

Stem Network Requirements

Scope

This document guides an IT professional through the process of planning the networking installation for the Stem™ Gateway, Data Logger, Kiosk, and FTP communications. Please contact Stem with any questions.

GATEWAY AND DATALOGGER IP ENDPOINTS

Outbound access on ports 80 and 443 is required for the following end points; when possible, please use the host name to allow the connection:

- www.alsoenergy.com (204.232.231.197)
- maki.alsoenergy.com (146.20.187.118)
- moxa.alsoenergy.com (146.20.187.118)
- servlet.alsoenergy.com (146.20.187.118)
- makirt.alsoenergy.com (104.239.186.186)
- dataobvius.alsoenergy.com (146.20.187.118) (utilized by AcquiSuite)
- streamer.alsoenergy.com (74.205.11.149) (utilized by PM2000 and PS3000)
- time.windows.com (utilized by PM2000 and PS3000)
- time.nist.gov (utilized by PM200, PS3000, and AcquiSuite)
- buildingmanageronline.com (67.51.237.194) (utilized by AcquiSuite)

The Stem logger is designed to exist in a DHCP or static IP environment behind a firewall. A DNS server accessible to the logger must be available in both Static IP and DHCP scenarios for resolving host names listed above.

SMA FTP REQUIREMENTS

Outbound access on port 21 is required for the following endpoint, please use host name to allow the connection: smaftpdm.alsoenergy.com // ptsmaftp.alsoenergy.com (146.20.122.22)

REMOTE TROUBLESHOOTING

Stem dataloggers utilize the following technologies for remote troubleshooting:

- PM2000 & PS3000 ○ Remote Desktop Inbound access on port 3389 (or a port forwarded to internal 3389)
- PL1000 & Moxa ○ Inbound access on port 23 (or a port forwarded to internal 23)
- AcquiSuite ○ ra.buildingmanageronline.com (67.51.237.194) ○ Outbound traffic on TCP ports 443, 80, and 2022
- LogMeIn (<https://support.logmeininc.com/gotoassist-remote-support/help/whitelisting-and-firewallconfiguration>)

Stem Kiosk Requirements

Overview

The Stem Kiosk gathers data from devices and sends the data over the internet to a hosted database:

1. The Stem Kiosk powers up
2. The Stem Kiosk gets its IP address via either DHCP or its static assigned network configuration
3. The Stem Kiosk resolves www.Stem.com via DNS services
4. The Stem Kiosk periodically updates its real time clock using network time services
5. The Stem Kiosk contacts Stem Web Services (AEWS) supplying its MAC address and current code version
6. The Stem Kiosk packetizes the received device data and sends it to the AEWS via TCP

IP RANGE

Stem servers are located at: 172.245.215.160/27 & 216.246.49.51

PORTS

The Stem Kiosk is designed to exist in a DHCP or static IP environment behind a firewall. Stem Kiosk requires DNS resolution; a DNS server accessible by Stem Kiosk must be available in both Static IP and DHCP scenarios for resolving www.Stem.com to an IP address. It does not need an external internet IP address or ports forwarded. This table shows the unique ports opened.

	Inbound Ports	Outbound Ports
HTTP: Port 80 (TCP)		X
HTTPS: Port (443) TCP		X
SNTP: Port 123 (UDP)		X

MINISITE AND KIOSK POWERDISPLAY LINKS

Overview

These stand-alone web links can be used on any machine running Chrome.

REQUIRED URLS

- hmi.alsoenergy.com
- apps.alsoenergy.com
- pubdisplay.alsoenergy.com
- code.jquery.com
- fonts.gstatic.com
- fonts.googleapis.com