MOOD:MVISION

MVP 195 Network Requirements

v 1.0
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Audience

This documentation is designed for IT professionals interested in learning the network requirements of Mood's MVision MVP195 media player.

MOOD:

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Introduction

The MVP195 is a compact media player capable of powering HD multimedia content up to 4k. Its small size, multiple connectivity options and noiseless operation make it a versatile media player that can easily be installed anywhere.

Mood's MVision MVP195 is powered by a hardened distribution of Google Android with limited user privileges. The MVP195 currently runs on Google Android 5.1.1 (Lollipop) from Linux kernel 3.10.0. All non-essential programs and services have been removed and packages are updated to address security concerns.

Network Requirements

MOOD:

All mandatory network traffic initiates from the MVision media player: in other words, the traffic is always outbound from the media player, making it safe and easy to operate on a client network. Mandatory traffic includes: content updates (downloaded and stored locally to the device), live feeds updates (e.g. weather, news, etc.), software updates, health reporting and proof-of-play reporting.

Mandatory outbound traffic:

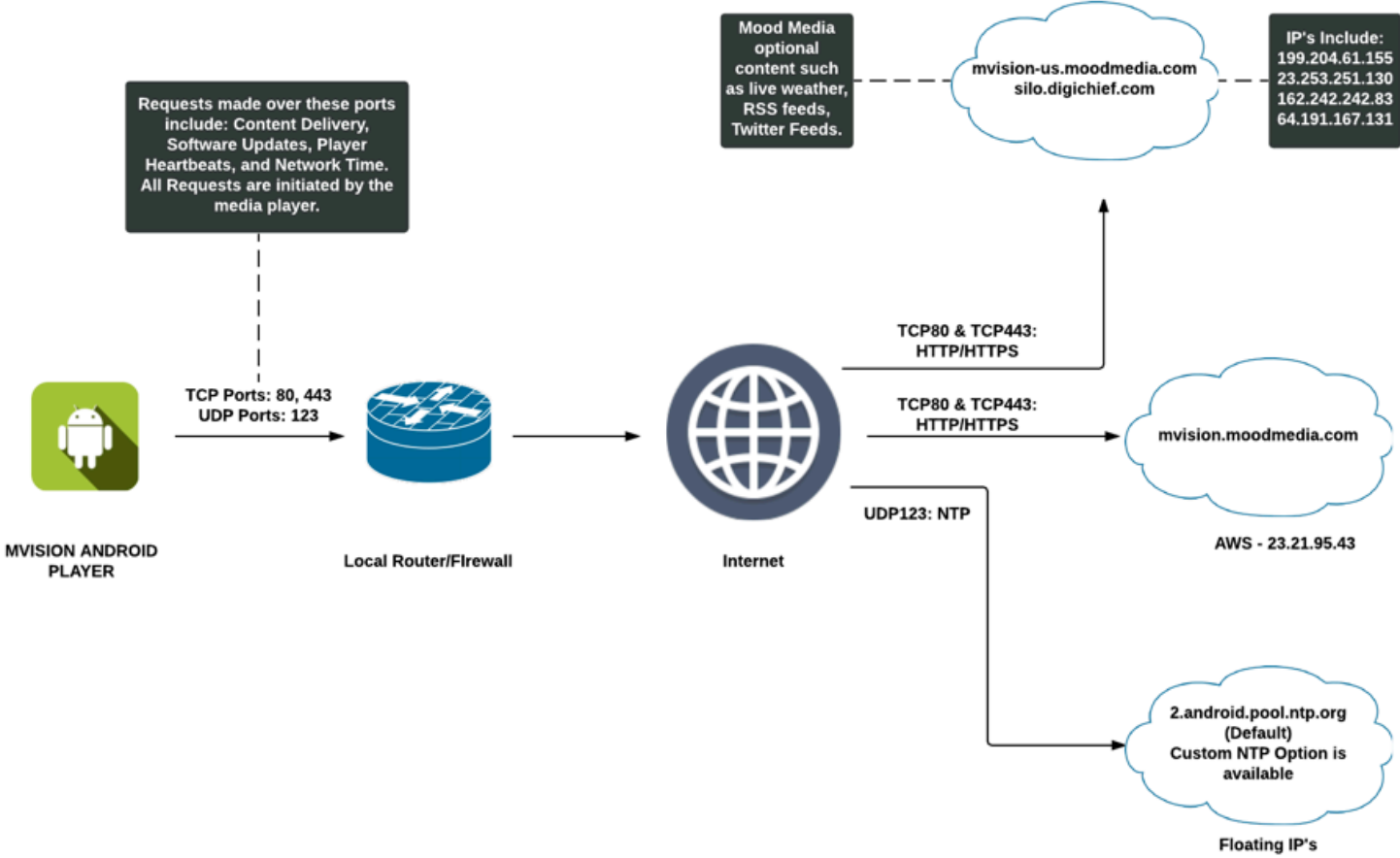content, feeds, monitoring, proof-of-play, software and security updates

(always favor using the DNS name instead of the IP as the IP is subject to change)

- HTTPS/TCP443
- mvision.moodmedia.com (23.21.95.43)
- Optional: mvision-us.moodmedia.com (199.204.61.155)
- Optional: silo.digichief.com (23.253.251.130, 162.242.242.83, 64.191.167.131) (Mood Media content feeds if needed)
- NTP/UDP123 (floating IPs)
- 2.android.pool.ntp.org
- Custom NTP Address (i.e locally hosted NTP server or Google NTP server)

NOTE: additional traffic may be needed to accommodate specific user/content requirements

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Mood Media optional content such as live weather, RSS feeds, Twitter Feeds.

mvision-us.moodmedia.com
silo.digichief.com

IP's Include:
199.204.61.155
23.253.251.130
162.242.242.83
64.191.167.131

Requests made over these ports include: Content Delivery, Software Updates, Player Heartbeats, and Network Time. All Requests are initiated by the media player.

TCP Ports: 80, 443
UDP Ports: 123

MVISION ANDROID PLAYER

Local Router/Firewall

Internet

TCP80 & TCP443:
HTTP/HTTPS

TCP80 & TCP443:
HTTP/HTTPS

mvision.moodmedia.com

AWS - 23.21.95.43

UDP123: NTP

2.android.pool.ntp.org
(Default)
Custom NTP Option is available

Floating IP's

Explanation of Network Traffic

Every 5 minutes:

the media player initiates a HTTP/HTTPS connection to the
MVision server to transmit a small amount of data including
device status information (aka "heartbeat").

When new content is available:

the player downloads the content over HTTP/HTTPS. Content
is downloaded in chunks: the integrity of each chunk is tested
using a sha256 algorithm before the next chunk is downloaded.
In addition, interrupted transfers are resumed at the last part to
further optimize the network usage.

Download Windows & Bandwidth Throttling

Download Windows:

In order to limit the impact of the MVision player on the network,
the MVP195 can be configured to download content only during
specific hours of the day. Outside of the download windows, the
network will only be used to send minimal "heartbeat" information
back to the Mood servers: new video or audio content will not be
transferred outside the download windows.

Bandwidth Throttling:

In addition, the MVP195 can be configured to throttle the amount
of bandwidth it uses. Bandwidth throttling can be set to different
values throughout the day.

Bandwidth Requirements

In order to fully take advantage of the Audio & Video services, Mood recommends a minimum network speed of 512kbit/s down and 128kbit/s up. Higher bandwidth speeds will provide more consistent service by shortening transfer times and reducing the potential for transfer errors. Higher bandwidth speeds will therefore improve the overall instore experience.

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