KB - Appetize Network Guide Addendum

About This Document

This document is intended as a reference guide with instructions, recommendations and/or best practices of the Appetize Technologies, Inc. (herein referred to as "Appetize") platform. This document is intended for use by any personnel involved with installation, use, support, and/or maintenance of the Appetize platform. The reader should be familiar with the Appetize platform, current technology, and basic networking concepts.

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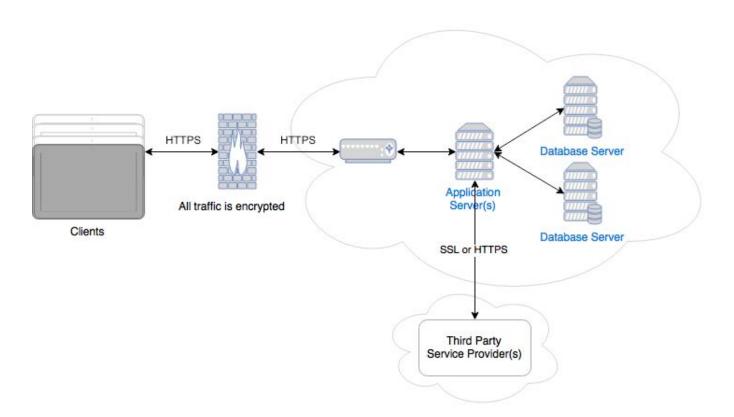
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Data Flow Diagram



Network Connectivity

Appetize hardware communicates directly with the server to perform nearly all functions. The Appetize client hardware communicates with the server over a standard network connection, using 802.3 wired Ethernet, 802.11 wireless networking or cellular technology. Traffic sent over a secure connection always uses the currently recommended security protocol, which is, as of the date of this document, TLS 1.2 across all endpoints.

Network Bandwidth

A variety of variables contribute to the bandwidth requirements which can be estimated more concisely through the Appetize estimation process. Generally, bandwidth required to support the Appetize system is estimated at approximately 30Kbps per terminal.

Network Endpoints

Ports

This is the current list of ports used by the Appetize platform as of the date of this document.

Port #	Description
443	Secure Connection to Hosted Environment (HTTPS)
80	НТТР
5223, 2195, 2196	APNS - Apple Push Notification Service
5228, 5229, 5230	GCM - Google Cloud Messaging
123 (UDP)	NTP, not required but recommended
1337	KDS

IP Addresses

This is the current list of URLs and IP addresses used by the Appetize platform as of the date of this document. Hostname or URL is **strongly preferred** since most of the services are load-balanced and can return a different IP via DNS lookups.

Service / URL	URL	IP	Port #
General Services	api.appetizeapp.com	34.233.41.53 34.204.232.183	80 443
Appetize microservices	*.appetize.services	Domain Whitelisting	443
FTP Communications	ftp.appetizeapp.com	18.208.39.131	22
Connect	connect.appetizeapp.com	34.234.183.173	80 443
APNS		17.0.0.0/8	5223 2195 2196
Google Cloud Messaging		Various	5228 5229 5230

Google does not provide a list of IP addresses, use ASN 15169

DNS	Purpose	Provider
api.appetizeapp.com	Appetize API Services	Appetize
ftp.appetizeapp.com	Activate Diagnostics (port 22)	Appetize
*.appetize.services	Appetize microservices	Appetize
support.appetizeapp.com	Help Desk & Knowledgebase	Zendesk
admin.appetizeapp.com	Admin CMS	Appetize
connect.appetizeapp.com	CMS	Appetize
oauth.appetizeapp.com	API Key / Auth Services	Appetize
api-admin.appetizeapp.com	API Key Admin	Appetize
websdk.appetizeapp.com	WebSDK	Appetize
cart-calculations.appetizeapp.com	Cart Calculations	Appetize
manage.eloview.com	EloView	Elo
io.eloview.com	EloView	Elo
content.eloview.com	EloView Download Content	Elo
device.eloview.com	EloView Upload Device Log	Elo
dsq.eloview.com	EloView Device Status Query	Elo
olark.com	Live Chat	Olark
teamviewer.com	Remote Device Tool	TeamViewer
fabric.io	Part of Crashlytics	Crashlytics
crashlytics.com	Crashlytics Services	Crashlytics
reports.crashlytics.com	Crashlytics Services	Crashlytics
settings.crashlytics.com	Crashlytics Services	Crashlytics
api.crashlytics.com	Crashlytics Services	Crashlytics
realtime.crashlytics.com	Crashlytics Services	Crashlytics
e.crashlytics.com	Crashlytics Services	Crashlytics
ocsp.apple.com	Apple	Apple
su.itunes.apple.com	Apple	Apple
ax.su.itunesapple.com	Apple	Apple
givex.com	Givex	Givex
hockeyapp.net		Hockey App
google.com	Push Notifications	Google

Previously, when looking up "api.appetizeapp.com", a single IP would be returned, even though three were assigned to api.appetizeapp.com: 1.2.3.4, 1.2.3.5, 1.2.3.6, for example. A firewall could do a lookup and get "54.85.232.179", and would whitelist that IP. However, the POS client doing the same lookup would get: 34.195.45.87, but the firewall would block it, because it only opened up the 54. IP.

Currently, when looking up api.appetizeapp.com, all three IPs are returned, and one is selected and utilized at random. If that one fails, it automatically tries the second, and so forth.

Device Management

This is the current list of endpoints used for device management which could include features such as application installation, software upgrades, remote device updates and other administrative tasks. While these endpoints are not required for the operation of the Appetize platform per se, it is strongly recommended to allow these connections.

As with the Appetize IP addresses above, these could change if there is a CDN or load balancer used to deliver the service.

Description	URL	IP	Port #
EloView	manage.eloview.com	104.16.171.243 104.16.170.243	443
EloView	io.eloview.com	104.16.171.243 104.16.170.243	443
Airwatch	*.awmdm.com *.airwatchportals.com *.air-watch.com	63.128.77.234 209.66.96.114 63.128.77.238 209.208.228.192 209.208.228.198 216.235.137.253 192.30.64.1 to 192.30.79.254	80 443
Airwatch	APNS	17.0.0.0/8	5223, 2195, 2196
Airwatch	GCM	Various	5228, 5229, 5230

Payment Device Management Technical Resources

Gateway (FuseBox) End-Points:

- Simplify uses port 7000 to reach out to Fusebox gateway, in all versions, using TLS1.2 over TCP/IP.
- Custom application calls DIRECTLY to Fusebox gateway need to use port 7500 instead, with TLS1.2 over TCP/IP.

Description	URL	IP	Port #
Fusebox Gateway Prod Knoxville IP	Fusebox Gateway Prod URL -https://fuseboxtrant.elavon.net Fusebox Gateway Prod Host Name -fuseboxtrant.elavon.net	198.203.192.253	7000, 7500
Fusebox Gateway Prod Atl IP	Fusebox Gateway Prod URL -https://fuseboxtrant.elavon.net Fusebox Gateway Prod Host Name -fuseboxtrant.elavon.net	198.203.191.116	7000, 7500
Fusebox Test Gateway	Fusebox Gateway Test URL -https://gatewaydemomoc.elavon.net Fusebox Gateway Test Host Name -gatewaydemomoc.elavon.net	198.203.192.251	7000, 7500

Elavon	URL	Port #
HEM Test Host Name	termupdateuat.elavon.net	6423
HEM Test Heartbeat Host Name	termupdateuat.elavon.net	3020
HEM Prod Host Name	termupdate.elavon.net	6423
HEM Prod Heartbeat Host Name	termupdate.elavon.net	3020

Ingestate End-Points (for Telium Series Terminals)

- Simplify communicates to IngEstate via TLS 1.2 over TCP/IP.
- Simplify uses Port 450 to communicate with IngEstate for both test and production.
- IngEstate Test IP 198.203.191.87
 IngEstate Test Host Name –termmgttest.elavon.com
- IngEstate Prod IP 198.203.192.20
 IngEstate Prod Host Name –termmgt.elavon.com

HEM End-Points (for Tetra Series Terminals)

- Simplify communicates to HEM via TLS 1.2 over TCP/IP.
- Simplify communication for HEM Heartbeat status is done via UDP.
- Simplify uses Port 6423 to communicate with HEM for both test and production.
- Simplify uses Port 3020 for HEM Heartbeat status for both test and production.
- HEM Test Host Name –termupdateuat.elavon.net
- HEM Test Heartbeat Host Name -termupdateuat.elavon.net
- HEM Prod Host Name –termupdate.elavon.net
- HEM Prod Heartbeat Host Name -termupdate.elavon.net