

# **5.1 Operating System Requirements**

The SoftEther VPN Bridge supports many platforms and operating systems. Please refer to <u>Specifications</u> for specifications on compatible operating systems.

# 5.1.1 Support for Windows

The SoftEther VPN Bridge supports the Microsoft Windows platform. Support is provided not only for Windows NT 4.0 and new NT kernel-based platforms from Windows 2000 onwards, but also for legacy systems Windows 98 and Windows Millennium Edition, and the SoftEther VPN Bridge may in some cases be operable on these legacy systems.

When developing the SoftEther VPN Bridge, SoftEther VPN Project develops the programs as well as basic debugging and optimization on a Windows platform and then ports these tasks to other operating systems. That is why the performance of the Windows OS kernel scheduler and network protocol stack is equivalent to or slightly better than those of Linux, and not only matches the performance of UNIX operating systems, but exceeds it. Using the Windows version of the SoftEther VPN Bridge also enables VPN Server operation with the least limitations.

In addition, while specific software may not work properly for Linux and other UNIX operating systems depending on the kernel version and differences between the distribution and various library systems, Windows operating systems guarantee a certain degree of uniformity in terms of the operation of system APIs and user-mode libraries such that the SoftEther VPN Bridge can operate safely on both old and new versions of Windows.

Accordingly, SoftEther VPN Project recommends using the SoftEther VPN Bridge on a Windows platform where no other technical or cost issues are involved.

The Windows version SoftEther VPN Bridge is compatible with the following system architectures. Note that there is a high likelihood that compliant architectures will increase in the future.

#### • x86

#### • x64 (AMD64 / EM64T)

SoftEther VPN Bridge can be operated on either 32-bit or 64-bit (x64 version) versions of Windows. For more information about support for 64-bit environments, please refer to <u>Specifications</u>.

## 5.1.2. Support for Linux

The SoftEther VPN Bridge supports the Linux platform. The server can be operated on the Linux Kernel 2.4 or later kernel versions.

The Linux platform is the next operating environment recommended by SoftEther VPN Project after Windows. The performance of the Linux kernel scheduler and multithread library has improved considerably on past versions, and the network protocol stack also now rivals that of Windows in terms of reliability. Therefore, where technical or political issues make the use of Windows as the VPN server difficult, we recommend using the SoftEther VPN Bridge on a Linux system. One of the particular advantages of using a Linux system is that the cost of software license fees upon installation is often cheaper than for Windows. The Linux version SoftEther VPN Bridge also exhibits performance and functions comparable with the Windows version.

Furthermore, the Linux operating system offers the benefit of supporting many types of CPUs compared to the Windows OS. For this reason, the SoftEther VPN Bridge supports many CPUs such as those listed below. Apart from common computers, Linux may also be installed on embedded devices (NASs, routers, HDD recorders etc) whose hardware adopts a CPU aimed at such devices other than the x86. The SoftEther VPN Bridge can also operate on these types of hardware.

The Linux version SoftEther VPN Bridge is compatible with the following system architectures. Note that there is a high likelihood that compliant architectures will increase in the future.

- x86
- x64 (AMD64 / EM64T)
- PowerPC (32-bit mode)
- SH4 (32-bit mode)
- MIPS (32-bit mode)
- ARM (32-bit mode)

SoftEther VPN Bridge can be operated on either 32-bit or 64-bit (x64 version) versions of Linux . For more information about support for 64-bit environments, please refer to <u>Specifications</u>.

## 5.1.3 Support for FreeBSD

The SoftEther VPN Bridge supports the FreeBSD platform. The server is operable on the FreeBSD 5.x or later kernel versions.

The FreeBSD version SoftEther VPN Bridge is compatible with the following system architectures. Note that there is a high likelihood that compliant architectures will increase in the future.

• x86

#### • x64 (AMD64 / EM64T)

SoftEther VPN Bridge can be operated on either 32-bit or 64-bit (x64 version) versions of FreeBSD . For more information about support for 64-bit environments, please refer to <u>Specifications</u>.

# 5.1.4 Support for Solaris

The SoftEther VPN Bridge supports the Sun Microsystems Solaris platform. The server can be operated on the Solaris 8 or later kernel versions.

Because the Solaris OS operates on hardware using SPARC CPUs, companies possessing this special hardware can effectively utilize their resources as VPN servers by running the SoftEther VPN Bridge on said hardware.

Due to a lack of test hardware, SoftEther VPN Project has not carried out testing of the SoftEther VPN Bridge for all CPU types and versions of the Solaris OS. We therefore recommend using the latest possible version of the Solaris operating system to best ensure operation.

The Solaris version SoftEther VPN Bridge is compatible with the following system architectures. Note that there is a high likelihood that compliant architectures will increase in the future.

- x86
- x64 (AMD64 / EM64T)
- SPARC (32-bit mode)
- SPARC (64-bit mode)

SoftEther VPN Bridge can be operated on either 32-bit or 64-bit (x64 or SPARCv9) versions of Solaris. For more information about support for 64-bit environments, please refer to <u>Specifications</u>.

# 5.1.5 Support for Mac OS X

The SoftEther VPN Bridge supports the Mac OS X platform. The server can be operated on Darwin 7.9.0 or later kernel versions.

Multithread library performance on the Mac OS X may be inferior to that of other operating systems, so we recommend using other OSs when the SoftEther VPN Bridge is to be used in a high load environment.

The Mac OS X version SoftEther VPN Bridge is compatible with the following system architectures. Note that there is a high likelihood that compliant architectures will increase in the future.

- PowerPC (32-bit mode)
- PowerPC G5 (64-bit mode)
- x86 (32-bit mode, Mac OS for Intel CPU)
- x64 (64-bit mode, Mac OS for Intel CPU)

### **5.1.6 Support for Embedded Devices**

The SoftEther VPN Bridge features highly portable, memory-saving software programming code and can therefore be embedded in hardware devices in hardware routers, Layer 3 and Layer 2 switches, wireless LAN devices, digital consumer electronics and miniature computers in automobiles and the like, provided that said hardware devices satisfy the operational requirements.

Embedding the SoftEther VPN Bridge into various devices in the future would theoretically ensure interconnectivity and communication between these devices via the common SoftEther VPN protocol, thus enabling not only computer users but also consumers in general to use the SoftEther VPN intuitively.

#### See Also

• Specification