DCOS®
DATA CENTER OPERATIONS STANDARD

Introduction

Organizations delivering data center services often focus on building highly resilient facilities by designing redundancy at various levels typically in accordance with standards such as ANSI/TIA-942, ANSI/BICSI-002 and others. However, many organizations have come to realize that without having adequate processes and maintenance programs, the availability levels would be seriously impacted and diminished the investment made in the data center facility.

The DCOS® provides organizations with a structured and progressive approach to improve data center operations management to ensure that the investment in the data center is protected. This standard is the first and only complete standard addressing all the data center operations and maintenance requirements.
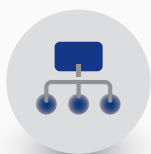
About DCOS®

The DCOS® specifies the requirements for data centre operational processes which ensures that the services provided to the customer (internal/external) meet the customer defined requirements while at the same time ensures compliance to corporate governance and local codes. It is very practical, focused on tangible results and allows for progressive improvement.

11 Disciplines
DCOS® addresses all the 11 disciplines required to run a data center efficiently and effectively. The standard describes an appropriate level of detail for each discipline which relates directly to measurable business results.

Service Level Management	Organization	Safety Management	Security Management	Project Management	Facilities Management

Data Center Operations	Environmental Sustainability	Monitoring/ Reporting/ Control	Organizational Resilence	Governance, Risk & Compliance

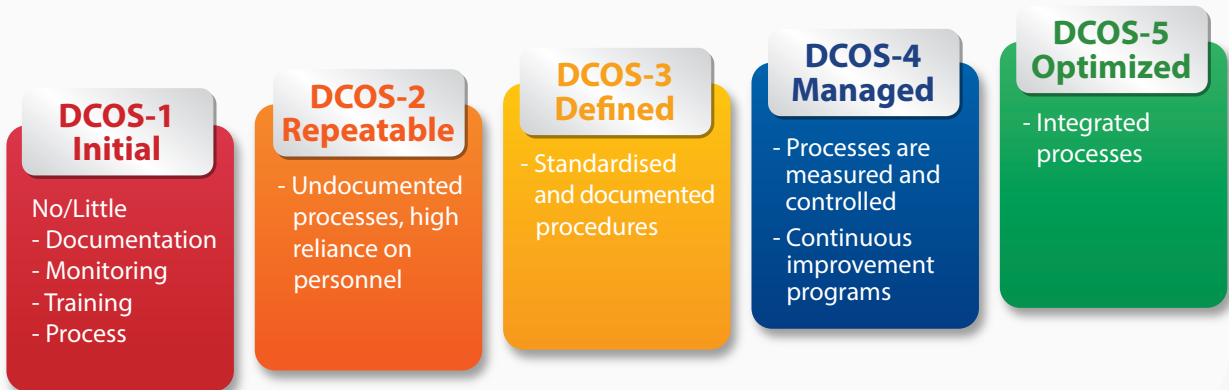## Applicability

The DCOS® is a vendor-neutral standard. It is applicable to data centers of any size and type whether colocation, enterprise, cloud or mixed environments.

5 Maturity Levels

It enables organizations to measure the maturity and integration of their processes based on globally recognized maturity principles. These are the five maturity levels;

DCOS-1 Initial

No/Little
- Documentation
- Monitoring
- Training
- Process

DCOS-2 Repeatable

- Undocumented processes, high reliance on personnel

DCOS-3 Defined

- Standardised and documented procedures

DCOS-4 Managed

- Processes are measured and controlled
- Continuous improvement programs

DCOS-5 Optimized

- Integrated processes

Based on the maturity outcome of each discipline, the organization will be able to determine its priorities and where resources should be deployed to further improve the processes and therefore its service capabilities and levels for its customers.

Audit & Certification

DCOS® is an auditable standard and data centers can get certified to provide their stakeholders and customers with the proper level of confidence.

Development

The DCOS® is prepared by a committee under the leadership of EPI® following strict ISO/ANSI standard development processes. It has been reviewed and endorsed by data center professionals working in data center operational environments across the world, with different levels of complexity and size, and within different industries.

Why DCOS®

There are a number of benchmark criteria used in the data center industry. These include generic standards such as ITIL®, ISO-9000, ISO-14001, ISO-20000, ISO-22301, ISO-27001 and others. However, none of them serves as a good fit to data center operations as to the DCOS®.

These are 9 key advantages which differentiate the DCOS®:

1

Complete standard
DCOS® is the first and only complete standard addressing all aspects of the data center operations, governance and maintenance. Some of the other best practices or standards in the market only address a limited scope of the overall data center operations.

2

Practical and focused on tangible results
The standard is written with a direct approach which is practical and easy to use. It describes an appropriate level of detail and relates directly to measurable business results.
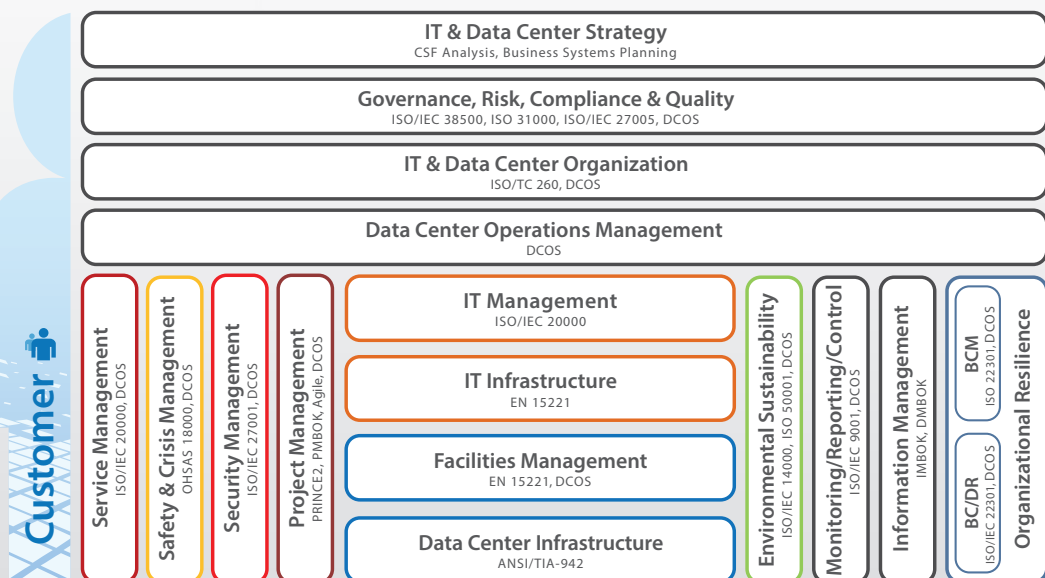
3

Based on an overarching IT and data center framework
DCOS® is based on the world renowned and well accepted EPI IT & Data Center Framework® which ensures that all critical disciplines are included to create a fully managed IT and data center environment.

EPI - IT & Data Center Framework©

IT & Data Center Strategy
CSF Analysis, Business Systems Planning

Governance, Risk, Compliance & Quality
ISO/IEC 38500, ISO 31000, ISO/IEC 27005, DCOS

IT & Data Center Organization
ISO/TC 260, DCOS

Data Center Operations Management
DCOS

Customer

Service Management
ISO/IEC 20000, DCOS

Safety & Crisis Management
OHSAS 18000, DCOS

Security Management
ISO/IEC 27001, DCOS

Project Management
PRINCE2, PMBOK, Agile, DCOS

IT Management
ISO/IEC 20000

IT Infrastructure
EN 15221

Facilities Management
EN 15221, DCOS

Data Center Infrastructure
ANSI/TIA-942

Environmental Sustainability
ISO/IEC 14000, ISO 50001, DCOS

Monitoring/Reporting/Control
ISO/IEC 9001, DCOS

Information Management
IMBOK, DMBOK

BCM
ISO 22301, DCOS

BC/DR
ISO/IEC 22301, DCOS

Organizational Resilience

4 **Written by hands-on practitioners**

DCOS® is written by individuals and companies involved in both the development of standards and operations of data centers. Other operations standards in the market are written by commercial companies and are not part of any standard writing/issuing body.

5 **Follows stringent standards development process**

The DCOS® development goes through the strict ISO/ANSI cycle of writing; committee ballot-comment-resolution-reballot; industry ballot-comment-resolution-reballot; default ballot-comment-resolution-reballot; then final publishing.

6 **Open standard**

DCOS® is an open standard. The specifications/requirements of the standard are public. The advantage is that once you are certified, your customers will have great confidence as they know what you have done to protect their critical business support systems.

7 **Five maturity benchmark levels**

DCOS® has maturity benchmark levels aligned with recognized benchmarks used by standards such as ISO/IEC 33004. It is not self-invented levels like Silver/Gold/Class-1/Class-A/Tier-4 etc. This makes it easier for the organization to apply for other standards and certifications later.

8 **Progressive approach**

DCOS® allows for a progressive maturity improvement in selected disciplines or all 11 disciplines. Organizations have the flexibility to focus on the discipline(s) deemed most important to them first.

9 **Auditable standard**

The audit criteria defined in the standard are written with business value in mind and are defined such that they are auditable by authorized Certification Bodies.

Benefits of DCOS®

DCOS® provides many benefits to the data center operators/owners, among the top 8 are;

1 Improve and raise the standard of the data center operations

2 Reduce risk, improves safety, environemntal sustainability and availability

3 Ensure compliance to corporate governance and local codes

4 Enable progressive improvement based on a proven framework

5 Ensure that the services provided to the customer meet the described customer requirements

6 Minimize customer complaints and improve customer satisfaction

7 Create confidence and trust with investors, customers and employees

8 Safeguard the investment in the data center

Get the DCOS®   www.epi-ap.com/dcos-standard

THE COMPANY

EPI is a data center specialist company of European origin operating world-wide in over 70 countries through direct operations and a large partner network. EPI offers an extensive range of data center services on auditing, certification and training. EPI's focus is on mission-critical, high-availability environments. Established in 1987, EPI has developed an international reputation for delivering high quality technical expertise, with flexible and innovative services, techniques and methodologies.

All our services are aimed at helping our customers to:

- Increase **Availability** of their mission-critical infrastructure
- Improve **Efficiency**, **Effectiveness** and **Manageability**
- **Minimize risk** of business interruption

Our Clients share a common need to protect their valuable data, run their mission-critical infrastructure efficiently and to be protected on a 24 x 7 basis. By protecting the interests of our customers, EPI is committed to an intensive program of comprehensive services development backed by engineering and support excellence.

Quality Systems and Procedures have always been at the heart of every stage of our service delivery to ensure consistent and high quality services. We are known for our thoroughness, flexibility and responsiveness. We focus on providing services that fit each organization and each project with a drive to deliver quality on time, every time.

Let us put our expertise to work for you!

DATA CENTER SERVICES

Audit & Certification

• Data Center Standards
  - ANSI/TIA-942
  - EN50600
  - DCOS®

• International Standards
  - ISO 9001   - ISO 22301
  - ISO 14001   - ISO 27001
  - ISO 14644   - ISO 37001
  - ISO/IE 20000-1   - ISO 45001
  - ISO 22237   - ISO 50001

• Singapore Standards
  - SS 506
  - SS 507
  - SS 564

• European Standards
  - EN 50600
  - ISO/IEC TS 22237

Professional Training & Certifications

- Data Center
  DCFC®, CDCP®, CDCS®, CDCE®, CNCDP®
  CDFOS®, CDFOM®, CDRP®, CDMS®,
  CTDC®, CTIA®, CTLA®

- IT
  CITO®, CITM®, CITD®

Non-Certification Training
- Digital Transformation

Career Planning Tools
- DCPT - Data Center Career Planning Tool
- ITCPT - IT Career Planning Tool

Frameworks
- IT&DCF® - IT & Data Center Framework
- DCCF® - Data Center Competence Framework
- DCTF® - Data Center Training Framework
- ITTF - IT Training Framework

Standard
- DCOS® - Data Center Operations Standard

R21-10

Authorized Reseller/Partner:

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