

How do I get extensive data from a rack PDU without connecting a computer?

APPLICATION NOTE ST EYE-001

April 2014

Learn how the ST Eye mobile application allows you to monitor critical PIPS® and POPS® PDU power & environmental data directly from your compatible mobile device.^{1 2 3}

Typical Application

When physically in the data center I occasionally need an understanding of the power usage, among other metrics, when direct access to the PDU is not possible. This can happen when the PDU is located behind a locked door or in an uncomfortable hot aisle.

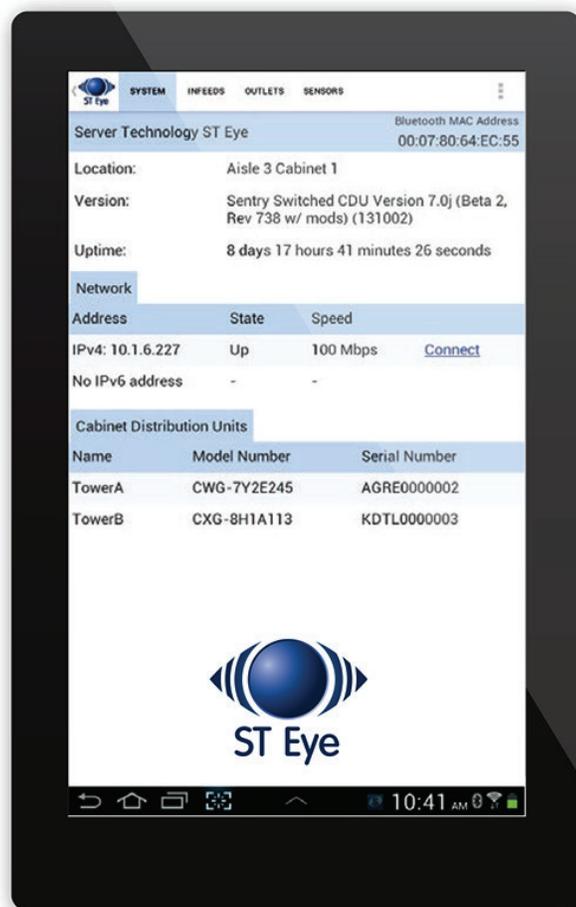
Right now, I am planning an installation of new IT gear into a rack and I need to be sure not to accidentally overload the PDU power circuit. I can get the minimum data needed, the amperage draw per phase, from the LEDs on the PDU. In that way I can ensure that upstream branch circuit protection doesn't trip. But, additionally, I am interested in the power draw of individual power supplies or devices as they are brought online for use.

How Can I See:

- Power Metrics: Amperage, Voltage, & Power Factor
- Temperature & Humidity measurements
- The PDUs IP Address & Serial Number

Our Solution

The solution is the Server Technology ST Eye Bluetooth application with compatible hardware.^{3 4} Using any Bluetooth capable PIPS PDU, simply plug in the ST Eye module and activate by pressing the discovery button or by scanning the QR code with the free mobile device application. For convenience a QR code label can be affixed to the cabinet so that direct access to the PDU is unnecessary. System information along with infeed, outlet, and sensor data can be easily accessed on the spot without touching the PDU.



¹ PIPS PDU required for ST Eye functionality

² POPS PDU

³ Apple iOS & Android only

⁴ See Technical Note for details

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Remote Power & Environmental Monitoring of STI PDUs from your mobile device.

The quickest and easiest way to monitor your PDU at the cabinet level.

ST Eye is designed to allow easy access to power, system, and environmental information from Server Technology's PIPS PDUs. With ST Eye, there's no need to physically connect a computer to get information from the PDU. When your mobile device is connected to the wireless network the app will allow the user to easily access and log into the PDU, which may be located in a locked cabinet or an uncomfortable hot aisle, via its secure web interface.

Name	Status	Current (A)	Voltage (V)
TowerB_InfeedA	On	0.00	205.9
TowerB_InfeedB	On	0.00	207.7
TowerB_InfeedC	On	0.00	205.3

Name	Current (A)	Voltage (V)
A-X-Y	0.00	205.9
A-Y-Z	0.00	207.4

ID	AB
Power (W)	0
Apparent Power (VA)	0
Energy (kWh)	3.4
Crest Factor	-
Power Factor	-
Reactance	-

INFEEDS TAB:
3-PHASE

Name	Status	Current (A)	Voltage (V)
TowerA_InfeedA	On	0.00	117.8
TowerB_InfeedA	On	0.00	118.0

ID	BA
Load Status:	Normal
Capacity (A):	20
Current Capacity Used (%):	0.0
Capacity (VA):	2400
Apparent Power (VA):	0
Power (W):	0
VA Capacity Used (%):	0.0
Power (W):	0
Energy (kWh):	0.0
Crest Factor	-
Power Factor	-
Reactance	-
Frequency (Hz):	60

INFEEDS TAB:
SINGLE PHASE



Name	Status	Current (A)	Voltage (V)	Power (W)
TowerA_Outlet1	On	0.00	118.1	0
TowerA_Outlet2	On	0.00	118.1	0
TowerA_Outlet3	On	0.00	118.1	0
TowerA_Outlet4	On	0.00	118.1	0
TowerA_Outlet5	On	0.00	118.2	0
TowerA_Outlet6	Off	0.00	0.0	0
TowerA_Outlet7	On	0.00	118.2	0
TowerA_Outlet8	On	0.00	118.2	0
TowerB_Outlet1	On	0.00	118.3	0
TowerB_Outlet2	On	0.00	118.3	0
TowerB_Outlet3	On	0.00	118.3	0
TowerB_Outlet4	On	0.00	118.3	0
TowerB_Outlet5	On	0.00	118.3	0
TowerB_Outlet6	On	0.00	118.3	0
TowerB_Outlet7	On	0.00	118.3	0
TowerB_Outlet8	On	0.00	118.3	0

OUTLETS TAB:
POPS OVERVIEW

Name	Status	Current (A)	Voltage (V)	Power (W)
TowerA_Outlet1	On	0.00	118.3	0
TowerA_Outlet2	On	0.00	118.3	0
TowerA_Outlet3	On	0.00	118.3	0
TowerA_Outlet4	On	0.00	118.3	0
TowerA_Outlet5	Off	0.00	0.0	0
TowerA_Outlet6	On	0.00	118.3	0
TowerA_Outlet7	On	0.00	118.3	0
TowerA_Outlet8	On	0.00	118.3	0
TowerB_Outlet1	On	0.00	118.3	0
TowerB_Outlet2	On	0.00	118.3	0
TowerB_Outlet3	On	0.00	118.3	0
TowerB_Outlet4	On	0.00	118.3	0
TowerB_Outlet5	On	0.00	118.3	0
TowerB_Outlet6	On	0.00	118.3	0
TowerB_Outlet7	On	0.00	118.3	0
TowerB_Outlet8	On	0.00	118.5	0

ID	A2
Load Status:	Normal
Capacity (A):	20
Apparent Power (VA):	0
Energy (kWh):	345
Crest Factor	-
Power Factor	-

OUTLETS TAB:
POPS DETAIL

Key ST Eye Benefits

- The biggest, easiest-to-read LCD screen on any PDU is the one in your hand
- Access to power and environmental measurements even behind locked cabinet doors
- Avoid the "hot" aisle and still have access to measurements
- Easy plug-and-play module enables access

Key Intelligent PDU Benefits

- PIPS® & POPS® high-accuracy measurements of current, voltage, power, etc.
- Environmental measurements through plug-and-play probes
- SNMP traps and email alerts
- Master-Expansion linking allows single-IP access to the cabinet pair of PDUs

About Server Technology®

Server Technology, a brand of Legrand, is leading the engineering and manufacturing of customer-driven, innovative and exceptionally reliable power, access and control solutions for monitoring and managing critical IT assets for continual availability.

Server Technology's power strategy experts are trusted to provide Rack PDU solutions for data centers worldwide ranging from small technology startups to Fortune 100 powerhouses. Because power is all we do, Server Technology can be found in the best cloud and colocation providers, forward thinking labs, and telecommunications operations.

Server Technology customers consistently rank us as providing the highest quality PDUs, the best customer support, and most valuable innovation. We have over 12,000 PDU configurations to fit every data center need and most of our PDUs are shipped within 10 days.



Rack PDU Buying Guide

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