Certified Data Centre Audit Professional (CDCAP)

Course Outline

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 business 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 Centre 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 centre 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 recognised 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 Centre 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

- Understand the importance of power quality

- Understand the data centre electrical distribution system

- Understand electrical safety requirements in a data centre

- Understand the data centre mechanical systems audit process

- Understand what systems to audit are included in a data centre mechanical systems audit

- Appreciate the value of data centre 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 centre

- 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 require 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 and Working Practices Audit

- Appreciate the structure of data centre 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.