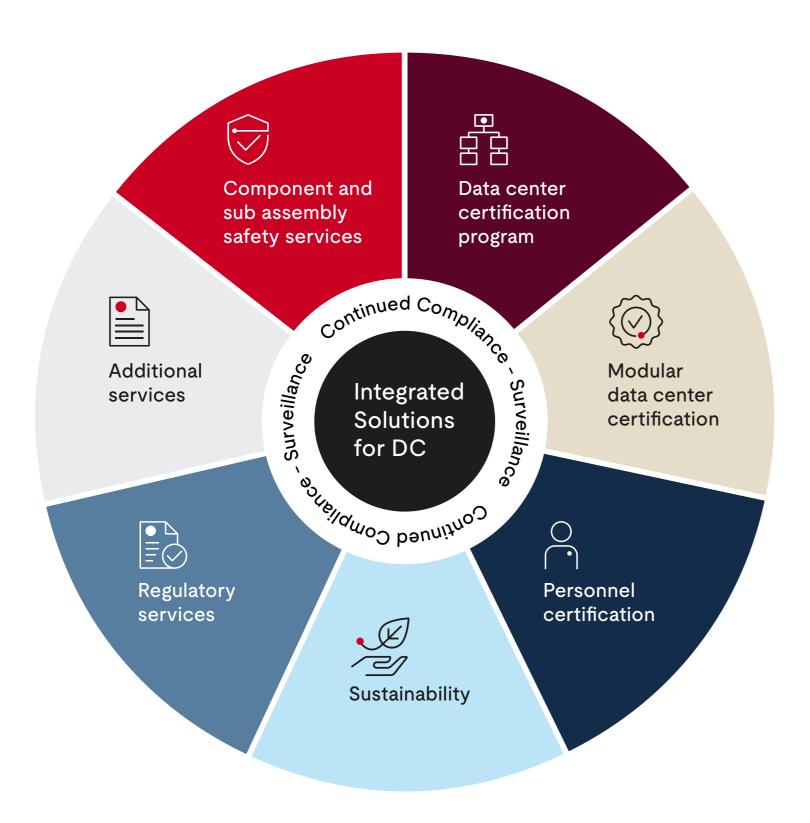
# Integrated Data Center Services Continued compliance – surveillance





Safety. Science. Transformation.™



## Component and sub assembly safety services

- 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 Communication Technology Equipment Cabinet, Enclosure and Rack Systems
  - ÚL 484, Standard for Room Air Conditioners
  - UL 1995, Heating and Cooling Equipment
  - IEC 60335-2-40
- Immersion cooling systems
  - UL 2416
  - UL 62368-1
- 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
- · 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, Carbon-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 code requirements
- Field engineering services UL Solutions Field Evaluation program



#### Additional services

Market access services/Global Compliance Management (GCM)