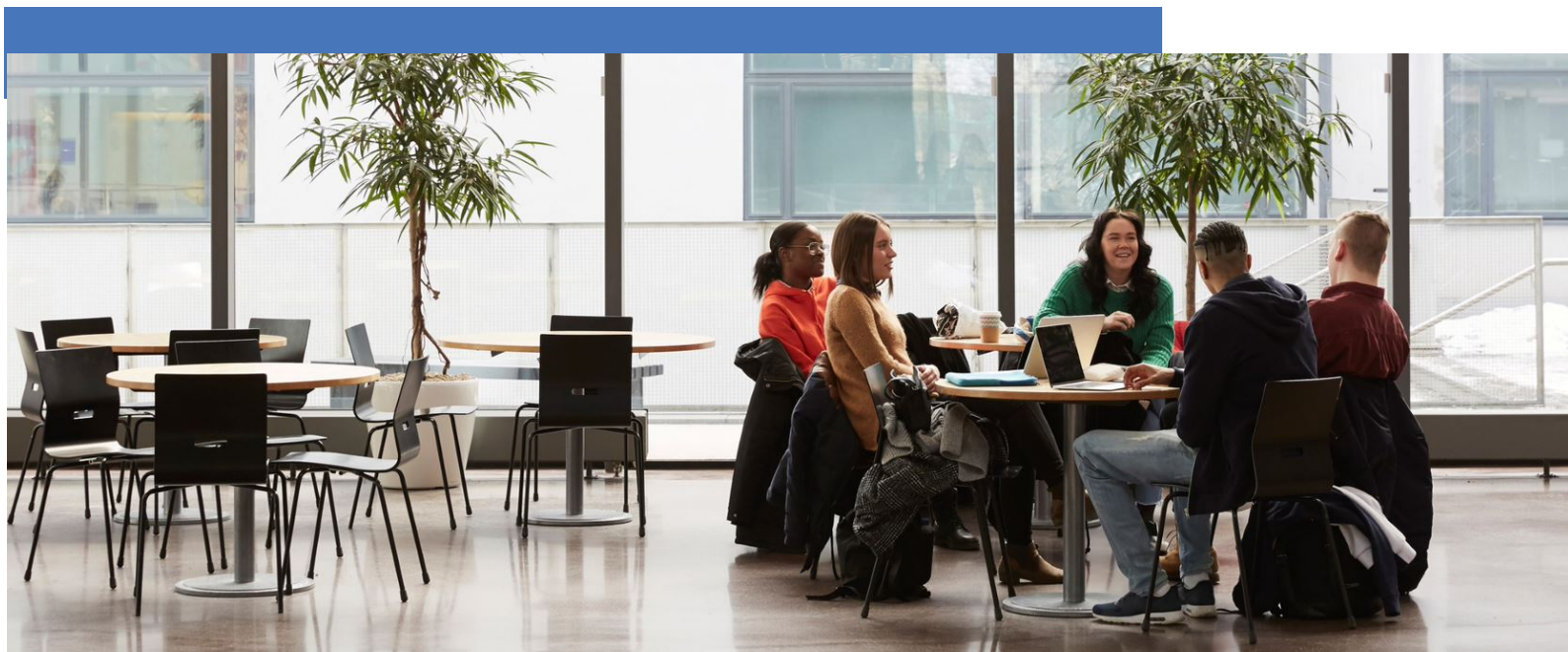


# Blackboard Collaborate

Supporting Clients during Novel Coronavirus (2019-nCoV)



**Blackboard®**

## Overview

This document has been prepared as a guide only, without considering the objectives or needs of any single individual client. The information is only intended to provide a general overview of the matters with which it deals. The information is not intended to be comprehensive or absolute. It is based on our own internal testing (up to the date released) as a means to better respond to client requests. There are multiple factors which we cannot influence, nor control. As this is a fluid situation, with factors beyond our control we are unable to provide this information as a guarantee but instead is provided in good faith at the time of publishing.

Release Date	Published By
10 February 2020	Nicole Wall
11 February 2020	Michael Garner
12 February 2020	Nicole Wall
1 September 2020	Yolene Ors
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14 September	Michal Gregr
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## Blackboard Collaborate

### How do I access Blackboard Collaborate in China?

Blackboard does not have a Collaborate service hosted in mainland China. However, at present there are no restrictions preventing participants located in China from accessing Collaborate sessions that are hosted in other regions (e.g. U.S., Australia or Europe). There are, however, a number of considerations for users to take into account when running sessions between Europe and China, including the fact that the internet traffic restrictions imposed by the Great Firewall can change at any time.

### What if I don't currently have Collaborate but would like to use it?

If you are not a current Collaborate customer, you may inquire about a 30-day free trial. The trial can typically be provisioned within 48 – 72 hours. It is recommended clients work with their Account team to determine the best approach.

### Is Collaborate stable during this period?

During this time, we have noted an increased usage of Collaborate, especially by users located in China. We are aware of the increased utilization in the region and are monitoring it closely. You can read our status update [here](#).

### Are there connection issues for users in China?

Blackboard Collaborate is accessible from within mainland China. However, individual participants may experience connection issues due to local bandwidth availability or high link latency. The inability for individuals to connect to a Collaborate session or slowness and disruption to the session feed are most frequently due to poor participant internet connectivity; in most cases it does not indicate a problem with the Collaborate service. When a participant encounters Collaborate issues due to their network connection stability or performance, this is unfortunately not something we can impact or improve significantly on our

end. There are however good practices we can advise on to reduce bandwidth usage and improve session experience.

In the below sections, we point to several factors that affect connection quality and how users can manage those. Collaborate provides automatic bandwidth management and will attempt to reconnect a participant if the connection becomes unable to support the primary audio stream. Due to connection latency, there may be a delay in users responding via chat or audio. To maximise the experience, there are a number of items participants should consider when using the service. Further information can be found in this [support bulletin](#).

It is worth mentioning that network conditions for internet providers vary during the day depending on their own load, and the lockdown and Covid period has certainly affected the stability and quality of several internet providers. So while a user may have a poor experience during a Collaborate session, it doesn't mean that all sessions the user attends will be similarly affected.

### **Should I consider running an instance of Collaborate in a different region?**

It is not possible to have Collaborate sessions hosted in a data centre located in China. Collaborate has regional service points in the US, Canada, EU and Australia. When running tests, we found that there is no significant difference in the experience between sessions hosted out of those various locations for users located in China. A second Collaborate instance hosted in another region can also introduce challenges related to integration, data and reporting.

### **What can institutions do to improve the experience for users connecting from China ? VPN Services**

Cloud VPN options delivered through commercial providers like Alibaba and AWS are one of the most effective tools for connecting users in China to public or private networks outside of China. Your Blackboard account team can recommend partners to help simplify the setup and management of these solutions.

### **Local regulating organizations**

Around the world, organizations like JISC in the UK and CAUDIT in Australia are working to provide learning continuity resources to their members and organize regional solutions to improve access in China. JISC currently has a pilot program underway with AliCloud through September 2020 - [JISC Alibaba CEN Pilot](#).

### **Why may the experience be different with another communication tool ?**

It is difficult to create an absolute comparison of quality of conferencing tools that communicate over public internet. Most tools run fine on a quality network, but their behaviour changes in reaction to momentary internet quality. The key factors are e.g. bandwidth, latency, line disconnections, and each of these vary every second, so unless you're running them side-by-side, if either tool has a momentary problem, that can go away within a second and you can see any other tool "performing better" a few seconds later. We constantly monitor network problems, and we can see the connection dropouts typically affecting groups of users in the same region and/or sharing the same internet provider, that would cause any product to degrade performance temporarily. For differences observed in a longer term, those can be caused by difference in infrastructure topology, e.g. some users being closer to the hosting infrastructure than others, so for a co-located group of participants a particular tool might seem better and might better suit the use of that particular group, but the experience of other participants outside of that location joining the same conference may differ and other tool might appear to be "better".

### **I teach courses with large enrolments. How can I manage my online lectures?**

A standard Collaborate room can support up to 250 participants. If you plan to run sessions with in excess of 250 users, please check the 'Allow 250+ attendees to join' option that can be found under the Large scale session heading when creating the Collaborate session. We suggest reading this [help guide](#) for further information.

However, large sessions are generally not recommended when a high volume of users are located within China. We recommend that you run **smaller sessions (less than 25 users)** with your students in China. For larger sessions with less than 250 participants, we recommend adopting the following strategies to mitigate against potential participant issues:

Blackboard Collaborate

- Disable video for participants.
- Ensure the session is recorded to provide any participants with connection issues the ability to review the content afterwards.
- Refer users to the Dial-in capability (up to 25 dial-in participants per session).

### **I can connect to a session, but it keeps telling me I have low bandwidth, or I keep reconnecting. What can I do?**

Firstly, users should check that their wifi signal strength and connectivity is good and internet appears to be functioning correctly. If possible, use a wired (ethernet) connection rather than wifi. Close programs that are running in the background using bandwidth, such as cloud storage synchronization. Shut down browser tabs and open a single tab to access your University's website or a website outside of China. If you had accessed your University's LMS, try accessing that again.

Access the collaborate room again. If the issue persists, try closing all other open applications on your computer. As real time communications tools, such as audio, video and streaming, function differently to general website browsing, there could be another application that is using your network connection heavily. Close programs that are running in the background using bandwidth, such as cloud storage synchronization. You should also consider deactivating browser add-ons/extensions which can sometimes consume bandwidth in the background.

For more information on dynamic adjustments and what to expect depending on your network conditions, please visit [https://help.blackboard.com/Collaborate/Ultra/Participant/Support/Network\\_Connection\\_Status](https://help.blackboard.com/Collaborate/Ultra/Participant/Support/Network_Connection_Status)

### **What are the primary factors in bandwidth consumption when using Collaborate with the Ultra experience?**

There are many factors, please read this [help article](#) to learn more, you may share this article with your staff and students for guidance.

### **How can I reduce the bandwidth of my Collaborate session?**

For sessions where bandwidth is a concern, Blackboard recommends that no users share their webcam video unless required for the instruction. We also recommend that the moderator/presenter use file sharing and whiteboard for content instead of application sharing unless required for the instruction. Under this scenario, a user with 128kbps connection will be able to participate fully in the session.

Please also keep in mind that bandwidth is not only a concern regarding the network. Other factors, such as latency, jitter and packet loss can all affect the quality of the session. If a specific session experiences considerable issues by the moderator or end users, they can use the "Report an issue" link in the left hand navigation to report an issue

Moderators can also copy the Session information to provide to their institutional support teams for further discussion with Blackboard support.

### **What browsers does Collaborate Support?**

Collaborate Ultra System Requirements can be found [here](#).

### **Have you tested the use of Collaborate in China?**

We performed a number of tests with 28 users in February 2020 and repeated similar tests in August with 12 users from major tier1 and tier2 cities within China to better understand the participant experience.

February 2020 test results (28 participants):

1. 15 users had a fluent experience with Collaborate Australia sessions. Within a 20 mins session, videos, audios, whiteboard, document sharing, and recordings are all fluent without any reconnections.
2. 8 users had an acceptable experience with Collaborate Australia instances. Within a 20 mins session, videos, audios, whiteboard, document sharing, and recordings are intermittently accessible with video quality decreasing occasionally; and there could be averagely 1-2 occasional reconnections.

5 users have bad performance with Collaborate Australia instances. Within a 20 mins session, users either couldn't access the session or encountered multiple re-connections with poor performances on videos, audios, whiteboard, and document sharing features.

August 2020 test results (12 participants):

1. 6 users had a fluent experience with Collaborate EU and Australia hosted sessions. Within a 20 mins session, videos, audios, whiteboard, document sharing, and recordings are all fluent without any reconnections.
2. 2 users had a poor experience with both Collaborate EU and Australia hosted sessions. Within a 20 mins session, videos, audios, whiteboard, document sharing, and recordings are intermittently accessible with video quality decreasing occasionally; and there could be averagely 1-2 occasional reconnections.

These small scale test results indicate that it can be expected that a significant proportion of users on a Collab session may be affected by issues during session delivery. This is consistent with anecdotal feedback from UK clients. The testing also indicates that there is no significant difference between Chinese participants accessing Collaborate sessions hosted in EU and Australia. However, a stable connection is not guaranteed. Our testing with regards to using Collaborate within China is the poor / inconsistent quality (high latency & lack of bandwidth) is primarily related to internet connection within China.

Among the top three telecommunication carriers in China, users with China Unicom have the best performance with Collaborate, followed by China Mobile. Users with China Telecom can experience problems accessing and/or reconnection issues. Testing indicates that occasionally a mobile 4G connection provides a better experience than a regular internet connection.

These tests were conducted without a VPN set up. Client's feedback suggest those who have implemented VPN mitigation see significantly better results.

These tests are our experience only, designed to provide Clients with an indication of the user experience. Individual results may vary and are greatly influenced by participant internet connections and bandwidth. Please see the question titled 'What are the primary factors in bandwidth consumption when...?' if participants are encountering issues in their collaborate session. If issues are still experience after following the help pages on 'Low Bandwidth Management' please contact Blackboard support at <https://behind.blackboard.com> and ask the participants to use the "Report an issue" link in the left hand navigation to report an issue.