Data Center Certification Program

Certification to Standard UL 3223 helps mitigate risk for data center owners and operators by providing a set of criteria to increase end-user transparency, provider accountability, and proper data center documentation.

Program Background

Mass adoption of cloud computing has created a significant new risk: the potential to affect large numbers of companies and individuals in the event of a cloud services provider data center, infrastructure, or network failure. This risk prompted the development of a program to certify data centers internationally.

According to RightScale's "2017 State of the Internet" report, 85% of enterprise organizations have a multi-cloud strategy with 59% having more than 100 virtual machines or "VM's" in either Amazon Web Services (AWS) or Microsoft Azure. A Statistica survey projects the public cloud market to hit $126 billion in revenue by 2020, up from $25 billion in 2015. Software and Platform as-a-service offering are projected to add another $32 billion.

With such incredible cloud momentum, the potential impact of a wide-spread outage from a major provider grows daily. To mitigate this risk, cloud providers need to address the most common causes of outages, which include human errors, software issues, network downtime, hardware failure with corresponding failure of high availability architecture, and of course data centers.

The UL Data Center Certification Program addresses the continued reliability of key components of critical data center infrastructure by integrating the multiple disciplines of electrical, mechanical, security, life safety, building automation, and telecom to create a comprehensive service.

Leveraging extensive years of expertise in building safety and performance, UL addresses the fire, life safety and security aspect of data centers, and Environmental Systems Design, Inc. (ESD), recognized as a leader in data center design, evaluates the electrical, mechanical, telecommunications, and building automation systems. ESD is widely regarded as a thought leader by influencers in the data center engineering, colocation, and hyper-scale center industries.

ESD CONSULTING
Business Solutions for Infrastructure
Powered by (ESD)

Protecting the Data Center Consumer

The UL Data Center Certification Program provides services for the full spectrum of data center consumers – from small, public cloud users to large Fortune 1000 entities with diverse hybrid IT implementations.

The combined expertise of professionals at UL and ESD support data center consumers with services that promote safety and security within data centers, as well as optimal data center operations for cloud and colocation providers in the following ways:

Branding and Marketing Value

The UL Mark is internationally recognized for safety and reliability and can validate a cloud or colocation provider's data center, providing prospective customers with the confidence to outsource.

- **Economic Value** – The UL 3223 Standard encourages the utilization of the latest in data center technology, creating efficiencies and corresponding budget optimization.

- **Simplicity and Efficiency** – The combined resources and expertise of UL and ESD helps enable design reviews and site surveys to be accomplished in weeks not months.

- **Flexibility** – UL Data Center Certification applies to new data center design and construction facilities as well as existing data centers with very clear, concise, and transparent requirements to eliminate any gray areas or market confusion.

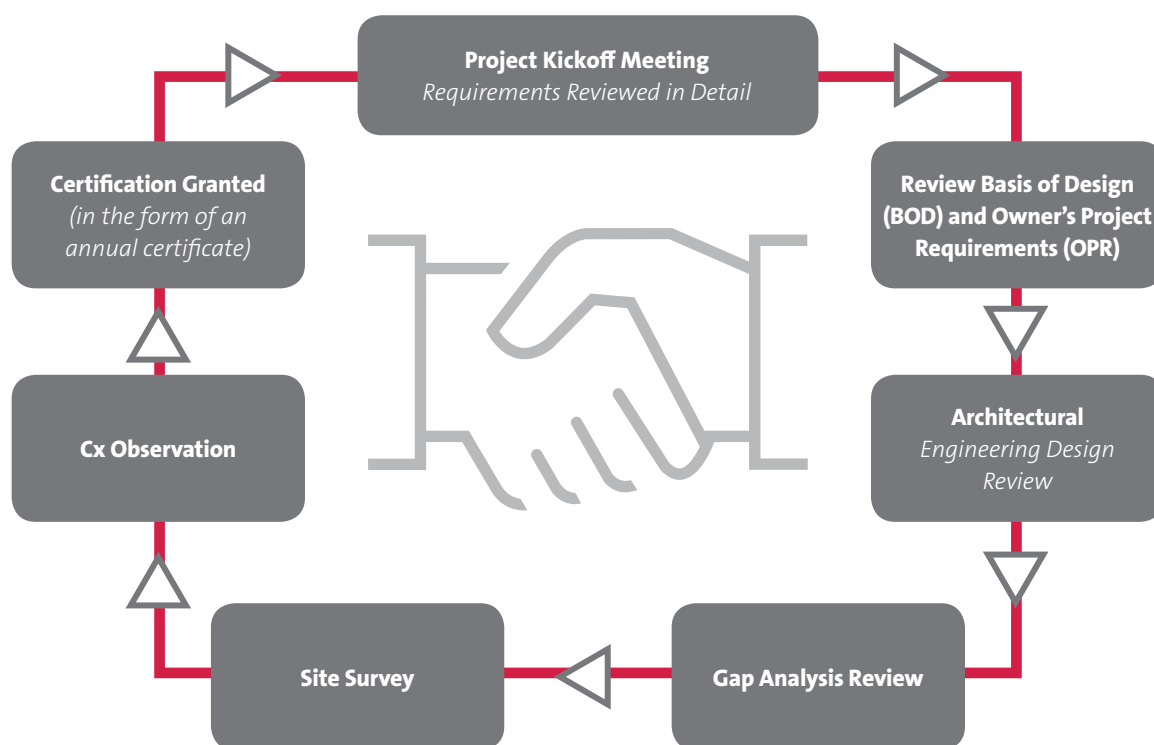To learn more, email DataCenters@ul.com or visit UL.com/datacenters.

Ensuring Confidence When Subscribing to Colo or Cloud

UL's Data Center Certification Program incorporates six critical components that can be attributable to data center outages. Specific features include:

- **Concurrent Maintainability** – All critical infrastructure / system components shall be maintainable without downtime using proper redundancy.

- **Reliability** – All critical support systems shall be designed to achieve optimal reliability through acceptable redundancy - including, but not limited to, 2N, N+1 Block Redundant, N+1 Distributed Redundant.

- **Security** – The program confirms a vulnerability assessment was conducted by a credentialed security professional, a security plan was developed and the site reflects the fully implemented security plan.

- **Sustainability** – Data centers being certified must achieve an annual Power Usage Effectiveness (PUE) of 1.5 or lower or within ASHRAE 90.1-2016 based on the climate in region.

- **Commissioning** – UL Data Center Certification will demonstrate proper commissioning techniques to encompass Level 5 testing. Existing data centers will provide commissioning reports, whereas new data centers shall have a certified Cx agent on site during IST commissioning.

- **Safety** – The certification assesses life safety and fire protection of the data center, providing safety for your data and your people.

Partnership Approach

Together, UL and ESD deliver superior enterprise expertise, program development and go-to-market strategy. This partnership ensures expert knowledge and response from our data center team. Here's the approach:

Project Kickoff Meeting
Requirements Reviewed in Detail

Review Basis of Design (BOD) and Owner's Project Requirements (OPR)

Architectural
Engineering Design Review

Gap Analysis Review

Site Survey

Cx Observation

Certification Granted
(in the form of an annual certificate)

The Data Center Certification Program navigates market complexity to help enable smarter, safer choices. Enterprise data centers looking to collocate their data centers to a collocation provider, or considering migrating applications to the Cloud, can be assured the infrastructure they subscribe to is secure when it's certified by UL.

To learn more, email DataCenters@ul.com or visit UL.com/datacenters.