

PoE Midspan

*Power over Ethernet for
Voice over IP Wireless Networks*

To ensure total availability,
MGE UPS SYSTEMS provides
you the solutions that are:

► **reliable**

a Power over Ethernet system
protected by a UPS eliminates power
cuts and ensures that the IP telephone
network is always available

► **economical**

power is supplied to the equipment
connected to the IP network via the
existing wiring

► **simple to install**

"plug and play" installation that
requires no configuring



MGE UPS SYSTEMS, INC. provides you with complete
solutions for protecting your critical network applications

M G E
UPS SYSTEMS

THE UNINTERRUPTIBLE POWER PROVIDER

High availability supply for network applications

..... is easy with **PoE** [MEANING] power over ethernet

Enterprise IT networks are undergoing major changes. One of these developments is Voice over IP (VoIP) telephone technology which requires the same availability and voice quality as conventional telephones.



In addition, **Power over Ethernet (PoE)** technology can be used to supply IP network equipment such as IP telephones and WiFi access points using the existing local network cables.

This technology has two advantages

- ▶ It provides a more practical, economical supply for the connected equipment
- ▶ The supply to the whole installation can be protected centrally directly from the distribution panel

Power over Ethernet can be installed in two ways

- ▶ Using a PoE midspan system
- ▶ Using PoE Ethernet switches
 - Both solutions comply with IEEE 802.3af which ensures interoperability between various terminal suppliers

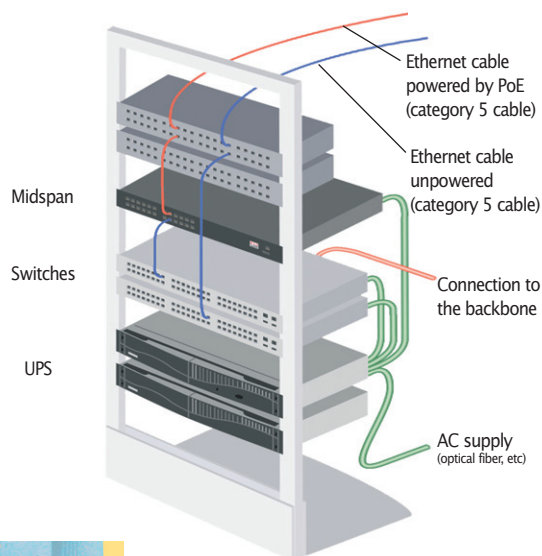
When supplied by a UPS, both solutions provide a level of availability and reliability equivalent to conventional switched telephone networks, but with all the advantages of IP telephony.

PoE Midspan Solution



Network rack in a data/communications center

- ▶ The midspan unit can be installed between a standard Ethernet switch and the terminals without modifying the existing wiring
- ▶ It is the ideal solution for updating equipment: quick and easy to install, improved continuity of service, cheaper than adding new PoE switches
- ▶ This solution improves the availability of critical applications even further when used with remote supervision of the midspan and the UPS

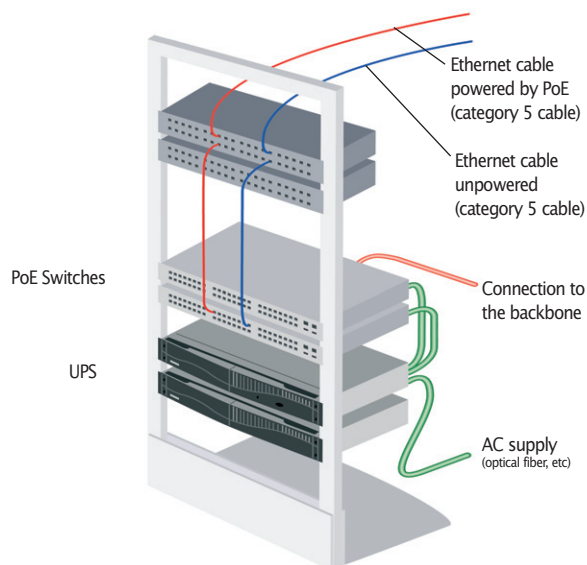


PoE Ethernet Switch Solution



Network rack in a data/communications center

- ▶ The Network rack in a data/communications center
- ▶ This solution is the most suitable when installing a new switch



UPS + PoE midspan + Supervision

..... the 1st comprehensive solution

Choosing a UPS

The following table can be used to provide an quick initial calculation for the UPS rating required. Allowance should be made for future expansion by including a margin in the UPS power rating.

Equipment	Unit rating (W)	X	Number of stacked units	=	Rating (W)
24-port switch without PoE support	_____	X	_____	=	_____
24-port switch with PoE support	_____	X	_____	=	_____
Midspan units	_____	X	_____	=	_____
Other equipment	_____	X	_____	=	_____
*Allowance for future expansion @ _____ %				=	_____
UPS rating (W)				=	_____

Note 1: As PoE technology is used, this calculation only has to take into account directly powered equipment (switches, midspan units)

Note 2: the backup time required (between 1/2 hour and 8 hours, typically between 2 and 4 hours) is also very important when choosing the UPS.

The selector assistant on <http://www.mgeups.com/selector/ups/> will help you to choose the UPS and battery modules.

Example (see how this aligns with the above chart)

Switch enclosure with 96 IP lines (4 switches x 24 ports) for connecting 48 users each with one PC and a PoE IP telephone:

Equipment	Unit Rating (W)		No. of stacked units		Rating (W)
switch without PoE:	150	x	4	=	600 W
midspan units:	220	x	2	=	440 W
allowance for expansion of	20 %			=	208 W
other equipment	0	x	0	=	0

> UPS rating: 1,248 Watts

For this example, a Pulsar EX RT 2200VA/1540W would provide the power required for a typical backup time. If a longer backup time is required, a Pulsar EX RT 3200VA/2080W with 2 "EXB" battery modules would provide equipment with a backup time of more than one hour.

Midspan

Universal

- Compatible with more than 120 different DTEs
- SNMP supervision
- 100% IEEE 802.3af compatible

Plug and play installation

- No configuration required
 - Intelligent PoE terminal detection
- ### Compact
- 24 ports in a 1U rack mounted unit

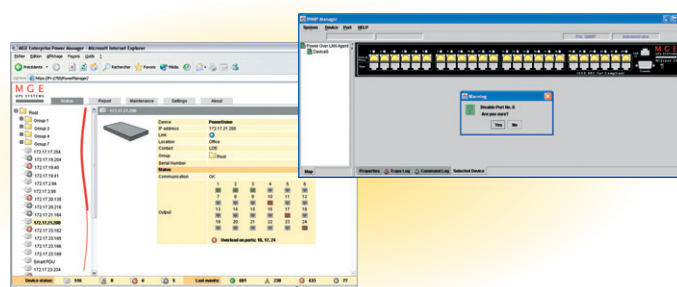


Supervision

Using "Enterprise Power Manager"*

- Auto-detection of midspans
- Status and alarms from the main page with level of criticality
- Direct access to the midspan page for more information

* Midspan 24 NM model only



Technical characteristics

Ethernet network	Category 5/5e/6
Number of ports	24
Data rate	10/100 Mbps
PoE outputs	
output voltage	48 VDC
rating per RJ45 port	15.4 W max.
total rating available	200 W
Input supply	
voltage/frequency	90 to 264 VAC / 47 to 63 Hz
current	4 Amps at 110 VAC, 2 Amps at 220 VAC
Connectors	RJ45 shielded
On-unit monitoring	on front panel, by LED
Indicators	system status - AC supply (green/orange LEDs), supply to RJ45 ports (green/orange LEDs)
Remote supervision	Midspan 24 NM
Dimensions (H x W x D in inches)	1.73 (1U) x 17.3 x 11.9
Weight (in lbs.)	8.8
Operating conditions	
temperature (by °F)	32– 104
relative humidity	90% maximum
altitude (in feet)	0 – 9800
Storage conditions	
temperature (by °F)	32 – 158
relative humidity	95% maximum
Conformity	CE
Electromagnetic	FCC part 15, class B with FTP cable
Compatibility	EN 55022 (CISPR 22), class B with FTP cable, EN 55024 (CISPR 24)
Approvals	UL/cUL to EN60950, GS Mark to EN60950
Warranty	Two Years

Part numbers MGE Midspan PoE 24 Ports

without management	Midspan 24	Ref: 66895
with SNMP management	Midspan 24 NM	Ref: 66896

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