OPEN POSSIBILITIES.

Data Center Integrator Qualification Program (DCIQ)



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DC planning and commissioning

Data Centers are designed and built to address specific data needs and business requirements.

Data Center construction cost has exceeded \$10M per megawatt mostly paid at the beginning stages end representing a significant capital cost. Most of the expense is focused on building layout, construction, and equipment cost.

Asset owners and equipment manufacturers often do not have control who is assembling their products. Equipment arrives as sub-assemblies containing racks, rPDUs, servers, UPS, etc. with no or very little traceability of who, where and how performed the integration. This can result in damaged equipment, warranty work, installation delays etc. It can strain relationships between asset owners and their supply chain.







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The UL DCIQ program is built around and for the contractor to support both the asset owners and the product/system makers. The program is designed to reduce delays due to installation/integration of electrical equipment, as well as to streamline the installation and AHJ approval process. UL's goal is expediate ROI for all parties and prevent delays and injuries.

Without AHJ's approvals there are no Data Centers. The United States National Electric Code defines Authority Having Jurisdiction (AHJ) as:

"An organization, office or individual responsible for enforcing the requirements of a code or standard, or for approving equipment, materials, an installation or a procedure."



An example of current NEC Code requirements:

NFPA 75 Standard for the Protection of Information Technology Equipment mandates:



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8.1.1

Equipment and replacement parts shall meet the requirements ANSI / **UL 60950** Safety of Information Technology Equipment; or ANSI / **UL 60950-1** Information Technology Equipment — Safety — Part I: General Requirements; or ANSI / **UL 62368**-1 Audio/Video, Information and Communication Technology Equipment - Part 1 - Safety Requirements. 8.1.2*

Each individual unit shall be constructed in such a way that by limiting combustible materials or by use of enclosures, fire ignition is located. Automatic protection shall be provided for all units not so constructed.

8.1.3

Listed ITE shall be considered as meeting the requirements of 8.1.2



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How will UL qualify installers/integrators?



- Installation and Integration companies shall provide a list of Designated Responsible Individuals (DRIs) who will enroll into UL's DCIQ program.
- Installation and Integration companies shall provide a list of facilities/sites they would like to be included in the DCIQ program.
- Installation and Integration companies shall provide information regarding existing ISO certification if any.



DCIQ qualification is a process divided in three parts:



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- 1. Completion of UL's designated training for DCIQ participants
- 2. Completion of an assessment of the Quality Management System (virtual or on-site)
- 3. Practical on-site evaluation/observation.

Some of the above steps can be done concurrently in order to expediate the Qualification process.



UL DCIQ Designated Responsible Individual

Upon the successful completion of the program, each **installer/integrator** will be authorized to apply a label on the unit stating that the product was:



"Assembled by UL Qualified Data Center Integrator."

The label will contain integrator's actual Certificate Number as an added level of assurance, integrity and traceability.







UL DCIQ Designated Responsible Individual

The UL DCIQ certificate is valid for 3 years; however, UL will annually conduct an audit of the contractor's QMS and verify that they still comply with the requirements of the program.



DCIQ certificate is not transferable from one individual to another. The person must reapply for a UL DCIQ certificate if she or he leaves the contracting company in which they were employed when the original certificate was acquired.

After the initial three-year period, each DRI will need to be re-qualified.

The DCIQ Certificate will also be published in the UL's <u>ProductIQ</u> directory covering Certified Products and Qualified Contractors. This is available for instant verification by regulators, authorities having jurisdiction, & interested parties at <u>www.ul.com/database</u>



Benefits for Facility Owners and Manufacturers

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Benefits of this program for asset owners & equipment/system manufacturers may include but are not limited to:

- 1. Expediate ROI due to faster turn around time.
- 2. Reduced liability risks due to 3rd party qualified professional integrators
- 3. Faster turn around time because of faster regulatory/AHJ approvals
- 4. Faster regulatory/AHJ approvals because of the DCIQ label
- 5. More thorough equipment installations due to 3rd party qualification process.
- 6. Traceability: each unit is label with a unique integrator individual label.
- No additional cost to asset owners and equipment manufacturers when requiring UL DCIQ companies.



Benefit to Installers & Integrators

Not all contracting companies will qualify for this program. Only those committed to quality and to continuous improvement shall be able to complete this program. The qualification process includes in-class and/or online training, oral/written examinations, and an audit of the contractor's Quality Management System.



Benefits for the installers & integrators may include:

- 1. Faster commissioning because of faster turn around time.
- 2. Reduced liability risks due to 3rd party qualified professional integrators
- 3. Company Marketing (e.g. "We are a UL DCIQ!") recognized by your customers
- 4. Better trained workforce due to 3rd party training and qualification.
- 5. Less rework & fatigue.
- 6. Traceability: each unit is label with a unique integrator individual label.
- 7. The UL DCIQ program demonstrates your company's commitment for excellence in initial quality of Data Center assets.



Call to Action

- As announced at OCP, the UL DCIQ program is open and ready for immediate implementation.
- To apply or get involved in this program please contact Dejan Gakovic:

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• For more information please visit: https://www.ul.com/datacenters



Open Discussion

