SMART Vantage™

Installation guide

Extraordinary made simple® | **SMART**

Product registration

If you register your SMART product, we'll notify you of new features and software upgrades.

Register online at smarttech.com/registration.

Keep the following information available in case you need to contact SMART Support.

Product key: _____

Date of purchase: _____

Installation overview

Institution software

☐	Task	Reference
☐	Ensure your institution's computers meet the SMART Vantage™ technology-management software minimum requirements.	page 2
☐	Ensure your SMART Board® interactive whiteboards and projectors are supported by SMART Vantage software.	page 3
☐	Choose a hardware network configuration for your institution's interactive whiteboards and projectors.	page 6
☐	Install SMART Product Drivers and enable SMART Vantage services to start on computers connected to your interactive whiteboards and projectors.	page 12
☐	Install SMART Vantage prerequisite software on the server hosting SMART Vantage Institution server software.	page 14
☐	Install SMART Vantage Institution server software.	page 19
☐	Configure the LDAP server that SMART Vantage Institution server software authenticates against.	page 31

Enterprise software

☐	Task	Reference
☐	Ensure the computer hosting SMART Vantage Enterprise server software meets the minimum requirements.	page 2
☐	Install SMART Vantage prerequisite software on the server hosting SMART Vantage Enterprise server software.	page 25
☐	Install SMART Vantage Enterprise server software.	page 25
☐	Configure the LDAP server that SMART Vantage Enterprise server software authenticates against.	page 31

Please send any feedback on this guide to DocumentationFeedback@smarttech.com.

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Chapter 1
Getting started

This guide explains how to install the different software components of SMART Vantage technology-management software.

This guide is intended for IT administrators and others experienced with customizing, deploying and administering Windows® software in a networked environment. To use this guide, you must:

- Know IT terminology such as Lightweight Directory Access Protocol (LDAP), Apache™ Directory™ Server™, Microsoft® Windows, Active Directory®, http and https, firewalls, network port, authentication, PostgreSQL® database and client/server.

- Know how to complete basic administrative tasks in Windows operating systems such as database backup and restore, network port management, setting the computer language, viewing, starting and stopping services.

- Have administrative privileges and access to servers.

- Have Internet access.

Computer requirements

Before you install SMART Vantage conferencing software, ensure your computers and network meet the minimum requirements defined in this section.

Computer connected to your interactive whiteboard or projector

- SMART Product Drivers 11 or later for Mac operating system software

  OR

  SMART Product Drivers 10.8 SP1 or later for Windows operating systems

  > **ℹ NOTE**
  >
  > For a complete list of computer requirements, refer to the operating systems section of the *SMART Product Drivers* release notes available from smarttech.com/downloads.

- Connection to your institution's intranet

> **☞ IMPORTANT**
>
> The SNMPAgent and VantageService services must also start when the computer connected to your interactive whiteboard or projector starts (see *Installing institution software* on page 11).

SMART Vantage software server

> **☞ IMPORTANT**
>
> SMART Vantage software must be hosted on a server inside a private intranet (behind a firewall). The software is not intended for use on a public network.

Minimum hardware

- 2 GHz dual core processor

- 8 GB of RAM

- 100 GB of hard disk space

Supported operating systems

- Windows Server® 2008 R2 with SP1 (including all updates)

> ☞ **IMPORTANT**
>
> The server operating language must be U.S. English.

Internet browsers

- Internet Explorer® Internet browser 8 or 9

> **ℹ NOTE**
>
> SMART Vantage software doesn't support exporting interactive whiteboard usage data or projector bulb life expectancy data in .png file format using Internet Explorer 8.

- Firefox® 6, 7,8 or 9

- Google™ Chrome™ 13.0.782 or 16.0.912

- Safari 4 or 5

Supported SMART Board interactive whiteboards and projectors

SMART Board interactive whiteboards

- SMART Board 480, 640, 660, 680, 685, 690, D660, D680, D685, D690, 880, and 885 interactive whiteboards

- SMART V25, SMART UF55, SMART UF55w, SMART UX60, SMART UF65, SMART UF75 and SMART UF75w projectors

Choosing a level of installation

SMART Vantage software enables you to choose either an Institution or Enterprise level of installation.

> **ℹ NOTE**
>
> Each installation of SMART Vantage Institution and Enterprise server software requires a dedicated server to host the software. For more information, see *SMART Vantage software server* on the previous page.

Institution level

This level of installation enables educational and IT administrators to obtain interactive whiteboards usage data and projector bulb life expectancy data within a single institution. See *Installing SMART Vantage Institution server software* on page 19 for instructions on completing this type of installation.

ℹ️ NOTE

Projectors can be connected to your network directly or through the computer connected to the interactive whiteboard they're being used with.

Software components

An Institution level installation includes the following software components:

☞ IMPORTANT

The SMART Vantage enabler software BAT file is required for use with SMART Product Drivers 10.8 SP1 only.

Component	Purpose	Installation location
SMART Product Drivers (see *Installing SMART Product Drivers* on page 12)	Enables an interactive whiteboard and projector to be recognized and to provide usage data to SMART Vantage Institution server software.	Computer connected to an interactive whiteboard and projector
SMART Vantage enabler software (see *Running the enabler software* on page 13) ☞ **IMPORTANT** SMART Vantage enabler software is required only if SMART Product Drivers 10.8 SP1 is installed or if the SMART Vantage services checkbox was not selected during the installation of SMART Product Drivers 11 (or later) for Windows operating systems.	Starts SNMPAgent and VantageService at system startup.	Computer connected to an interactive whiteboard and projector

Component	Purpose	Installation location
SMART Vantage software prerequisites (see *Installing prerequisite server software* on page 14)	Installs third-party software required by SMART Vantage Institution server software.	Server that has access to all projectors that are being monitored, as well as to all computers connected to an interactive whiteboard and projector that are being monitored
SMART Vantage Institution server software (see *Installing SMART Vantage Institution server software* on page 19)	Enables educational and IT administrators to access data on all aspects of interactive whiteboard and projector use within an institution.	Server that has access to all projectors that are being monitored, as well as to all computers connected to an interactive whiteboard and projector that are being monitored

Enterprise level

This level of installation enables educational and IT administrators to obtain interactive whiteboards usage data and projector bulb life expectancy data from institutions that have implemented SMART Vantage Institution server software. See *Installing Enterprise software* on page 25 for instructions on completing this type of installation.

Software components

An Enterprise level installation includes the following software components:

Component	Purpose	Installation location
SMART Vantage software prerequisites (see *Installing prerequisite server software* on page 14)	Installs third-party software required by SMART Vantage Institution server software.	Server that has access to all the institution servers hosting SMART Vantage Institution server software
SMART Vantage Enterprise server software (see *Installing SMART Vantage Enterprise server software* on page 26)	Enables educational and IT administrators to access interactive whiteboard and projector usage data from all institutions that have implemented SMART Vantage Institution server software.	Server that has access to all the institution servers hosting SMART Vantage Institution server software

Choosing a hardware network configuration

The network configuration you choose determines which systems you receive usage data from. There are three different network configurations that will enable you to connect your SMART Board interactive whiteboards and projectors to SMART Vantage Institution server software.

Choose one of the following options:

Device	Network configuration	Required IP address
Interactive whiteboard	Use a network cable to connect the computer connected to your interactive whiteboard, to your institution's network.	Computer connected to the interactive whiteboard
Projector - option 1	Use an RS-232 serial connection to connect your projector to the computer connected to your interactive whiteboard. Then use a network cable to connect that computer to your institution's network. ☞ **IMPORTANT** Do not disconnect any existing connections, such as the Extended Control Panel (ECP), interactive whiteboard or other input devices. 💡 **TIP** See your interactive whiteboard user's guide for information on connecting a projector to the computer connected to an interactive whiteboard.	Computer connected to the interactive whiteboard and to the projector
Projector - option 2	Use a network cable to connect your projector directly to your institution's network.	Projector 💡 **TIP** See your interactive whiteboard user's guide for information on finding your projector's IP address.

ℹ️ **NOTE**

For minimum computer and network requirements, see *Computer requirements* on page 2.

About user profiles

> 🖝 **IMPORTANT**
>
> You will not be able to complete the configuration of SMART Vantage software until you have
> created user profiles in your LDAP server. For more information on creating user profiles, see
> *Creating user profiles* on page 32.

To use SMART Vantage technology-management software, a user must log on as a report user or as
an administrator. Both roles have specific access permissions within an Institution or Enterprise level
implementation of SMART Vantage software.

For more information about what's available to both levels of user, see the *SMART Vantage
configuration and user's guide* (smarttech.com/kb/170155).

User access profiles are configured in your LDAP server, which authenticates and authorizes all
SMART Vantage users. For information on setting up profiles for report users and administrators, see
Creating user profiles on page 32.

See below for details of the access rights available to Institution and Enterprise level report and admin
users.

Institution user access rights

User	The user can:
Report user	Generate reports providing interactive whiteboard usage data and projector bulb life expectancy data from within their institution's implementation of SMART Vantage software.
Administrator	• Generate reports providing interactive whiteboard usage data and projector bulb life expectancy data from within the institution's implementation of SMART Vantage software. • Configure and manage an implementation of SMART Vantage software.

Enterprise user access rights

User	The user can:
Report user	Generate reports providing a summary of interactive whiteboard usage data and details of projector bulb life expectancy data from multiple institutions that have implemented SMART Vantage software.
	ℹ NOTE Enterprise level report users also have Institution level report user access rights and can log on to an individual intuition implementation of SMART Vantage software.
Administrator	• Generate reports providing a summary of interactive whiteboard usage data and details of projector bulb life expectancy data from multiple institutions that have implemented SMART Vantage software. • Set up and manage an implementation of SMART Vantage Enterprise software.
	ℹ NOTE Enterprise level administrators also have institution level administrator access rights and can log on to an individual implementation of SMART Vantage software.

About SMART Vantage software and firewalls

During the installation of SMART Vantage prerequisite software and SMART Vantage software, you're prompted to allow the installation wizard to add the following ports to the Windows Firewall exceptions list:

☞ IMPORTANT

Denying the installer from adding these ports will cancels the installation.

Port	Type/protocol	Purpose
80	HTTP	Enables the server hosting SMART Vantage software to access the SMART Vantage web application.
443	HTTPS	Enables secure communications for SMART Vantage software.
162	SNMP traps	Port 162 for SNMP traps ports 80 (HTTP) and 443 (HTTPS) to both access the SMART Vantage web portal and receive usage data from the computer connected to an interactive whiteboard or projector.

Port	Type/protocol	Purpose
9987	Broadcast autodiscovery replies	Used by the autodiscovery feature to enable SMART Vantage institution software to continue acquiring interactive whiteboard usage data in situations where different computers are used to connect the same interactive whiteboard to your network. For more information on SMART Vantage Institution software's autodiscovey feature, see the *SMART Vantage configuration and user's guide* (smarttech.com/kb/170155).

About software product keys

> ☞ **IMPORTANT**
>
> You must have a product key to activate SMART Vantage software.

For information on obtaining a product key to activate your SMART Vantage software, contact your authorized SMART reseller.

You can choose to activate SMART Vantage software at either of the following times:

- During installation.

  OR

- After you have installed the software (see *Activating the software after installation* on page 41).

Chapter 2
Installing institution software

In a typical Institution installation, you install SMART Product Drivers on each computer that could be connected to a SMART Board interactive whiteboard or projector that you will obtain usage data from.

> ☞ **IMPORTANT**
>
> The SNMPAgent and VantageService services must also be running on each of these computers to enable SMART Vantage software to obtain usage data from the connected interactive whiteboard or projector (see *Installing SMART Product Drivers* on the next page).

You then install SMART Vantage prerequisite software and SMART Vantage Institution server software on your institution's server. The server must have network connection to each interactive whiteboard and projector that you want to monitor. For more information on choosing network configuration to connect your interactive whiteboards and projectors to SMART Vantage Institution server software, see *Choosing a hardware network configuration* on page 6.

Use the installation wizards to install SMART Vantage Institution server software. You can start the installation wizards by downloading executable (.exe) files from the SMART Support website.

> ☞ **IMPORTANT**
>
> Set up profiles for report users and administrators before you install and configure SMART Vantage software. Administrators can view reports and change settings, while regular users can only view reports with no change privileges (see *Creating user profiles* on page 32).

> ℹ **NOTE**
>
> For more information on configuring the software after installation, see the *SMART Vantage configuration and user's guide* (smarttech.com/kb/170155).

Installing SMART Product Drivers

Installing SMART Product Drivers enables your interactive whiteboard or projector to provide usage data to SMART Vantage software. For information on the SMART Product Drivers version requirement, See *Computer connected to your interactive whiteboard or projector* on page 2.

> 👉 **IMPORTANT**
>
> - Do not change the default installation directory location of SMART Product Drivers.
> - If you install SMART Product Drivers 10.8 SP1 you must also run the SMART Vantage enabler software on the same computer (see *Running the enabler software* on the next page).

> ℹ️ **NOTE**
>
> You're unable to select the latest version of SMART Product Drivers during the installation if a previous version of SMART Product Drivers is installed on your computer.

Use the following procedure to download and install the latest version of SMART Product Drivers on the computer connected to the interactive whiteboard or projector that you will monitor.

> 👉 **IMPORTANT**
>
> You must select **SMART Vantage services** in the *Select Startup Option(s)* dialog box during the installation process to enable the SNMPAgent and VantageService services to start when the computer connected to the interactive whiteboard or projector starts.

■ **To install SMART Product Drivers on the computer connected to an interactive whiteboard system**

1. Go to smarttech.com/downloads.

2. Scroll to *SMART Product Drivers*, click **Choose a version**, and then select the appropriate software version.

   > 💡 **TIP**
   >
   > You can install SMART Product Drivers on multiple computers from the *Administrator downloads* web page. For more information, see the *Education Software Installer 2012 system administrator's guide for Windows operating systems (*smarttech.com/kb/160531*).*

3. Click **Download**, and then follow the on-screen instructions to download and install SMART Product Drivers software onto your computer.

💡 **TIP**

Identify and record the IP address of the computer connected to the interactive whiteboard system that you will monitor. You need this information if you choose to manually add a system to your inventory of interactive whiteboards and projectors.

Running the enabler software

The enabler software starts SNMPAgent and VantageService services on SMART Product Drivers software at startup. These services enable SMART Vantage Institution server software to access usage data from an interactive whiteboard or projector connected to your network.

👉 **IMPORTANT**

The SMART Vantage enabler software file is required only in the following scenarios:

- You install SMART Product Drivers 10.8 SP1.

  OR

- You did not select **SMART Vantage services** when you installed SMART Product Drivers 11 (or later) software for Windows operating systems (see *Installing SMART Product Drivers* on the previous page).

Use the following procedure to download and run the SMART Vantage enabler software on the computer connected to an interactive whiteboard or projector you will monitor.

👉 **IMPORTANT**

- Projectors that are connected directly to your network do not need SMART Vantage enabler software.

- Do not change the default installation directory location of SMART Product Drivers.

💡 **TIP**

You can use your domain management tool chain to deploy the SMART Vantage software file to all computers on your network connected to an interactive whiteboard and projector that you will monitor.

■ **To install the SMART Vantage enabler software**

1. Go to smarttech.com/downloads.

2. Scroll to *SMART Vantage technology-management software*.

3. Click **Download**, and then follow the on-screen instructions to download the SMART Vantage enabler software file to your computer.

4. Double-click the SMART Vantage enabler software file to start **SNMPAgent** and **VantageService** services on your computer.

> **ℹ NOTE**
>
> You can check Windows Task Manager or the Mac Activity Monitor to see whether SNMPAgent and VantageService services are running.

Installing prerequisite server software

This section provides information on downloading and installing SMART Vantage prerequisite software on your Windows Server.

SMART Vantage prerequisite software includes of the following three software components:

- Apache Tomcat™ web server

- Java™ Runtime

- PostgreSQL database

> **ℹ NOTES**
>
> - You can include an installation of ApacheDS™ software when you install SMART Vantage prerequisite software. You can also use Microsoft Active Directory as an alternative to ApacheDS, but it isn't provided with SMART Vantage prerequisite software. You're prompted during the software prerequisites installation process to install ApacheDS if Microsoft Active Directory isn't being used.
>
> - It is recommended that you use the default folder locations during the installation of SMART Vantage prerequisites.

> **💡 TIP**
>
> For more information on the third-party software supplied with SMART Vantage prerequisite software, consult the relevant manufacturer's website.

To download prerequisite software

1. Go to smarttech.com/downloads.

2. Scroll to *SMART Vantage technology-management software*.

3. Click **Download**, and then follow the on-screen instructions to download the SMART Vantage server prerequisites software EXE file onto your computer.

To install prerequisite software without installing Apache DS software

1. Double-click the SMART Vantage server prerequisites software EXE file on your desktop.

   The SMART Vantage prerequisites installation wizard appears.

2. Click **Next**.

   The *SMART Vantage License Agreement* dialog box appears.

3. Select **I accept the terms in the license agreement** if you agree with the terms of the license agreement, and then click **Next**.

   > **NOTE**
   >
   > If you don't accept the license agreement, you're unable to continue the installation.

   The *Optional Features* dialog box appears.

4. Ensure the *Install ApacheDS* check box is cleared, and then click **Next**.

   The *Ready to Install the Program* dialog box appears.

5. Click **Install**.

   The *Welcome to the Apache Tomcat Setup Wizard* dialog box appears.

   > **TIP**
   >
   > The dialog box could be hidden behind the *Ready to Install the Program* dialog box.

6. Click **Next**.

   The *Apache Tomcat License Agreement* dialog box appears.

7. Click **I Agree** if you agree with the terms of the license agreement.

   > **NOTE**
   >
   > If you don't accept the license agreement, you're unable to continue the installation.

   The *Choose Components* dialog box appears.

8. Click **Next**, and then click **Next**.

    The *Configuration* dialog box appears.

9. Type **80** in the *HTTP/1.1 Connector Port* box.

    > 👉 **I M P O R T A N T**
    >
    > By default, Apache Tomcat uses port 8080 as its connector port. You must change this to port 80. Configure your firewall to allow incoming and outgoing TCP traffic on this port.

    > ℹ️ **N O T E**
    >
    > SMART Vantage doesn't use the Apache Tomcat Administrator Login user name and password.

10. Click **Next**.

    The *Java Virtual Machine* dialog box appears.

    > 👉 **I M P O R T A N T**
    >
    > Do not change the default destination folder for Java Virtual Machine software.

11. Click **Install**.

    The *Completing the Apache Tomcat Setup Wizard* dialog box appears.

    > 💡 **T I P**
    >
    > Selecting the Show Readme check box is not required to complete the installation of SMART Vantage prerequisite software.

12. Ensure the **Run Apache Tomcat** check box is selected, and then click **Finish**.

    The selected SMART Vantage prerequisite software is installed and the *InstallShield Wizard Completed* dialog box appears.

13. Click **Finish** to complete the software prerequisites installation.

◼ **To install the prerequisite software and Apache DS software**

1. Double-click the SMART Vantage server prerequisites software EXE file on your desktop.

    The SMART Vantage prerequisites installation wizard appears.

2. Click **Next**.

    The *SMART Vantage License Agreement* dialog box appears.

3. Select **I accept the terms in the license agreement** if you agree with the terms of the license agreement, and then click **Next**.

> **ℹ NOTE**
>
> If you don't accept the license agreement, you're unable to continue the installation.

The *Optional Features* dialog box appears.

4. Select **Install ApacheDS**, and then click **Next**.

The *Ready to Install the Program* dialog box appears.

5. Click **Install**.

The Apache Tomcat setup wizard appears.

> **💡 TIP**
>
> The dialog box could be hidden behind the *Ready to Install the Program* dialog box.

6. Click **Next**.

The *Apache Tomcat License Agreement* dialog box appears.

7. Click **I Agree** if you agree with the terms of the license agreement.

> **ℹ NOTE**
>
> If you don't accept the license agreement, you're unable to install Apache Tomcat.

The *Choose Components* dialog box appears.

8. Click **Next**, and then click **Next**.

The *Configuration* dialog box appears.

9. Type **80** in the *HTTP/1.1 Connector Port* box, and then click **Next**.

> **☞ IMPORTANT**
>
> By default, Apache Tomcat uses port 8080 as its connector port. You must change this to port 80. Configure your firewall to allow incoming and outgoing TCP traffic on this port.

> **ℹ NOTE**
>
> SMART Vantage does not use the Apache Tomcat Administrator Login user name and password.

10. The *Java Virtual Machine* dialog box appears.

> **☞ IMPORTANT**
>
> Do not change the default destination folder for Java Virtual Machine software.

11. Click **Install**.

     The *Completing the Apache Tomcat Setup Wizard* dialog box appears.

     > 💡 **TIP**
     >
     > You don't have to select the **Show Read** to complete the installation of SMART Vantage
     > prerequisite software.

12. Ensure **Run Apache Tomcat** is selected, and then click **Finish**.

     The selected SMART Vantage prerequisite software is installed and the *Welcome to the*
     Apache Directory Server Setup Wizard dialog box appears.

     > 💡 **TIP**
     >
     > The dialog box could be hidden behind the *Installing SMART Vantage Prerequisites* dialog
     > box.

13. Click **Next**.

     The *Apache Directory Server License Agreement* dialog box appears.

14. Click **I Agree** if you agree with the terms of the license agreement.

     > ℹ️ **NOTE**
     >
     > If you don't accept the license agreement, you're unable to continue the installation.

     The *Apache Directory Server Setup* dialog box appears.

15. Click **Next**, and then click **Next** on the following two dialog boxes.

     The *Choose Install Location* dialog box appears.

16. Browse to and select the **Java folder** on your computer, and then click **Install**.

     > **EXAMPLE**
     >
     > C:\Program Files\Java\jre1.6.0_20

     The Java home directory folder is installed and the *Installation complete* dialog box appears.

17. Click **Next**.

     The *Completing the Apache Directory Server Setup Wizard* dialog box appears.

18. Click **Finish**.

     You're asked whether you want to start the default directory instance.

19. Click **Yes**.

    The SMART Vantage installation wizards completes the installation of the prerequisite software.

20. Click **Finish** to complete the software prerequisites installation.

Installing SMART Vantage Institution server software

Use the following procedures to download and install SMART Vantage Institution server software.

> 👉 **IMPORTANT**
>
> - Install SMART Vantage prerequisite software before you install SMART Vantage Institution server software.
>
> - During the installation of SMART Vantage Institution software, you must allow certain ports be added to the Windows Firewall exceptions list. For more information see *About SMART Vantage software and firewalls* on page 8.

> ℹ️ **NOTE**
>
> For information on obtaining a product key prior to installing SMART Vantage Institution server software, see *About software product keys* on page 9.

> 💡 **TIP**
>
> Before you begin installing SMART Vantage Institution server software, determine the IP address and domain name of the Windows Active Directory server or Apache DS server that will host SMART Vantage software. You need this information to log onto the user interface after you install the software.

When you install SMART Vantage Institution server software, you can activate the software by adding the product key during or after the installation.

> 👉 **IMPORTANT**
>
> If you do not activate SMART Vantage Institution server software, or if your subscription period ends, you are unable to log onto the SMART Vantage Institution server user interface.

■ **To download SMART Vantage Institution server software**

1. Go to smarttech.com/downloads.

2. Scroll to *SMART Vantage technology-management software*.

3. Click **Download**, and then follow the on-screen instructions to download the SMART Vantage server software EXE file onto your computer.

■ **To install SMART Vantage Institution server software with a product key**

1. Double the SMART Vantage server software EXE file on your desktop.

   The SMART Vantage setup wizard appears.

2. Click **Next**.

   The *SMART Vantage License Agreement* dialog box appears.

3. Click **I Agree** if you agree with the terms of the license agreement.

   > **i NOTE**
   >
   > If you don't accept the license agreement, you're unable to continue the installation.

   The *Product Key Information* dialog box appears.

4. Type your product key in the *Product Key* box, and then click **Next**.

   A dialog box appears enabling you to select a SMART Vantage software installation option.

5. Select **Institution server**, and then select one of the following installation options:

If you want to:	Complete these steps:
Install SMART Vantage Institution server software in the default folder location.	Click **Next**.
Choose an installation location for SMART Vantage Institution server software.	Click **Change**, browse to and select the location where you want to install SMART Vantage Institution server software, then click **OK**.

   The *Register Firewall Ports* dialog box appears.

6. Click **Yes**.

   The *Ready to Install the Program* dialog box appears.

7. Click **Install**.

   The *Installing* SMART Vantage dialog box appears and the installation begins. When the installation is complete, the *InstallShield Wizard Completed* dialog box appears.

8. Click **Finish** to complete the installation.

   The SMART Vantage *Request Type: Activate* dialog box appears.

9. Select one of the following SMART Vantage Institution server software activation options:

If you want to:	Complete these steps:
Submit the activation request automatically. **TIP** This is the recommended activation option for your SMART Vantage Institution server software.	a. Select the **Submit the activation request automatically**, and then click **Next**. b. Click **Finish**. **TIP** To connect using a proxy server, click **Connection Options** and select **Use other proxy**.
Submit the activation request manually.	a. Select **Submit the activation request manually**, and then click **Next**. b. Follow the on-screen instructions to manually activate your software.
Activate your SMART Vantage Institution server software later using the SMART Vantage Configuration Utility.	Click **Cancel** (see *Activating the software after installation* on page 41).

The *SMART Vantage Configuration Utility* dialog box appears. See *Configuring SMART Vantage software after installation* on page 33 for information on configuring SMART Vantage software.

IMPORTANT

You are unable to log onto the SMART Vantage Institution server software user interface until you use the *SMART Vantage Configuration Utility* to enable SMART Vantage Institution server software to connect to an LDAP authentication server and database server. See *Configuring SMART Vantage software* on page 31 for information on configuring SMART Vantage software.

To install SMART Vantage Institution server software without a product key

1. Double the SMART Vantage server software EXE file on your desktop.

   The SMART Vantage setup wizard appears.

2. Click **Next**.

   The *SMART Vantage License Agreement* dialog box appears.

3. Click **I Agree** if you agree with the terms of the license agreement.

   > **i NOTE**
   >
   > If you don't accept the license agreement, you're unable to continue the installation.

   The *Product Key Information* dialog box appears.

   > **i NOTE**
   >
   > For information on entering a product key after installing the software, see *Activating the software after installation* on page 41.

4. Click **Next**.

   The type of SMART Vantage server installation selection dialog box appears.

5. Select **Institution server**, and then select one of the following installation options:

If you want to:	Complete these steps:
Install SMART Vantage Institution server software in the default folder location.	Click **Next**.
Choose an installation location for SMART Vantage Institution server software.	Click **Change**, browse to and select the location where you want to install SMART Vantage Institution server software, then click **OK**.

   The *Register Firewall Ports* dialog box appears.

   > **i NOTE**
   >
   > See *About SMART Vantage software and firewalls* on page 8 for information about which ports must be added to the Windows firewall exceptions list.

6. Click **Yes**.

   The *Ready to Install the Program* dialog box appears.

7. Click **Install**.

   The *Installing SMART Vantage* progress dialog box appears and the installation begins. When the installation is complete, the *InstallShield Wizard Completed* dialog box appears.

8. Click **Finish** to complete the installation.

   The *SMART Vantage Configuration Utility* dialog box appears.

   ☞ **IMPORTANT**

   You are unable to log onto the SMART Vantage Institution server software user interface
   until you use the SMART Vantage Configuration Utility to enable SMART Vantage Institution
   server software to connect to an LDAP authentication server and database server. See
   Configuring SMART Vantage software on page 31 for information on configuring SMART
   Vantage software.

   💡 **TIP**

   Use the *Activation* dialog box in the SMART Vantage Configuration Utility to add a product
   key and activate the software (see *Activating the software after installation* on page 41).

Chapter 3
Installing Enterprise software

In a typical Enterprise installation, you install SMART Vantage prerequisite software and SMART Vantage Enterprise server software on a server that has access to each Institution server hosting SMART Vantage Institution server software (for information on installing SMART Vantage Institution server software, see *Installing institution software* on page 11).

Use the installation wizards to install SMART Vantage Enterprise server software. You can start the installation wizards by downloading executable (.exe) files from the SMART Support website.

> ☞ **I M P O R T A N T**
>
> Set up profiles for report users and administrators before you install and configure SMART Vantage software. Administrators can view reports and change settings, while regular users can only view reports with no change privileges (see *Creating user profiles* on page 32).

> ℹ **N O T E**
>
> For more information on configuring the software after installation, see the *SMART Vantage configuration and user's guide* (smarttech.com/kb/170155).

Installing prerequisite software

For information on downloading and installing SMART Vantage prerequisite software on your Windows server, see *Installing prerequisite server software* on page 14.

Installing SMART Vantage Enterprise server software

Use the following procedures to download and install SMART Vantage Enterprise server software.

> ☞ **IMPORTANT**
>
> - Install SMART Vantage prerequisite software before you install SMART Vantage Enterprise server software.
>
> - During the installation of SMART Vantage Enterprise software, you must allow certain ports be added to the Windows Firewall exceptions list. For more information see *About SMART Vantage software and firewalls* on page 8.

> ℹ **NOTE**
>
> For information on obtaining a product key prior to installing SMART Vantage Enterprise server software, see *About software product keys* on page 9.

> 💡 **TIP**
>
> Before you begin installing SMART Vantage Enterprise server software, determine the IP address or domain name of the Windows Active Directory server or Apache DS server that will host SMART Vantage software. You need this information to log onto the user interface after you install the software.

When you install SMART Vantage Enterprise server software, you can activate the software by adding the product key during or after the installation.

> ☞ **IMPORTANT**
>
> If you do not activate SMART Vantage Enterprise server software, or if your subscription period ends, you are unable to log onto the SMART Vantage Enterprise server user interface.

To download SMART Vantage Enterprise server software

1. Go to smarttech.com/downloads.

2. Scroll to **SMART Vantage technology-management software**.

3. Click **Download**, and then follow the on-screen instructions to download the SMART Vantage server software EXE file onto your computer.

■ **To install SMART Vantage Enterprise server software with a product key**

1. Double the SMART Vantage server software EXE file on your desktop.

   The SMART Vantage setup wizard appears.

2. Click **Next**.

   The *SMART Vantage License Agreement* dialog box appears.

3. Click **I Agree** if you agree with the terms of the license agreement.

   > **ℹ NOTE**
   >
   > If you don't accept the license agreement, you're unable to continue the installation.

   The *Product Key Information* dialog box appears.

4. Type your product key in the *Product Key* box, and then click **Next**.

   A dialog box appears enabling you to select a SMART Vantage software installation option.

5. Select **Enterprise server**, and then select one of the following installation options:

If you want to:	Complete these steps:
Install SMART Vantage Enterprise server software in the default folder location.	Click **Next**.
Choose an installation location for SMART Vantage Enterprise server software.	Click **Change**, browse to and select the location where you want to install SMART Vantage Enterprise server software, and then click **OK**.

   The *Register Firewall Ports* dialog box appears.

6. Click **Yes**.

   The *Ready to Install the Program* dialog box appears.

7. Click **Install**.

   The *Installing* SMART Vantage dialog box appears and the installation begins. When the installation is complete, the *InstallShield Wizard Completed* dialog box appears.

8. Click **Finish** to complete the installation.

   The SMART Vantage *Request Type: Activate* dialog box appears.

9. Select one of the following SMART Vantage Enterprise server software activation options:

If you want to:	Complete these steps:
Submit the activation request automatically. 💡 **TIP** This is the recommended activation option for your SMART Vantage Enterprise server software.	a. Select the **Submit the activation request automatically**, and then click **Next**. b. Click **Finish**. 💡 **TIP** To connect using a proxy server, click **Connection Options** and select **Use other proxy**.
Submit the activation request manually	a. Select **Submit the activation request manually**, and then click **Next**. b. Follow the on-screen instructions to manually activate your software.
Activate your SMART Vantage Enterprise server software later using the SMART Vantage Configuration Utility.	Click **Cancel** (see *Activating the software after installation* on page 41).

The *SMART Vantage Configuration Utility* dialog box appears. See *Configuring SMART Vantage software after installation* on page 33 for information on configuring SMART Vantage software.

☞ **IMPORTANT**

You are unable to log onto the SMART Vantage Enterprise server software user interface until you use the *SMART Vantage Configuration Utility* to enable SMART Vantage Enterprise server software to connect to an LDAP authentication server. See *Configuring SMART Vantage software* on page 31 for information on configuring SMART Vantage software.

■ **To install SMART Vantage Enterprise server software without a product key**

1. Double the SMART Vantage server software EXE file on your desktop.

   The SMART Vantage setup wizard appears.

2. Click **Next**.

   The *SMART Vantage License Agreement* dialog box appears.

3. Click **I Agree** if you agree with the terms of the license agreement.

> **ℹ NOTE**
>
> If you don't accept the license agreement, you're unable to continue the installation.

The *Product Key Information* dialog box appears.

> **ℹ NOTE**
>
> For information on entering a product key after installing the software, see *Activating the software after installation* on page 41.

4. Click **Next**.

The type of SMART Vantage server installation selection dialog box appears.

5. Select **Enterprise server**, and then select one of the following installation options:

If you want to:	Complete these steps:
Install SMART Vantage Enterprise server software in the default folder location.	Click **Next**.
Choose an installation location for SMART Vantage Enterprise server software.	Click **Change**, browse to and select the location where you want to install SMART Vantage Enterprise server software, then click **OK**.

The *Register Firewall Ports* dialog box appears.

> **ℹ NOTE**
>
> See *About SMART Vantage software and firewalls* on page 8 for information about which ports must be added to the Windows firewall exceptions list.

6. Click **Yes**.

The *Ready to Install the Program* dialog box appears.

7. Click **Install**.

The *Installing SMART Vantage* progress dialog box appears and the installation begins. When the installation is complete, the *InstallShield Wizard Completed* dialog box appears.

8. Click **Finish** to complete the installation.

The *SMART Vantage Configuration Utility* dialog box appears.

> ☞ **IMPORTANT**
>
> You are unable to log onto the SMART Vantage Enterprise server software user interface until you use the SMART Vantage Configuration Utility to enable SMART Vantage Enterprise server software to connect to an LDAP authentication server and database server. See *Configuring SMART Vantage software* on page 31 for information on configuring SMART Vantage software.

> 💡 **TIP**
>
> Use the *Activation* dialog box in the SMART Vantage Configuration Utility to add a product key and activate the software (see *Activating the software after installation* on page 41).

Chapter 4

Configuring SMART Vantage software

This chapter provides information on the SMART Vantage Configuration Utility that enables you to configure your SMART Vantage Institution and Enterprise server software to connect to an LDAP authentication server. SMART Vantage software authenticates either Windows Active Directory server or ApacheDS server depending which one you chose while installing SMART Vantage prerequisite software (see *Installing prerequisite server software* on page 14).

> ☞ **IMPORTANT**
>
> You are unable to log onto the SMART Vantage Institution or Enterprise server user interfaces until you configure SMART Vantage software (see *Configuring SMART Vantage software after installation* on page 33).

The following configuration pages are available using the SMART Vantage Configuration Utility:

Configuration option	Explanation
LDAP configuration	Use the SMART Vantage Configuration Utility to configure the LDAP server that SMART Vantage authenticates against.

Configuration option	Explanation
Database configuration	Use the SMART Vantage Configuration Utility to configure the database credentials used by SMART Vantage software to connect to the PostgreSQL database.
	The database configuration is an easy way for you to test the connection to the database and to ensure that the credentials are correct and that the database is functioning correctly.
	i NOTE
	You don't have to perform a database configuration after installing SMART Vantage Enterprise server software.
Activation	Use the SMART Vantage Configuration Utility to activate your SMART Vantage software if you didn't activate the software during installation.

Creating user profiles

> **☞ IMPORTANT**
>
> You are unable to complete the configuration of SMART Vantage software until you create user profiles in your LDAP server. Your LDAP server authenticates and authorizes all SMART Vantage users. For example, when a user logs onto SMART Vantage, your LDAP server verifies the password and specifies whether the user is a report user or administrator.

> **i NOTES**
>
> - You can use either Active Directory or ApacheDS as your LDAP server, and you can install Apache DS during the installation of SMART Vantage prerequisite software (for more information see *Installing prerequisite server software* on page 14.
>
> - Both Active Directory and ApacheDS enable you to group users together. SMART Vantage software uses these groups as security roles to restrict access to certain administrative tasks.

Before you install and configure SMART Vantage Institution or Enterprise software on your server, create user profiles in your LDAP server to enable technology and IT administrators to see interactive whiteboard and projector usage data, as well as to manage these devices. You can create two different user levels: report user and administrator (for more information on user access levels, see *About user profiles* on page 7).

Default role names

The default role names for SMART Vantage Institution and Enterprise software are as follows:

SMART Vantage Institution server software

- SMART_Vantage_User for a report user.

- SMART_Vantage_Admin for an administrator.

SMART Vantage Enterprise server software

- SMART_Vantage_Enterprise_User for a report user.

- SMART_Vantage_Enterprise_Admin for an administrator.

You can change these role names in the SMART Vantage Configuration Utility (see *Configuring an LDAP provider* on the next page) if your LDAP server already has groups that could be used.

> **ℹ NOTE**
>
> For information on configuring user profiles in your LDAP server, refer to the relevant manufacturer's on line Help.

Configuring SMART Vantage software after installation

The SMART Vantage Configuration Utility appears immediately after you finish installing SMART Vantage Institution or Enterprise software.

> **☞ IMPORTANT**
>
> The initial SMART Vantage Configuration Utility screen features a **Next** button and a **Cancel** button. Clicking **Cancel** before you complete the following configuration steps closes the configuration utility before the configuration is complete. Users are then be unable to log onto SMART Vantage software until the configuration is complete.

▮ To configure SMART Vantage software after installation

1. Configure the LDAP server that SMART Vantage software authenticates against.

2. Use the default configuration options to configure the database credentials that SMART Vantage software uses to connect to the PostgreSQL database.

3. Activate your SMART Vantage software if you didn't activate it during installation.

> 💡 **TIP**
>
> You can use the SMART Vantage Configuration Utility to make changes to your SMART Vantage software configuration after you finish configuring the software. See *Opening the SMART Vantage Configuration Utility* below for information on opening the configuration utility after SMART Vantage software has been configured for the first time.

Opening the SMART Vantage Configuration Utility

The SMART Vantage Configuration Utility appears immediately after you finish installing either SMART Vantage Institution or Enterprise server software. You can also open the SMART Vantage Configuration Utility at any time after you have completed configure your SMART Vantage software.

■ **To access the SMART Vantage Configuration Utility**

1. Select **Start > SMART Technologies > SMART Vantage**.

2. Right-click **Configuration Utility**, and then click **Run as administrator**.

   The User account control dialog box appears.

3. Click **Yes**.

   The SMART Vantage Configuration Utility dialog box appears.

Configuring an LDAP provider

This section provides information on using the SMART Vantage Configuration Utility to configure the LDAP server that your SMART Vantage Institution or Enterprise server software authenticates against.

You can choose to configure the LDAP server to authenticate against either of the following:

- Active Directory server

  OR

- Apache DS server.

> ### 💡 TIP
>
> Active Directory is the default LDAP server for Microsoft environments and is included with Windows Server 2000 or newer. Apache DS is an open-source LDAP server that can be used as an alternative to Active Directory for authentication. See the respective manufacturer's online Help for information on using these products.

Use one of the following procedures to access the *LDAP Configuration* dialog box to select and configure Active Directory or Apache DS as your LDAP provider.

> ### ℹ️ NOTE
>
> The SMART Vantage Configuration Utility appears immediately after you finish installing SMART Vantage software. For instructions on manually opening the SMART Vantage Configuration Utility, see *Opening the SMART Vantage Configuration Utility* on the previous page.

To authenticate against an Active Directory server

1. Click **LDAP Configuration**.

   The *LDAP Configuration* dialog box appears.

2. Select **Active Directory** from the *Type of server* drop-down list.

3. Type the IP address of your Active Directory server into the *IP address* box.

4. Type the port that your Active Directory server is using (389 by default) in the *Port* box.

5. Type your domain administrator's user name including the domain suffix in the *User name* box.

   > **EXAMPLE**
   >
   > administrator@example.com

6. Type the domain administrator's password in the *Password* box.

7. Type the distinguished name of the domain (User DN).

   > **EXAMPLE**
   >
   > dc=example,dc=com

8. Select any of the following optional configurations.

    SMART Vantage Institution software options:

Option	Explanation
User name lookup	Use this option to configure which field to use as the user name. The default user name domain name is sAMAccountName without the suffix (to use an e-mail address, type **mail** in the *Username* box.
Administrator's LDAP group	The default role name for an administrator is SMART_Vantage_ Admin. You can change this name in the configuration utility if your LDAP server already has groups that could be used.
User's LDAP group	The default role name for a regular report user is SMART_Vantage_ User. You can change this name in the configuration utility, if your LDAP server already has groups that could be used.

    SMART Vantage Enterprise software options:

Option	Explanation
User name lookup	Use this option to configure which field to use as the user name. The default user name domain name is sAMAccountName without the suffix (to use an e-mail address, type **mail** in the *Username* box.
Administrator's LDAP group	The default role name for an administrator is SMART_Vantage_ Enterprise_Admin. You can change this name in the configuration utility if your LDAP server already has groups that could be used.
User's LDAP group	The default role name for a regular report user is SMART_Vantage_ Enterprise_User. You can change this name in the configuration utility, if your LDAP server already has groups that could be used.

9. Click one of the following buttons:

Button	Explanation
Click **Next**	Opens the *Database Configuration* dialog box.
	i **NOTE**
	This option is available for SMART Vantage Institution server software only.
Click **Finish**	Completes the LDAP configuration and closes the SMART Vantage Configuration Utility.
	☞ **IMPORTANT**
	You must complete the LDAP configuration to fully configure your SMART Vantage software.
Click **Cancel**	Cancels the LDAP configuration.

■ **To authenticate against an ApacheDS server**

1. Select **ApacheDS** from the *Type of server* drop-down list.

2. Type the IP address of your Apache server in the *IP address* box.

3. Type the port that your Apache DS server is using in the *Port* box.

4. Type the ApacheDS server administrator's username in the *User name* box.

> **EXAMPLE**
>
> uid=admin,o=example

5. Type the ApacheDS server administrator's password in the *Password* box.

6. Type the distinguished name of the ApacheDS domain.

> **EXAMPLE**
>
> ou=system

7. Select any of the following optional configurations.

SMART Vantage institution software options:

Option	Explanation
User name lookup	Use this option to configure which field to use as the user name. The default user name domain name is sAMAccountName without the suffix (to use an e-mail address, type **mail** in the *Username* box.
Administrator's LDAP group	The default role name for an administrator is SMART_Vantage_ Admin. You can change this name in the configuration utility if your LDAP server already has groups that could be used.
User's LDAP group	The default role name for a regular report user is SMART_Vantage_ User. You can change this name in the configuration utility, if your LDAP server already has groups that could be used.

SMART Vantage Enterprise software options:

Option	Explanation
User name lookup	Use this option to configure which field to use as the user name. The default user name domain name is sAMAccountName without the suffix (to use an e-mail address, type **mail** in the *Username* box.
Administrator's LDAP group	The default role name for an administrator is SMART_Vantage_ Enterprise_Admin. You can change this name in the configuration utility if your LDAP server already has groups that could be used.
User's LDAP group	The default role name for a regular report user is SMART_Vantage_ Enterprise_User. You can change this name in the configuration utility, if your LDAP server already has groups that could be used.

8. Click one of the following buttons:

Option	Select this option to:
Next	Opens the *Database Configuration* dialog box. **i NOTE** This option is available for SMART Vantage Institution server software only.
Finish	Completes the LDAP configuration and closes the SMART Vantage Configuration Utility. **☞ IMPORTANT** You must complete the LDAP configuration to fully configure your SMART Vantage software.
Cancel	Cancels the LDAP configuration.

Configuring the database credentials

☞ IMPORTANT

Database configuration is not required (or available) after you install SMART Vantage Enterprise server software.

This section provides information on using the SMART Vantage Configuration Utility to configure the database credentials that SMART Vantage Institution server software uses to connect to the PostgreSQL database.

The database configuration tool is also an easy way for you to test SMART Vantage Institution server software's connection to the database and to ensure that the credentials are correct and that the database is functioning correctly.

☞ IMPORTANT

Use the default database credentials to configure SMART Vantage Institution server software.

Use the following procedures to access the *Database Configuration* dialog box and to configure which database SMART Vantage Institution server connects to.

> **ℹ NOTE**
>
> The SMART Vantage Configuration Utility appears immediately after you finish installing SMART
> Vantage software. For instructions on manually opening the SMART Vantage Configuration Utiltity,
> see *Opening the SMART Vantage Configuration Utility* on page 34.

■ **To access the Database Configuration dialog box**

1. Click **Database Configuration**.

   The *Database Configuration* dialog box appears.

■ **To change the database credentials**

1. Type a new user name in the *User name* box.

2. Type a new password in the *Password* box.

3. Press one of the following buttons:

Button	Explanation
Next	Opens the *Activation* dialog box.
	> **☞ IMPORTANT** > If you did not activate SMART Vantage software during installation, use > the *Activation* dialog box to activate it.
Finish	Completes the database configuration and closes the SMART Vantage Configuration Utility.
Cancel	Cancels the database configuration.

■ **To test the database connection**

Click **Test Connection**.

A message appears confirming that a connection has been established with the PostgreSQL
database.

> **💡 TIP**
>
> If you're unable to connect to the PostgreSQL database, ensure you entered the correct
> configuration settings.

Activating the software after installation

This section provides information on using the SMART Vantage Configuration Utility to enter a product key to activate SMART Vantage Institution or Enterprise server software after installation.

> **ℹ️ N O T E**
>
> The SMART Vantage Configuration Utility appears immediately after you finish installing SMART Vantage software. For instructions on manually opening the SMART Vantage Configuration Utility, see *Opening the SMART Vantage Configuration Utility* on page 34.

🟩 **To enter a product key and activate SMART Vantage software after installation**

1. Select **Start > SMART Technologies > SMART Vantage**.

2. Right-click **Configuration Utility**, and then click **Run as administrator**.

   The User account control dialog box appears.

3. Click **Yes**.

   The SMART Vantage Configuration Utility dialog box appears.

4. Click **Activation**.

   The Activation screen appears.

5. Click **Activate**, and then type your product key in the *Product Key* box.

6. Click **Next**.

7. Select one of the following SMART Vantage software activation options:

If you want to:	Complete these steps:
Submit the activation request automatically. **💡 TIP** This is the recommended activation option for your SMART Vantage software.	a. Select the **Submit the activation request automatically**, and then click **Next**. b. Click **Finish**. **💡 TIP** To connect using a proxy server, click **Connection Options** and select **Use other proxy**.
Submit the activation request manually.	a. Select **Submit the activation request manually**, and then click **Next**. b. Follow the on-screen instructions to manually activate your software.

Chapter 5
Logging onto the user interface

This chapter contains information on how to log onto the SMART Vantage and SMART Vantage Enterprise user interface. Information is also provided on how to access the online Help feature.

> 💡 **TIP**
>
> For more information on using SMART Vantage software at the Institution or Enterprise level, see the *SMART Vantage configuration and user's guide* (smarttech.com/kb/170155).

Logging onto the user interface

> ☞ **IMPORTANT**
>
> To use SMART Vantage and SMART Vantage Enterprise software, you must log on as a report user or administrator. Once you log on the SMART Vantage home page appears.

Use the following instructions to log onto the SMART Vantage and SMART Vantage Enterprise user interface.

> ℹ️ **NOTE**
>
> To log-in to the SMART Vantage user interface you must know the following:
>
> - The IP address or domain name of the server hosting SMART Vantage software
>
> - Your assigned user name and password

To Log-onto the SMART Vantage user interface

1. Type the IP address or domain name of the sever hosting SMART Vantage software in the *Address* box, and then press ENTER.

    The SMART Vantage logon screen appears.

Logging onto the user interface

2. Type your user name and password in the appropriate boxes.

3. Click **Sign In**.

   The SMART Vantage home page appears.

Viewing SMART Vantage Help

For information on configuring and using SMART Vantage and SMART Vantage Enterprise software, see the SMART Vantage Help. After you log onto the SMART Vantage and SMART Vantage Enterprise user interface, access to the Help feature is available from the *Systems Manager*, *Reports* and *Settings* screens.

■ **To access the SMART Vantage Help**

Click **Help**.

Appendix A
Troubleshooting

> 👉 **IMPORTANT**
>
> This troubleshooting section is intended for IT administrators and others experienced with customizing, deploying and administering Windows software in a networked environment.

> 💡 **TIP**
>
> Visit the SMART Vantage support page to access more troubleshooting articles and information.

Before you begin

Before you begin troubleshooting SMART Vantage Institution or Enterprise software installation, ensure:

- The server hosting SMART Vantage software is using the Windows Server 2008 R2 operating system with the latest updates.

- No other software, such as IIS, WAMP or Apache web server,is running on the server that uses port 80.

- The required ports are open and aren't blocked by a firewall or other network items (see *About SMART Vantage software and firewalls* on page 8).

- You're logged on as a local administrator.

- The language of the server hosting SMART Vantage software is set to U.S. English, which is the only language currently supported.

Verifying Active Directory connection information and credentials

Use the following information to verify your LDAP connection information if SMART Vantage Institution server or SMART Vantage Enterprise server software is unable to authenticate against your Windows Active Directory server or Apache DS server.

> 👈 **IMPORTANT**
>
> The following procedures apply only to computers equipped with Windows 2008 R2 operating systems and Windows Active Directory.

🟩 **To install ldp.exe**

1. Ensure system is connected to your domain.

2. Browse to **Server Manager > Features > Add Features > Remote Server Administrator Tools**.

3. Select **Remote Server Administrator Tools > Role Administration Tools**, and then ensure the **AD DS** and **AD LDS Tools** categories are selected (including all subcategories).

4. Restart your computer.

🟩 **To confirm connection Information**

1. Type **ldp.exe** in the *Start Search* box.

   ldp.exe launches.

2. Browse to the *Connection* menu, and then click **Connect**.

3. Type your server IP address and port number (the default port is 389).

4. Click **OK**.

   Information appears in the view panel.

5. Confirm that the values in the view panel are the same as the values in the SMART Vantage Configuration Utility.

🟩 **To confirm your administrator credentials**

1. Click **Connection**, and then click **Bind**.

2. Type the following information:

   ○ administrator user name

   ○ password

   ○ distinguished name of the domain (dc=domain, dc=com)

3. Select **Bind with credentials** from *Bind Type*.

4. Click **OK**.

Troubleshooting information

Issue	Cause	Solution
SMART Vantage software didn't install.	The server hosting SMART Vantage software doesn't meet the minimum hardware and software requirements.	Upgrade the server hosting SMART Vantage software to meet the minimum hardware and software requirements (see *SMART Vantage software server* on page 2).
The server hosting SMART Vantage software is unable to connect to the computer connected to an interactive whiteboard or projector.	The SNMPAgent and VantageService services that enable the computer to connect to the server hosting SMART Vantage software aren't running.	• If the computer connected to the interactive whiteboard or projector has a Windows operating system, download and run the SMART Vantage enabler software file on that computer (see *Running the enabler software* on page 13). • If the computer connected to the interactive whiteboard or projector has Mac operating system software, install SMART Product Drivers again ensuring that **SMART Vantage services** in the *Select Startup Option(s)* dialog box is selected during the installation process.

Issue	Cause	Solution
After you install SMART Vantage prerequisites, the PostgreSQL server doesn't run as a service or didn't install.	The account used during the pre-requisites install wasn't the local Administrator account on the server hosting the SMART Vantage prerequisites.	Remove the SMART Vantage prerequisite components individually (Java, PostgreSQL, Tomcat™), log onto the server hosting SMART Vantage software under the local Administrator account, and install SMART Vantage prerequisite software again. If SMART Vantage Institution or Enterprise server software was also installed before you noticed the issue, remove this software first (see *Repairing or removing the software* on page 51 and *Installing prerequisite server software* on page 14).
The SMART Vantage Configuration Utility didn't launch during the final stage of SMART Vantage Institution or Enterprise server software installation.	The language of the Windows 2008 R2 server hosting Vantage software wasn't set to US English.	Set the Windows 2008 R2 server language to US English, and then install SMART Vantage software again or run the configuration utility manually. To run the SMART Vantage Configuration Utility manually: select **Start > SMART Technologies > SMART Vantage,** and then double-click **Configuration Utility**. The SMART Vantage Configuration Utility dialog box appears.
Testing the database connection was unsuccessful using the **Test Connection** button in the **Database Configuration** tab of the SMART Vantage Configuration Utility.	The PostgreSQL server isn't running or the user name and password are incorrect.	Start the PostgreSQL server by opening the services window, and then select **postgresql-8.4 item > start service**. If the postgresql-8.4 service is running, check that you entered the correct user name and password in the SMART Vantage Configuration Utility.

Issue	Cause	Solution
You're unable to open the SMART Vantage Institution or Enterprise server software user interface. "A page not found or cannot display the web page" message appears.	Apache Tomcat is not running correctly or you typed the URL incorrectly.	Ensure Apache Tomcat is started by opening the services window and selecting **Apache Tomcat 6 > Start Service**. If the Apache Tomcat 6 service is running, check that the URL is correct (http://<localhost>, http://<IP Address of server> or http://<Host name of server>).
Another web page appears when you attempt to open the SMART Vantage Institution or Enterprise server software user interface.	The Windows 2008 R2 server hosting SMART Vantage software has another application installed that is configured to use HTTP port 80.A conflict occurred.	Turn off or remove the other application that is using HTTP port 80 and restart SMART Vantage Institution or Enterprise server. To restart SMART Vantage software, open the services window, select **Apache Tomcat 6** and then select to restart service.
You're unable to open the SMART Vantage Institution or Enterprise server software user interface. "SMART Vantage 500 error - internal server problem" message appears.	SMART Vantage software didn't start correctly, usually because the PostgreSQL server isn't running.	Ensure the PostgreSQL server is running using the Windows services view, and then restart the Apache Tomcat 6 service.
When you use the SMART Vantage Configuration Utility, the following message appears and you're unable to save your changes: "Unable to update Vantage configuration. Contact SMART Technical Support for assistance."	You are logged onto Windows Server 2008 R2 as a standard user and you must use the SMART Vantage Configuration Utility as an administrator.	To use the SMART Vantage Configuration Utility as an administrator, select **Start > SMART Technologies > SMART Vantage**, right-click **Configuration Utility**, and then click **Run as administrator**.
SMART Vantage Institution or Enterprise server software is unable to connect to your LDAP server.	You typed the incorrect information in one or more of the text boxes in the SMART Vantage Configuration Utility screens.	Correct the information in the SMART Vantage Configuration Utility screens.

Appendix B
Repairing or removing the software

This chapter explains how to repair or remove SMART Vantage server software.

Repairing the software

You can use the Program Maintenance feature to repair any corrupt or missing files in the following software installations:

- SMART Vantage software prerequisites

- SMART Vantage Institution or Enterprise server software

i NOTES

- The Program Maintenance feature runs the software installation again and incorporates the properties and settings you entered during the original installation of the software.

- The configuration and settings you applied to SMART Vantage Institution server or SMART Vantage Enterprise server software following installation are also saved.

To repair SMART Vantage software prerequisites

1. Browse to and double click the SMART Vantage server prerequisites software EXE file on your computer.

   The SMART Vantage setup wizard appears.

2. Click **Next**.

   The *Program Maintenance* dialog box appears.

3. Select **Repair**.

   The *Ready to Repair the Program* dialog box appears.

4. Click Install.

   The *Installing SMART Vantage* dialog box appears and the installation begins. When the installation is complete the *InstallShield Wizard Completed* dialog box appears.

5. Click **Finish**.

■ **To repair SMART Vantage Institution or Enterprise server software**

1. Browse to and double click the SMART Vantage server software EXE file on your computer.

   The SMART Vantage setup wizard appears.

2. Click Next.

   The *Program Maintenance* dialog box appears.

3. Select **Repair**.

   The *Ready to Repair the Program* dialog box appears.

4. Click **Install**.

   The *Installing SMART Vantage* dialog box appears and the installation begins. When the installation is complete the *InstallShield Wizard Completed* dialog box appears.

5. Click **Finish**.

   The SMART Vantage Configuration Utility appears. Select one of the following installation options:

If you want to:	Complete these steps:
Use the configuration settings you entered during the initial software installation.	Click Cancel
Change the configuration settings.	Follow the instructions in *Configuring SMART Vantage software after installation* on page 33.

Removing the software

Use the following procedures to remove SMART Vantage prerequisite software and SMART Vantageserver software

> ⚠️ **CAUTION**
>
> Removing SMART Vantage prerequisites can cause the loss of all of the interactive whiteboard usage data and projector bulb life expectancy data that SMART Vantage software accumulated. It is recommended that you perform a database backup of the PostgreSQL database and the H2 database before removing SMART Vantage prerequisites. The H2 database is located in the Tomcat installation directory.

◼ **To remove SMART Vantage or SMART Vantage Enterprise software**

Run the SMART Vantage uninstaller from Windows Control Panel.

◼ **To remove the SMART Vantage prerequisites**

1. Run the Apache Tomcat uninstaller.

2. Run the Apache Tomcat uninstaller again, to remove remaining registry keys and files.

3. Run the Java Runtime uninstaller.

4. Run the PostgreSQL uninstaller.

   > 👉 **IMPORTANT**
   >
   > Do not restart your computer at this time.

5. Delete **"C:\Program Files (x86)\PostgreSQL"**.

6. Run the SMART Vantage prerequisites uninstaller.

7. Restart your computer

Software installation locations

Prerequisites

- Oracle Java, **"C:\Program Files\Java"**

- Apache Tomcat, **"C:\Program Files\Apache Software Foundation\Tomcat 6.0"**

- PostgreSQL, **"C:\Program Files (x86)\PostgreSQL"**

SMART Vantage

- **"C:\Program Files\Apache Software Foundation\Tomcat 6.0\webapps"**

- **"C:\Program Files (x86)\SMART Technologies"**

- **"%ALLUSERSPROFILE%\SMART Technologies\"**

> **ℹ NOTE**
>
> These are the default folder locations for SMART Vantage software, but you can select a
> different installation location for SMART Vantage software.

Log files institution software only

The following files are in **C:\Program Files\Apache Software Foundation\Tomcat 6.0\:**

- **VantageBEServer.log.*** :Back-end server logs where **VantageBEServer.log** is the most
  recent

- **VantageFEServer.log.*** :Front-end server logs where **VantageFEServer.log** is the most
  recent

- **VantageBEServer.log.1** through **VantageBEServer.log.10**

- **VantageFEServer.log.1** through **VantageFEServer.log.10**

The **stdout.log** files in **C:/Program Files/Apache Software Foundation/Tomcat 6.0/logs** contain
SMART Vantage related logs.

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