptions
- Understanding business expectations and the requirement for continuous commissioning
- Defining an appropriate audit framework
- Establishing the requirement for an audit risk analysis process
- Identifying the audit lead and determining audit team requirements

Performing the Audit

- Understanding the importance of documentation review
- Considering the impact of regulatory requirements and SLAs
- Reviewing operational and environmental structures within the data centre
- Identifying key audit areas and expected outcomes
- Planning and implementing appropriate test sequences

Analysis and Recommendations

- Evaluating audit findings against business operational requirements
- Identifying gaps in operational capability
- Reviewing policies, processes and procedures against business expectations

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- Assessing the accuracy of operational documentation
- Evaluating equipment against lifecycle costs, Return on Investment (ROI) and Total Cost of Ownership (TCO)
- Identifying business risks, operational weaknesses and areas of inefficiency

Action Planning and Reporting

- Determining how the facility performs against recognised industry best practices considered appropriate by the auditor
- Assessing audit recommendations
- Developing a structured supporting action plan

Measuring and Monitoring Progress

- Establishing an accurate operational baseline
- Developing a structured measurement and monitoring strategy
- Selecting and applying appropriate metrics
- Periodically re-evaluating the action plan

Follow-On Actions

- Understanding the importance of forward planning
- Identifying actions required to align data centre assets following the audit
- Reviewing and aligning workforce skill sets
- Considering relevant industry guidance and accreditations

Audit Preparation

- Understanding business and key stakeholder requirements
- Establishing an effective audit structure
- Developing an appropriate communication plan
- Identifying areas of concern and potential opportunities for improvement

Mechanical, Power and Cooling Audit

- Understanding the electrical systems audit process
- Planning and conducting an electrical audit
- Recognising the importance of power quality
- Understanding data centre electrical distribution systems
- Reviewing electrical safety requirements within a data centre
- Understanding the mechanical systems audit process
- Identifying the systems that should form part of a mechanical audit
- Recognising the value of data centre cooling metrics
- Understanding the importance of chilled-water cooling circuits
- Applying methods for checking cooling capacity
- Understanding the importance of effective air management
- Evaluating the benefits of Computational Fluid Dynamics (CFD) analysis

IT Infrastructure Audit

- Planning an IT audit
- Understanding the different areas covered by an IT audit
- Assessing audit requirements across compute, storage and network environments

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- Identifying supporting infrastructure that should be included within the audit

Security Audit

- Defining the focus, segments and scope of security audit requirements
- Understanding the training, certifications and experience expected from potential security auditors
- Understanding the scope and different types of security audits
- Considering potential audit outcomes
- Evaluating the security auditor's report
- Managing distribution and archiving of security audit information

Building and Support Services Audit

- Reviewing Building Automation Systems (BAS) and site maintenance
- Identifying key measurement and monitoring areas
- Reviewing implementation of fire containment plans and emergency requirements
- Identifying and evaluating existing support services

Asset Management Audit

- Understanding the importance of asset management
- Developing an effective asset management strategy
- Reviewing asset management control options
- Understanding the impact of Moves, Adds & Changes (MACs) and decommissioning
- Assessing associated financial implications

Process, Procedures and Working Practices Audit

- Understanding the structure of data centre policies, processes and procedures
- Reviewing existing policies, processes and procedures
- Evaluating whether current practices are fit for purpose
- Establishing actions for escalating non-compliance issues
- Considering industry guidance for improving process and procedure effectiveness
- Establishing appropriate review cycles

Documentation Audit

- Incorporating documentation into the overall audit process
- Understanding the importance of structured and accurate documentation
- Reviewing internal and external compliance documentation
- Assessing how key operational structures are documented
- Determining whether documentation is ultimately fit for purpose

Audit Closure Process

- Collating audit data effectively and systematically
- Developing an effective action plan involving all relevant stakeholders
- Establishing a structured approach that supports an ongoing audit capability

Case Studies

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A range of individual and group case studies are incorporated throughout the program, allowing learners to apply audit planning, implementation, analysis and reporting principles to practical data centre scenarios.