

# **Entire Net-Work**

## **Installation**

Version 7.7.1

November 2017

This document applies to Entire Net-Work Version 7.7.1 and all subsequent releases.

Specifications contained herein are subject to change and these changes will be reported in subsequent release notes or new editions.

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## Preface

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This documentation explains how to install, license, and uninstall Entire Net-Work. Entire Net-Work is middleware that provides a common communication service for database applications, query tools, cooperative processing applications, application development tools, and other software.

The audience for this Entire Net-Work documentation includes users who want to install it.

This installation and licensing document for Entire Net-Work is organized as follows:

<i>Installing and Uninstalling Entire Net-Work Server, in the Entire Net-Work Server LUW Installation and Administration Guide</i>	Describes the steps necessary to install Entire Net-Work Server. For information about Entire Net-Work Server installation tasks, read <i>Entire Net-Work Server LUW Installation and Administration Guide</i> .
<i>Installing and Uninstalling Entire Net-Work Client, in the Entire Net-Work Client Installation and Administration Guide</i>	Describes the steps necessary to install Entire Net-Work Client. For information about Entire Net-Work Client installation tasks, read <i>Entire Net-Work Client Installation and Administration Guide</i> .
<a href="#">SSL Random File Requirements on UNIX Systems</a>	Describes the random file required when setting up SSL on UNIX systems.
<a href="#">Port Number Reference</a>	Provides a reference to default ports commonly used by Software AG management components and Entire Net-Work.

### Conventions

Notation *vrs* or *vr*: When used in this documentation, the notation *vrs* or *vr* stands for the relevant version, release, and system maintenance level numbers. For further information on product versions, see *version* in the *Glossary*.

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# 1 SSL Random File Requirements on UNIX Systems

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If you will be using SSL on UNIX platforms, a random file is required. This file contains entropy data that is used for generating random numbers by the SSL symmetric key allocation routines. System random files can usually be found as *\*.rnd* files in the */dev/random* or */dev/urandom* directories. If these devices are not available on your system, contact your system administrator for assistance with installing them; some systems may require a patch.

In lieu of setting up a system random file, you can use a personal random file. For instructions on setting up a personal random file, refer to your system administrator.

Random files are identified to the system in one of the following ways:

- The \$RANDFILE environment variable can be set to the location of the random file.
- A random file (*\*.rnd*) can be stored in the current directory.
- A random file (*\*.rnd*) can be stored in the \$HOME directory.
- The RANDOM\_FILE URL parameter can be used to specify the location of the random file.



**Note:** Windows platforms have their own automated methods of establishing the random file; consequently the manual identification or setup of a random file is not necessary in Windows.





## 2 Port Number Reference

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This chapter describes the ports that are needed by Adabas LUW and Entire Net-Work LUW products to perform its processing and how they can be assigned.

## Port Overview and General Assignments

The following table describes the ports that are needed by Entire Net-Work to perform its processing and any default ports assumed by Entire Net-Work. You should consider avoiding the use of these default port numbers for other applications.

Software AG Product Component	Ports Needed	Default Port Number
Adabas Manager Communication Client	One port is needed.	4980
Adabas Directory Server	One port is needed for Entire Net-Work requests to the Directory Server	4952 (IANA port)  <b>Note:</b> If older versions of Entire Net-Work (older than 7.3) are in use, this port number may need to be changed to 12731.
Entire Net-Work Administration LUW	One port is needed for System Management Hub (SMH) administration tasks	dynamically assigned
Entire Net-Work Kernel	A port is needed for Kernel access by clients	dynamically assigned
	A port is needed for Kernel access via e-business connections (Entire Net-Work 7 or later)	dynamically assigned
	A port is needed for Kernel access via classic RDA connections (Entire Net-Work 2)	7869
	A port is needed for System Management Hub (SMH) administration of Kernels	dynamically assigned

Software AG has registered port number 4952 with the Internet Assigned Numbers Authority (IANA) for use by the Adabas Directory Server. For more information about Directory Server port number specifications, read *The Directory Server Port Number* in the *Software AG Directory Server Installation and Administration Guide*. For information on changing the Directory Server port number for an Entire Net-Work installation, read [Changing the Adabas Directory Server Port Number](#).

In general, there are no default port numbers assigned to Entire Net-Work Kernels or clients. These are dynamically assigned by Entire Net-Work when the Kernel or client is started, unless you specify a specific port or range of ports to use when you define the Kernel or client. If you set the port number to "0", the Entire Net-Work will dynamically assign a port.

Port numbers are dynamically assigned by Entire Net-Work when the Kernel or client is started, as follows:

- Entire Net-Work searches for the first available port starting from port 49152 through 65535. (The starting search port number, 49152, is the IANA-recommended value from which to start.).
- Once an available port number is found, it is assigned to the Kernel or client in its Adabas Directory Server entry.

While defining Entire Net-Work Kernels, you can also select a specific port or specify a range or list of port numbers that Entire Net-Work should search during the process in which it dynamically assigns a port to the Kernel:

- To specify a specific port number, enter the number in the port number field when you define the Kernel.
- To specify a range of port numbers that Entire Net-Work should search to dynamically assign a port, list the starting and ending ports in the port number field when you define the Kernel, separated by a dash (-). For example, a specification of "9010-9019" would cause Entire Net-Work to search for the first available port between and including port numbers 9010 and 9019.
- To specify a list of port numbers that Entire Net-Work should search to dynamically assign a port, list the port numbers in the port number field when you define the Kernel, separated by commas (.). For example, a specification of "9010,9013,9015,9017,9019" would cause Entire Net-Work to search for the first available port from this list of ports, starting with port 9010 and working from left to right through the list.
- You can, of course, combine search ranges and lists in a port number field. For example, a specification of "9010-9019,10020,10050-10059" would cause Entire Net-Work to search for the first available port first in the 9010-9019 range (inclusive), then port 10020, and finally in the 10050-10059 range (inclusive). The first available port that Entire Net-Work encounters would be used for the Kernel.

If no available port is found in a specified range or list, an error occurs.

For more information about adding Kernels, read *Adding Kernel Configuration Definitions* in the *Entire Net-Work Server LUW Installation and Administration Guide*.

## Changing the Adabas Directory Server Port Number

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➤ **If you need to change the Directory Server port number for your installation, follow these steps:**

- 1 Within the settings for Entire Net-Work Client and any client configurations definitions, change all specifications for the Directory Server port number to the new port number you want to use. Directory Server port numbers can be changed for Entire Net-Work Client and the client configurations using the System Management Hub (SMH), as follows:
  1. Start up SMH and access the Entire Net-Work Client SMH administration area. For more information about the Entire Net-Work Client SMH administration area, read *The Entire*

*Net-Work Client SMH Administration Area*, in the *Entire Net-Work Client Installation and Administration Guide*.

2. Right-click on the name of a client machine listed under **Clients** in the Entire Net-Work Client SMH administration area.
3. Select the **Set Parameters** command from the drop-down menu that appears.

The **Set Client Parameters** panel appears in detail-view. For complete information about this screen, read *Setting Client Parameters*, in the *Entire Net-Work Client Installation and Administration Guide*.

4. On the **Set Client Parameters** panel, change the Directory Server port number to the new port number you want to use in the SAGXTSDSPORT field.
  5. On the **Set Client Parameters** panel, click on **Update all Client Configurations**. A check mark should appear for this option.
  6. Click **OK** to save the settings for the client machine and all of the client configurations associated with it.
- 2 Within the settings for Entire Net-Work Server and any Kernels definitions, change all specifications for the Directory Server port number to the new port number you want to use. These port numbers can be changed using the System Management Hub (SMH), as follows:

1. Start up SMH and access the Entire Net-Work Server SMH administration area. For more information about the Entire Net-Work Server SMH administration area, read *The Entire Net-Work Server SMH Administration Area*, in the *Entire Net-Work Server LUW Installation and Administration Guide*.
2. Right-click on the name of an Entire Net-Work Server listed under **Servers** in the Entire Net-Work Server SMH administration area.
3. Select the **Set Server Parameters** command from the drop-down menu that appears.

The **Server Parameters** panel appears in detail-view. For complete information about this screen, read *Setting Server Parameters*, in the *Entire Net-Work Server LUW Installation and Administration Guide*.

4. On the **Server Parameters** panel, change the Directory Server port number to the new port number you want to use in the SAGXTSDSPORT field.
  5. On the **Server Parameters** panel, click on **Update all Kernels**. A check mark should appear for this option.
  6. Click **OK** to save the settings for the server and all of the Kernels associated with it.
- 3 Shut down the Entire Net-Work Client service or daemon and the Entire Net-Work Server service or daemon, as appropriate. Be sure to shut down every Kernel associated with the server as well.

For information on shutting down the Entire Net-Work Client service or daemon, read *Stopping Entire Net-Work Client* in the *Entire Net-Work Client Installation and Administration Guide*. For information on shutting down the Entire Net-Work Server service or daemon, read *Stopping Entire Net-Work Server* in the *Entire Net-Work Server LUW Installation and Administration Guide*.

- 4 Shut down the Directory Server service or daemon.

For information on shutting down the Directory Server service or daemon, read *Starting and Stopping the Adabas Directory Server*, in the *Software AG Directory Server Installation and Administration Guide*.

- 5 Modify the Directory Server installation, as appropriate for the operating system. When prompted, change the Directory Server port number to the new port number you want to use.
- 6 Start up the Directory Server service or daemon, if it is not automatically started after its installation was modified.

For information on starting up the Directory Server service or daemon, read *Starting and Stopping the Adabas Directory Server*, in the *Software AG Directory Server Installation and Administration Guide*.

- 7 Start up the Entire Net-Work Client service or daemon and the Entire Net-Work Server service or daemon.

For information on starting up the Entire Net-Work Client service or daemon, read *Manually Starting Entire Net-Work Client* in the *Entire Net-Work Client Installation and Administration Guide*. For information on starting up the Entire Net-Work Server service or daemon, read *Manually Starting Entire Net-Work Server* in the *Entire Net-Work Server LUW Installation and Administration Guide*.

## About System Management Hub Ports

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For information about any System Management Hub installation issues, including port number settings, read *Installing webMethods Products* in Empower.



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