

# **Event Replicator Target Adapter**

## **Installation Guide**

Version 3.2

July 2018

This document applies to Event Replicator Target Adapter Version 3.2 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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## Table of Contents

Preface .....	v
1 Installation Overview .....	1
2 The License Key .....	3
License Key File Location and Use .....	4
The License Key File .....	4
3 System Requirements .....	5
Supported Operating System Platforms .....	6
Supported Hardware .....	7
Supplied Third-Party Software .....	7
Space Requirements .....	8
Memory Requirements .....	8
4 Prerequisite Products .....	9
JRE Requirements .....	10
Adabas Requirements .....	10
Event Replicator for Adabas Requirements .....	10
Entire Net-Work Administration Requirements .....	10
Messaging System Requirements .....	10
X-Windows Graphical Environment Requirement .....	11
Relational Database Requirements .....	11
5 Relational Database Installation Considerations .....	13
Installation Considerations for DB2 .....	14
Installation Considerations for DB2 on z/OS .....	15
Installation Considerations for Microsoft SQL Server .....	15
Installation Considerations for MySQL .....	17
Installation Considerations for Oracle .....	18
Installation Considerations for PostgreSQL .....	19
Installation Considerations for Teradata .....	20
6 Language Considerations .....	21
7 Installing and Uninstalling the Event Replicator Target Adapter .....	23
Before You Begin .....	24
Installation Steps .....	25
Uninstallation Steps .....	26
8 Migrating from a Previous Version .....	27
9 Running the Event Replicator Target Adapter as a System Service .....	29
10 Enabling Remote Management .....	31
11 Before You Use the Event Replicator Target Adapter .....	33
12 Starting Event Replicator Target Adapter Up Manually (UNIX Environments Only) .....	35
13 Supported Relational Databases .....	37
14 TCP/IP Port Number Reference .....	39
15 Before You Call Support .....	41
Index .....	43



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# Preface

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This document describes how to install the Event Replicator Target Adapter. Event Replicator Target Adapter can be used to transform and apply replicated Adabas mainframe data to a relational database, such as DB2, Microsoft SQL Server, MySQL, Oracle, PostgreSQL, or Teradata.

This document covers the following topics:

<i>Installation Overview</i>	Provides an overview of the installation of the Event Replicator Target Adapter.
<i>The License Key</i>	Describes the Event Replicator Target Adapter license key, whether one is necessary, where to find it, and how it gets implemented.
<i>System Requirements</i>	Describes the system requirements of the Event Replicator Target Adapter.
<i>Prerequisite Products</i>	Describes the prerequisite products of the Event Replicator Target Adapter.
<i>Relational Database Installation Considerations</i>	Describes installation considerations surrounding various relational databases.
<i>Language Considerations</i>	Describes language considerations if you want to replicate data in languages other than English.
<i>Installing and Uninstalling the Event Replicator Target Adapter</i>	Describes the steps you need to perform to install and uninstall the Event Replicator Target Adapter in Windows and UNIX environments.
<i>Migrating from a Previous Version</i>	Describes how to migrate from older versions of Event Replicator Target Adapter to this one.
<i>Running the Event Replicator Target Adapter as a System Service</i>	Describes the steps you must perform to run the Event Replicator Target Adapter as a system service.
<i>Enabling Remote Management</i>	Describes the steps you must perform to allow the Event Replicator Target Adapter to be managed remotely.
<i>Before You Use the Event Replicator Target Adapter</i>	Describes the steps you must perform before you can run the Event Replicator Target Adapter
<i>Starting Event Replicator Target Adapter Up Manually (UNIX Environments Only)</i>	Describes how to manually start up the Event Replicator Target Adapter in UNIX environments, if necessary.
<i>TCP/IP Port Number Reference</i>	Lists the TCP/IP ports used by the Event Replicator Target Adapter.
<i>Before You Call Support</i>	Describes the kinds of information you should collect before you contact your Software AG technical support representative.

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# 1 Installation Overview

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This product is installed using the Software AG Installer, which you can download from the Software AG Empower website at <https://empower.softwareag.com/>.

The Software AG Installer offers typical development installations of Software AG products. When you select a typical development installation, the installer automatically groups and selects the Software AG products and components that make up that installation.

- The Event Replicator Target Adapter Administration is part of the Event Replicator Target Adapter product suite. It is installed separately from Event Replicator Target Adapter Data Mapping Tool and the Event Replicator Target Adapter.
- The Event Replicator Target Adapter Data Mapping Tool is part of the Event Replicator Target Adapter product suite. It is installed separately from Event Replicator Target Adapter Administration and the Event Replicator Target Adapter.
- The Event Replicator Target Adapter installation is part of the Event Replicator Target Adapter product suite. It is installed separately from the Event Replicator Target Adapter Administration and the Event Replicator Target Adapter Data Mapping Tool. Included in the installation of the Event Replicator Target Adapter is the installation of an internal component called the Software AG ERTA Administration Service. This service enables running the Event Replicator Target Adapter as a system service and also allows communication with a remote administration console (for example on platforms, such as HP and zLinux, where the Event Replicator Target Adapter Administration tool cannot be installed)

The **Infrastructure** entry in the Software AG Installer includes the installation of Java. Java should be installed so it can be accessed by all products in the Event Replicator Target Adapter product suite and by the Software AG Installer.

You cannot ungroup installations that have been paired or grouped. However, you can select multiple installation configurations for installation at the same time. To configure your installation of these products and create effective production environments, work with your system administrators and Software AG Global Consulting Services.





# 2 The License Key

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- License Key File Location and Use ..... 4
- The License Key File ..... 4

A permanent license is required in order to run this product. Every time the software is initiated, the license key file is read and the validity of the license key is checked. As of version 3.1 of the Event Replicator Target Adapter, the license key is not required for the installation. The license is activated as a post-installation step after the installation of the Event Target Adapter Administration software. For details on how this is done, please read the section on Licenses in the Event Replication Target Adapter Administration documentation available in [Empower](#).

This chapter contains the following information on license keys for Event Replicator Target Adapter:

### License Key File Location and Use

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The Event Replicator Target Adapter license key file is generally distributed on distribution media, although, in special cases, it may be shipped via e-mail. The file name is in the following format, where *vr* is the version and release number of the product: *artvr.xml*.

Depending on your contract details, you may receive multiple license keys enabling you to replicate data to various target types. Copy the license key file(s) to a file location accessible to your installation of Event Replicator Target Adapter Administration. Refer to the Event Replicator Target Adapter Administration document for details on activating your license(s).

Your specific license(s) will determine what types of targets you are able to replicate data to using Event Replicator Target Adapter Administration. Without a valid license, any configured target that is not licensed will function in “demo mode” for 30 minutes from startup. Then, replication to this target will cease.



**Note:** The license file is sometimes transmitted via e-mail. If you received the file via e-mail, copy it to a directory accessible to Event Replicator Target Adapter Administration.

### The License Key File

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The license key file is provided as an XML document. This document can be viewed, using a browsing tool or text editor. It contains text representing the licensing information and a digital signature. It displays Software AG legal notices, copyright information, as well as the product license information.



**Caution:** Any modification of the license key file will invalidate the digital signature and the license key check will fail. If the check fails, you will not be able to install or run the product. In the event of a check failure, please contact your Software AG Support representative.

# 3 System Requirements

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- Supported Operating System Platforms ..... 6
- Supported Hardware ..... 7
- Supplied Third-Party Software ..... 7
- Space Requirements ..... 8
- Memory Requirements ..... 8

This chapter describes the system requirements of the Event Replicator Target Adapter.



**Note:** We recommend that you read the *install.txt* file in the CD root directory for last-minute information regarding the installation of the Event Replicator Target Adapter. We also recommend that you read the Event Replicator Target Adapter *ReadMe.txt* files for last-minute information regarding its operation. The Event Replicator Target Adapter *readme.txt* file can be found in the CD root directory.

## Supported Operating System Platforms

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Software AG generally provides support for the operating system platform versions supported by their respective manufacturers; when an operating system platform provider stops supporting a version of an operating system, Software AG will stop supporting that version.

For information regarding Software AG product compatibility with IBM platforms and any IBM requirements for Software AG products, please review the [Product Compatibility for IBM Platforms](#) web page.

Before attempting to install this product, ensure that your host operating system is at the minimum required level. For information on the operating system platform versions supported by Software AG products, complete the following steps.

1. Access Software AG's Empower web site at <https://empower.softwareag.com>.
2. Log into Empower. Once you have logged in, you can expand **Products & Documentation** in the left menu of the web page and select **Product Version Availability** to access the Product Version Availability screen.
3. Use the fields on the top of this screen to filter its results for your Software AG product. When you click the **Search** button, the supported Software AG products that meet the filter criteria are listed in the table below the filter criteria.

This list provides, by supported operating system platform:

- the Software AG general availability (GA) date of the Software AG product;
- the date the operating system platform is scheduled for retirement (OS Retirement);
- the Software AG end-of-maintenance (EOM) date for the product; and
- the Software AG end-of-sustained-support (EOSS) date for the product.



**Note:** Although it may be technically possible to run a new version of your Software AG product on an older operating system, Software AG cannot continue to support operating system versions that are no longer supported by the system's provider. If you have questions about support, or if you plan to install this product on a release, version, or type of operating system other than one listed on the Product Version Availability screen described above,

consult Software AG technical support to determine whether support is possible, and under what circumstances.

The Event Replicator Target Adapter Administration and the Event Replicator Target Adapter Data Mapping Tool are not supported in HP-UX or zLinux environments because the Eclipse RCP port is not available in those environments. You will need to have a Windows, AIX, Solaris or Linux installation of the Administration Tool and Mapping Tool to use them. The Administration Tool can remotely manage Event Replicator Target Adapter installations on those platforms where the Eclipse RCP is not supported.

## Supported Hardware

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For general information regarding Software AG product compatibility with other platforms and their requirements for Software AG products, visit Software AG's [Hardware Supported](#) web page.

## Supplied Third-Party Software

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The following products are automatically installed with the Event Replicator Target Adapter:

- Apache Axis
- Apache Commons Codec
- Apache Commons Discovery
- Apache Commons Logging
- Apache Log4j
- Apache Xerces
- Castor
- Jakarta Commons HTTP Client
- Jakarta Slide
- JavaBeans Activation
- JDOM
- Tomcat
- WSDL4J



**Note:** If a third-party vendor drops support for a version of one of their products or even for an entire product, Software AG automatically drops support for that version or product as well.

## Space Requirements

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A minimum of 100 MB disk space (assuming all components are selected for installation) is required to run all of the following products: Event Replicator Target Adapter Administration, Event Replicator Target Adapter Data Mapping Tool, and the Event Replicator Target Adapter.



**Note:** Additional space is needed to store log files. The amount of space needed depends entirely on the level of logging you select.

## Memory Requirements

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At least 2GB system memory is required to run this software.

1024 MB or more random access memory (RAM) may be needed, depending on the size of your transactions.

# 4 Prerequisite Products

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▪ JRE Requirements .....	10
▪ Adabas Requirements .....	10
▪ Event Replicator for Adabas Requirements .....	10
▪ Entire Net-Work Administration Requirements .....	10
▪ Messaging System Requirements .....	10
▪ X-Windows Graphical Environment Requirement .....	11
▪ Relational Database Requirements .....	11

This chapter describes prerequisite products for Event Replicator Target Adapter.



**Note:** If a third-party vendor drops support for a version of one of their products or even for an entire product, Software AG automatically drops support for that version or product as well.

## JRE Requirements

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The Software AG Installer installs the appropriate Java Runtime Environment (JRE) along with its infrastructure. This JRE does not interfere with any other JRE that might already exist on the same host machine on which Event Replicator Target Adapter is installed.

## Adabas Requirements

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Adabas version 8.2 SP2 or later, with appropriate zaps applied. Review the \$README members of these data sets for details on the zaps.

## Event Replicator for Adabas Requirements

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You must have Event Replicator for Adabas 3.3 SP2 or later installed to use the redefines and composite key features of the Data Mapping Tool.

## Entire Net-Work Administration Requirements

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Software AG's Entire Net-Work Administration version 6.2 SP1 or later is required only if you intend to upload GFBs directly from the Data Mapping Tool.

## Messaging System Requirements

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Either Software AG's webMethods EntireX or IBM's WebSphere MQ (with the IBM WebSphere MQ Client Attachment Feature enabled). These products are used to queue replicated data to a relational database as part of Event Replicator Target Adapter processing.



**Note:** WebSphere MQ might also be referred to in this product and its documentation as "MQSeries".



Regardless of which messaging system you elect to use, at least two queues must be defined: one receive queue (to receive the replicated data) and one send queue (to support any requests initiated from Event Replicator Target Adapter). In addition, you should make sure all maintenance is applied to the product you choose to use.

- If you elect to use webMethods EntireX, version 8.2 SP2 or later must be installed.

For information on integrating webMethods EntireX with Event Replicator, read *Using webMethods EntireX as the Messaging System* in *Event Replicator for Adabas Administration and Operations Guide*.

- If you elect to use WebSphere MQ, the minimum version supported by this product is V7R1M0 or later. All maintenance must be applied. In addition, the IBM WebSphere MQ Client Attachment Feature must be enabled for z/OS and the following MQ client drivers files must be obtained (either from an installation package or from IBM): *com.ibm.mq.jar*, *com.ibm.mqjms.jar*, *com.ibm.mq.jmqi.jar*, *com.ibm.mq.headers.jar*, *com.ibm.mq.commonservices.jar*, *connector.jar*, and *dhb-core.jar*. (These files are not included on the Event Replicator installation CD.) Once you have obtained these files, copy them to the appropriate Event Replicator Target Adapter subdirectory:

Platform	Directory
Windows	C:\<installation-directory>\EventReplicatorTargetAdapter\art\data\webapps\sqlrep\WEB-INF\lib By default, the <installation-directory> is "SoftwareAG".
UNIX	\$SAG/EventReplicatorTargetAdapter/art/TargetAdapter/webapps/sqlrep/WEB-INF/lib

For information on integrating WebSphere MQ with Event Replicator, read *Using WebSphere MQ as the Messaging System* in *Event Replicator for Adabas Administration and Operations Guide*.

## X-Windows Graphical Environment Requirement

UNIX and LINUX installations require an X-Windows graphical environment to run the Event Replicator Target Adapter Administration tool and the Data Mapping Tool.

## Relational Database Requirements

A relational database (RDBMS) must be installed. Java Database Connectivity (JDBC) drivers are required to communicate with an RDBMS.



**Note:** The official and complete list of supported RDBMS versions can be found in the *ReadMe* file for this release. However, the list of relational databases supported at the time of the release of this product and their required JDBC drivers is provided in [Supported Relational Databases](#), elsewhere in this guide.

Download the appropriate JDBC driver files from your relational database vendor or obtain them from an installation package and copy them to the appropriate Event Replicator Target Adapter subdirectory:

Platform	Directory
Windows	C:\<installation-directory>\EventReplicatorTargetAdapter\art\data\webapps\sqlrep\WEB-INF\lib. By default, the <installation-directory> is "SoftwareAG".
UNIX	\$SAG/EventReplicatorTargetAdapter/art/TargetAdapter/webapps/sqlrep/WEB-INF/lib

In addition, read *Installing the Event Replicator Target Adapter*, elsewhere in this guide, for information about the Event Replicator Target Adapter installation considerations related to a specific type of relational database.

# 5 Relational Database Installation Considerations

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▪ Installation Considerations for DB2 .....	14
▪ Installation Considerations for DB2 on z/OS .....	15
▪ Installation Considerations for Microsoft SQL Server .....	15
▪ Installation Considerations for MySQL .....	17
▪ Installation Considerations for Oracle .....	18
▪ Installation Considerations for PostgreSQL .....	19
▪ Installation Considerations for Teradata .....	20

This chapter describes installation steps and considerations related to your relational database that you should perform or review prior to installing the Event Replicator Target Adapter.

## Installation Considerations for DB2

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» To set up the DB2 environment to support Event Replicator Target Adapter, complete the following steps:

- 1 Install DB2 for open systems, if it is not already installed. For information on how to install DB2, refer to your DB2 documentation.  
 **Note:** When you install the DB2 database, you must specify an instance name or the DB2 installation will not continue.
- 2 Turn on TCP/IP support in DB2 and bind it to the default port 50000.
- 3 If DB2 is running on a remote PC, open the port 50000 exception in the Windows firewall of the remote PC.
- 4 Determine the URL for the DB2 database you created in these steps using the following URL format:

```
jdbc:db2://hostname:port/instance
```

You will need this URL later when configuring the DB2 database later for Event Replicator Target Adapter. Substitute the host name on which DB2 is installed for *hostname*, substitute the DB2 listening port for *port* (the default is 50000), and substitute the DB2 database instance name you created when you installed the DB2 database for *instance*.

When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the DB2 database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.

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## Installation Considerations for DB2 on z/OS

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➤ To set up the DB2 for z/OS environment to support Event Replicator Target Adapter, complete the following steps:

- 1 Install DB2 Connect (provided with DB2 Management Clients) on Windows.
- 2 Copy the *db2jcc\_license\_cisuz.jar* JDBC license driver file from the DB2 Connect installation directory (*<DB2 Connect installation directory>\SQLLIB\java*) to the Event Replicator Target Adapter directory for JDBC driver files (as described in *Prerequisite Products*, elsewhere in this guide).
- 3 Install DB2 Management Clients for z/OS. This is a z/OS application connectivity package to DB2 on z/OS and includes a component known as DB2 Universal Driver for z/OS.
- 4 Turn on TCP/IP support in DB2 for z/OS and bind it to a port.
- 5 Determine the URL for the DB2 for z/OS database in these steps using the following URL format:

```
jdbc:db2://hostname:port/instance
```

You will need this URL later when configuring the DB2 database later for Event Replicator Target Adapter. Substitute the host name on which DB2 is installed for *hostname*, substitute the DB2 listening port for *port*, and substitute the DB2 database instance name you created when you installed the DB2 database for *instance*.

When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the DB2 for z/OS database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.

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## Installation Considerations for Microsoft SQL Server

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➤ To set up Microsoft SQL Server to support Event Replicator Target Adapter, complete the following steps:

- 1 Make sure that the Microsoft SQL Server's security settings are for "SQL Server and Windows" authentication. JDBC will not work with Windows-only authentication.
- 2 Turn on TCP/IP support in Microsoft SQL Server and bind it to the desired port. You may choose any unused port, including the default 1433.

- 3 Verify that Microsoft SQL Server is installed. If it is not, the chosen port will not open. Use the `netstat -a` command to verify that the chosen port is active or that `ms-sql-s` is "LISTENING".
- 4 If Microsoft SQL Server is running on a remote PC, open the chosen port exception in the Windows firewall of the remote PC.
- 5 Use the SQL Server Enterprise Manager to create a database for use by Event Replicator Target Adapter.



**Note:** The database name is case-sensitive.

- 6 Use the SQL Server Enterprise Manager to create a user name and password with access to the database you created in the previous step. To check this, make the following series of selections in the SQL Server Enterprise Manager:

- Select "Microsoft SQL Servers"
- Select "SQL Server Group"
- Select the Microsoft SQL Server PC name (if you are running Windows NT only)
- Select "Databases"
- Select "Users"

You should see the user name you created in this step with database access of "Permit" for the database you created in the previous step.

- 7 Determine the URL for the Microsoft SQL Server database you created in these steps using the following URL format:

```
jdbc:sqlserver://hostname:port;DatabaseName=dbname
```

You will need this URL later when configuring the Microsoft SQL Server database for Event Replicator Target Adapter. Substitute the host name on which Microsoft SQL Server is installed for *hostname*, substitute the chosen SQL server listening port for *port*, and substitute the case-sensitive name of the Event Replicator Target Adapter database you created in these steps for *dbname*.



**Note:** Note that named SQL Server instances are allowed and supported. Every instance (named or default) must run on a different port. With Event Replicator Target Adapter 2.7 hotfix 3 and later releases, when you specify an instance name, it takes precedence over any port number you might also supply; with earlier releases of the Event Replicator Target Adapter, the port number takes precedence over the instance name. If neither an instance name or port number is provided, the default port 1433 will be assumed. According to Microsoft, however, optimal performance is obtained by specifying the port number without the instance name. See Microsoft connection URL documentation <https://msdn.microsoft.com/en-us/library/ms378428.aspx> for details. So the safest

and fastest way to specify the URL for named instances that will work even using the bulk loader is using the `hostname:port` syntax.

When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the Microsoft SQL Server database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.

## Installation Considerations for MySQL

➤ To set up the MySQL environment to support Event Replicator Target Adapter, complete the following steps:

- 1 Install MySQL, if it is not already installed. For information on how to install MySQL, refer to your MySQL documentation.



**Note:** When you install the MySQL database, you must specify an instance name or the MySQL installation will not continue.

- 2 Turn on TCP/IP support in MySQL and bind it to the default port 3306.
- 3 If MySQL is running on a remote PC, open the port 3306 exception in the Windows firewall of the remote PC.
- 4 Determine the URL for the MySQL database you created in these steps using the following URL format:

```
jdbc:mysql://hostname:port/instance
```

You will need this URL later when configuring the MySQL database later for Event Replicator Target Adapter. Substitute the host name on which MySQL is installed for *hostname*, substitute the MySQL listening port for *port* (the default is 3306), and substitute the MySQL database instance name you created when you installed the MySQL database for *instance*.


When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the MySQL database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.

## Installation Considerations for Oracle


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➤ To set up the native Oracle environment to support Event Replicator Target Adapter, complete the following steps:

- 1 Install Oracle, if it is not already installed. For information on how to install Oracle, refer to your Oracle documentation.  
 **Note:** When you install the Oracle database, you must specify an instance name or the Oracle installation will not continue.
- 2 Turn on TCP/IP support in Oracle and bind it to the default port 1521.
- 3 If Oracle is running on a remote PC, open the port 1521 exception in the Windows firewall of the remote PC.
- 4 Determine the URL for the Oracle database you created in these steps using the following URL format:

*jdbc:oracle:thin:@hostname:port:instance*

You will need this URL later when configuring the Oracle database later for Event Replicator Target Adapter. Substitute the host name on which Oracle is installed for *hostname*, substitute the Oracle listening port for *port* (the default is 1521), and substitute the Oracle database instance name you created when you installed the Oracle database for *instance*.

-  **Note:** Oracle identifiers are limited to 30 characters. The Event Replicator Target Adapter concatenates the subscription name, file name, and PE or MU name to construct a table name if the Event Replicator's destination definition `DCLASSPARM` parameter (**Destination Class Parameter Data** field) is not set to "NOSPRES"; if the concatenation of these names exceeds 30 characters, Oracle errors will occur. For more information, read about Event Replicator Server destination definitions in *Replication Definition Overview and Maintenance*, in *Event Replicator for Adabas Administration and Operations Guide*.

When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the Oracle database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.



## Installation Considerations for PostgreSQL

➤ To set up the PostgreSQL environment to support Event Replicator Target Adapter, complete the following steps:

- 1 Install PostgreSQL, if it is not already installed. For information on how to install PostgreSQL, refer to your PostgreSQL documentation. The minimum version supported by Event Replicator Target Adapter is 9.2.
- 2 The following JDBC driver is required: `postgresql-9.2-1002.jdbc4.jar`. Download this JDBC driver file from your relational database vendor or obtain it from an installation package and copy it to the appropriate Event Replicator Target Adapter subdirectory as described in *Prerequisite Products*, elsewhere in this guide.
- 3 Edit the `pg_hba.conf` file, generally located in `<Program Data>/PostgreSQL/9.2/data`. This file controls client authentication for the PostgreSQL database. Create a record in this file to allow your local database to be accessed by all remote hosts. For example:

```
Host    all    all    all    trust
```

For complete information on the format of records in the `pg_hba.conf` file, refer to the PostgreSQL documentation at the following link: <https://www.postgresql.org/docs/9.2/static/auth-pg-hba-conf.html>.

- 4 Edit the `postgresql.conf` file, generally located in `<Program Data>/PostgreSQL/9.2/data`. Add the following two lines to indicate that the local database should bind all available IP addresses and the specific IP port 5432:

```
Listen_addresses="*"
Port=5432
```

When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the PostgreSQL database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.



**Note:** No loader mode support is available for PostgreSQL in the Event Replicator Target Adapter.

## Installation Considerations for Teradata

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➤ To set up the Teradata environment to support Event Replicator Target Adapter, complete the following steps:

- 1 Install Teradata on Open Systems, if it is not already installed. For information on how to install Teradata, refer to your Teradata documentation.
- 2 If you don't have a JDBC driver for Teradata Version 2 Release 6.01 installed, you can download it by accessing <http://downloads.teradata.com/download/connectivity/jdbc-driver>, selecting "Drivers and Connectivity Software", and selecting TTU8.1 Windows i386 TeraJDBC.03.03.00.04. After downloading the ZIP file and unzipping it into a temporary directory, you will be able to locate the three Teradata JDBC driver files required in the next step.
- 3 Copy the *tdgssconfig.jar*, *tdgssjava.jar*, and *terajdbc4.jar* files from the Teradata installation directory to the Event Replicator Target Adapter directory for JDBC driver files (as described in [Prerequisite Products](#), elsewhere in this guide).
- 4 Determine the URL for the Teradata database you created in these steps using the following URL format:

```
jdbc:teradata://hostname/DATABASE=dbname,DBS_PORT=port
```

You will need this URL later when configuring the Teradata database later for Event Replicator Target Adapter. Substitute the host name on which Teradata is installed for *hostname*, substitute the Teradata database name for *dbname*; and substitute the Teradata listening port for *port*.

When these steps are complete, you can finish installing the Event Replicator Target Adapter.

Once the Event Replicator Target Adapter is installed, you must configure the Event Replicator Target Adapter to work with the Teradata database you intend to use. For complete information, read *Maintaining RDBMS Database Target Definitions*, in the *Event Replicator Target Adapter Administration Guide*.

The following notes apply to current Event Replicator Target Adapter processing for Teradata databases:

- Some temporary tables are created during runtime. The pattern of the temporary tables names is in the format ART-TEMP $nnnn$ .
- Some SQL commands will not maintain the same transaction boundary in Teradata databases as in Adabas. This means that if an error occurs that requires that the Event Replicator Target Adapter to roll back a transaction or shut down, some SQL commands may not be able to roll back.

# 6 Language Considerations

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For replication of data in languages other than English (UTF-8 processing), ensure your target RDBMS database is configured to support the desired language and character set.



# 7 Installing and Uninstalling the Event Replicator Target

## Adapter

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▪ Before You Begin .....	24
▪ Installation Steps .....	25
▪ Uninstallation Steps .....	26

Event Replicator Target Adapter is installed using the Software AG Installer. It requires a license key. For more information, read *The License Key*, elsewhere in this guide.

This document provides product-specific instructions for installing Event Replicator Target Adapter. It is intended for use with *Using the Software AG Installer*, which explains how to prepare your machine to use the Software AG Installer and how to use the Software AG Installer and Software AG Uninstaller to install and uninstall your products. The most up-to-date version of *Using the Software AG Installer* is always available in the webMethods product documentation located on the Software AG Empower website (<https://empower.softwareag.com/>).

## Before You Begin

---

Before you begin installing this product, ensure that the following prerequisites have been met:

1. Software AG strongly recommends that you create an installation image of your existing Software products and store the image on your internal network. You should create an image for each operating system on which you plan to run the installation (for example, 32-bit, 64-bit, or both). This will help you reduce WAN traffic and speed up installation and will ensure consistency across installations over time, since the Software AG Installer provides only the latest release of each product.
2. Close (stop) all open applications, especially those applications interacting with or depending on your Adabas databases. This includes Natural, Adabas Manager, the Adabas DBA Workbench, and prior releases of any other Adabas products. To be on the safe side, also shut down all Software AG services.



**Important:** For some Software AG products, the Software AG Uninstaller will not be able to remove key files that are locked by the operating system if the associated Software AG products are not shut down.

3. Disable any antivirus software.
4. Ensure the target computer is connected to the network.
5. If this product requires a license key file, verify the license key file is copied somewhere in your environment. Products requiring license key files will not run without valid license keys. For more information, read *The License Key*, elsewhere in this section.
6. Verify your environment supports the system requirements for this product, as described in *System Requirements*, elsewhere in this section.

## Installation Steps

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Event Replicator Target Adapter is installed using the Software AG Installer. It requires a license key. For more information, read *The License Key*, elsewhere in this guide. In addition, the installation of Event Replicator Target Adapter includes the installation and registration of an internal component called the Software AG ERTA Administration Service. This service enables running the Event Replicator Target Adapter as a system service and also allows communication with a remote administration console (for example on platforms, such as HP and zLinux, where the Event Replicator Target Adapter Administration tool cannot be installed)

You can download the Software AG Installer from the Software AG Empower website at <https://empower.softwareag.com/>.

This installation documentation provides a brief description on how to install the Event Replicator Target Adapter directly on the target machine using the installer wizard. For detailed information on the installer wizard, read *Using the Software AG Installer*.



**Note:** Read *Using the Software AG Installer* also if you want to use console mode, or if you want to install using an installation script or installation image.

### ➤ To install Event Replicator Target Adapter, complete the following steps:

- 1 Start the Software AG Installer as described in *Using the Software AG Installer*.
- 2 When the first page of the Software AG Installer wizard (the Welcome panel) appears, choose the **Next** button repeatedly, specifying all required information on the displayed panels, until the panel containing the product selection tree appears.

All Adabas-related products (including Adabas Directory Server) can be selected for installation within the **Adabas Family** product selection tree.

In addition to the **Adabas Family** product selection tree, two other trees, **Event-Driven Architecture** and **Infrastructure** (which includes the System Management Hub installation) are available for installation. The **Infrastructure** tree must be selected for all Software AG products; it provides the necessary Java runtime environment for the Software AG Installer as well as Event Replicator Target Adapter.

- 3 To install Event Replicator Target Adapter, select (check) the Event Replicator Target Adapter entry from the **Adabas Family** product selection tree.
- 4 On the License panel, read the license agreement and select the check box to agree to the terms of the license agreement and then click **Next** to continue. If you do not accept the license agreement, the installation will stop.
- 5 On the last panel, review the items you have selected for installation. If the list is correct, choose the **Next** button to start the installation process.

Once Event Replicator Target Adapter has been installed, its internal Software AG ERTA Administration Service is automatically registered and started. Depending on the setting of the "Automatically Start and Stop Target Adapter via Adabas Administration Services" preference in the Event Replicator Target Adapter Administration tool, the Event Replicator Target Adapter may or may not start automatically.

## Uninstallation Steps

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You uninstall this product using the Software AG Uninstaller. For information on how to use the uninstaller, read the *Using the Software AG Installer* guide.



## 8 Migrating from a Previous Version

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Generally, you can copy the *context.xml* file from a previous version of Event Replicator Target Adapter into your new installation as an easy way to migrate to the latest version. The *context.xml* file can be found in the following locations:

Platform	Location of <i>context.xml</i>
Windows	C:\<installation-directory>\EventReplicatorTargetAdapter\art\data\webapps\sqlrep\META-INF. By default, the <installation-directory> is "SoftwareAG".
UNIX	\$SAG/EventReplicatorTargetAdapter/art/TargetAdapter/webapps/sqlrep/META-INF

For replication to targets where destination tables already exist, there is some additional information required by Event Replicator Target Adapter that may need to be copied from your previous version installation. This is especially true if Event Replicator for Adabas (mainframe) does not send a schema for the target at the time replication is activated. In this case, you should copy over all files with the extension .XML in the following location to the corresponding location in your new installation:

Platform	Location of .XML schema files
Windows	C:\<installation-directory>\EventReplicatorTargetAdapter\art\data\webapps\webdav\ADABASRep
UNIX	\$SAG/EventReplicatorTargetAdapter/art/TargetAdapter/webapps/webdav/ADABASReplicator



# 9 Running the Event Replicator Target Adapter as a System Service

---

➤ **To run the Event Replicator Target Adapter as a system service:**

- 1 The Software AG ERTA Administration Service is installed when the Event Replicator Target Adapter is installed. Ordinarily, the Software AG ERTA Administration Service starts up automatically after it is installed or whenever the machine on which it is installed is started.
- 2 In the **Target Adapter** preferences on the **Preferences** dialog of the Administration tool, verify that the option **Automatically Start and Stop via Adabas Administration Service** is selected (checked). For more information on the **Target Adapter** preferences, read *Setting Configuration File and Target Adapter Preferences*, in the *Event Replicator Target Adapter Administration Guide*.

This will update the Software AG ERTA Administration Service configuration file so that it automatically starts the Event Replicator Target Adapter.



# 10

## Enabling Remote Management

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» To enable remote management of the Event Replicator Target Adapter, you must complete the following:

- 1 The Software AG ERTA Administration Service is installed when the Event Replicator Target Adapter is installed. Ordinarily, the Software AG ERTA Administration Service starts up automatically after it is installed or whenever the machine on which it is installed is started.
- 2 In the **Target Adapter** preferences on the **Preferences** dialog of the Administration tool, specify the remote host name and port number of the Event Replicator Target Adapter you want to manage and use in the **Host** and **Adabas Administration Service Port** fields. For more information on the **Target Adapter** preferences, read *Setting Configuration File and Target Adapter Preferences*, in the *Event Replicator Target Adapter Administration Guide*.



# 11 Before You Use the Event Replicator Target Adapter

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» Before you can use the Event Replicator Target Adapter, perform the following steps:

- 1 Verify the Administration tool preferences and then configure definitions using the Administration tool that specify how Event Replicator Target Adapter processing occurs. To set up Administration tool preferences, read *Setting Preferences*, in the *Event Replicator Target Adapter Administration Guide*.

Once Event Replicator Target Adapter Administration tool preferences have been set, use the tool to set up the following definitions (in this order):



**Note:** The Event Replicator Target Adapter must be stopped and restarted every time a definition is saved or deleted using the Administration tool. For this reason, we recommend that you shut down the Event Replicator Target Adapter prior to making changes to the definitions and restart the Event Replicator Target Adapter when all definition changes are complete. For information about stopping and starting the Event Replicator Target Adapter, read *Shutting Down the Event Replicator Target Adapter* and *Starting the Event Replicator Target Adapter*, in the *Event Replicator Target Adapter User Guide*.

1. Target definitions: These define the RDBMS data base or web service targets to which the Event Replicator Target Adapter should direct the replicated data. For more information, read *Configuring Target Definitions for Event Replicator Target Adapter*, in the *Event Replicator Target Adapter Administration Guide*.
2. Target database processing option definitions: These define any options regarding how the Event Replicator Target Adapter processes the data submitted to an RDBMS data base. At this time, there are no web service processing options. For more information, read *Specifying Target Database Processing Options*, in the *Event Replicator Target Adapter Administration Guide*.
3. Source definitions: These define the messaging systems (webMethods EntireX or WebSphere MQ) from which replicated and associated target definition to use which the Event Replic-

ator Target Adapter should direct the replicated data acquired from the source definition. For more information, read *Configuring Source Definitions for Event Replicator Target Adapter*, in the *Event Replicator Target Adapter Administration Guide*.

- 2 Stop and restart any mainframe or open systems Event Replicator Servers that might be replicating data to your RDBMS. Stopping the Event Replicator Server will also clear out the Event Replicator Server queues so there are no unprocessed transactions in the queue. You will know this has happened when the Event Replicator Target Adapter console or log file displayed a message indicating that the Event Replicator Server has terminated.
- 3 If any of the source definitions you created are for messaging systems that are also used by an earlier version of the Event Replicator Target Adapter, stop the older version of the Event Replicator Target Adapter prior to starting up this version of the Event Replicator Target Adapter.

Once all of the definitions are specified and the appropriate Event Replicator Servers have been stopped and restarted, Event Replicator Target Adapter processing can be activated (or may automatically be activated, depending on the settings in the source definitions). For more information, read *Activating Event Replicator Target Adapter Processing*, in the *Event Replicator Target Adapter User Guide*.

For information on where the Event Replicator Target Adapter log files are located, read *Managing Event Replicator Target Adapter Log Files and Console Messages*, in the *Event Replicator Target Adapter User Guide*.



# 12 Starting Event Replicator Target Adapter Up Manually

## (UNIX Environments Only)

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If you need to start up Event Replicator Target Adapter manually in UNIX environments, you must first start the Software AG ERTA Administration Service. Normally, the Software AG ERTA Administration Service is automatically started after it is installed. To start it manually, use the startup script `aasartstart.sh`. You can optionally specify the Software AG ERTA Administration Service port number as an argument, but it is not required. The default Software AG ERTA Administration Service port provided at installation is 3004; however, this may have been changed when your installation was performed. Normally, the Software AG ERTA Administration Service has memorized the port number used when it was installed and was last started. However, if a problem arises and the memorized port number is lost, you will need to specify the port and manually start the Software AG ERTA Administration Service.

➤ **To specify the Software AG ERTA Administration Service port number when you manually start it in UNIX environments, complete the following steps:**

- Run the `aasartstart.sh` startup script at a command line, specifying a value for the `ArtPort` argument. For example:

```
aasartstart.sh ArtPort=port
```

where `port` is the Software AG ERTA Administration Service port number.

Once the Software AG ERTA Administration Service is started, the Event Replicator Target Adapter will usually start up automatically, depending on the setting of the **Automatically Start and Stop via Adabas Administration Service** option in the Event Replicator Target Adapter Administration tool. (For more information on the **Target Adapter** preferences, read *Setting Configuration File and Target Adapter Preferences*, in the *Event Replicator Target Adapter Administration Guide*.) However, to manually start the Event Replicator Target Adapter, if necessary, run the script `startupart.sh`. (For more information, read *Starting Event Replicator Target Adapter in UNIX*, in the *Event Replicator Target Adapter User Guide*.)

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# 13 Supported Relational Databases

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The following relational databases (RDBMS) are supported by the Event Replicator Target Adapter. The required JDBC drivers for each RDBMS are also listed in the table.


RDBMS Support	Required JDBC Driver
DB2 9.1 for open systems, or later	<i>db2jcc4.jar</i>
DB2 Universal Database (UDB) version 9 for z/OS, or later	<i>db2jcc4.jar</i> <i>db2jcc_license_cisuz.jar</i>
Microsoft SQL Server 2005 and later	<i>sqljdbc4.jar</i>
MySQL 5.0.17, or later	<i>mysql-connector-java-v.r.s-bin.jar</i> , where <i>v . r . s</i> represents the MySQL release number.
Oracle 10g or later	<i>ojdbc6.jar</i>
PostgreSQL 9.2 or later	<i>postgresql-v.r-1002.jdbc4.jar</i> , where <i>v</i> and <i>r</i> represent the first two parts of the PostgreSQL version number. <i>v . r . s</i>
Teradata Version 2 Release 1.2 for open systems, or later	<i>tdgssconfig.jar</i> <i>terajdbc4.jar</i>




# 14 TCP/IP Port Number Reference

---

The following table lists the TCP/IP port numbers used by the Event Replicator Target Adapter. You should consider avoiding the use of these TCP/IP port numbers for other applications.

 **Caution:** The port numbers used for Event Replicator Target Adapter 2.9 cannot match the port numbers used by any other version of Event Replicator Target Adapter. If you have versions earlier than Event Replicator Target Adapter 2.9 installed, there is the risk that these default port numbers were used by the earlier version. If this is the case, you must override these default port numbers and select different port numbers.

Port Number	Use
4000	Communication between Tomcat server and the Administration tool via JMX
3004	Software AG ERTA Administration Service support
4005	Tomcat shutdown port used for listening for a shutdown command.
4085	Tomcat listening port used for receiving commands and data.

 **Caution:** Note the default port used by the service is 3004, the same port as the "Software AG Adabas Administration Service" delivered with previous versions of Event Replicator Target Adapter. If you install the current Event Replicator Target Adapter version on a machine with a previously installed version and you intend to run both in parallel, you will need to select a different port than the default 3004 during installation of the product. Do not confuse the new "Software AG Adabas Administration Service" delivered with Adabas LUW with the new "Software AG ERTA Administration Service" or the "Software AG Adabas Administration Service" delivered with previous versions of Event Replicator Target Adapter. The new "Software AG Adabas Administration Service" delivered with Adabas LUW is not compatible with Event Replicator Target Adapter; only the new "Software AG ERTA Administration Service" should be used with an installation of Event Replicator Target Adapter.



# 15 Before You Call Support

---

Before you call your Software AG technical support representative, collect the following information from your Event Replicator Target Adapter environment:

1. A brief description of the problem.
2. All of the available *sqlrep.log* files. For more information on these, read *Managing Event Replicator Target Adapter Log Files and Console Messages*, in the *Event Replicator Target Adapter User Guide*.
3. The *context.xml* file. For information regarding this file and its location, read *Setting Configuration File and Target Adapter Preferences*, in the *Event Replicator Target Adapter Administration Guide*.
4. The *log4j.properties* file. This file is located in the *webapps\sqlrep\WEB-INF\classes* directory wherever your Event Replicator Target Adapter program data files are installed.
5. Before bringing the Event Replicator Target Adapter down, produce the current Java stack trace, as described below.
  - In Windows environments, issue a Ctrl-Break (press the `Ctrl` and `C` keys) in the Event Replicator Target Adapter console window. This will produce the current Java stack trace in the console window. Once the trace is complete, cut and paste it into another document to save it for support.
  - In UNIX environments, issue a Ctrl-Break (press the `Ctrl` and `\` keys) in the Event Replicator Target Adapter console window. This will produce the current Java stack trace in the console window. Once the trace is complete, cut and paste it into another document to save it for support.
6. All messages you receive. If you receive messages from any other system vendors's products, please read any available documentation relating to those messages before you call Software AG.
7. A description of your operating environment, including:
  - The version number of the Event Replicator Target Adapter
  - The version number of the operating system you are using and its major components

- The version number and name of the relational database you are using
  - If webMethods EntireX is used as the messaging system, provide its startup parameters and JCL
  - All hardware components and their configurations
  - Any installed software changes.
8. All output related to the problem (for examples, dumps, screen prints, or samples of scripts or incorrect output).



# Index

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## A

Adabas requirements, 10

## B

before you call support, 41  
before you can use Event Replicator Target Adapter, 33

## D

DB2  
    installation considerations, 14  
DB2 for z/OS  
    installation considerations, 15

## E

Empower  
    platform support, 6  
Event Replicator Target Adapter  
    before you call support, 41  
    DB2 for z/OS installation considerations, 15  
    DB2 installation considerations, 14  
    installing, 23  
    language considerations, 21  
    licensing, 3  
    managing remotely, 31  
    Microsoft SQL Server installation considerations, 15  
    MySQL installation considerations, 17  
    Oracle installation considerations, 18  
    PostgreSQL installation considerations, 19  
    prerequisite steps, 33  
    relational database installation considerations, 13  
    running as a system service, 29  
    TCP/IP port number reference, 39  
    Teradata installation considerations, 20  
    third-party software, 7

## H

hardware support, 7

## I

installation  
    preinstallation steps, 24  
installation considerations, 13

Microsoft SQL Server databases, 15  
Oracle databases, 18  
installing Event Replicator Target Adapter, 23

## J

JDBC driver file location, 12  
JDBC drivers, 37

## L

language considerations, 21  
license key  
    description, 3  
    file description, 4  
    location and use, 4  
licensing, 3

## M

managing remotely, 31  
memory requirements, 8  
Microsoft SQL Server  
    installation considerations, 15  
Microsoft Windows support, 6  
MySQL  
    installation considerations, 17

## O

operating system coverage, 6  
Oracle  
    installation considerations, 18

## P

platform support, 6  
PostgreSQL  
    installation considerations, 19  
preinstallation steps, 24  
product support  
    supported platforms, 6

## R

RDBMS  
    DB2 installation considerations, 14  
    DB2 on z/OS installation considerations, 15  
    installation considerations, 13

- Microsoft SQL Server installation considerations, 15
- MySQL installation considerations, 17
- Oracle installation considerations, 18
- PostgreSQL installation considerations, 19
- Teradata installation considerations, 20
- RDBMS support, 37
- remote administration, 31
- requirements
  - memory, 8
  - operating system coverage, 6
  - third-party software, 7
- running as a system service, 29

## S

- supplied third-party software, 7
- support
  - platforms supported, 6
- support information, 41
- supported hardware, 7
- supported operating systems, 6
- supported platforms, 6
- system service, 29

## T

- TCP/IP port numbers, 39
- Teradata
  - installation considerations, 20
- third-party software, 7

## U

- UNIX
  - supported platforms, 6