



Blackboard

Web Conferencing - Troubleshooting Session Connection Issues for System Administrators

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Product: Collaborate - Web Conferencing

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Answer

This article is intended to help you, the System Administrator, troubleshoot web conferencing session connection issues.

- Gather proxy settings from default Internet browser.
- Configure proxy information in Java Web Start or the Blackboard Collaborate Launcher
- Configure proxy information in Blackboard Collaborate web conferencing.

What are we trying to do?

A Blackboard Collaborate web conferencing session is launched when a user clicks on a link in an Internet browser or email. Clicking the link downloads either a small Java Network Launching Protocol (JNLP) file or a Collaborate file (COLLAB) containing the information necessary to connect to a web conferencing session. Java Web Start or the Blackboard Collaborate Launcher launches, reads the information in the JNLP or COLLAB file, ensures that the proper Java Resource (JAR) files are in place, and makes the connection to the Blackboard Collaborate web conferencing server.

Solution

Java Web Start / Blackboard Collaborate Launcher detects the proxy settings used by the default Internet browser on the connecting client system, and uses the same settings during the connection process. Java Web Start / Blackboard Collaborate Launcher supports most proxy configuration scripts and can detect proxy settings in most environments. If Java Web Start / Blackboard Collaborate Launcher cannot detect the proxy settings, it will prompt you to configure them in order to launch web conferencing. Java Web Start / Blackboard Collaborate Launcher will also prompt for username and password should it encounter an authenticating proxy.

To manually enter the proxy setting in the Blackboard Collaborate Launcher, browse to the Blackboard Collaborate Launcher and double click to open the Control Panel. Click on Advanced > Network Settings... > Configure as needed.

Configure Addresses

When a user joins a session, a connection is made to one of the Blackboard Collaborates servers (listed in the paragraph below).

Since Blackboard Collaborate uses dynamic server assignment, it is not possible to state in advance precisely which server will host a session. This means the IP Address is known only when the session actually starts. Therefore, you must ensure firewalls (and proxy systems) allow access to the entire set of Blackboard Collaborate servers using the following domains and IP Address ranges:

SAS

CA-SAS.bbcollab.com

Hosted by Blackboard in our CAL1 datacenter in Alberta, Canada

69.196.247.0 with netmask 255.255.255.0 (in CIDR notation: 69.196.247.0/24)

69.196.238.0 with netmask 255.255.255.0 (in CIDR notation: 69.196.238.0/24)

69.196.239.0 with netmask 255.255.255.0 (in CIDR notation: 69.196.239.0/24)

18.232.239.211 with netmask 255.255.255.255 (in CIDR notation: 18.232.239.211/32) - **Coming May 25, 2018**

US-SAS.bbcollab.com / sas.illuminate.com

Hosted by Blackboard in our VA2 datacenter in Virginia, United States of America

69.196.232.0 with netmask (in CIDR notation: 69.196.232.0/22)

69.196.237.0 with netmask 255.255.255.0 (in CIDR notation: 69.196.237.0/24)

69.196.241.96 with netmask 255.255.255.224 (in CIDR notation: 69.196.241.96/27)

69.196.250.192 with netmask 255.255.255.192 (in CIDR notation: 69.196.250.192/26)

69.196.229.247 with Netmask 255.255.255.0 (in CIDR notation: 69.196.229.247/32)

18.232.239.211 with netmask 255.255.255.255 (in CIDR notation: 18.232.239.211/32) - **Coming May 25, 2018**

EU1.bbcollab.com

Hosted by Blackboard in our AMS1 datacenter in Amsterdam, Netherlands

46.183.243.0 with netmask 255.255.255.192 (in CIDR notation: 46.183.243.0/26)

46.183.242.208 with netmask 255.255.255.240 (in CIDR notation: 46.183.242.208/28)

AU-SAS.bbcollab.com

Hosted by Blackboard in our SYD1 datacenter in Sydney, Australia

103.225.235.0 with netmask 255.255.255.192 (in CIDR notation: 103.225.235.0/26)

69.196.229.247 with netmask 255.255.255.0 (in CIDR notation: 69.196.229.247/32)

202.38.144.148 with netmask 255.255.255.255 (in CIDR notation: 202.38.144.148/32)

18.232.239.211 with netmask 255.255.255.255 (in CIDR notation: 18.232.239.211/32) - **Coming May 25, 2018**

Enabling access to all of the address blocks listed above will reduce the impact of any configuration changes that Blackboard Collaborate might make.

Configure Ports

Please note that Blackboard Collaborate Web Conferencing connects on one of these TCP ports:

- 80
- 443
- 2187

Web Conferencing establishes a connection through these ports. Once this connection has been made it will remain open and transfer all communication through a proprietary protocol called the Collaborative Communication Framework (CCF), which is layered on a TCP transport protocol.

Note for ELM users: If you are using a Hosted ELM instance you must connect to web conferencing sessions on port 2187 since port 80 is reserved for webpage traffic.

This is also true if you have installed your ELM server on the same machine as your Blackboard Collaborate web conferencing server because by default your ELM server is installed to listen for web traffic on port 80 and therefore can't establish an web conferencing connection on that port.

Note for Blackboard Collaborate Mobile users: If you are using Blackboard Collaborate Mobile you **must** connect to web conferencing sessions on port 2187.

Configure Firewalls

Configure your network's firewall and web content filters to allow the download of both JNLP files (or content types) and Java application archive (JAR) files. Also configure users' client systems to allow the download, installation, and execution of Java network applications.

Additional Notes

- **Only users invited to a web conferencing session (those with a session link) may connect to a Blackboard Collaborate server.**
- The connection to the server is always initiated from the client
- After connection, data is exchanged only between clients and the Blackboard Collaborate server. Data is never exchanged between clients.

For more information, and access to a 24-hour Configuration Room you can use to test your ability to login to a Blackboard Collaborate session, please refer to our [web conferencing first time users KBA](#).