Liebert RDU101

Vertiv Liebert IntelliSlot RDU101 Network Card User Manual

Model: RDU101

1. Introduction

This manual provides detailed instructions for the installation, operation, maintenance, and troubleshooting of the Vertiv Liebert IntelliSlot RDU101 Network Card. The RDU101 is designed to provide network connectivity and remote management capabilities for compatible Vertiv Liebert Uninterruptible Power Supply (UPS) systems, specifically the GXT5 series.

The IntelliSlot RDU101 enables web-based access, supports third-party protocols like SNMP for integration with building management or data center management systems, and facilitates communication with Vertiv software applications such as Trellis Enterprise, Trellis Power Insight, and LIFE Services.

2. Setup and Installation

2.1 Package Contents

Verify that your package contains the Vertiv Liebert IntelliSlot RDU101 Network Card and any accompanying documentation.

2.2 Physical Installation

1. **Power Down UPS:** Ensure the compatible Vertiv Liebert GXT5 UPS is completely powered off and disconnected from all power sources before proceeding. Refer to your UPS manual for proper shutdown procedures.
2. **Locate IntelliSlot:** Identify the IntelliSlot port on your UPS. This is typically a dedicated slot designed for communication cards.
3. **Insert Network Card:** Carefully align the RDU101 Network Card with the IntelliSlot port. Gently push the card into the slot until it is firmly seated. Do not force the card.
4. **Secure Card:** Use any provided screws or retention clips to secure the network card in place within the UPS.

Figure 1: Vertiv Liebert IntelliSlot RDU101 Network Card. This image displays the network card with its two Ethernet ports, status indicator LEDs (Activity and Link), a MAC address label, and a USB port. The card is designed for insertion into a compatible UPS system.

2.3 Network Connection

1. **Connect Ethernet Cable:** Plug a standard Ethernet cable (RJ45) into one of the Ethernet ports on the RDU101 card. Connect the other end of the cable to your network switch or router.
2. **Power On UPS:** Restore power to the UPS system. The RDU101 card will power on with the UPS.

2.4 Initial Configuration

Upon initial power-up, the RDU101 will attempt to obtain an IP address via DHCP. If DHCP is not available, it will default to a static IP address (refer to the RDU101 documentation for the default IP). You can access the card's web interface using a web browser:

1. **Open Web Browser:** On a computer connected to the same network, open a web browser.
2. **Enter IP Address:** Type the RDU101's IP address into the browser's address bar and press Enter.

3. **Login:** Enter the default username and password (consult the RDU101 documentation for these credentials).
4. **Configure Network Settings:** Within the web interface, configure network settings such as static IP address, subnet mask, gateway, and DNS servers as required by your network environment.
5. **Change Default Credentials:** For security, immediately change the default username and password.

3. Operation

The RDU101 Network Card provides comprehensive monitoring and management capabilities for your UPS system.

3.1 Monitoring UPS Parameters

Through the web interface, you can monitor various UPS parameters in real-time, including:

- Input Voltage and Frequency
- Output Voltage and Frequency
- Load Percentage
- Battery Status (Charge, Runtime, Health)
- Temperature and Humidity (if applicable sensors are connected)

3.2 Alarm and Notification Management

The RDU101 allows you to configure and manage alarms and notifications for critical UPS events. You can set up:

- Email notifications for specific events (e.g., power failure, low battery).
- SNMP traps to be sent to a network management system.
- Customizable thresholds for various parameters to trigger alerts.

3.3 Integration with Vertiv Software

The RDU101 seamlessly integrates with Vertiv's suite of power management software:

- **Trellis Enterprise:** For comprehensive data center infrastructure management (DCIM).
- **Trellis Power Insight:** For monitoring and managing multiple UPS devices.
- **LIFE Services:** For proactive monitoring and diagnostic services provided by Vertiv.

Refer to the documentation for each specific software for detailed integration instructions.

4. Maintenance

Regular maintenance ensures optimal performance and longevity of your RDU101 Network Card.

4.1 Firmware Updates

Periodically check the Vertiv support website for firmware updates for the RDU101. Firmware updates can provide new features, security enhancements, and bug fixes. Follow the instructions provided with the firmware update package carefully to avoid damaging the device.

4.2 Cleaning

If necessary, gently clean the exterior of the network card and its ports using a soft, dry, lint-free cloth. Do not use liquid cleaners or solvents. Ensure the UPS is powered off and the card is removed before cleaning if accessing internal components.

5. Troubleshooting

This section addresses common issues you might encounter with the RDU101 Network Card.

5.1 Status LED Indicators

Observe the LED indicators on the RDU101 card for diagnostic information:

- **Link LED:** Indicates a physical network connection. If off, check the Ethernet cable and network switch.
- **Activity LED:** Flashes to indicate network data transmission. If not flashing during network activity, check network configuration.
- **Status LED:** Provides general operational status. Refer to the RDU101 documentation for specific blink codes or colors.

5.2 No Network Connectivity

- Verify the Ethernet cable is securely connected at both ends.
- Check the network switch port status.
- Confirm the RDU101 has a valid IP address (either DHCP assigned or manually configured).
- Attempt to ping the RDU101's IP address from a computer on the same network.
- Ensure no IP address conflicts exist on the network.

5.3 Unable to Access Web Interface

- Ensure network connectivity (see 5.2).
- Verify you are using the correct IP address for the RDU101.
- Clear your browser's cache or try a different browser.
- Confirm the correct username and password. If forgotten, a factory reset might be necessary (consult documentation for procedure, as this will erase all settings).

6. Specifications

Feature	Detail
Model Number	RDU101
Product Dimensions	5.2 x 3 x 1.5 inches (10"L x 5"W x 2"H package dimension)
Item Weight	5.8 ounces
Hardware Interface	Ethernet
Compatible Devices	Vertiv Liebert GXT5 Uninterruptible Power Supply (UPS)
Data Link Protocol	SNMP, ModBus TCP
Data Transfer Rate	100 Megabits Per Second
UPC	636430087702
Manufacturer	Vertiv

7. Warranty Information

The Vertiv Liebert IntelliSlot RDU101 Network Card is covered by a manufacturer's warranty. For specific details regarding warranty duration, coverage, and terms, please refer to the warranty documentation included with your product or visit the official Vertiv website. Keep your proof of purchase for warranty claims.

8. Technical Support

If you encounter issues that cannot be resolved using the troubleshooting steps in this manual, or if you require further assistance, please contact Vertiv Technical Support. Before contacting support, have your product model number (RDU101) and serial number ready, along with a description of the problem.
You can typically find support contact information on the official Vertiv website or in the documentation that came with your product.