# Integrated Data Center Services Continued compliance – surveillance





- Component and sub assembly safety services 品 • IT racks and IT installed equipment (servers. PDU) - UL 62368-1, Audio/Video, Information and Communication Technology Equipment - Part 1: Safety Requirements - UL 2416, Audio/Video, Information and Com munication Technology Equipment Cabinet, Enclosure and Rack Systems HVAC systems - UL 484, Standard for Room Air Conditioners - UL 1995, Heating and Cooling Equipment Power panelboard and switchboard - UL 67, Standard for Panelboards - UL 891, Standard for Switchboards - IEC 61439 Batterv/UPS - UL 1778, Uninterruptible Power Systems - UL 1973, ANSI/CAN/UL Batteries for Use in Stationary and Motive Auxiliary Power Applications - UL 9540, Energy Storage Systems and Equipment - IEC 62040-3 • Fire detection and suppression systems - UL 864, Standard for Control Units and Accessories for Fire Alarm Systems - UL 521, Standard for Heat Detectors for Fire Protective Signaling Systems - UL 268, Standard for Smoke Detectors for Fire Alarm Signaling Systems - UL 464. Audible Signaling Devices for Fire Alarm and Signaling Systems, Including Accessories; or UL 1480, Speakers for Fire Alarm and Signaling Systems, Including Accessories - UL 1971, Standard for Signaling Devices for the Hearing Impaired - UL 38, Standard for Manual Signaling Boxes for Fire Alarm Systems - UL 2075. Standard for Gas and Vapor **Detectors and Sensors** - EN 54-2 Control and Indicating Equipment - EN 54-3 Fire Alarm Devices – Sounders EN 54-5 Heat Detectors – Point Detectors - EN 54-7 Smoke Detectors - Point Detectors - EN 54-11 Manual Call Points - EN 54-20 Aspirating Smoke Detectors - EN 54-23 Visual Alarm Devices - NFPA 75 - Standard for the Fire Protection of Information Technology Equipment - ANSI/UL 154, CAN/ULC-S503, Car bon-Dioxide Fire Extinguishers; or ANSI/UL 2129. CAN/ULC-S566. Halocarbon Clean
  - Agent Fire Extinguishers - NFPA 12 Carbon Dioxide Extinguishing Systems
  - UL 2166, Halocarbon Clean Agent Extinguishing System Units
  - UL 2127, Inert Gas Clean Agent Extinguishing System Units

#### Data center certification program

• UL 3223, Outline of Investigation for Data Center Certification – Comprehensive facility-based certification requirements to increase end-user transparency, provider accountability and proper data center documentation in areas of mechanical, electrical, HVAC, telecom, commissioning, security and fire detection and suppression

#### Modular data center certification

• UL 2755, Outline of Investigation for Modular Data Centers – Compliance path towards meeting requirements under Article 646 of NFPA 70 National Electric Code®

#### Personnel certification

 Data Centers Integrator Qualification (DCIQ) Program – Qualification for IT equipment installers and their companies have a capability to ensure proper installation methods are practiced through qualification and meeting regularly scheduled audits

### Sustainability

Energy Star® certification

- Healthy Buildings/SPIRE smart building performance
- Zero waste UL 2799, Environmental Claim
- Validation Procedure for Zero Waste to Landfill
- Product sustainability ROHS, REACH, California Prop 65
- Renewable energy equipment and reporting/
- accountability

#### **Regulatory services**

Code review and gap assessment to electrical, building and
fire and requirements

- fire code requirements • Field engineering services – UL Solutions Field Evaluation
- program

### Advance Cooling Services

UL 62368-1 Immersion cooling systems

- and components
- UL 2417, Immersion cooling fluids
- UL 62368-1 and IEC 60335-2-40 Cooling
- **Distribution Systems**

### Additional services

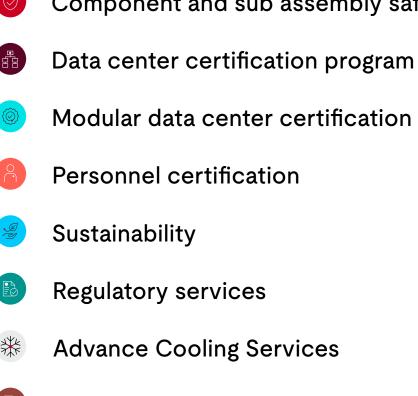
Market access service/Regulatory intelligence: Global
 Compliance Management (GCM) software suite

## Safety. Science. Transformation.™

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olutions



Additional services

Component and sub assembly safety services

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## Component and sub assembly safety services

- IT racks and IT installed equipment (servers, PDU)
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- Part 1: Safety Requirements
- UL 2416, Audio/Video, Information and Communication Technology Equipment Cabinet, Enclosure and Rack Systems
- HVAC systems
- UL 484, Standard for Room Air Conditioners
- UL 1995, Heating and Cooling Equipment
- Power panelboard and switchboard
- UL 67, Standard for Panelboards
- UL 891. Standard for Switchboards
- IEC 61439
- Battery/UPS
- UL 1778, Uninterruptible Power Systems
- UL 1973, ANSI/CAN/UL Batteries for Use in Stationary and Motive Auxiliary Power Applications
- UL 9540, Energy Storage Systems and Equipment
- IEC 62040-3
- Fire detection and suppression systems
- UL 864, Standard for Control Units and Accessories for Fire Alarm Systems
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- UL 2075. Standard for Gas and Vapor **Detectors and Sensors**

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- EN 54-11 Manual Call Points
- EN 54-20 Aspirating Smoke Detectors
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- and fire code requirements
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## Advance Cooling Services

- UL 2417, Immersion cooling fluids
- **Distribution Systems**



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## Personnel certification

• Healthy Buildings/SPIRE - smart building performance Zero waste – UL 2799, Environmental Claim Validation Procedure for Zero Waste to Landfill Product sustainability – ROHS, REACH, California Prop 65 • Renewable energy – equipment and reporting/accountability

## **Regulatory services**

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• UL 62368-1 Immersion cooling systems and components • UL 62368-1 and IEC 60335-2-40 Cooling

 Market access service/Regulatory intelligence: Global Compliance Management (GCM) software suite