

# Power Protection Application Brief

• Cisco Catalyst® 4500-Series Modular Switches with PoE • Tripp Lite SmartOnline™ UPS Systems with SNMPWEBCARD

## Tripp Lite Protects Mission-Critical VoIP Network for Large Hospital

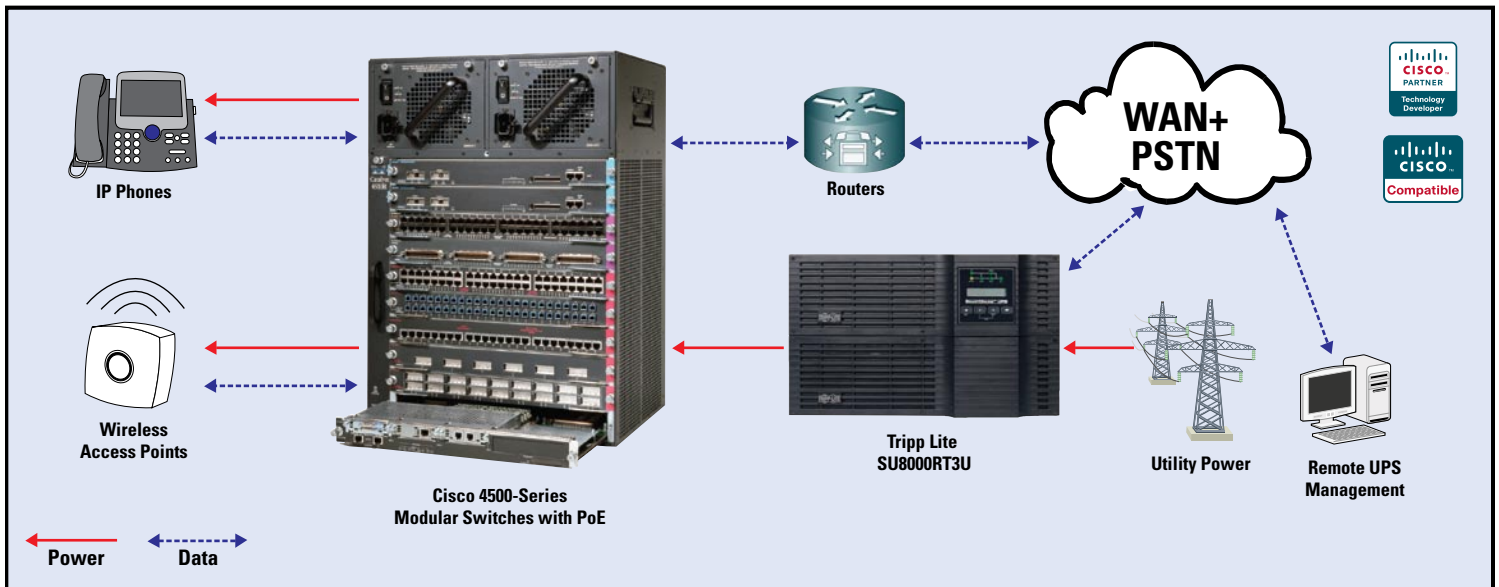
**The Client:** A large hospital with multiple sites.

**The Challenge:** Provide safe power and reliable battery backup for a mission-critical VoIP network. Protect and support Cisco Catalyst 4500-Series Modular Switches that connect and power 2,000+ IP phones and wireless access points. Provide remote monitoring and control for all UPS systems, including five off-campus locations.

**The Solution:** SU8000RT3U SmartOnline UPS Systems provide the high capacity and heavy-duty battery backup required to protect and support the Cisco switches and all PoE devices powered by the switches. SNMPWEBCARD accessories enable remote monitoring and control of UPS systems via SNMP, Web or telnet.

When a major university hospital upgraded their communication system, they needed heavy-duty protection for the workhorses of their VoIP network – Cisco switches that power and connect 2,000+ IP phones and wireless access points. With lives depending on their network, the hospital chose SmartOnline UPS Systems.

When patient safety is at stake, system reliability is a mandate. But no matter how carefully you match components, patch software and eliminate single points of failure, your efforts will be undermined if you don't have reliable power. SmartOnline UPS Systems eliminate VoIP network downtime by providing perfect power at all times. Continuous AC-to-DC-to-AC conversion transforms irregular input power into precision-regulated, pure sine wave output power before it reaches your equipment. Fault-tolerant bypass features guarantee that power flows uninterrupted, regardless of overloads or component problems, and Hot-Swappable Modular models even keep equipment powered during UPS repair or replacement. Your VoIP network stays up and running, and vital communications operate nonstop.



SmartOnline UPS Systems protect the heavy-duty Cisco switches that provide power and data to the hospital's vital communications system.

SmartOnline UPS Systems								
Model	Capacity (VA/Watts)	Rack Size	Estimated Runtime (Minutes) <sup>1</sup>					Battery Pack
			600W	1200W	2400W	3600W	4800W	
SU1500RTL2Ua	1500/1200	2U	17	5	—	—	—	A B
SU2200RTL2Ua	2200/1600	2U	27	9	—	—	—	A B
SU3000RTL3U	3000/2400	3U	43	17	6	—	—	C D
SU5000RT4U <sup>2</sup>	5000/3750	4U	80	33	14	9	—	E
SU6000RT4U <sup>2</sup>	6000/4200	4U	109	46	19	11	—	E
SU8000RT3U <sup>2</sup>	8000/6400	6U	123	53	22	13	9	F
SU10000RT3U <sup>2</sup>	10000/8000	6U	148	63	26	16	8	F

<sup>1</sup>Devices with multiple power supplies require multiple UPS systems for maximum fault-tolerance. Runtime varies with load, battery condition and other factors. <sup>2</sup>Hot-Swappable Modular model with detachable PDU and manual bypass. Tripp Lite follows a policy of continuous improvement. Specifications are subject to change without notice.

Estimated Power Requirements for Cisco Equipment	
Device	Power
Catalyst 3750 48-port Switch with PoE	700W
Catalyst 4510R Modular Switch (2 redundant 2800W PS)	3000W
Catalyst 4510R Modular Switch (2 redundant 4200W PS)	4800W

External Battery Packs for Increased Battery Backup Runtime		
Model Number	Model Number	Model Number
A BP48V24-2U (max 1)	C BP72V15-2U (max 1)	E BP192V12-3U
B BP48V60RT3U	D BP72V28RT-3U	F BP240V10RT3U

Tripp Lite's PowerAlert Software, version 12.5, has tested compatible with Cisco CallManager, versions 4.0 and 4.1, Cisco 7600 Series Routers, 7500 Series Routers and Catalyst 65XX Layer 3 Switches. Go to [www.tripplite.com/logodisclaimer](http://www.tripplite.com/logodisclaimer) for details. Tripp Lite is a Cisco Technology Developer Partner in the Cisco Technology Developer Program. Cisco, Cisco Systems, the Cisco Systems logo, and the Cisco Square Bridge logo are registered trademarks or trademarks of Cisco Systems, Inc. and/or its affiliates in the U.S. and certain other countries. SmartOnline is a trademark of Tripp Lite. All other trademarks are the sole property of their respective owners.

