



# Audio Enhancement Application and Network Guidelines for EPIC System and VIEWpath

## Overview

EPIC System and the VIEWpath module have features which are dependent on internet access or third-party services. This document aims to provide information to technology staff so they can properly design their internal and external network, firewall or filtering configurations to support the desired features in the system.

Below is an outline of internal and external addresses, ports and services that may be required\* in order for Audio Enhancement EPIC System and VIEWpath features to function properly.

\*This is a guideline only; Audio Enhancement cannot know the specific configuration of a school or district's network and is in no way responsible for the security configuration or any damages as a result. When in doubt, it is always recommended to use best security practice. Audio Enhancement does not recommend ANY INTERNAL port forwarding from the internet for any of these services.

## Internet Addresses/Services

Below is an outline of hosts/services that may need to be made available in order to function properly. Note that some services only communicate from EPIC System directly and others communicate with the client/teacher computers as well. Unless specified otherwise, all traffic below is HTTPS encrypted traffic via port 443.

### From EPIC System Appliance Only

The following are accessed directly from the EPIC System. No client machine access needed.

[licensing.audioenhancement.com](https://licensing.audioenhancement.com) – EPIC checks daily to allow access to the specific features (including VIEWpath).

\* [canonical.com](https://canonical.com) – used while performing system upgrades. HTTP/HTTPS, Ports 80 and 443

[security.ubuntu.com](https://security.ubuntu.com) – used while performing system upgrades. HTTP/HTTPS, Ports 80 and 443

[us.archive.ubuntu.com](https://us.archive.ubuntu.com) – used while performing system upgrades. HTTP/HTTPS, Port 80 and 443

[registry.npmjs.org](https://registry.npmjs.org) – used while performing system upgrades.

[github.com](https://github.com) – used while performing system upgrades.

NTP – For system time sync. An internal NTP server can be provided. Otherwise, UDP port 123 may need access to hosts [ntp.ubuntu.com](https://ntp.ubuntu.com) and [pool.ntp.org](https://pool.ntp.org) which are default EPIC NTP sources.

\* [sendgrid.net](https://sendgrid.net) – used for sending email notifications from EPIC.

\* [twilio.com](https://twilio.com) – used for sending SMS text notifications from EPIC.



## VIEWpath - Audio Enhancement VIEWpath My Workshop

\*[viewpath.audioenhancement.com](https://viewpath.audioenhancement.com) – VIEWpath primary domain for all traffic. Both EPIC System and client machines communicate with this host for the VIEWpath cloud service.

[[districtSubdomain](#)]-[district-storage.s3.amazonaws.com](#) – Videos are uploaded and stored for playback on this URL. EPIC and client PCs access this. Note that the [districtSubdomain](#) will be unique to each school and can be found by logging into [viewpath.audioenhancement.com](#) & checking the URL – for example: <https://test-school-district-ut.viewpath.audioenhancement.com>

Note that other [amazonaws.com](#) resources may be used dynamically, and schools may need to monitor if any traffic is being blocked.

## Internal Ports

EPIC System, District View, and VIEWpath use the following ports within the internal network for communication: 80, 443, 554, [2786](#), 3000, [3355](#), [3357](#), 3690, [4000](#), [4001](#), 4690, 5003, 5004, 5060, 8009, 8015, 8016, [8020](#), 8080, 8081, 8089, 8090, 9001, 9003. These may need to be allowed in the internal networks between the EPIC servers themselves and from any clients accessing these servers. [The devices should also be able to communicate with the server on these same ports. Audio Enhancement doesn't recommend any school clients being able to communicate directly with the devices except in the case of VIEWpath live.](#)

## Clients Accessing VIEWpath

If teachers get a black screen or “running compatibility tests” message when loading the VIEWpath page, there are a few potential causes. Please check each of the below to diagnose.

1. VIEWpath must be licensed. The serial number of the server must be registered and properly licensed. The server must have access to [licensing.audioenhancement.com](#) for this check.
2. Clients must be able to access the EPIC system on the LAN via port 3000.
3. Clients must use the Google Chrome browser.
4. JavaScript must be allowed to run on the page. In some cases, it has been observed that some Chrome extensions including Ad Blockers and Script Blockers can stop the page from loading properly. Customers may consider whitelisting EPIC if these tools are in use.
5. Anti-virus: some antivirus software using features like “web shield” can cause this issue by blocking self-signed SSL certificates. Customers should consider using a valid SSL certificate on the server. Otherwise, customers may consider whitelisting the EPIC server.

## VIEWpath Live Minimum Requirements



It is critical that the teacher's computer running the VIEWpath Live application meet the following minimum requirements. If the laptop hardware or operating system are not up to the below specifications, there will be a degradation in performance of the VIEWpath Live application.

#### Supported Operating Systems:

VIEWpath Live will run on the following operating systems only:

- Windows 10 - 64 Bit
- Mac OS 10.15 Catalina

#### Windows PC Computer Minimum Requirements

*Note: The following lists minimum requirements that allow for network connectivity to the VIEWpath System and AE EduCam classroom cameras. Laptop performance varies from manufacturer to manufacturer and is highly dependent on other applications and processes running consecutively. No guarantee is made based on these specifications.*

- Processor (CPU)
  - Minimum: Intel Core i5 (6th generation or newer) or equivalent
- Operating System: Microsoft Windows 10 x64
- Memory: 8 GB RAM
- Storage: 250 GB internal drive (SSD Solid State Drive Preferred)
- Network Adapter: Wired Network Connection Strongly Recommended
  - 802.11ac 2.4/5 GHz wireless adapter

#### Apple Macintosh Computer Minimum Requirements

*Note: The following lists minimum requirements that allow for network connectivity to the VIEWpath System and AE EduCam classroom cameras. Laptop performance varies from manufacturer to manufacturer and is highly dependent on other applications and processes running consecutively. No guarantee is made based on these specifications.*

- Processor (CPU)
  - Minimum: Intel Core i5 (6th generation or newer) or equivalent
- Operating System: Mac OS 10.15 Catalina
- Memory: 8 GB RAM
- Storage: 250 GB internal drive (SSD Solid State Drive Preferred)
- Network Adapter: Wired Network Connection Strongly Recommended
  - 802.11ac 2.4/5 GHz wireless adapter