# Technical Requirements

A detailed explanation of data flow and protocols

*Last updated* *Mar 12, 2024*

# Table of Contents

# Overview

The goal of this document is to provide information on the technical and security requirements when communicating with VidCruiter.

During the course of this document, we will outline the data flow between users and our platform, the firewall requirements, proxy and browser compatibility as well as the domains and services that are part of our platform.

# Technical Requirements

## Browser Support

### Live Video on Desktop

- **Google Chrome** (latest release version) **Recommended*
- **Safari 12+**
- **Edge Chromium 79+ ***non-Chromium versions unsupported*

### Live Video on Mobile

Android Devices:

- Google Chrome 56+

iOS Devices:

- Apple Safari 12.1+

## Video Playback

All video playback in the system, as a hiring platform app user or as an applicant, uses an HTML5 video player. If the browser does not support HTML video it will default to flash, providing there are no policy restrictions.

## Bandwidth requirements

- Video: 300 kbps per stream (recommended lowest level)
- Audio: 50 kbps per stream (recommended lowest level)

## Additional recommendations

- Headsets with microphone for improved sound quality and privacy.
- USB echo-canceling speakers for meeting room environments.
- Use wired connection to maximize connectivity.

# Security Requirements

## Firewall Ports & Whitelist Domains for Live Video

### Minimum requirements:

**Open TCP port 443**

- It's important to note that an application layer  firewall configured to restrict the protocol on this port to web traffic will not be sufficient to allow traffic to pass. In addition to standard web (https) traffic filtering the firewall should allow secure web socket (wss), xhr_streaming (https) and WebRTC (SRTP, RTMPT, HLS, LL-HLS).

**Domains to Whitelist:**

| Domain | Description |
|---|---|
| *.hiringplatform.com | The company subdomain and root domain are used for primary application access. |
| cdn.hiringplatform.com | Many of our static assets are served through a CDN. |
| *.pusherapp.com | Used for pushing notifications to the browser of events that have happened within the application ie: video loaded, interview completed, status progress etc. |
| *.pusher.com | Used for pushing notifications to the browser of events that have happened within the application ie: video loaded, interview completed, status progress etc. |
| d3e4pckki9dqlw.cloudfront.net | Viewing videos. |
| *.intercom.io | Used for reporting and metrics both within the application and to allow us to improve the platform. |
| *.intercomcdn.com | Used for reporting and metrics both within the application and to allow us to improve the platform. |
| *.freshchat.com | Used for customer support. |
| vidcruiter-paperclip-bucket-production-us.s3.amazonaws.com | Used for many user uploads, attachments in chat, avatars, resumes etc. |
| *.sentry.io | Reports user side errors to us to allow us to better serve you. |
| *.opentok.com | Used for Live Video Service |
| *.tokbox.com | Used for Live Video servers |
| videos.hiringplatform.com | All video recordings from our platform are played back through this domain |

## Additional Recommendations for Live Video

For a better experience, opening UDP Port 3478 in addition to the minimum requirements above will help.

UDP is highly recommended over TCP for better quality audio and video. The protocol favors timeliness over reliability which is consistent with the human perceptive preferences; we can fill in gaps but are sensitive to time-based delays.

This port only accepts inbound traffic after an outbound request is sent. The connection is bidirectional, however, it is always initiated from the corporate network/client. Therefore, it is not possible for an external entity to send malicious traffic in the opposite direction.

For the best possible experience, we recommend opening UDP ports 1025 - 65535. These ports will allow for a true peer-to-peer connection between members of the live video. Opening these ports can greatly improve connections that are hindered by latency between clients and the video service.

# Proxy Servers Live Video

If the only way to access the Internet from your network is through a proxy, then it must be a transparent proxy or, it must be configured in the browser for HTTPS connections.

Live Video uses WebRTC, which does not work with proxies requiring authentication.

Along with these requirements, browsers may have the following rules:

**Chrome**

- Although not every option has been tested, recent versions have full support for authentication.
- Pre-58 versions support NTLM authentication.
- We've found a forwarding proxy setup with Kerberos does not work.

**Firefox**

- Does not support proxies that inspect packets to validate that connections are real TLS connections, because Firefox does not support TURN over TLS.

**Internet Explorer**

- Not supported for Live Video**.**
- We do not recommend using Internet Explorer as Support is no longer available.
- Supports basic authentication, and NTLM.
- Other authentication algorithms like Kerberos have not been fully tested.

**iOS**

- Does not support proxy configurations that use .pac files.