

3 - Connectivity

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Networking and connectivity options

The SendPro MailCenter has multiple choices for how to configure your system for connectivity to Pitney Bowes.

- **Connect via direct connection (direct LAN Ethernet).** This is the preferred connection method because of reliability and the most common configuration in office, warehouse, and mail center environments. The new SendPro MailCenter system can directly connect to an open port – called a “network drop”. Network drops exist throughout buildings, and are very often available for a SendPro MailCenter connection.
- **Connect via a WiFi Network where an access point is available.** Wireless LAN Ethernet (connect to a WiFi Network) is the second most common connection method, and is often used when a network drop is not available for the mailing and shipping system. The system connects to your WiFi network using a Pitney Bowes-provided wireless adaptor. The wireless adaptor connects via a USB port.
- **Connect via a WiFi Network where no access point is available.** Wireless LAN Ethernet plus a wireless router is required if you do not have an “access point” located within a reasonable distance to the system. (An access point is like a transmitter, where wireless signals are captured by the network.) This wireless option from Pitney Bowes includes the USB wireless device and the wireless access point for your network.
- **Connect via a Broadband Cellular Network.** The 3G Cellular option provides the hardware necessary for a 3G Internet connection directly from the mailing and shipping system to the Internet, bypassing and not relying on any local networks. The 3G cellular option requires coverage by the Pitney Bowes-designated carrier (subscription fee applies).

Networking and connectivity details

If you have extensive network security restrictions, your IT or network administrator may need these specifications to prepare for the installation.

- [URL information](#)
- [Ports and communication requirements](#)
- [Advanced network requirements](#)

URL Information

The following URLs must be accessible from the SendPro MailCenter system, without any obstructions. It is strongly recommended that the firewall reference the URL rather than IP address, which can change over time.

Required URLs

- SendPro MailCenter Network Linux Proxy Test - Built in tool that pings select PB servers for connectivity testing. Used by PB Service (Resides on Linux Desktop).
 - Network Test:
 - Domain www.google.com
 - 72.14.253.104
 - 74.125.230.81
 - 74.125.230.82
 - 74.125.230.83
 - 74.125.230.84
 - 74.125.230.80
- SUSE Linux Proxy Test
 - Domain ftp.novell.com
 - IP = 130.57.1.88
- Distributor & Comet
 - Distributor - Main PB Server that authenticates machine for access to other PB web services.
 - Domain distservp1.pb.com
 - Domain proddistributercloud.pb.com (Port 443)
 - Domain comet2.ct.pb.com
 - Cometservd1.pb.com
 - 199.231.44.31
 - 199.231.45.46

- Rates and Updates (Download Services) - Downloads, new software, graphics, rate price data etc.
 - Domain pbgdspp1.pb.com
 - 199.231.44.222
 - 199.231.44.148
 - 199.231.45.41
 - 199.231.45.35
 - ClamAV:
 - Domain clamserver.pb.com
 - 199.231.45.165
 - 199.231.44.54
 - 199.231.33.54
 - 199.231.35.165
 - Error log uploads:
 - Domain pbdlspp1.pb.com
 - 199.231.44.30
 - 199.231.45.38
 - Configuration web page:
 - Domain MyMS1Configuration.pb.com
 - 199.231.44.166
 - OS Updates:
 - Domain SMT.pb.com
 - 199.231.44.54
 - 199.231.35.165
- Manage Accounts (Accounting Web App) - Separate PB Server that manages Accounting including Account Creation, Reports etc.
 - Domain ms1app.pb.com
 - 199.231.32.67
- On Line Help - This is the online support website.
- Buy Ink Express - Allows direct access to ink ordering page
- Health and Ink Upload - Machine Health Information upload
- Verify Address (address cleansing) - Utility website to validate addresses against USPS database
- Your Account (PB.com) - Utility website to access your account on PB.com.
- Presort Savings and Services - Utility website to manage Discounts & Presorting.
- Buy Supplies - Utility website to order supplies
- SendPro - Newest package shipping application.

- SendSuite Tracking - SendSuite Tracking application.
- Apps & Tools - Utility website for additional applications and tools.
 - Domain: www.pb.com
 - Domain: www.pitneybowes.com
 - 199.231.33.6
 - 199.231.44.12

Optional Firewall exceptions (enabled by default)

- Domain <http://www.google.com/analytics>
- 209.85.128.000
- 209.85.227.101
- 209.85.227.113
- Track a Package - Carrier independent web tracking site for packages.
 - <http://pb.boxoh.com/>
 - Domain pb.boxoh.com
 - 72.47.250.186

TeamViewer

TeamViewer is used by service and sales for remote diagnostics and training. A TeamViewer session can only be initiated by someone on the customer end and therefore the system cannot be accessed without the customers knowledge. All communication from the Connect+, SendPro P system to the back end system is in the form of XML messages.

There are two options to unblock Teamviewer:

1. General unlocking of Port 5938 TCP for outgoing connections (recommended). Port 5938 is only used by a few programs and therefore is no security risk. This traffic should then neither be filtered or cached.
2. Unlocking of URLs of the following formats (to any Server)
 - GET /din.aspx?s=...&client=DynGate...
 - GET /dout.aspx?s=...&client=DynGate...
 - POST /dout.aspx?s=...&client=DynGate...

Regardless of which method is chosen to unblock TeamViewer, also check that no content filter or similar is blocking one of the following URLs:

- *.teamviewer.com
- *.dyngate.com

Communication requirements

- All communication is initiated from the SendPro MailCenter system via ports 80 (HTTP) and 443 (HTTPS).
- All communication from the SendPro MailCenter system to the back end system is in the form of XML messages.

Port 80 (HTTP)

- OS Update, AV Updates, Web Services, TeamViewer

Port 443 (HTTPS)

- Requests to refill or audit its PSD (Postal Security Device) based on a low funds or inspection date. Audits occur if the PSD inspection date has expired.
- During initial install, the system will automatically request an Operational Block, from the infrastructure, for the PSD.
- On PSD replacement the System will automatically request the configuration data for the replacement PSD.
- Transaction Records from the SendPro MailCenter system are automatically uploaded when:
 - The system goes into sleep mode.
 - While powering down the system.
 - Activating web accounting services.
 - Uploading postal information.
- On power up the system refreshes the web service (checks for Software, Rates and Graphic Updates. It will also contact Supplies, My Account, Tracking etc.) configuration data.

Port 53

- DNS lookup

If your IT department uses a rules-based method for allowing specific ports to pass traffic on their network for port 53, you must allow both UDP and TCP traffic to this port. Port 53 listens for DNS requests and may respond on either protocol, based on the type of request it receives. Short responses should come in over UDP. Longer, more detailed responses on TCP.

Advanced Network Requirements

- The SendPro MailCenter system will require a high-speed network connection.
- The SendPro MailCenter system will initiate all communication.
- The SendPro MailCenter system will initiate all communication (via HTTP or HTTPS), so it can safely sit behind most corporate firewalls.
- The SendPro MailCenter system will communicate to external Web Services via HTTP over Port 80.
- The SendPro MailCenter system will communicate to PB secure server(s) via HTTPS over port 443.
- The SendPro MailCenter system will use Port 53 for DNS lookup.
- Pitney Bowes requires a minimum network bandwidth of 384 kbps (upstream and downstream) to operate, but we recommend 1 Mbit/sec for best performance.
- It is recommended that 3G modem devices are not shared across multiple SendPro MailCenter systems.
- Customer owned web filtering devices or software, as well as SSL packet inspection should be disabled for these ports as they can affect performance.
- The wired Ethernet port supports 10/100 MBit/sec connections. If using a GigaBit port, please enable the ability for it to auto-negotiate down to a 10/100 MBit/sec connection.

If you are unable to connect to the internet, ask your IT department or internet provider to check the internet settings before you contact Pitney Bowes. If you need further assistance, please chat with us. If you need further assistance, please contact us.

Networking and connectivity Frequently Asked Questions

- *What OS does this device run?*
- *What controls are in place to protect this device against network-based malware (viruses/worms) threats?*
- *Does it have a firewall?*
- *Who controls the firewall rules?*
- *How are the firewall rules configured?*
- *What is the security patch process?*
- *What anti-virus controls does SendPro MailCenter use?*
- *What is the software update process, and how often does this occur?*

- *What is the network traffic flow to and from the SendPro MailCenter system? What firewall rules need to be in place to allow the necessary communication?*
- *Can you identify suspicious activity affecting SendPro MailCenter?*
- *What are the access controls in place to secure SendPro MailCenter?*
- *How do you authenticate an individual? A service?*
- *Are there audit trails in place?*
- *Is data stored on the device?*
- *What controls protect the data?*
- *Does the SendPro MailCenter allow remote administration?*

What OS does this device run?

SUSE Linux Sled 11.

What controls are in place to protect this device against network-based malware (viruses/worms) threats?

Controls include:

- White list of URL's.
- HTTPS.
- Anti Virus Software.
- Only executes services needed to perform activities.
- OS distribution has been optimized and locked down.

Does it have a firewall?

Yes.

Who controls the firewall rules?

Pre-configured and not modifiable.

How are the firewall rules configured?

Allow only the ports HTTP, HTTPS and DNS.

What is the security patch process?

SendPro MailCenter security patches are applied by emergency updates via Pitney Bowes only, and on a regular schedule through Pitney Bowes services.

What anti-virus controls does SendPro MailCenter use?

ClamAv is installed on every system. AV signature updates regularly updated.

What is the software update process, and how often does this occur?

As required, in some cases monthly.

What is the network traffic flow to and from the SendPro MailCenter system? What firewall rules need to be in place to allow the necessary communication?

- Outgoing contact initiated (no push) utilizing HTTPS, URLs provided by Pitney Bowes services.
- Outgoing - transactional data.
- Incoming is both transactional data and files and Web Services.

Can you identify suspicious activity affecting SendPro MailCenter?

Yes. An audit process exists to validate the financial integrity of the system. Error logs are available and can be uploaded to the Pitney Bowes Data Center.

- Regularly scheduled physical visits from Pitney Bowes Service.

What are the access controls in place to secure SendPro MailCenter?

The application access is managed by the customer using User IDs and passwords. Unique, cryptographically strong passwords for each machine restricts access to the operating system.

How do you authenticate an individual? A service?

The application access is managed by the customer using User IDs and passwords. The [[[Undefined variable SPMC-Variables.SPMC-Variablesproduct Name no mark]]] does not provide services over a network so authentication not required.

Are there audit trails in place?

Yes. PSD transactional audits, extensive logs all financial transactions are audited by the Pitney Bowes infrastructure. The SendPro MailCenter logs all error conditions, and maintains ink usage logs, print usage logs, etc.

Is data stored on the device?

Yes. The SendPro MailCenter stores transactional data, graphic images, customer profiles and settings, files (rates, etc.).

What controls protect the data?

All files and data interface utilizing HTTPS. Incoming data and files are signed and verified prior to use. If consumed by the printer, it is verified on each use. If used by the application, it is verified on load.

Does the SendPro MailCenter allow remote administration?

Pitney Bowes will use TeamViewer to troubleshoot system problems remotely. The end user will initiate the session using a special code.