



# System Requirements

## RealSecure® Protection System for Networks and Servers

Updated: October 8, 2002

### Contents of This Document

This document describes the system requirements for the current versions of RealSecure® Protection System for Networks and Servers components.

### Overview of RealSecure Components

Depending on your network, you can install one or more of the following RealSecure components:

- RealSecure Workgroup Manager 6.6 for Windows 2000/Windows NT
- RealSecure Command Line Interface (CLI) 6.6 for Windows 2000/Windows NT, Solaris, and RedHat Linux
- RealSecure Network Sensor 7.0 for Windows 2000
- RealSecure Gigabit Network Sensor 7.0 for Windows 2000
- RealSecure Network Sensor 7.0 for RedHat Linux
- RealSecure Gigabit Network Sensor 7.0 for RedHat Linux
- RealSecure Network Sensor 6.5 for Solaris
- RealSecure for Nokia 6.5
- RealSecure Server Sensor 6.5 for Windows 2000/Windows NT
- RealSecure Server Sensor 6.5 for Solaris
- RealSecure Server Sensor 6.5 for Linux
- RealSecure OS Sensor 5.0 for HP-UX
- RealSecure OS Sensor 5.0 for IBM AIX

### Getting the Most Current System Requirements

This document is updated with the latest system requirements and can be found on the Internet at:

[http://documents.iss.net/literature/RealSecure/rs\\_sysregs.pdf](http://documents.iss.net/literature/RealSecure/rs_sysregs.pdf)

### Definitions—Dedicated System

Some RealSecure components require dedicated systems. If a dedicated system is required, the computer system should contain no software other than the component's software and the required third-party software.

### System Requirements: RealSecure Workgroup Manager for Windows 2000/NT

The RealSecure Workgroup Manager is used as the central controlling point for the Network Sensors, Server Sensors, and OS Sensors. The Workgroup Manager contains the following components:

- **RealSecure Console**—Manages and monitors sensors, as well as run reports from the Enterprise Database.
- **Asset Database**— Stores information about your network assets, such as computers on your network and RealSecure components on your network. The Asset Database can be installed with a console or at the middle tier (with the Event Collector or the Enterprise Database) so that multiple consoles can use the same set of assets.
- **Event Collector**—Manages connections to sensors and sensor data.
- **Enterprise Database**—Stores event information collected by the sensors.

The system requirements for the Workgroup Manager are in the following table. For added performance, you can install the components of the Workgroup Manager on multiple computers that also meet the following requirements:

RealSecure Workgroup Manager General Requirements (for any component)	
<b>Minimum Processor</b>	Intel™ Pentium II 400 MHz
<b>Operating System</b>	<ul style="list-style-type: none"> <li>▪ Microsoft Windows 2000 Server SP1-3 or Professional SP1-3</li> <li>▪ Microsoft Windows NT 4.0 with Service Packs 4 through 6a (Workstation is the recommended platform and SP6a is the recommended SP on either platform)</li> </ul> <p>It is highly recommended that you install RealSecure on an NTFS formatted partition. FAT and FAT32 partitions do not allow for the system to be hardened properly.</p> <p><b>Using SQL Server?</b> If you want to use SQL Server instead of MSDE, you must install the Server version of Windows on the SQL Server computer.</p>
<b>Dedicated System?</b>	Yes
<b>Other Requirements...</b>	<ul style="list-style-type: none"> <li>▪ Administrator privileges to the system</li> <li>▪ A monitor with a minimum resolution of 800x600 pixels and 256 colors</li> </ul>

RealSecure Workgroup Manager Requirements (All components together)	
<b>Disk space</b>	<p>450MB plus 500MB* of disk space for each managed network sensor and 250MB* for each managed host sensor. A minimum of 1 GB of space is recommended.</p> <p>* Required disk space for each sensor is dependent upon the policy you use and the amount of network and security activity that you are monitoring.</p>
<b>Memory</b>	<p>256MB is required and more is recommended if the Event Collector processing rate periodically exceeds 50 or more events per second or if you increase the default event buffer size (see RealSecure Console requirements).</p>

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## RealSecure Workgroup Manager Requirements (All components together)

<b>Database</b>	<p>The Workgroup Manager is compatible with the following database products. You must install one of these database products before installing this component:</p> <p><b>Microsoft Data Engine (MSDE) 7.</b> Not included on the Internet Security Systems CD.</p> <p><b>Microsoft Data Engine (MSDE) 2000, SP1 or SP2.</b> Included on the Internet Security Systems CD. MSDE requires a minimum of Internet Explorer 5.0 and SP5 for Windows NT (if you are using Windows NT).</p> <p><b>SQL Server 2000, SP1 or SP2.</b> Not included on the Internet Security Systems CD. Use SQL Server if you intend to maintain more than 2GB of data in the Enterprise Database.</p> <p><b>Important!</b> MSDE and SQL Server are more complicated to maintain than the MS Access database previously used by RealSecure. You should plan to have a person that can occasionally perform SQL-related activities for ongoing maintenance.</p>
<b>Third-party software— not included</b>	<p>Microsoft Internet Explorer 5.0 or greater (required for the console)</p> <p>If you want to maintain more than 2GB of data in the database, you need SQL Server. See the Database section for more information about database options.</p>

## RealSecure Console (stand-alone)

<b>Disk space</b>	<p>400MB</p> <p>If you are managing 5.x sensors, 500MB* of disk space for each managed network sensor and 250MB* for each managed host sensor (5.x sensor data is still stored in an Access database at the console level). At least 1GB is recommended.</p> <p>* Required disk space for each sensor is dependent upon the policy you use and the amount of network and security activity that you are monitoring.</p>
<b>Memory</b>	<p>128MB minimum, 256 recommended when using the default event buffer setting (5000 events). If you double the buffer size, you should double the memory.</p>
<b>Third-party software— not included</b>	<p>Microsoft Internet Explorer 5.0 or higher</p>
<b>Optional</b>	<p>Note: Certain features ("Maintain" and "Permissions" buttons located under the Enterprise and Asset database tabs of the console) will not work unless SQL or MSDE is installed locally. It is not required that you use the database, but that it is installed. The console needs specific DLL's that are only installed during a SQL or MSDE install. Otherwise, the functionality is disabled in the console and you will receive an error dialog.</p> <p>If you want to manage database users from the Workgroup Manager Console, you must install one of the database options.</p> <p>See the Database section of the Workgroup Manager Requirements (All components) for more information.</p>

<b>RealSecure Asset Database (stand-alone)</b>	
<b>Disk space</b>	380 plus 1MB for every 10 assets in the database
<b>Memory</b>	128MB
<b>Database</b>	<p>The Workgroup Manager is compatible with the following database products. You must install one of these database products before installing this component:</p> <p><b>Microsoft Data Engine (MSDE) 7.</b> Not included on the Internet Security Systems CD.</p> <p><b>Microsoft Data Engine (MSDE) 2000, SP1 or SP2.</b> Included on the Internet Security Systems CD. MSDE requires a minimum of Internet Explorer 5.0 and SP5 for Windows NT (if you are using Windows NT).</p> <p><b>SQL Server 2000, SP1 or SP2.</b> Not included on the Internet Security Systems CD. Use SQL Server if you intend to maintain more than 2GB of data in the Enterprise Database.</p> <p><b>Important!</b> MSDE and SQL Server are more complicated to maintain than the MS Access database previously used by RealSecure. You should plan to have a person that can occasionally perform SQL-related activities for ongoing maintenance.</p>
<b>Third-party software— not included</b>	If you want to maintain more than 2GB of data in the database, you need SQL Server. See the Database section for more information about database options.

<b>RealSecure Event Collector (stand-alone)</b>	
<b>Disk space</b>	180MB
<b>Memory</b>	128MB minimum, 256 or more recommended if the Event Collector processing rate periodically exceeds 50 or more events per second

<b>Enterprise Database (stand-alone)</b>	
<b>Disk space</b>	<p>390MB plus 500MB* of disk space for each managed network sensor and 250MB* for each managed host sensor. A minimum of 1GB is recommended.</p> <p>* Required disk space for each sensor is dependent upon the policy you use and the amount of network and security activity that you are monitoring.</p>
<b>Memory</b>	128MB minimum, 256 recommended

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## Enterprise Database (stand-alone)

<b>Database</b>	<p>The Workgroup Manager is compatible with the following database products. You must install one of these database products before installing this component:</p> <p><b>Microsoft Data Engine (MSDE) 7.</b> Not included on the Internet Security Systems CD.</p> <p><b>Microsoft Data Engine (MSDE) 2000, SP1 or SP2.</b> Included on the Internet Security Systems CD. MSDE requires a minimum of Internet Explorer 5.0 and SP5 for Windows NT (if you are using Windows NT).</p> <p><b>SQL Server 2000, SP1 or SP2.</b> Not included on the Internet Security Systems CD. Use SQL Server if you intend to maintain more than 2GB of data in the Enterprise Database.</p> <p><b>Important!</b> MSDE and SQL Server are more complicated to maintain than the MS Access database previously used by RealSecure. You should plan to have a person that can occasionally perform SQL-related activities for ongoing maintenance.</p>
<b>Third-party software— not included</b>	<p>If you want to maintain more than 2GB of data in the database, you need SQL Server. See the Database section for more information about database options.</p>

### Requirements: RealSecure Command Line Interface (CLI)

The RealSecure Command Line Interface (CLI) is a command-based method of controlling and gathering data from Network Sensors, Server Sensors, and OS Sensors. A computer running the CLI must meet the following requirements:

RealSecure CLI Requirements	
<b>Minimum Processor</b>	Intel™ Pentium II 400 MHz
<b>Operating System</b>	<ul style="list-style-type: none"><li>▪ RedHat Linux 7.3, Kernel smp-2.4.18-10</li><li>▪ Solaris SPARC 7, 8</li><li>▪ Microsoft Windows 2000 Professional SP2</li><li>▪ Microsoft Windows 2000 Server SP2</li></ul>
<b>Minimum Memory</b>	25MB for each sensor managed from the CLI in addition to RAM requirements for existing software on the computer
<b>Disk Space</b>	10MB plus 500MB* of disk space for each managed network sensor and 250MB* for each managed host sensor  * Required disk space for each sensor is dependent upon the policy you use and the amount of network and security activity that you are monitoring.
<b>Dedicated System?</b>	No
<b>Other Requirements...</b>	Administrator privileges to the system.  On Linux, the /var/tmp directory must have at least 7MB of free space before installation.

## System Requirements: RealSecure Network Sensor

RealSecure Network Sensors monitor network packets and look for signatures that could indicate an attack against your network. The RealSecure Network Sensor monitors all the traffic on half-duplex or full-duplex, 10/100 Mbps network segments.

Note: The system requirements outlined below for Network Sensor are based on average traffic conditions. Due to variations in traffic composition and network utilization in different environments, your performance may vary. In high-utilization environments you may notice performance benefits when using even more memory than the recommended values.

### RealSecure Network Sensor for Windows 2000

The system requirements for the Windows Network Sensor are:

#### RealSecure Network Sensor for Windows using standard NDIS drivers Requirements (not for high bandwidth 100 Mbps Networks)

<b>Minimum Processor</b>	Pentium II or faster
<b>Operating System</b>	<ul style="list-style-type: none"> <li>▪ Microsoft Windows 2000 Professional SP2</li> <li>▪ Microsoft Windows 2000 Server SP2</li> <li>▪ Microsoft Windows 2000 Advanced Server SP2</li> </ul> <p>It is highly recommended that you install Network Sensor on an NTFS formatted partition. FAT and FAT32 partitions do not allow for the system to be hardened properly.</p>
<b>Memory</b>	256 MB minimum, 512 MB recommended
<b>Disk Space</b>	9 GB
<b>Dedicated System?</b>	Yes
<b>Other Requirements...</b>	<p>Monitoring Interface: A PCI network interface card (NIC) capable of promiscuous mode and connected to the network segment to be monitored:</p> <ul style="list-style-type: none"> <li>▪ Ethernet</li> <li>▪ Fast Ethernet</li> <li>▪ Token Ring</li> <li>▪ FDDI</li> </ul> <p>Optional: A second NIC connected to a secure network for secure or dedicated communications with the Workgroup Manager or SiteProtector.</p>

#### RealSecure Network Sensor for Windows using high performance drivers Requirements

<b>Minimum Processor</b>	Dual Pentium III 800 MHz processor (or faster)
<b>Operating System</b>	<ul style="list-style-type: none"> <li>▪ Microsoft Windows 2000 Professional SP2</li> <li>▪ Microsoft Windows 2000 Server SP2</li> <li>▪ Microsoft Windows 2000 Advanced Server SP2</li> </ul> <p>It is highly recommended that you install Network Sensor on an NTFS formatted partition. FAT and FAT32 partitions do not allow for the system to be hardened properly.</p>
<b>Memory</b>	256 MB minimum, 1 GB recommended

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### RealSecure Network Sensor for Windows using high performance drivers Requirements

<b>Disk Space</b>	9 GB
<b>Hard Drive Subsystem</b>	Ultra DMA E-IDE or Wide SCSI capable of 25 MB/sec or better transfer rates
<b>Dedicated System?</b>	Yes
<b>Other Requirements...</b>	<p>Monitoring Interface: One 3Com 3C905C/CX PCI network interface card (NIC).</p> <p>NOTE – Previously, in Japan the 3Com card available was the 3C905B. The 3Com 3C905B is supported for Japan only. The performance for the 3C905C/CX cards is better than the 3C905B.</p> <p>Communications Interface: One standard 10/100 Ethernet card for regular network access and reporting to a Workgroup Manager or SiteProtector.</p> <p>Must be Using COMCTL32.DLL v4.72 or higher</p> <p>NOTE- The second NIC for communications to the Wokgroup Manager or SiteProtector is a requirement when using the high performance drivers.</p> <p>NOTE- If RSKills are to be used with the high performance driver, you must use a separate (i.e. third) NIC as the kill interface.</p>

### RealSecure Network Sensor with Full Duplex for Windows 2000

The Network Sensor with Full-Duplex is only supported on the two certified platforms listed below:

<b>RealSecure Network Sensor with Full-Duplex Sensor Requirements</b>	
<b>Compaq Proliant DL380 G2 (Minimum System Requirements)</b>	<p>The Compaq Proliant DL380 G2 is a 2U rack-mountable box with 3 I/O slots. For more detailed specifications, see: <a href="http://www.compaq.com/products/servers/proliantdl380">http://www.compaq.com/products/servers/proliantdl380</a>.</p> <ul style="list-style-type: none"><li>▪ Dual 1.13GHz Pentium III CPUs with 512-KB level 2 ECC cache. Up to two 1.4GHz CPUs are supported.</li><li>▪ <i>ServerWorks</i>™ HE-SuperLite Chipset.</li><li>▪ 256 MB of 133Mhz ECC SDRAM minimum, 1GB recommended</li><li>▪ Triple Peer PCI Architecture with 133-MHz Front Side Bus.</li><li>▪ Three 64-bit PCI slots: two at 66Mhz and one at 33MHz.</li><li>▪ Two Compaq NC3163 Fast Ethernet NICs Embedded 10/100 with Wake On LAN for reporting to console.</li></ul> <p>You must also have the following hardware:</p> <ul style="list-style-type: none"><li>▪ Monitoring Interface: Two 3Com 3C905C/CX network interface cards (NICs).</li><li>▪ One Finisar single port ethernet tap. Part number: UTP Tap IL/1 (a single-port, full duplex 10/100 Ethernet splitter). To purchase a Finisar tap, contact a Finisar sales representative or visit: <a href="http://www.finisar.com">http://www.finisar.com</a>. Alternately, you may also use previously available Shomiti Century Tap, part number: CT1001-010 (a single-port, full duplex Ethernet splitter).</li></ul>

### RealSecure Network Sensor with Full-Duplex Sensor Requirements

#### Dell PowerEdge 1650 (Minimum System Requirements)

The DELL PowerEdge 1650 is a 1U rack-mountable box with 2 I/O slots. For more detailed specifications, see: [http://www.dell.com/us/en/esg/topics/esg\\_pedge\\_rackmain\\_servers\\_1\\_page\\_1650.htm](http://www.dell.com/us/en/esg/topics/esg_pedge_rackmain_servers_1_page_1650.htm).

- Dual 1.13GHz Pentium III CPUs (32K Level 1 cache, 512K Level 2 cache). Up to two 1.4GHz CPUs are supported.
- 256 MB of 133MHz ECC SDRAM minimum, 1GB recommended
- 32KB Level 1 cache (16KB of instruction cache, 16KB two-way write-back data.
- cache).
- 133 Mhz front side bus.
- 2 x 64-bit/66MHz PCI slots on same PCI bus OR 1 x 64-bit/66MHz and 1 x 32-bit/33MHz PCI slot on separate PCI buses. \* **see below**
- ServerWorks™ HE-SL chipset.
- 4 DIMM sockets on system board.
- Dual integrated Intel Pro/1000 XT Server Adapters for reporting to console.

**\* Note: For optimal dual bus performance, you must select the *PCI Riser* option with one 64-bit/66MHz slot and one 32-bit/33MHz slot.**

You must also have the following hardware:

- Monitoring Interface: Two 3Com 3C905C/CX network interface cards (NICs). These plug into the PCI riser.
- One Finisar single port ethernet tap. Part number: UTP Tap IL/1 (a single-port, full duplex 10/100 Ethernet splitter). To purchase a Finisar tap, contact a Finisar sales representative or visit: <http://www.finisar.com>. Alternately, you may also use previously available Shomiti Century Tap, part number: CT1001-010 (a single-port, full duplex Ethernet splitter).

#### The following sections apply to all supported Full-Duplex platforms.

#### Operating System

- Microsoft Windows 2000 Professional SP2
- Microsoft Windows 2000 Server SP2
- Microsoft Windows 2000 Advanced Server SP2

It is highly recommended that you install Network Sensor on an NTFS formatted partition. FAT and FAT32 partitions do not allow for the system to be hardened properly.

#### Hard Disk Drive

9 GB (Ultra ATA or SCSI)

#### Dedicated System?

Yes

#### Other Requirements...

Detailed system certification documents are available at <http://www.iss.net/support/documentation>.

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## RealSecure Gigabit Network Sensor for Windows 2000

The Gigabit Network Sensor monitors all traffic on Gigabit network segments.

RealSecure Gigabit Network Sensor for Windows Requirements	
Minimum Processor	Dual Pentium III 800 MHz (Dual Pentium 1.13 GHz or above recommended)
Operating System	<ul style="list-style-type: none"><li>Microsoft Windows 2000 Professional SP2</li><li>Microsoft Windows 2000 Server SP2</li><li>Microsoft Windows 2000 Advanced Server SP2</li></ul> <p>It is highly recommended that you install Gigabit Network Sensor on an NTFS formatted partition. FAT and FAT32 partitions do not allow for the system to be hardened properly.</p>
Memory	512MB minimum, 2GB recommended.  NOTE: Gigabit Network Sensor can be installed on systems with minimal memory; however, this may adversely affect the sensor's performance. 2GB of memory is recommended. Greater than 2GB RAM may be beneficial in environments that regularly experience a high number of (greater than 500,000) simultaneous TCP sessions.
Hard Disk Drive	9GB (Ultra ATA or SCSI)
Dedicated System?	Yes
Other Requirements...	Monitoring Interface must be an Intel PRO/1000 F adapter. See <a href="http://www.intel.com/network/products/pro1000giga_technical.htm">http://www.intel.com/network/products/pro1000giga_technical.htm</a> for more information about this adapter.  Reporting Interface - one standard 10/100 Ethernet card for regular network access and reporting to a Workgroup Manager or SiteProtector.  Bus Architecture: 64-bit/66-MHz PCI version 2.1  Must be using COMCTL32.DLL v4.72 or higher

## RealSecure Network Sensor for Red Hat Linux

Note: The Linux Network Sensor (10/100 speed) was internally tested with Red Hat Linux Kernel smp-2.4.18-10 which does not ship by default with Red Hat Linux 7.3. You may download the updated kernel from Red Hat here: <ftp://updates.redhat.com/7.3/en/os/i686/kernel-smp-2.4.18-10.i686.rpm>. See <http://rhn.redhat.com/errata/RHSA-2002-158.html> and the Network Sensor ns\_readme.txt for more information about this updated kernel.

Note: SMP kernels support both single and dual processor systems.

The system requirements for the Linux Network Sensor are:

RealSecure Network Sensor for Red Hat Linux	
Minimum Processor	Pentium III 800 MHz or faster
Operating System	<ul style="list-style-type: none"><li>Red Hat Linux 7.3 Personal (with smp-2.4.18-10 Kernel)</li><li>Red Hat Linux 7.3 Professional (with smp-2.4.18-10 Kernel)</li></ul>
Memory	256 MB minimum, 512 MB recommended
Disk Space	9 GB
Dedicated System?	Yes

**RealSecure Network Sensor for Red Hat Linux****Other Requirements...**

Monitoring Interface: A PCI network interface card (NIC) capable of promiscuous mode and connected to the network segment to be monitored:

- Ethernet
- Fast Ethernet
- Token Ring
- FDDI

Optional: A second NIC connected to a secure network for dedicated communications with the Workgroup Manager or SiteProtector.

**RealSecure Gigabit Network Sensor for Red Hat Linux**

The Gigabit Network Sensor monitors all traffic on Gigabit network segments.

Note: The SysKonnnect SK-9843 packet driver used with the Linux Gigabit Network Sensor was designed and built for Red Hat Linux Kernel smp-2.4.18-10. ISS cannot guarantee that a different kernel build will function properly with the Linux Gigabit Network Sensor. If you intend to install Gigabit Network Sensor for Linux, it is imperative that you install this updated kernel, as it differs from the kernel that ships with Red Hat Linux 7.3. You may download the updated kernel from Red Hat here: <ftp://updates.redhat.com/7.3/en/os/i686/kernel-smp-2.4.18-10.i686.rpm>. See <http://rhn.redhat.com/errata/RHSA-2002-158.html> and the Network Sensor ns\_readme.txt for more information about this updated kernel.

Note: SMP kernels support both single and dual processor systems.

The system requirements for the Linux Gigabit Network Sensor are:

**RealSecure Gigabit Network Sensor for Red Hat Linux Requirements**

<b>Minimum Processor</b>	Dual Pentium III 800 MHz (Dual Pentium III 1.13 GHz recommended)
<b>Operating System</b>	<ul style="list-style-type: none"> <li>▪ Red Hat Linux 7.3 Personal (with 2.4.18-10 SMP Kernel)</li> <li>▪ Red Hat Linux 7.3 Professional (with 2.4.18-10 SMP Kernel)</li> </ul>
<b>Memory</b>	<p>512MB minimum, 2GB recommended.</p> <p>NOTE: Gigabit Network Sensor can be installed on systems with minimal memory; however, this may adversely affect the sensor's performance. 2GB of memory is recommended. Greater than 2GB RAM may be beneficial in environments that regularly experience a high number of (greater than 500,000) simultaneous TCP sessions.</p>
<b>Hard Disk Drive</b>	9GB (Ultra ATA or SCSI)
<b>Dedicated System?</b>	Yes
<b>Other Requirements...</b>	<p>Monitoring Interface must be a SysKonnnect SK-9843 SK-NET GE-SX adapter. See <a href="http://www.syskonnnect.com/syskonnnect/products/b0101_ethernet_9843.html">http://www.syskonnnect.com/syskonnnect/products/b0101_ethernet_9843.html</a> for more information about this adapter.</p> <p>Reporting Interface - any standard Ethernet NIC for network access and reporting to Workgroup Manager or SiteProtector.</p> <p>Bus Architecture: 64-bit/66-MHz PCI version 2.1</p> <p>Must be using COMCTL32.DLL v4.72 or higher</p>

**RealSecure Network Sensor for Solaris**

The system requirements for the Solaris SPARC Network Sensor are:

<b>RealSecure Network Sensor for Solaris SPARC</b>	
<b>Operating System</b>	UltraSPARC 2 or better Solaris SPARC 7, or Solaris SPARC 8 Note- RealSecure network sensor for Solaris SPARC 8 is supported on 32-bit or 64-bit hardware although RealSecure is still a 32-bit application
<b>Memory</b>	256 MB minimum, 512MB recommended
<b>Disk Space</b>	175MB
<b>Dedicated System?</b>	Yes
<b>Other Requirements...</b>	<ul style="list-style-type: none"> <li>▪ Sbus or PCI adapter capable of promiscuous mode (PCI recommended) and connected to the network segment to be monitored:               <ul style="list-style-type: none"> <li>- Ethernet</li> <li>- Fast Ethernet</li> <li>- FDDI</li> </ul>               NIC cards with a lot of Cache perform better.             </li> <li>▪ Optional: A second NIC connected to a secure network for secure or dedicated communications with the Workgroup Manager or SiteProtector. You can also use a second NIC card with a second installation of the Network Sensor, but <u>only</u> on very low bandwidth networks. Installing three or more Network Sensors on the same computer is possible, but it is <u>not</u> supported.</li> </ul>

#### RealSecure for Nokia

The system requirements for RealSecure for Nokia appliance are:

<b>RealSecure for Nokia</b>	
<b>Operating System / Hardware</b>	IPSO 3.4 or higher on the IP120, IP330, IP350, IP380, IP440, IP530, IP650, IP710 or IP740.
<b>Platform &amp; Memory Recommendations</b>	<p>Up to 10 Mbps:</p> <ul style="list-style-type: none"> <li>▪ IP120 w/ 128MB minimum</li> <li>▪ IP330 w/ 256MB recommended</li> </ul> <p>Up to 25 Mbps:</p> <ul style="list-style-type: none"> <li>▪ IP440 w/ 512MB recommended</li> </ul> <p>Up to 45 Mbps:</p> <ul style="list-style-type: none"> <li>▪ IP350 w/ 512MB minimum</li> <li>▪ IP380 or IP530 w/ 768MB recommended</li> </ul> <p>Up to 100 Mbps:</p> <ul style="list-style-type: none"> <li>▪ IP380, IP650, IP710 or IP740 w/ 768MB minimum</li> <li>▪ IP380, IP710 or IP740 w/ 1GB recommended</li> </ul> <p>Note: The memory recommendations indicate general expectations for handling an average number of TCP sessions for a given bandwidth. In general, the more simultaneous TCP sessions the sensor must track, the more RAM you will need.</p>
<b>Multi-sensor Recommendations</b>	Up to two sensors may run on a single Nokia appliance (not supported for IP120). Maximum bandwidth recommendations remain as stated above for each physical appliance. This means that if each sensor in a dual-sensor configuration sees identical traffic, each could handle up to about half the total bandwidth stated in the above recommendations.

**RealSecure for Nokia**

**Other Requirements...**

- A 10/100 network interface card (NIC) capable of promiscuous mode and connected to the network segment to be monitored.
- Optional: A second NIC connected to a secure network for secure or dedicated communications with the Workgroup Manager or SiteProtector.

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## System Requirements: RealSecure Server Sensor and OS Sensor

Server Sensors include OS Sensor functionality as well as network traffic monitoring, responding with packet interception, intelligent alerting, and blocking capabilities that make RealSecure Server Sensor a more powerful protection solution for host systems. Note: Server Sensor requirements are also applicable to OS Sensor requirements for Windows NT and Solaris.

OS Sensors (operating system sensors) monitor activity on an individual host, primarily through the operating system's log files, to determine if an intruder has gained access to that host and to identify unauthorized activity on the system.

**Reminder:** The Server Sensor is available only for Windows 2000, Windows NT, Solaris, and Linux. Server Sensor is not supported on IBM AIX and HP-UX. OS Sensor is no longer available for purchase on Windows NT. OS Sensor is currently supported on Windows NT, but it is not supported on Windows 2000.

OS Sensor and Server Sensors are lightweight applications, typically using 1 to 5 percent of the CPU, depending on the configuration.

The system requirements for the Windows Server Sensor are:

RealSecure Server Sensor for Windows	
Minimum Processor	Pentium II 200 MHz or better
Operating System	<ul style="list-style-type: none"><li>▪ Microsoft Windows 2000 Server SP 1-2</li><li>▪ Microsoft Windows 2000 Advanced Server SP 1-2</li><li>▪ Microsoft Windows 2000 Professional SP 1-2</li><li>▪ Microsoft Windows NT 4.0 with Service Packs 4 through 6a (Workstation and Server are both supported)</li></ul> <p>It is highly recommended that you install RealSecure on an NTFS formatted partition. FAT and FAT32 partitions do not allow for the system to be hardened properly.</p>
Minimum Memory	64MB in addition to memory required by other applications <b>Example:</b> If you are running Server Sensor on a Network Sensor computer, your overall memory requirements would increase to 192MB minimum, 320MB recommended.
Disk Space	75MB
Dedicated System?	No
Other Requirements...	If you choose to install System Scanner and you already have MSDE 7 installed on you computer (to support the Workgroup Manager or other software), you must first upgrade to MSDE 2000, which is available on the Internet Security Systems CD, or SQL Server 2000 before installing System Scanner.

The system requirements for the Solaris SPARC Server Sensor and OS Sensor are:

RealSecure Server Sensor and OS Sensor for Solaris SPARC	
Operating System	Solaris SPARC 2.5.1 (OS Sensor only) Solaris SPARC 2.6 and 7 (both sensors) Solaris SPARC 8 (Server Sensor only)
Minimum Memory	64MB in addition to memory required by other applications <b>Example:</b> If you are running Server Sensor on a Network Sensor computer, your overall memory requirements would increase by 64MB.

<b>RealSecure Server Sensor and OS Sensor for Solaris SPARC</b>	
<b>Disk Space</b>	75MB, 380MB is necessary for a full remote upgrade from 5.x/6.0 to 6.5
<b>Dedicated System?</b>	No
<b>Prerequisites</b>	The host sensors require the following patches, available from <a href="http://sunsolve.sun.com/">http://sunsolve.sun.com/</a> : For Solaris 2.6, install the Solaris 2.6 Y2K patch # 105621 or later. For Solaris 7, install the 106541-11, 107544-03, and 109104-03 patches. For Solaris 8, install the 108875-09 patch.

The system requirements for the Linux Server Sensor are:

<b>RealSecure Server Sensor for Linux</b>	
<b>Processor</b>	Pentium II 200 MHz or better
<b>Operating System</b>	Linux RedHat 7.1, Kernel 2.4.2-2 Linux Red Hat 7.2, Kernel 2.4.9-34
<b>Minimum Memory</b>	64MB in addition to memory required by other applications
<b>Disk Space</b>	75MB
<b>Dedicated System?</b>	No
<b>Prerequisites</b>	The /var/tmp directory must have at least 7MB of free space before installation.

The system requirements for the IBM AIX OS Sensor are:

<b>RealSecure OS Sensor for IBM AIX</b>	
<b>Operating System</b>	AIX 4.3.2 AIX 4.3.3
<b>Minimum Memory</b>	64MB in addition to memory required by other applications
<b>Disk Space</b>	75MB
<b>Dedicated System?</b>	No

The system requirements for the HP-UX OS Sensor are:

<b>RealSecure OS Sensor for HP-UX</b>	
<b>Operating System</b>	HP-UX 11.x (32-bit OS tested and supported)
<b>Minimum Memory</b>	64MB in addition to memory required by other applications
<b>Disk Space</b>	75MB
<b>Dedicated System?</b>	No
<b>Prerequisite</b>	Patches # PHCO_16127, # PHCO_19666, and # PHCO_20765 downloaded from the HP web site <a href="http://www.hp.com">http://www.hp.com</a>

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