Browser and network requirements for Agentic Avatars

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This article is designated for administrators.

About

Kaltura's Agentic Avatars use WebRTC technology to enable real-time, interactive conversations.

In some enterprise environments, firewalls, proxies, web filtering, or other network security policies can affect the connection. Browser and microphone permissions can also affect the experience.

This article outlines the browser, internet connection, and network requirements for using Agentic Avatars.

Browser and device requirements

Agentic Avatars are tested on the following browsers:

- **Windows**: Google Chrome, Microsoft Edge, Mozilla Firefox
- **macOS**: Google Chrome, Safari
- **iOS**: Safari
- **Android**: Google Chrome

Microphone permissions

To speak with an Agentic Avatar, you must allow microphone access for your browser. Microphone access must be enabled in both your operating system and browser settings.

If microphone access is blocked, you can still interact with the avatar using text chat.

Internet connection

Use a stable internet connection for the best experience. Agentic Avatars are tested on corporate networks, Wi-Fi connections, and 4G and 5G mobile networks.

Agentic Avatars use WebRTC for real-time audio and video and WebSocket connections for communication with the service.

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Bandwidth requirements

Because conversational avatars stream real-time synthesized video and bi-directional audio via **WebRTC**, a stable broadband connection is required:

- **Downlink (Avatar Video & Audio Stream):**
  - **Recommended: 1.5 – 3.0 Mbps** dedicated download speed per active avatar session.
  - **Minimum: 1.0 Mbps** (video may downscale or adapt frame rate under network pressure).
- **Uplink (User Voice / Microphone Input):**
  - **Recommended: 100 – 150 kbps** (standard Opus / WebRTC audio stream for real-time ASR).

Corporate network requirements

If your organization uses firewalls, proxies, web filtering, or other network security controls, work with your IT or security team to allow the required domains, ports, and protocols listed below.

Domain	Port	Protocol
conversation.avatar.us.kaltura.ai	443	HTTPS / WebSocket
api.avatar.us.kaltura.ai	443	HTTPS
flow-assets.avatar.us.kaltura.ai	443	HTTPS
meet.avatar.us.kaltura.ai	443	HTTPS
studio.avatar.us.kaltura.ai	443	HTTPS
rtc.avatar.us.kaltura.ai	443	HTTPS / WebSocket
assets.avatar.us.kaltura.ai	443	HTTPS
turn.avatar.us.kaltura.ai AND 3.41.177.176/29	80, 443	TCP / UDP / TLS

Troubleshoot connection issues

If you experience problems connecting to or interacting with an Agentic Avatar:

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- Make sure your browser has permission to use your microphone.
- Make sure microphone access is enabled in your operating system settings.
- Try connecting from a non-corporate network or a 4G or 5G mobile connection. If the avatar works on another network, your corporate network settings may be blocking a required connection.
- If you use a corporate network, ask your IT or security team to verify that the required domains, ports, and protocols listed above are allowed.

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