

This article describes a network connectivity issue with HP desktops with Intel 82567LM-3 network cards.

Symptoms

HP computers have issues negotiating a link speed when the system is idle or coming out of a standby state. This can cause GPO objects, application connections, mapped drives, and other services to fail when the system resumes.

In the windows event viewer you may see the following errors or entries in series when the system resumes from standby:

- **Event 27**

Intel 82567LM-3 Gigabit Network Connection

Network link is disconnected.

- **Event 33**

Intel 82567LM-3 Gigabit Network Connection

Network link has been established at 1Gbps full duplex.

- **Event 32**

Intel 82567LM-3 Gigabit Network Connection

Network link has been established at 100Mbps full duplex.

The system may also display Event 1054 at this time.

You may also see the error "Time out of sync when waking from standby."

Cause

This is a known issue that appears to be caused by network cabling and an older system BIOS.

Solution

Upgrade to the latest system BIOS.

For HP 6000 computers, upgrading the 82567LM-3 network card driver to v11.12.36.0 also resolves this issue.

Applies to

Product

- HP Compaq 8000 Elite with Intel 82567 series network cards
- HP Compaq 6000 Pro with Intel 82567 series network cards
- HP Compaq dc7900 with Intel 82567 series network cards

Operating system

- Windows XP
- Windows Vista
- Windows 7

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WORKAROUND:

Run regedit

Navigate to

```
[HKEY_LOCAL_MACHINE\SYSTEM\CurrentControlSet\Control\Class\{4D36E972-E325-11CE-BFC1-08002bE10318}\XXXX
```

where XXXX is the key number (ie 0008) that pertains to the 82579LM adapter (do a search of the keys)

find the subkey "LinkNegotiationProcess". If the subkey is present, change the value to 2.

If subkey is not present, create it, add a string value and set it to 2

Exit regedit, reboot the system.

System specifications

Specification	Description
Chassis dimensions (H x W x D)	<ul style="list-style-type: none"> • Standard minitower orientation : 447 x 178 x 455 mm (17.6 x 7 x 17.9 in) • Converted desktop orientation : 178 x 447 x 455 mm (7 x 17.6 x 17.9 in)
Weight ¹	<p>Exact weights depend upon configuration :</p> <ul style="list-style-type: none"> • Minimum : 10.4 kg (22.9 lb) • Standard : 11.7 kg (25.8 lb) • Maximum : 14.8 kg (32.6 lb)
System board form factor	ATX 244 x 305 mm (9.6 x 12 in)
Processor socket	Single LGA 1155
CPU bus speed	DMI
Chipset	Intel PCH C206
Memory expansion slots	4 DDR3 memory slots
Memory type supported	<ul style="list-style-type: none"> • DDR3 • UDIMM (Unbuffered) • ECC & non-ECC
Memory modes	Non-interleaved for single channel. Interleaved when both channels are populated.
Memory speed supported	1333 MHz DDR3
Memory protection	ECC available on data, parity on address and command
Maximum memory	16GB
Memory configuration (supported)	1GB, 2GB and 4GB ECC and non-ECC unbuffered DIMMs are supported, but not if mixed.
PCI express connectors	<ul style="list-style-type: none"> • 1 PCI Express Gen2 slot x8 mechanical/x4 electrical, open-ended • 1 PCI Express Gen2 slot x16 mechanical/x16 electrical (used for discrete graphics), open-ended • 1 PCI Express Gen2 slot x1 mechanical/x1 electrical • 1 PCI Express Gen2 slot x16 mechanical/x4

Specification	Description
	<p>electrical</p> <ul style="list-style-type: none"> • 1 PCI Express Gen2 slot x1 mechanical/x1 electrical
PCI connectors (5.0 V)	2 PCI
Interfaces supported	Integrated (6) Serial ATA interfaces (2 x 6 Gb/s SATA, 4 x 3 Gb/s SATA). One port can optionally be used for eSATA). RAID 0 and 1 supported. (Factory integrated RAID is Microsoft Windows only). RAID 5 is supported by Software XOR.
Serial attached SCSI	None
Integrated graphics	<ul style="list-style-type: none"> • Integrated Intel HD Graphics 2000 (on Intel Core i3/Core i5/Core i7 processors). Integrated Intel HD Graphics P3000 (on Intel Xeon E3-12x5 processors). • Unified Memory Architecture (UMA)- A region of system memory is reserved and dedicated to the graphics display. DirectX 10.0 compliant; (OpenGL 3.0 on Intel HD Graphics P3000); 1 VGA & 1 DP graphics ports integrated in motherboard. • Integrated graphics can support dual display across DP & DVI-I outputs.
Network controller	Integrated Gbit LAN MAC by Intel PHY Lewisville 82579LM; Management capabilities WOL, PXE 2.1 and AMT 7
External SATA (eSATA)	1 port eSATA capable with optional eSATA After-Market Option cable kit.
IDE connector	No
Floppy connector	No
Network controller	Management capabilities WOL, PXE 2.1 and AMT 7
Serial	1 internal header (requires optional Serial Port Adapter Kit).
2 nd serial	No
Parallel	1 internal header (optional parallel port adapter required).
HD integrated audio	Yes
CD-ROM input (Audio)	No
AUX input (Audio)	No

Specification	Description
IEEE 1394 connector(s)	<ul style="list-style-type: none"> • Front : 1 IEEE 1394a (requires optional PCIe card to function) • Rear : No • Internal : No
USB connector(s)	<ul style="list-style-type: none"> • Front : 3 USB 2.0 • Rear : 6 USB 2.0 • Internal : 5 USB 2.0 ports available by two separate 2x5 and one 1x5 header: supports one HP Internal USB Port Kits, (one port on each Kit) for 1x5 pin header plus (a) up to two USB Media Card Readers, or (b) one Internal Port kit and one USB Media Card Reader.
HD integrated audio	Yes
CD-ROM input (Audio)	No
AUX input (Audio)	No
Chassis fan header	<ul style="list-style-type: none"> • 1 Rear System Chassis Fan Header • 1 Optional Front Chassis Fan Header
CPU fan header	Yes
Front PCI fan header	Yes
Front control panel/Speaker header	Yes
CMOS battery holder - Lithium	Yes
Integrated trusted platform module	Integrated TPM 1.2. The TPM module disabled where restricted by law, i.e. Russia.
Power supply headers	Yes
Power switch, power LED & Hard Drive LED header	Yes
Clear password jumper	Yes
Keyboard/Mouse	USB or PS/2
ENERGY STAR qualified (Config Dependent)	Yes

Specification	Description
80 PLUS compliant	Yes, gold
NOTE: 1 : Configured with 1 hard drive, 1 optical drive and one NVIDIA Quadro NVS 295 low profile graphics card.	

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Electrical specifications

Specification	Description
Power supply	400 W wide ranging, Active PFC, 90% Efficient
Power supply fan	92 x 25 mm variable speed
Operating voltage range	90 to 269 V ac
Rated voltage range	100 to 240 V ac
Rated line frequency	50/60 Hz
Operating line frequency range	47 to 66 Hz
Rated input current	6 A @100-127 V
Heat dissipation	<ul style="list-style-type: none"> • Typical : 229.3 kg-cal/hr (910 BTU/hr) • Maximum : 361.6 kg-cal/hr (1435 BTU/hr)
FEMP standby power compliant	Yes, with Wake-on-LAN disabled: <2 W in S5-power Off
Power consumption in sleep mode (as defined by ENERGY STAR) - Suspend to RAM (S3)	<4 W
Surge tolerant full ranging power supply (withstands power surges up to 2000 V)	Yes
ErP Lot 6- Tier 1 Compliance @ 230 V (<1 W in S5- Power Off)	Yes
ErP Lot 6- Tier 2 Compliance @ 230 V (<0.5 W in S5- Power Off)	Yes

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Environmental specifications

Specification	Description
Temperature	<ul style="list-style-type: none"> • Operating : 5° to 35°C (40° to 95°F) • Non-operating : -40° to 60°C (-40° to 140°F)
Humidity	<ul style="list-style-type: none"> • Operating : 8% to 85% RH, non-condensing • Non-operating : 8% to 90% RH, non-condensing
Maximum altitude	<ul style="list-style-type: none"> • Operating : 3,000 m (10,000 ft) • Non-operating : 9,100 m (30,000 ft)
Dynamic shock	<ul style="list-style-type: none"> • Operating : Half-sine: 40 g, 2-3 ms • Non-operating : <ul style="list-style-type: none"> ○ Half-sine : 160 cm/s, 2-3 ms (upto 100 g) ○ Square : 422 cm/s, 20 g
Dynamic vibration ¹	<ul style="list-style-type: none"> • Operating : 0.5 g (rms), 5-300 Hz • Non-operating : 2.0 g (rms), 10-500 Hz
Cooling	Above 1524 m (5,000 ft) altitude, maximum operating temperature is de-rated by 1°C (1.8°F) per 305 m (1,000 ft) elevation increase
NOTE: 1 : Values represent individual shock events and do not indicate repetitive shock events. Values do not indicate continuous vibration.	

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Multimedia

Specification	Description
Multimedia and audio devices	<ul style="list-style-type: none"> • Integrated Intel/Realtek HD ALC261 Audio • HP Thin USB Powered Speakers, BFR-PVC free • Creative X-Fi Titanium PCIe Audio Card

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Storage

Specification	Description
Optical and removable storage	<ul style="list-style-type: none"> • HP 16X DVD-ROM SATA Drive • HP 16X DVD+-RW SuperMulti SATA Drive • HP 22-in-1 Media Card Reader Kit

Specification	Description
	(Workstations) <ul style="list-style-type: none"> HP Blu-ray Writer

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Networking and communications

Specification	Description
Intel Gigabit CT Desktop NIC	<ul style="list-style-type: none"> Connector : RJ-45 Controller : Intel WG82574L Gigabit Ethernet Controller Memory : Integrated Dual 48K configurable transmit receive FIFO Buffers Data Rates Supported : 10/100/1000 Mb/s Compliance : IEEE 802.1P, 802.1Q, 802.2, 802.3, 802.3AB and 802.3u compliant, 802.3x flow control
Network transfer rate	<ul style="list-style-type: none"> 10BASE-T (half-duplex) 10 Mb/s 10BASE-T (full-duplex) 20 Mb/s 100BASE-TX (half-duplex) 100 Mb/s 100BASE-TX (full-duplex) 200 Mb/s 1000BASE-T (full-duplex) 2000 Mb/s

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Other hardware

Features	Description
Monitors ¹	<ul style="list-style-type: none"> HP ZR30w 30-inch S-IPS LCD Monitor HP DreamColor LP2480zx Professional Display HP ZR24w 24-inch S-IPS LCD Monitor HP ZR22w 21.5-inch S-IPS LCD Monitor HP LP3065 30-inch Widescreen LCD Monitor HP LP2475w 24-inch Widescreen LCD Monitor HP LP2065 20-inch LCD Monitor
Input devices	<ul style="list-style-type: none"> HP USB Laser Mouse HP SpacePilot 3D USB Intelligent Controller HP SpaceExplorer 3D USB Controller HP USB 2-Button Optical Scroll Mouse HP USB Standard Keyboard

Features	Description
	<ul style="list-style-type: none"> • HP PS/2 Optical Scroll Mouse • HP PS/2 Standard Keyboard • HP USB Optical 3-Button Mouse • HP USB Smart Card Keyboard • HP 2.4 GHz Wireless Keyboard and Mouse • HP USB CCID SmartCard Keyboard
Miscellaneous	<ul style="list-style-type: none"> • HP Power Cord Kit • HP Workstation Mouse Pad • HP Serial Port Adapter • HP Internal USB Port Kit • HP ENERGY STAR 5.0 Enabled Configuration • HP Parallel Port Adapter Kit
NOTE: 1 : Screen size is measured diagonally.	