Jacarta

interSeptor iMeter

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POWER & ENVIRONMENTAL MONITORING SOLUTION

For Data Centres, Server Rooms and Racks

interSeptor iMeter is an advanced environmental and power monitoring solution that has been designed to help IT personnel to...

- Reduce power usage in the data centre.
- Identify which racks are using the most power and are the most expensive to run.
- Reduce the power consumption in data centre racks.
- Assess whether it is more economical to invest in newer, less power-hungry IT equipment rather than continuing to run existing equipment.
- Ascertain if temperature in the data centre be safely increased in order to help reduce air conditioning and air handling costs.
- Reduce Amps per U-space Ratio and running costs.
- Analyse what effect running rack fans has on the AU ratio.
- Reduce power usage safely without affecting network operations.
- Receive alerts immediately about significant changes in power and environmental conditions that may otherwise have serious repercussions for network availability.
- Implement an environmental and power monitoring solution without disruption to existing network infrastructure and without downtime.

The interSeptor iMeter Solution

3 principal components make up the interSeptor iMeter solution:

1. Jacarta Go-Probe Power and Environmental Sensors
2. iMeter Master device with 8 sensor ports
3. iMeter Slave device with 8 sensor ports

Go-Probe Power and Environmental Sensors

The Jacarta range of Go-Probe sensors can be connected to each iMeter Master or iMeter Slave device in any combination to provide full flexibility for your power and environmental monitoring solution. Go-Probe Sensors include:

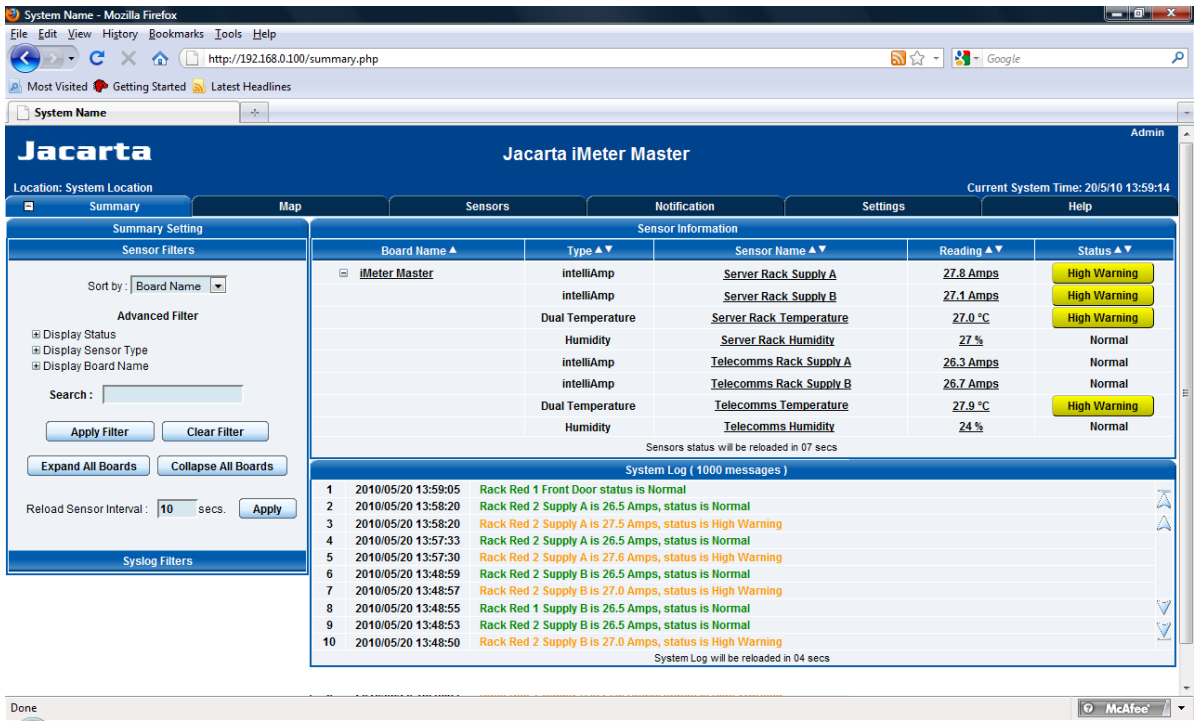
- intelliAmp Current Sensor (Amps)
- intelliAmp Voltage Sensor (Volts)
- Temperature/Humidity
- Airflow Sensor
- Water Leak Detector
- Smoke Detector
- Security Sensor (door open)
- Motion Sensor (PIR)

iMeter Master

The iMeter Master module is a 1U rackmountable Ethernet device with remote monitoring capability via its web browser interface, SNMP, Modbus and RS485. The device is equipped with 8 sensor ports and 2 expansion ports for connection of iMeter Slave devices. Multiple Jacarta Go-Probe sensors can be monitored from a single IP address in conjunction with iMeter Slave modules.

iMeter Slave

Each iMeter Slave supports up to 8 Go-Probe Power and Environmental Sensors and is equipped with daisy chain in and out ports for connection to the iMeter Master and/or other iMeter Slave devices.



POWER MONITORING

The power of the iMeter solution lies in its range of intelligent sensors. The sensors can be connected and monitored in any combination, and can be installed without network downtime.

intelliAmp Current Sensor

The remarkable intelliAmp Current Sensor has been designed to monitor the current draw of racks via 16A and 32A cables. The sensor contains a unique calibration mechanism to enable it to be positioned at the point where the optimal current reading can be obtained. The fact that the sensor simply clips to the cable means no network downtime is required to start monitoring your racks.

The intelliAmp Sensor can be used to track power usage within racks over time to ensure consumption can be gradually reduced as equipment is upgraded. The sensor can allow users to make power usage comparisons between racks and identify the most and least expensive racks to run. By building up a picture of power consumption across the data centre down to rack level, IT personnel can start to effectively manage power usage going forward and make savings where possible.

The flexibility of the intelliAmp Sensor means it can also be used to identify the effect on power consumption of running fans in racks, for instance, or the power implications of running the data centre at a higher temperature. This may help to reduce air conditioning power consumption but may also result in internal fans working harder and an increased power usage in this area. The key point is that the intelliAmp will help you to understand what is happening with the power across your data centre and manage it more efficiently.

intelliVolt Voltage Sensor

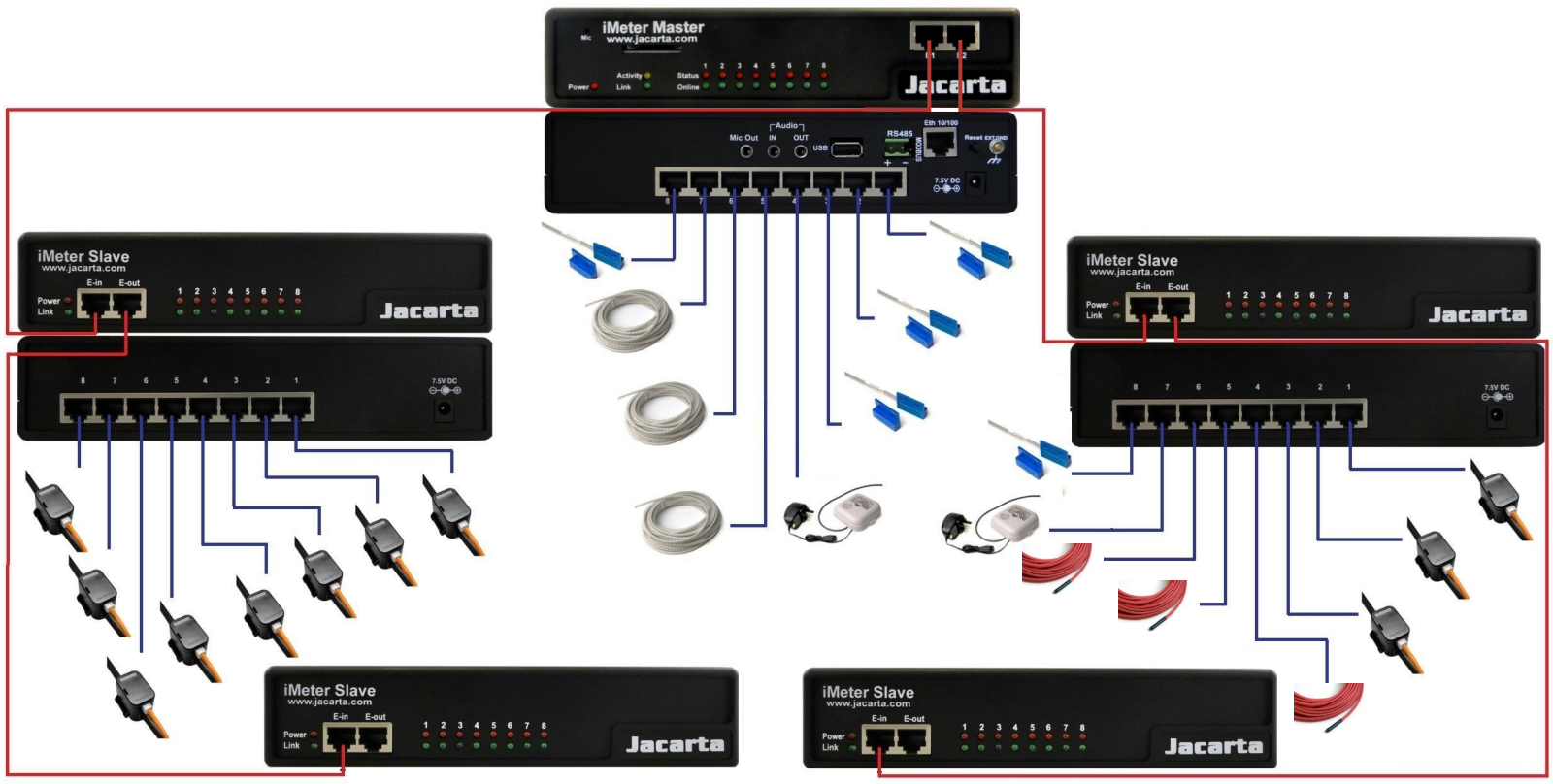
The intelliVolt voltage sensor simply connects into one of the iMeter sensor ports and plugs into a mains outlet. Voltage is monitored between 0 and 265v. High and Low threshold settings can be user configured on the iMeter to ensure alarm notification during over or under voltage conditions.

ENVIRONMENTAL MONITORING

A variety of environmental sensors are available with the iMeter to ensure your data centre or racks are constantly monitored for potentially catastrophic events. Alerts can be delivered rapidly to IT and Facilities personnel via email, SNMP or SMS to ensure remedial action can be taken quickly.

The Jacarta Go-Probe sensors can be connected to the iMeter Master and Slave modules in any combination. Sensors can be auto-detected by the iMeter to simplify installation and configuration.

The following diagram highlights the potential sensor capacity and flexibility of the iMeter.



iMeter Master—Specifications

- Sensors: 8 x RJ45 Auto detecting ports (Up-to 496 Jacarta Go-Probe sensors can be monitored from a single IP address in con junction with iMeter Slave modules)
- Relay Outputs: Any RJ45 sensor port can be configured as a relay
- Optional Equipment: - iMeter Slave: 8x RJ45 sensor ports
  - GSM Modem
- Network: 10/100Mbps Ethernet (auto-sense)
- Status Indicators: Sensor online and status LED, Power LED, 10/100 LED
- Configuration: Browser, Modbus
- Monitoring: Browser, NMS
- Alerts: Email, SNMP traps, Voice and SMS via optional additional GSM USB Modem
- Alert Configuration:
  1. Temperatue/Humidity: High/low warning and critical thresholds (user configurable)
  2. *Go-Probe* Sensors: Normally open/closed or high/low active (user configurable)
  3. intelliAmp/intelliVolt: High/low warning and critical thresholds (user configurable)
- Logging: Event, Status and configuration
- Graphs: Real-time and historical
- Graphs Interval: Daily, Weekly, Monthly and Yearly
- Firmware Upgrade: Via Network Connection
- System Security: IP based filtering and password protection
- Weight (kg): 1.09
- Dimensions (cm): 4.6 (h) x 21.6 (w) x 13.8 (d)
- Power: 7.5VDC PSU supplied
- Warranty: 1 Year

iMeter Slave—Specifications

- Sensors: 8x RJ45 Auto detecting ports.
- Relay Outputs: Any RJ45 sensor port can be configured as a relay
- Optional Equipment: iMeter Slave: 8 x RJ45 sensor ports
- Link Distance: Up to 300m
- Configuration: Via iMeter Master
- Monitoring: Via iMeter Master
- Dimensions (cm): 4.6 (h) x 21.6 (w) x 13.8 (d)
- Weight (kg): 1.09
- Power: 7.5VDC PSU supplied
- Status Indicators: Sensor online and status LED, Power LED, Link LED
- Warranty: 1 Year

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