# **Specifications** Bridgit<sup>®</sup> conferencing software Version 4.6

## **Product description**

Bridgit® conferencing software is a cost-effective client/server application that lets you easily schedule meetings and connect, share and collaborate with local and remote participants anytime, anywhere, using your computer or SMART interactive product. Bridgit software supports private local and wide area network (LAN and WAN) installations as well as public deployments that use a fully gualified domain name via the Internet. Bridgit software also supports virtualization on VMware® vSphere™ Hypervisor 4.1, which enables customers to deploy on virtualized servers.

Bridgit software enables a meeting participant to do the following:

- Share SMART Board® interactive whiteboard applications or desktop with other meeting participants.
- Host live demonstrations, presentations, training events, webinars and ad hoc collaborative sessions.
- Present slides and demonstrate products with other meeting participants.
- Review documents with other meeting participants.
- Show and work on meeting notes simultaneously with remote participants. •
- Help colleagues and customers navigate intranet and Internet sites. •
- Remotely control meeting participants' computers, with their permission. •
- Collaborate in a meeting using up to nine shared webcams and nine open microphones per meeting.
- Speak with and listen to meeting participants using Voice over Internet Protocol (VoIP) technology.

Extraordinary made simple<sup>®</sup> SMART



# Supported languages

Bridgit software supports the following languages on both Windows® and Mac computers.

Chinese (simplified)	Korean
Chinese (traditional)	Norwegian
Czech	Polish
Danish	Portuguese (Brazil)
Dutch (Netherlands)	Portuguese (Portugal)
English (UK)	Russian
English (U.S.)	Spanish (Mexico) (Windows only)
French	Spanish (Spain)
German	Swedish
Italian	Turkish
Japanese	

# Bridgit server requirements

Each server must meet the following minimum requirements:

- 3.1 GHz quad-core processor
- 4 GB of RAM
- Windows Server® 2003 R2 or 2008 R2 operating system
- 250 Mbps network interface card (NIC) that supports the TCP/IP

### **I** NOTES

- 1 Gbps NIC is recommended.
- Increased hardware capabilities improve overall meeting performance.
- Optimal number of open microphones with this configuration is 100.
- Optimal number of shared webcams with this configuration is 100.

# Bridgit client system requirements

Bridgit software allows meeting participants to interact and collaborate directly with each other and supports up to nine shared webcams and nine open microphones per meeting. 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

- Windows XP SP3
- Windows 7
- Windows 8

#### Supported Mac operating system software

- Mac OS X 10.6
- Mac OS X 10.7
- Mac OS X 10.8

#### 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

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#### With VoIP audio or webcam video

### Windows

- 2.33 GHz dual-core processor
- 2 GB of RAM
- Broadband Internet connection

#### Mac

- 2.4 GHz Intel dual-core processor
- 2 GB of RAM
- Broadband Internet connection

### **Proxy server requirements**

If you are using a proxy server, you need to know the server's proxy settings so that you can configure the following:

#### Windows

- If you're using Internet Explorer® 6, Firefox® or Opera internet browsers, configure the browser's proxy settings and the operating system's proxy settings with the server's proxy settings.
- For all other browsers, configure the operating system's proxy settings with the server's proxy settings.

#### Mac

Configure the operating system's proxy settings with the server's proxy settings.

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### Webcam requirements

### Windows

- Compatibility with DirectShow® driver
- Supports 24-bit RGB color

#### Mac

- Internal webcam or iSight camera
- QuickTime application program

### Audio requirements

- Sound card
- Speakers or headphones
- Microphone

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#### Software compatibility

Microsoft® Outlook® or another e-mail program

### Ι ΝΟΤΕ

Although Bridgit software works with many e-mail programs, it works best with Outlook. If you use a different e-mail program, e-mail invitations might behave unexpectedly.

- SMART Notebook™ collaborative learning software 10.8, 11 or 11 SP1
- SMART Ink<sup>™</sup> 1.0 or 1.1
- SMART Meeting Pro<sup>™</sup> Premium software 2.2 or 2.3
- SMART Meeting Pro software 3.0, 3.1 or 3.1 SP1
- SMART Product Drivers 10.8 and 11

### Ι ΝΟΤΕ

You can download or update SMART software from smarttech.com/downloads.

#### Hardware compatibility

- iPad up to version 4.3
- SMART Board 800 series interactive whiteboard
- SMART Board 8070i interactive flat panel
- SMART Board 8055i interactive flat panel
- SMART Board 600 series interactive whiteboard
- SMART Board 600i series interactive whiteboard system
- SMART Board 400 series interactive whiteboard
- Rear Projection SMART Board interactive whiteboard
- SMART Board for Flat-Panel displays interactive whiteboard
- SMART Board interactive flat panel
- SMART Podium<sup>™</sup> interactive pen display
- LightRaise<sup>™</sup> 40wi interactive projector
- LightRaise 60wi interactive projector

# SMART Scheduler requirements

#### SMART Scheduler server requirements

- 2.0 GHz processor
- 1 GB of RAM
- Windows Server 2008 R2 operating system
- 10 Mbps network interface card that supports the TCP/IP
- Network connection to your Microsoft Exchange Server and Bridgit server
- You must have 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.
- 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 and Bridgit server

# **Bridgit security**

Bridgit 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.

Bridgit 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. Bridgit software for Mac OS X operating system software also implements 256-bit SSL encryption.

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# Default network TCP/IP ports

Bridgit software uses the following network ports by default:

Default ports	Type/protocol	Use
80	TCP/HTTP	<ul> <li>Initial connection to the Bridgit server to display the web page from which the users download the Bridgit client.</li> </ul>
		<ul> <li>Initial connection to the Bridgit server from the Bridgit client when looking for meetings to join or when creating new meetings.</li> </ul>
		<ul> <li>Fallback communication method for all other Bridgit functions when other ports are unavailable (lower performance than other ports).</li> </ul>
80	TCP/Bridgit	<ul> <li>Primary port for data, screen viewing and webcam traffic for Bridgit meetings.</li> </ul>
		<ul> <li>If this port is limited to only HTTP, Bridgit software attempts to use the secondary port (9933) for this traffic.</li> </ul>
		<ul> <li>If this port is blocked or unavailable, Bridgit software uses HTTP on the primary port, which can affect performance.</li> </ul>
9933	TCP/Bridgit	Secondary port for data, screen viewing and webcam traffic for Bridgit meetings.
9901 to 9920	UDP/Bridgit	<ul> <li>Primary port range for VoIP audio traffic for Bridgit meetings.</li> </ul>
		<ul> <li>If these ports are blocked or unavailable, Bridgit software falls to TCP or HTTP on the primary or secondary port, which can negatively affect performance.</li> </ul>

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# **Bandwidth requirements**

Bridgit software performs best when you allocate at least 1 Mbps of network bandwidth on your server for each meeting participant, both inbound to, and outbound from, the server.

#### EXAMPLE

If you have a 5 Mbps bandwidth connection to your server, you can support up to five concurrent participants with four open microphones and four webcams at optimal performance (1 Mbps per user × 5 users = 5 Mbps).

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

Bridgit 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 using the standard quality setting	250 Kbps
One open webcam using the moderate quality setting	200 Kbps
One open webcam using the low quality setting	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 1800 Kbps, while maintaining an average of 300 Kbps.

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