

Windows Server Installation Guide

Lavastorm Analytics Engine 6.1

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Legend

	Indicates a prerequisite.
	Indicates an unordered list.
	Indicates a procedure with only one step.
1. 2.	Indicates a procedure with multiple steps.
»	Indicates the result of a procedure.
	Indicates a note. A note highlights important information.
	Indicates a tip. A tip gives you hints, for example, alternative methods for completing a task.
	Indicates a caution.
Bold text	Indicates user interface text.
Code font	Indicates code or system commands.
Menu > Menu item	Indicates navigation to a menu or sub menu item.
Link	Indicates a cross-reference to a section within the current document, or a link to an external document.
EXAMPLE	Indicates an example.
Image caption	Indicates an image caption.

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1. Introduction

This document describes the procedure for installing and uninstalling the Lavastorm Analytics Engine (LAE) 6.1 Server on a Windows machine.

After the installation, the LAE license you have (or will receive) determines which features are available to you.

If you encounter any issues during the install process, contact Lavastorm Support at support@lavastorm.com or visit the Lavastorm Forums at <http://community.lavastorm.com>.



Note: The images in this guide are for illustrative purposes only.

2. Installing LAE Server on Windows Server

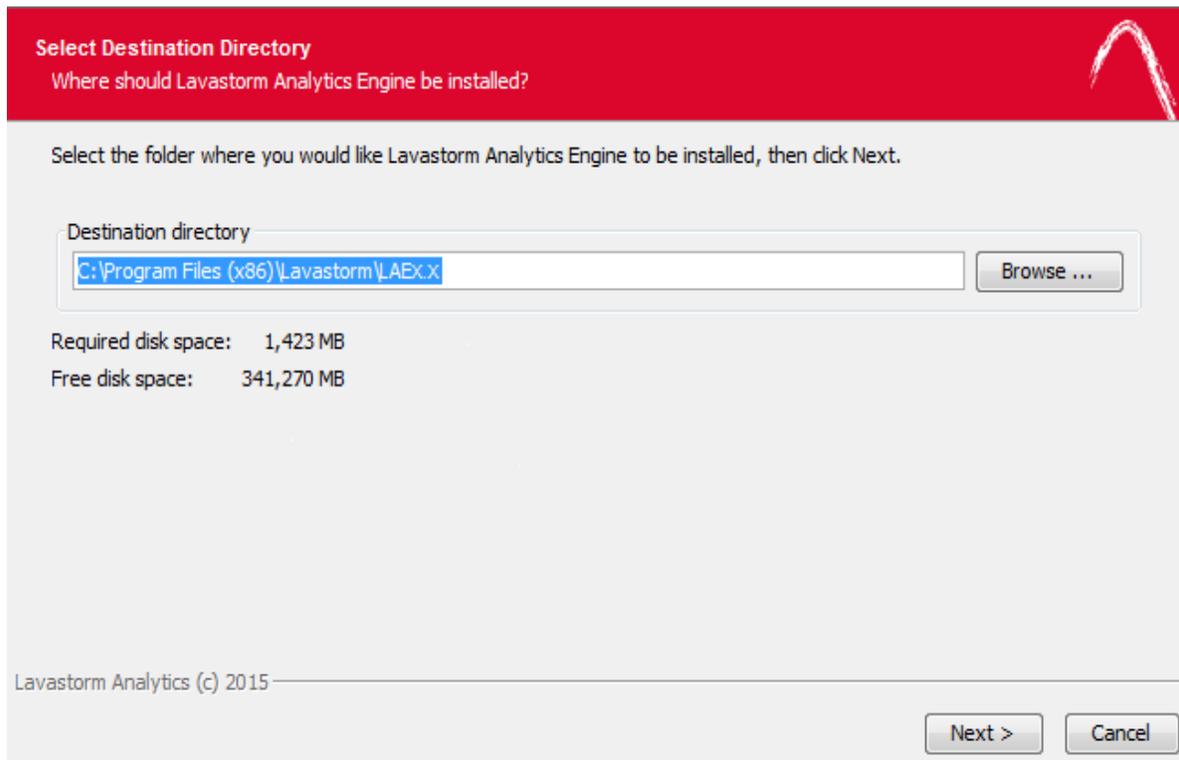
 **Note:** When installing a new version of the LAE software, do not upgrade an existing installation. This will cause your previous installation to be uninstalled and could potentially cause the loss of data. Always perform a fresh installation and then copy over your data.

To install the LAE Server on a Windows Server machine:

1. Locate the install program **Lavastorm Analytics Engine 6.1.exe**.
2. Right-click the executable file and select **Run as administrator**.

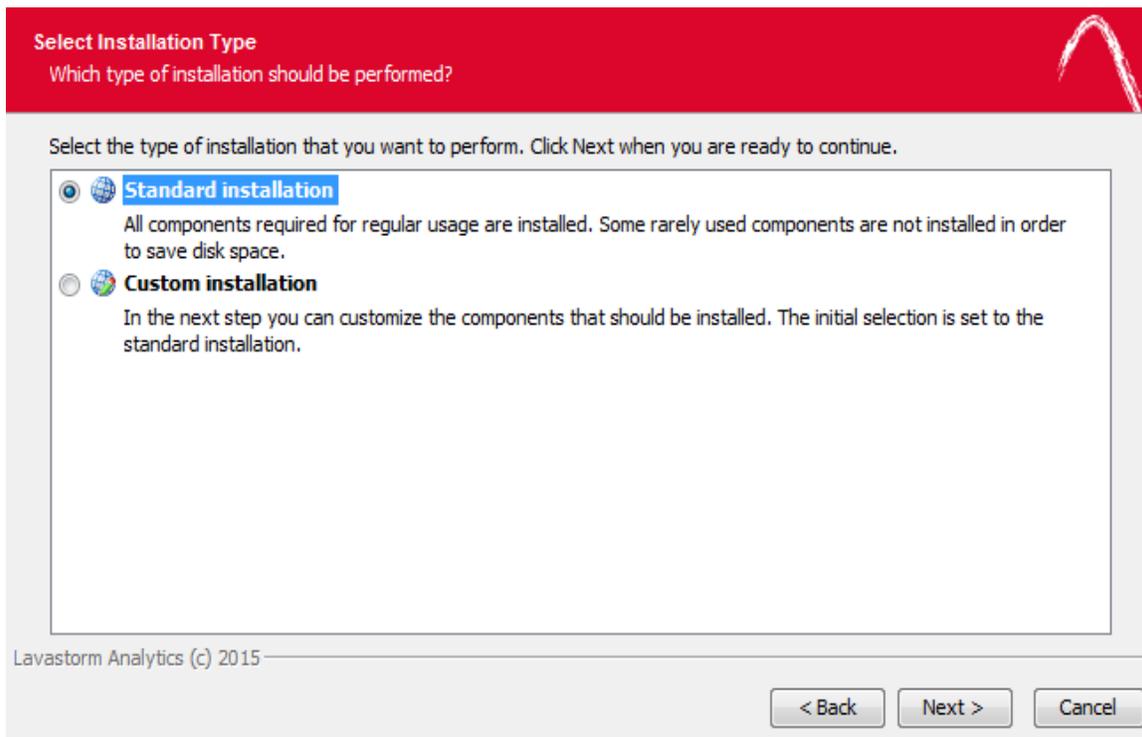
 **Note:** You must run as administrator. If you do not run the installer as administrator, it will produce errors and fail to complete. The installer will then display a series of windows, requesting information from you.

3. Accept the license agreement.
 - » A **Select Destination Directory** window opens:



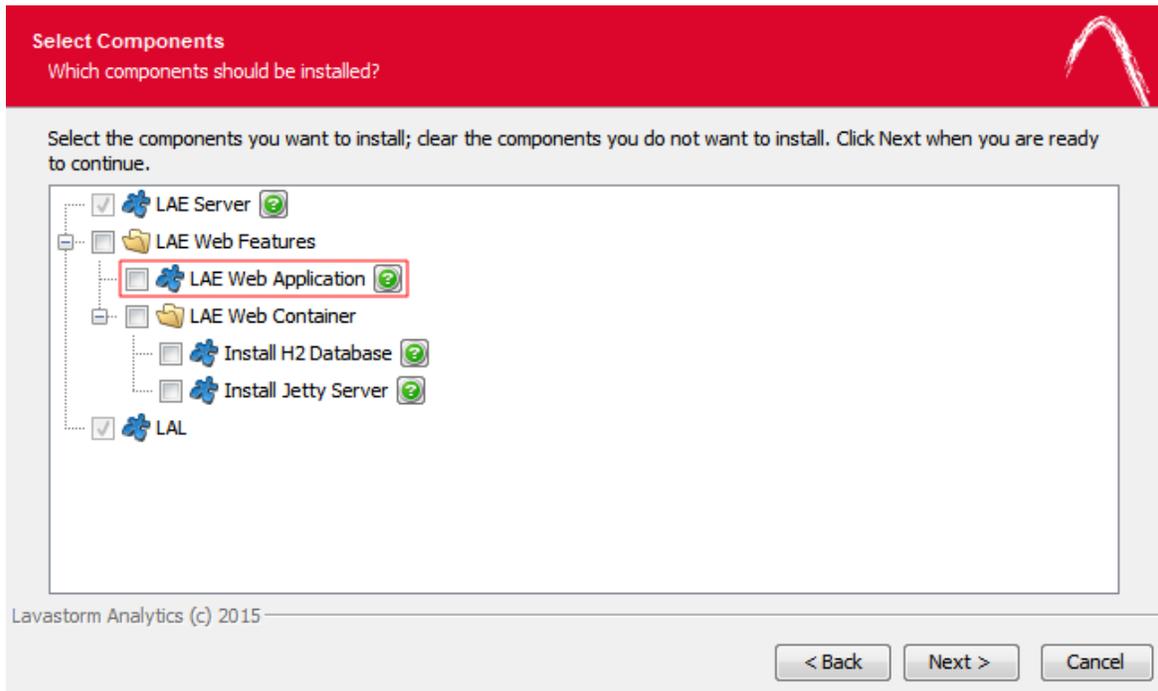
4. Accept the default setting, or modify it to specify a different location for the LAE Server.

» A **Select Installation Type** window opens:



5. Accept the default setting for **Standard installation**, or select **Custom installation** to modify the components to be installed, for example, select **Custom installation** if you do not wish to install the LAE Web Application as part of the current server installation.

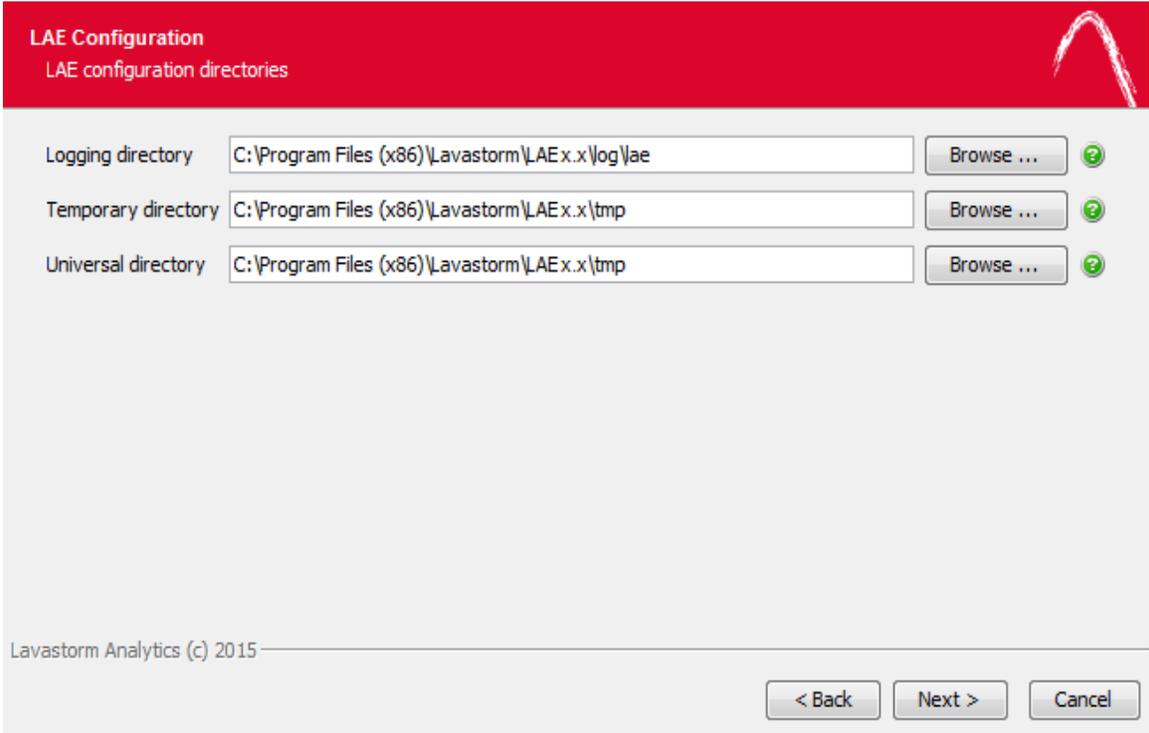
» If you selected **Custom installation**, a **Select Components** window opens:



 **Note:** You must install both the LAE Web Application and the LAE Server on your main server. However, if your installation is part of a server farm, you do not need to install the LAE Web Application on every server.

6. If you do not wish to install the LAE Web Application, clear the LAE Web Application check box and click **Next**.

» An **LAE Configuration** window opens:



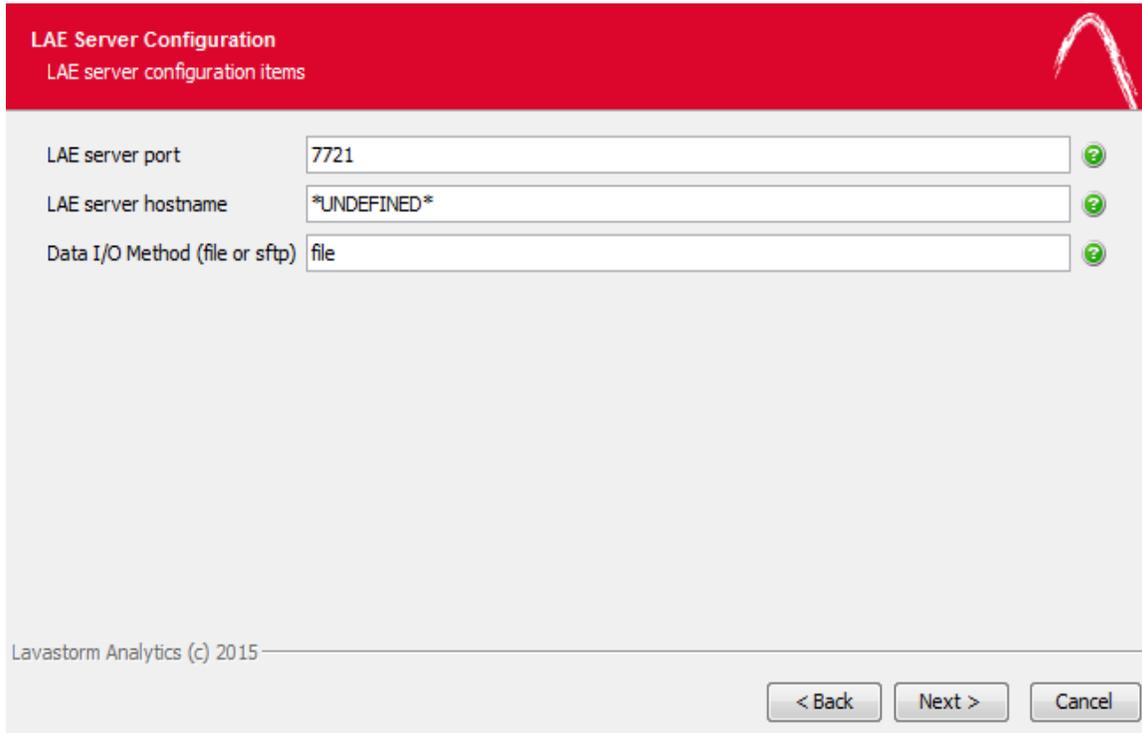
The screenshot shows the 'LAE Configuration' window with the subtitle 'LAE configuration directories'. It features three rows of text boxes, each with a 'Browse ...' button and a green question mark icon to its right. The paths are: Logging directory: C:\Program Files (x86)\Lavastorm\LAEx.x\log\lae; Temporary directory: C:\Program Files (x86)\Lavastorm\LAEx.x\tmp; Universal directory: C:\Program Files (x86)\Lavastorm\LAEx.x\tmp. At the bottom, there are three buttons: '< Back', 'Next >', and 'Cancel'. The footer text reads 'Lavastorm Analytics (c) 2015'.

7. Accept the paths for the logging, temporary and universal directories, or modify them to specify alternate locations.



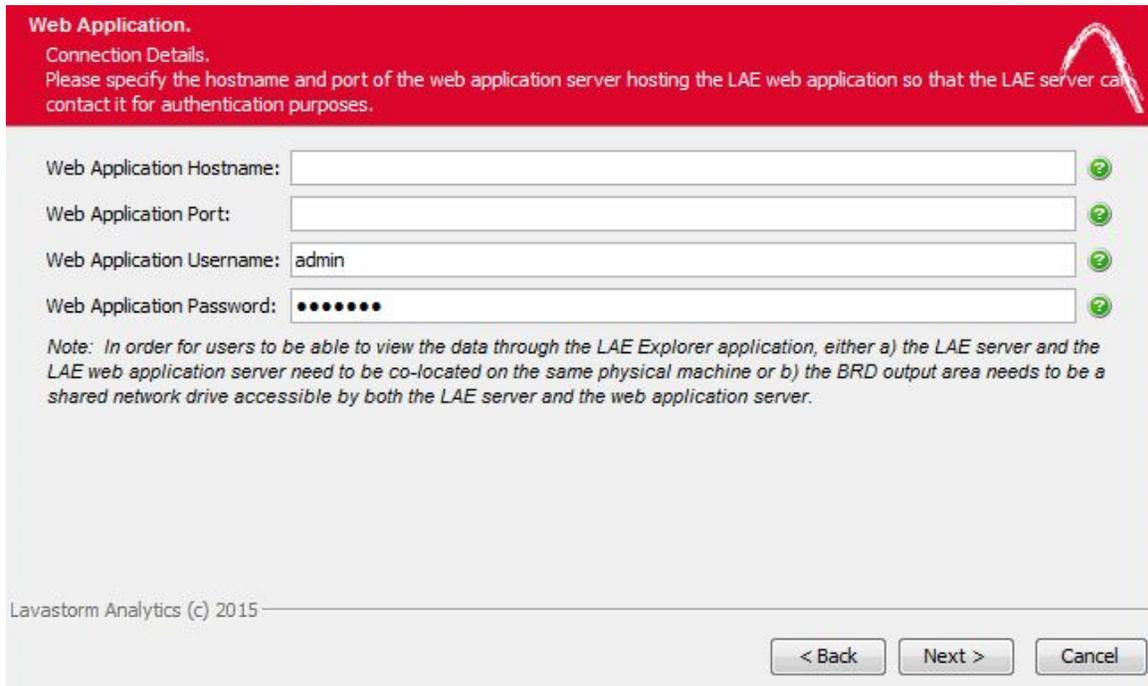
Note: The temporary directory could get very large, because this is where LAE keeps all the data on every pin in a graph when the graph executes. Ensure that the temporary director that you choose has enough space for this.

» An **LAE Server Configuration** window opens:



8. Accept the default settings, or modify them to specify a different server port, hostname or data I/O method.

- » If you opted not to install the LAE Web Application as part of the current server installation, a Web Application window opens:



Web Application.
Connection Details.
Please specify the hostname and port of the web application server hosting the LAE web application so that the LAE server can contact it for authentication purposes.

Web Application Hostname: ?

Web Application Port: ?

Web Application Username: ?

Web Application Password: ?

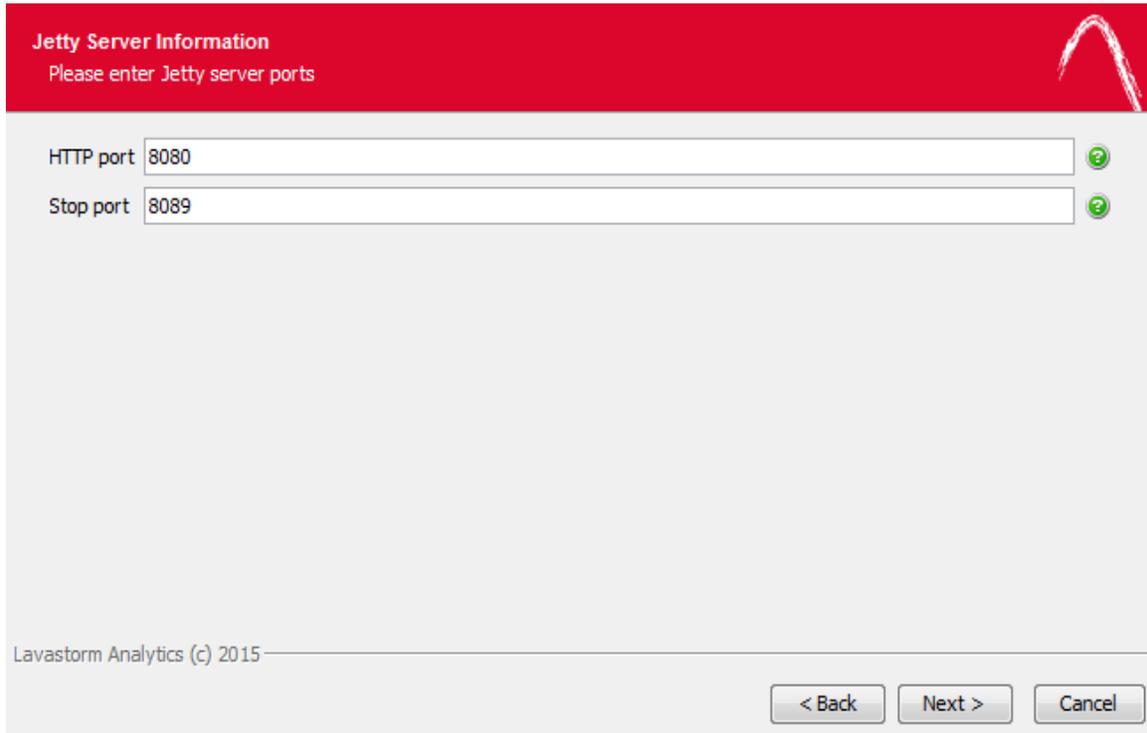
Note: In order for users to be able to view the data through the LAE Explorer application, either a) the LAE server and the LAE web application server need to be co-located on the same physical machine or b) the BRD output area needs to be a shared network drive accessible by both the LAE server and the web application server.

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< Back Next > Cancel

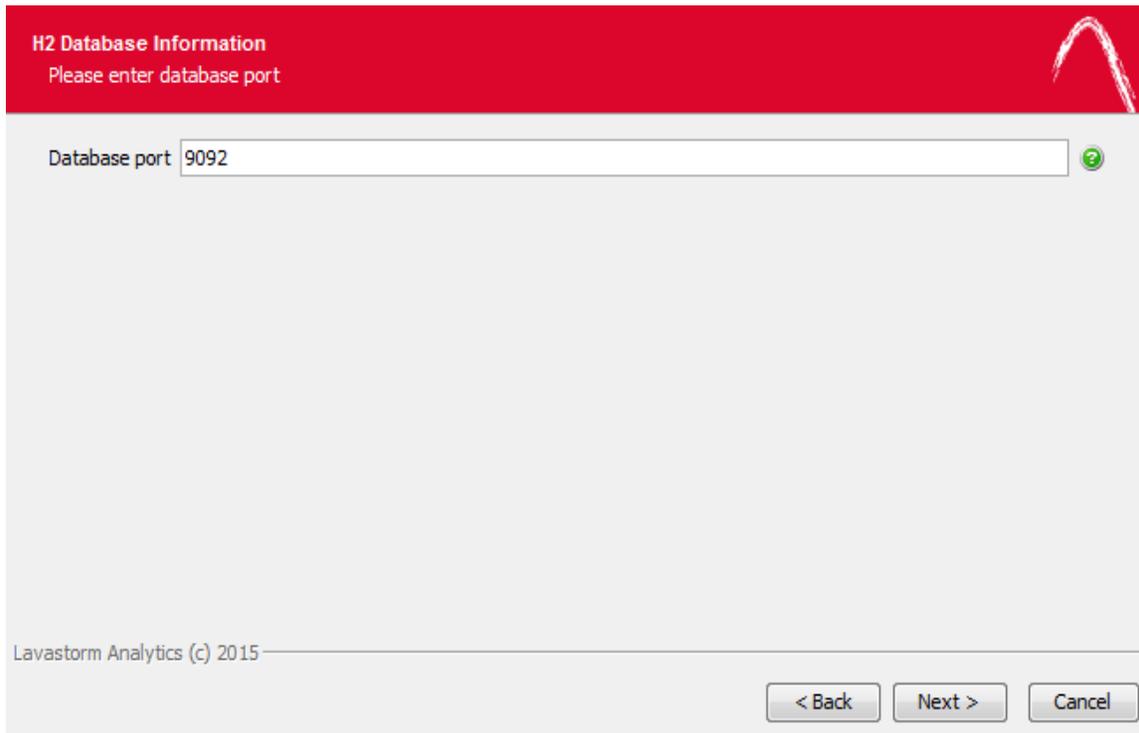
9. Add the **Web Application Hostname** and **Web Application Port** details to point to the main server where the LAE Web Application is installed.

» If you opted to install the LAE Web Application, a **Jetty Server Information** window opens:



10. Accept the default settings, or modify them to specify a different **HTTP port** or **Stop port**.

» If you opted to install the LAE Web Application, a **H2 Database Information** window opens:



H2 Database Information
Please enter database port

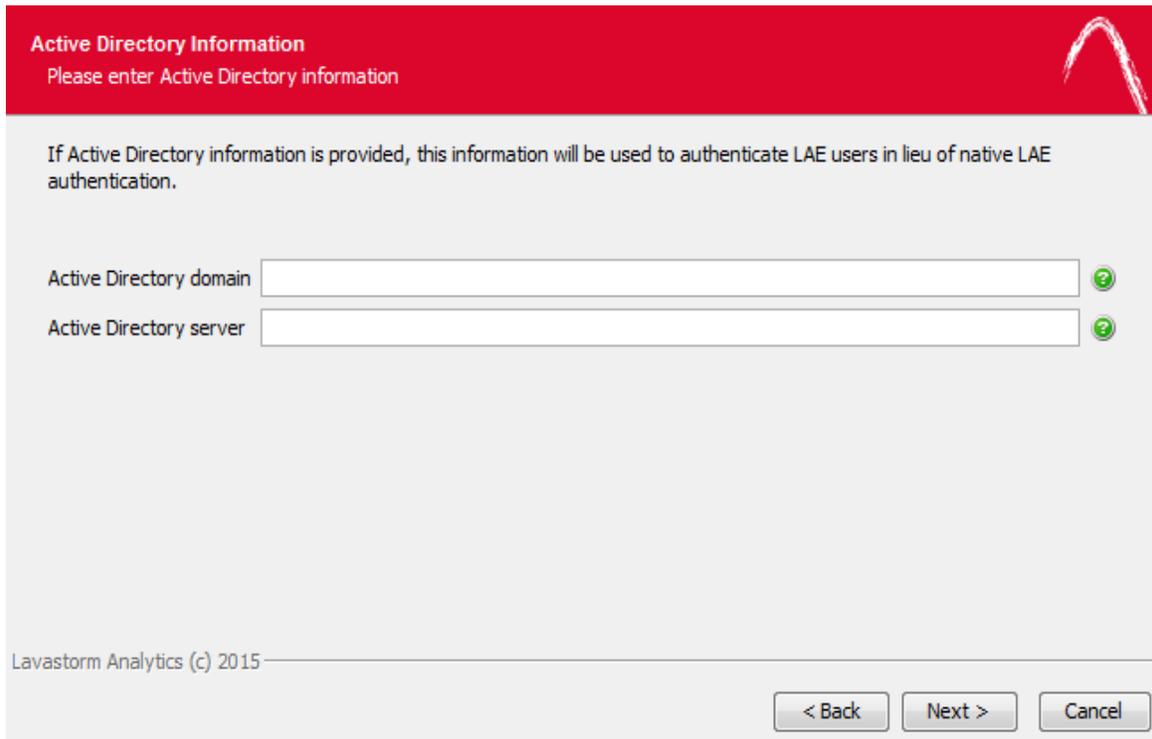
Database port: 9092

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< Back Next > Cancel

11. Accept the default setting, or modify it to specify a different **Database port**.

» If you opted to install the LAE Web Application, an **Active Directory Information** window opens:



12. Enter the location information for your Active Directory domain and server, and click **Next**.



Note: Ensure that you enter the full name of the Active Directory domain and Active Directory server. Do not enter a short name or alias.

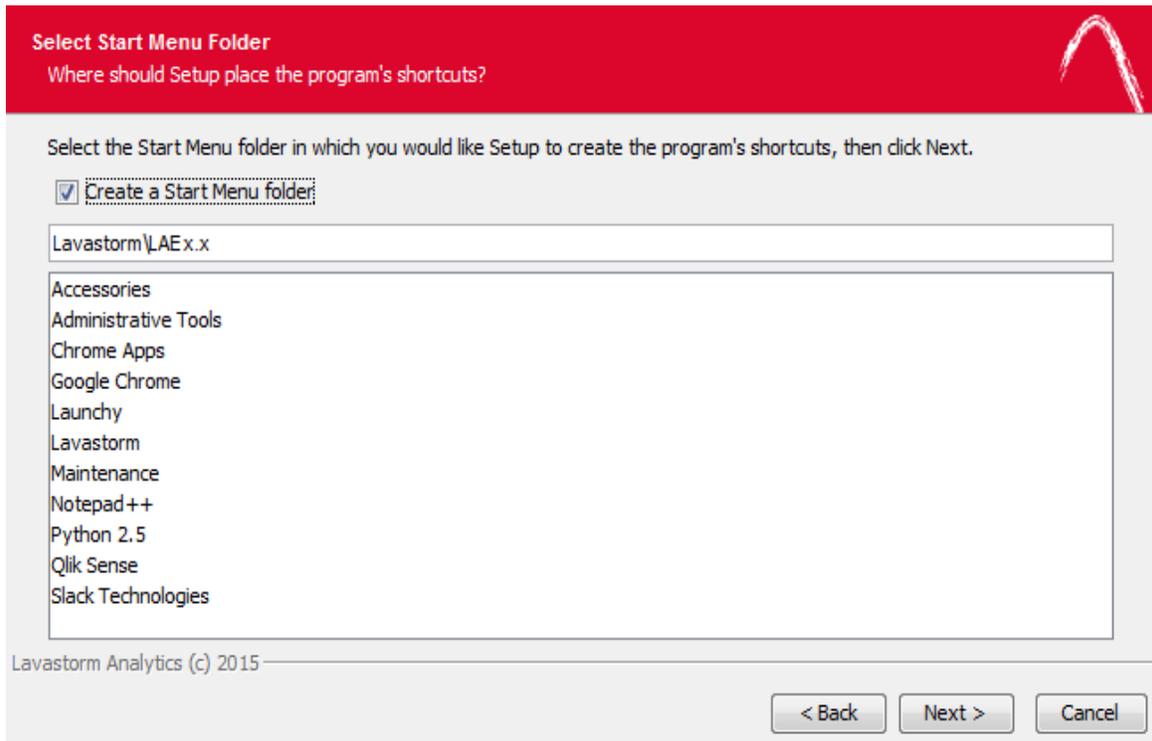
EXAMPLE:

Full domain address: `lavastorm.com`

Full server address: `server.dev.lavastorm.com:port number`

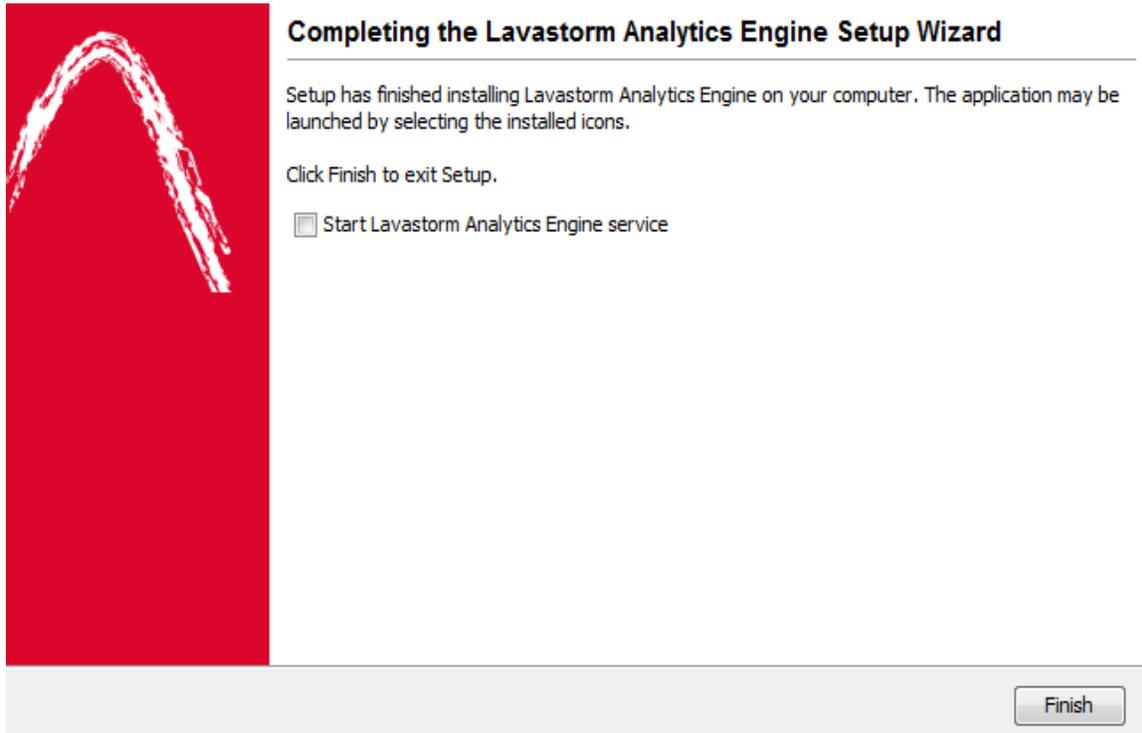
If you are not using the default port, *port number* should be replaced with the port number that you are using. If you are using the default port, you do not need to specify the port number.

» A **Select Start Menu Folder** window opens:



13. Accept the default setting, or modify it to specify a different location for the LAE Server shortcuts.
14. Click **Install** to start the installer.

» When the installer finishes, it displays one final window:



15. Select or clear the **Start Lavastorm Analytics Engine service** check box, according to your preference.
16. Click **Finish** to complete the installation.
17. You must open BRE and apply your LAE license to the LAE Server before you attempt to log in to the Web Application.

2.1 Java heap space

By default, the heap size is set to 25% of your RAM or 1G, whichever is smaller.

If you need to adjust the heap size, you can use the examples given in the following steps as a guide:

1. Navigate to `<server-install-dir>\bin`
2. Create a file in the bin directory called: `lavastormJettyServerService.vmoptions`
3. Edit the file to include the appropriate JVM arguments. For example, you may need to edit the file to adjust the maximum heap size parameter:

`-Xmx<heap-size>`

EXAMPLE: `-Xmx1024M`, where `1024M` is replaced with a maximum heap size that is appropriate for your system settings.

- Or -

You may need to edit the file to adjust the maximum permanent generation size parameter:

`-XX:MaxPermSize=<max-perm-size>`

EXAMPLE: `-XX:MaxPermSize=512M`, where `512M` is replaced with a maximum permanent generation size that is appropriate for your system settings.

3. Updating Web App database from 5.x.x to 6.1

Due to changes made to the database structure in LAE 6.0, users upgrading from a 5.0.x or a 5.1 installation will need to follow some additional steps in order to migrate their existing data to 6.1.

3.1 Built-in H2 database

When you run the installer, it will detect any existing H2 databases and ask you if you want to migrate, and it will list all available installations of LAE on the server that you are installing onto. When you select one of these installations, the installer will copy the H2 database associated with that installation into the new install.

When the install is complete, additional manual steps will be required to update your database to the current version. This can be done in two ways:

- Manually by running SQL scripts
- Automatically using a generated LAE graph (BRG file)

Manual SQL scripts

1. Locate the SQL scripts in the following directory on the server:

<root installation directory>/sql/migration/hsqldb

» Under this directory are two sub-directories; DDL and DML.

2. Connect to the H2 database.

The H2 database is a file-based database located in *<root installation directory>/data/automationDb.h2.db*

3. Execute the SQL script under the DDL sub-directory.
4. Execute the SQL script under the DML sub-directory.



Note: Ensure that you select the SQL script for the correct version.

Automated LAE graph

1. Locate the BRG on the server:

```
<root installation directory>/brg/migration/db/migrateDb.brg
```

2. Copy the BRG file to your PC where BRE is installed and open the graph.
3. The parameters for the graph should be fully configured already, but you may wish to review them by navigating to **Graph > Edit Parameters**.



Note: Ensure that the correct starting version is entered.

4. Ensure that the LAE Web Application is not running; if it is running, stop it by running the following script on the server:

```
<root installation directory>/bin/stopLavastormJettyServer
```

5. Run the BRG graph against the new 6.1 server installation.
 - » At this point, the copied H2 database has been fully updated and is ready for use.

3.2 Oracle database

If using a separate Oracle database, you will need to update that database manually. It is recommended that you back up the existing Oracle database before proceeding.

1. Locate the SQL scripts in the following directory on the server:

```
<root installation directory>/sql/migration/oracle
```

» Under this directory are two sub-directories DDL and DML.

2. Connect to the Oracle database using a SQL tool such as SQL*Plus or SQL Developer.
3. Execute the SQL script under the DDL sub-directory.
4. Execute the SQL script under the DML sub-directory.

» At this point, the Oracle database has been fully updated and ready for use.

4. LAE Web Application

4.1 WebLogic 12c installation

This section describes the general procedure for installing the LAE Web application on a WebLogic 12c server running under Windows Server 2008. This document does not cover the installation of WebLogic, the creation of WebLogic domains, or the administration of WebLogic servers. Please refer to the WebLogic documentation for those topics.

The LAE web application will be installed on a WebLogic domain server. The domain directory of this server will be referred to as *DOMAIN_HOME* in this document. If you have installed WebLogic using its default, the *DOMAIN_HOME* is found under the installation root folder at: */user_projects/domains/mydomain*.

The directory under which you have installed the LAE will be referred to as *LAE_HOME*.

Post-LAE installation

1. Do not start the default LAE Jetty server. The web application included with the installation will be configured and run under WebLogic after it has been installed following the steps covered in this document.



Note: The LAE Web Application must be deployed and running on WebLogic before the LAE Server can be started.

2. If you plan on using the H2 database included with the installation, start the H2 database service.
3. When the LAE installation is complete, start the system service for the LAE Server and apply the license.

Configure WebLogic to run the LAE

1. Make a directory named “classpath” under *DOMAIN_HOME*/config.
2. Copy the file “site.prop” found under *LAE_HOME*/web-conf to the newly created directory, *DOMAIN_HOME*/config/classpath
3. Edit the `site.prop`:
 - a. Configure LAE Server properties:
 - i. Set `ls.lae.container.serverHost` property to the hostname where the LAE Server is installed.
 - ii. Set `ls.lae.container.serverPort` property to the LAE Server listening port.
 - b. If Active Directory is used for authentication, set the Active Directory domain properties; otherwise, leave the properties blank:
 - i. Set `ls.lae.auth.activeDirectory.domain` to the Active Directory domain.
 - ii. Set `ls.lae.auth.activeDirectory.server` to the Active Directory server.
 - c. Set the location of the keystore:
Set `ls.lae.auth.trust.keyStore` to *DOMAIN_HOME*/config/classpath



Note: If the LAE Server and LAE web application are installed on the same server, trusted host authentication is automatically configured by the installer. Leave the default value for this property.

4. Add the new classpath directory to the `PRE_CLASSPATH` variable to the domain environment:
 - a. Edit *DOMAIN_HOME*\bin\setDomainEnv.bat
 - b. Add the line “set `PRE_CLASSPATH=DOMAIN_HOME\config\classpath`” just below the line containing “set `WL_HOME`”.



Note: Remember to use the complete path where your domain server is installed instead of *DOMAIN_HOME* in the line above. *DOMAIN_HOME* is only used for documentation purposes.

5. Copy files `log4j-1.2.17.jar`, `wllog4j.jar`, `bcprov-jdk15on-1.50.jar` to *DOMAIN_HOME*/lib.
 - a. `log4j-1.2.17.jar` can be downloaded from <https://logging.apache.org/log4j/1.2/download.html>
 - b. `wllog4j.jar` can be found in the `wlserver/server/lib` directory of the WebLogic base installation, that is, *MW_HOME*/wlserver/server/lib.
 - c. `bcprov-jdk15on-1.50.jar` can be found in *LAE_HOME*/lib/java.

Deploy LAE on WebLogic

1. Start the WebLogic Server:
 - > DOMAIN_HOME\startWebLogic.bat
2. Start the Node Manager:
 - > DOMAIN_HOME\bin\startNodeManager.bat
3. Create a managed server where the LAE will be deployed.
 - a. Log in to the WebLogic web console, <http://localhost:7001/console>
 - b. Create a new managed server for the LAE.

Please refer to the WebLogic documentation to perform this step.
4. Create a new Data Source:
 - a. In the admin console, expand the Services link in the Domain Structure panel and click Data Sources.
 - b. In the Summary of JDBC Data Sources, click the **New** button to expand the drop down menu and select **Generic Data Source**.
 - c. For the JNDI name, enter `jdbc/LavaStormDataSource`.
 - d. Select your database type.
 - e. Click **Next** and select your database driver.
 - f. Enter JDBC parameter appropriate for your database.
 - g. In the **Create a New JDBC Data Source** panel, select the server created in step 3.
 - h. Click **Finish**.
5. Start the managed server created in step 3.
6. Deploy the Lavastorm Analytics Engine Application on the Lavastorm server:
 - a. Click **Deployments** in the **Domain Structure** panel.
 - b. Click the **Install** button in the **Summary of Deployments** panel.
 - c. If the LAE was installed on a different physical machine than the one where the WebLogic server is running, copy `LAE_HOME/jetty/webapps/root.war` from the LAE installation to a directory on the server running WebLogic that is accessible to the WebLogic server.
 - d. Navigate to the location of the `root.war` application and select it by clicking the radio button.
 - e. Select **Install this deployment as an application** and click **Next**.
 - f. Check the box next to the Lavastorm server and click **Next**.
 - g. Click **Next**.
 - h. Select **No, I will review the configuration later** on the next screen.
 - i. Click **Finish**.
7. The admin console will return to the Summary of Deployments panel with status messages. If everything was installed correctly, the LAE deployment should indicate a State of Active.
8. The LAE application can now be accessed at http://<lavastorm_server>:<lavastorm_port>/lae.

4.2 Deploying LAE Web Application to Tomcat 7

 **Note:** This portion is only applicable to users who opted for a custom installation and did not install the Jetty server. These directions describe the steps required by the LAE Web Application when being deployed to a Tomcat 7 web application server.

 **Note:** The LAE Web Application must be deployed and running on Tomcat before the LAE Server can be started.

Make sure the LAE Server is installed, configured, and running. The location of the LAE Web Application installation will be referred to below as *<LAE Web Application-installation-directory>*.

1. Create tables in the database by running the following two SQL scripts:
 - a. *<LAE Web Application-installation-directory>/sql/tables_oracle_quartz.sql*
 - b. *<LAE Web Application-installation-directory>/sql/tables_oracle_lavastorm.sql*
2. Deploy the application WAR *<LAE Web Application-installation-directory>/root.war* into your application server. The name of the WAR can be changed as appropriate for the deployment environment.
3. Copy *<LAE Web Application-home>/web-conf/site.prop* into the classpath of the deployed application.
4. Edit the copied *site.prop* and change the *ls.lae.auth.trust.keyStore* property to point to a directory which is writable by the deployed application. This will be referred to as *<key-store-dir>*.
5. Create a DataSource resource accessible to the deployed application named "jdbc/LavaStormDataSource" which is configured to access the database where the tables in step 1 were created. The following is an example of a Resource entry in a context.xml file:

```
<Resource name="jdbc/LavaStormDataSource" auth="Container"
type="javax.sql.DataSource"
    maxActive="100" maxIdle="30" maxWait="10000"
    username="<db-user>" password="<db-password>"
    driverClassName="<jdbc-driver-class-name>"
    url="<jdbc-url>" />
```

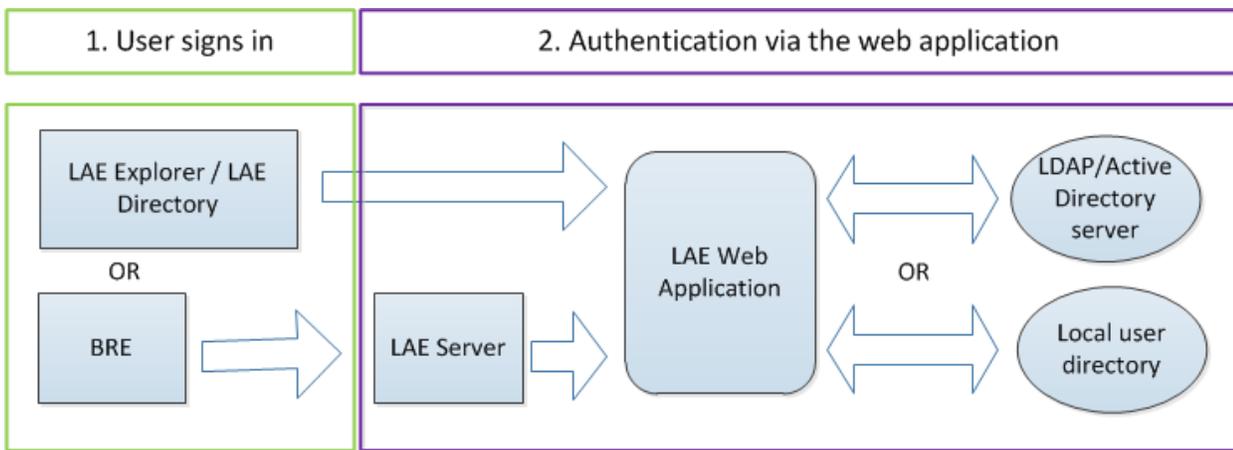
Where *<jdbc-driver-class-name>* is the class name for the JDBC driver to use. For oracle this should be *oracle.driver.jdbc.OracleDriver*. Where *<jdbc-url>* is the JDBC driver URL. For oracle this should be: *jdbc:oracle:thin:@<database-hostname>:<database-port>/<service>*.

6. Start the deployed application.
7. Connect to the application with a Web browser.

4.3 LAE authentication overview

LAE system users can be either imported from an external LDAP or Active Directory (AD) system (see [Installing LAE Server on Windows Server](#)) or created manually in the web application by a user with the role of administrator (see the LAE Administration Guide for more information).

User authentication is orchestrated by the web application. For LDAP/AD imported users, authentication occurs via the LDAP/AD server; whereas for manually created users, authentication occurs directly in the LAE Web Application. This can occur either directly via the LAE Explorer or LAE Directory web pages, or indirectly via BRE. In the latter case, the credentials are transmitted from BRE to the LAE server, which then communicates with the LAE Web Application to perform user authentication through either the configured LDAP/AD server or through the local user store.



Also, subsequent communications between the LAE Web Application server and the LAE server(s) is authenticated using host-based authentication. Host-based authentication involves the creation of trusts between the hosts using shared public/private key pairs. The configuration of this trusted host authentication is covered in detail in the following sections.

4.4 Authentication via LDAP/AD (optional)

During the initial installation (or any installation where the LAE Web Application is being deployed), there is the option to authenticate users via an external LDAP or Active Directory (AD) system (see [Installing LAE Server on Windows Server](#)).

Opting in to LDAP/AD authentication

During the installation, the **Active Directory domain** and **Active Directory server** can be populated with the domain and server details of the LDAP or AD system that you want to authenticate against (see [Installing LAE Server on Windows Server](#)). The installer will then set up the LAE Web Application to perform the authentication of all users primarily against the LDAP or AD system provided. Where a user cannot be authenticated against LDAP/AD then LAE will try to authenticate the user locally (assuming that they exist).

Editing LDAP/Active Directory settings after installation

You can set or edit the following properties related to LDAP/Active Directory authentication.

- `ls.lae.auth.userSearchBase=`

From the Root DN, this is the search path that is used to determine what part of the LDAP/Active Directory structure users are allowed to authenticate from.

- `ls.lae.auth.userSearchFilter=`

This is the search filter used to identify users.

- `ls.lae.auth.rootDn=`

This is the root path into the LDAP/Active Directory structure that the authentication will take.

- `ls.lae.auth.activeDirectory.domain=`

This is the LDAP/Active Directory domain.

- `ls.lae.auth.activeDirectory.server=`

This is the LDAP/Active Directory server.

For example, if you did not set up the LDAP/Active Directory domain or server during installation, or if you wish to edit the LDAP/Active Directory domain or server after installation, you can configure the properties in the `site.prop` file.

1. Navigate to the `site.prop` file at: `$laeInstallDirectory/web-conf/site.prop`
2. Open the `site.prop` file.

3. To set or edit the LDAP/Active Directory domain, locate the following property:

```
ls.lae.auth.activeDirectory.domain=
```

4. To set or edit the LDAP/Active Directory server, locate the following property:

```
ls.lae.auth.activeDirectory.server=
```

5. Add the full domain name or full server name after "=" in the property. After the server name, you must also add the port number, as in the following example:

EXAMPLE:

```
ls.lae.auth.activeDirectory.server=server.dev.lavastorm.com:389
```

For more information on importing LDAP/Active Directory users and groups to LAE, see the LAE Administration Guide.

Opting out of LDAP/AD authentication

During the installation, if you do not populate the **Active Directory domain** and **Active Directory server**, then there will be no LDAP/AD authentication set up for this installation. In this scenario, all LAE users will need to be created and maintained through the LAE Web Application, with authentication for these local users being performed by the LAE Web Application.

4.5 Trusted host configuration

Host-based authentication works by configuring servers to trust each other. This trust is established by each server generating a public/private key pair for itself, and then sharing the public key with servers that are to be trusted. During host-based authentication, the public key is used to encrypt data in the authentication request. The server that is being authenticated against will ensure that the data was encrypted using its public key and then ensure that the host that is requesting authentication is registered as a trusted host.

Default installation

During installation of the enterprise server software, you choose to either install the LAE Web Application and the LAE Server simultaneously (default) or to install only the LAE Server. If you choose to install only the LAE Server, you enter information about the location of the existing LAE Web Application server, (see [Installing LAE Server on Windows Server](#)). The installer will automatically configure the system such that the LAE Server trusts the LAE Web Application and the LAE Web Application trusts the LAE Server.

In general, the installer should take care of the configuration for you. However, in the event that manual host-based authentication is necessary, please see [Server farms](#) and [Overview of laeConfig utility](#).

Server farms

When installing LAE servers as part of a server farm, trusts must also be established between the controller LAE server, that is, the server that is installed with the LAE Web Application, and the other farm servers. This must be done manually using the `laeConfig` command line utility.

The installer will generate key pairs for all servers; the only additional manual step is to configure the farm LAE servers to trust the controller LAE server. The following example `laeConfig` command demonstrates how to configure a farm server to trust the controller server. It is assumed that the command is being run from the farm server's environment. This command requires that the LAE controller server is running. When you run the command, it will prompt you for both the target and remote username and password to configure the trust; assuming that you have followed the installation instructions, then at this point the username and password for both are the same, as all user authentication is unified against the single LAE Web Application.

EXAMPLE:

```
laeConfig auth trust create laeserver://<controller server  
host/ip>:<controller server port>
```

4.6 Configuring thread pooling

The LAE Web Application Server will need to regularly communicate with the LAE Server in order to deploy and check the status of graphs. If you intend to use a customized thread pool configuration and to use the LAE Web Application Server features, you will need to configure a pool for the LAE Web Application Server to use.

If thread pooling is in place, the LAE Web Application Server will be configured to communicate with the LAE Server and take from a pool named "automation". When configuring your thread pools you will need to construct an unlimited "automation" pool.

The example `pool.config` file shipped with LAE contains an example of such a pool.

4.7 Setting up Oracle database with LAE Web Application Server

If you wish to use an Oracle database with your LAE Web Application Server rather than H2, a few additional configuration steps are required.

1. Add the following parameter to the `site.prop` file:
`ls.lae.persistence.databaseType=oracle`. By default, this parameter does not exist, so the system assumes an H2 database.
2. Navigate to directory: `<LAE Web Application-installation-directory>/jetty/resources`.
3. Open the `lavastorm_datasource.xml` file.
4. Change `driverClass` to: `oracle.jdbc.driver.OracleDriver`.
5. Change `jdbcUrl` to: `jdbc:oracle:thin:@<lae-server-hostname>:<oracle-port>:<oracle-database>`.

6. Change *User* and *Password* to the login credentials for your Oracle database.
7. Navigate to directory: *< LAE Web Application-installation -directory>/jetty/lib/ext*.
8. Copy your Oracle *.jar* file into the *ext* directory. It will typically be named *ojdb6.jar*.
9. Create tables in the database by running the following two SQL scripts:
 - *tables_oracle_quartz.sql*
 - *tables_oracle_lavastorm.sql*

5. User-hosted auto-update server

Users who do not wish to receive auto-updates to their client machines from the Lavastorm download server can host the updates internally on their own web server. The only prerequisite is that the user has an existing web server available from the client machines on which to locate the Lavastorm files.



Note: Windows users must have administrator rights to install updates.

1. Within the section of the web container that is available on the web, create the following directory structure:

```
.../lae/<version>/
```

EXAMPLE:

<http://localhost:8080/downloads/lae/6.0/>

2. Retrieve the `updates.xml` file and the `.exe` installer from the `downloads.lavastorm.com` update server.
3. Place the `updates.xml` file and the `.exe` installer in the `.../lae/6.1/` directory.
4. When installing LAE, enter the following with the appropriate path for your web server as the Update URL: <http://localhost:8080/downloads/lae/6.0/updates.xml>

When placing the initial files or a subsequent installer `.exe` in the `.../lae/6.1/` directory, edit the `updates.xml` file and ensure that the `fileName` and `newVersion` fields in each entry match the file name and version of the `.exe`. If you rename the `.exe` and do not update the `.xml` file, the software will not update.

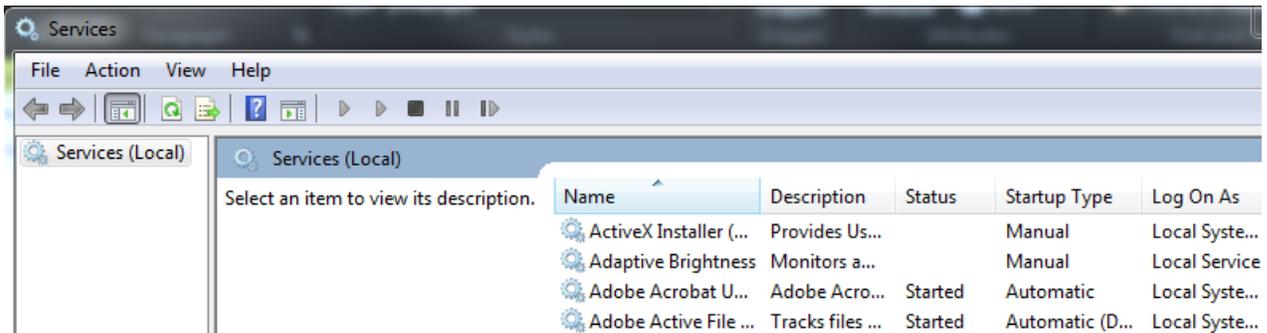
6. Starting and stopping the server

- ✓ You have installed the LAE Server, see [Installing LAE Server on Windows Server](#). As part of the installation, the LavastormLAEServer service is created. Depending on the specific settings of your installation, the LavastormH2Database and the LavastormJettyServer services are also created on your machine. You can start, stop or configure the LAE services by using the Windows Control Panel.



Caution: In LAE 6.1, the LAE server authenticates against the LAE web application, therefore the web application must be running prior to starting the LAE server. Similarly, if the shutdownServer scripts are to be used, the web application must be running.

1. From the Windows Start menu, click **Control Panel**.
 2. Click **System and Security**.
 3. Click **Administrative Tools**.
 4. Double-click **Services**.
- » The Services window opens and displays a list of services.



EXAMPLE: The following example shows (from left to right) the LAE Servers, their Description, Status, Startup Type and Log On As information. The port numbers are those that are set during installation.

LavastormH2Database5.1-9092	Lavastorm H2 database running on port 9092	Started	Automatic	Local System
LavastormJettyServer5.1-8080	Lavastorm Jetty Server running on port 8080	Started	Automatic	Local System
LavastormLAEServer5.1-7721	Lavastorm Analytics Engine	Started	Automatic	Local System

5. Right-click a service to display the context menu.
6. From the context menu, you can choose to **Start**, **Stop** or **Restart** the server. You can also select **Properties** to configure the server settings. For example, you can select a Manual or Automatic Startup Type. By default, the server Status is set to Started and the Startup Type is set to Automatic.

7. User credentials



Note: After installation, you are assigned the following default user credentials:

User name: admin

Password: welcome



Caution: As a first step after installation, we recommend that you change your password the first time that you sign in to the LAE Directory. A second step, before working with the LAE Directory, is to upload all necessary node libraries.

For more information on changing your password and uploading node libraries, please see the LAE 6.1 Administration Guide.

8. Uninstalling LAE Server on Windows Server

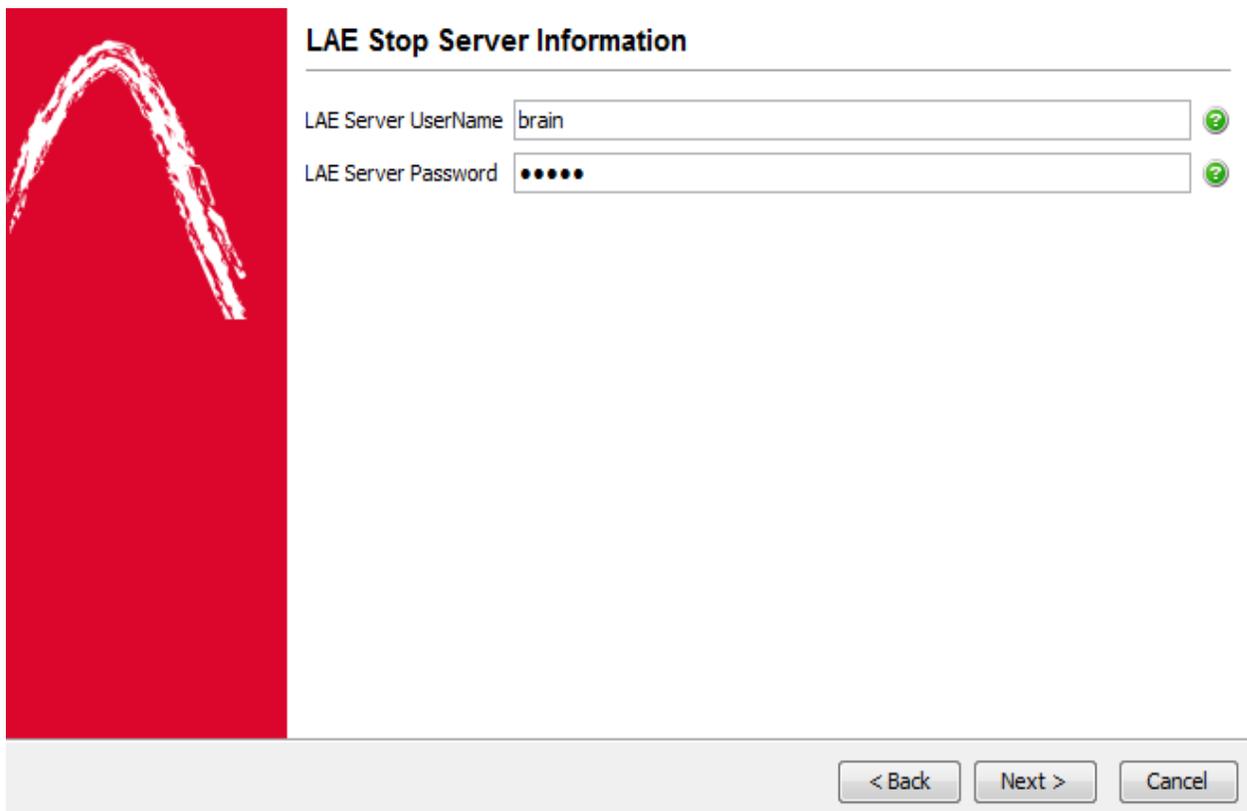


Caution: Ensure that the administrator user's password is reset to "welcome" in order to successfully run the uninstall process. You can change your password through the LAE Directory, please see the LAE Administration Guide for more information.

To uninstall the LAE Server:

1. Click the Start menu, then locate the shortcut section for LAE. It should be in the location that you specified during installation; the default is "Lavastorm -> LAE6.1".
2. Under the shortcut folder in the Start menu, select the **Lavastorm Analytic Engine Uninstall** item, to launch the uninstall program.

» A **LAE Stop Server Information** window appears:



LAE Stop Server Information

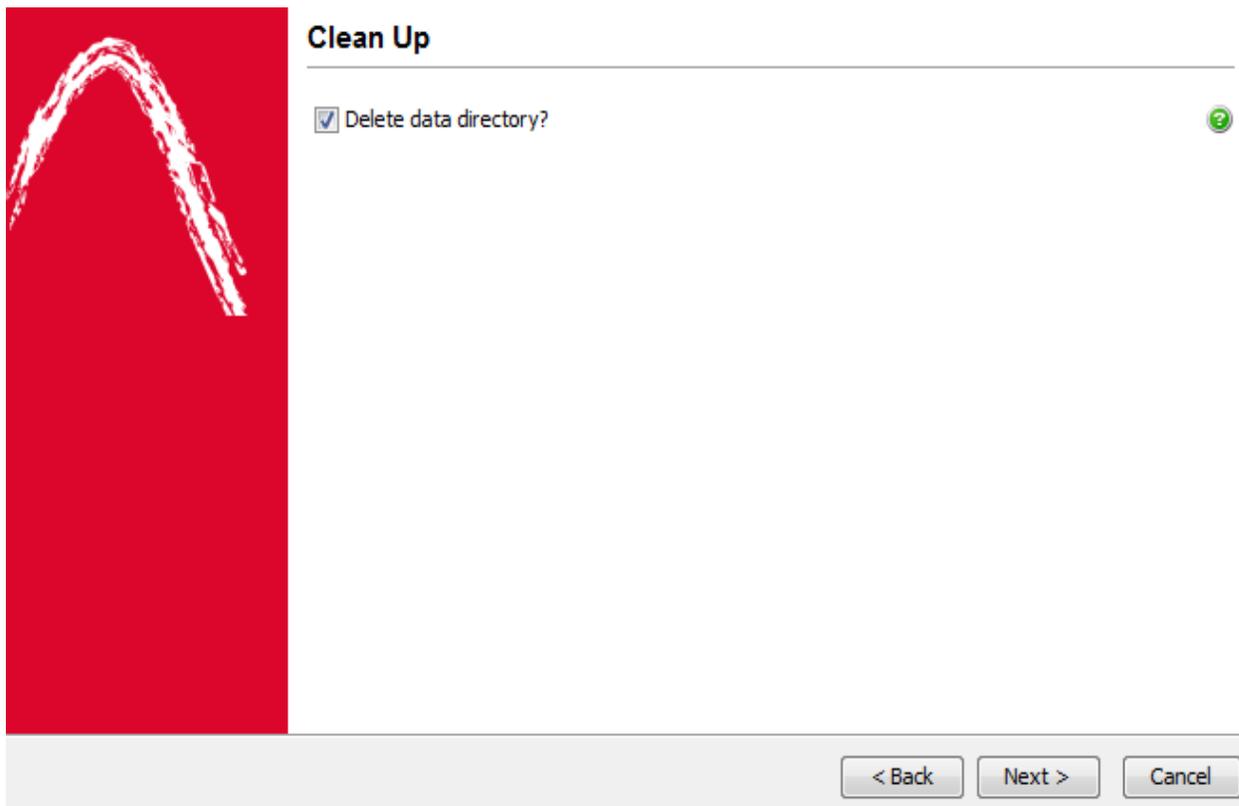
LAE Server UserName ?

LAE Server Password ?

< Back Next > Cancel

3. Ensure that the login credentials are correct, and click **Next**.

» A **Clean Up** window appears:



4. Select the check box if you would like to delete the data directory.
5. Click **Next** to perform the uninstallation.

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Document ID: LAE-6.1-INS-SER-1

Date of Publication: 23 July 2015