Mursion

Technology Implementation Guide

Mursion Network, Security, Hardware and Software Requirements

Last Revision: March 2021

Overview

The Mursion Software ("Software") enables users to participate in live simulations of defined scenarios in virtual environments where the user interacts with virtual characters (avatars) to practice or assess interpersonal skills ("Simulations"). The Software is provided as a subscription-based software as a service offering (the "Subscription") granting a limited license to use and access the Software for the Subscription Term subject to the terms and conditions agreed upon via a contract or Master Services Agreement with Mursion.

In addition to the Mursion Software, a web-based scheduling system ("Portal") is also used to schedule and manage simulations. The Portal manages access to the software, so all users will need access to this system (please contact your Mursion representative if use of SSO or LMS integration is required).

This guide is intended to provide you with the necessary information required to use the Mursion software within your organization's IT infrastructure. If you require additional information that is not covered in this document (or need assistance with setting up Mursion), please contact Mursion Support.

Mursion Support

Support is available Monday through Friday, 8am – 9pm EST (5am – 6pm PST) to answer any questions about the items listed below:

- Phone (Toll-Free): 1-855-999-5818
- Email: support@mursion.com
- Mursion Support Site

Hardware Requirements

End user ("Learner") systems will need the following hardware in order to operate the Mursion Software.

- Desktop or Laptop computer
- Webcam
- Headset with speakers and microphone (**preferred**) or built-in peripherals

For detailed hardware specifications, please refer to the Learner System Requirements Guide linked below.

- *Learner System Requirements Guide*

If you need further technical assistance with the hardware setup of your Mursion Software, please contact Mursion Support.

Operating System Requirements

The following versions of Windows and MacOS operating systems are currently supported:

- **Recommended:** Windows 10 (x64) / MacOS 10.14 or better
- Minimum: Windows 10 (x64) / MacOS 10.14 or better

Note: Virtual Machines (such as VMWare, VirtualBox, Parallels) running any of the above operating systems are not supported by Mursion.

Network Requirements

Because the Mursion Software requires a live connection which includes streaming of audio and video, a stable internet connection is essential. A wired internet connection is always recommended when available.

Internet Bandwidth

Our recommended internet bandwidth for each Learner system is as follows. As always, higher internet speeds are preferred to ensure a seamless experience.

- **Recommended:** 10 Mbps download / 2-3 Mbps upload or better

If your network is configured to allow each computer to have its own dedicated bandwidth, our minimum recommended speed is 2Mbps download/1Mbps upload. If using internet speeds at this level, we recommend running a connection test with Mursion IT to verify proper functionality.

VPNs & Proxy Servers are not supported

The Mursion Software currently does not support VPNs or Proxy Servers. If your network uses either of these, you will need to make exceptions in your system to allow the Mursion Software to establish a connection with the internet.

Browser Requirements

Access to the Mursion Portal is required for both scheduling and launching the Mursion Software. Supported browsers are as follows. One of these browsers will need to be set as default on your system:

- Google Chrome
- Microsoft Edge (*v79 or later*)
- Mozilla Firefox
- Safari

User Permissions (Installation of Mursion Software)

The Mursion software does not require any administrator privileges in order to be installed or run. Standard privileges are sufficient and each individual user of the organization can install the software to their local profiles unless this is explicitly prevented by your organization (in which case, an exception will need to be made). If additional assistance is required with this issue, please contact Mursion Support.

Microphone and Webcam access

Because the Mursion Software is a live simulation platform, webcams and microphones are required for participation. If there are any hardware limitations in your environment, you will need to allow use of both the webcam and mic for any computers running Mursion software.

Mail Server Requirements

The Mursion Portal will send users confirmation emails for account management info (i.e. Account activation, Password resets, etc.) as well as simulation session reminders. All emails from Portal will come from ‘scheduling@mursion.com’ and are certified as trusted. If for some reason, emails are being filtered as spam, you may need to ensure that emails coming from the ‘mursion.com’ domain are allowed.

Please ensure that one of the supported browsers is configured as the default browser within your operating system. A web page will be launched in your browser on each launch of the software to authenticate with Mursion’s Portal.

Certificates, Antivirus, and Software Firewalls

All Mursion software is signed with a Code Signing Certificate with a publisher name of “Mursion, Inc.”. If your environment has strict policies around certificates, you will need to whitelist this in order for the software to run. If any strict policies are used by the Antivirus, Software Firewall or other endpoint protection softwares, you will need to ensure that all Mursion Software can be installed and run without being affected by these policies.

Please review** Mursion’s software architecture **which contains information about the IP addresses, ports, and protocols used by the software to ensure that the Mursion Software can run behind your software firewall.

Software Installation

Users of the Mursion Software will need to complete two downloads prior to connecting to a scheduled simulation:

Mursion Software

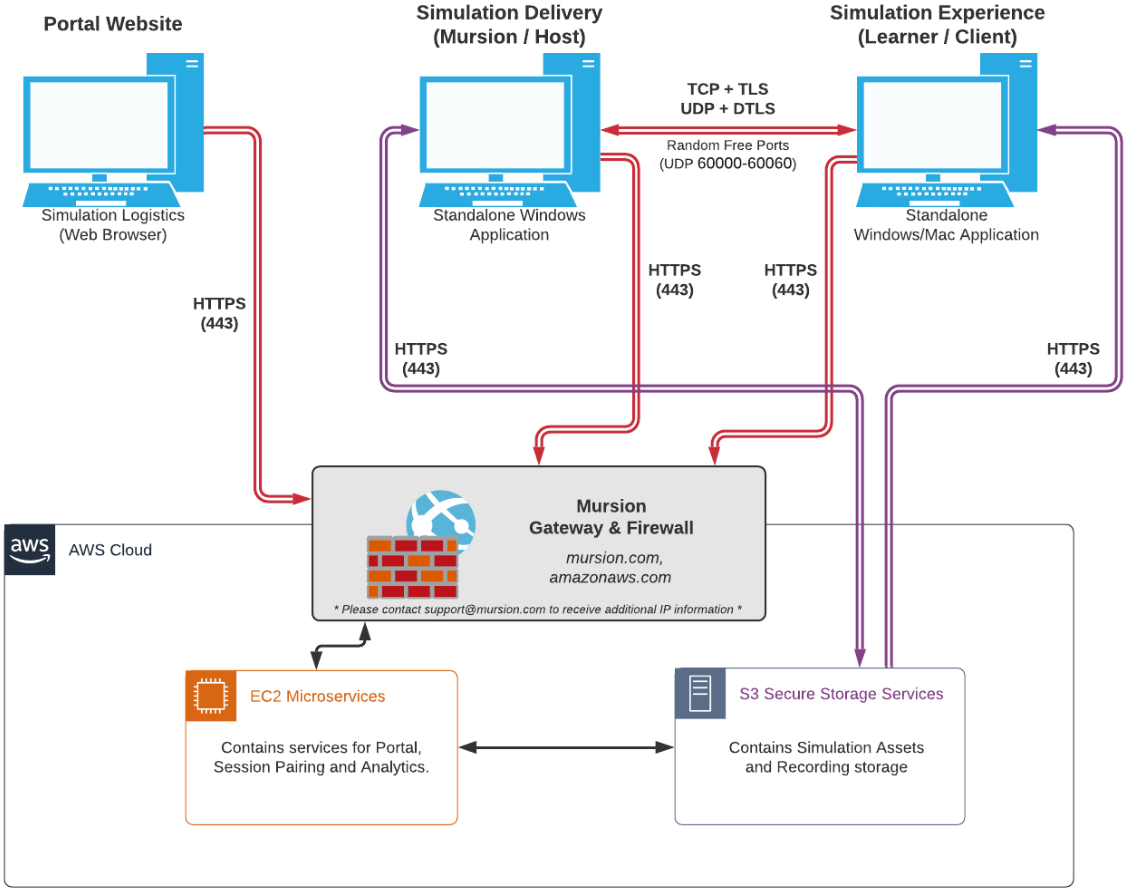
The installer for the Mursion software is accessible from within a user's Portal account. The portal prompts users to install the software both on first entry into the portal, and if it is not found subsequently when attempting to launch a simulation.

Simulation Art Content (In-App)

On first launch, learners will be required to "Install" content within the Mursion Software which will download the necessary virtual reality content required to construct the virtual environment. Because the software installs to the user's local directory and does not require administrator credentials, Mursion requires allowing each user to install the software to their computer when ready. This ensures that Mursion software updates and patches are automatically available to all users when released.

Mursion Software Architecture

Mursion Software connections are established by following the process below:



- A user connects to the Mursion Portal to schedule a simulation session ('Portal Website' system – HTTPS connection in diagram below).
- Prior to their simulation session, a learner accesses the Portal from a supported browser to launch the Mursion software needed for the simulation experience. The portal automatically determines if the latest version of the software is installed in the user's machine, and if not, prompts the user to download or update their software to the latest version automatically ('Simulation Experience' system – HTTPS connection in diagram below)
- After the learner launches the Mursion software, it prompts them to install the content associated with the simulation automatically (if it is not already installed). (HTTPS connection).
- The learner then joins the session and establishes a connection with a Mursion Simulation Specialist automatically at the scheduled session time. If they are early to their session, they may experience a short wait time before the connection is established. ('Simulation Delivery' system in diagram below).All network connections are facilitated by Mursion Servers (HTTPS connection) in accordance with the architecture diagram shown.
- Please note that WebRTC protocols are used to establish an outbound P2P connection. We require 3 ports between connected peers and 2 ports to our servers to facilitate this. We have limited the range of ports that can be used to be between 60000-60060 (UDP) to allow other applications to utilize any available ports if needed.

Firewall Configuration

The Mursion software requires access to the following public IP addresses (including access to all associated sub domains and services). For more detailed network requirements, please contact support@mursion.com

- amazonaws.com
- mursion.com
- The public address of the “Simulation Delivery” machine, shown in the architecture diagram, securely determined at runtime.

Software Security

Mursion’s software is designed with Enterprise security in mind. An overview of Mursion’s security policies can be found here. Technologies that allow us to achieve enterprise security levels include:

- Network service isolation - Microservice architecture
- Encapsulated internal architecture - Single public entry point (API Gateway)
- Communication security - Transport Layer Security (TLS) - HTTPS & WSS for all communications
- Unauthorized access prevention - Spring Security Authorization and Authentication
- Email security - Encrypted emails with Mursion certificate
- Internal information protection - Attribute-Based Access Control (ABAC)
- Data modification audit control
- Logical and physical data segregation capabilities
- Protected data integrity - double-validation via frontend and backend