SFTP
Acceptable Use Policy

Version 1.8

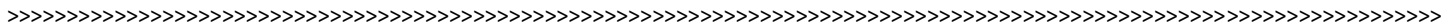May 2019

Bloomberg

Contents

Overview

BB-SFTP Functionality

BB-SFTP enables a set of Bloomberg-provided SFTP accounts to be used for transferring files. Access to BB-SFTP is restricted to SFTP Users. SFTP Users may use dedicated/leased lines or the Internet to access BB-SFTP.

Bloomberg SFTP Connectivity Standards

- The Bloomberg SFTP Connectivity Standards set forth the connectivity standards for Bloomberg clients or third parties (collectively, "SFTP Users") authorized to use Bloomberg's secure file transfer infrastructure ("BB-SFTP"). This document details responsibilities and requirements for SFTP Users to use BB-SFTP. SFTP Users must review and comply with these Connectivity Standards in order to use BB-SFTP.
- Bloomberg will periodically review and update these Connectivity Standards.
- Access to BB-SFTP is only permitted from IP address previously provided by SFTP Users to Bloomberg; that IP address will be used to create an account-specific IP address whitelist.
- SFTP Users are responsible for configuration changes within their own environments and for ensuring that they make any necessary changes to their firewalls to enable BB-SFTP access.
- SFTP Users should regularly review their own application security controls.
- Bloomberg may suspend the account of any SFTP User at any time.

Connectivity Requirements

SFTP Users must agree to operate within the best practices guidelines below and data limits currently in place for BB-SFTP.

SFTP Password Requirements

- Have a minimum length of 16 ASCII characters and maximum of 30 ASCII characters
- Must contain at least one of the following characters: _ % + = - [ ] , . { }
- Must contain at least one upper case letter, one lower case letter and one number
- May not contain a space
- May not contain these characters: $ \ ` & ( ) < " > | ; ' ^ * ? : # @ !
- May not contain non-printable characters
- Passwords will expire 18 months after their creation
- Must be stored securely and should only be shared with authorized individuals

IP Whitelisting Requirements

- Access to BB-SFTP is only permitted from an IP address previously provided to Bloomberg; that IP address will be used to create an account-specific IP address whitelist.
- SFTP Users need to provide their DR IP address(es) to Bloomberg to ensure that they are included in the associated account.
- IP whitelists can be configured as follows:
  a. The standard whitelisting bracket is:
      i. 5 or fewer IP addresses (specified individually);
      ii. 5 or fewer sets of IP addresses (specified in CIDR notation); or
      iii. Up to a total of 1,280 IP addresses (specified in any combination of individual entries or CIDR notation)
      iv. Accounts in this category may use a key or a password (or both) for authentication
  b. Non-standard whitelisting bracket requiring an SSH key for authentication
      i. Accounts requiring a whitelist of more than 1,280 IP addresses must use an SSH key **and not a password** for authentication

Public Keys

- Where SFTP Users authenticate using an SSH key, it should meet the following criteria:
  a. Key Type: SSH-RSA
  b. Strength: SSH keys for SFTP must at minimum be 2,048-bit RSA public keys with a recommendation of 4,096 bits
  c. Public Key Format: OPENSSH, single-line format
  d. SFTP Users need to supply Bloomberg with their public keys
  e. Keys must be stored securely and should only be shared with authorized individuals
  f. SSH Keys can live for no longer than 2 years

Contacts

- No connections will be created or maintained without up-to-date contact information

Login Sessions

- For each *login* session made for a connection via SFTP, a *corresponding logout* is expected.

Polling of Directories and File Transfer Rate

- Uploads, downloads, or directory scans of a given SFTP account **must not exceed 300 actions per hour**, with a **maximum of 4 concurrent actions**
- SFTP accounts exceeding these limits may be throttled or disabled at any time.
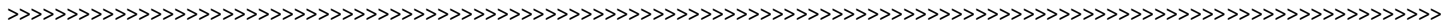
Performance Expectation

- Uploaded files are generally processed within 30 minutes end-to-end. Certain workflows are processed only once every 24 hours.
- SFTP by definition is a file transfer protocol. As such users or applications using this SFTP service may experience delays of several minutes. If data is expected to be transferred in real time, then a real-time protocol other than SFTP is required.
- No developmental changes will be made in attempts to simulate real-time performance via SFTP infrastructure.

Maintenance Window

- Maintenance windows on specific FTP servers can happen on weekends. Please always connect to our failover instead of server-specific IP, so traffic is routed to available servers automatically

Account Disablement

- Any account not accessed in more than 6 months will be deleted and all associated files will be removed.

Storage & File Retention

- SFTP Users are generally permitted a maximum of 5GB per account.
  - Users of certain Bloomberg products, such as Data License, are allowed more per account.
- Files stored on BB-SFTP may be deleted on a rolling 30-day basis.
- BB-SFTP is a store and forward system, it does not archive files; this is the responsibility of SFTP Users.
- Uploaded files in excess of acceptable limits may be blocked or deleted.

	Maximum Size
Single file, one-time delivery	1.5 GB
Single file, automated delivery	400 MB
Total of all files stored	5 GB*

IP Proxies

- In the scenario where SFTP Users are funneling all their SFTP sessions through a few proxy IPs, they may encounter a per-IP session limit. In this situation, SFTP Users will need to direct their excess SFTP traffic through additional IP proxies as session limits per IP will not be raised
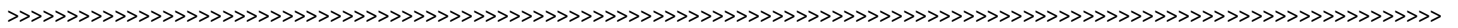
Outline of Steps to Connect to Bloomberg via SFTP

Download an SFTP Client

- SFTP client software to send and download files is available for a variety of environments. Bloomberg does not endorse or mandate the use of a specific client, but provides the below list as a convenience.

Commercial Products	Free/Open Source Products
- CuteFTP - Tectia SSH Client - Bloomberg Request Builder (Data License clients only)	- FileZilla (Windows, Mac, Linux) - WinSCP - Putty/Psftp - OpenSSH suite (UNIX)

Firewall Changes
- SFTP Users may need to make network changes to allow access to the BB-SFTP servers on port 22. See IPs in tables below that you may need to add to your firewalls in order to connect to Bloomberg's SFTP servers.
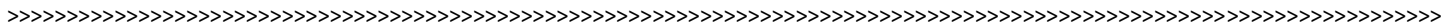
Internet Connectivity via to Bloomberg SFTP Servers (Table 1)

See Failover section	Host Name	IP Address	Port	Connection Type	Region
1	sftp.bloomberg.com	205.216.112.23	22	Internet Auto Failover	Global
2	bfm1-sftp.bloomberg.com	205.216.112.9 205.216.112.6	22	Internet to NY Data Centre	Global
3	bfm2-sftp.bloomberg.com	208.22.57.166 208.22.57.178	22	Internet to NJ Data Centre	Global
4	sftp.blpprofessional.com	208.22.57.176	22	Internet Auto Failover	China

For Internet connectivity, clients are advised to use DNS **sftp.bloomberg.com** and **not use IP addresses directly**. The IP are only provided for purposes of adding to a firewall. In the event that one server becomes unavailable, **sftp.bloomberg.com** will always point to another available server. SFTP Users' Internet-facing IP addresses need to be whitelisted with Bloomberg as described above. See Failover Section for further description.

Leased Line Connectivity via Bloomberg Routers to Bloomberg SFTP Servers (Table 2)

Host Name	IP Address	Port	Connection Type	Region
Use IP Provided	160.43.94.78	22	Virtual IP NY/NJ Failover	New York, Tokyo & Asia Pac
Use IP provided	160.43.94.20	22	Dedicated Lines (NY)	New York, Tokyo & Asia Pac
Use IP provided	160.43.166.57	22	Dedicated Lines (NJ)	New York, Tokyo & Asia Pac
Use IP provided	160.43.94.77	22	Virtual IP EMEA Failover	London/EMEA
Use IP provided	160.43.94.24	22	Dedicated Lines (NY)	London/EMEA
Use IP provided	160.43.166.58	22	Dedicated Lines (NJ)	London/EMEA

Clients connecting over their Bloomberg Leased/Dedicated lines should connect to the above IP addresses depending on which region they are connecting from.

Clients can choose to connect to a Virtual IP if they are not specifically targeting either NY or NJ Data Centers. In this case Bloomberg will route clients to available SFTP servers in the event of an outage.

Clients connecting over dedicated routers need to handle failover themselves if they are choosing specifically to target either NY or NJ Data Centers.

Internet Failover Overview

The failover addresses sftp.bloomberg.com and sftp.blpprofessional.com provided in Table 1 above will switch between Bloomberg data centres as needed, with automatic failover provided by Bloomberg. For use cases where a client wishes to restrict itself to one data centre vs. another, the URLs are provided for (NY) and (NJ). Be aware that when using Data Centre specific addresses, it is the client's responsibility to switch between data centres if needed. Clients are **strongly** encouraged to use the failover addresses.

Note: At this time, full data replication between data centres is not yet in place, it is being addressed. Clients choosing to use the new Virtual IP above should be aware of this limitation. For example, a client renaming or deleting a file on its NY account should do the equivalent on its NJ account in order for its accounts to remain in sync.

Additional Connections

- Certain business units such as News or Exchange feeds may provide a different set of servers than the above listed, generally used SFTP servers. SFTP Users of these services should confirm IP addresses to connect to with their relationship manager.

Internet Failover Details

For **Internet SFTP Connectivity**, Bloomberg supports four URLs for use by external parties to connect to Bloomberg's Servers. (Table 1)

1. sftp.bloomberg.com
2. sftp.blpprofessional.com (China Only)
3. bfm1-sftp.bloomberg.com
4. bfm2-sftp.bloomberg.com

URLs 1 and 2 work as follows:
- Incoming SFTP connections are routed to a Data Center based on load.
- Changes made to the file system via SFTP operations are not replicated across Data Centers. This means that the effect of a file system update (e.g. rename, move, copy, make directory, etc.) would only be visible to subsequent connections if those connections are also routed to the same Data Center where the initial rename operation took place. This routing is based on load and cannot be guaranteed to be constant between any two connections.
- We recommend users who intend to only collect files from Bloomberg via Internet SFTP in a read only manner use URL 1 as a preference. Files published by Bloomberg will be available from both data centers.
- In the case of a Data Center outage event, users of URLs 1 and 2 will be able to continue using the URLs as normal and no action needs to be taken.

URLs 3 and 4 work as follows:

- URL 3 targets one Data Center, while URL 4 targets another. Both are equal in terms of capabilities and performance. In the event that there is a problem accessing Bloomberg Internet SFTP servers through URL 3 the user is expected to failover to use URL 4 instead and vice versa. This means that connections made through these URLs will be guaranteed to have a consistent view of the file system.
- In the event that there is a problem accessing Bloomberg Internet SFTP servers through URL 3 the user is expected to failover to use URL 4 instead and vice versa.
- Any write operation made through URL 3 will not be replicated to URL 4 and vice versa. This means that in the event that your primary URL of 3 or 4 becomes unavailable, the effects of any previous write operations will be lost.

Beta Internet Connectivity via to Bloomberg SFTP Servers (Table 3)

Host Name	IP Addresses	Port	Connection Type	Region
bfmrrb-sftp.bloomberg.com	**205.216.112.11** **69.187.18.139** **208.22.57.157** **208.22.57.164**	**22**	**Beta Internet NY/NJ**	**Global**
bfmb1-sftp.bloomberg.com	**205.216.112.11** **69.187.18.139**	**22**	**Beta Internet to NY Data Center**	**Global**
bfmb2-sftp.bloomberg.com	**208.22.57.157** **208.22.57.164**	**22**	**Beta Internet to NJ Data Center**	**Global**

Some SFTP workflows are enabled for client beta testing. Your service representative will inform you if this is the case for a particular account.

All beta connectivity is via Internet: no leased line option is provided.