



OmniEngine™ Enterprise

OmniEngine Enterprise v6.6 Technical Specifications

Supported Networks

OmniEngine Enterprise analyzes traffic on Ethernet, Fast Ethernet, Gigabit Ethernet, 10 Gigabit, and Wireless networks.

Ethernet and Gigabit

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

Wireless

- Wireless 802.11 a/b/g/n
 - 802.11a: 6, 9, 12, 18, 24, 36, 48, 54, 72, 96, 108 Mbps
 - 802.11b: 1, 2, 5.5, and 11 Mbps
 - 802.11g: 5.5, 6, 9, 11, 12, 18, 22, 24, 33, 36, 48, 54 Mbps
 - 802.11n: Up to 450 Mbps (3-Stream)

Supported Network Adapters

Ethernet Cards

OmniEngine Enterprise 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.

OmniAdapter 1G

The OmniAdapter 1G is a high performance network analyzer card that supports up to 2 full-duplex or 4 half-duplex connections providing advanced monitoring and troubleshooting of Gigabit networks.

OmniAdapter 1G is a four-port, PCI-E network analyzer card available in the following configurations:

- Four SFP cages
- Four RJ45 ports
- Two SFP cages and two RJ45 ports

OmniAdapters 1G are supported on both Windows and Linux operating systems.

OmniAdapter 10G

WildPackets' OmniAdapter 10G is a high

performance, PCI-E, full-duplex 10 Gigabit network analyzer card with 2x10 Gbps optical interfaces that has been optimized for monitoring and troubleshooting traffic on 10 Gigabit Ethernet networks. The two-port, OmniAdapter 10G provides hardware-accelerated packet tracing and dynamically configurable filtering together with high precision timestamping. The network adapter is available with 1x850nm MFF XFP or 1x1310nm SMF XFP optical transceivers with LC connectors.

OmniAdapters 10G are supported on both Windows and Linux operating systems.

Other Gigabit and 10G Network Adapters

- Intel® PRO/1000 Quad Port Server Adapter
- Intel® PRO/10GbE Dual Port Server Adapter

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: www.wildpackets.com/support/downloads/drivers

Voice and Video over IP

Troubleshooting Tools

Jitter software resolution:	±1 msec
Packet delay variation resolution:	±1%
Packet loss resolution:	±1%

MOS (Mean Opinion Score) resolution: ±0.001

General Statistics

- MAPDV Jitter
- Packet loss

Voice

- MOS Score (Mos-LQ, MOS-CQ, MOS-PQ, MOS-Nom)
- R Factor (Listening, Conversational, G.107, Nominal)

Video

- VS-AQ: Video Service Audio Quality
- VS-MQ: Video Service Multimedia Quality
- VS-PQ: Video Service Picture Quality.
- VS-TQ: Video Service Transmission Quality.
- MOS Score (MOS-A, MOS-AV, MOS-MQ, MOS-V)

Protocols and Codecs

OmniPeek decodes numerous voice and video specific protocols and subprotocols. Below is a list of the supported higher-level protocols and codecs.

Protocols

Avaya CCMS, SIP, SCCP, RTSP, MGCP, H.323

Codecs

Voice: G.711 u-law, G.711 a-law, G.722 64k, G.723.1 5.3K, G.723.1 6.3K, G.726, G.729a, G.728, GIPS iLBC, GSM 6.10

Video: H.261, H.263, H.264.

Audio: MPEG-4 AAC

Audio Compression Formats Supported for Playback

G.711 a-law, G.711 u-law, G.723.1 5.3K, G.723.1 6.3K, G.729a, G.726, G.728

Supported Operating Systems

Windows XP Professional (SP3), Windows Server 2003 (SP2), Windows 7, Windows Server 2008, or Windows Server 2008 R2

All operating systems require Microsoft Internet Explorer 8.

Minimum System Requirements

OmniEngine Enterprise supports most rack mount, desktop, and luggable computers as long as the basic system requirements to run the supported operating systems are met. To analyze 10 Gigabit, Gigabit, or Wireless traffic, a supported network analyzer card or Wireless LAN Adapter is required. Depending on traffic and

the particular usage of OmniEngine Enterprise, the requirements may be substantially higher.

Recommended System

P4 or Xeon 2.4 GHz Processor; 4 GB RAM;
36 GB Available HD 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.

Recommended Hardware

WildPackets Network Recorders

The WildPackets Network Recorder is a turnkey solution that gives network engineers unprecedented, real-time and post-capture visibility into remote network segments. Each network recorder runs WildPackets' OmniEngine software and sends real-time analytics and monitoring results to a central OmniPeek console. The network recorder is an ideal data recorder for network forensics applications, such as incident response operations and policy compliance investigations.

For more information about WildPackets Network Recorders, please visit:
[www.wildpackets.com/products/
network_traffic_recorders](http://www.wildpackets.com/products/network_traffic_recorders)

Contact sales@wildpackets.com for more information and pricing.

Error Packet Capture

OmniEngine Enterprise has the ability to capture error packets on the network. These errors include: Runt, Oversize, Frame Alignment, and CRC Errors. To capture errors on Gigabit segments, you must use the WildPackets OmniAdapter 1G. 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.

OmniEngine Manager

Included with both OmniPeek network analyzers and OmniEngine software probes, the OmniEngine Manager allows users to manage multiple OmniEngine Enterprise, OmniEngine Desktop, and OmniVirtual instances from a single console and configure any connected Remote Engine.

Using OmniEngine Manager, users can upgrade Remote Engine software, and distribute settings for filters, alarms, graphs, and capture templates for any group of network accessible Remote Engines.

Communication between the OmniEngine Manager and any OmniEngine requires a TCP/IP network connection between the two. This, in turn, requires that each machine (the one on which the Remote Engine is running and the one on which the OmniEngine Manager is running), must have a network interface card (NIC) to use for network services.

Some cards supported by the Remote Engine may not be usable for network services. For example, 802.11 WLAN cards cannot be used for network services while they are in RF Monitor mode. Specialized cards such as OmniAdapter 1G and OmniAdapter 10G network analyzer cards are optimized for capture and have no ability to send packets. They can never be used for network services.



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