

Supported Networks

OmniPeek Professional can analyze traffic on Ethernet, Fast Ethernet or Wireless networks.

Ethernet

- IEEE 802.3
- Ethernet Type 2
- Data Rates: 10, 100 and 1000 Mbps.

Wireless

- Wireless 802.11 a/b/g /n
 - 802.11 a Data Rates: 6, 9, 12, 18, 24, 36, 48, 54, 72, 96, 108Mbps
 - 802.11 b Data Rates: 1, 2, 5.5, and 11 Mbps
 - 802.11 g Data Rates: 5.5, 6, 9, 11, 12, 18, 22, 24, 33, 36, 48, 54 Mbps

Supported Network Adapters

Ethernet Cards

OmniPeek will run with any NDIS 3 or higher compatible Ethernet promiscuous mode network adapter. Almost all Ethernet adapters on the market today meet this requirement. For example, we are compatible with adapters from 3Com, Intel, Xircom, SMC, and many others.

Wireless LAN Adapter

For wireless packet capture, OmniPeek requires the installation of a special NDIS driver for a supported network adapter. For more information and to download wireless drivers, please visit:

http://www.wildpackets.com/support/omni/omnipeek_professional/wireless

Decryption

Support for WPA/PSK

WPA (Wi-Fi Protected Access) is an

encryption and authentication technique that improves the security protection available to wireless networks as compared to the more vulnerable WEP.

OmniPeek supports the decryption of WPA traffic. OmniPeek allows users to specify the WPA (Wi-Fi Protected Access) pre-shared key set for their network. This means that OmniPeek will decode and decrypt an encrypted packet with your user-defined WPA keys, allowing application layer troubleshooting. OmniPeek can decrypt “on-the-fly” by allowing the user to enter a network’s WPA key and can also decode encrypted packet files.

Note: OmniPeek supports TKIP decryption, but doesn’t support AES or WPA2 decryption.

Support for WEP

WEP (Wired Equivalent Privacy) is a data encryption technique supported as an option in the 802.11 WLAN protocols. The technique uses shared keys and a pseudo random number (PRN) as an initial vector (IV) to encrypt the data portion of network packets. The 802.11 WLAN network headers themselves are not encrypted.

OmniPeek supports the decryption of WEP traffic at various key lengths. Additionally, by allowing the user to input a network’s WEP key, OmniPeek can decrypt “on-the-fly” using multiple named key sets. Using a convenient command line utility, OmniPeek can also decode whole packet files that were captured in an encrypted state.

Noise Measurement

WLAN cards based on the Atheros chipset measure the noise to know how to distinguish between the noise and the actual signal. Using the Atheros driver, OmniPeek measures that noise every time it receives a packet and displays it in the

Signal Tab as Noise (%) / Noise (dBm).

Hardware Timestamping

Using the Atheros Driver, OmniPeek can provide a hardware based timestamp with microsecond accuracy. OmniPeek adds the computer time at the start of the capture and obtains a microsecond hardware timer.

Supported Operating Systems and Browser

Windows Vista (SP1), Windows XP Professional (SP3), Windows Server 2003 (SP2), or Windows 7

All operating systems require Internet Explorer 7 and Microsoft .NET Framework 2.0

Minimum System Requirements

OmniPeek supports most rack mount, desktop and portable computers as long as the basic system requirements needed to run the operating systems are met. Depending on traffic and the particular usage of OmniPeek, the requirements may be substantially higher.

Recommended System

P4 2 GHz; 2 GB RAM; 10 GB Available Hard Disk Space

Heavier Usage Recommendations

Factors that contribute towards superior performance include, high speed CPU, dual CPUs, high performance disk storage subsystem (RAID 0), and as much additional hard disk space as is required to save the trace files that you plan to manage.

Error Packet Capture

OmniPeek has the ability to capture error packets on the network. These errors include: Runt, Oversize, Frame Alignment, and CRC Errors. To capture errors on Wireless, supported wireless cards with a special WildPackets driver must be installed. To capture errors on Ethernet or Fast Ethernet, you must use one of the supported cards and a special WildPackets driver:

Ethernet Error Capture Cards

Error Packet Capture CardBus cards

Vendor Model

Xircom CreditCard CardBus (CBE2-100)
Xircom RealPort CardBus (RBE-100)
RealPort2 CardBus (R2BE-100)

Error Packet Capture PCI cards

Vendor Model

Adaptec ANA-6911A/TXC
ZNXZ ZX345Q Adapter (21143)

Protocols

OmniPeek decodes numerous protocols and sub-protocols. A list of higher level protocols can be found at: http://www.wildpackets.com/support/omni/omnipeek_professional/decodes

GPS

OmniPeek can communicate with a GPS receiver using a separate utility, the WildPackets GPS Daemon, as the interface between itself and the GPS receiver.

OmniPeek can include the data provided by a GPS receiver in Capture windows.

For each packet, optional columns in the Packets view can show the GPS Time, Latitude, Longitude, Altitude, and Speed most recently reported by the connected GPS receiver. The daemon supports GPS receivers following the NMEA (National Marine Equipment Association) 0183 standard which provide data in recognized GPS sentences (commaseparated ASCII data strings) in the GPRMC and GPGGA formats. Devices following NMEA 0183 must be connected using an RS-232 serial port (COM port).



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