Network & End User Requirements

for

Eclipse Streaming Online Events
and Webcasts

Scope

This document summarizes the requirements to access Eclipse Streaming Solutions-delivered online broadcasts, along with production-side outbound link requirements.

Introduction

An online broadcast or webcast (as it is commonly referred to) is typically provided to a client by Eclipse Streaming Solutions on an outsourced basis.

The provided webcast is based on serving both live and on-demand HTML5-based audio and/or video streams for local playback. This is usually done using an embedded media player within a slide-synchronized (where applicable) web-interface, which is accessible to the end use via a standard internet browser. The served stream contains various synchronized event lists, which corresponds with slide changes. Events are used to trigger static image updates within the browser webcast interface, corresponding with a presenter's slide change.

To optimize the webcast experience, we recommend that users familiarize themselves with the minimum system requirements and make use of the test facility to validate streaming access. The test facility is available either after a successful login, post-user registration or before (dependant whether registration is used or not). Some customized interfaces could exclude such test facilities at the request of the client.

Please note that the availability of the provided test (and live) streams are based on local and external network conditions at the time of use. For most users (most notably international users), the default stream source will prove sufficient and not require any change.

Requirements

THE END USER'S SYSTEM REQUIREMENTS ARE:

- PC, MAC or Linux-based workstation (OS independent).
- Although many HTML5 browsers could be compatible with our player, the following browsers have been tested and have been found compatible with our players and streams: Internet Explorer, Firefox, Chrome and Safari.
- We do recommend either Chrome or Internet Explorer for the best experience.

- Web access to the webcast web-interface page (this is communicated in advance of the webcast).
- Streaming access to any of the available stream sources.
- A working audio device with either headphones or attached speaker system. Onboard integrated sound card would be sufficient.
- It is essential that end users access the content using a standard underline public browser like Chrome, Firefox or Internet explorer and that the event is not accessed in private mode since content will not be properly enabled this way.

- For an Eclipse Streaming Solutions webcast, network access to the following **web servers** is required
  - antcast.antfarm.co.za / results.antfarm.co.za (HTTP – 80 & HTTPS - 443)

  - Network access to the following **stream sources** using indicated TCP-based streaming protocols and ports are required:

    - For streams:
      - 213.239.228.168 TCP Ports 80,443,554,1935
      - 213.239.223.112 TCP Ports 80,443,554,1935
      - 116.202.43.208/29 TCP Ports 80,443,554,1935
      - 213.239.228.167 TCP Ports 80,443,554,1935
      - 213.239.223.118 TCP Ports 80,443,554,1935
      - 116.202.43.240/29 TCP Ports 80,443,554,1935
      - 213.239.228.211 TCP Ports 80,443,554,1935
      - 213.239.223.108 TCP Ports 80,443,554,1935
      - 116.202.43.136/29 TCP Ports 80,443,554,1935
      - anton.antfarm.co.za TCP Ports 80,443,554,1935
      - castcloud.antfarm.co.za TCP Ports 80,443,554,1935
      - cachestream.antfarm.co.za Ports 80,443
      - transcendantcf.antfarm.co.za Ports 80,443
      - determinantcf.antfarm.co.za Ports 80,443
      - vetsak2cf.antfarm.co.za Ports 80,443

- The bandwidth required of an Eclipse Streaming Solutions webcast from all above stream sources are:
  - 156kbps CBR for audio
  - 1Mbps – 4 Mbps for video

Network admin, please note the following:

- Geo-location technology is used to serve the default stream source based on the end users geographic location. Please take this into consideration when creating firewall access lists.

  - Please always use DNS instead of IP addresses where possible.

  - All provided live streams are available for transparent proxy with no user authentication credentials required(anonymous access). Should IT admin at any region require assistance/advice with such, please contact Eclipse Streaming Solutions support with your query.

  - Where regional stream relaying is supported, a relay stream source can be integrated into the primary webcast interface. In such cases, Eclipse Streaming Solutions will provide configuration details for downstream relay media servers and regional IT admin are required to provide Eclipse Streaming Solutions with:

    - Streaming URL of internal relay media server

    - Regional Internet gateway address (region identification is performed within the webcast interfaceusing IP lookup).

Client provided, UPLINK requirements for network administrators (not regarding stream playback)

In cases where our client or a 3rd party is providing the relay link to the stream from where it originates onsite, to our hosted servers, here is the details for the link requirements. Please note this is regarding the Eclipse Streaming Solutions production sideand not regarding the end user playback side.

- Minimum of a 4 Mbps uncontested UPLINK capacity
- Preferably 2 but at least one RJ-45 network outlet within reach of the setup location in the planned venue. (the closer the better)
- Where the link is shared, we need you to apply Platinum (or at least Gold) class QoS

- We require the following outbound rules to be implemented on the provided link:

- Outbound RTMP traffic over port 1935 to the following origin media servers

- 116.202.43.209 – Primary Origin

- 213.239.228.167 – Backup origin

Contact

Any specific questions not addressed in this document concerning user and/or network requirements, network delivery and implementation specific to Eclipse Streaming Solutions webcasts, should be directed to:

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