

IBM Tivoli Identity Manager



Release Notes

Version 4.5.1

IBM Tivoli Identity Manager



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Version 4.5.1

Note:

Before using this information and the product it supports, read the information in "Notices," on page 41.

Second Edition (February 2004)

This edition applies to version 4.5.1 of Tivoli Identity Manager (product number 5724-C34) and to all subsequent releases and modifications until otherwise indicated in new editions.

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Chapter 1. About This Release

Welcome to the *IBM® Tivoli® Identity Manager Release Notes*. This Release Notes document contains technical information for this release of Tivoli Identity Manager, including late-breaking information, such as problems and workarounds, and patch availability.

Note: The information in this publication takes precedence over information in other publications or online help for this product.

What is New in This Release

The following are new or changed in this release:

- Corrected APARS and fixes for other problems, described in “Other Fixed Problems” on page 38. These fixes are primarily focused on providing improved performance.
- Changes in installation support on additional platforms and prerequisite applications, described in the following:
 - “Minimum UNIX Requirements” on page 5
 - “Minimum Windows Requirements” on page 9
 - Oracle on HP-UX support for Tivoli Identity Manager using WebSphere Application Server. For more information, see “Database Requirements” on page 10.
 - “Minimum UNIX Requirements” on page 15
 - “Database Requirements” on page 16
 - “Directory Server Requirements” on page 16
- Additional changes to the use of the Incremental Data Synchronizer in custom reporting. For more information, refer to the *IBM Tivoli Identity Manager Configuration Guide*.
- Other changes throughout the library to improve the organization and technical accuracy of the information.

Contacting Software Support

Before contacting IBM Tivoli Software Support with a problem, refer to the IBM Tivoli Software Support site by clicking the **Tivoli support** link at the following Web site:

<http://www.ibm.com/software/support/>

If you need additional help, contact software support by using the methods described in the *IBM Software Support Guide* at the following Web site:

<http://techsupport.services.ibm.com/guides/handbook.html>

The guide provides the following information:

- Registration and eligibility requirements for receiving support
- Telephone numbers, depending on the country in which you are located
- A list of information you should gather before contacting customer support

Publications

Read the descriptions of the Tivoli Identity Manager library, the prerequisite publications, and the related publications to determine which publications you might find helpful. After you determine the publications you need, refer to the instructions for accessing publications online.

Tivoli Identity Manager Library

The publications in the Tivoli Identity Manager technical documentation library are organized into the following categories:

- Release Information
- Online User Assistance
- Server Installation
- Administration and Configuration
- Technical Supplements
- Agent Installation

Release Information:

- *IBM Tivoli Identity Manager Release Notes*
Provides software and hardware requirements for Tivoli Identity Manager, and additional fix, patch, and other support information.
- *Tivoli Identity Manager Read This First Card*

Online User Assistance:

- Online user assistance for Tivoli Identity Manager
Provides integrated online help topics for all Tivoli Identity Manager administrative tasks.

Server Installation:

- *IBM Tivoli Identity Manager Server Installation Guide on UNIX and Linux using WebSphere*
Provides installation information for Tivoli Identity Manager.
- *IBM Tivoli Identity Manager Server Installation Guide on Windows using WebSphere*
Provides installation information for Tivoli Identity Manager.
- *IBM Tivoli Identity Manager Server Installation Guide on UNIX using WebLogic*
Provides installation information for Tivoli Identity Manager.
- *IBM Tivoli Identity Manager Server Installation Guide on Windows 2000 using WebLogic*
Provides installation information for Tivoli Identity Manager.

Administration and Configuration:

- *IBM Tivoli Identity Manager Policy and Organization Administration Guide*
Provides topics for Tivoli Identity Manager administrative tasks.
- *IBM Tivoli Identity Manager End User Guide*
Provides beginning user information for Tivoli Identity Manager.
- *IBM Tivoli Identity Manager Configuration Guide*
Provides configuration information for single-server and cluster Tivoli Identity Manager configurations.

Technical Supplements:

- *IBM Tivoli Identity Manager Problem Determination Guide*
Provides additional problem solving information for the Tivoli Identity Manager product.

Agent Installation:

- The Tivoli Identity Manager technical documentation library also includes an evolving set of platform-specific installation documents for the Agent component of a Tivoli Identity Manager implementation.

Prerequisite Product Publications

To use the information in this book effectively, you must have knowledge of the products that are prerequisites for Tivoli Identity Manager. Publications are available from the following locations:

- WebSphere Application Server
<http://www.ibm.com/software/webservers/appserv/support.html>
- **Note:** The following brief list of Redbooks describes installing and configuring WebSphere Application Server and providing additional security. Although the list was current when this publication went to production, publications may become obsolete. Contact your customer representative for a recommended list of resource information.
 - *IBM WebSphere Application Server V5.0 System Management and Configuration*, an IBM Redbook
 - *IBM WebSphere Application Server V5.0 Security*, an IBM Redbook
- WebLogic Server
<http://e-docs.bea.com/>
- Database servers
 - IBM DB2
<http://www.ibm.com/software/data/db2/udb/support.html>
<http://www.ibm.com/software/data/db2>
 - Oracle
<http://otn.oracle.com/tech/index.html>
 - Microsoft SQL Server 2000 (SP3)
<http://msdn.microsoft.com/library/>
- Directory server applications
 - IBM Directory Server
<http://www.ibm.com/software/network/directory>
 - Sun ONE Directory Server
http://www.sun.com/software/products/directory_srvr/5.1/index.html
- WebSphere embedded messaging support (or IBM MQSeries)
<http://www.ibm.com/software/ts/mqseries>
- Web Proxy Server
 - IBM HTTP Server
<http://www.ibm.com/software/webservers/httpservers/library.html>
 - Microsoft IIS HTTP Server
<http://www.microsoft.com/technet/prodtechnol/iis/default.asp>
 - Apache HTTP Server

<http://httpd.apache.org/docs-project>

Related Publications

Information related to Tivoli Identity Manager Server is available in the following publications:

- The Tivoli Software Library provides a variety of Tivoli publications such as white papers, datasheets, demonstrations, redbooks, and announcement letters. The Tivoli Software Library is available on the Web at:

<http://www.ibm.com/software/tivoli/library/>

- The *Tivoli Software Glossary* includes definitions for many of the technical terms related to Tivoli software. The *Tivoli Software Glossary* is available, in English only, from the **Glossary** link on the left side of the Tivoli Software Library Web page at:

<http://www.ibm.com/software/tivoli/library/>

Accessing Publications Online

The publications for this product are available online in Portable Document Format (PDF) or Hypertext Markup Language (HTML) format, or both in the Tivoli software library:

<http://www.ibm.com/software/tivoli/library>

To locate product publications in the library, click the **Product manuals** link on the left side of the library page. Then, locate and click the name of the product on the Tivoli software information center page.

Product publications include release notes, installation guides, user's guides, administrator's guides, and developer's references.

Note: To ensure proper printing of PDF publications, select the **Fit to page** check box in the Adobe Acrobat Print window (which is available when you click **File → Print**).

Chapter 2. Software and Hardware Requirements

The following configurations describe Tivoli Identity Manager software and hardware requirements.

Notes:

1. Minimum values that are listed for hardware and software prerequisites will enable a very basic use of Tivoli Identity Manager. It is recommended that you use larger values that are appropriate for your production environment.
2. This is the only specification of these requirements in the Tivoli Identity Manager publications. The requirements were current as this publication went to production. For possible updates to this information, contact your customer support representative.

Software and Hardware Requirements on WebSphere Application Server

This section describes software and hardware requirements for Tivoli Identity Manager Server running on WebSphere Application Server.

Note: In a clustered environment, install WebSphere Application Server and its prerequisites before you install Tivoli Identity Manager Server. For more information on installation, refer to the Tivoli Identity Manager Server installation guide that is appropriate for your platform.

Minimum UNIX Requirements

The following tables identify the UNIX operating system, patches, and minimum hardware requirements for installation. These values do not include additional run-time requirements. Running more than one server type, such as an application server and database server on a single computer, will require additional hardware resources (more RAM) for that computer.

AIX Requirements

The following table identifies the AIX operating system, patches, and minimum hardware requirements for installation.

Table 1. Minimum AIX operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
AIX 5.1 or 5.2 (see note 1.)	<ul style="list-style-type: none"> AIX 5.1: For Tivoli Identity Manager Server used with WebSphere Application Server, apply 5100-03 maintenance package and APAR IY36884 or later See "Prerequisites for HTTP Servers and WebSphere Application Server" on page 11 for more information on obtaining the files required to check prerequisites for WebSphere Application Server. 	<ul style="list-style-type: none"> RAM: 1 GB Processor: IBM 604e processor with a clock speed of 375 MHz or faster Free disk space: <ul style="list-style-type: none"> /tmp must have 1 GB free disk space. If Tivoli Identity Manager installs WebSphere Application Server, <i>WAS_HOME</i> must have 800 MB free disk space and /var must have 300 MB free disk space. Allocate 500 MB for <i>ITIM_HOME</i>. <p>Note: Source the IBM DB2 profile before installation.</p>
<p>Notes:</p> <ol style="list-style-type: none"> Refer to http://techsupport.services.ibm.com/server/mlfixes/43/10/01to10.html for more information about updating your version of AIX. 		

Solaris Requirements

The following table identifies the Solaris operating system, patches, and minimum hardware requirements for installation.

Table 2. Minimum Solaris operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
Solaris 8 or 9 (see note 1.)	<ul style="list-style-type: none"> Solaris 8: Patch cluster dated March 2003 or later Solaris 9: See "Prerequisites for HTTP Servers and WebSphere Application Server" on page 11 for more information on obtaining the files required to check prerequisites for WebSphere Application Server. 	<ul style="list-style-type: none"> RAM: 1 GB Processor: Solaris Sparc processor with a clock speed of 440 MHz or faster Free disk space: <ul style="list-style-type: none"> /tmp must have 1 GB free disk space. If Tivoli Identity Manager installs WebSphere Application Server, <i>WAS_HOME</i> must have 800 MB free disk space and /var must have 300 MB free disk space. Allocate 500 MB for <i>ITIM_HOME</i>. <p>For a single-server installation on Solaris 9 in which the Tivoli Identity Manager installation process automatically installs WebSphere Application Server, you must additionally allocate 400 MB free disk space for temporary storage if the WebSphere Application Server installation image is on a non-writable (CD) medium.</p> <p>Note: Source the IBM DB2 profile before installation.</p>

Table 2. Minimum Solaris operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server (continued)

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
<p>Notes:</p> <p>1. Solaris: In addition to kernel settings required by other applications, Tivoli Identity Manager requires the following kernel and semaphore parameters in the /etc/system file:</p> <ul style="list-style-type: none"> • set shmsys:shminfo_shmmax = 4294967295 • set shmsys:shminfo_shmseg = 1024 • set shmsys:shminfo_shmmni = 1024 • set semsys:seminfo_semmsl = 100 • set semsys:seminfo_semaem = 16384 • set semsys:seminfo_semmni = 1024 • set semsys:seminfo_semmap = 1026 • set semsys:seminfo_semmns = 16384 • set msgsys:msginfo_msgmap = 1026 • set semsys:seminfo_semopm = 100 • set semsys:seminfo_semmnu = 2048 • set semsys:seminfo_semume = 256 • set msgsys:msginfo_msgmax = 65535 • set rlim_fd_cur=1024 <p>On Solaris 9, for files and additional processes that ensure prerequisite checking, access this Web site: http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=Solaris&uid=swg24005009&loc=en_US&cs=utf-8&lang=en</p>		

HP-UX Requirements

The following table identifies the HP-UX operating system, patches, and minimum hardware requirements for installation.

Table 3. Minimum HP-UX operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
HP-UX 11i (see note 1.)	Quality Pack as of December 2002	<ul style="list-style-type: none"> • RAM: 1 GB • Processor: Clock speed of 440 MHz or faster • Free disk space: <ul style="list-style-type: none"> – /tmp must have 1 GB free disk space. – If Tivoli Identity Manager installs WebSphere Application Server, WAS_HOME must have 800 MB free disk space and /var must have 300 MB free disk space. – Allocate 500 MB for ITIM_HOME.

Table 3. Minimum HP-UX operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server (continued)

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
<p>Notes:</p> <p>1. HP-UX: Tivoli Identity Manager has prerequisites for WebSphere Application Server and WebSphere embedded messaging support that require additional HP-UX kernel settings. You must edit the /usr/conf/master.d/core-hpux file, to allow the SAM utility to set values greater than 2048. For additional information on installing and migrating WebSphere Application Server on HP-UX, access the following Web address: http://publib7b.boulder.ibm.com/wasinfo1/en/info/aes/ae/rins_prereq.html#prereqHpx The following list is very similar to the list provided by the WebSphere Application Server Web site, but also contains additional kernel values.</p>		
<ul style="list-style-type: none"> • dbc_max_pct=25 • maxdsiz=805306358 • maxdsiz=2048000000 (when the base and Network Deployment products are on one computer) • maxfiles_lim=8196 (Change this one before maxfiles.) • maxfiles=8000 • maxssiz=8388608 • maxswapchunks=8192 • max_thread_proc=3000 • maxuprc=512 • maxusers=512 • msgmap=2048 • msgmax=65535 • msgmax=131070 (when the base and Network Deployment products are on one computer) • msgmnb=65535 • msgmnb=131070 (when the base and Network Deployment products are on one computer) • msgmni=50 • msgseg=32767 • msgssz=32 • msgtql=2046 	<ul style="list-style-type: none"> • nfile=58145 • nflocks=3000 • ninode=60000 • nkthread=7219 • nproc=4116 • npty=2024 • nstrpty=1024 • nstrtel=60 • sema=1 • semaem=16384 • semvmx=32767 • semmap=514 • semmni=2048 • semmns=16384 • semmnu=1024 • semume=200 • shmmax=2147483647 • shmmni=1024 • shmем=1 • shmseg=1024 • STRMSGSZ=65535 	

Linux Requirements

The following table identifies the Linux operating system, patches, and minimum hardware requirements for installation.

Table 4. Minimum Linux operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
RedHat Linux Enterprise for Intel (x86) AS 2.1 (kernel 2.4)	None	<ul style="list-style-type: none"> • RAM: 1 GB • Processor: Clock speed of 500 MHz or faster • Free disk space: <ul style="list-style-type: none"> - /tmp must have 1 GB free disk space. - If Tivoli Identity Manager installs WebSphere Application Server, <i>WAS_HOME</i> must have 550 MB free disk space and /var must have 300 MB free disk space. - Allocate 500 MB for <i>ITIM_HOME</i>.

Minimum Windows Requirements

The following table identifies the Windows operating system, patches, and minimum hardware requirements for installation. These values do not include additional run-time requirements. Running more than one server type, such as an application server and database server on a single computer, will require additional hardware resources (more RAM) for that computer.

Table 5. Minimum Windows operating system and hardware requirements for Tivoli Identity Manager running on WebSphere Application Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
Windows 2000 Advanced Server	Service Pack 3 or later	<ul style="list-style-type: none"> • RAM: 1 GB of memory • Processor: Intel Pentium with a clock speed of 1 GHz or faster • Free disk space: <ul style="list-style-type: none"> - The temp directory must have at least 600 MB free disk space. - Additionally, provide 1.1 GB of free disk space for the following: <ul style="list-style-type: none"> - <i>ITIM_HOME</i> directory for Tivoli Identity Manager Server 500 MB - WebSphere Application Server 600 MB
Windows Server 2003, Enterprise Edition	None	<ul style="list-style-type: none"> • RAM: 1 GB of memory • Processor: Intel Pentium with a clock speed of 1 GHz or faster • Free disk space: <ul style="list-style-type: none"> - The temp directory must have at least 600 MB free disk space. - Additionally, provide 1.1 GB of free disk space for the following: <ul style="list-style-type: none"> - <i>ITIM_HOME</i> directory for Tivoli Identity Manager Server 500 MB - WebSphere Application Server 600 MB

Database Requirements

The following table lists databases supported for Tivoli Identity Manager Server running on WebSphere Application Server. The version, fix pack, or patch are specified for a given database. The database is supported on the platforms for which a check mark (✓) appears.

Table 6. Databases available for Tivoli Identity Manager Server running on WebSphere Application Server

Database	Version and fix pack or patch	AIX 5.1	AIX 5.2	Solaris 8	Solaris 9	Linux	HP-UX 11i	Windows 2000 Advanced Server	Windows 2003
IBM DB2 Universal Database Enterprise Edition server (see note 1.)	7.2 with Fix Pack 9	✓		✓				✓	
IBM DB2 Universal Database Enterprise Edition server (see note 1.)	8.1 with Fix Pack 2	✓	✓	✓	✓	✓	✓	✓	✓
Oracle	8i (version 8 release 3)	✓		✓				✓	
Oracle	9i (version 9 release 2)	✓	✓	✓	✓	✓	✓	✓	✓
Microsoft SQL server	SQL Server 2000 (SP3)							✓	✓

Notes:

1. IBM DB2 installation requires 2 GB minimum free disk space in the directory in which you create the database for Tivoli Identity Manager, such as /home/db2inst1. The value of APP_CTL_HEAP should be 2048.

Directory Server Requirements

The following table lists directory servers available for Tivoli Identity Manager Server running on WebSphere Application Server. The version, fix pack, or patch are specified for a given database. The database is supported on the platforms for which a check mark (✓) appears.

Table 7. Directory server requirements for Tivoli Identity Manager Server running on WebSphere Application Server

Directory server	Version and fix pack or patch	AIX 4.3.3	AIX 5.1	AIX 5.2	Solaris 8	Solaris 9	Linux	HP-UX 11i	Windows 2000 Advanced Server	Windows 2003 Enterprise
IBM Directory Server	4.1 with Fix Pack 2		✓		✓				✓	
IBM Directory Server	5.1 with Fix Pack 1		✓	✓	✓	✓	✓	✓	✓	✓

Table 7. Directory server requirements for Tivoli Identity Manager Server running on WebSphere Application Server (continued)

Directory server	Version and fix pack or patch	AIX 4.3.3	AIX 5.1	AIX 5.2	Solaris 8	Solaris 9	Linux	HP-UX 11i	Windows 2000 Advanced Server	Windows 2003 Enterprise
IBM Directory Server	5.2		✓	✓	✓	✓	✓ (see note 1.)	✓	✓	✓
Sun ONE Directory Server (see note 2.)	5.1	✓			✓	✓	✓ (see note 3.)	✓	✓	

Notes:

1. RedHat Linux Enterprise 3.0 only.
2. Also check the following website:
http://www.sun.com/software/download/inter_ecom.html#dirserv
3. RedHat Linux 7.2 or Sun Linux 5.0.

Prerequisites for HTTP Servers and WebSphere Application Server

The following table lists the Tivoli Identity Manager Server prerequisites for HTTP servers and for WebSphere Application Server.

Prerequisites for HTTP Servers

The following table lists the Tivoli Identity Manager Server prerequisites for HTTP servers. The IBM HTTP Server is included in WebSphere Application Server installation process.

Table 8. Tivoli Identity Manager Server prerequisites for HTTP servers

Prerequisite	Version	Fix Pack	Interim fix
IBM HTTP Server	1.3.26	WebSphere Application Server Fix Pack 2 Notes: 1. You must bring down the HTTP server before you apply WebSphere Application Server Fix Packs. 2. In a cluster environment, ensure that you load the WebSphere Application Server Fix Pack on all computers that have the IBM HTTP Server, which might include the computer with WebSphere Application Server Network Deployment.	None

Prerequisites for WebSphere Application Server

The JDK distributed with WebSphere Application Server is the supported JDK. Use of an independently installed JDK, from IBM or other vendors, is **not** supported.

To obtain recommended (but not required) interim fix PQ77521, access the following Web site:

<http://www.ibm.com/support/docview.wss?uid=swg24005451>

For more information on this Fix Pack, refer to the Tivoli Identity Manager installation image and CDs described in an appendix in the installation guide for your platform.

The following table lists the Tivoli Identity Manager Server prerequisites for WebSphere Application Server base:

Table 9. Tivoli Identity Manager Server prerequisites for WebSphere Application Server

Prerequisite	Version	Fix Pack	Interim fix
WebSphere Application Server base (see note 1.)	5.0	WebSphere Application Server Fix Pack 2	Apply the following fixes in the order listed: <ul style="list-style-type: none">• APAR SOV62778 (see note 2.)• APAR PQ75794• APAR PQ77263 See note 3 for additional Fix Packs required for Windows 2003. Interim fix PQ77521 is recommended but not required.

Table 9. Tivoli Identity Manager Server prerequisites for WebSphere Application Server (continued)

Prerequisite	Version	Fix Pack	Interim fix
<p>Notes:</p> <p>1. For a single-server installation, the Tivoli Identity Manager installation process will automatically install the prerequisite checking files for WebSphere Application Server.</p> <p>If you manually install WebSphere Application Server 5.0 , before you install WebSphere Application Server, you must manually replace the following files that check prerequisites for WebSphere Application Server.</p> <ul style="list-style-type: none"> • AIX 5.2: <ul style="list-style-type: none"> – prereqChecker.xml – prereqChecker.dtd <p>To obtain the prerequisite checking files for use with WebSphere Application Server, access the following Web address:</p> <p>http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=4004726&uid=swg24004726&loc=en_US&cs=utf-8&lang=en</p> <ul style="list-style-type: none"> • Solaris 9: <ul style="list-style-type: none"> – prereqChecker.xml – wasmfuns.SunOS <p>To obtain the prerequisite checking files, access this Web site:</p> <p>http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=Solaris&uid=swg24005009&loc=en_US&cs=utf-8&lang=en</p> <p>2. If you manually install Fix Pack 2 for WebSphere Application Server base, copy the <code>ibmorb.jar</code> file that is on the supplemental CD to the <code>WAS_HOME/java/jre/lib/ext</code> directory. On the computer that has WebSphere Application Server Network Deployment, copy the <code>ibmorb.jar</code> file that is on the supplemental CD to the <code>WAS_NDM_HOME/java/jre/lib/ext</code> directory. You must contact WebSphere Application Server support before copying the file <code>ibmorb.jar</code> if you installed any WebSphere Application Server JDK fixes after installing WebSphere Application Server 5.0 Fix Pack 2.</p> <p>3. If you install WebSphere Application Server on Windows Server 2003, Enterprise Edition, WebSphere Application Server contains Fix Pack 2. On Windows Server 2003, Enterprise Edition, you must additionally do the following:</p> <ul style="list-style-type: none"> • Obtain the interim fix installer. Access the following Web address: <p>http://www-1.ibm.com/support/docview.wss?rs=860&context=SW600&q=updateinstaller&uid=swg24001908&loc=en_US&cs=utf-8&lang=en+en</p> • Additionally, copy the <code>ibmorb.jar</code> file that is on the Tivoli Identity Manager supplemental CD to the <code>WAS_HOME/java/jre/lib/ext</code> directory. On the computer that has WebSphere Application Server Network Deployment, copy the <code>ibmorb.jar</code> file that is on the supplemental CD to the <code>WAS_NDM_HOME/java/jre/lib/ext</code> directory. You must contact WebSphere Application Server support before copying the file <code>ibmorb.jar</code> if you installed any WebSphere Application Server JDK fixes after installing WebSphere Application Server 5.0 Fix Pack 2. 			

The following table lists the Tivoli Identity Manager Server prerequisites for WebSphere Application Server Network Deployment:

Table 10. Tivoli Identity Manager Server prerequisites for WebSphere Application Server Network Deployment

Prerequisite	Version	Fix Pack	Interim fix
WebSphere Application Server Network Deployment (see note 1.)	5.0	WebSphere Application Server Fix Pack 2	Apply the following fix: <ul style="list-style-type: none"> • APAR SOV62778 (see note 2.)

Table 10. Tivoli Identity Manager Server prerequisites for WebSphere Application Server Network Deployment (continued)

Prerequisite	Version	Fix Pack	Interim fix
<p>Notes:</p> <p>1. For a single-server installation, the Tivoli Identity Manager installation process will automatically install the prerequisite checking files for WebSphere Application Server.</p> <p>If you manually install WebSphere Application Server 5.0 , before you install WebSphere Application Server, you must manually replace the following files that check prerequisites for WebSphere Application Server</p> <ul style="list-style-type: none"> • AIX 5.2: <ul style="list-style-type: none"> – prereqChecker.xml – prereqChecker.dtd <p>To obtain the prerequisite checking files for use with WebSphere Application Server, access the following Web address:</p> <p>http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=4004726&uid=swg24004726&loc=en_US&cs=utf-8&lang=en</p> <ul style="list-style-type: none"> • Solaris 9: <ul style="list-style-type: none"> – prereqChecker.xml – wasmfuns.SunOS <p>To obtain the prerequisite checking files, access this Web site:</p> <p>http://www-1.ibm.com/support/docview.wss?rs=180&context=SSEQTP&q=Solaris&uid=swg24005009&loc=en_US&cs=utf-8&lang=en</p> <p>2. If you manually install Fix Pack 2 for WebSphere Application Server base, copy the <code>ibmorb.jar</code> file that is on the supplemental CD to the <code>WAS_HOME/java/jre/lib/ext</code> directory. On the computer that has WebSphere Application Server Network Deployment, copy the <code>ibmorb.jar</code> file that is on the supplemental CD to the <code>WAS_NDM_HOME/java/jre/lib/ext</code> directory. You must contact WebSphere Application Server support before copying the file <code>ibmorb.jar</code> if you installed any WebSphere Application Server JDK fixes after installing WebSphere Application Server 5.0 Fix Pack 2.</p>			

Supported Web Browsers

The following Web browsers are supported on Windows only:

- Internet Explorer 5.5 with Service Pack 2
- Internet Explorer 6.0 with Service Pack 1
- Netscape 4.75

Notes:

1. Cookies must be enabled.
2. Do not start two separate browser sessions from the same client computer. The two sessions are regarded as one session ID, resulting in problems with data.
3. For Internet Explorer, ensure that the Java run-time environment (JRE) is specified. Open the browser and click **Tools** -> **Internet Options**. Click the **Advanced** tab. Scroll the list of features. Select the check box for an item similar to Use Java 2 V1.3.1_04. Restart the computer.

Software and Hardware Requirements on WebLogic Server

This section describes software and hardware requirements for Tivoli Identity Manager Server running on WebLogic Server.

Minimum UNIX Requirements

The following table identifies the operating system, patches, and minimum hardware requirements for installation. These values do not include additional run-time requirements.

Table 11. Minimum UNIX operating system and hardware requirements for Tivoli Identity Manager running on WebLogic Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
AIX 5.1 (see note 1.)	For Tivoli Identity Manager Server running on WebLogic Server, apply 5100-02 maintenance package or later. Note: 5100-03 maintenance package is recommended.	<ul style="list-style-type: none"> • RAM: 1 GB • Processor: IBM 604e processor with a clock speed of 375 MHz or faster • Free disk space: /tmp must have 500 MB free disk space. • Free disk space: <ul style="list-style-type: none"> – The /tmp directory must have at least 500 MB free disk space. – Additionally, provide the following free disk space: <ul style="list-style-type: none"> - 150 MB for <i>ITIM_HOME</i>. - 300 MB for <i>BEA_HOME</i>
HP-UX 11i	Quality Pack as of December 2002	<ul style="list-style-type: none"> • RAM: 1 GB • Processor: Clock speed of 440 MHz or faster • Free disk space: <ul style="list-style-type: none"> – The /tmp directory must have at least 500 MB free disk space. – Additionally, provide the following free disk space: <ul style="list-style-type: none"> - 150 MB for <i>ITIM_HOME</i>. - 300 MB for <i>BEA_HOME</i>
Solaris 8	Patch cluster dated July 2002 or later	<ul style="list-style-type: none"> • RAM: 1 GB • Processor: Solaris Sparc with a clock speed of 440 MHz or faster • Free disk space: <ul style="list-style-type: none"> – The /tmp directory must have at least 500 MB free disk space. – Additionally, provide the following free disk space: <ul style="list-style-type: none"> - 150 MB for <i>ITIM_HOME</i>. - 300 MB for <i>BEA_HOME</i>
Solaris 9		
Notes: 1. Refer to http://techsupport.services.ibm.com/server/mlfixes/43/10/01to10.html for more information about updating your version of AIX.		

Minimum Windows Requirements

The following table identifies the operating system, patches, and minimum hardware requirements for installation. These values do not include additional run-time requirements.

Table 12. Minimum Windows operating system and hardware requirements for Tivoli Identity Manager running on WebLogic Server

Operating System	Patch	Minimum memory, free disk space, and other hardware requirements
Windows 2000 Advanced Server	Service Pack 3 or later	<ul style="list-style-type: none"> • RAM: 1 GB of memory • Processor: Intel Pentium with a clock speed of 500 MHz or faster • Free disk space: <ul style="list-style-type: none"> – The temp directory must have at least 500 MB free disk space. – Additionally, provide the following free disk space: <ul style="list-style-type: none"> - 150 MB for <i>ITIM_HOME</i>. - 300 MB for <i>BEA_HOME</i>

Database Requirements

The following table lists databases available for Tivoli Identity Manager Server running on WebLogic Server:

Table 13. Databases available for Tivoli Identity Manager Server running on WebLogic Server

Database	Version	AIX 5.1	Solaris 8	Solaris 9	Windows 2000 Advanced Server	HP-UX 11i
Oracle	8i (version 8 release 3)	✓	✓	✓	✓	✓
	9i (version 9 release 2)	✓	✓	✓	✓	✓
Microsoft SQL server	SQL Server 2000 (SP3)				✓	

Directory Server Requirements

The following table lists directory servers available for Tivoli Identity Manager Server running on WebLogic Server:

Table 14. Directory server requirements for Tivoli Identity Manager Server running on WebLogic Server

Directory server	Version	AIX	Solaris 8	Solaris 9	Windows 2000 Advanced Server
Sun ONE Directory Server (see note 1.)	5.1	✓ (see note 2.)	✓	✓	✓

Notes:

1. Also check the following website:
http://www.sun.com/software/download/inter_ecom.html#dirserv
2. On AIX 4.3.3 not on 5.1

Prerequisites for WebLogic Server

The following table lists the Tivoli Identity Manager Server prerequisites for WebLogic Server:

Table 15. Tivoli Identity Manager Server prerequisites for WebLogic Server

Application	Version
WebLogic Server	Version 7.0 with Service Pack 3 (Version 7.0.3.0) Note: For WebLogic Server on AIX, JDK 1.3.1_06 or higher must be installed.

Supported Web Browsers

The following Web browsers are supported on Windows only:

- Internet Explorer 5.5 with Service Pack 2
- Internet Explorer 6.0 with Service Pack 1
- Netscape 4.75

Notes:

1. Cookies must be enabled.
2. Do not start two separate browser sessions from the same client computer. The two sessions are regarded as one session ID, resulting in problems with data.
3. For Internet Explorer, ensure that the Java run-time environment (JRE) is specified. Open the browser and click **Tools -> Internet Options**. Click the Advanced tab. Scroll the list of features. Select the check box for an item similar to Use Java 2 V1.3.1_04. Restart the computer.

Chapter 3. Known Limitations, Problems, and Workarounds

This section describes software limitations, and software problems and workarounds.

Tivoli Identity Manager Limitations

The following limitations exist:

- **Problem:** LDAP configuration (ldapConfig) fails with IBM Directory Server version 5.1 during the installation process for Tivoli Identity Manager on HP-UX version 11i. The error message is the following:

```
LdapConfig Failed /w Error 80 - Unknown Error.
```

Workaround: On IBM Directory Server version 5.1, the /usr/IBMldap/etc directory has 640 permissions. Increase the number of permissions. For example, enter the following command:

```
chmod 750 /usr/IBMldap/etc
```

- **Problem:** On the Add or on the Modify service (DSML) dialogs, clicking **TEST** returns misleading results on functional clusters.

To locate an example dialog such as the Modify service dialog, click

Provisioning → **Manage Services** → **Modify service (DSML)**. When a DSML file path is entered under the file name entry, clicking **TEST** will display a "Test Successful" message if the file is found on one of the user interface (UI) cluster members. However, no equivalent test is performed on workflow (WF) cluster members. When you subsequently run a DSML-based reconciliation, the request will fail.

Workaround: Additionally install the DSML file on a WF cluster member.

Note: The DSML file must be placed on all the UI and WF computers using the same file name and location.

- **Problem:** Tivoli Identity Manager does not provide a method to create an outer join in the custom report designer.

Workaround: None.

- **Problem:** Deleting a service within Tivoli Identity Manager might throw a service lock not found exception. Despite the exception, the service is deleted.

Workaround: None.

- **Problem:** The files extensions/examples/workflow/erPersonStatusExample.html and extensions/examples/workflow/person_modify.xml have an error in the Person Modify Start Activity Completion script.

Workaround: Use the following script instead:

```
var person = Entity.get();
var changes = person.getChanges();
var result = "none";

if(changes != null && changes.length > 0) {
for (i =0 ; i < changes.length ; i++) {

var op = changes[i].op;
if(op == 1 || op == 2) {

var name = changes[i].attr;
if(name == "erpersonstatus") {
```


3. Rename the fp510h-01.tar file back to fp510h-01.tar.Z in order to uncompress the file. Then untar the file.

- **Problem:** The Tivoli Identity Manager installation process does not bundle the Oracle JDBC driver (the classes12.zip file). If you are using Oracle for your database, you will receive a java.lang.ClassNotFoundException message when you test the database connection.

Workaround: To correct this, do the following:

1. Click **Cancel** to quit the database configuration program and continue the installation.
2. When installation is complete, do the following:
 - a. Copy the Oracle JDBC driver (the classes12.zip file) from the temporary local directory that you created earlier, into the *ITIM_HOME/lib* directory on the computer on which you are currently installing IBM Tivoli Identity Manager.

For more information on obtaining a copy of the Oracle JDBC Driver (classes12.zip file), refer to the listing of CDs and related drivers described in the Tivoli Identity Manager installation guide for your platform. For more information on the temporary directory, see the earlier list of tasks to do before you begin installing Tivoli Identity Manager.

- b. Launch the Database Configuration Window by issuing the following command:

UNIX: *ITIM_HOME/bin/DBConfig*

Windows: *ITIM_HOME\bin\DBConfig*

- c. Complete the database configuration.
- d. In a cluster configuration, stop all the cluster member servers.

In a single server configuration, stop the WebSphere Application Server. Use the following command:

UNIX: *WAS_HOME/bin/stopServer.sh servername*

Windows: *WAS_HOME\bin\stopServer.bat servername*

- e. In a cluster configuration, start all the cluster members servers.

In a single server configuration, start the WebSphere Application Server. Use the following command:

UNIX: *WAS_HOME/bin/startServer.sh servername*

Windows: *WAS_HOME\bin\startServer.bat servername*

- **Problem:** During single-server installation for AIX or Solaris, if you install both Tivoli Identity Manager and WebSphere Application Server base, you **cannot** install from the CD.

Workaround: Do the following:

1. Copy the Tivoli Identity Manager install program to a temporary directory that you create on a hard drive that has at least 300 MB free disk space.
 - AIX: *instAIX-WAS.bin*
 - Solaris: *instSOL-WAS.bin*
2. Run the Tivoli Identity Manager install program from the temporary directory to install both Tivoli Identity Manager and WebSphere Application Server base.

- **Problem:** During installation, an installation dialog reports that the space required is greater than the available space.

Workaround: Cancel the installation. Increase the available free disk space. Begin the installation program again.

- **Problem:** During installation, an installation dialog reports that the system does not have WebSphere Application Server e-fix PQ76707 installed.

Workaround: The dialog incorrectly lists e-fix PQ76707. The correct e-fix to apply is PQ77263.
- **Problem:** After installation, errors are reported in a verification test or when you attempt to access the Network Deployment Manager administration console. For example, a ClassNotFound error occurs when the administration console starts. The adminconsole.ear file is not found.

Workaround: Uninstall the Network Deployment Manager. Increase the available free disk space. Begin installation again.
- **Problem:** During installation, a prerequisite check for WebSphere MQ group mqm does not find the specified group.

Workaround: Cancel the installation. Create the required WebSphere MQ groups and users. Repeat the installation again.
- **Problem:** Using a terminal session such as a vnc session or a session started with a similar product, the Tivoli Identity Manager installation process fails to complete. Error messages may indicate that the jmsserver process stopped. A subsequent attempt to install may produce an error message indicating a problem with the enroll.ear file.

Workaround: Install Tivoli Identity Manager directly on the operating system of the target computer. Do not use a vnc session or a session provided by similar products to install Tivoli Identity Manager.
- **Problem:** During Tivoli Identity Manager installation on clusters using WebSphere Application Server, a message may indicate the jmsserver process is running, when in fact the jmsserver process is stopped. You may have manually stopped the JMS server prior to installing Tivoli Identity Manager.

Workaround: Ignore the messages and continue installation. After Tivoli Identity Manager installation completes successfully, manually start the jmsserver process. Do the following:

 1. Access the WebSphere Application Server administrative console.
 2. Click **Servers** → **JMS Servers**.
 3. In the list of JMS servers, select the JMS server on the correct node and click **Start**.
- **Problem:** When you install Tivoli Identity Manager on Windows 2000, the Websphere Embedded Messaging Publish and Subscribe service is not started. Attempting to start it manually causes an error and the following message:

```
Could not start the Websphere Embedded Messaging Publish and
Subscribe WAS_server1 service on Local Computer.
Error 1075: The dependency service does not exist or has been
marked for deletion
```

Workaround: Ignore the message and continue. Tivoli Identity Manager does not require the Websphere Embedded Messaging Publish and Subscribe service. Do not attempt to start the service.
- **Problem:** On Windows 2000, you may not be able to log on to Tivoli Identity Manager after upgrading Tivoli Identity Manager or using Tivoli Identity Manager installation to install Tivoli Identity Manager and WebSphere Application Server.

Workaround: Reboot the system, which may correct certain environment settings and WebSphere embedded messaging support queue problems. Examine the `WAS_HOME\logs\server1\SystemOut.log` file to determine whether any exception relates to the WebSphere embedded messaging support queue manager.

- **Problem:** When Tivoli Identity Manager installs WebSphere Application Server, the installation process checks `WAS_HOME\log.txt` to determine if the silent install of WebSphere Application Server was successful. If you obtain an error message that the process is unable to detect that file, cancel the installation and determine why the WebSphere Application Server installation is failing.

Workaround: The problem might be any of the following:

- There is a lack of available free disk space.
- On Windows: The user ID that you specified does not have the required authority. The user must be authorized to "Act as Part of the Operating System" and also "Log on as Service."
- WebSphere embedded messaging support installation may have failed. Examine the `mq-prereq.log` file to see if the installation failed its prerequisite checks.

Additionally refer to documentation for WebSphere Application Server installation for additional reasons why WebSphere Application Server installation might fail.

- **Problem:** The installation program does not add the Tivoli Identity Manager native library directory to the library path. In addition, agents that use the FTP protocol, such as RACF and AS/400, use native operating system libraries which also need to be contained in the library path of the host system.

Workaround: Add the following information to the library path of the host system:

AIX

```
LIBPATH=/lib/aix:"$WAS_LIBPATH":$LIBPATH
export LIBPATH ;;
PROTOCOL_DIR=$ITIM_HOME/lib/aix
export PROTOCOL_DIR ;;
```

Solaris

```
LD_LIBRARY_PATH=/lib/sun:"$WAS_LIBPATH":$LD_LIBRARY_PATH
export LD_LIBRARY_PATH ;;
PROTOCOL_DIR=$ITIM_HOME/lib/sun
export PROTOCOL_DIR ;;
```

HP-UX

```
SHLIB_PATH=/lib/hpux11:"$WAS_LIBPATH":$SHLIB_PATH
export SHLIB_PATH ;;
PROTOCOL_DIR=$ITIM_HOME/lib/hpux11
export PROTOCOL_DIR ;;
```

Windows 2000, Windows 2003

Copy the contents of `/lib/nt` to `\winnt\system32` except for the file `libdelref.dll`.

These changes could be made to WebSphere Application Server `startServer.sh` or a wrapper script that initiates `startServer.sh`.

Data and Database Problems and Workarounds

Problems and workarounds related to databases and to the Tivoli Identity Manager schema include the following:

- **Problem:** Workflow operations can experience a condition in which a certain number of cursors are left open in the Oracle database. The number of open cursors increases to a point where Tivoli Identity Manager becomes inappropriately slow or an error appears in the `itim.log` file stating `ORA-01000: maximum open cursors exceeded`.

Workaround: Reduce the prepared statement cache size, tuning the value for your environment. The value should be less than the OPEN_CURSOR setting on Oracle.

To reduce the prepared statement cache size, do the following:

- WebLogic Server
 1. Launch the WebLogic admin console using the following URL:
`http://localhost/console`
 2. Open your domain in the tree.
 3. Click **Services** -> **JDBC** -> **Connection Pools** -> **enrolePool** in the domain tree.
 4. Click the Connections tab on the right window.
 5. Edit the value of Prepared Statement Cache Size.
 6. Click **Apply** to save the change.
- WebSphere Application Server
 1. Click **Resources** -> **JDBC Providers**.
 2. Set the scope to the server that requires the update.
 3. Click **ITIM JDBC Provider (XA)**.
 4. Click **Additional Properties** -> **Data Sources (Version 4)**.
 5. Click **ITIM Data Source**.
 6. Click **Additional Properties** -> **Connection Pool**.
 7. Edit the value of Statement Cache Size.
 8. Save your changes.

- **Problem:** During an upgrade from Tivoli Identity Manager 4.4 to 4.5, the following error message is displayed:

```
com.ibm.db2.jdbc.DB2Exception: [IBM] [CLI Driver] [DB2/NT]SQL0601N  
The name of the object to be created is identical to the existing name.
```

Workaround: Uninstalling Tivoli Identity Manager does not remove Tivoli Identity Manager data or schema from the directory and the database. You must manually remove the data or schema.

- **Problem:** Attributes that are hidden are specified in the `enRoleHiddenAttributes.properties` file. You may want some hidden attributes to be available to end users.

Workaround: Remove the attribute from the `enRoleHiddenAttributes.properties` file.

- **Problem:** The Organization Unit Name cannot exceed a length greater than 100 characters or the name is not created. A long name within the 100-character limit will not wrap when displayed.

Workaround: Do not enter a value for the Organization Unit Name that is greater than 100 characters.

- **Problem:** If the `ITIM_HOME/bin/db2config` command is run when the WebSphere Application Server is not running, you may not be able to start Tivoli Identity Manager.

Workaround: Stop and restart the WebSphere Application Server. Start Tivoli Identity Manager. Alternatively, restart the WebSphere Application Server, access the WebSphere Application Server administrative console, and use the console menus to restart Tivoli Identity Manager.

- **Problem:** Reconciliations are scheduled based on the Tivoli Identity Manager Server time zone.

Workaround: To schedule a reconciliation based upon the Tivoli Identity Manager agent time zone, calculate the difference between the server and agent time zones and schedule the reconciliation accordingly.

Directory Server Problems and Workarounds

Problems and workarounds related to the directory server include the following:

- **Problem:** By default, directory servers allow anonymous read to directory data.

Workaround: For security purpose, it is strongly recommended that you turn off the anonymous read access to the directory servers. Refer to your directory server administrative guide for detailed steps.

- **Problem:** IBM Directory Server 5.2 on AIX has a backward compatibility problem with plug-ins to the LDAP server.

This problem will be corrected by IBM Directory Server Patch P520A-00C, which will be included in the next IBM Directory Server 5.2 fix pack. Patch P520A-00C is not required for the original IBM Directory Server referential integrity plug-in file `libdelrefids52.a` that is included with Tivoli Identity Manager version 4.5.1. However, the patch will break plug-in file `libdelrefids52.a` when the patch is later applied.

Workaround: In the interval of time before Patch P520A-00C is available, use the referential integrity plug-in file `libdelrefids52.a` as described in the directory server information provided in the Tivoli Identity Manager Server installation guide that is appropriate for your platform.

When IBM Directory Server Patch P520A-00C is available, do the following before you apply the patch:

1. Contact IBM Support to obtain an updated `libdelrefids52.a` file.
2. Use the updated `libdelrefids52.a` file to replace the original Tivoli Identity Manager plug-in file `libdelrefids52.a` that is included with Tivoli Identity Manager version 4.5.1.

- **Problem:** When IBM Directory Server and Fix Pack 1 are installed, the following message occurs when the administration daemon restarts:

```
CNTR0019E: Non-application exception occurred
while processing method "send". Exception data: 32: No such object
```

Workaround: Ignore the message. The process did restart.

- **Problem:** The LDAP filter for dynamic organization roles can not contain spaces. If spaces occur in the LDAP filter, a dynamic role is not assigned after the person is added. For example, the following filter contains spaces:

```
( | (sn=xyz) (sn=abc) )
```

Workaround: Remove spaces from the LDAP filter statements that you specify.

WebSphere MQ Problems and Workarounds

Problems and workarounds related to WebSphere MQ include the following:

- **Problem:** An error occurs creating the queue manager. The error in the `Amqerr*.log` file is the following:

```
AMQ9213: A communications error for TCP/IP occurred.
```

```
EXPLANATION:
```

```
An unexpected error occurred in communications.
```

```
ACTION:
```

```
The return code from the TCP/IP (ioctlsocket) call was 10038 (X'2736'). Record these values and tell the systems administrator.
```

Workaround: The 10038 return code indicates that the WebSphere MQ listener pool has had trouble passing the initial socket from the listener to the pool. This

is rather common in environments that have a firewall. To work around the problem, disable the pool with the following environment variable:

```
set MQNOREMPOOL=1
```

- **Problem:** Error messages indicate problems with WebSphere MQ queue connections, possibly on the SendMessage side. The queue connection factory and the destination queues appear to be set up correctly, but the workflow (itim_wf) and workflow pending (itim_wf_pending) queues are in an incorrect or unusable state.

An example selection of error messages might include the following:

```
CNTR0019E: Non-application exception occurred while processing
method "send". Exception data: (data not shown...)
```

The Connection Manager received a fatal connection error from the Resource Adaptor for resource JMS\$ITIM Queue Connection Factory\$JMSManagedConnection@1010457898. The exception which was received is javax.jms.JMSException: MQJMS2008: failed to open MQ queue

Workaround: As an example using AIX, re-create the WebSphere MQ queues by doing the following:

1. In the /usr/WebSphere/AppServer directory, enter the following command:

```
deletemq.sh
```

Provide the cellname, node name, and queue name. You can find these values in the createMQ.nodename_jmsserver.log file that is located in the /usr/WebSphere/AppServer/logs directory. For example, enter:

```
./deletemq.sh ITIM-45AIXCluster1 faith jmsserver
```

Ensure that no mqm processes continue to run. If processes are still running, reboot the computer.

2. In the /usr/WebSphere/AppServer directory, enter the following command:

```
createmq.sh
```

Provide the cellname, node name, and queue name. You can find these values in the createMQ.nodename_jmsserver.log file that is located in the /usr/WebSphere/AppServer/logs directory. For example, enter:

```
./createmq.sh ITIM-45AIXCluster1 faith jmsserver
```

Restart the JMS server.

- **Problem:** Lost WebSphere MQ connections occur. Although adequate free disk space and real memory are available, the following error message is issued:

```
AMQ7463: The log for queue manager WAS_timwin7_jmsserver is full.
```

Additionally, a message such as the following occurs, which relates to an out-of-resources condition:

```
MQJE001: Completion Code 2, Reason 2102
```

Workaround: The AMQ7463 message is issued when an attempt to write a log record is rejected because the log is full. The queue manager will attempt to resolve the problem.

This situation may be encountered during a period of unusually high message traffic. However, if you persistently fill the log, you must consider the following:

- Increase the number of log files by changing the values in the queue manager configuration file. You will then have to stop and restart the queue manager.
- Alternatively, make the log files themselves larger. You will have to delete and recreate the queue manager.

- **Problem:** The following JMS exception occurs while trying to create queue connections:

```
MQJMS2005: failed to create MQQueueManager for '<identifier>_server1'
```


Workaround: None. This intermittent network problem can occur even when WebSphere MQ (in this case, the Embedded Messaging Server) is on the same machine as the WebSphere Application Server because a client (channel) connection is being made to the queue manager. The problem would probably not occur if a bindings connection were used. However, the Embedded Messaging Server uses a client connection, and this is not a configurable option.

Agent Problems and Workarounds

Problems and workarounds related to agents for Tivoli Identity Manager include the following:

- The Tivoli Identity Manager server and the agents support the server (one-way) encryption of the data exchanged between the applications. **Not supported** is client (two-way) authentication to verify the identity of the application on the other end of a network connection.

Note: This statement takes precedence over existing statements and illustrations in both server and agent publications that assert support for two way authentication.

- **Problem:** The Tivoli Identity Manager Server at version 4.5.1 (which is Fix Pack 1) is not certified to work with Tivoli Identity Manager agents that use the FTP protocol.

Workaround: Contact IBM customer support for additional information on certification of Tivoli Identity Manager agents that use the FTP protocol.

- **Problem:** Agents provided for Tivoli Identity Manager Version 4.4.x do not run without modification with Tivoli Identity Manager Version 4.5. An agent provided for Version 4.4.x is defined as compatible with use with IBM Directory Server.

Workaround: Agents will run with Tivoli Identity Manager Version 4.5 after the service profile is successfully installed. Do the following to complete the installation of the agent's service profile:

1. Run the agent's service profile installation command. This will create an *agentnameprofile* directory with the name of the agent, appending the string "profile". For example, a Windows NT directory is:

```
nt40profile
```

The *agentnameprofile* directory will contain a file named *resource.def*.

2. Copy the contents of the *agentnameprofile* directory into the following directory:
 - Windows: *'ITIM_HOME\data\remote_resources'*
 - UNIX: *ITIM_HOME/data/remote_resources*

Note: Note: This step is unnecessary if the agent's profile installation utility already created the *ITIM_HOME/data/remote_resources/agentnameprofile* directory with the correct files.

3. Edit classpath statements in the *resource.def* file in the remote resources directory as follows:
 - Change *com.access360.enrole* to *com.ibm.itim*.
 - Change *com.access360* to *com.ibm*.
4. Locate the **config_remote_services** command in the following directory:
 - Windows: *ITIM_HOME\bin\win*
 - UNIX: *ITIM_HOME/bin/unix*

In the `config_remote_services` command, ensure that `JAVA_HOME` is set as follows:

- WebSphere Application Server: `%WAS_HOME%\AppServer\java`
- WebLogic: `%BEA_HOME%\jdk131_06`

5. Run the following command:

- UNIX:
`'ITIM_HOME/bin/unix/config_remote_services' agentnameprofile`
- Windows:
`'ITIM_HOME\bin\win\config_remote_services' agentnameprofile`

where `agentnameprofile` is the name of the directory created in a previous step.

6. To determine whether the agent profile is now available for use as a service type, start the Tivoli Identity Manager graphical user interface. Click **Provisioning** → **Manage Services** → **Add**. Examine the resulting menu to determine if the service profile exists for the agent.

Other Problems and Workarounds

Additional problems and workarounds include the following:

- **Problem:** During the Tivoli Identity Manager dynamic role add/remove process, the affected user population for the role change may become too large. The dynamic role assignment task may take longer than the default activity timeout (5 minutes). When the timeout is exceeded, the workflow engine times out and terminates the role change activity. The process issues a warning that indicates the role change has been terminated.

Workaround: Increase the default timeout value to support the load. Modify the following system workflow files in the `ITIM_HOME\data\workflow_systemprocess` directory:

- `adddynamicrole.xml`
- `changedynamicrole.xml`
- `removedynamicrole.xml`

In each file, increase the `LIMIT` attribute for the `ROLE_CHANGE` activity. The timeout value is defined in milliseconds. For example, the following specifies a timeout of 1 hour:

```
ACTIVITY ACTIVITYID="ROLE_CHANGE" LIMIT="3600000"
```

- **Problem:** Information should be available for services affected by multiple password change requests, and the user should be able to set the Requestee of the main process for multiple password change requests.

Workaround: To add the information about account and service name into all the sub-requests of a multiple password change request, you must change the workflow for the `changePassword` operation. Do the following:

1. Insert the following JavaScript in the `START` node of the `changePassword` operation for `Accounts`. This script will update the audit log entry of the request "Account Password Change" to display "Account Name/Service Name" in the subject field.

```
var account = Entity.get();
var accountName = account.getProperty("eruid")[0];
var serviceDn = account.getProperty("erservice")[0];
var service = new Service(serviceDn);
var serviceName = service.getProperty("erservicename")[0];
var subjectData = accountName + " / " + serviceName;
process.setSubjectData(subjectData);
```

- To enable the JavaScript to work correctly, ensure that the following line is present in the `fesiextensions.properties` file:

```
"fesi.extension.Workflow.Model=com.ibm.itim.fesiextensions.ModelExtension"
```

- **Problem:** The Requestee column displays an unexpected value of the CommonName in a Person self registration.

Workaround: Modify the selfRegister operation of the Person entity. Do the following:

Note: The value of Name Attribute in **Configuration** → **Entities tab** → **Person** must be set to `sn`. If the value of Name Attribute is changed back to `cn`, remove the script node.

- Log on as ITIM manager.
- Click **Configuration**.
- Click **Entity Type**.
- Select **Person** in the drop-down menu.
- Click **selfRegister** as the operation.
- On the selfRegister workflow, insert a uniquely-named script node between the Start and the selfRegister Approval nodes.
- Double-click the new script node.

The Properties: Script Node window appears.

- In the Properties window, enter the following Java script:

```
var personData = person.get();
var snValue = personData.getProperty("sn")[0];
process.setRequesteeData(snValue);
```

- Click **OK**. Save the operation.

- **Problem:** If the dateinput mode is in read-only mode, the user sees the time displayed in 12-hour format, and no indicator of morning (a.m.) or afternoon (p.m.) time is provided.

Workaround: Set the dateinput mode field to read/write mode. The time is displayed in 24-hour format and is correctly understood. As administrator, do the following:

- Select **Configuration** → **User Interface Customization**.
- Select **Identity Manager User** in the left column and then select **ITIMAccount**.
- Select `erpswdlastchanged` on the panel.
- In the format tab of the Properties section, ensure the field is in read/write mode. That is, the field is not checked for Read-only on Modify. Save the changes.

If the dateinput field is in readonly mode, modify the following line in the `Labels.properties` file in the `ITIM_HOME\data` directory:

```
readOnlyDateFormat=MMM dd, yyyy hh:mm:ss z
```

To read as follows:

```
readOnlyDateFormat=MMM dd, yyyy hh:mm:ss a z
```

- **Problem:** A numeric string appears in the GUI for `ou` and `"1"` (location) attributes. Instead of a numeric string, a text description is desired.

Workaround: Map the `"1"` attribute to the `"description"` attribute by changing the attribute `"errdnattr"` of the Location object profile from `"1"` to `"description"` in the local directory. However, if the mapping of `errdnattr` is changed to point to a different attribute than the default, that attribute must be a required field. For example, the Description attribute becomes mandatory for the Location entity.

- **Problem:** Using Tivoli Identity Manager on AIX, account creation can fail when the length of a user name exceeds a platform-imposed limit. For example, you create an account successfully for a name such as my8chars. However, account creation fails for a user name that exceeds eight characters in length, such as my9charss.

Workaround: Limit user names to a platform-specific length or modify the Tivoli Identity Manager identity policy to prevent errors. For more information on changing an identity policy, refer to the *IBM Tivoli Identity Manager Policy and Organization Administration Guide*.

- **Problem:** Tivoli Identity Manager applets will not load and workflow problems occur.

Workaround: If Internet Explorer has the Use Java 2 *version* for *applet* item checked on the Advanced Tab of the Internet Options dialog, uncheck **Use browser settings** on the Proxies tab of the Java Plug-in Control Panel. If both are checked, the Tivoli Identity Manager applets will not load.

To locate the Use Java 2 *version* for *applet* item, open Internet Explorer and click **Tools -> Internet Options**. Scroll the Advanced tab list box.

To locate the Java Plug-in Control Panel, click **Start -> Settings -> Control Panel**. On the Control Panel, double-click **Java Plug-in <version>**. Select the Proxies tab.

Additionally, ensure that the WebSphere Application Server Fix Pack 2 is also applied on the computer on which the Web server is installed. Stop the WebSphere Application Server plug-in before installing the Fix Pack. If the problem persists after applying Fix Pack 2, apply the WebSphere Application Server Plug-in Cumulative Fix for 5.0.0, 5.0.1 and 5.0.2. The fix is at the following Web address (enter on one line):

```
http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP
&q=plugin+&uid=swg24004524&loc=en_US&cs=utf-8&lang=en
```

- **Problem:** Exclusive access exception generated when Tivoli Identity Manager is started.

Workaround: When the Tivoli Identity Manager process is killed abruptly and then restarted, an exclusive access exception can be generated. This is caused by .lok files located under the server directory of the Tivoli Identity Manager home directory. Delete the .lok files and restart Tivoli Identity Manager.

- **Problem:** NullPointerException in SearchMO.toString()

Workaround: Tivoli Identity Manager 4.5 does not support the use of WebSphere Application Server HTTP session tracing as a debugging mechanism. Turning on IBM HttpSession tracing on WebSphere Application Server causes a NullPointerException in the SearchMO.toString() method.

- **Problem:** Saving and Printing Reports

Workaround: To save the report in PDF format or in CSV format, select **Save As** from the **File** menu option in the report output window. Browse to the required directory and enter a valid file name and save the document. Both the PDF and CSV format reports can be printed. CSV reports enable users to print reports which do not fit on a single page. To print a CSV report:

- Select the CSV report format while generation of report.
- Click **File->Save As**, select **Save As type** as Microsoft Excel Workbook.
- Provide a valid location and file name for saving the report.
- Open the report using Microsoft Excel or any other XLS file reader.
- Use the print option to print the document.

- **Problem:** Cannot determine if synchronization is running or determine the status of the last synchronization.
Workaround: Status is displayed in the Data Validity field located on the Schedule List page. Possible values are:
 - No Data synchronized
 - In progress
 - Invalid
 - Date and time when last synchronization completed
- **Problem:** A user who tries to modify an existing policy discovers that clicking **Submit** and then clicking **Reset** does not reset the modified fields.
Workaround: Click **Reset** first. Do not click **Submit** and then click **Reset**.
- **Problem:** The Service.createEntity() method will not work when deployed on a remote client.
Workaround: Avoid using these methods on a remote client. Both of the createEntity methods of class Service have been marked as deprecated in the API help.
- **Problem:** When the naming Context is different between Tivoli Identity Manager and IBM Tivoli Directory Integrator, no error message occurs.
Workaround: None.
- **Problem:** Clicking **Reset** on the Add/Modify Person form does not reset the organizational role. For example, an entry sequence that fails to reset the organization role is the following:
 1. Log on to Tivoli Identity Manager.
 2. Click **My Organization**.
 3. Click **Manage People**.
 4. Click **Add**.
 5. Select a Person and click **Submit**.
 6. Select an entry in the Organizational role.
 7. Click **Reset**.**Workaround:** Reset does not apply to this field. Click **Search** to search and add. Click **Delete** to delete an organizational role from this field.
- **Problem:** Executing the API to delete an account (in this case, an ITIM account) fails to check if the account is required by an Automatic Provisioning Policy.
Workaround: None.
- **Problem:** The process.auditEvent() extension does not display data in the audit trail. When used in a workflow definition, this extension should insert a line with the text and a timestamp into the Process Details.
Workaround: None.
- **Problem:** After you set attribute permissions on the Provisioning -> Service Selection Policy dialog, the attribute values are not displayed after a search.
Workaround: Use the Provisioning main menu to locate the policy in the organization tree. Click on the policy name to view the detail in the policy list.
- **Problem:** During a restore account activity, selecting Create Password should not allow the user to enter a new password. You should not be able to edit the password field if the create password checkbox is selected.
Workaround: If the Create Password checkbox is checked, then the new and confirm password are ignored. To set the new password, do not check the Create Password checkbox.

- **Problem:** Creating a Windows 2000 account does not allow some attributes to be set. An example message is the following:
"The request was successfully processed but some of the attributes could not be set: erW2KDialinCallback, erW2KAllowDialin"
Workaround: Examine the Windows 2000 agent for the computer on which the account is created. This error occurs when a new service profile is installed without deleting the old service profile. Delete the old service profile and install a new service profile. Try to create the account again.

ContainerSearch JavaScript Extension

Problem: Documentation is needed for the ContainerSearch JavaScript extension, which is used in the SelfRegistration workflow.

Workaround: By default, the ContainerSearch JavaScript Extension can be accessed from the Workflow Designer and Service Selection Policies within Tivoli Identity Manager. The ContainerSearch JavaScript Extension implements the `OrganizationalContainerSearch` class.

The syntax for searching for a container is the following:

```
searchByFilter(String containerName, String filter, [int scope])
```

For example:

```
var locationContainer = new ContainerSearch();  
var thisLocation = locationContainer.searchByFilter("Location", "(!Raleigh)", 2);
```

The API Javadoc for this class is located in the following directory:

```
ITIM_HOME/extensions/api/com/ibm/itim/dataservices/model/domain/
```

Chapter 4. Documentation Notes

This chapter describes problems and workarounds for the product documentation.

Policy and Organization Administration Guide is More Current than Online Help

The *IBM Tivoli Identity Manager Policy and Organization Administration Guide* is more current than the online help provided for the product. Where differences occur, the information in the guide takes precedence.

Publication Title Changes

The following publication title changes were made to provide similarity in titles across Tivoli libraries:

Previous Title	New Title
<i>IBM Tivoli Identity Manager Troubleshooting Guide</i>	<i>IBM Tivoli Identity Manager Problem Determination Guide</i>
<i>IBM Tivoli Identity Manager Server Configuration Guide</i>	<i>IBM Tivoli Identity Manager Configuration Guide</i>

Adobe Acrobat Reader Requirements

For the best results, use Adobe Acrobat Reader, version 4.05 or higher, to view and access Tivoli Identity Manager documents. Adobe Acrobat Reader is available at the following Web site:

<http://www.adobe.com/products/acrobat/readstep2.html>

Chapter 5. Internationalization Notes

The following solutions address problems in the translated documentation:

- **Problem:** In Japanese, the subject is unreadable in mail notification from Tivoli Identity Manager on Microsoft Outlook Express.

Workaround: Open the message list. The subject is readable in the message list. Additionally, you can click the message in message list to obtain a readable subject in a separate window.

Chapter 6. APARs and Other Problems that are Fixed

This section lists APARs and other fixed problems.

APARs

The following APARs were fixed at Tivoli Identity Manager release 4.5.1:

APAR	Description
IY49194	'PARAMETERS.ERUID' is not initialized for new accounts.
IY49372	Application breaks WebSphere Application Server security enabled after LTPA timeout is reached. This only affects the WebSphere Application Server.
IY49376	Upgrade from 4.3 does not create 'getDN' function used by custom reporting. This LA Interim fix includes two documents: IY49376_MSSQL_README.txt and IY49376_Oracle_README.txt. These documents provide information needed to make this work.
IY49566	HR feed is too slow.
IY50099	parameters.eruid(0) cannot be used in eruid field.
IY50117	Custom reports do not show up in the "Target" list. The following information was left out of the publications that discuss custom report file <code>adhocreporting.properties</code> . Edit this file and set <code>availableForNonAdministrators=true</code> . Note: Users must do a complete data synchronization after setting this value to true in order to get correct reports.
IY50253	Internet Explorer version 6 browser crashes when previewing report.
IY50335	Trying to authenticate a user with a lock or inactive with uid and pw - API throws an account inactive exception.
IY50444	Documentation change. Appendix C in the Tivoli Identity Manager server installation guides incorrectly refers to using "mqvr". It should be "mqver".
IY50564	Custom reporting data sync takes over 15 hours to complete.
IY50704	In Home/View Completed Requests, the name of the requestee is displayed on the "Subject" column. Document information on using Java scripts.
IY50774	When restoring a suspended account, you are forced to change the password.
IY50780	Custom Join directive does not seem to ignore unmanaged RACF groups.
IY50836	Set property command seems to not be working properly and places all occurrences in the first occurrence.
IY50846	Search widget only displays 1000 objects.
IY50847	Security exposure
IY50848	Tivoli Identity Manager returns error on hosted service account creation.
IY50854	White screen occurs sporadically.
IY51091	Tivoli Identity Manager not handling change of RACF default group.
IY51208	Unable to delete the provisioning policy with a Domain user who is admin of an ITIM group.

APAR	Description
IY51226	The Date widgets in the UI (specifically for person records, but this should affect all forms) show the current date/time when the field is read-only and the data for this field is blank.
IY51227	If the Crystal report has multiple user input fields, they are not aligned properly on the Run report screen.
IY51230	NullPointerException during Crystal Report execution after selecting user inputs from a list of default values (Discrete/Range).
IY51231	Nullpointer exception when the export/goto page/print functions called in the Crystal Viewer.
IY51232	Database error thrown when the tables that store entitlements were populated.
IY51233	Database error thrown when the tables that store entitlements were populated.
IY51234	The data synchronization page should show the time of the data synchronization only.
IY51235	XML processing error if the default values in Crystal Reports contain XML characters.
IY51254	E-mails sent out from the system have a blank value in the TO: field.
IY51287	CLI-X agent unable to provision accounts.
IY51308	Tivoli Identity Manager wrong name displayed on details of entitlement.
IY51416	LDAP erPswdLastChanged date is stored differently after last change date.
IY51418	Unable to get orphan accounts from "Search" due to an error.
IY51438	Label doesn't wrap. Change documentation to explain how to change the enroll.xsl.
IY51740	Challenge/Response questions need to be scrolled horizontally.
IY51742	Challenge/Response questions need to be sorted in ascending order.

Other Fixed Problems

The following problems are also fixed:

- AND joins only evaluate the immediate predecessors of the destination activity before continuing. The expected behavior is that all predecessors on each path leading from START to the target join are evaluated to determine if an incoming path is active.

If an immediate predecessor of the destination activity has not been reached before an incoming transition on an alternate path is traversed, that predecessor's path will be ignored.

- APIs for Tivoli Identity Manager do not work when certain WebSphere Application Server security configurations are enabled. In a WebSphere environment with security enabled, you may encounter Tivoli Identity Manager Server authentication exceptions when running an application API example (or your own application based on the application APIs).
- AS/400 Agent does not work with Tivoli Identity Manager 4.5 Server.
- Build command for self registration fails as it does not find the required jar file.
- Changing dynamic role with many people fails with SQL error during automatic provisioning.

- Changing the user ID of an existing Tivoli Identity Manager account fails with JNDI error.
- Challenge and Response API allows authentication for suspended Tivoli Identity Manager accounts.
- Completed requests for DSML feeds recorded in GMT time which may be different from the system time.
- Configuring security policy for clusters
- context.isAccountDataChanged("attr-name") does not work in provisioning workflow.
- Custom report synchronization request fails to start in a functional cluster. Custom reporting is not supported for functional cluster configuration. Scheduled custom reporting data synchronization requests remain as "Not Started" in the Pending Request queue in functional cluster installations.
- Date input field on customized form modifies the specified date before storing it.
- Disabling a Provisioning Policy containing large number of affected users (50,000) may result in a JMS locking error.
- Increase enrol_data tablespace size.
- LDAP indexes should be consistent between Sun ONE and IBM Directory Server.
- LDAP attributes (common) should be indexed.
- List of people is no longer accessible after the user spends extensive time in Workflow design.
- Memory leak observed with Tivoli Identity Manager running on WebLogic on HP/UX platform.
- Multiple concurrent administrators searching in the Tivoli Identity Manager product may result in Null Ptr in com.ibm.itim.webclient.search.SearchUtility.bindToSession for some users.
- OutOfMemory error on WebLogic.
- process.id JavaScript variable returns incorrect value.
- RequestManager API: Trying to get pending request for the requester is failing with an SQL exception.
- Restoring a person and the person's account(s) with a password, In the Tivoli Identity Manager Server user interface, does not provide the password to the workflow.
- SchemaViolation reported from the SelfRegistrationManager.
- Self-Registration with Weblogic ('build selfReg'): fails unless Resource Bundle directory 'en' (under 'sr' directory) is in the class-path of the web-application.
- Suspend and restore operations will modify the person object, but do not include the person's managed objects/accounts. To include managed objects and accounts, modify the existing methods and provide a property (com.ibm.itim.personManagement.suspendRestorePersonWithAccounts=true | false).
- "View pending requests" page cannot be displayed during start of provisioning request affecting many users (such as 3000). Timeout message is shown in log.
- Workflow approval does not work after Tivoli Identity Manager upgrade.
- Workflow Designer: Transition condition is cleared when moving lines to other nodes.
- Workflow engine has "Out of memory" errors when doing a policy enforcement by changing compliancy from mark to correct. (Increasing timeout seems to fix it.)

- Workflow engine deadlocks under stress with IBM DB2 and multiple workflow threads.
- Revisions for IBM Tivoli Identity Manager Problem Determination Guide -- Preface.
- Password changes issued for Exchange 2000 and other non-password type agents.
- Password rules override provisioning policy. (Could not reproduce error.)
- Policy validation takes a long time when 10K users loaded in the directory.
- Scheduling a person transfer, but deleting the destination OU before the transfer occurs, causes the person to be deleted from their original OU. The person should be left there, and an appropriate message logged.
- Service Selection Policy - the JavaScript object searchForClosestToPerson is not working.
- Space in a tenant name causes the challenge/response link to be corrupted by the space in the tenant id. This prevents a new user from logging in successfully.
- Tivoli Identity Manager should not be calling System.gc().

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