



# SMART Bridgit® 4.5

Windows operating systems

**Installation and system administrator's guide**

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One or more of the following patents: US7757001. Other patents pending.

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SMART Bridgit® conferencing software is a cost effective client/server application that lets you easily schedule meetings to connect, share and collaborate between SMART Board interactive whiteboards, interactive displays and local and remote participants anytime, anywhere. SMART Bridgit conferencing software supports private local and wide area network (LAN and WAN) installations as well as public deployment scenarios that use a fully qualified domain name via the Internet.

For detailed information about using the SMART Bridgit client software, refer to its online Help.

## Software components

Once you install and configure SMART Bridgit Server software, computers that meet the minimum requirements can connect to your server, download the SMART Bridgit client software and create or join meetings.

### SMART Bridgit Server software (Windows only)

SMART Bridgit Server passes data between clients and authenticates client connections using optionally implemented passwords.

## CHAPTER 1

Introducing SMART Bridgit conferencing software

### **SMART Bridgit Administration Tools**

SMART Bridgit Server software also includes an Administration Tools application. You can use SMART Bridgit Administration Tools to configure servers and view their statuses, manage your SMART Bridgit conferencing software licenses and change password, sharing and remote control settings. You can also use the tools to set up a message of the day and configure chat and video settings.

When you install SMART Bridgit Server software, a shortcut to SMART Bridgit Administration Tools

 appears on your desktop.

### **SMART Bridgit client software**

SMART Bridgit client software transmits meeting data to and from the SMART Bridgit Server and displays it to the meeting participants.

#### **Features and highlights**

- Share multiple displays with local and remote participants
- Share applications running on your SMART Board interactive whiteboard or computer desktop with meeting participants
- Host live demos, presentations, training events, webinars and ad hoc collaborative sessions
- Share and work on meeting notes simultaneously with remote participants
- Help colleagues and customers navigate Internet and intranet sites
- Request permission to remotely control a meeting participant's computer
- View off-site meeting participants using webcams
- Speak with, and listen to, meeting participants using VoIP technology

## **CHAPTER 1**

Introducing SMART Bridgit conferencing software

### **SMART Bridgit conferencing software and SMART Meeting Pro™ software**

SMART Bridgit conferencing software is integrated with SMART Meeting Pro software and SMART Product Drivers to provide screen sharing and simultaneous viewing of multiple shared displays, VoIP and webcam functionality. SMART Bridgit works best with SMART Meeting Pro 3.0 and SMART Meeting Pro Premium version 2.1 and 2.2. For detailed information on this functionality, refer to SMART Meeting Pro documentation.

### **SMART Bridgit conferencing software and SMART Notebook™ collaborative learning software**

SMART Bridgit conferencing software is integrated with SMART Notebook software and SMART Product Drivers to provide instant conferencing capabilities. SMART Bridgit works best with SMART Notebook versions 10.8 and 11 and SMART Product Drivers versions 10.8 and 11. For detailed information on this functionality, refer to SMART Notebook software documentation.

## Global Server Network (GSN) option

The SMART Bridgit Global Server Network (GSN) is a network of SMART Bridgit servers at different geographical locations. The GSN optimizes bandwidth and reduces latency by detecting the fastest server in each GSN and then automatically connecting the client to that server, regardless of the server they initially connected to.

For example, if there are five clients in North America and five clients in Europe all connecting to the same meeting, and the GSN consists of one server on each continent, each client automatically connects to the nearest, fastest server. This results in only one high latency overseas connection, instead of five overseas connections. A GSN works just as well for different buildings in the same city, or even different networks in the same building.

## SMART Scheduler

SMART Scheduler allows you to create meetings in Microsoft® Outlook® that will automatically start on a specified SMART Bridgit Server. SMART Scheduler monitors the Microsoft Exchange server for upcoming SMART Bridgit meetings and starts the meeting on the SMART Bridgit Server at the appropriate time.

## SMART Scheduler Outlook add-in

To use SMART Scheduler, install the SMART Scheduler Outlook add-in on your client computers. This add-in consists of a toolbar that appears in the standard meeting request window in Microsoft Outlook.

You can create a meeting in Outlook that uses SMART Bridgit conferencing software by selecting the **This is a SMART Bridgit Meeting** check box in the meeting creation dialog box. Both the meeting creator and the attendees will see a booking in their Outlook calendar that contains a link to the SMART Bridgit meeting.

## Chapter 2

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## CHAPTER 2

### Installing SMART Bridgit software

This chapter contains information you will need to prepare for installation as well as procedures that will lead you through the installation process of SMART Bridgit software and its options.

## Preparing for installation

SMART Bridgit conferencing software is scalable, so system requirements vary. The maximum number of users that a server can support is constrained by both the server hardware and the network bandwidth available to that server. The exact number of users supported varies depending on the available bandwidth and the use of Voice over Internet Protocol (VoIP) audio and webcam functionality. Allowing more than the recommended number of simultaneous users may negatively impact performance. To support more users, configure multiple servers to operate as a Global Server Network (GSN).

### **i** NOTES

- To determine the amount of bandwidth you need, see *Bandwidth requirements* on page 54.
- Your system performs best if you use a high performance server or a dedicated server with no other applications installed.

## SMART Bridgit server requirements

Each server must meet the following minimum requirements:

- 2.0 GHz or faster processor
- 2 GB of RAM
- Windows Server® 2003 R2 or 2008 R2 operating system
- 100 Mbps network interface card (NIC) that supports the TCP/IP

### **i** NOTES

- 1 Gbps NIC recommended.
- Increased hardware capabilities improve overall meeting performance.
- A single-processor server with a 100 Mb network interface can support from 200 to 300 concurrent users. To support more users, add multiple processor cores to the server and allocate more network bandwidth. Exceeding the recommended number of users can affect performance.

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### Installing SMART Bridgit software

## Software licensing

During the 60-day free evaluation period. After the evaluation version expires, users can no longer conduct meetings on the server and must purchase and activate a software license.

### Managing software licenses purchased prior to February 22, 2012

If you purchased a SMART Bridgit software prior to February 22, 2012, you got a server license with its own product key. You may have also purchased a concurrent user license with a set entitlement that varies depending on the user license SKU you purchased. The concurrent user license SKUs available included: BDC-05, BDC-10, BDC-25, BDC-50, and BDC-MAX. The SKU came with one product key for use with all of its concurrent user licenses.

If you're upgrading to SMART Bridgit 4.5 software server, you don't need a new server license. You also maintain the same number of concurrent user licenses you have when you originally purchased. With the purchase of a promotional BDC-MAX SKU available for limited time only, you can upgrade your concurrent user license entitlement to 500. For information on upgrade options, contact your authorized SMART reseller ([smarttech.com/where](http://smarttech.com/where)).

### Managing SMART Bridgit software licenses purchased after February 22, 2012

To continue using the software after the free trial period, you need to purchase a license before the evaluation period expires.

When you purchase a license a SMART Bridgit software license after February 22, 2012, you're purchasing a server license with entitlement of up to 500 concurrent users and you receive one product key.

## Access requirements

Before you can successfully install and use a SMART Bridgit server software, you must correctly configure your network environment. SMART Bridgit server software doesn't automatically do this. Therefore, you need access to various components of your network infrastructure before you can configure your network environment appropriately.

### Network administration experience

#### IMPORTANT

SMART Bridgit server software functions in a complex network environment. Do not attempt to install or configure the SMART Bridgit server software unless you're an experienced network administrator with a full understanding of how your network functions.

### Access to servers and infrastructure components on your network

Different network configurations use different types of access.

## CHAPTER 2

### Installing SMART Bridgit software

#### **Private local area network (LAN) use**

If your SMART Bridgit server will be used only in a private LAN, you need access to the following components of your LAN infrastructure:

- An administrator login account with installation rights for the server computer you'll install SMART Bridgit server software on.
- Physical or remote login access, and an administrator login account with configuration rights, for your network's DHCP and DNS servers.
- You could also need physical or remote login access to, and an administrator login account with configuration rights for, your network's domain server which controls the software firewall configurations for all of your network's client computers. This is dependent on your local network's domain policies.

#### **Use by different networks connected to a wide area network (WAN)**

If your SMART Bridgit server will be used by different networks connected to a WAN, you'll need access to the following components of your LAN or WAN infrastructure:

- Physical or remote login access to, and an administrator login account with configuration rights for, the routers, WAN firewalls, and proxy servers between different segments of your WAN.
- Physical or remote login access to, and an administrator login account with configuration rights for, all DNS servers in each segment of your WAN.

#### **Use by clients with an Internet connection**

If your SMART Bridgit server will be accessible to clients via the Internet, you need access to the following components:

- Physical or remote login access to, and an administrator login account with configuration rights for, the routers, firewalls and proxy servers between your network and the Internet.
- Login access with configuration rights to the Internet registrar which controls your company's public Internet DNS records.

#### **Use of SMART Scheduler**

If you want to use the SMART Bridgit Outlook add-in and SMART Scheduler integration with Microsoft Exchange, you need physical or remote login access to, and an administrator login account with configuration rights for, your company's domain server. This server is used to create user accounts for use on your Microsoft Exchange server.

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### Installing SMART Bridgit software

#### Administrator rights

After you install and configure SMART Bridgit server software, you may want to administer the server to check information such as performance logs and use records. To do this, your administrator needs physical or remote login access and a user login account on the SMART Bridgit server computer.

### About SMART Bridgit security

## Server security

SMART Bridgit conferencing software complies with Secure Sockets Layer (SSL) 3.0 to encrypt data transmitted using a TCP connection. It uses OpenSSL to generate a self-signed SSL certificate used for data encryption. Each time the server starts, it generates a new 1024-bit SSL certificate and negotiates a new 256-bit encryption key with each client. However, if a client is unable to negotiate a set of encryption keys with the server, no connection is established.

SMART Bridgit conferencing software also uses Secure Real-time Transport Protocol (SRTP) to encrypt audio traffic transmitted using a UDP connection. These encryptions prevent third parties from intercepting data transmitted between client and server.

The cipher suite negotiated between a Windows operating system server and client is an AES256-SHA cipher suite, including RSA encrypted key exchange, digest authentication and 256-bit SSL data encryption. SMART Bridgit conferencing software for Mac OS X operating system software also implements 256-bit SSL encryption.

## Client security

System administrators and meeting creators can set four types of passwords to enhance SMART Bridgit software security. These passwords aren't mandatory.



#### IMPORTANT

If you assign a server access password, SMART recommends that you also assign a meeting creation password

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### Installing SMART Bridgit software

Password type	Description
Server access password	<p>An optional password that a meeting participant uses when connecting to a SMART Bridgit server. The server access password allows the participant to access the server and view the list of meetings on it.</p> <div data-bbox="581 409 1471 548"><p> <b>IMPORTANT</b></p><p>If you assign a server access password, you should also assign a meeting creation password.</p></div>
Meeting creation password	<p>An optional password that a meeting owner uses to create a meeting on the SMART Bridgit server. Users who type the meeting creation password can also see the list of active meetings on the server.</p> <div data-bbox="581 661 1471 835"><p> <b>NOTE</b></p><p>After you install SMART Bridgit server software, you can use SMART Bridgit Administration Tools to create additional server access and meeting creation passwords.</p></div>
Meeting password	<p>A password that a meeting participant uses to join a meeting. The meeting creator sets this password.</p>
Administrator access password	<p>A password that server administrators creates to join any meeting on the server. Administrators can then monitor meetings and ensure the server is being used appropriately.</p>

## Domain names

If you're using a public domain name, your SMART Bridgit server is accessible to clients connecting via the Internet. If you use a private domain name, your SMART Bridgit server is accessible only to clients connecting from within your LAN.

### Registered domain name

To access a server over the Internet, you must use a fully qualified domain name (FQDN) that exists in the records of a public DNS server. If an FQDN isn't available for your server, users can access your server over the Internet using its IP address directly.

#### **IMPORTANT**

Do not mix FQDNs and unqualified domain names (those not registered on a DNS server) in the same SMART Bridgit server Global server Network (GSN).

### IPv4/IPv6 addresses

During the installation process, SMART Bridgit software detects the IP addresses bound to the servers' network interface cards. You can choose to bind SMART Bridgit software to one or all of the computers' IP addresses, if there is more than one IP address assigned to the computer.

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### Installing SMART Bridgit software

#### ■ To check if your public domain name resolves to an IP address

1. Select **Start > Run** on the computer where you'll install the SMART Bridgit server software.
2. Type **cmd**, and then press ENTER.  
*A Command Prompt dialog box appears.*
3. Use the **ipconfig** command to determine the server's IP address.
4. Use either the **nslookup** command or the **ping** command against the domain name for the SMART Bridgit server to determine the IP address that the network's DNS returns.
5. Compare this IP address to the SMART Bridgit server's IP address from step 3.  
If the IP addresses are the same, the network's DNS is configured correctly.

#### **i** NOTES

- Your domain name must resolve to a valid IP address for you to be able to use it to configure your SMART Bridgit server.
- The ping can fail for reasons unrelated to the public domain name and still resolve to a computer name or IP address.

## SMART Bridgit and firewalls

SMART Bridgit software automatically detects and employs the most secure and efficient methods available to connect clients and to maintain optimal meeting performance. However, SMART recommends installing your SMART Bridgit server behind a firewall to prevent unauthorized access.

The firewall must open port 80 for HTTP traffic coming into the server and going out to the client.

#### **i** NOTE

SMART doesn't recommend deploying SMART Bridgit servers with only HTTP connectivity.

### Configuring firewalls

You can install your SMART Bridgit server software behind a software firewall, proxy server, hardware firewall or router. For optimal performance, enable both primary and secondary TCP ports and a range of UDP ports for Voice over Internet Protocol (VoIP) audio on the server.

- Firewalls for the server should allow inbound communication to the server on all specified ports.

## CHAPTER 2

### Installing SMART Bridgit software

- Firewalls for the client should allow outbound communication from the client on all specified ports.

For best performance, allow inbound TCP and UDP traffic to the server on the default ports specified in the following table.

Default ports	Type/protocol	Use
80	TCP/HTTP	<ul style="list-style-type: none"><li>• Initial connection to the SMART Bridgit server to display the web page from which the users download the SMART Bridgit client.</li><li>• Initial connection to the SMART Bridgit server from the SMART Bridgit client when looking for meetings to join or when creating new meetings.</li><li>• Fallback communication method for all other SMART Bridgit functions when other ports are unavailable (lower performance than other ports).</li></ul>
80	TCP/SMART Bridgit	<ul style="list-style-type: none"><li>• Primary port for data, screen viewing and webcam traffic for SMART Bridgit meetings.</li><li>• If this port is limited to only HTTP, SMART Bridgit conferencing software attempts to use the secondary port (9933) for this traffic.</li><li>• If this port is blocked or unavailable, SMART Bridgit conferencing software uses the HTTP on the primary port, which can affect performance.</li></ul>
9933	TCP/SMART Bridgit	Secondary port for data, screen viewing and webcam traffic for SMART Bridgit meetings.
9901 to 9920	UDP/SMART Bridgit	<ul style="list-style-type: none"><li>• Primary port range for VoIP audio traffic for SMART Bridgit meetings.</li><li>• If these ports are blocked or unavailable, SMART Bridgit conferencing software falls to TCP or HTTP on the primary or secondary port, which can negatively affect performance.</li></ul>

#### Configuring proxy servers

You can configure your SMART Bridgit server software to work with any proxy server that adheres to the RFC 2068 HTTP standard. If you install your SMART Bridgit server software behind a proxy server, you must create access policy rules for inbound and outbound traffic on that proxy server. You can further enhance your network security by enabling authentication, such as basic, digest or NT LAN Manager (NTLM) authentication.

## CHAPTER 2

### Installing SMART Bridgit software

#### **i** NOTE

Although proxy servers protect internal networks from intruders, they unavoidably introduce network latency.

If you incorporate a proxy server, configure each meeting participant's Internet browser to allow access to the SMART Bridgit server.

## SMART Bridgit client system requirements

SMART Bridgit software allows meeting participants to interact and collaborate directly with each other. In order for you to share audio and video with other meeting participants, your computer must meet the following minimum requirements.

### Supported Windows operating systems

#### Supported Windows® operating systems

- Windows XP SP3
- Windows 7

### Supported Mac operating system software

- Mac OS X 10.6
- Mac OS X 10.7

### Without VoIP audio or webcam video

#### Windows

- 2.0 GHz processor
- 1 GB of RAM
- Broadband Internet connection

#### Mac

- 2.0 GHz Intel® processor
- 1 GB of RAM
- Broadband Internet connection

## **CHAPTER 2**

Installing SMART Bridgit software

### **With VoIP audio and webcam video**

#### **Windows**

- 2.0 GHz processor
- 2 GB RAM
- Broadband Internet connection

#### **Mac**

- 2.0 GHz Intel processor
- 2 GB of RAM
- Broadband Internet connection

### **Webcam requirements**

#### **Windows**

#### **Mac**

- Internal webcam or iSight camera
- QuickTime application program

### **Audio requirements**

- Sound card
- Speakers or headphones
- Microphone

### **Internet browser requirements**

The following list of Internet browsers support SMART Bridgit conferencing software:

#### **Windows**

- Internet Explorer® 7.0, 8.0 or 9.0
- Opera™ 11.0
- Firefox® 3.0, 3.5 or 4.0

#### **Mac**

Safari 3.0

## CHAPTER 2

### Installing SMART Bridgit software

#### **i** NOTE

You can download or update SMART software downloads from [smarttech.com/downloads](http://smarttech.com/downloads).

## SMART Scheduler requirements

### Minimum computer requirements

#### SMART Scheduler server requirements

- 2.0 GHz processor
- 1 GB of RAM
- Windows Server 2003 R2 or 2008 R2 operating system
- 10 Mbps network interface card that supports the TCP/IP
- Network connection to your Microsoft Exchange Server
- CDO 1.2.1 (Microsoft Collaboration Data Objects), version 6.5.8165.0 or later. You can also download this software during the server installation.

#### Microsoft Exchange Server

Microsoft Exchange Server 2003, 2007 or 2010.

#### SMART Scheduler Outlook add-in

- 2.0 GHz processor
- 1 GB of RAM
- Outlook 2003 SP3, 2007 SP2 or 2010.
- Network connection to your Microsoft Exchange Server
- You must have SMART Bridgit server installed and running on either a separate computer (recommended) or, if required, on the same computer where you'll install SMART Scheduler server.

## Installing SMART Bridgit server software

### Introduction

When installing SMART Bridgit server software, consider the following points:

- If you install SMART Bridgit server software on a dedicated server with one network interface card (NIC), select **All** (default) to bind SMART Bridgit conferencing software to all IP addresses. If your network uses network address translation (NAT), use port forwarding to redirect external requests to the NIC.
- If the server is multi-homed (has multiple NICs), select the internal IP address to bind SMART Bridgit conferencing software to the internal NIC. Use port forwarding to redirect external requests to the external NIC.
- If you install SMART Bridgit server software on a server running other web server applications (for instance, Microsoft IIS or any other web server application using Port 80), you can configure SMART Bridgit software by:
  - Using IP specific binding. Each server binds to a specific IP address. You can add multiple IP addresses to a single NIC on Windows servers by selecting **Control Panel > Network Connections > Internet Protocol (TCP/IP)**.
  - Customizing the default primary server port. In this case, multiple applications can bind to the same IP address but on different ports. This setup requires users to specify the port when connecting SMART Bridgit client (for example server.company.com:88).

### Installing the server software

#### ■ To install SMART Bridgit server software

1. Go to [smarttech.com/downloads](http://smarttech.com/downloads).
2. Download SMART Bridgit software and run the **ConferenceServicesSetup.exe** file.  
The *SMART Bridgit - InstallShield Wizard* opens and displays the start-up screen.
3. Click **Next**.  
The *License Agreement* page appears.

4. Read the agreement. If you accept, click **I accept**, and then click **Next**.

 **NOTE**

If you want to keep a hard copy of the agreement for your records, click **Print**.

The *Destination Folder* dialog box appears.

5. Click **Next** to use the default destination folder.

OR

Click **Change** to select a new location for SMART Bridgit conferencing software, and then browse to the desired folder and click **OK**.

6. Click **Next**.

The *Server Address Configuration* page appears.

7. Configure your server by selecting one of the following options:

<p>IPv4 address and IPv6 address</p>	<p>The installation software detects all IP addresses assigned to the server. To use all the addresses, select <b>All</b> in the <i>IPv4 address</i> or <i>IPv6 address</i> box.</p>
<p> <b>NOTES</b></p> <ul style="list-style-type: none"> <li>○ If you select all addresses, SMART Bridgit conferencing software clients can use any IP address assigned to the server computer to contact the SMART Bridgit server. To restrict the IP addresses through which your server is reachable, select a specific IP address.</li> <li>○ If the IP address fields are unavailable, SMART Bridgit conferencing software has automatically detected that you don't have more than one IP address to choose from.</li> </ul>	
<p>Public domain name</p>	<p>Each SMART Bridgit server requires a fully qualified domain name (for example, <i>conference.company.com:88</i> or <i>server.company.com:88</i>) or a host name (for LAN access only).</p>
<p> <b>IMPORTANT</b></p> <p>If you use the computer's network host name as the domain name, the server is accessible only from within the LAN. Internet users do not have access to the server. Do not mix fully qualified domain names and computer host names within the same SMART Bridgit GSN.</p>	

8. Click **Next**.

The *Server Port Configuration* page appears.

## CHAPTER 2

### Installing SMART Bridgit software

9. Configure the ports using the following options:

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Primary TCP port	By default, SMART Bridgit conferencing software uses port 80 as its primary port. If your server is running another application that uses port 80, you must assign SMART Bridgit conferencing software to an unoccupied port. Configure your firewall to allow incoming and outgoing TCP traffic on your chosen port.
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Enable secondary TCP port	By default, SMART Bridgit conferencing software uses port 9933. If you want to use a different port, make sure it doesn't conflict with any other applications running on the server computer.
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**i NOTE**

If your server is running another application that uses either of these ports, you must assign SMART Bridgit software's primary and secondary ports to unoccupied ports. Configure your firewall to allow incoming and outgoing TCP traffic on the chosen ports.

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Enable UDP ports (audio optimization)	Whenever possible, SMART Bridgit conferencing software uses UDP for audio transmission to avoid the additional overhead of TCP in a timing-sensitive situation. SMART strongly recommends that you enable UDP to minimize audio lag in SMART Bridgit meetings. You must open a range of UDP ports (9901 to 9920) on your firewall to use this feature.
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**i NOTES**

- If you configure SMART Bridgit server software to use a TCP port that isn't the default, users must specify the port when connecting to the server. For example, to connect to a SMART Bridgit server on port 8080, users must type **server.company.com: 8080**.
  - A UDP port supports up to 10 participants with optimal performance. By default, SMART Bridgit conferencing software opens 20 UDP ports to allow approximately 200 concurrent participants. Open more ports to accommodate more participants.
  - If your network uses a firewall, you must configure it to allow incoming TCP and UDP traffic on these ports.
- 

10. Click **Next**.

The *Server Password Security* page appears.

## CHAPTER 2

### Installing SMART Bridgit software

11. Optionally, create the following passwords for server password security:

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Server access password	An optional password that a meeting participant uses when connecting to a SMART Bridgit server. The server access password allows the participant to access the server and view the list of meetings on it.
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 **IMPORTANT**

If you assign a server access password, you should also assign a meeting creation password.

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Meeting creation password	An optional password that a meeting owner uses to create a meeting on the SMART Bridgit server. Users who type the meeting creation password can also see the list of active meetings on the server.
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 **NOTE**

After you install SMART Bridgit server software, you can use SMART Bridgit Administration Tools to create additional server access and meeting creation passwords.

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12. Click **Next**.

The *Ready to Install* page appears.

13. Click **Back** to change the settings.

OR

Click **Install** to begin the installation.

The *Installing SMART Bridgit* dialog box appears and the installation validates. The setup status appears on the green status bar.

14. Click **Finish** in the *SMART Bridgit - InstallShield Wizard* to complete the installation.

After you finish installing the software, use SMART Bridgit Administration Tools to activate the server software using a valid server product key, to install user licenses, to change the server settings and to view status information. For more information on SMART Bridgit Administration Tools, click **Help** to open the *SMART Bridgit Administrator's Help*.

 **IMPORTANT**

The SMART Bridgit software installation includes a 60-day evaluation license for the server and concurrent users. See *Licensing SMART Bridgit server software* on the next page for information on installing and activating server and user licenses.

## Upgrading SMART Bridgit server software

### ■ To upgrade your SMART Bridgit server software

1. Go to [smarttech.com/downloads](http://smarttech.com/downloads).
2. Download SMART Bridgit software and run the **ConferenceServicesSetup.exe** file.

A message appears asking if you want to upgrade or repair the program components from the previous version and warning you that all open meetings will be closed during the upgrade.

3. Click **Yes** to close an open meeting and continue with the upgrade.

The *SMART Bridgit - InstallShield* wizard appears. Follow the procedure in *Installing the server software* on page 16.

OR

Click **No**, and then end the meeting using the on-screen instructions.

## Licensing SMART Bridgit server software

Once your 60-day trial expires, you must activate your server and user licenses to continue using SMART Bridgit conferencing software.

### **i** NOTES

- If you upgrade from version 3 to version 4, your version 3 licenses continue to work with version 4.
- If you upgrade from a version earlier than 3.1, the software's Voice over Internet Protocol (VoIP) audio features aren't available. You can purchase an audio upgrade license from your authorized SMART reseller in order to enable the VoIP audio features.

## Activating using the SMART activation server

### ■ To activate your license using the SMART activation server

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Licensing** tab.
2. Select the server you want to activate from the *Server* list.
3. Click **Install Server License**.

The *Install Server License* dialog box opens.

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

## CHAPTER 2

### Installing SMART Bridgit software

After you activate the product key, your server software information appears in the *Licenses for selected server* table, the related status changes to *Activated*, and you have 500 installed licenses.

#### **IMPORTANT**

When you purchase the SMART Bridgit 4.5 software service license, you're purchasing a server license and one product key that activates the server and its entitlement of up to 500 concurrent users.

## Activating your license manually

### To activate your license by e-mail

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Licensing** tab.
2. Right-click the license you want to activate in the *Licenses for selected server* table, and then select **Activate**.

The *Activate License* dialog box appears.

3. Click **Activate manually**, and then click **Continue**.

The *Manual Activation* dialog box appears.

#### **IMPORTANT**

This dialog box contains your product key and installation ID which a Technical Support specialist uses to create your activation key.

4. Email your product key and installation ID to SMART Technical Support ([smarttech.com/contactsupport](mailto:smarttech.com/contactsupport)).

You receive a reply e-mail with your activation key.

#### **NOTE**

You have 60 days from the date of installation to enter the activation key.

5. Right-click the license you want to activate in the *Licenses for selected server* table, and then select **Activate**.
6. Click **Activate Manually**, and then type the activation key.
7. Click **OK**.

After you activate the product key, your license information appears in the *Licenses for selected server* table and the related license status changes to *Activated*.

## CHAPTER 2

### Installing SMART Bridgit software

#### ■ To activate your license by phone

1. Call SMART Technical Support ([smarttech.com/contactsupport](http://smarttech.com/contactsupport)) and request your product key and installation ID.

The Support representative uses your product key and installation ID to create and provide your activation key.

2. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Licensing** tab.
3. Right-click the license you want to activate in the *Licenses for selected server* table, and then select **Activate**.
4. Click **Activate Manually**, and then type the activation key.
5. Click **OK**.

After you activate the product key, your license information appears in the *Licenses for selected server* table and the related license status changes to *Activated*.

## Removing server or user licenses

If you remove a server license or a bundle of user licenses, the product keys remain valid and you can add them again at any time.

#### ■ To remove server or user licenses

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Licensing** tab.
2. Right-click the license you want to remove in the *Licenses for selected server* table, and then select **Delete**.

A confirmation dialog box appears.

3. Click **OK**.

## Chapter 3

# Configuring the server software

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You can use SMART Bridgit Administration Tools on any SMART Bridgit server to assign client access and server access passwords, to create a message of the day, and to enable remote control. If you're using a GSN, these settings automatically update on all your SMART Bridgit Servers.

## Setting passwords

You can assign, change or remove many of the passwords users and administrators use with SMART Bridgit.

### Changing the server access password

Server access passwords are optional. Assign a server access password if you want users to have to type a password before they can view the list of active meetings on a server. You can assign as many server access passwords as necessary.



#### **IMPORTANT**

If you assign a server access password, you should also assign a meeting creation password.

### ■ To change server access passwords

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Security** tab.
2. Select **Server access password** in the *Client access passwords* area.
3. Type the passwords you want to use. Use a semicolon to separate multiple passwords (for example, apple;banana;pear).

#### **NOTES**

- To revoke a password, remove it from the list.
- If the server access password and meeting creation password are identical, you're prompted for only the server access password.

4. Click **Apply**.

#### **NOTES**

- Remember to give the passwords to everyone who's authorized to view the list of active meetings.
- Participants who receive an e-mail invitation to join a meeting can click the link in the invitation to bypass the server access password. However, the participant can join only the meeting they're invited to. The participant can't view the list of other active meetings on the server.

## Changing the meeting creation password

Meeting creation passwords are optional. Assign a meeting creation password if you want users to have to type a password before they can create a meeting. You can assign as many passwords as necessary.

#### **IMPORTANT**

If you assign a server access password, you must also assign a meeting creation password.

### ■ To change meeting creation passwords

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Security** tab.
2. Select **Meeting creation password** in the *Client access passwords* area.

## CHAPTER 3

### Configuring the server software

3. Type the passwords you want to use. Use a semicolon to separate multiple passwords (for example, apple;banana;pear).

#### **i** NOTES

- To revoke a password, remove it from the list.
- If the server access password and meeting creation password are identical, you're prompted for only the server access password.

4. Click **Apply**.

#### **i** NOTE

Remember to give the passwords to everyone who's authorized to create meetings.

## Changing the administrator access password

Administrators can access and monitor any meeting on the SMART Bridgit Server using an administrator access password.

### **■** To assign an administrator access password

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Security** tab.
2. Select **Admin access password** in the *Client access passwords* area.
3. Type the passwords you want to assign.
4. Click **Apply**.

#### **i** NOTES

- You can assign only one administrator access password.
- The administrator appears as *Administrator* in a SMART Bridgit meeting's participant list but doesn't have any special capabilities in the meeting.
- If you create a meeting that uses the same password as the administrator's, no meeting members appear as *Administrator* in the participant list.

## Assigning an API password

Only original equipment manufacturers (OEMs) using the SMART Bridgit application programming interface (API) use this authorization password.

### ■ To assign an API authorization password

1. Double-click the **SMART Bridgit Administration Tools** icon on the server's desktop, and then click the **Security** tab.
2. Select **API authorization password** in the *Server access passwords* area.
3. Type the password you want to assign.
4. Click **Apply**.

#### **i** NOTES

- You can assign only one API authorization password.
- To revoke the password, clear the **API authorization password** check box.
- Remember to give the password to third-party users whose systems are integrated with SMART Bridgit software.

## Changing SMART Bridgit server setup options

Administrators can change server setup information including the registered domain name and primary and secondary port numbers.

### ■ To change the server setup options

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Setup** tab.
2. Modify the options as required.

For information on the options, see SMART Bridgit 4.5 Installation and system administrator's guide ([smarttech.com/kb/170180](http://smarttech.com/kb/170180))

Configuration changes on this page don't take effect until you restart both the SMART Bridgit Master Service and the Conference Service in Windows Services Manager (see *Controlling SMART Bridgit conferencing software services* on page 41).

## Setting meeting options

You can configure, enable and disable several features of SMART Bridgit that are available to meeting participants.

## CHAPTER 3

Configuring the server software

### Disabling remote control

To prevent presenters from sharing control of their computers with other participants, disable the remote control setting in SMART Bridgit Administration Tools.

#### ■ To disable remote control

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Options** tab.
2. Clear the **Enable Remote Control** check box.

#### **i** NOTES

- Remote control is available in active meetings until they end.
- Remote control is disabled in new meetings and the option doesn't appear to meeting participants.

### Disabling webcams

To prevent participants from sharing video, disable the webcam setting in SMART Bridgit Administration Tools.

#### ■ To disable webcams in SMART Bridgit meetings

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Options** tab.
2. Clear the **Enable Webcams** check box.

#### **i** NOTES

- Webcams are available in active meetings until they end.
- Webcams are disabled in new meetings and the option doesn't appear to meeting participants.

### Disabling text chat

To prevent participants from sharing chat messages, disable the text chat setting in SMART Bridgit Administration Tools.

### ■ To disable text chat in SMART Bridgit meetings

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Options** tab.
2. Clear the **Enable Chat** check box.

#### **i** NOTES

- Text chat is available in active meetings until they end.
- Text chat is disabled in new meetings and the option doesn't appear to meeting participants.

### Disabling the Raise Hand feature

To prevent participants from interrupting the meeting with the Raise Hand feature, disable the feature in SMART Bridgit Administration Tools.

### ■ To disable the raise hand feature in SMART Bridgit meetings

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Options** tab.
2. Clear the **Enable Raise Hand** check box.

#### **i** NOTES

- The Raise Hand feature is available in active meetings until they end.
- The Raise Hand feature is disabled in new meetings and the option doesn't appear to meeting participants.

### Disabling the Knock feature

To prevent participants from knocking and entering a meeting without a password, disable the Knock feature in SMART Bridgit Administration Tools.

### ■ To disable the knock feature in SMART Bridgit meetings

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Options** tab.

## CHAPTER 3

Configuring the server software

2. Clear the **Enable Knock** check box.

### NOTES

- The Knock feature is available in active meetings until they end.
- The Knock feature is disabled in new meetings and the **Knock to Join** button doesn't appear to participants trying to join the meeting.

## Adding a message of the day

Select this option to create a message users see when they open SMART Bridgit client.

### To add a message of the day

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Options** tab.
2. Select the display frequency in the *Message of the day* area.
3. Type the message in the *Message of the Day* text box (maximum 256 characters).
4. Click **Apply**.

## Configuring meeting audio settings

By default, SMART Bridgit software's audio is enabled, allowing meeting participants to speak to each other during meetings.

Up to four participants in a meeting can speak concurrently using SMART Bridgit's Voice over Internet Protocol (VoIP) feature. SMART Bridgit's VoIP implementation incorporates Secure Real-time Transport Protocol (SRTP) communication on UDP ports, processing audio data as a steady stream with minimal lag time.

When more than four people are in a meeting, participants can open and close their microphones to give others the opportunity to speak.

### To disable meeting audio

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Audio** tab.

## CHAPTER 3

Configuring the server software

2. Clear the **Enable Audio** check box.

### **NOTES**

- Meeting audio is available in active meetings until they end.
- Meeting audio is disabled in new meetings.

### **To select a default audio optimization when using VoIP**

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Audio** tab.
2. Select **Use VoIP Audio**, and then select one of the following:
  - **Optimize for high audio quality** provides the best quality meeting audio. It also consumes the most bandwidth.
  - **Optimize for low bandwidth** uses less bandwidth but doesn't provide optimal audio quality.

### **Third-party audio**

If you're using a third-party voice bridge instead of VoIP, you can provide the telephone number and meeting code to participants so they can join the meeting.

### **To notify participants of a third-party voice bridge**

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Audio** tab.
2. Select **Use a third-party Voice Bridge or audio-conferencing provider**.

## Chapter 4

# Managing a Global Server Network (GSN)

## About the Global Server Network (GSN)

A SMART Bridgit GSN is a network of SMART Bridgit servers in different geographical locations. A GSN optimizes bandwidth and reduces latency for enterprise SMART Bridgit deployment.

You don't have to install the GSN separately. Install the SMART Bridgit server software and use SMART Bridgit Administration Tools to configure the GSN options. See *Installing the server software* on page 16 for installation information.

## SMART Bridgit Servers in a GSN

You install each server in a GSN as an independent SMART Bridgit Server. Once included in a GSN, each independent server becomes a node in the network with independent server capabilities.

### Requirements and prerequisites

The requirements for a GSN Server are the same as a standard SMART Bridgit Server. See *Preparing for installation* on page 6 for details.

### Setting up a local GSN server

When you install SMART Bridgit server software, a shortcut to SMART Bridgit Administration Tools appears on your desktop.

#### **i** NOTES

- Changes made on the *Options*, *Audio* and *Security* tabs in SMART Bridgit Administration Tools on one server in a GSN automatically apply to all servers in that GSN.
- Your server name should describe your local server in plain language.
- The server password is used by other servers in the GSN to add your server. This password is mandatory.

#### ■ To set up your local GSN server

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Servers** tab.
2. Type a name for your server in the *Description* box in the *Server setup information* area.
3. Type a password for the server in the *Server password* box.
4. Click **Apply**.

#### **i** NOTE

The **Apply** button is enabled when you enter a server password.

## Adding a remote server to the GSN

#### ■ To add a remote SMART Bridgit server to the GSN

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Servers** tab.
2. Click **Add**.  
The *Add Server* dialog box appears.
3. Type the server address, server port and GSN password for the server you want to add, and then click **OK**.

#### **i** NOTES

- All three boxes must be filled in before the **OK** button is available.
- If you try to subscribe to your own server, an error message appears.
- If there's no GSN but you have two servers and want to form a GSN with them, you can use either server to add the other.
- If there are two or more servers in a GSN, you can't add your server to that GSN. An existing member must add your server.

Once you add the server, the *Server list* displayed on every member server of the GSN updates with the new server information. If meetings are running that include these servers, the *Conference Server* list on the *Meetings* tab also updates.

## Removing a local server from a GSN

### ■ To remove a SMART Bridgit server from a GSN

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop.
2. Click the **Servers** tab.
3. Select the local server you want to remove in the *Server list*.
4. Click **Remove Local**, and then click **OK** to confirm.

#### **i** NOTES

- The server is removed from every user's *Server list*.
- If clients are connected to meetings at the time of the server removal, they remain on the *Meetings* list of the server computer hosting them.

## Removing a server from a GSN

### ■ To remove a SMART Bridgit server from a GSN

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Servers** tab.
2. Select the server you want to remove in the *Server list*.
3. Click **Remove**, and then click **OK** to confirm.

#### **i** NOTES

- The server is removed from every user's *Server list*.
- If clients are connected to meetings when the server is removed, they remain on the *Meetings* list of the server computer hosting them.

## Changing GSN server information

### ■ To change GSN server information

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Servers** tab.
2. Type new information in the *Description* box or the *Server password* box.

## CHAPTER 4

### Managing a Global Server Network (GSN)

3. Click **Apply**.

The new information is pushed to all other servers in the GSN.

## Ending a GSN meeting

### ■ To end a meeting on the local GSN server

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Meetings** tab.
2. Select a meeting in the list.
3. Click **End meeting**.

#### **NOTE**

You can end meetings that exist on your local server only. If the meeting is created on a remote server, the **End Meeting** button is unavailable.

## SMART Bridgit clients in a GSN

SMART Bridgit clients in a GSN detect and connect to the GSN server with the fastest connection speed. Once this selection and connection is complete, the GSN optimizes the bandwidth for the network.

## Connecting to a GSN server

### Connecting to a server in a GSN

Connecting to GSN servers is similar to connecting to a single SMART Bridgit server. The main difference is that the SMART GSN client automatically detects the fastest server in the GSN and connects you to it, regardless of the server address you enter.

### ■ To connect to the GSN

1. In your internet browser, go to your SMART Bridgit server.
2. Click the **Download Software** link, and then run the client software.

## Selecting or viewing server information

### To select or view a GSN server

1. Double-click the **SMART Bridgit** icon  on your desktop.  
The *SMART Bridgit Software* dialog box appears.
2. Click the server icon  in the bottom-left corner of the *SMART Bridgit Software* dialog box, if you want to connect to a different server.

The *Server Information* dialog box appears.

#### NOTES

- *Starting server* is the name or address you typed into your browser.
- *Fastest server* is the name or address of the fastest server in the GSN.

3. Type the name of the new server or select a server from the drop-down list.
4. Click **Connect**.

## Disabling the *Pick fastest server* option

#### NOTE

For best results, SMART recommends always using the *Pick fastest server* option.

### To disable the *Pick fastest server* option

1. Double-click the **SMART Bridgit** icon  on the server's desktop.  
The *SMART Bridgit Software* dialog box appears.
2. Click the small **SMART Bridgit** icon  in the upper-left corner.
3. Select **About SMART Bridgit**.

The *About SMART Bridgit Software* dialog box appears.

4. Click the **Technical Support** tab, and then click the **Troubleshooting** tab.
5. Clear the **Pick fastest server** check box in the *Connection* area.

The next time you connect to a GSN, you connect to the server you designate, regardless of connection speed and network traffic.



## Chapter 5

# Administering the server software

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## About SMART Bridgit Administration Tools

SMART Bridgit server software includes an administration tools application which you can use to configure servers and view their statuses, manage your SMART Bridgit software licenses and change password, sharing and remote control settings. You can also use the administration tools to set up a message of the day and configure chat and video settings.

When you install SMART Bridgit server software, a shortcut to SMART Bridgit Administration Tools appears on the server's desktop.

### **IMPORTANT**

Before you start SMART Bridgit Administration Tools, you might need to temporarily disable the other services listening on the same port as SMART Bridgit services. When you finish configuring SMART Bridgit server software, restart the services you disabled.

## Viewing status information

You can use SMART Bridgit Administration Tools to view status information for SMART Bridgit Server software, including active meetings, licenses and server usage.

### Viewing active meetings

#### ■ To view active meetings

3. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Meetings** tab.

A table of active meetings appears. The table includes the following information:

- When the meeting was created
- The meeting's name
- Who created the meeting
- The number of participants
- The GSN server hosting the meeting

### Broadcasting messages to participants

#### ■ To broadcast a message to all meeting participants

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Meetings** tab.
2. Select the meeting to which you want to broadcast a message, and then click **Send Message**.
3. Type the message you want to broadcast in the *Message* box.
4. Click **OK**.

Your message appears on each meeting participant's screen.

## Viewing status information

### ■ To view status information

3. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Servers** tab.

A table of active servers appears. The table includes the following information:

- Server IP address or domain name
- A description of the server
- The port being used for the server
- The number of active meetings
- The server's status, which can include the following:
  - Alive - the server is active and users can connect.
  - Offline - the server is offline or the local server is unable to contact it
  - On hold - an administrator placed the server on hold

## Viewing and saving usage reports

### ■ To view server usage reports

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Report** tab.

A server usage report for the current week appears.

2. Use the **Report start date** and **Report end date** calendars to select report dates, and then click **Refresh**.

A report appears for the period you select.

### ■ To save a server usage report as a text file

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Report** tab.

A server usage report for the current week appears.

## CHAPTER 5

### Administering the server software

2. In the server usage report, select the entries you want to save.

OR

Ensure no entries are selected if you want to save the entire report.

3. Click **Save Report**.

If no entries are selected, a *Save As* dialog box appears. Skip step 5.

OR

If entries are selected, a *Save All Items* dialog box appears. Proceed to step 5.

4. Click **Save All Entries** or **Save Selection**.

A *Save As* dialog box appears.

5. Enter a file name and destination, and then click **Save**.

#### Setting log purge frequency

You can control how long the log stores information about server usage. The default value is 30 days, which means log entries older than 30 days are automatically deleted from the log. You can use any setting between 1 and 120 days.

#### ■ To set log purge frequency

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Report** tab.
2. Enter the number of days you want the log to store information for in the *Logs purged after* box.
3. Click **Apply**.

## Managing servers and meetings

You can change the connection status of servers and end meetings using SMART Bridgit Administration Tools.

### Placing a server on hold

When you place a server on hold, it doesn't allow users to connect, but it doesn't end active meetings.

Place a server on hold when you want to perform maintenance on the server. This allows active participants to finish their meetings, and allows you to maintain the server when they're finished.

■ **To place a server on hold or reactivate it**

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Servers** tab.
2. Select the server in the *Server list* that you want to place on hold or to reactivate.
3. Click **On Hold**, and then click **OK** when asked to confirm.

The server status changes to *On Hold*.

OR

Click **Re-activate**.

The server status changes to *Alive*.

## Ending a meeting

■ **To end a meeting**

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop.
2. Click the **Meetings** tab.
3. Select the meeting you want to end, and then click **End Meeting**.
4. If you want to broadcast a message to meeting participants as the meeting ends, type it in the *Message* box.
5. Click **OK**.

A notification dialog box and your message appears on each meeting participant's screen, and the meeting ends.

## Controlling SMART Bridgit conferencing software services

You can use the Microsoft Windows Services administration console to control SMART Bridgit conferencing software services without restarting the computer.

 **IMPORTANT**

If you stop the services from the Windows Services administration console, all meetings currently running end without warning the users.

### ■ To control SMART Bridgit conferencing software services

1. Open the Windows Services administration console (**Control Panel > Administrative Tools > Services**).
2. Double-click **SMART Bridgit Master Service**.  
The *SMART Bridgit Master Service Properties* dialog box appears.
3. Click **Start, Stop, Pause, Restart** or **Resume** in the *General* tab to control the service.
4. Click **OK**.
5. Double-click **SMART Bridgit Meeting Service**.  
The *SMART Bridgit Meeting Service Properties* dialog box appears.
6. Click the **General** tab.
7. Click **Start, Stop, Pause, Restart** or **Resume** to control the service.
8. Click **OK**.

## Customizing the SMART Bridgit server's web page

After you configure the SMART Bridgit Servers, users can download the SMART Bridgit client by visiting the server's address in an internet browser.

### ■ To customize the SMART Bridgit server's web page

1. Create a web page file called **CustomPage.htm**.
2. Customize the web page.

It should contain links to download the SMART Bridgit client for both Windows operating systems and Mac OS X operating system software. You can also include the SMART Scheduler Outlook add-in installer.

The paths for these files are:

Windows	<a href="http://yourbridgitserverurl/Bridgit.exe">http://yourbridgitserverurl/Bridgit.exe</a>
Mac OS X	<a href="http://yourbridgitserverurl/Bridgit.zip">http://yourbridgitserverurl/Bridgit.zip</a>
SMART Scheduler Outlook Add-in	<a href="http://yourbridgitserverurl/BridgitSchedulerOutlookAddinSetup.msi">http://yourbridgitserverurl/BridgitSchedulerOutlookAddinSetup.msi</a>

where *yourbridgitserverurl* is the URL of your SMART Bridgit server.

## CHAPTER 5

### Administering the server software

3. Save the web page file in the server's application directory.

#### NOTES

- The default directory location is **C:\Program Files\SMART Technologies\SMART Bridgit**.
- For enhanced security, SMART Bridgit Server makes **CustomPage.htm** available only to a internet browser. If your custom page includes images or other files, those images and files must be hosted on a different server and referenced with absolute links in the custom page.

## Downloading the SMART Bridgit client

### To download the SMART Bridgit client

1. In your internet browser, go to your SMART Bridgit server.
2. Click the **Download Software** link, and then run the client software.



# Chapter 6

## Using SMART Scheduler

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### Introduction

If you're using a Windows operating system, the SMART Scheduler option integrates the SMART Bridgit server with Microsoft Exchange Server and Microsoft Outlook Clients. This enables you to schedule single or recurring meetings that use SMART Bridgit software.

### SMART Scheduler requirements

#### Minimum computer requirements

##### **SMART Scheduler server requirements**

- 2.0 GHz processor
- 1 GB of RAM
- Windows Server 2003 R2 or 2008 R2 operating system
- 10 Mbps network interface card that supports the TCP/IP
- Network connection to your Microsoft Exchange Server
- CDO 1.2.1 (Microsoft Collaboration Data Objects), version 6.5.8165.0 or later. You can also download this software during the server installation.

## CHAPTER 6

Using SMART Scheduler

### Microsoft Exchange Server

Microsoft Exchange Server 2003, 2007 or 2010.

### SMART Scheduler Outlook add-in

- 2.0 GHz processor
- 1 GB of RAM
- Outlook 2003 SP3, 2007 SP2 or 2010.
- Network connection to your Microsoft Exchange Server
- You must have SMART Bridgit server installed and running on either a separate computer (recommended) or, if required, on the same computer where you'll install SMART Scheduler server.

## Installing SMART Scheduler server software

The SMART Scheduler Server software installation file is included with your SMART Bridgit server software.

### ■ To locate the SMART Scheduler Server software installation file

On the computer where you're installing the software, browse to your SMART Bridgit Server by typing

**`http://<yourserver.com>/SMARTSchedulerServerSetup.exe`**

in the address bar, where *<yourserver.com>* is the URL of your SMART Bridgit Server.

OR

On your SMART Bridgit server, go to

**`C:\Program Files\SMART Technologies\SMART Bridgit\SMARTSchedulerInstallers`**

and then copy the **`SMARTSchedulerServerSetup.exe`** file to the computer you're installing it on.

### Installing the software

The ports that the Microsoft Exchange Server or Exchange client use depend upon the versions installed. The network administrator can restrict the Exchange Server's range of allowed TCP ports or can map static TCP ports. Refer to the *Microsoft Exchange Server and Outlook clients* section in this article <http://support.microsoft.com/kb/832017>.

■ **To install SMART Scheduler Server software**

1. Double-click the **SMARTSchedulerServerSetup.exe** installation file.

The *SMART Scheduler Server – InstallShield Wizard* welcome screen appears.

**i NOTE**

The installer won't run on a computer with Microsoft Outlook.

2. Click **Next** to continue.

If you don't have Microsoft Collaboration Data Object (CDO) installed on your computer, the *CDO Installation Required* dialog box appears. Go to the *To install Microsoft CDO* procedure below.

If CDO is installed the *Software License Agreement* appears.

3. Read the agreement. If you accept it, click **I accept**, and then click **Next**.

**i NOTE**

If you want to keep a hard copy of the agreement for your records, click **Print**.

The *Destination Folder* dialog box appears.

4. Click **Next** to install to the default folder, or click **Change** to specify another folder location.
5. Click **Install**.

If the installation is successful, the *InstallShield Wizard Completed* dialog box appears.

6. Click **Configure** to set up the mailbox.

The *SMART Scheduler Server Configuration* dialog box appears.

7. Type your SMART Scheduler mailbox credentials and Windows authentication information in the appropriate boxes, and then click **OK**.

The setup application installs the SMART Scheduler Server which runs as a service. The application then verifies that the specified Windows user account has access to the Microsoft Exchange mailbox and that the mailbox is functioning correctly. Any errors are reported to you.

■ **To install Microsoft CDO**

1. Select **Download CDO Installer**, and then click **Finish**.
2. Run the downloaded software.

The *Choose Directory for Extracted Files* dialog box appears.

## CHAPTER 6

### Using SMART Scheduler

3. Click **OK** to accept the default location, or type a new location.  
The CDO Installation file downloads to the specified location.
4. Browse to where you saved the file and double-click the **ExchangeMapiCdo.msi** file.
5. To install SMART Scheduler Server software, return to step 3 in *Installing SMART Scheduler server software* on page 46.

## Configuring SMART Scheduler Server

After you install SMART Scheduler server software, you can change the server name and password settings.

### ■ To change the SMART Scheduler server settings

1. Browse to where you installed SMART Scheduler server and double-click the **SMARTSchedulerServerConfig.exe** file.  
The *SMART Scheduler Server Configuration* dialog box opens.
2. Change your SMART Scheduler mailbox credentials or Windows authentication information as required.
3. Click **OK** to save the changes.

#### **IMPORTANT**

- If you change the name of your SMART Scheduler mailbox, none of the meetings scheduled using the old mailbox name will run.
- After changing the name of the mailbox on the server, you must also change the name of the mailbox in the SMART Scheduler Outlook add-in. For instructions, see *To change the SMART Scheduler settings for all new meetings* in your *SMART Bridgit 4.5 user's guide* ([smarttech.com/kb/170181](http://smarttech.com/kb/170181)) or SMART Bridgit Help.

## Upgrading SMART Scheduler Server

### ■ To upgrade your SMART Scheduler Server software

1. Upgrade your SMART Bridgit Server.  
See *Upgrading SMART Bridgit server software* on page 20.
2. Open Windows Control Panel's Install or Remove Programs tool.

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### Using SMART Scheduler

3. Remove the installed SMART Scheduler Outlook add-in software.
4. Remove Microsoft Messaging, API and Collaboration Data Objects (CDO).

**i NOTE**

The current versions of these components are installed during the upgrade procedure.

5. Install the SMART Scheduler server software.

See *Installing SMART Scheduler server software* on page 46 for instructions.

## Installing the SMART Scheduler Outlook add-in from a command line

### ■ To install the add-in from a command line

1. Open a Command Prompt window, then type **cmd** in the *Open* box, and then click **OK**.  
The *cmd.exe* dialog box appears.
2. Type **cd** followed by a space, and then type the path to the directory that contains the installer.
3. Execute the installer with any appropriate msi-related parameters.

**i NOTE**

For a list of msi-related parameters, type **msiexec /?** and press ENTER.

## CHAPTER 6

### Using SMART Scheduler

- Specify configuration options for the installer.

SERVERNAME	The address of the SMART Bridgit Server on which your SMART Scheduler meetings will run.
USEPASSWORD	Whether your SMART Scheduler meetings are password protected (0 or 1).
MAILBOX	The SMART Scheduler e-mail address
USERTF	specifies whether your e-mail messages use rich text formatting (1) or plain text formatting (0).

#### NOTE

The Microsoft Exchange Server administrator creates this address and the mailbox on the Microsoft Exchange Server at the same time.

#### EXAMPLE

```
msiexec.exe /i  
"C:\<SourceFileLocation>\SMARTSchedulerOutlookAddinSetup.msi" /qn  
SERVERNAME=<yourserver.com> USEPASSWORD=1 USERTF=1  
MAILBOX="<Scheduler Mailbox>"
```

where <SourceFileLocation> is the path to the .msi file, <yourserver.com> is the URL of your SMART Bridgit Server, and <Scheduler Mailbox> is the SMART Scheduler email address.

#### NOTE

If you have a space in your mailbox name, you must use double quotations marks before and after the name. If there is no space, quotation marks are not required.

- Press ENTER.

The SMART Scheduler Outlook add-in installs.

#### To upgrade the add-in from a command line

Follow the steps in the *To install the add-in from a command line* procedure above, and then close and restart Outlook.

#### NOTE

You can leave Outlook running during the upgrade, but you must restart it for the changes to take effect.

## Removing the SMART Scheduler Outlook add-in

### IMPORTANT

Do not remove files for other SMART software products you want to continue to use. If you are unsure, contact SMART Technical Support for more information.

Before you can perform the default removal procedure, you must obtain the product code for your version of SMART Scheduler Outlook add-in. You can find your product code in the following table.

### SMART Scheduler Outlook add-in product codes

Software version	Product code
4.0.500.0	{916243FB-5A56-4CF1-B75B-6F4236977C12}
4.1.169.0 (Current)	{EF2064B4-D050-4A45-B28A-F8BA573AB0B5}

### NOTE

Include the braces when entering a product code value.

#### To remove the add-in from the uninstaller

1. Open Windows Control Panel's Install or Remove Programs tool.
2. Remove the installed SMART Scheduler Outlook add-in software.

#### To remove the add-in from a command line

1. Open a Command Prompt window, then type **cmd** in the *Open* box, and then click **OK**.

The *cmd.exe* dialog box appears.

2. Type the following command (including quotation marks), and then press ENTER:

```
msiexec.exe /x"path to .msi\SMARTSchedulerOutlookAddinSetup.msi" /q
```

OR

Type the following command, and then press ENTER:

```
msiexec.exe /x{ProductCode} /q
```



## Chapter 6

# Bandwidth and scalability

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## Bandwidth requirements

SMART Bridgit conferencing software performs best when you allocate at least 300 Kbps of network bandwidth on your server for each meeting participant, both inbound to, and outbound from, the server.

### EXAMPLE

If you have a 1.5 Mbps bandwidth connection to your server, you can support a maximum of five concurrent participants with four open microphones and four webcams at optimal performance ( $300 \text{ Kbps} \times 5 = 1,500 \text{ Kbps}$  or 1.5 Mbps).

Use the following table to estimate bandwidth requirements for SMART Bridgit conferencing software.

SMART Bridgit conferencing software resource	Bandwidth required
One shared desktop with a 1024 × 768 resolution	9 Kbps
One open microphone using the standard quality setting	25 Kbps
One open microphone using the low quality setting	15 Kbps
One open webcam with moderate activity	60 Kbps

### TIP

Most shared desktops maintain a bandwidth load of about 9 Kbps. However, the bandwidth required for a shared desktop depends on the display's resolution, the complexity of the content being shared and the frequency at which the content changes. For example, a shared desktop with a photographic desktop background requires more bandwidth than a shared desktop with a plain, solid colored background.

As an extreme example, a shared desktop with a complex photographic background and frequent content changes can peak at 1,800 Kbps, while maintaining an average of 300 Kbps.

## Examples of bandwidth requirements

The following table can help you determine typical bandwidth usage for SMART Bridgit meetings.

## CHAPTER 6

### Bandwidth and scalability

<b>SMART Bridgit resource</b>	<b>Bandwidth required</b>
One shared desktop with a resolution of 1024 × 768	9 Kbps
Four open microphones using the standard quality setting	25 Kbps × 4 = 100 Kbps
Four open webcams with moderate activity	60 Kbps × 4 = 240 Kbps
Totals:	
Bandwidth required for each participant	9 + 100 Kbps + 240 Kbps = 349 Kbps
Bandwidth required for all 4 participants	349 Kbps × 4 participants = 1,396 Kbps or 1.396 Mbps

## Scaling SMART Bridgit

SMART Bridgit software is scalable. A SMART Bridgit Server software maintains its availability, reliability and performance when the number of meeting participants increases on the server.

#	SMART Bridgit software resources		Total computers	NIC speed	Max. client connections
	Outbound from Server				
1	<ul style="list-style-type: none"> <li>One shared desktop with a resolution of 1024 × 768</li> <li>Four open microphones using the standard quality setting</li> <li>Four open webcams with moderate activity</li> </ul>	349 Mbps	4	1 Gbps	1,000
2	<ul style="list-style-type: none"> <li>One shared desktop with a resolution of 1024 × 768</li> <li>Four open microphones using the standard quality setting</li> </ul>	109 Mbps	4	1 Gbps	1,000
3	<ul style="list-style-type: none"> <li>One shared desktop with a resolution of 1024 × 768</li> <li>Four open webcams with moderate activity</li> </ul>	249 Mbps	4	1 Gbps	1,000
4	<ul style="list-style-type: none"> <li>One shared desktop with a resolution of 1024 × 768</li> </ul>	9 Mbps	2	7.2 Mbps	800



# Appendix A

## Troubleshooting

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## APPENDIX A

### Troubleshooting

This section includes troubleshooting topics and information on how to get technical support. It also shows how you can use the SMART Bridgit software troubleshooting tool to optimize your system configuration and resolve problems.

## Using the SMART Bridgit troubleshooting tool

SMART Bridgit software has a troubleshooting tool that you can use to determine the cause of issues you could have.

### ■ To open the troubleshooting tool

1. Open SMART Bridgit client software and create a test meeting.

The SMART Bridgit lobby screen appears.

2. Select **Menu > About SMART Bridgit**.

The *About SMART Bridgit Software* dialog box appears.

3. Select **Technical Support > Troubleshooting**.

The *Troubleshooting* dialog box appears.

The features of the *Troubleshooting* dialog box are described in the following sections:

- *Screen capture technology* below
- *Sharing color quality* on page 60
- *Audio* on page 61
- *Connection* on page 62
- *Ink* on page 62

For more assistance, contact SMART Technical Support ([smarttech.com/contactsupport](https://smarttech.com/contactsupport)).

### Screen capture technology

This section provides an overview of the various technologies that SMART Bridgit software uses when you share your desktop during a meeting.

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### Troubleshooting

SMART Bridgit software uses the following three types of technology to share screens during a meeting.

Type of technology	Description
<b>Mirror drivers</b>	SMART Bridgit software attempts to use this sharing method first because it offers the best performance. It requires an installation which is automatically done if you have administrator rights.  <b>i NOTE</b> Mirror drivers behave unexpectedly on computers with Windows 7 operating systems.
<b>Redraw hooks</b>	SMART Bridgit software reverts to using redraw hooks if it can't use mirror drivers. Redraw hooks are automatically downloaded from the server when needed and performs a screen capture every time something changes on the screen.  <b>i NOTE</b> Redraw hooks behave unexpectedly on computers with Windows 7 operating systems.
<b>Four times per second capture</b>	If SMART Bridgit software can't use either of the above technologies, it captures the shared screen four times per second, compresses the image, and then sends it to the recipient. This method offers the lowest performance, but it uses the lowest bandwidth.

#### Information fields and options

Use the options outlined in this section to resolve issues with sharing speed and image quality.

Field/option	Description	When to use/why it's important
Presenting status	Displays either <i>Not currently presenting</i> or the method of screen capture in use: <ul style="list-style-type: none"><li>• <i>Capturing screen 4 times per second (display 0)</i></li><li>• <i>Using RedrawHooks.dll (display 0)</i></li><li>• <i>Using mirror driver (display 0)</i></li></ul>	

## APPENDIX A

### Troubleshooting

Field/option	Description	When to use/why it's important
Hardware acceleration status	Indicates whether hardware acceleration is on or off.	If you use a low-end video card in your system and you disable hardware acceleration, you increase the performance of your computer.
Mirror driver availability	<ul style="list-style-type: none"><li>• <i>available</i> – the mirror driver is installed</li><li>• <i>unavailable</i> – the mirror driver isn't installed</li><li>• <i>disable by OS</i> – your computer has Windows 7, which causes the mirror driver to behave unexpectedly.</li></ul>	When video mirroring is active, each time the system draws to the primary video device at a location inside the mirrored area, a copy of the draw operation is executed on the mirrored video device in real time.
Enable redraw hooks	Select to share using redraw hooks.  <b>i NOTE</b> Redraw hooks behave unexpectedly with Windows 7 operating system.	If your pointer is flickering, you might want to try clearing this option.
Enable mirror driver	Select to share using mirror driver.	If your shared applications aren't being captured correctly, you might want to try clearing this option. Otherwise, leave this option enabled.

## Sharing color quality

Use the following options to adjust the quality of shared color images and video.

Field	Description	When to use/why it's important
Share in full color	<ul style="list-style-type: none"><li>• Select to share in the highest color depth available (usually 24 or 32 bits per pixel).</li><li>• Clear to share in 256 color mode.</li></ul>	Clearing this option causes bandwidth usage to drop, but it increases the load on the presenter's computer. The image quality of the shared screen is reduced.
Optimize desktop for sharing	Slows down the frequency of screen captures and removes your desktop background to decrease the amount of bandwidth used.	This option is cleared by default. You can select it to improve sharing when bandwidth is limited.

## Audio

Use the following options to adjust your audio settings.

Option	Description	When to use/why it's important
Enable echo cancellation	Enables echo cancellation for VoIP audio	Disable this option only if the computer's power is very limited, because it takes slightly more processing power to have this enabled.  Some hardware devices contain echo cancellation that SMART Bridgit's software-based echo cancellation can interfere with.  Disable this option if you are having problems with echo cancellation.
Enable AGC	Enables automatic gain control (AGC)	AGC adjusts the volume of your microphone to a reasonable level in case you have your volume set too high. Disable this option if you prefer full control over the volume.

## Connection

This section provides server connection status details, as well as information on ports and proxy connections.

Field	Description	When to use/why it's important
Starting server	Displays the server name that you typed when you connected SMART Bridgit software to the server.	<ul style="list-style-type: none"> <li>• Status only</li> <li>• To change which server is in use, double-click the <b>SMART Bridgit client</b>  icon on your desktop or in the Dock, and then click the server icon .</li> </ul>
Fastest server	<ul style="list-style-type: none"> <li>• Displays the server in the Global Server Network (GSN) that you're connected to.</li> <li>• SMART Bridgit software selected this server due to its speed of connection</li> </ul>	<ul style="list-style-type: none"> <li>• Status only</li> <li>• SMART Bridgit software detects this server automatically.</li> </ul>
TCP port	Displays the port your system is using for screen sharing, video conferencing and chat.	Status only
UDP port	The port used for VoIP audio	Status only
Proxy connection	Fallback communication protocol when TCP/UDP is restricted.	Status only
Pick fastest server	Select to enable the automatic selection of the fastest server.	If you clear this option, SMART Bridgit software connects to the server you specified, regardless of whether there is a faster server available in the same GSN.

## Ink

Clear this check box to disable SMART Bridgit's remote and local ink ability. This is useful if you want to write on a SMART Board interactive whiteboard instead of using SMART Bridgit software's ink capability.

## Monitoring a meeting's performance - presenter

When you present in a meeting, an hourglass  could appear on the **Show/Hide Participant List** button  while SMART Bridgit software sends updates to the other participants. The hourglass disappears once all the participants can see your desktop.

If the hourglass remains, one or more participants are lagging behind the meeting.

### ■ To view the meeting performance for each participant

Click the **Show/Hide Participant List** button .

The participant list appears. The delay interval (in seconds) appears to the right of the name of the participant who's lagging. The chat icon is also covered by an hourglass.

If participants continue to lag behind the meeting, you can take steps to improve the meeting's performance.

### Improving performance

If you're presenting a meeting and you find that some participants are seeing events on your desktop several seconds after they happen, you can try a number of things:

- Use a solid-color desktop background rather than a complex wallpaper.
- Disable animations or fades in list boxes, windows, menus, ToolTips and so on.
- Stop sharing your webcam.
- Optimize your desktop for sharing. Select **Menu > About SMART Bridgit > Technical Support > Troubleshooting**, and then select **Optimize desktop for sharing** and click **OK**.
- Reduce the screen resolution in your operating system's display settings or share only a portion of the desktop.

#### NOTES

- The procedure for reducing the desktop resolution varies between versions of Windows operating system. However, the option is always available in **Control Panel > Display > Settings**.

- The procedure for reducing the desktop resolution varies between versions of the Mac operating system software. However, the option is always available in the **Apple (🍏) menu > System Preferences > Displays**.
- If you're the meeting owner, you can choose an audio optimization setting that could improve performance.

If none of these options helps significantly, contact your network administrator and report that you're experiencing slow network performance.

## Monitoring a meeting's performance – participant

When you view the shared desktop, the **Show/Hide Participant List** button  turns yellow  if your computer is 5 to 10 seconds behind the presenter's. If your computer is more than 10 seconds behind the presenter's, the **Show/Hide Participant List** button  button turns red .

### ■ To view the meeting performance for your computer

Click the **Show/Hide Participant List** button .

The delay interval (in seconds) appears to the right of your name.

If your computer continues to lag behind the meeting, you and the presenter can take steps to improve performance.

### Improving performance

If you're participating in a meeting and you see events on the presenter's desktop several seconds after they happen, you can try a number of things:

- Hide the webcam window.
- Stop sharing your webcam.
- Stop using audio and use text messaging (chat) instead.
- Avoid using the *Fit presenter's desktop to dialog box* option if you're using a less powerful computer. If your desktop is the same size or larger than the presenter's, you can view the shared desktop in Full Screen mode without using scroll bars.

#### NOTE

This can improve performance for slow computers, but not for slow networks.

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### Troubleshooting

- Reduce the level of Windows hardware acceleration. Select **Control Panel > Display > Settings > Advanced**. Click the **Troubleshoot** tab and drag the level of *Hardware acceleration* toward **None**. Test SMART Bridgit software's performance and reduce the hardware acceleration more if necessary.

 **NOTE**

This can improve performance for slow computers, but not for slow networks.

If none of these options helps significantly, contact your network administrator and report that you're experiencing slow network performance.

## Minimizing network latency

This topic details steps you can take if your client's program is slow or unresponsive during a meeting. Latency, the time lag between sending a message to a remote computer and receiving a response, can cause noticeable performance issues in SMART Bridgit software.

### Symptoms

- Connecting to the SMART Bridgit Server takes a long time.
- The screen updates slowly when you view a shared desktop.
- SMART Bridgit software doesn't respond to your mouse or keyboard when you use remote control.

### Solution

Try the following to troubleshoot network latency issues:

- Verify that you're using TCP and UDP network protocols. See *Verifying communication protocol* on the next page.
- Check if you're connecting through a proxy server. See *SMART Bridgit and firewalls* on page 11.
- Check your network bandwidth. See *Examples of bandwidth requirements* on page 54.
- Measure latency and packet loss rate. See *Measuring latency and packet loss* on the next page.

### Other suggestions

Because you have limited control over the network outside of your LAN, you have limited control over network latency issues. However, you might be able to improve the connection between your LAN and your Internet Service Provider (ISP).

You can try these options:

- Read the specifications of your server and client computer Ethernet card throughput rates. Also, check your network device rates. If they're low, upgrade the hardware.
- Verify that your Internet transmit and receive speeds match the speed guaranteed by your ISP.

## Verifying communication protocol

SMART Bridgit software uses three types of network protocols:

- TCP for data and video
- UDP for VoIP audio
- HTTP if a client is unable to connect to the server using TCP

Communications using TCP and UDP have lower network delays than those using HTTP protocol, and using them helps to prevent latency issues.

Use SMART Bridgit software's troubleshooting tool to determine the network protocol you're using. See *Using the SMART Bridgit troubleshooting tool* on page 58.

Ensure that values appear in the *TCP Port* and *UDP Port* fields. If these fields have *N/A* in them, or if the *Proxy Connection* option is selected, contact your administrator to open the TCP and UDP ports to connect to SMART Bridgit server. See *Administering the server software* on page 37. See *SMART Bridgit and firewalls* on page 11 for information about configuring firewalls and proxy servers.

## Checking for firewalls

### ■ To determine if the client is behind a firewall

1. On the client computer, open the SMART Bridgit troubleshooting tool. See *Using the SMART Bridgit troubleshooting tool* on page 58.

The *Connection* area displays the ports and protocols the client computer is using to communicate with the server. If a client is communicating through a proxy server or if the client's UDP and secondary TCP ports are blocked by a firewall, the *Proxy Connection* check box is selected.

2. Contact your administrator to open the TCP and UDP ports to connect to SMART Bridgit server

## Measuring latency and packet loss

Packet loss occurs when one or more packets of data traveling across a computer network fail to reach their destination. Packet loss rates depend on factors including bandwidth, communication path reliability and router buffer size. When packets are lost, latency increases as the network devices try to recover the information.

Microsoft Windows operating systems include the PathPing tool to measure packet loss rate and latency. PathPing sends packets to each router on the path to a destination for an interval, and then it computes results based on the packets returned from each hop. Since PathPing shows how much packet loss is seen for any router or link, you can determine which routers or links are causing network problems. For more information on using PathPing to determine network latency and packet loss, see the Microsoft website.

## Troubleshooting SMART Bridgit server connections

This section help you resolve connection issues that are caused by your SMART Bridgit server software or your network environment.

SMART Bridgit server connection issues can result from an incorrect domain name server (DNS) configuration for routing to the SMART Bridgit server or from the server computer's domain and IP address and port forwarding settings on the network servers, routers or firewalls.

### Symptoms

- When a SMART Bridgit client connects to a SMART Bridgit server that's running on the same computer, a *The <servername.com> server is not available. Try again later or select another server* error message appears.

This error message can also appear when a client's software causes the issue.

When you're unable to connect to SMART Bridgit software server and SMART Bridgit client software is causing the issue, see [smartechnology.com/kb/099567](http://smartechnology.com/kb/099567).

- An error message appears when you connect to a SMART Bridgit server from an Internet browser.

### Solution

Verify that you're using the latest version of SMART Bridgit Server software. See *Upgrading SMART Bridgit server software* on page 20. If the software upgrade doesn't resolve the issue, try these procedures:

- *Verifying the network's DNS configuration* on the next page
- *Verifying SMART Bridgit server configuration* on the next page
- *Manually updating the Windows registry* on page 71

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- *Configuring the client's HOSTS file* on page 71
- *Verifying port forwarding and firewall configuration* on page 72

## Verifying the network's DNS configuration

Verify that the network's DNS is configured correctly so the IP address resolved by the network's DNS is the same as the SMART Bridgit Server's IP address.

### To verify that the DNS is configured correctly

1. Open a Command Prompt window on the SMART Bridgit server, type **ipconfig** and then press **ENTER**.

The server's network configuration information appears, including its IP address.

2. Type **nslookup <ServerDomainName>** and then press **ENTER**.

OR

Type **ping <ServerDomainName>** using the domain name for the SMART Bridgit Server, and then press **ENTER**.

The IP address that the network's DNS resolves to appears.

3. Compare the IP addresses.

### **i** NOTES

- If the IP addresses are the same, the network's DNS is configured correctly. See *Troubleshooting SMART Bridgit server connections* on the previous page.
- If the IP addresses are different, the network's DNS isn't configured correctly.

OR

The SMART Bridgit server is located on a LAN or virtual LAN but the domain name resolves to a router on a different LAN, and your network's router doesn't allow loop-back communication. See *Configuring the client's HOSTS file* on page 71 to add the domain name to the Windows HOSTS file.

## Verifying SMART Bridgit server configuration

Verify the domain name or IP address, and then configure the SMART Bridgit server software.

### To verify the domain name or IP address

1. Double-click the **SMART Bridgit Administration Tools** shortcut on the server's desktop, and then click the **Setup** tab.

For more information, see *Configuring the server software* on page 23.

**i NOTE**

If the *SMART Bridgit Software Administration Tools* window doesn't appear, see *Manually updating the Windows registry* on the next page to enter the domain name or IP address manually in the Windows registry.

2. Compare the domain name or IP address in the *Registered Domain Name* box to the domain name or IP address you compared in *Verifying the network's DNS configuration* on the previous page.
3. If the domain names or IP addresses are the same but clients are still unable to connect to the server, see *Verifying the network's DNS configuration* on the previous page to verify the port forwarding and firewall configurations.

If the domain names or IP addresses are different, type your SMART Bridgit Server's domain name or IP address in the *Registered Domain Name* box, and then click **Apply**.

The *Restart Services* dialog box appears.

4. Click **Close Administrative Tools**.

The *SMART Bridgit Software Administration Tools* dialog box closes.

5. Select **Start > Control Panel > Administrative Tools > Services**.

The *Services* dialog box appears.

6. Right-click **SMART Bridgit Master Service**, and then select **Restart**.

The *SMART Bridgit Master Service* restarts.

**i NOTE**

Other SMART Bridgit clients disconnect from the SMART Bridgit server when you complete this procedure.

7. Right-click **SMART Bridgit Conference Service**, and then select **Restart**.

The *SMART Bridgit Conference Service* starts.

**i NOTES**

If clients are still unable to connect to the server, see *Verifying the network's DNS configuration* on the previous page to verify the port forwarding and firewall configurations.

## Manually updating the Windows registry

### CAUTION

Use caution when you open the Windows registry editor. If you incorrectly modify the Windows registry, you can damage your computer's operating system. Back up your registry before performing the following procedure.

### To enter the domain name or IP address in the Windows registry

1. Start the Windows registry editor and browse to **HKEY\_LOCAL\_MACHINE\SOFTWARE\SMART Technologies Inc.\Bridgit Data-conferencingSoftware\3.0**.
2. Type your SMART Bridgit server's domain name or IP address in the *MasterServerDomainName* boxes.
3. Exit the Windows registry editor.
4. Select **Start > Control Panel > Administrative Tools > Services**.

The *Services* dialog box appears.

5. Right-click **SMART Bridgit Master Service**, and then select **Restart**.

The *SMART Bridgit Master Service* restarts.

### NOTE

Other clients disconnect from the SMART Bridgit server when you complete this procedure.

6. Right-click **SMART Bridgit Conference Service**, and then select **Restart**.

The *SMART Bridgit Conference Service* restarts.

If clients are still unable to connect to the server, see *Verifying port forwarding and firewall configuration* on the next page to verify the port forwarding and firewall configurations.

If the domain name resolves to your router's public IP address, and your router doesn't allow loop-back communication, see *Configuring the client's HOSTS file* below to add the domain name to the Windows HOSTS file.

## Configuring the client's HOSTS file

If the domain name resolves to your router's public IP address, and your router doesn't allow loop-back communication, follow this procedure to add the domain name to the Windows HOSTS file.

■ **To add the domain name to the Windows HOSTS file**

1. Go to **C:\Windows\system32\drivers\etc** on the SMART Bridgit client computer, and then open the **HOSTS** file.
2. Add an entry so that the domain name you're using to connect to the SMART Bridgit server resolves to the server's IP address.

This procedure is effective for SMART Bridgit clients on this computer only. Other clients can use a direct IP address or the IP address resolved from the domain name by your network's DNS server.

3. See *Troubleshooting SMART Bridgit server connections* on page 68 to configure the SMART Bridgit server software.

### Verifying port forwarding and firewall configuration

If clients are still unable to connect to the server, verify that port forwarding on the network routers is configured to give clients access to the server, and that firewalls protecting the SMART Bridgit server allow clients to access the server. See *Verifying communication protocol* on page 67 and *Checking for firewalls* on page 67.

If the problems persist, the SMART Bridgit client (not the server) could be the cause. See *Unable to connect to Bridgit software server (client side)* [smarttech.com/kb/099567](http://smarttech.com/kb/099567).

## Troubleshooting administration tool connections

### Symptom

When you install SMART Bridgit software with IP binding, SMART Bridgit Administration Tools doesn't connect to the SMART Bridgit server.

### Solution

Use one of the following procedures to connect SMART Bridgit Administration Tools to the SMART Bridgit server:

- *Directing IP traffic to the SMART Bridgit server below (recommended solution)*
- *Moving the server's IP address to the top of the IP settings list on the next page*
- *Stopping applications using the server's IP port on the next page*

### Directing IP traffic to the SMART Bridgit server

#### ■ To direct IP traffic to the IP address bound to the SMART Bridgit server

1. Open a Command Prompt window, type **hostname**, and then press ENTER.

Note the computer name that appears.

2. If you don't know the IP address that was entered when the server was installed, open SMART Bridgit Administration Tools, and then select the **Setup** tab. For more information, see [Verifying SMART Bridgit server configuration](#).

Note the server's IP address in the *IPv4 Address* drop-down list.

3. Go to **C:\WINDOWS\system32\drivers\etc\**, and then open the **HOSTS** file.
4. Type your IP address and host name on a new line at the bottom of the file.

#### EXAMPLE

```
192.168.0.8 bridgitserver.
```

5. Save the **HOSTS** file.

You can now open SMART Bridgit Administration Tools and configure the SMART Bridgit server software. See *Configuring the server software* on page 23.

 **IMPORTANT**

Because other applications can use the hostname, you should remove the line you added in step 4 after you configure the SMART Bridgit Server. You can remove the line or comment it out (by inserting a “#” character at the beginning of the line).

## Moving the server's IP address to the top of the IP settings list

### To move the server's IP address to the top of the IP settings list

1. If you don't know the IP address that was entered when the server was installed, open SMART Bridgit Administration Tools, and then select the **Setup** tab.

Note the server's IP address in the *IPv4 Address* drop-down list.

2. Select **Start > Control Panel > Network Connections**.
3. Right-click the network device that SMART Bridgit software is bound to, and then select **Properties**.
4. Click **Internet Protocol (TCP/IP)** in the *This connection uses the following items* list.
5. Click **Properties**.
6. Select the **General** tab, and then click **Advanced**.  
*The Advanced TCP/IP Settings dialog box appears.*
7. Click the **IP Settings** tab.
8. Remove all the IP addresses above the SMART Bridgit server's address.
9. Replace the addresses below the server's address.
10. Restart the server.

## Stopping applications using the server's IP port

 **TIP**

Perform this procedure when it won't affect other users.

### ■ To make SMART Bridgit software's primary port available

1. Stop applications that use SMART Bridgit software's primary port.
2. Open SMART Bridgit Administration Tools and configure SMART Bridgit software. For more information, see [Verifying SMART Bridgit server configuration](#).
3. Close SMART Bridgit Administration Tools.
4. Start the applications that you stopped in step 1.

## Troubleshooting SMART Scheduler

After the you install and configure SMART Scheduler, it runs silently as a Windows service. It doesn't have a user interface when running, and it doesn't create a log file by default. Follow these steps to gather more information when troubleshooting.

### ■ To display a SMART Scheduler server log

1. Open a **Command Prompt** window, and then browse to the *SMART Scheduler Server* folder.  
The default folder is **C:\Program Files\SMART Technologies\SMART Scheduler Server**.
2. Type **net stop "SMART Scheduler Server"**, and then press ENTER.  
The SMART Scheduler server service stops.
3. Type **SMARTSchedulerServer.exe**, and then press ENTER.  
The SMART Scheduler server service starts. A series of text lines appear.
4. Look for and record any error information in the log that can help you identify a problem.
5. Press CTRL+C.  
The server stops and the command prompt returns.
6. Type **net start "SMART Scheduler Server"**, and then press ENTER.  
The SMART Scheduler server service starts.

### ■ To create a server log file

1. Open a **Command Prompt** window, and then browse to the *SMART Scheduler Server* folder.  
The default folder is **C:\Program Files\SMART Technologies\SMART Scheduler Server**.
2. Type **net stop "SMART Scheduler Server"**, and then press ENTER.  
The SMART Scheduler Server Windows service stops.

## APPENDIX A

### Troubleshooting

3. Type **SMARTSchedulerServer.exe>>log.txt**, and then press ENTER.

The SMART Scheduler Server service starts. The log information re-directs to the **log.txt** file.

4. Wait a few minutes, and then press CTRL+C.

The server stops and the command prompt returns.

5. Type **net start "SMART Scheduler Server"**, and then press ENTER.

The SMART Scheduler server service starts.

6. Locate the **log.txt** file, and then open it in a text editor.

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