Sterling File Gateway

IBM

Reference

Version 2.2

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Contents

Reference

Reference documentation for Sterling File Gateway.

Partner Onboarding REST APIs

By using REST APIs, you can integrate Sterling File Gateway with IBM Partner Engagement Manager, or another partner onboarding tool, to onboard your trading partners.

Partner Onboarding REST APIs are released with Sterling File Gateway V2.2.6.1 or later. To use the REST APIs, you must upgrade to a supported version, with or without IBM PEM Integration.

Important: Partner Onboarding APIs have been tested with and are supported for the SUSE Linux platform only.

Important: If you are using IBM PEM Integration, the Partner Onboarding REST APIs must be downloaded and installed *before* you set up IBM Partner Repository or IBM Partner Provisioner.

The REST API documentation is accessed using a web browser. It is composed of a set of static HTML, CSS, and JavaScript that dynamically documents the available REST APIs. For more information, see "Accessing the Partner Onboarding REST APIs and documentation."

Accessing the Partner Onboarding REST APIs and documentation

To use the Partner Onboarding Rest APIs, you must have a valid license for and install Sterling File Gateway. Once you download and install the APIs, you must configure your system to use them.

About this task

To access the Partner Onboarding REST APIs and documentation:

Procedure

1. Install Sterling File Gateway V2.2.6.1 or later. You must have Sterling File Gateway installed to access the Partner Onboarding REST APIs.
2. Create a new system user account (or use an existing account) and give it the APIUser permissions.
   CAUTION:
   The APIUser permission is equivalent to admin and includes the permissions to create, delete, update and read all system configurations within a supported API.
3. Run startCluster.cmd true 1 (even if you are running a non-clustered install). This also enables startup of the Liberty API server.

   Note: The Partner Onboarding REST APIs require a clustered instance, but you can run a non-clustered instance in cluster mode. A true cluster is not required to use the REST APIs, unless you are implementing a high-availability scenario.

4. Install the APIs. See Installing the B2Bi APIs.
5. Get the LIBERTY_HTTPS_PORT number from sandbox.cfg. This is typically the base port + 75.
6. Go to `<Host_Name>:<port>/B2BAPIs/svc/doc`, where <Host_Name> is the server address where Sterling File Gateway is installed, and <port> is the Liberty server port number. This is a unique IP/Port for each node. Typically, a deployment consists of many nodes that share a common port for all nodes. If you are creating a vertical cluster, every node could have a unique port.
7. (Optional) To make the REST API HA-ready, configure a REST API DNS/VIP address for the B2Bi REST API service and configure your load balancer to spray across the physical IP address and port for each of your Sterling File Gateway nodes. The load balancer hosts the received DNS/VIP and routes the requests to the configured destinations:
   * <Host_Name1>:<port1>/B2BAPIs/svc/doc
   * <Host_Name2>:<port2>/B2BAPIs/svc/doc
   * <Host_Name3>:<port3>/B2BAPIs/svc/doc
8. Log in to Sterling File Gateway as the system user with APIUser permissions. The Web Service Browser: API Reference is displayed.

Partner Onboarding REST APIs available in Sterling File Gateway

Each REST resource contains information such as URIs, descriptions, and sample input and output data. The REST API documentation contains a list of resources that are provided by the Partner Onboarding REST APIs.

You must install and have a valid license for Sterling File Gateway to access the Partner Onboarding REST APIs.

To access the Partner Onboarding REST APIs and documentation, see "Accessing the Partner Onboarding REST APIs and documentation" on page 1.

The following table lists the Partner Onboarding REST APIs, with a brief description (in the order they appear in the Web Service Browser: API Reference):

Partner Onboarding REST API	Description
CA Digital Certificate Services	A digital certificate for which the system does not have the private key. This certificate is stored in the standard Distinguished Encoding Rules (DER) format.
Digital Certificate Duplicate Check Services	This API checks whether digital certificate exists. In the API URL http://<host name:port number> /B2BAPIs/svc/ digitalcertificateduplicatechecks/?certName=<certificate name >&certType=<certificate type>, provide the certificate name to verify the duplicate certificate entity and the corresponding certificate entity type. The certificate entity types are as follows: • CA • TRUSTED • SYSTEM
External User Services	

Partner Onboarding REST API	Description
Generated Password Services	
JDBC Service Tracking Services	
Permission Services	Enables the Sponsor Administrator to grant permissions for user accounts or groups.
PGPKey Services	All PGP key services require a Command Line Adapter 2 in Sterling B2B Integrator. By default, the base PGP CLA2 is used: `PGPCmdlineService`. The command line service is preconfigured with the correct host, port, and other information. The executable does not need to be specified. Each service runs an executable file on the server. By default, the services are expected to exist in the `<CLA2 directory>/pgp/` directory and have the following names: `create.sh`, `read.sh`, `export.sh`, or `delete.sh`. The script paths and names and the name of CLA2 can be overwritten in the `b2bapis.properties.in` property file.
PGP Server Profile Services	
Routing Channel Services	Routing channels match the incoming producer files to the appropriate consumer, and transform the file and file name according to the policies of the consumer. Route Provisioners create routing channels. However, before routing channels are created, the Integration Architect must create a routing channel template and the Route Provisioner must create the producer and consumer partners.
Routing Channel Duplicate Check Services	This API checks whether a routing channel exists. In the API URL http://<host name:port number> /B2BAPIs/svc/ routingchannelduplicatechecks/?template=<routing channel template>&consumer=<consumer partner name>&producer=<producer partner name>, if the template is static, provide the template name, consumer, and producer. If the template is dynamic, provide the template name and producer.
Schedule Services	Enables a user to set up schedules for a business process so that it runs automatically on hourly, daily, weekly, or monthly intervals.
SSH Authorized User Key Services	A public key that is used to authenticate remote users to Sterling B2B Integrator. You can request the keys from your trading partner and include the keys in the Sterling B2B Integrator user account.
SSH Duplicate Check Services	This API checks for duplicate SSH entities such as SSH keys and remote profile. For example, in the API URL (http://<host name:port number> /B2BAPIs/svc/sshduplicatechecks/?name=<ssh entity name>&type=<ssh entity type>), provide the name to check for duplicate SSH entity and the corresponding SSH entity type. The list of entity types are as follows: • AUK - Authorized User Key • KHK - Known Host Key • UIK - User Identity Key • RP - Remote profile
SSH Known Host Key Services	A public key is used to authenticate the remote SFTP servers to Sterling B2B Integrator. You can request this key from your trading partner.

Partner Onboarding REST API	Description
SSH Remote Profile Services	The SSH Remote Profile provides the details that are needed for the `SftpClientAdapter` adapter that is used to connect to a particular remote SFTP server.
SSH User Identity Key Services	A private or public key pair that is used to identify Sterling B2B Integrator as a user on a remote server.
Sterling Connect Direct Netmap Services	The Sterling Connect:Direct® Server Adapter configuration identifies the remote nodes that it can communicate with by using the netmap, which is the network map. Therefore, when you create a Sterling Connect:Direct Server Adapter, ensure to specify a netmap.
Sterling Connect Direct Netmap Xref Services	You can reuse nodes for one or more netmaps by creating a cross-reference between the node and netmap. You need not create a node for each Sterling Connect:Direct Server Adapter.
Sterling Connect Direct Node Services	A node refers to Sterling Connect:Direct server. Both local and remote servers perform data transfers. Either of the node can initiate the work by submitting a Process. When a session is established, the node that initiates the session is the PNODE, regardless of the information flow. The other node is SNODE. The Process can specify the work that is destined for either PNODE or SNODE. **Note:** The Sterling Connect:Direct Server Adapter can be designated as a local or remote node. If it initiates a connection with the remote Sterling Connect:Direct node, it can function as PNODE or SNODE.
Sterling Connect Direct Node Duplicate Check Services	This API checks whether a Connect:Direct node exists. In the API URL http://<host name:port number>/B2BAPIs/svc/ sterlingconnectdirectnodeduplicatechecks/?nodeName=<node name>, provide the name of a node to check, if it exists.
Sterling Connect Direct XREF Duplicate Check Services	This API checks whether a Connect:Direct node exists in the netmap. In the API URL http://<host name:port number> B2BAPIs/svc/ sterlingconnectdirectxrefduplicatechecks/?netmapName=<netmap name>&nodeName=<node name>, provide the node name to check whether it exists in the netmap.
System Digital Certificate Services	A digital certificate, such as `Key Certificate` and `PKCS12`, for which the system maintains the private key. This certificate is stored with the private key in a secure format.
Test Trading Partner Services	
Trading Partner Services	A trading partner is an organization that conducts e-business with other organizations. Sterling File Gateway enables the exchange of files between partners through routing channels that are set up to connect specific partners. Partners that send files to Sterling File Gateway are referred to as producers, and partners that retrieve files are referred to as consumers. From an operational standpoint, a partner can be a producer, a consumer, or both.
Trusted Digital Certificate Services	A digital certificate for which the system does not have the private key. This certificate is stored in the standard DER format.
User Account Services	Enables the Sponsor Administrator to administer user accounts.
User Group Services	Enables the Sponsor Administrator to administer user groups.

Using B2B REST APIs (V5.2.6.1 or later)

By using REST APIs, you can perform certain B2B functions using Sterling B2B Integrator. B2B REST APIs are released starting with Sterling B2B Integrator V5.2.6.1. To use the REST APIs, you must upgrade to a supported version.

Important: After you apply any Fix Pack or Interim Fix to Sterling B2B Integrator, you must manually re-install the b2bAPI.jar.

The REST API documentation is accessed using a web browser. It is composed of a set of static HTML, CSS, and JavaScript that dynamically documents the available REST APIs.

Installing the B2B REST APIs (V5.2.6.1)

To use the B2B APIs you must first install them in Sterling B2B Integrator, using the most recent fix pack media file.

Before you begin

Download and install the most recent version of Sterling B2B Integrator. You must also install Sterling File Gateway.

Procedure

1. Navigate to `/install_dir/packages`.
2. Extract the contents of the folder to a new location.
3. Run the following command: `./InstallService.sh /<absolutePath>/ b2bAPIs_10000601.jar`, where *<absolutePath>* refers to the location where you extracted the contents of the **packages** folder.

What to do next

See "Accessing the B2B REST APIs and documentation" on page 6.

Installing the B2B REST APIs (V5.2.6.1, Interim Fix 2)

To use the B2B APIs you must first install them in Sterling B2B Integrator, using the most recent fix pack media file.

Before you begin

Download and install the most recent version of Sterling B2B Integrator. You must also install Sterling File Gateway.

Procedure

1. Navigate to `/install_dir/install/bin`.
2. Run one of the following commands, depending on your operating system:
   - for UNIX:

     `./InstallService.sh /<install dir>/packages/b2bAPIs_10000601.jar`
   - for Windows:

     `./InstallService.cmd /<install dir>/packages/b2bAPIs_10000601.jar`

     where *<install dir>* refers to the location where you installed Sterling B2B Integrator.

What to do next

See "Accessing the B2B REST APIs and documentation."

Installing the B2B REST APIs (V5.2.6.2 or later)

To use the B2B APIs you must first install them in Sterling B2B Integrator, using the most recent fix pack media file.

Before you begin

Download and install the most recent version of Sterling B2B Integrator. You must also install Sterling File Gateway.

Procedure

1. Download the most recent fix pack media file and extract the contents to a folder on the server where Sterling B2B Integrator is installed.
2. Navigate to /install_dir/install/bin.
3. Run the following command: ./InstallService.sh /<absolutePath>/ b2bAPIs_10000602.jar, where *<absolutePath>* refers to the location where you extracted the contents of the media file.

What to do next

See "Accessing the B2B REST APIs and documentation."

Accessing the B2B REST APIs and documentation

To use the B2B Rest APIs, you must have a valid license for and have installed Sterling B2B Integrator. Once you download and install the APIs, you must configure your system to use them.

Before you begin

See "Installing the B2B REST APIs."

About this task

To access the B2B REST APIs and documentation:

Procedure

1. Install Sterling File Gateway V2.2.6.1 or later. You must have Sterling File Gateway installed to access the B2B REST APIs.
2. Create a new system user account in Sterling B2B Integrator (or use an existing account) and give it APIUser permissions.
   CAUTION:
   The APIUser permission is equivalent to admin and includes the permissions to create, delete, update and read all system configurations within a supported API.
3. Run **startCluster.cmd 1 true** (even if you are running a non-clustered install). This also enables startup of the Liberty API server.

   Note: The Partner Onboarding REST APIs require a clustered instance, but you can run a non-clustered instance in cluster mode. A true cluster is not required to use the REST APIs, unless you are implementing a high-availability scenario.

4. Get the LIBERTY_HTTPS_PORT number from sandbox.cfg. This is typically the base port + 75.

5. Go to <Host_Name>:<port>/B2BAPIs/svc/doc, where <Host_Name> is the server address where Sterling B2B Integrator is installed, and <port> is the Liberty server port number. This is a unique IP/Port for each node. Typically, a deployment consists of many nodes that share a common port for all nodes. If you are creating a vertical cluster, every node could have a unique port.

6. (Optional) To make the REST API HA-ready, configure a REST API DNS/VIP address for the B2Bi REST API service and configure your load balancer to spray across the physical IP address and port for each of your Sterling B2B Integrator nodes. The load balancer hosts the received DNS/VIP and routes the requests to the configured destinations:<Host_Name1>:<port1>/B2BAPIs/svc/doc<Host_Name2>:<port2>/B2BAPIs/svc/doc<Host_Name3>:<port3>/B2BAPIs/svc/doc

7. Log in to Sterling B2B Integrator as the system user with APIUser permissions. The **Web Service Browser: API Reference** is displayed.

   Important: Ensure that the Liberty API server is started successfully before attempting to access the B2B REST APIs. If the Liberty API server is not started, you will get a `Context Root Not Found` error.

B2B REST APIs available in Sterling B2B Integrator

Each REST resource contains information such as URIs, descriptions, and sample input and output data.

The B2B REST API documentation contains a list of resources that are provided by the B2B REST APIs. You must have a valid license for Sterling B2B Integrator to access the B2B REST APIs. The following table lists the B2B REST APIs, with a brief description (in the order they appear in the Web Service Browser: API Reference):

B2B REST API	Description
CodeList Services (V5.2.6.1, Interim Fix 2 or later)	Trading partner code lists stored in the Sterling B2B Integrator database.
Community Services (V5.2.6.2 or later)	Services to create, read, update, and delete Communities in Sterling File Gateway.
Document Services (V5.2.6.1, Interim Fix 2 or later)	Documents in Sterling B2B Integrator that contain payloads of messages. In addition to the create, read, update, and delete services, action is provided to append additional data to the body of an existing document. (V5.2.6.2 or later) Export data from a document into the storage subsystem. **Note:** If you are using Microsoft SQL server database with Sterling B2B Integrator, the document ID that is returned by the Document Services API will be HTTP URL encoded and the : (colon) character in document ID will be replaced with "%3A".
Mailbox Services (V5.2.6.1, Interim Fix 2 or later)	Mailboxes in Sterling B2B Integrator. Shared and linked mailboxes are supported if the functionality is enabled in Sterling B2B Integrator.
Mailbox Content Services (V5.2.6.1, Interim Fix 2 or later)	Read the contents of mailboxes.

B2B REST API	Description
Mailbox Message Services (V5.2.6.1, Interim Fix 2 or later)	Messages in a mailbox. Along with the create, read, update, and delete services, a service is provided to create multiple messages in a mailbox upon receiving a request with the Content-Type header set to "multipart/form-data." Additionally, actions are provided to: • Extract a message from a mailbox. After the extraction is complete, the extraction count is decremented by one if the message is configured to limit extract by number of times. • Move a Message from one mailbox to another. (V5.2.6.2 or later) Move a message from one mailbox to another.
Message Batch Services (V5.2.6.1, Interim Fix 2 or later)	Read the details of the messages of a specific Mailbox in a batch and to perform batch upload of messages to a Mailbox.
Partner Group Services (V5.2.6.2 or later)	Services to create, read, update, and delete partner groups.
Routing Rule Services (V5.2.6.1, Interim Fix 2 or later)	Routing rules in Sterling B2B Integrator. In addition to the create, read, update, and delete services, an action is provided to manually evaluate a Routing Rule.
Trading Partner Services (V5.2.6.1 or later)	Enhancements to Trading Partner services to support creating partner mailboxes and related objects in the Global Mailbox realm. (V5.2.6.2 or later) Support custom protocols for listening consumers in addition to the ones preconfigured in Sterling File Gateway. **Note:** The ExtensionKey and ExtensionValue parameters of the customProtocolExtensions attribute depend on the custom protocol you select. Ensure that you pick up the right values for these parameters from your AFTExtension xml file. These values are not validated during the API calls. (V5.2.6.2, Interim Fix 1 or later) Support custom protocols for listening producers in addition to the ones preconfigured in Sterling File Gateway. For a **FileGatewayListeningProducer** BP that performs the polling and unlock operations, the following parameters must be set: **CustomProtocol** and **protocolType**. **Note:** Trading Partner B2B REST API does not support the export and import of listening producers that use custom protocol.
Virtual Root Services (V5.2.6.2 or later)	Services to create, read, and delete virtual root mailboxes. The virtual root is the first level of the directory path for a user when they are navigating the mailbox navigation pane.

B2B REST API	Description
Workflow Services (V5.2.6.2, Interim Fix 1 or later)	Services to create, read, update, and delete business processes. **Note:** Keep the following points in mind when working with the Workflow API: • Workflow API does not support changing the default Version of a BP. • Workflow API UI always loads only the default version of the BP. • Any changes made to the default version of the BP using the Sterling B2B Integrator UI is not synced with the workflow API. • The WF None option available in the Workflow API indicates the Zero option Persistence Level.

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