DCA metrics for the approval of Auditing Firms for Certifications Scheme

VERSION 1.0

DOCUMENT CONTOL

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Introduction

In order for the Data Centre Centre Alliance (DCA) to govern a Data Centre Certification scheme that delivers independent and consistent results, the DCA carries out an assessment and approval of firms wishing to provide their customers with data centre auditing services with a view to applying for DCA Certification. To achieve the aims of the DCA Certification scheme, it will be required to assess and prepare site auditing firm(s) to ensure they are equipped to be able to deliver the data centre auditing services and apply for DCA Certifications on behalf of clients.

This document describes the requirements and process the DCA will undertake that meet the aims of the DCA certification programme and its members.

The DCA programme is open to all eligible independent Auditing Firms who must be pre-approved by the DCA in order to apply for DCA Data Centre Certifications.

Please note the only body able to grant a DCA Certification is the DCA. The only body(s) able to apply for a DCA Data Centre Certification is an Auditing Firm pre-approved and authorised to do so by the DCA. The process of approving Auditing Firms is described in this document.

Applying to be a DCA Accredited Data Centre Auditing Firm

If you are applying to become a DCA accredited site Auditing Firm, the DCA recommends that you first become a member of the DCA. This is not a pre-requisite to attaining the Approval, but the rates charged for the scheme are reduced for members.

In the first instance, the company should apply to the DCA. Either in writing or via email with the following information:

Address:-

Primary Point of Contact for the assessment:-

Email Address:-

Telephone Number for Primary Point of Contact:-

The DCA Contact information is found here http://www.datacentrealliance.org/contact.php

The firm will be sent and required to complete an application form "Application for Approved DCA Auditing Firm - PART A" along with a PO Number for the accreditation fee detailed below.

Fees for approval of auditing firm

The charge for the DCA Accreditation to become an Accredited Auditing firm or consultancy is:

€12,400 – reduced to €8,700 for organisations with existing DCA Partner Status.

The approval will be valid for 3 years. Upon which a renewal will be required.

Payment is required in advance of the DCA commencing work.

Should, as a result of assessment by the DCA, the firm is found not to be eligible for the scheme, a deferred period of six calendar months will be provided to allow the remedial action be taken. The firm's application will be held open during this grace period. However if not successful within the 6 month grace period a fresh application will be required where a new fee will be payable.

The DCA Accreditation Board's decision is final, no appeal process is provided.

DCA Contact Details

Email address – enquires@datacentrealliance.org

Data Centre Alliance

2-3 Mill Court, Mill Lane

Newbury, Berkshire RG14 5RE

United Kingdom

http://www.datacentrealliance.org/contact.php

Auditing Firm Requirements

The DCA as the certification authority provides a high level of expectation on organisations to deliver strategic business focused as well as technical and engineering expertise in line with the aims of the DCA Data Centre Certification programme. Therefore the auditing organisation must demonstrate as part of the process:

- A historical track record of delivering Data Centre Audits
- A deep knowledge amongst its staff in the development and support of data dentre design, construction and operation
- A minimum level of skill sets in Data Centres
- A demonstrable procedure for the delivery of the data centre auditing services
- Suitable company compliance certification e.g. relevant ISO or equivalent

Demonstrable History

The data centre auditing firm being approved as part of this service must demonstrate to the DCA that they have carried out data centre audit services previously for a period of not less than 12 months. The DCA will assess the process undertaken and appropriate documentation from at least two previous assignments where this service has been delivered. The site auditing firm is also required to provide the DCA Accreditation Board with two customer references who have received data centre site audits from the applying firm. The objective is to verify quality of delivery, soundness of advice provided and customer satisfaction.

Historical checklist:

Two data centre site audit examples (end customer details and any sensitive information may be removed if required)

Two customer references from organisations that have had their data centres audited by the firm – The DCA Accreditation board will ask for a short phone conversation with the end customer of approx 15-20 minutes.

Evidence that the site auditing firm has conducted data centre site audits for at least 12 months.

Requirements of the DCA Data Centre Certification Scheme

The DCA Data Centre Certification scheme requires the firm to provide auditing services across the breadth of the DCA Data Centre Certification scope and therefore, the site auditing organisation must be able to provide evidence of the processes, depth and breadth of skills present within their organisation to cover the wide area of discipline needed for DCA Certifications. CV's are required for individuals covering each of the expertise listed below. No less than two separate individuals may cover the five required areas of expertise. Sub-contractors are allowed however at least two of these individuals must be permanent employees of the applying firm and exist on the payroll:

1. ICT Strategic Consultancy
2. Project Manager
3. Mechanical Engineering and data centre environmental control
4. Electrical Engineering
5. Data centre energy efficiency best practices
6. Data centre operations, maintenance and IT Service Management
7. Physical security, threat management and data centre access control

The engineers and consultants that carry out the data centre audits must be fully trained in the field in which they are performing the services– see Appendix A for definitions and guidelines.

DCA Resource Pool and use of contractors

Use of contracting third parties and self-employed specialists is recognised as common practice within data centre site auditing and consultancy firms due to the depth and breadth of skills needed. Therefore the auditing firm may nominate persons who are not directly employed by them for the purposes of assessment, provided at least two individuals are on the payroll of the firm and a previous trading history exists with the contractors or third party individual.

The DCA will provide a pre-approved list, termed the DCA Resource Pool, of independent or self employed contractors that can be hired, subject to availability, to supplement the firm's own resources to fulfil data centre audits, related work, engineering or any remedial work needed. The DCA will provide a full contractual agreement and confidentiality protection for DCA Resource Pool contracts.

Accreditation requirements Checklist (carried out by DCA)

1. CV's of site auditing consultants
2. Company Certifications (e.g. ISO or equivalent)
3. Certifications for required project management methodologies
4. Copy of valid professional indemnity insurance certificate and/or documentation
5. Signed application form by a director of the organisation

DCA Accreditation Board Company Review

A member of the DCA Accreditation Board will be required to visit the applying firm's offices.

The visit will require the following actions. The time allowed for the review should be approximately 3-4 hours.

Company review checklist (carried out by DCA)

1. Review of the firm's history, business strategy, geographical operations and corporate set up.
2. Presentation of the methodology and scope of the data centre auditing services
3. Interview with a board member/director of the organisation
4. Interview with the data centre services manager
5. Interview with a senior site auditing consultant

Types of Audit Services

The Approved Auditing Firm must be able to carry out the three levels of audit needed to construct an application for a DCA Certification:

1. A FULL/CORE (fully operational) data centre audit service, the output of which will enable an application to be submitted for a DCA Certification. the service should include:
   a. A detailed examination of the data centre operation to establish:
      i. The DCA resilience level/design goal strategy and if the technical design and layout of the facility meets this goal
      ii. The deployment of the correct operational and maintenance policy to support the design goal and to deliver the business purpose of the data centre
      iii. The deployment and maintenance of a recognised energy efficiency strategy (either EU Code, ITU 1300 or Green Grid MM) and the correct methodology for calculation and recording of KPI such as PUE figures if published by the data centre operator.
      iv. The deployment of a physical security and threat management policy in line with design goal, the contents of the data centre and business objectives of the facility
   b. Recording and storing of details of the audit service by the Auditing firm for a period of no less than 3 years
   c. Provision of the DCA Data Centre Certification Application form with the required supporting information and required signatories from the data centre owner/operator and the auditing firm (form is provided by the DCA)
   d. The arrangement, in conjunction with the data centre owner, of a site inspection by a member of the DCA Accreditation Board, who is required to

carry out a high level examination of the site access control experience, the external and internal critical systems, a technical area with live racks and a tour of the BMS and/or maintenance desk. Approximately 2 hours should be allowed for this activity.

2. A RENEWAL audit Service, which includes a repeat of the facility audit utilising the data from the previous FULL/CORE activity already carried out and noting any changes that may improve or reduce the data centre continued certification, this will include:

    a. Assessing the data centre facility against a pre-defined set of criteria – noting changes from the FULL/CORE Assessment and to the design goal/technical setup and the operational management

    b. Recording and storing details of the audit by the firm for a period of no less than 3 years.

    c. Provision of the RENEWAL DCA Data Centre Certification Application form with the required supporting information and required signatories (if personnel has changed)from the data centre owner/operator and the auditing firm (Form is provided by DCA)

    d. The renewal process is designed to ensure best practices are maintained and survive management, owner and personnel changes. It is also designed to highlight any changes technological or otherwise, that may affect the current resilience classification or may require updating over the coming years to maintain the certification. The renewal service is not available to data centres that have clearly changed their resilience strategy or deployed large structural changes or refits to critical systems. The renewal is at the discretion of the DCA, who may have reason to call for a repeat of the FULL/CORE audit before issuing the DCA Certification renewal.

    e. The arrangement, in conjunction with the data centre owner, of a site inspection by a member of the DCA Accreditation Board, who is required to carry out a high level examination of the site access control experience, the external and internal critical systems, a technical area with live racks and a tour of the BMS and/or maintenance desk. Approximately 2 hours should be allowed for this activity.

    f. A renewal of the DCA certification requires the same process, effort and costs from the DCA Accreditation Board as a Full/Core audit.

3. A DESIGN documents only service used to check if the technical design fits against a DCA resilience design goal. Please note any awarded certification expires after two calendar months after the data centre becomes operational. At that point a FULL/CORE assessment must be carried out in order to maintain a DCA Certification.

Audit services checklist (carried out by the DCA):

1. Product set adequately maps the DCA Certification Programme yes/no

DCA Certification Charges

Upon Receipt of an application for a DCA Data Centre Certification, the DCA will carry out independent Certification services which include time and effort of DCA Accreditation Board members, DCA administrators and supply of the certification materials and plaques. In addition the DCA provides online tools, marketing, promotion and administration of the scheme, including (if desired by the data centre owner) the posting of the completed DCA certified data centre listing on the DCA website. All Charges for certification services are to be met by the DCA approved auditing firm. For charges please refer to the latest published version of the document "DCA Certification Guidelines for data centres".

The DCA charges a flat rate fee to the DCA Approved auditor for Certification services only. The DCA Approved Auditor will be responsible for the cost/quote for the overall data centre audit(s) and will of course vary based upon scale and size and also if FULL/CORE, RENEWAL or Design Only.

Please note payment terms of the DCA require payment within 15 days of invoice payment must be received before certification services commence.

DCA Certification charges checklist

1. Set up of accounts payable/supplier process completed yes/no

Project Management

All Assessments must be fully managed by an accredited Project Management professional to ensure that the delivery of the Assessment Service is delivered to the highest level of efficiency and that all services are delivered at the highest level of Professionalism.

It is expected that those Project Management professionals named as Project Managers for the Assessment Service hold an industry recognised Project Management accreditation (see Appendix A for current list of acceptable accreditations).

Checklist (carried out by the DCA):

1. Site auditing firm meets project management criteria yes/no

Service Scope

The service scope required of auditing firms is detailed within the latest version of the document "DCA Certification Guidelines for data centres" available on request from the DCA. However to provide an overview the following skills and expertise are required by DCA Accredited Auditing Firms.

ICT Strategic consultancy

The Auditing Firm must possess the expertise required to advise and assist the customer in determining the correct data centre strategy for their business or organisation. This will require detailed knowledge of the client's systems, processes and objectives. It may also involve helping the data centre owner understand and determine risk factors both technical and commercial.

Data Centre Critical Systems - Mechanical

The mechanical systems audit will cover all aspects of the mechanical systems installation within the Data Centre. The auditing firm must demonstrate the areas that are covered under the firm's audit service covers the required detail in order to meet the needs of the DCA Data Centre Certification programme.

The mechanical systems audit service must be assessed by a Mechanical Engineer who holds a valid Mechanical Engineering qualification (see Appendix A for current list of acceptable accreditations).

Checklist (carried out by the DCA)

1. Is the firm's mechanical systems assessment able to deliver the required depth for the DCA Certification programme? Yes/no
2. Does the auditing firm possess the required mechanical systems expertise? yes/no

Data Centre Critical Systems - Electrical

The electrical systems audit will cover all aspects of the electrical systems installation within the data centre. The auditing firm must demonstrate the areas that are covered under the firm's audit service are sufficient to meet the needs of the DCA Data Centre Certification.

The electrical systems assessment service must be carried out by an electrical engineer who holds a valid electrical engineering qualification (see Appendix A for current list of acceptable accreditations).

Checklist (carried out by the DCA)

1. Is the firm's electrical systems assessment able to deliver the required depth for the DCA Certification programme? Yes/no
2. Does the auditing firm possess the required electrical systems expertise? yes/no

Physical Security, Access Control and Fire Protection

This element of a data centre audit is important to enable the auditing firm to verify, and the DCA to certify, that a security policy and fire detection and prevention strategy has been developed in accordance with the purpose and business goal of the data centre. For example, if the data centre has been designed to house IT systems that hold hospital patient data, then the appropriate physical security policy is in place and the necessary hardware,

human resources and controls are deployed and able to respond and identify changing physical security threats.

In addition it may be identified that additional security audits and/or certifications should be acquired as laid down by the nature of the data the facility supports. These may range from ISO, credit card company and government legislative certifications.

The consultancy firm must demonstrate to the DCA that they are able to provide the correct advice and guidance to data centre operators and able to verify that the security deployed is of a standard required for the data centre's operational purpose.

Checklist (carried out by the DCA)

1. The auditing firm must demonstrate the areas that are covered under the assessment service addresses the needs of the DCA Data Centre Certification. yes/no
2. Does the auditing firm possess an individual(s) with a valid Security qualification? It is expected that the named person will hold a recognised industry based security accreditation (see Appendix A for current list of acceptable accreditations). yes/no

Data Centre Operations and Maintenance

The operations and maintenance audit will cover all aspects of the policies and processes used to manage and maintain the Data Centre at its highest levels of availability as defined by its resilience design goal and objectives. The auditing firm must demonstrate the areas that are covered under the firm's assessment service to ensure that it aligns to the needs of the DCA Data Centre Certification programme.

The operations and maintenance service must be assessed by an accredited consultant who holds a valid service management qualification (see Appendix A for current list of acceptable accreditations).

Checklist (carried out by the DCA)

1. Is the firm's Operations and maintenance assessment able to deliver the required depth for the DCA Certification programme? Yes/no
2. Does the auditing firm possess the required operations and maintenance expertise? yes/no

Data centre Energy and Resource Efficiency

The auditing firm must be able to identify if energy is wasted through lack of attention, knowledge of best practice, education and/or lack of commitment of staff or management. The DCA recognises both the freely available voluntary guidelines and emerging standards relating to resource efficiency. The auditing firm must be fully conversant and be able to demonstrate a deep knowledge of both these guidelines. In addition they should be able to demonstrate a valid methodology for accurate measurement of a facility's energy efficiency against these guidelines or standards and be able to manage and educate operators through

change to achieve energy efficiency to the minimum standard. Finally, the auditing firm must be able certify that any KPI or PUE figures published by the data centre are both measured correctly in accordance with the relevant standard or guideline and is accurately described.

Checklist (carried out by the DCA)

1. Does the auditing firm have the required depth of knowledge and experience of energy efficiency best practice and able to verify correct PUE measurement and methodology? yes/no

Delivery Methodology

The auditing firm must demonstrate a sound delivery methodology for the delivery of the assessment Services. The outcomes of the service must be sound and reflect the needs of the client and the DCA in the provision of a Data Centre Certification programme. The auditing firm must provide details to the DCA of the methodology used that reflects the need to effectively capture and examine all key information and elements of the data centre installation and operation against a logical pre-defined set of criteria.

Checklist (carried out by the DCA)

1. Is the auditing firm's ability to deliver data centre site audits in line with the objectives of the DCA Data Centre Certification Programme? Yes/no

Audit Service Roadmap

Like all technology based solutions, the data centre technology is continually evolving as the IT technology it has to support also evolves.

The auditing firm is required to demonstrate to the DCA that it is able to maintain up to date knowledge of new technology that may affect the Data Centre and adapt their delivery methodology to reflect these changes as they occur.

Checklist (carried out by the DCA)

1. Is the auditing firm able to demonstrate a staff development programme to promote learning and skills advancement in line with its practice and services? Yes/no

Appendix A – Consultant Certifications

Electrical Consultants

Holder of at least a electrical engineering degree (eg in UK, BEng) or equivalent

5 years of practical experience (at least 3 years in data centres)

Chartered Engineer (CEng)

Mechanical Consultants

Holder of at least a mechanical engineering degree (eg in UK, BEng) or equivalent

5 years of practical experience (at least 3 years in data centres)

Chartered Engineer (CEng)

Security Consultants

Certification in an industry recognised Physical Security qualification such as:

ASIS Physical Security Professional (PSP)

5 years of practical experience (at least 2 years in data centres)

Energy Management

Thorough knowledge of data centre best practice such as EU Code of conduct, ITU or the Green Grid Maturity Model.

Thorough knowledge of the methodology and implementation of recording and measuring data centre KPI's such as PUE as defined by The Green Grid (and or ISO).

IT and Operational management consultants

5 years of practical IT experience (at least 3 years involved in operational aspects of data centres)

Holder of the ISEB ITIL V2 Service Management Certificate or equivalent

- Or -

Holder of the APMG ITIL V3 Expert Certificate or equivalent

Project Management

Holder of a Project Management Certification such as:

Prince2 Foundation or Practitioner Certificate

PMP – Project Management Professional Certification

PgMP – Programme Management Professional Certification

CAPM – Certified Associate in Project Management

DMAIC – Six Sigma

Appendix B – Related Documents

DCA Certification Guidelines for data centres (latest released version) describes the process and scope for the Certification of data centre facilities.