

External Systems

Configuring Integration Profiles

To configure integration profiles, you must have the following role:

- General System Administrator

Rapido integrates with external systems using standard protocols (such as S/FTP).

You begin configuring integration profiles on the Integration Profile List page ([Configuration > General > External Systems > Integration Profiles](#)).

Name	Code	Description	Integration Type	Updated By	Status Date
1 BURSAR Fines and Fees	BURSAR	-	Bursar	gail.murhead	2015/09/24
2 BX	BX	-	Link Resolver Statistics	System	2016/08/07
3 Invoice Payment	ERP	-	Finance	ex_support	2015/09/24
4 Main Library Self-Check	MAINLIBSC	-	Self Check	ex_lmpl	2013/08/07
5 OCLC	OCLC	-	OCLC Connexion	ex_lmpl	2013/08/08
6 RFID	RFID	-	RFID	Docteam	2017/07/05
7 Salk Lower Level Self-Check	SALKLLSC	-	Self Check	ex_lmpl	2013/08/07
8 Student Information System	SIS	Student Information System	Users	connie.braun	2015/03/09
9 Social Authentication	SOCIAL	-	Social/Email Login	ex_lmpl	2017/06/26
10 Z3950	Z3950	-	Z39.50 Server	ex_support	2016/06/01

Integration Profile List Page

The Integration Profile List page includes a list of the integration profiles.

You can perform the following actions on this page:

- Add an integration profile (see the linked sections in the table below).
- Edit an integration profile (**Edit** in the row actions list). When editing a profile, you cannot change the profile type. In addition, you can add contact information relevant to the profile on the **Contact Information** tab.
- Delete an integration profile (**Delete** in the row actions list).
- View job history (**Job History** in the row actions list; see [Viewing Completed Jobs](#).)

For information on adding/editing an integration profile, see the following sections:

Links to Information about Integration Profiles

Profile Type	Description
Augmentation	Configure OpenURL enrichment.
CAS	Exchange authentication and authorization information for single sign-on with an external system.
LDAP	Import information from a Lightweight Directory Access Protocol (LDAP) system.

Profile Type	Description
Mail Handling	Outgoing email handling
OpenID Connect	User authentication layer.
Resource Sharing Integration	Import borrowing requests from an external system.
SAML	Exchange authentication and authorization information for single sign-on with an external system.
Social/Email Login	Configure connection with social networks or email for user login.
Users	Export/import users to/from a Student Information System.
Z39.50 Server	Activate Z39.50 searching capability.

The Rapido/ILS integration Profile

To configure the Rapido/ILS integration profiles you must have the following role:

- General System Administrator

When Rapido is used by a library that is not using Alma as its library system, it is possible to set up integration points between Rapido and the library's integrated library system (ILS). The integration is configured in the **Rapido/ILS** integration profile ([Configuration > General > External Systems > Integration Profiles](#)).

Select **Add Integration Profile**, and create a new integration profile with **Integration Type** Rapido/ILS, as below.

Integration Profile

Enter a **Code** and **Name**, and select the **System** that correctly describes your ILS. Current options are:

- Aleph (supports only Look Up User functionality)
- Folio
- Polaris (supports only Look Up User functionality)
- Koha
- Sierra
- SirsiDynix Symphony
- TLC Library Solution (supports only Look Up User functionality)
- Other

The integration profile allows adding the below information in the configurable sections below.

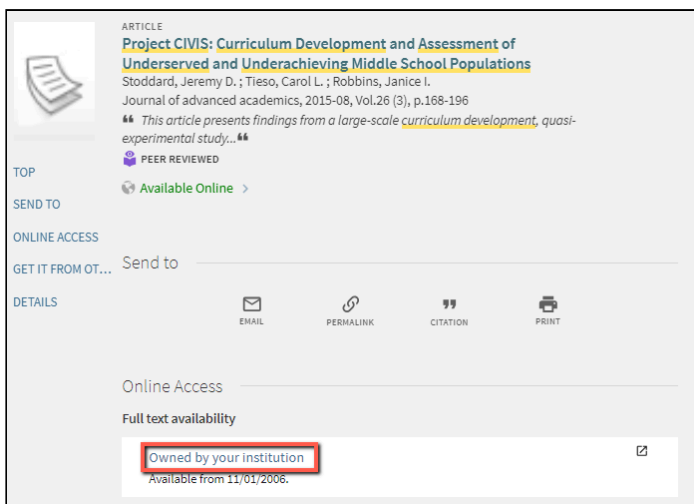
General Information

The fields in this section configure how Rapido interacts with your ILS for NCIP purposes, as well as for using the APIs

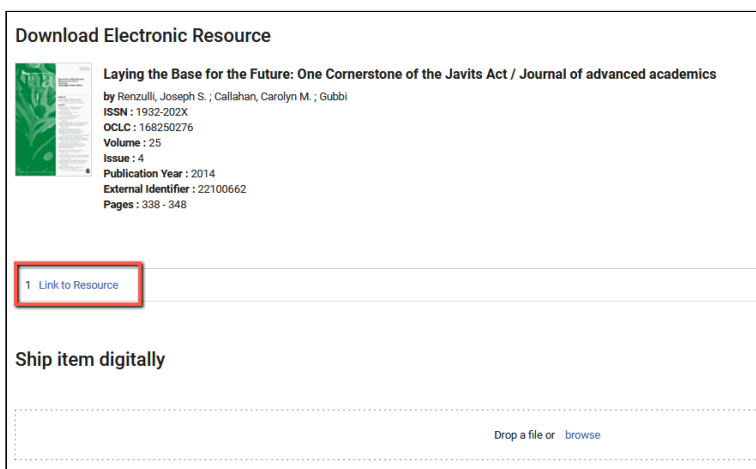
required for harvesting inventory data. The fields may change based on the **System**.

All Systems

- From agency — The **From Agency** in the NCIP message. Use your institution code, e.g. 01TEST_INST
- To agency — The **To Agency** in the NCIP message. Use your institution code, e.g. 01TEST_INST
- Application profile — The application profile to include in the NCIP messages. Not required by systems such as Folio or Sierra
- Link resolver URL - The base URL that Rapido will use when triggering an OpenURL to the library's link resolver. Rapido triggers a OpenURL when:
 - The electronic resource that has been discovered in the Discovery interface is self owned by the institution. The link from the ViewIt section triggers and OpenURL to the library's link resolver



- The Download Electronic Resource action is used for a lending request. The link that the Rapido screen shows to the discovered electronic resource creates an OpenURL to the library's link resolver



- Mapping of library codes to ILS library codes - Use this link to map the library codes in Rapido to the codes of the libraries in the ILS that will server as pickup locations for borrower requests. For example, to map the RES_SHARE code, which is the resource sharing library in Rapido, to MAIN, which may be the code of the Main library on the ILS, which will be the pickup location for borrower requests.

Folio

Authentication Method can be Token or Key. If NCIP based integration is set up then it is recommended to use the Token Authentication method with the following parameters:

- Base URL – The URL that for API access, e.g. <https://folio-snapshot-okapi.dev.folio.org>.
- X-Okapi-Tenant – The OKAPI tenant code of your Folio institution. This is used by Rapido to authenticate API calls to Folio.
- Username – The username that Rapido should use to authenticate API calls to Folio.
- Password – The password that Rapido should use to authenticate API calls to Folio.

If using the Key option then only an API Key need to be configured.

Sierra and Aleph

- NCIP URL – The URL Rapido uses to access Sierra's or Aleph's NCIP server.

Polaris

- Base API URL - The base URL Rapido uses to access the Polaris NCIP server. Note that NCIP integration is supported with Polaris only for LookUpUser

The following are used for accessing the Polaris API, and are to be supplied by Polaris support:

- Access ID
- Access Key
- Domain
- Username
- Password
- In status Override – The API that checks item availability in Polaris expects a **CircStatus** field with the value **In** to indicate that the item is available. If Polaris has been configured to use a different value (for example, *Available*), then this value should be configured here.
- Mapping of record material types – If Material Types are to be configured for setting the Rapido member's Participating Items then the valid values should be set up here.
- Mapping of collection IDs to collection names - If Collections are to be configured for setting the Rapido member's Participating Items, then the valid values should be set up here.

Koha

- Base URL - The base URL Rapido uses to access the Koha APIs and the NCIP server. The following are used for accessing the Koha API:
 - Client ID
 - Client Secret
- Mapping of collection IDs to collection names - If Collections are to be configured for setting the Rapido member's Participating Items then the valid values should be set up here.
- Mapping of item types – If Item Types are to be configured for setting the Rapido member's Participating Items, then the valid values should be set up here.

Sirsi

- Base URL - The base URL Rapido uses to access the SirsiDynix API. The following are used for accessing the SirsiDynix API:
 - Username
 - Password
 - Client ID
- Mapping of item category 1-5 - If Item Categories are to be configured for setting the Rapido member's Participating Items then the valid values should be set up here.
- Mapping of item types – If Item Types are to be configured for setting the Rapido member's Participating Items then the valid values should be set up here.

TLC

Rapido uses Z39.50 for integrating with TLC Library Solutions for real time availability. The below parameters are the TLC Z39.50 server parameters that need to be configured in order for Rapido to be able to query the TLC server:

- Hostname
- Port
- Database Code
- Username
- Password

Note

There is no NCIP integration for TLC Library Solutions and therefore no option to configure **From agency**, **To agency** and **Application profile**.

API Setup (For Sierra Systems)

- API base URL — The URL that for API access, e.g. <https://progress-app-beta.iii.com/ii...relais/Restful>.
- API key – The API key that Rapido should use to authenticate API calls to Sierra.
- API secret – The API secret that Rapido should use to authenticate API calls to Sierra.

Check-Out Item

- Update lender ship — Whether or not Rapido should update the ILS when an item is shipped on the lender side.
- Update Lender At Request — Whether or not Rapido should update the ILS when an item is requested on the lender side. Relevant only for Folio. When this field is selected an additional **Pickup Location Code** field requires configuring the code of the library that will be the pickup location of the lending requests being updated at the ILS.

Note

- There must be a user record with the user ID RS_PARTNER on the ILS for the Check-Out message to successfully update the ILS.
-

Check-In Item

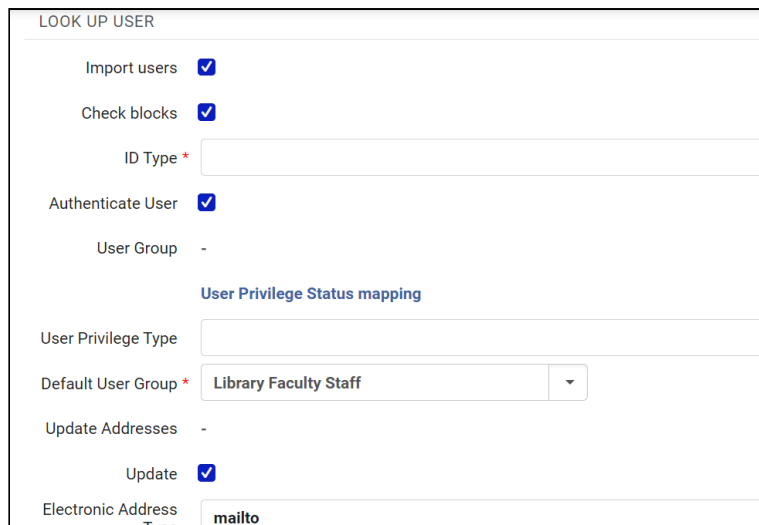
- Borrower Check In – Whether or not Rapido should update the ILS when an item is returned to lender on the lender side.
 - Lender Check In — Whether or not Rapido should update the ILS when an item is checked back in on the lender side.
-

Accept Item

- Update borrower receive — Whether or not Rapido should update the ILS when an item is received on the borrower side.
-

Look Up User

The **LOOK UP USER** section ([Configuration > General > External Systems > Integration Profiles](#)) is where parameters are configured to manage Rapido's integration with your ILS for different aspects of user management.



The screenshot shows the 'LOOK UP USER' configuration form. It includes several settings:

- Import users:
- Check blocks:
- ID Type:
- Authenticate User:
- User Group: -
- User Privilege Status mapping:
- User Privilege Type:
- Default User Group: Library Faculty Staff (dropdown menu)
- Update Addresses: -
- Update:
- Electronic Address Type: mailto

LOOK UP USER settings

- Import Users — Select this option if you want Rapido to pull user records from your ILS in one of the following scenarios:
 - When patron logs into the discovery
 - When user account is pulled manually by the staff using the Rapido UI
- Check Blocks – Select this option to set Rapido to check a patron's eligibility for resource sharing services by sending an NCIP message to your ILS.

- New for January! Block Types – allows you to specify which block types should be treated as blocking when processing an NCIP LookupUserResponse. The following block types could be included for Polaris and Sierra:

Polaris

Value	Conditions
Block Check Out	<p>Returned when any of the following are at or above the ILS configured limit:</p> <ul style="list-style-type: none"> • Patron's items out count • Patron's items overdue count • Patron's outstanding money owed <p>Returned if the patron registration is expired.</p>
Block Electronic Resource Access	<p>Returned when any of the following are at or above the ILS configured limit:</p> <ul style="list-style-type: none"> • Patron's items out count • Patron's items overdue count • Patron's outstanding money owed <p>Returned if the patron registration is expired.</p>
Block Hold	Returned when the number of holds for a patron is at or above the ILS configured limit.
Trap For Pickup	Returned when the patron has at least one item in a HELD state waiting for pickup.

Sierra

Problem Type	Problem Detail	Note
9006 Corresponds to Patron has expired	User Blocked	Returned from Sierra, NCIPR_ERR_PATRON_EXP
9007 Corresponds to Patron owes too much in fines	User Blocked	Returned from Sierra, NCIPR_ERR_PATRON_FINES
9008 Corresponds to Patron has too many overdue items	User Blocked	Returned from Sierra, NCIPR_ERR_PATRON_ODUE
9009 Corresponds to Staff has placed a manual block on the patron	User Blocked	Returned from Sierra, NCIPR_ERR_PATRON_PBLOCK_M
9010 Corresponds to Patron exceeds overdue penalty	User Blocked	Returned from Sierra, NCIPR_ERR_PATRON_OD_PENALTY

Problem Type	Problem Detail	Note
9012	Patron PIN is Invalid	Returned from Sierra, NCIPR_ERR_PATRON_INVALID_PIN
9044 Corresponds to Patrons has reached limit	User Blocked	Returned from Sierra, NCIPR_ERR_PATRON_HOLD_LIMIT

- **Authenticate User** — Select this option if you want some or all of the library patrons be able to authenticate to the Rapido discovery based on credentials that are managed at the ILS.
- **User Group** – When Rapido queries the ILS for user information, it may create the user account with a default user group, as set in the `Default User Group` parameter, or use information that is supplied by the ILS in the NCIP response. Use the [User Privilege Status Mapping](#) link to map between values that the ILS reports and the user groups configured in Rapido. For example, while the ILS may report a user with user group `Library Faculty`, in Rapido this value may need to be mapped to the value `Faculty` which is its equivalent in Rapido.
- **User Privilege Type** – Different ILS report the user group in different elements of the NCIP response. This element should indicate where your ILS reports the user group in the NCIP response.
 - For Sierra and Folio – `PROFILE`
 - For Aleph - `Borrower Status`
- **Default User Group** – Set the default user group that will be assigned to new user records that are pulled from the ILS if the user group reported by the ILS in the NCIP response does not match a user group value in the Rapido configuration.
- **Update Address** – Select `Update` to have Rapido pull address information from the ILS. Address Information is refreshed every time the patron logs into Rapido's discovery.
 - **Electronic Address Type** – Text string that is used by the ILS in the NCIP `LookUpUser` response to indicate email address. For example, some systems use text such as `mailto` or `electronic mail address`.

Configuring S/FTP Connections

To configure S/FTP connections, you must have the following role:

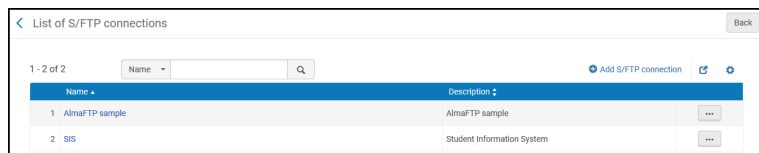
- General System Administrator

Many connections to external systems require an S/FTP connection to transfer files between Rapido and the external system. Once this connection is defined, you can assign it to the applicable integration profiles (see [Configuring Integration Profiles](#)).

Note

- Rapido supports secure FTP (SFTP) over SSH, but not FTPS over SSL. For detailed port information, see [Technical Requirements for Rapido and Discovery Implementation](#).

You configure S/FTP connections (for institutions only) from the **List of S/FTP Connections** page (**Configuration Menu > General > External Systems > S/FTP Definitions**).



Name	Description	
1 AlmaFTP sample	AlmaFTP sample	...
2 SIS	Student Information System	...

List of S/FTP Connections Page

Note

Rapido supports the following key exchange algorithms, using JSch version 0.1.53 (see <http://www.jcraft.com/jsch/>):

- diffie-hellman-group-exchange-sha1
- diffie-hellman-group1-sha1
- diffie-hellman-group14-sha1
- diffie-hellman-group-exchange-sha256
- ecdh-sha2-nistp256
- ecdh-sha2-nistp384
- ecdh-sha2-nistp521

Ex Libris supports deprecated versions for backward compatibility with various sites but recommends the stronger algorithms above.

You can perform the following actions on this page:

- Add an S/FTP connection (see [Adding S/FTP Connections](#))
- View an S/FTP connection (**View** in the row actions list).
- Edit an S/FTP connection (**Edit** in the row actions list)
- Duplicate an S/FTP connection (**Duplicate** in the row actions list)
- Delete an S/FTP connection (**Delete** in the row actions list)

Adding S/FTP Connections

You can define a new S/FTP connection for use by your integration profiles.

To add a new S/FTP connection:

1. On the List of S/FTP Connections page (**Configuration > General > External Systems > S/FTP Definitions**), select **Add S/FTP Connection**. The Update S/FTP Connection page appears.

Update S/FTP Connection Page

2. Enter a name (mandatory) and a description (optional) for the new S/FTP connection.
3. Enter information in the remaining fields, as described in the following table.

S/FTP Connection Fields

Field	Description
Server (mandatory)	The IP address of the server sending or receiving the files. Cannot begin with a dot, and cannot begin or end with a quotation mark.
Port (mandatory)	The server port.
Sub-directory / Is full path (mandatory)	<p>The subdirectory in which the files are saved. If this is an absolute path, select "Is full path" checkbox and preface your path with the '/' sign. If this is a relative path, leave "Is full path" clear and start the path at your current directory.</p> <p>If you also specify a sub-directory in the integration profile, this directory is concatenated onto that one. For example, if you define the <code>system1</code> S/FTP connection as: Sub-directory – <code>ftp</code></p> <p>And you define an Export Bibliographic Records profile with:</p> <ul style="list-style-type: none"> ◦ FTP configuration – <code>system1</code> ◦ FTP sub-directory – <code>alma</code> <p>The files transferred by this integration profile are saved in the external system's <code>ftp/alma</code> directory.</p> <hr/> <p>Note</p> <p>This field cannot remain empty, otherwise, the import/export fails and returns an error message.</p> <hr/> <p>The directories of the S/FTP definition and the integration profiles work as follows:</p> <ul style="list-style-type: none"> ◦ There is a subdirectory in the definition of the S/FTP connection defined in Configuration > General > External Systems > S/FTP Definitions. ◦ The integration profiles defined in Configuration > General > External Systems > Integration Profiles also have a field called <i>subdirectory</i> which defines where the file will be taken from or placed. ◦ The subdirectory of the integration profile is relative to the subdirectory of the S/FTP definition. Thus, for example, if:

Field	Description
	<ul style="list-style-type: none"> ▪ The S/FTP profile used by the integration profile has the subdirectory <code>alma</code> ▪ The input file path of the integration profile of the type Users is <code>yilis_patrons</code> ◦ The the file is taken from <code>[root directory]/alma/yilis_patrons</code>
Max. number of files	Not in use. Accept the default value.
Min. number of files	Not in use. Accept the default value.
Max. file size	Not in use. Accept the default value.
Size type	The units used for the file sizes. Valid values are: GB, MB, and TB. The default value is GB.
Allow navigation	True if you want to enable access to other areas of the FTP site, or False if you do not. The default is to allow navigation (True).
FTP server type	Default or MVS . Select MVS to work with IBM's Multiple Virtual Storage operating system.
FTP passive mode	Whether the client IP works in passive mode.
FTP server secured	<p>Select if the FTP server is secured. The Authentication Method option appears when this option is selected.</p> <hr/> <p>Note</p> <p>If you select MVS as the FTP server type, do not select this. Secure MVS servers are not supported.</p> <hr/>
Authentication method	<p>Appears if FTP Server Secured is enabled. Select one of:</p> <ul style="list-style-type: none"> ◦ Username/password authentication - Use a username and password. ◦ Key authentication (public key encryption) - When you select this, a public key appears. The public key is used to authenticate files received from Rapido. When this option is selected, the password field is removed.
User name (mandatory)	The S/FTP user name. This field appears and is required regardless of whether or not you are using a secured FTP.
Password (mandatory, except when Key authentication is selected)	<p>The S/FTP password. Required unless you are using key authentication.</p> <hr/> <p>Note</p> <p>Rapido does not support passwords that include special characters.</p> <hr/>
Public key	Rapido's public key. You must add this key to the <code>.ssh/authorized_keys</code> file on your FTP server.
The public key appears on the page if Key Authentication is selected for Authentication method .	

Field	Description
	<p>Note</p> <p>Every institution has its own public key. When implementing a Network Zone, customers must add the public key of each institution to their authorized_keys file.</p>

4. Select **Test FTP** (recommended) to test the S/FTP connection. You should receive messages indicating that the following FTP command actions were successful:

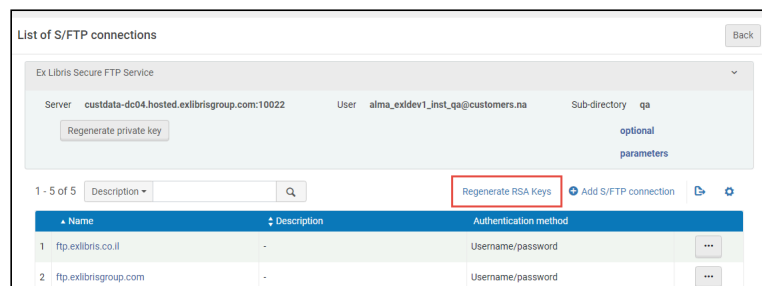
- List and check files in the specified directory using `ls`, `pwd`, and `cd` commands
- Upload and download files using the `put` and `get` commands
- Delete using the `delete` command

If you do not receive success messages for these actions, resolve your S/FTP connection issues before continuing.

5. Select **Save** when you are done.

Regenerate Public Key in S/FTP Profile

Public Keys associated with an S/FTP profile remained static and could not be updated or refreshed. Rapido enables users to refresh the Public Key by following these steps: Navigate to **Configuration > General > S/FTP definitions** and select **Regenerate X Keys**.



S/FTP Connections

Configuring Allowed Emails

To configure allowed emails, you must have the following role:

- General System Administrator

This feature is only available in a production environment for customers who are still in the implementation/testing phase and are not yet configuration certified.

You can define specific email addresses/domains to use for your institution's communication during testing. This avoids any stray communications: Rapido does not send emails to any other email addresses.

Note

Email communication is restricted to the email addresses in this table only if at least one email address is defined in the table. Do not fully delete all of the entries in this table. If this table is empty, unrestricted email communication is enabled for any email address entered anywhere in Rapido.

You configure emails or domains on the Email Include List mapping table ([Configuration > General > External Systems > Allowed Emails](#)).

The screenshot shows the 'Mapping Table' configuration for 'Email Include List'. At the top, it indicates 'You are configuring: Ex Libris University' with a 'Change Organization Unit' link. Below this, the table description is 'Email Include List' and the customization mode is 'Entire table needs to be customized'. There is an 'Add Row' button and a refresh icon. The table has the following columns: 'Enabled', 'Email / Email Domain', 'Include list description', 'Updated By', and 'Last Updated'. One row is visible with the following data:

Enabled	Email / Email Domain	Include list description	Updated By	Last Updated
<input checked="" type="checkbox"/>	exlibrisgroup.com	include only exlibris e-mails		

Email Include List Mapping Table

You can add, delete, or enable/disable domains and addresses. Rapido only sends emails to the active addresses and/or domains.

Domains only work in an implementation Production environment, and not in Sandbox environments.

Configuring Allowed S/FTP Connections During Testing

To configure allowed S/FTP connections, you must have the following role:

- General System Administrator

This feature is only available in a production environment for customers who are still in the implementation/testing phase and are not yet configuration certified.

Rapido enables you to define allowed S/FTP connections to be used for your institution's communication during testing. This avoids any stray file transfers: Rapido does not try to use any other S/FTP connections.

Note

S/FTP is restricted to the addresses in this table only if at least one address is defined in the table. Do not fully delete all of the entries in this table. If this table is empty, unrestricted S/FTP communication is enabled for any address entered anywhere in Rapido.

You configure test S/FTP connections on the FTP Include List mapping table ([Configuration > General > External Systems > Allowed S/FTP Connections](#)).

The screenshot shows the 'Mapping Table' configuration for 'Ftp Include List'. At the top, it indicates 'You are configuring: Ex Libris University' with a 'Change Organization Unit' link. Below this, the table description is 'Ftp Include List' and the customization mode is 'Entire table needs to be customized'. There is an 'Add Row' button and a refresh icon. The table has the following columns: 'Enabled', 'FTP Hostname / IP', 'FTP Hostname / IP description', 'Updated By', and 'Last Updated'. One row is visible with the following data:

Enabled	FTP Hostname / IP	FTP Hostname / IP description	Updated By	Last Updated
<input checked="" type="checkbox"/>	ftp.exlibris-usa.com	Ex Libris ftp server		

FTP Include List Mapping Table

You can add, delete, or enable/disable addresses.