



## SmartLink Site Survey Process

<b>Applies to:</b>	SynapSense RPDU
<b>Objective:</b>	This document details the steps required and information to gather for SynapSense Systems Engineering to validate or add support for a specific RPDU that is not already supported. In addition to technical information, this technical note contains process descriptions to be followed by SynapSense personnel when requesting support for a customer's RPDU.

### Description

SmartLink<sup>™</sup> devices only supported tested/validated makes and models of RPDUs. Any make and model not on the supported list cannot be quoted without NRE cost to add support and validate functionality. Thus, all non-supported RPDUs must go through Systems Engineering to be quoted.

- RPDU make and model is on the supported list – Low Risk
- Only RPDU make is on the supported list – Medium Risk
- Neither RPDU make nor model are on the supported list – High Risk and all similar and successor legislation and regulation

### Performing the Procedure

Data reported by RPDU will vary with the RPDU manufacturer and model. A breakdown of the data provided by the supported RPDUs is listed below:

Abbreviation	Value	Notes
∅	Phase	RPDU configured for single (1) or three (3) phase power
V	Volts	RPDU Volts
Va	Volts	Volts Per Phase: a, b,
A	Amps	RPDU Amps
Aa	Amps	Amps Per Phase: a, b, c
MA	Amps	RPDU Maximum Amps
MAa	Amps	RPDU Maximum Amp Per Phase: a, b, c
W	Watts	RPDU Watts

Abbreviation	Value	Notes
Wa	Watts	RPDU Watts Per Phase: a, b, c
D/S	IP Support	RPDU IP Supported: Dynamic/Static
D/W	Delta/Wye	Web Console Reports: Delta/Wye Configuration
Prog	Programming Cabling	Initial RPDU Configuration Method: Network (web console) or Serial

PDU	Ø	V	V a	V b	V c	A	A a	A b	A c	MA	MA a	MA b	MA c	W	Wa	W b	W c	D/S	D/W	Prog
HP S124	1	✓				✓				✓				✓				S	D	S
HP S348	3	✓					✓	✓	✓		✓	✓	✓	✓				S	D	S
HP S1324	3	✓				✓				✓				✓				S	D	S
Raritan PX2-1724	3		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓	D	D	N
Geist RSMRN	1	✓					✓				✓							D/S	D	N
Server Tech CS-24VD-L30M	3		✓	✓	✓		✓	✓	✓		✓	✓	✓		✓	✓	✓	D/S	D	N
APC 7841	1					✓				✓								D/S	W	S
APC 7893	3						✓	✓	✓		✓	✓	✓					D/S	W	S

1. Server Tech PDUs support DHCP, but the RPDU digital interface *may* require a reboot before being connected to SmartLink™
2. APC PDU DHCP settings: cookie not required
3. HP PDU S348: L1+L4 = **Phase A (AB)**    L2+L5 = **Phase B (BC)**    L3+L6 = **Phase C (CA)**

## New RPDU Survey and Submission

### Data Collection

Collect the following during the customer site survey. It is required to gather all of these items for each make and model of RPDU at the site. Never assume that all of the RPDUs are the same. Often the customer will have a list of all RPDU models in their data center.

1. Record RPDU brand.
2. Record RPDU model.
3. Record RPDU firmware version or manufacture date.

4. Get a copy of the SNMP MIB (management information base) file for each RPDU model.  
After getting a copy of the MIB use a MIB browser to gather the following data. You must attach a laptop to each model of RPDU to get this information.
5. Walk the MIB. This is a command in the MIB browser that goes through each data point and gets the current value.
6. Record the data from the MIB browser to a file.
7. Record the LED display information at the same time as the MIB data was recorded to a file. This is for verification that the MIB points to the data that we will need.
8. Perform all seven steps for each make and model of RPDU at the customer site. Any data points (volts, amps, etc.) not reported by the RPDU will not be displayed in Web Console. Web Console expects these data values.
  - Voltage (V) per phase
  - Current (A) per phase
  - Max Current (A) per phase
  - Power (kW) per phase

### Submission and Quoting Process

Use this process to submit a request for quote. The quote will include a time estimate for completion of adding the RPDU support. Actual work on the SmartLink™ and validation will start after the Purchase Order is received from the customer.

1. Email all data from the above data collection process to support@synapsense.com and Customer Support will create a case that is P4 priority.
2. Customer Support will enter a feature request into Bugzilla and assign to the engineer in charge of SmartLink™ firmware development.
3. The engineer will evaluate the amount of effort required to add support of the RPDU and enter that estimate into the feature record, and assign the feature to the Enhancement Review Board.
4. The ERB will review and approve requests once per two weeks. The effort estimate will be sent back to the originator for inclusion in the customer quote.
5. Customer Support will close the case when the estimate is delivered.
6. When the purchase order is received from the customer, then Professional Services will notify Systems Engineering of the feature number and that it should be started.
7. Quality Assurance will notify the originator when the RPDU support is added and verified. QA will deliver the firmware update via existing process.
8. Manufacturing will update the SmartLink™ components to be shipped to the customer.
9. If there are any special configuration steps, they will be documented in a technical note specific to support of that RPDU.
10. Support will add the RPDU make, model and supported values to the supported RPDU list in this document.