

# Enterprise Solutions Guide

Industry Leading IT Infrastructure and Management Solution



## ABOUT US

PT. NPS Pemuda Berdikarisma is a Data Center System Integrator Company founded by Professionals by providing the best product and service solutions by building long-term customers

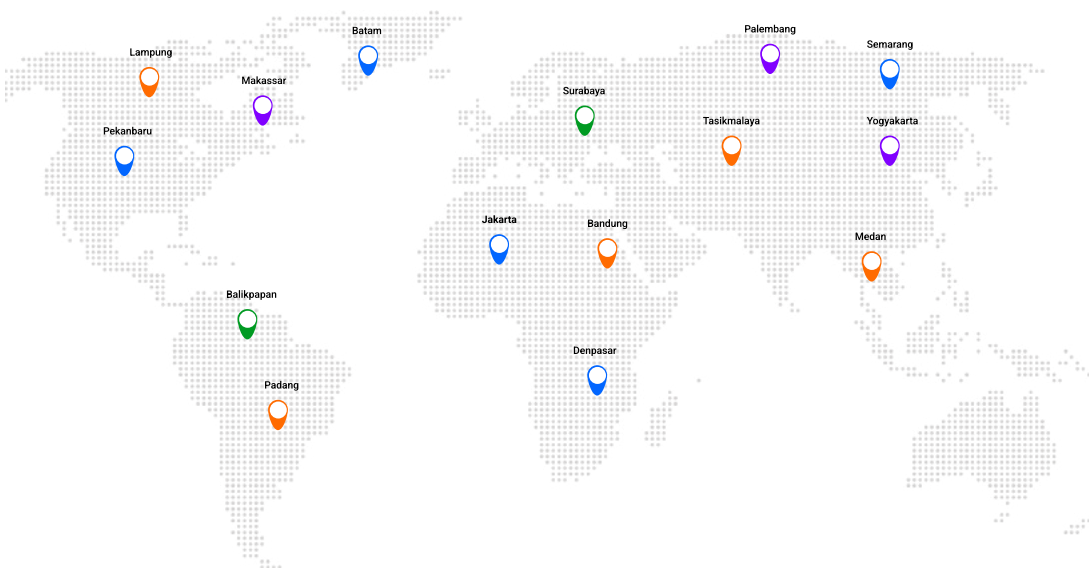
With our experienced, certified and skilled team, we ensure our customers will get extra benefit from all our sales. We provide you with pre and after-sales experience that will ensure everything runs with the best quality of work. We recognize your needs and offer professional services to fulfill them, while you dedicate your efforts to business growth. We provide a wide range of Data Center professional services combined into an integrated managed service contract

## VISION

Leading system integrator company that delivers excellent products and services with a long-term relationship with our clients.

## MISSION

To become a world class technology partner



## 15 SERVICE LOCATION AND ENGINEERING

PT NPS Pemuda Berdikarisma has professional staff in the field of Information Technology to provide the best solutions as well as a team of experts and consultants to meet industry needs based on knowledge in their fields. More than 3 engineers/consultants with multi-platform certification solutions, consisting of competent and experienced individuals with various international certifications, consisting of Data Center Certification (CDCP, CDCE, CDCE), UPS Certification, PAC Certification. NPS also has a solid project management team with certified Project Managers (PMP). We are here to support your business growth.



## INTEGRATED SOLUTION

### FOR NETWORK EDGE & CONVERGED SYSTEM DEPLOYMENTS

Rapidly deploy and manage IT infrastructure in just weeks without building new data center space. Our Smart Solutions products help you meet your IT needs with significant savings. With simplified, standardized designs, you can start small and expand over time.

### Smart Cabinet™ 2

Self-contained pre-configured, pre-engineered and factory tested infrastructure solutions for data center and telecom networks.

#### Features:

- Fully Integrated** - Factory Assembled and tested for power, Thermal Management, Rack Enclosure, Power Distribution, Monitoring and management, and security for IT applications. no Dedicated IT Room is required.
- Dust protection and noise insulation** - Fully closed operation, cold/hot air is circulated within the rack for better temperature and humidity control, expanding lifespan of IT equipment, low noise level. Highly suitable for office environment.
- Highly Efficient** - Built-in high efficiency UPS and cooling equipment, that uses DC frequency conversion technology for energy savings.
- User-friendly interface** - Large 9-inch LCD touch panel that allows for easy access to system status/ alarms/ setting.
- Fast deployment** - SmartCabinet provides faster deployment and is ready to use from day one, removing the need to build, construct and design computer rooms which dramatically reduces the required deployment period compared to a traditional IT facility build.
- Central Management** - optional feature of RDU-M that provides central management of multiple SmartCabinet sites.



SmartCabinet™ 2 Eco With Self Contained Cooling



SmartCabinet™ 2 Premium With external condenser



600mm width with external condenser



800mm width with external condenser



### SmartRow™ 2

Vertiv™ SmartRow™ 2 brings an innovative approach to efficiently integrate and manage distinct systems namely, Power and Distribution system, Thermal Management, System Security, Comprehensive Interface, Cable management, and other pertinent aspects. It takes over the previous generation of products' set-up and maintains the micro-module application benchmark, to provide users more compact, more reliable, safer, more convenient; a technology room deployment experience. The solution comes with the fastest deployment rate, lowest operating cost and the lowest learning curve for operation.

#### Features:

- Power Distribution System
- Support Utilities
- Modular Construction
- Cable Management
- UPS System
- Remote Monitoring
- Precision Cooling Units
- Advanced Touch Screen Display Controller



### New SmartAisle™

Liebert SmartAisle™ the most advanced fully integrated data center infrastructure solution with the futuristic capabilities embedded with sophisticated technology to make the data center operations efficient, quickly deployable, and provide monitoring and control of the entire operations.

#### Features:

- Lowest Total Cost of Ownership Increase of 30+% cooling efficiency utilize SmartAisle™ logic ensures the most accurate cooling environment
- An integrated design facilitates quick deployment in less than 2 weeks
- Simple Architecture, an integrated stand-alone build-to-install approach for the entire DC set-up in one go
- A 15-inch large HMI control panel enables administrators and facility managers to visualize the entire system operation in real time
- Uptime Tier IV Ready



## MONITORING, CONTROL AND MANAGEMENT

Our Solutions provide comprehensive functionality, scalability and security across and analysis, We Provide unprecedented insight which lowers costs and enables rich remote management while ensuring security.

## SOFTWARE



### DS View™ Management Software

#### Features:

- | Secure, remote, centralised data center management
- | Multi-device support
- | Virtual media support
- | Integrated solution for KVM and power control
- | Multi-platform support
- | Flexible authentication/access control



### Rack Power Manager

#### Features:

- | Can manage and control thousands of PDUs per install
- | Detailed reporting with intelligent grouping
- | Ability to easily export data to third-party reporting tools

## MONITORING



### Liebert® RDU-M

Dynamic Environment Monitoring for Secure Data Center Infrastructure.

#### Features:

- | Offers a user-friendly GUI to set up and manage data center infrastructure appliances
- | Real-time monitoring on environmental, power, cooling, and security in data center
- | Video surveillance supports video recording/backup/replaying/ picture capturing/voice transmission/timed recording and recording action triggered by alarm
- | Room access control management
- | Report and analysis on data center/device operation; PUE statistics



### Liebert® RDU-A G2

Intelligent Monitoring Solution

#### Features:

- | Monitoring of the health and status of the equipment
- | Monitoring of environmental conditions i.e. temperature and humidity, leak and smoke.
- | Monitor the improved communication speed in transmitting control or commands to the equipment and parameter setting
- | Records Data and Logs of historical information of alarms and notifications

## UNINTERRUPTIBLE POWER SUPPLIES

We Take a holistic approach to power efficiency and availability across the power spectrum. Using our solutions, companies can overcome challenges to developing, developing and managing power regardless of industry



### Liebert® ITA2 (5KVA to 40kVA)

#### Features:

- | Eco-Mode provides a superlative efficiency of up to 99%
- | Programmable output outlets/terminals with cascade protection to protect key devices during heavy load
- | Integrated Ethernet port with HTTP protocol compatibility & streamlined remote monitoring
- | Robust structure with cutting edge channelized airflow design Dust and moisture resistant
- | Suitable for long back-up up to hours
- | Parallelable up to 4+0
- | Compliance with seismic conduction & vehicle carrying test

### Liebert® EXS (10KVA to 80kVA)

#### Features & Benefits:

- | Output power factor up to 1
- | Double conversion efficiency up to 96.2%
- | ECO mode efficiency up to 99.3%
- | Compact footprint with multiple internal runtime configurations
- | Available in 3/3 and 3/1 versions (10-20kVA)
- | Integrated maintenance bypass
- | Integrated input and output breakers/switches Parallel capability for capacity and redundancy
- | Lithium-ion battery compatible



### Liebert® EXM2 (100KVA to 250kVA)

#### Features and Benefits :

- | Guarantees Maximum Energy Savings
- | Further Maximizes Energy Savings
- | Compact Footprint
- | Increases Flexibility
- | Guarantees Faster Battery Recharging
- | Guarantees Wider Battery selection and Lowers Installation Costs
- | Fully Compatible with Critical IT and Non-IT loads
- | Achieves Maximum Capacity up to 1.5 MW
- | Guarantees More User Friendly HMI and Leaner Spare Parts Management



## Liebert<sup>R</sup> APM™ (18 to 90kW, 30 to 150kW, 50 to 600kW)

### Flexible and Scalable Compact Row-based UPS

- | High efficiency rating of up to 96% in true online double conversion mode
- | FlexPower Technology: Allows the configuration of a completely redundant power system, sized to match the capacity of the protected equipment
- | Parallel technology allowing maximum system capacity of up to 600kW
- | Internal or external, scalable modular battery configuration to suit power scalability
- | Flexible battery configuration: 30 to 40 battery blocks per string



## Liebert<sup>R</sup> EXL™ (300 to 1200kVA)

### Maximum Efficiency UPS Protection in an Intelligent, Low TCO Design

- | Efficient, High-Density Design and Operation
- | Flexible Configurations and Design
- | Intuitive, Intelligent Operation
- | Designed for Easy Service and Maintenance
- | Proactive remote service delivery
- | Transformer-free topology with up to 97% efficiency in double conversion mode.



## LiebertR Trinergy Cube (200kW to 3.4MW)

### Beyond the Power Revolution

- | Highest average operating efficiency in the industry: 98.5%
- | Hot scalability up to 3MW in a single unit up to 24 MW in a parallel system
- | Unprecedented levels of installation flexibility
- | Smart capacity - adaptive power rating



## THERMAL MANAGEMENT

Intelligent, Comprehensive approach to managing and controlling heat across your mission-critical facilities

## THERMAL CONTROL AND MONITORING



### LiebertR ICOM-S Thermal System Supervisory Control

- | Up to 50% system efficiency gains
- | 30% lower deployment costs
- | Improved thermal efficiency, capacity and protection through visibility into thermal system performance
- | Increased thermal system responsiveness to changes in facility and IT demand
- | Optimized thermal system performance to reduce cooling unit wear and tear
- | Simple and easy to deploy
- | Cuts sensor deployment times in half

## RACK COOLING



### Liebert® XD™ System

Energy-efficient, flexible high heat density cooling applications

#### Liebert® XD Refrigerant-based cooling modules

- | Liebert® XDV™: Mounts vertically on or above the IT rack enclosure, requiring no floor space
- | Liebert® XDQ™: Overhead cooling module mounted directly above the cold aisle
- | Liebert® XDH™: Row-based cooling module, placed directly in line with rack enclosures
- | Liebert® XDC™: Coolant chiller unit available in air cooled configuration with remote condenser
- | Liebert® XDR™: Cooling module that is designed to replace the back door of a server enclosure

#### Liebert® XD™ Piping System

Prefabricated distribution piping installed in anticipation of a growing data center cooling system. It features a flexible connection piping and quick-connect fittings that allow addition or repositioning of cooling modules.

#### Liebert® XDTM Rack Airflow Enhancer

Liebert® XDATM: Increases through densely populated rack enclosures, congested cabling, removing hot spots within the enclosure and provides redundant components to ensure reliability

#### Liebert® XDTM High Heat Density Enclosure

Liebert® XDFTM: Integrated modular enclosure featuring high heat density cooling, delivering the benefits of big-room support in a cost effective data center cooling



### Liebert® XD™ System

- | Cools more than 30kW per rack.
- | Supports Liebert XD Smart Modules.
- | 60 Hz and 50 Hz models.
- | Energy efficient redundant pumps
- | Uses advanced Liebert ICOM unit controls

### Liebert® CRV4

- | Evaporator Coil Design
- | Variable Capacity Brushless DC Inverter Compressor
- | Flexible Fan Operation
- | Electronic Expansion Valve (EEV)

## IN-ROW COOLING



### Liebert® DM

- | Advanced algorithms help the unit to run efficiently
- | Thermal group control distinctly helps to cool the room as the units work together
- | Round the clock monitoring of common problems and solutions
- | Shows the unit abnormality help function
- | Optional SIC Card enables SNMP with SMS and email notifications



### Liebert® LPC

- | Asia's first standardized constant unit for special application
- | Satisfy the requirement for CE certification
- | Regulation of Sensible Cooling Capacity down to Zero
- | Use of variable technology at every steps like compression, distribution & controls
- | High quality, perfect harmonized component

## ROOM COOLING



### Liebert® PEX3™ and PEX4™

High Efficiency & Value-driven thermal management solution in a compact footprint

#### Both the PEX3 and PEX4 features:

- | Microchannel evaporator coil
- | Electronic expansion valve
- | R410A Refrigerant
- | Options for 1 and 2 stage electric heating
- | Options for infrared and electrode humidification
- | Intelligent controller, for precise temperature & humidity control
- | Inverter scroll compressor and high return air capability (PEX4 feature)

### Liebert® PCW

#### Chilled Water Room Cooling Unit



- | Unique integrated aerodynamic design to reduce fan power consumption
- | New coil design with enhanced efficiency
- | New high efficiency filters, providing class F5 filtration, as well as up to half the pressure drop of the more commonly used G4 (allowing improved filtration for increased performance)
- | New Liebert® EC Fan 2.0
- | Larger coil and filters to further reduce pressure drop

## EVAPORATIVE FREE COOLING



### Liebert EFC

#### Evaporative Freecooling Solution

- | **Integrated Chilled Water Coil or Direct Expansion System:** These technologies ensure the unit's operation even in climates characterized by extreme humidity levels or severe temperature peaks
- | **ICOMTM Control:** Ensures high level management of the units to work together as a single system, thus optimizing room temperature and airflow. Furthermore, it features a new 7" touch screen display for quicker and easier data readability
- | **Eurovent Certified Heat Exchanger:** Eurovent certification guarantees that Liebert® EFC heat exchangers undergo independent testing, thus delivering rating accuracy and enhancing the unit's reliability
- | **Liebert® EC Fan:** The new generation of fans installed in the Liebert® EFC ensures silent operation and increases the overall efficiency of the unit



### Liebert® VIC

#### Evaporative Freecooling Solution

Liebert VIC solution is empowering the full computing potential with immersion cooling technology; where, servers are installed vertically in horizontal racks filled with a dielectric coolant, which is an excellent conductor of heat, but not of electricity. The coolant circulates between the racks and a coolant distribution unit (CDU) connected to a warm water loop, which may use a cooling tower or dry cooler, or a chiller return line, as the final form of heat removal.

- | Cost Effective
 | Modular & Scalable
 | Energy Efficient
- | Future Proof
 | Fast & Flexible
 | Environmentally Resilient & Flexible

## IMMERSION COOLING



### Liebert SRC

#### Evaporative Freecooling Solution

- | High Efficiency
 | Advanced Controller
- | High Ambient Operation
 | Easy Maintenance and Service

## SMALL ROOM COOLING

## SERVICES

A professional assessment and testing will help you identify gaps in your power infrastructure, ensure IT system availability, and plan for additional capacity. Vertiv professional assessments and testing are designed to encourage informed decisions that enhance the performance of your data center.

- | Data Center Design & Engineering
 | Operation & Maintenance
- | Project Delivery & Management
 | After Sales Service



## CONTACT US

### PT. NPS Pemuda Berkarisma

Jl. Radio Dalam Raya No.H5, RT.7/RW.4, Gandaria Utara, Kec. Kby. Baru, Kota Jakarta Selatan, Daerah Khusus Ibukota Jakarta 12140

- ☎ 021 27097028
 ☎ 0811 9926 685
 ✉ [marketing@npspemuda.co.id](mailto:marketing@npspemuda.co.id)
🌐 [www.npspemuda.co.id](http://www.npspemuda.co.id)
- ☎ 0811-1444-735
 ☎ 0811 1051 110
 ✉ [service@npspemuda.co.id](mailto:service@npspemuda.co.id)
🌐 [www.nps-power.com](http://www.nps-power.com)