

HP 2626 Procurve Ethernet LAN Switches

For the single site solution, two redundant Ethernet LAN switches are required to interface the site controllers to the base radios. A site controller is connected to each switch. The base radios are connected to the switches in an odd-even configuration scheme; all odd numbered base radios are connected to one switch while all even numbered base radios are connected to the second switch.

Each switch (shown in [Figure 3-8](#)) provides 24 ports that support connectivity for a 10/100Base-T LAN. The switches are connected to each other through a gigabit stacking interface that makes it possible for either site controller to communicate with up to 28 base radios. If one switch fails, at least one site controller has connectivity to maintain the site in a trunked mode with half the subsystem resources. The LAN switches send SNMP traps back to the network management system for event notification purposes.

Figure 3-8 HP2626 Procurve Ethernet LAN Switch



HP2626_switch

The Ethernet LAN switches support the following features:

- 24 auto-sensing 10/100Base-T RJ-45 ports with Auto MDI/MDI-X.
- HP Auto-MDI-X on all 10/100 twisted-pair ports, and IEEE 802.3ab Auto MDI /MDI-X on all 100/1000 twisted-pair ports, meaning that all connections can be made using straight-through twisted-pair cables.
- Two slots for installing supported gigabit transceivers.
- All ports are enabled. Connect the network cables to active network devices and the switched network is operational.
- The pin operation of each port is automatically adjusted for the attached device: if the switch detects that another switch or hub is connected to the port, it configures the port as MDI; if the switch detects that an end-node device is connected to the port, it configures the port as MDI-X. Crossover cables are not required, although they also work.
- Automatic learning of the network addresses in each switch's 4096 address forwarding table. As devices are connected to the switch ports, either directly or through hubs or other switches, the MAC addresses of those devices are learned automatically and stored in the 4096-entry address table. The switches also identify the number of the port on which each address is learned so they know the network location of each connected device.
- Automatically negotiated full-duplex operation for the fixed 10/100 RJ-45 ports when connected to other auto-negotiating devices. The transceiver ports always operate at full duplex.

- Switch management through several available interfaces:
 - Web browser interface: A built-in graphical interface that can be accessed from common web browsers.
 - Console interface: A VT-100 terminal interface that can be used for out-of-band switch management or for Telnet access to the switch.
 - HP TopTools® for hubs & switches: An SNMP-based, graphical network management tool that can be used to manage your entire network. This product is included with a new switch.
 - Support for the Spanning Tree Protocol: This interface eliminates network loops.

LED Indicators and Buttons

Figure 3-9 shows the Ethernet LAN Switch LED indicators and buttons.

Figure 3-9 HP 2626 Procurve Ethernet LAN Switch LEDs



HP2626_switch_LEDs

The four switch status LEDs on the leftmost end of the switch indicate the status of the switch, as described in Table 3-6.

Table 3-6 HP 2626 Switch Status LED Descriptions

Switch Status LED	State	Description
Power	Green: On	The switch is receiving power.
	Green: Off	The switch is not receiving power.
Fault	Orange: Off	Normal state: No fault conditions.
	Orange: Blinking	Operational fault has occurred on a port or fan. If a port has failed, the Port LED also blinks.

Table 3-6 HP 2626 Switch Status LED Descriptions (Continued)

Switch Status LED	State	Description
	Orange: On	On briefly after the switch is powered up or reset or at the beginning of the self test. On for a prolonged time indicates a hardware or self test failure.
Self Test	Green: Off	Normal state: no self test being conducted.
	Green: On	Self test and initialization is in progress. The switch is not operational in this mode.
	Green: Blinking	A switch component or port has failed the self test. Port LED and Fault LED blink.
Fan Status	Green: On	Normal state: cooling fan is operating normally.
	Green: Blinking	Cooling fan operation has failed. Fault LED also blinks.

For each port on the switch, there is one LED that appears in a row above its respective port. Depending on the port LED view selected, the port LEDs can display port link information, network activity information, whether the port is configured for full-duplex operation, or the speed of the connection. You select the port LED view by pressing the Port LED View button on the left side of the switch. There are four port LED views, as described in [Table 3-7](#).

Table 3-7 HP 2626 Switch — Port LED View Descriptions

Port LED View	State	Description
Link	Green	Indicates the port LEDs are reporting link information: <ul style="list-style-type: none"> Port LED On: The port is enabled and is receiving a link indication from the connected device. Port LED Off: The port has no active network cable connected, is not receiving a signal, or has been disabled. Port LED is Blinking (together with a blinking Fault LED): The port has failed the self test.
Act	Green	Indicates the Port LEDs are reporting network activity.
FDx	Green	Indicates the Port LEDs are illuminated for ports that are in full-duplex mode.
Spd	Green	Indicates the Port LEDs are reporting the connection speed: <ul style="list-style-type: none"> LED Off: Port operating at 10 Mbps LED Flashing: Port operating at 100 Mbps LED On, continuous: Port operating at 1000 Mbps

Reset and Clear Buttons

With power supplied to the switch, use the reset button to clear any temporary error condition. When the reset button is pressed, the switch executes a self-test.