

## About Vertiv

Vertiv brings together hardware, software, analytics and ongoing services to ensure its customers' vital applications run continuously, perform optimally, and grow with their business needs. Vertiv solves the most important challenges facing today's data centre, communication networks, and commercial and industrial facilities with a portfolio of power, cooling, and IT infrastructure solutions and services that extends from the cloud to the edge of the network. Headquartered in Columbus, Ohio, USA, Vertiv employs approximately 20,000 people and does business in more than 130 countries.

### OUR PURPOSE

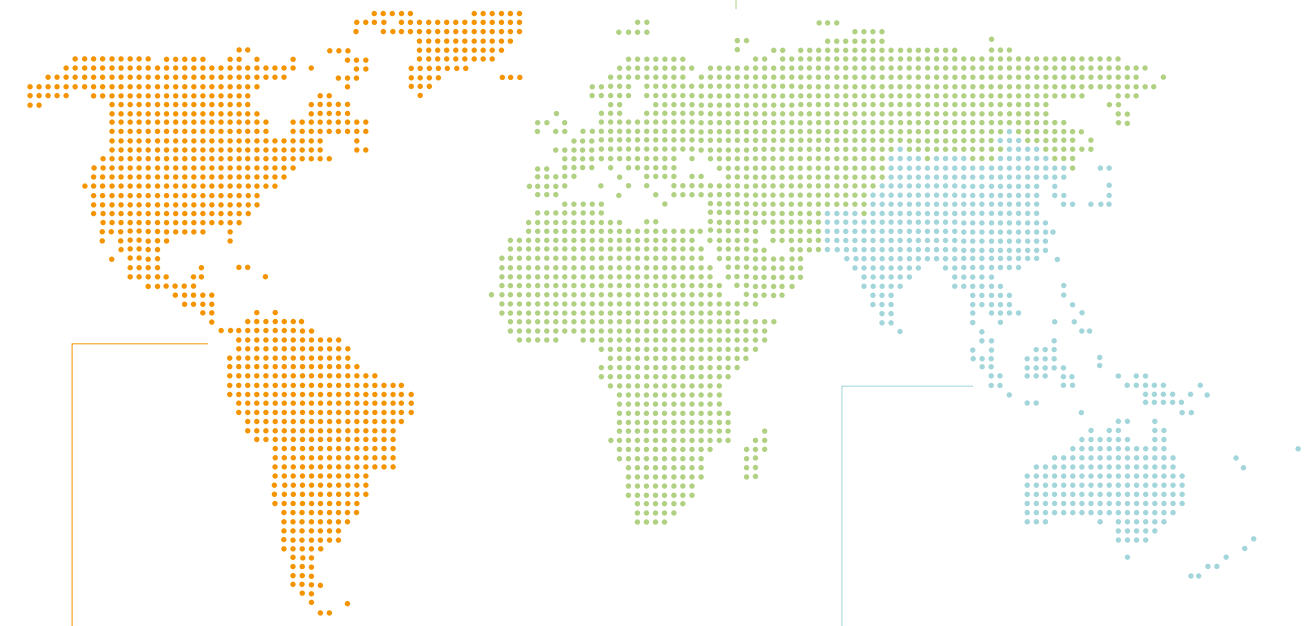
We believe there is a better way to meet the world's accelerating demand for data — one driven by passion and innovation.

#### GLOBAL PRESENCE

Manuf. and Assembly Locations **23**  
Service Centres **290+**  
Service Field Engineers **3,300+**  
Technical Support/Response **250+**  
Customer Experience Centres/Labs **14**

#### EUROPE, MIDDLE EAST AND AFRICA

Manuf. and Assembly Locations **9**  
Service Centres **65+**  
Service Field Engineers **620+**  
Technical Support/Response **75+**  
Customer Experience Centres/Labs **5**



#### AMERICAS

Manuf. and Assembly Locations **10**  
Service Centres **170+**  
Service Field Engineers **1,500+**  
Technical Support/Response **105+**  
Customer Experience Centres/Labs **5**

#### ASIA PACIFIC AND INDIA

Manuf. and Assembly Locations **4**  
Service Centres **55+**  
Service Field Engineers **1,190+**  
Technical Support/Response **70+**  
Customer Experience Centres/Labs **4**

## Service and Software Solutions Offering

Guarantee continuity to your business activities with a service partner who stands by you throughout your critical equipment lifecycle. From product delivery and installation to its remote and direct maintenance, Vertiv ensures your equipment performs optimally.



Proactive equipment maintenance reduces downtime and extends equipment life which in turn maximises return on investment and increases system availability.

Vertiv supports any application with an extensive service offering including installation, startup, commissioning, maintenance, replacements, 24x7 remote monitoring and diagnostics, and much more. Our remote diagnostics and preventive monitoring solution, Vertiv™ Life™ Service, adds value by providing actionable information and allows for early detection of anomalies and immediate reaction in case of alarms.

### Local Resources

With the broadest, most comprehensive service presence in the industry and more than 600 technicians dedicated to servicing Europe, Middle East and Africa, Vertiv ensures that your business is always protected and that service is available whenever needed 24 hours a day.

### Prompt Response

An extensive supply of critical parts ready for deployment allows technicians to respond to requests in record time, guaranteeing a premium first-time fix rate in the unlikely event of a fault.

### Expertise & Training

Vertiv service engineers are trained, experienced professionals who undergo an average of one week of intensive training each quarter, totalling one month of full-time training per year. All service engineers are regularly certified according to country-specific regulations as well as wider European and international regulations and standards.

### Service Programs

Regular service of critical equipment supports maximum uptime and often reduces total cost of ownership. A service program ensures timely and proactive maintenance for avoiding unexpected, costly equipment downtime and enables optimal equipment operation, Vertiv™ service programs cover all technologies and can be tailored to suit individual business needs.

# Vertiv™ Service and Software Solutions Capability

## Vertiv Servicing Critical Applications

### Multi-Technology Service Capabilities



#### AC Power Services

- Increased system availability
- Commissioning and site acceptance testing
  - Preventive maintenance
  - Emergency services
  - On-site repair capabilities
  - Upgrades and replacements
  - Assessments and testing
  - Power distribution unit testing and maintenance



#### ATS & DC Power Services

- Increased system availability
- Preventive maintenance
  - Emergency services
  - Power plant, battery and equipment inspection
  - Rectifier redundancy and battery reserve-time calculation
  - Site and grounding audits
  - Load sharing analysis
  - Voltage drop and excessive heat inspection
  - Thermography
  - Lubrication and torque checks



#### Generator Services

- Optimised system performance and reliability
- Preventive maintenance including system cooling, air intake, fuel storage and delivery systems
  - Emergency call out
  - Control function checks
  - Repair and upgrade programs
  - Single and multiple set testing
  - Load bank and integrated building tests



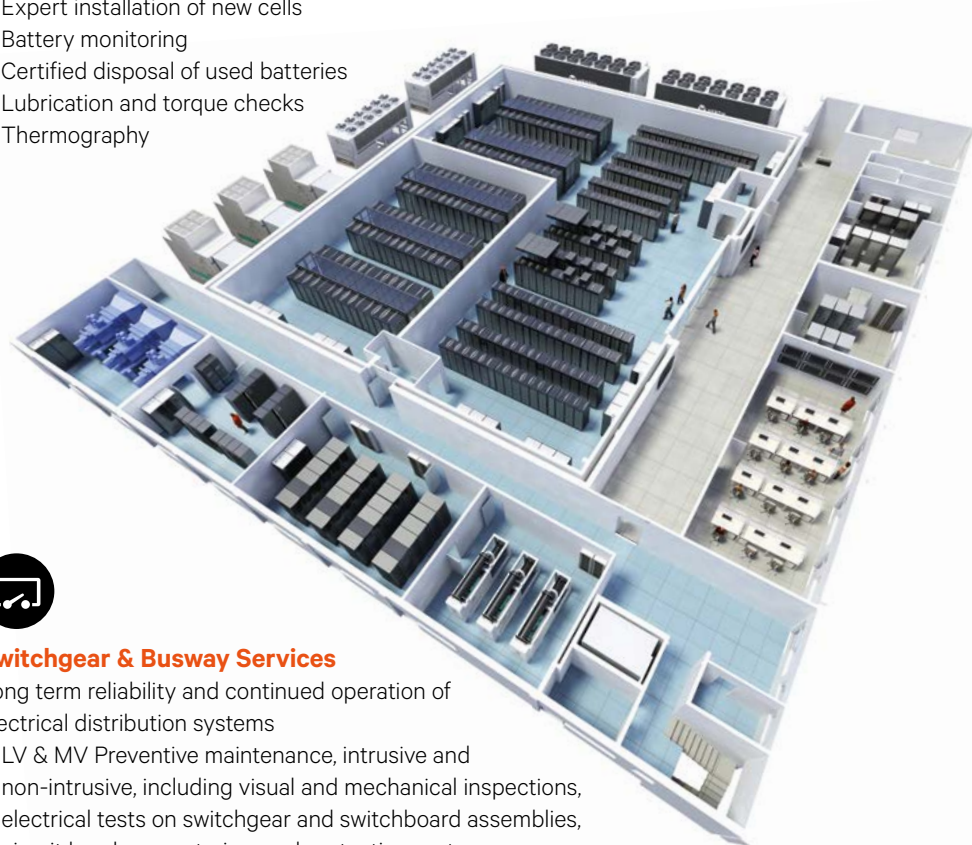
#### Battery Maintenance & Replacement Services

- Preventive maintenance inspection and testing follows industry recognised standards, OEM specifications and requirements
- Battery load testing
  - Battery health testing using impedance, internal resistance or conductance — reliable and safe testing of battery aging status
  - Full string replacements
  - Expert installation of new cells
  - Battery monitoring
  - Certified disposal of used batteries
  - Lubrication and torque checks
  - Thermography



#### Thermal Management System Services

- Optimised system performance
- Commissioning and site acceptance testing
  - Preventive maintenance
  - Emergency services
  - On-site repair capabilities
  - Upgrades and replacements
  - Assessments and testing



#### Switchgear & Busway Services

- Long term reliability and continued operation of electrical distribution systems
- LV & MV Preventive maintenance, intrusive and non-intrusive, including visual and mechanical inspections, electrical tests on switchgear and switchboard assemblies, circuit breakers, metering, and protection systems
  - Thermography complementing non-intrusive maintenance
  - Transformer oil sampling & analysis
  - Fault diagnosis, Upgrades & Repairs
  - Load bank and integrated building tests

## SOFTWARE SOLUTIONS FOR MONITORING CRITICAL INFRASTRUCTURE

**Vertiv™ Critical Insight** is a powerful web-based building and site monitoring platform with software tools to manage energy conservation projects, identify key operational problems, and analyse the results. The platform supports major communications protocols, including Modbus SNMP, enabling data sharing with enterprise or third-party systems for results analysis and better understanding of facility operations.

**Vertiv™ Environet™ Alert** provides an easy-to-use software solution that helps ensure the continuous power and cooling of your critical infrastructure. It is an affordable solution offering superior monitoring, alerting, trending, and data organisation capabilities that help companies in the healthcare, financial services, government, and other industries protect and grow their businesses.

## Implementation Services



### Project Services

Better and quicker bid accuracy, cost tracking and saving

- Project management
- Positioning and installation, waste management
- Construction works
- Electrical and thermal works
- Integrated site acceptance testing, plant certification



### Installation, Startup & Commissioning

Complete turnkey capability

- Factory-trained experts carry out professional installation
- Installation and pre-power checks
- Optimised hardware and software configurations
- Operational and functional testing

## Restoration Services



### Spare Parts

Delivering the fastest system recovery

- Extensive availability of spare parts
- Access to captive spare parts
- 24-hour express delivery



### 24x7 Emergency Service

Response and resolution for minimised downtime

- Factory-trained expert engineers available 24x7
- Guaranteed on-site response time

## Digital Services



### Vertiv™ Life™ Services Remote Diagnostics

Maximised system availability via real-time diagnosis and resolution of operating anomalies

- 24-hour monitoring and service delivery by expert engineers
- Monitoring and trending of system data
- Diagnosis through expert data analysis allowing effective proactive maintenance and prevention of future anomalies
- Prompt alarm identification and resolution
- Alarm notification
- On-site corrective maintenance dispatching
- Customer reporting



### Remote & Site Monitoring Services

System-wide monitoring solutions

- Phone or email help desk support by expert engineers available 8x5 or 24x7
- Remote monitoring for proactive identification of anomalies
- Remote battery testing
- Alarm management
- Equipment optimisation advice
- 24x7 customer access via internet
- Third-party equipment integration
- Customised reports

## Optimisation Services



### Infrastructure Assessments

Complete infrastructure audits and assessments maximise system availability and enhance data centre efficiency

- Airflow, heat and power assessments
- Temperature measurements
- Floor plan layout
- Thermography
- Reporting
- Recommendation.

### Upgrades & Retrofits

Increased infrastructure life and optimised energy efficiency

- EC fans enhance energy savings on installed equipment
- Vertiv™ Liebert® iCOM™ control enables communication capabilities of multiple units
- Programmed fan and capacitor replacements extend UPS service life

## Training



### Customer Learning Programs

- Business-specific programs cover our technologies, focusing on our customers' newly purchased equipment
- Carefully planned sessions cover training needs that are mapped and prioritised with management teams
- Adoption of different learning methodologies maximises learning transfer and helps students get the most from course tools

## EXPERT TRAINING

Developing new knowledge and skills is essential for supporting our customers in today's world of high-speed change. Therefore, we continually invest in learning opportunities. Through our state-of-the-art Vertiv Academy facilities, we educate our technicians, engineers, partners, and customers on the latest technical innovations, operations, and maintenance techniques for mission-critical equipment. Spanning more than 1,020 square metres and housing more than 200 different pieces of equipment, the Vertiv Academy helps create an informed workforce with the technical expertise needed to ensure digital continuity.

## Service Contract Portfolio



The most comprehensive insurance for business protection can be obtained with a service contract. Vertiv's complete range of services provide customers with service agreements tailored to meet individual business needs.

Vertiv's service offering ensures that customers can rely on continuous system availability, fast downtime recovery, minimised operating costs and maximised return on investment, while entirely taking care of their applications.










The contract offering applies to AC Power, Thermal Management and Switchgear & Busway. For the latter, maintenance is not identical every year but based on Non-Intrusive/Semi-Intrusive/Fully Intrusive visit alternation.

- **Non-Intrusive (NI)\*\*:**  
Every two years
- **Semi-Intrusive (SI)\*\*:**  
Every two years
- **Fully Intrusive (FI)\*\*:**  
Every five years.

\*Life is NOT applicable to Switchgear and Busway.

\*\*Manufacturer's recommendation.

## WARRANTY CONTRACTS

 <b>WARRANTY LIFE</b>	 <b>PREMIER WARRANTY</b>	 <b>PREFERRED WARRANTY</b>
	 <b>Preventive Maintenance</b> Fixed number of visits per year to ensure continuous and optimal equipment performance	 <b>Preventive Maintenance</b> Fixed number of visits per year to ensure continuous and optimal equipment performance
	 <b>Response Time</b> If an anomaly occurs, on-site visit from technician is granted within known and established amount of time	 <b>Response Time</b> If an anomaly occurs, on-site visit from technician is granted within known and established amount of time
	 <b>Vertiv™ Life™ Services*</b> Remote diagnostics and preventive monitoring for AC power and thermal management equipment	 <b>Vertiv™ Life™ Services*</b> Remote diagnostics and preventive monitoring for AC power and thermal management equipment



## AFTER WARRANTY CONTRACTS



### BASIC



#### Preventive Maintenance

Fixed number of visits per year to ensure continuous and optimal equipment performance



#### Response Time

If an anomaly occurs, on-site visit from technician is granted within known and established amount of time



#### Labour Included

The cost of labour is included, no extra cost

#### Optional Vertiv™ Life™ Services\*

Remote diagnostics and preventive monitoring for AC power and thermal management



### ESSENTIAL



#### Preventive Maintenance

Fixed number of visits per year to ensure continuous and optimal equipment performance



#### Response Time

If an anomaly occurs, on-site visit from technician is granted within known and established amount of time



#### Labour Included

The cost of labour is included, no extra cost

#### Optional Vertiv™ Life™ Services\*

Remote diagnostics and preventive monitoring for AC power and thermal management



### PREFERRED



#### Preventive Maintenance

Fixed number of visits per year to ensure continuous and optimal equipment performance



#### Response Time

If an anomaly occurs, on-site visit from technician is granted within known and established amount of time



#### Labour Included

The cost of labour is included, no extra cost



#### Parts Included

All parts included except end-of-life components and consumables



### PREMIER



#### Preventive Maintenance

Fixed number of visits per year to ensure continuous and optimal equipment performance



#### Response Time

If an anomaly occurs, on-site visit from technician is granted within known and established amount of time



#### Labour Included

The cost of labour is included, no extra cost



#### Parts Included

All parts included except end-of-life components and consumables



#### Vertiv™ Life™ Services\*

Remote diagnostics and preventive monitoring for AC power and thermal management equipment

