

# **Sterling File Gateway**

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## **What's New in Build 4324**

**Version 1.1**



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# What's New in Build 4324

Build 4324 is an update to Sterling File Gateway 1.1.

## New in This Release

The following enhancements are included in this release:

- Support for:
  - Sun JDK 1.5.0\_22
  - IBM JDK 1.5.0 SR10
  - HP-UX JDK 1.5.0\_19
- Automatic installation of build packages for Sterling File Gateway when builds are installed on Gentran Integration Suite
- Modification to the property in filegateway.properties for ignore file name pattern to support multiple patterns (ignoreFilename.x)
- Modification to the property in ui.properties.in to enable shorter or require longer User IDs (userIdMinLength)
- New properties in filegateway.properties to control user lock out (FGConsecFailedAttempts and FGLockInterval)
- A version check on system business processes and warning if the latest version is not set to run
- Additional elements that can be affected when you rebrand Sterling File Gateway or *myFileGateway*, with your changes persisting when a new build is installed
- A new message dialog box during file upload shows progress and prevents multiple upload attempts for large uploads. If a session times out, users are notified.
- Option in Routing Channel Template wizard to create delivery channels that deliver over consumer listening protocol, if available. The default is to always attempt to deliver to a listening protocol if available, but where you have two delivery channels and you only want to send to one listening protocol, uncheck this option for one of the delivery channels. This is useful in scenarios where you have two delivery channels, (for example the second is used to deliver to an archive mailbox) and you want only one of the delivery channels to deliver outbound to a listening consumer to avoid delivering a duplicate message.

## Documentation Enhancements

- New topics or additional information in System Administrator Help:
  - Create User Accounts
  - Migrate from AFT to Sterling File Gateway
  - Change Purge Settings
  - FGEventCodes.properties

- Example Custom Protocols
- Create Custom E-Mail Notifications
- Add Custom Event Codes
- Custom File Layer Types
- Customized Business Processes
- Additional information in Integration Architect Help:
  - About Delivery Channels
  - Create a Routing Channel Template
- New section and enhanced topic in Operator Help:
  - Enhanced *Search for a File* topic
  - Troubleshoot and Resolve Problems section

Additional information in *myFileGateway*:

- Send a File Using *myFileGateway*

### **Previous Issues That Are Resolved**

For a complete list and description of issues that are resolved in this release, see:

IBM Sterling Customer Center. Log in, select Support Center. Under Product Support, select **Sterling File Gateway > Product Updates and Downloads**.

### **Known Issues**

For help with known issues, see:

IBM Sterling Customer Center. Log in, select **Support Center**. Type your question or error message in the search box in the upper left hand corner and click **Go to search Knowledgebase**.

# System Administrator

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## Create User Accounts (Build 4324 or Later)

### For review

When you install Sterling File Gateway, several default accounts are automatically created to get you started. You can use the default accounts to perform the tutorial described in the Overview.

One of the first actions you must take is to create your own accounts with unique IDs and passwords, because the default ones can be known by all Sterling File Gateway customers. Log in to Sterling File Gateway with the following credentials:

- User ID = fg\_sysadmin
- Password = password

To create a user account:

1. From Sterling File Gateway, select **Tools > B2B Console**.
2. From within Gentran Integration Suite, select **Accounts > User Accounts > Create a new Account**.
3. Complete the steps in the wizard.

Supply the following information about the user:

- Authentication type (Local or external)
- User ID - by default, the User ID must be at least five characters. To enable shorter or require longer User IDs, add or modify the following property in customer\_overrides.properties:

```
ui.userIdMinLength = # of characters
```

The value of # of characters must be greater than zero. To implement single sign-on, this value must match the value set in Gentran Integration Suite.

- Password
- Confirm Password
- Policy
  - [blank] (default)

- Default User Policy - For the default user policy, the password must be at least six characters and is required to contain at least two of the following characters. (numeral, capital letter, !, @, #, \$, %, ^, &,\*)
- You can create a different policy for your system. Create the policy in Gentran Integration Suite first, then select it from the list when you create a user.
- SSH Authorized User Key
- Session Timeout (in minutes)
- Accessibility
- Dashboard Theme

See [Managing User Accounts](#).

4. Select one or more groups from the following list:

- File Gateway Integration Architects - can only access File Gateway, not *myFileGateway*
- File Gateway Operators - can only access File Gateway, not *myFileGateway*
- File Gateway Partner Users - can only access *myFileGateway*
- File Gateway Route Provisioners - can only access File Gateway, not *myFileGateway*
- File Gateway System Administrators - can only access File Gateway, not *myFileGateway*

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**Note:** For full Sterling File Gateway functionality, each of these groups must have at least one user. By default, the following users are created during installation of Sterling File Gateway:

- fg\_sysadmin - belongs to all File Gateway groups except File Gateway Partner Users. Also belongs to Gentran Integration Suite Admin group.
- fg\_architect - belongs to File Gateway Integration Architects group
- fg\_provisioner - belongs to File Gateway Route Provisioners group
- fg\_operator - belongs to File Gateway Operators group

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**Note:** To protect the security of your system, delete the default users or change the default passwords.

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**Note:** To create an independent user that is the equivalent of fg\_sysadmin, assign the Gentran Integration Suite Admin group and all File Gateway groups except File Gateway Partner Users group to the user.

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**Note:** A partner user cannot be a member of any other File Gateway group.

5. Select the permissions for the user. Optional. The group assignments include the standard permissions for users of each group. To filter by permissions for Sterling File Gateway, select File Gateway under Type.
6. Supply the following information for the user:
- First Name
  - Last Name
  - E-mail
  - Pager
  - Preferred Language (English, Japanese, French, or Spanish)
  - Manager ID
  - Identity
7. Review and confirm to create the new user account.

---

## Migrate from Advanced File Transfer to Sterling File Gateway (Build 4324 or Later)

If you have an existing installation of Advanced File Transfer (AFT), you can migrate the partner configurations to Sterling File Gateway.

To migrate partner configurations from AFT:

1. Start Gentran Integration Suite. Gentran Integration Suite must be up and running when the following script is run.

2. Run the following script:

```
<install_dir >/tp_import/aft2fg.sh (for UNIX) or aft2fg.cmd (for Microsoft Windows)
```

---

**Note:** Do not interrupt the script or allow Gentran Integration Suite to stop during the script. If the script does not complete successfully, you can run it again. If the problem persists, contact Customer Support.

---

3. The script performs the migration and displays details of the migration.

The following operations are performed:

- Static and dynamic routing channels are created, based on the consumer identification policies in effect for the migrated producers.
  - AFT routing rules are replaced with a single automatic evaluation Sterling File Gateway routing rule.
  - AFT Route Business Process is disabled.
  - If a consumer identification policy of Use Map was utilized in AFT, a routing channel template is created so that the map will continue to drive the consumer identification. After conversion the name of the map used in the routing cannot be changed in Sterling File Gateway. The name of the map used is visible from the Data Session details window only.
  - PGP settings remain in effect.
  - The Advanced File Transfer tab in Gentran Integration Suite will be available, but limited to offer AFT Route Activity and Reporting links so that a legacy AFT user can still view old AFT data for as long as it exists in the system.
4. If the migration fails, an error message is displayed. The migration report states what changes were successfully completed. Correct the error conditions and proceed. It is safe to run the script again.
  5. The imported partners will automatically be associated with the "All Partners" partner group.

A different default group can be set in `customer_overrides.properties` by editing the property:

```
filegateway_ui.fgOnboardingDefaultUserGroupId=CustomUserGroup
```

where `CustomUserGroup` is the name of the group to assign to newly migrated users.

You can also associate the newly migrated Partner with other Sterling File Gateway partner groups to make them work with routing channel templates that have specified these partner groups.

6. Disable the `AFTPurgeArchiveMailboxes` business process in Gentran Integration Suite.
7. If you have created custom protocols in AFT, the custom business process that implements the protocol may need to be modified. If the business process name contained an underscore, parameters passed from AFT to custom protocol business processes were incorrectly prefixed with part of the business process name. In Sterling File Gateway, these prefixes are removed, which is the correct behavior. Edit your business process where the custom parameters are used and correctly reference them according to the table below.

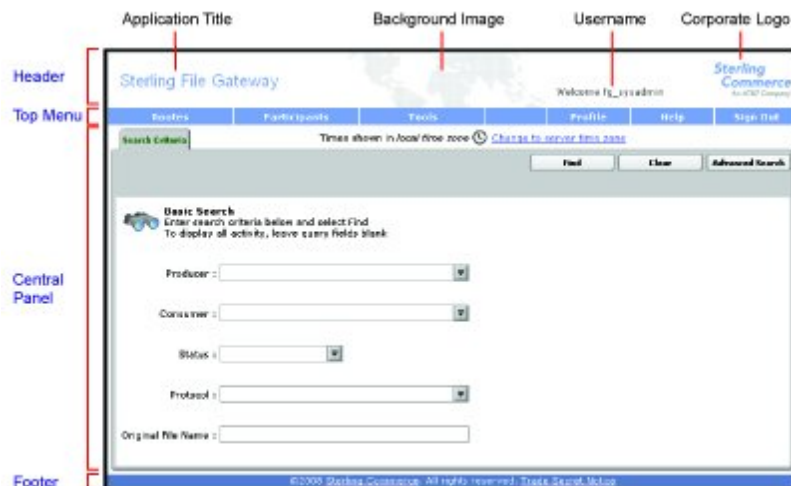
For review Business Process Name	Parameter Definition	AFT Parameter	SFG Parameter	Changes Required?
My_CustProtBP	HostName	CustProtBP_ HostName	HostName	Yes. Change the custom protocol business process to use "HostName" instead.
CustomProtocolBP	HostName	HostName	HostName	No change required because the custom protocol business process name does not have an underscore.

See *Add Custom Protocols*.

## Rebrand Sterling File Gateway and *myFileGateway* (Build 4324 or Later)

You can rebrand Sterling File Gateway and *myFileGateway* to use your company's logo or other special content. To customize the look of Sterling File Gateway and *myFileGateway*, you create a skin, reference this new skin, and restart your system. You can use the same or different skins for Sterling File Gateway and *myFileGateway*.

The following figure shows the location of the portions of the screens you can rebrand:



The corresponding file names are:

- Header:
  - [skin]/brandingcontent/header.txt
  - [skin]/brandingcontent/myFgHeader.txt
  - [skin]/load\_skin.js
  - [skin]/images/FGimages/brandingimages/...



- Top Menu: [skin]/skin\_styles.css
- Central Panel:
  - [skin]/skin\_styles.css
  - [skin]/load\_skin.js
  - [skin]/images/...
- Footer: [skin]/brandingcontent/footer.txt

---

**Note:** If you rebranded Sterling File Gateway in a previous version, you must make an additional change after you install Build 4324. Add the property:

```
.menuBackground
```

to the custom skin .css file as in the following:

```
/* --- menu background color for main navigation bar;
default is #7896CF --- */
.menuBackground {
background-color: #7896CF;
}
```

---

To rebrand Sterling File Gateway:

1. Locate files in the following directories for the default skins:
  - <install\_dir>/container/Applications/filegateway/isomorphic/skins/FileGateway
  - and
  - <install\_dir>/container/Applications/myfilegateway/isomorphic/skins/FileGateway
2. Copy and rename the “FileGateway” file in path:
  - <install\_dir>/container/Applications/filegateway/isomorphic/skins/FileGateway

You can use any valid file name. In the next steps, the renamed file is referred to as [skin].
3. To customize the header, you can change the following elements:
  - Application Title
  - Background Image
  - Corporate Logo
  - Position of the user name
  - HeaderALT
4. To change the Application Title:
  - a) Open the following file:
    - [skin]/brandingcontent/header.txt
  - b) Change line 15 to refer to your company name (padding-left: 15px" nowrap="nowrap">My Company</td> )
  - c) Open [skin]/brandingcontent/myFgHeader.txt
  - d) Change line 15 to refer to your company name (or another name) (padding-left: 15px" nowrap="nowrap">My Company</td> )
5. To change the browser title text, in the top left-hand corner of the browser (if different from Application Title) set the variables:

- fgWindowTitle (for Sterling File Gateway)
- myfgWindowTitle (for *myFileGateway*)

in customer\_overrides.properties as:

```
filegateway_ui.fgWindowTitle=xxx
```

and

```
filegateway_ui.myfgWindowTitle=xxx
```

- To change the Background Image:
  - Create a new Background Image GIF image, 66 pixels high by 800 pixels wide and named “MastheadBkgd\_Map.gif”
  - Place this GIF in the following directory:[skin]/images/FGimages/brandingimages/
  - Open the following file: [skin]/brandingcontent/header.txt
  - Change line 3 to refer to your skin’s directory where the background image (from step 5) is located (isomorphic/skins/[skin]/images/FGimages/brandingimages/ MastheadBkgd\_Map.gif)
  - Open [skin]/brandingcontent/myFgHeader.txt
  - Change line 3 to refer to your skin’s directory where the background image (from step 5a) is located (isomorphic/skins/[skin]/images/FGimages/brandingimages/ MastheadBkgd\_Map.gif)
- To change the Corporate Logo:
  - Create a new Corporate Logo GIF image, which should be 66 pixels high by 93 pixels wide and named “hdr\_logo.gif”
  - Place this GIF in the following directory:[skin]/images/FGimages/brandingimages/
  - Open the following file: [skin]/brandingcontent/header.txt
  - Change line 18 to refer to your skin’s directory where the corporate logo image (from step 6a) is located (isomorphic/skins/[skin]/images/FGimages/brandingimages/ hdr\_logo.gif)
  - Open [skin]/brandingcontent/myFgHeader.txt
  - Change line 18 to refer to your skin’s directory where the corporate logo image (from step 6a) is located (isomorphic/skins/[skin]/images/FGimages/brandingimages/ hdr\_logo.gif)
- To change the position of the user name:
  - Open the following file:[skin]/load\_skin.js
  - Change the two variables on Lines 14 and 15 to position the name label where you desire:
    - headerUserNameTop (expressed in absolute pixels from the top)
    - headerUserNameLeft (expressed as a percentage of page width, from the left side)
- To change the headerALT, which is displayed while the header is loading:
  - Open the following file:[skin]/load\_skin.js
  - Change the variable on Line 13 (headerALT) to your company name (e.g. “My Company”).
- To change the footer:
  - Open the following file: [skin]/brandingcontent/footer.txt
  - Modify the first line to refer to your company name as well as the link to your corporate Web site, if desired: ...href='http://www.MyCompany.com' target='\_blank'>My Company...

11. To reference the new [skin], create or open `customer_overrides.properties` in a text editor. Add the following line:

```
filegateway_ui.fgSkinName=[skin]
```

where [skin] is your new skin name for Sterling File Gateway and

```
filegateway_ui.myfgSkinName=[skin]
```

where [skin] is your new skin name for myFileGateway. The values for [skin] can be different for Sterling File Gateway and myFileGateway.

12. To change the header only for *myFileGateway*:

- a) Modify only the two files, `header.txt` and `myFgHeader.txt` in the new directory

```
at(<install_dir>/container/Applications/myfilegateway/isomorphic/skins/[skin]/brandingcontent
```

13. Run the following scripts:

- `<install_dir>/bin/hardstop.sh`
- `<install_dir >/bin/deployer.sh`
- `<install_dir >/bin/run.sh`

14. Refresh your browser cache.

When you launch Sterling File Gateway, the new branding is shown in the header and footer. When your Partner users launch *myFileGateway*, the new branding is shown in the header.

---

## Change Purge Settings

Sterling File Gateway activity is purged, not archived. Data that is purged is unrecoverable. Depending on your file transfer usage patterns, you may want to change the frequency in which Sterling File Gateway activity is purged. System Administrators can change the frequency for purging. Purging behavior is governed by the following settings in the `visibility.properties` file:

- `lifespan_dataflow` - length of time, in hours, before dataflow records are purged. Default is 336 hours (14 days).
- `lifespan_adminaudit` - length of time, in hours, before administrative change records, such as deleting a user are purged. Default is 336 hours (14 days). If a partner is deleted, the user who deleted it is recorded until the record is purged according to the value for the `lifespan_adminaudit` property.
- `lifespan_session` - length of time, in hours, before communication session records are purged. Default is 336 hours (14 days).

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**Note:** To avoid conflicts, `lifespan_dataflow` and `lifespan_session` should be set to the same length of time.

Values for these settings are used in the schedule for the Purge Service. Changing either the settings or the schedule will result in a change in purge behavior for new activity records. Activity that has already occurred is governed by `lifespan` settings at the time they occurred.

---

**Note:** Changes made to this file affect the behavior of all tables in Gentran Integration Suite with a prefix of `ACT_`.

Once activity is purged, it is no longer available in the system and will not be found in a search that matches the criteria for it.

The tables in Sterling File Gateway that are purged are:

- FG\_ARRIVEDFILE
- FG\_ROUTE
- FG\_DELIVERY
- FG\_EVENT\_ATTR
- FG\_ROUTE\_EVENT

To change settings for purge:

1. Open or create the following file:  
`<install_dir>/properties/customer_overrides.properties`
2. Add the following properties:  
`dmivisibility.lifespan_dataflow=Value`  
`dmivisibility.lifespan_adminaudit=Value`  
`dmivisibility.lifespan_session=Value`  
 where Value is the number of hours before an item is purged.
3. Save the customer\_overrides.properties file.  
 See [Using Property Files](#).
4. Restart Sterling File Gateway for the settings to take effect.

#### **Purge Messages from Mailboxes**

Messages in consumer mailboxes are not automatically purged, and over time could affect system performance. To avoid this, configure the Mailbox Scheduled Delete service to delete messages from one, many, or all mailboxes. You cannot replay or redeliver messages that have been purged. See [Mailbox Scheduled Delete Service](#).

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## **filegateway.properties (Build 4324 or Later)**

The filegateway.properties file contains properties which control the operation of Sterling File Gateway.

The following table describes properties in the filegateway.properties file:

<b>Property</b>	<b>Description</b>
ignoreFilenameex	<p>Setting a regex pattern for this will cause any arrived file that matches your regex pattern to be ignored by Sterling File Gateway.</p> <p>This is useful for matching temporary files sent by producers before they are renamed to the expected name. These will not be routed and are not considered failures.</p> <p>Specify one or more file name patterns to ignore as follows:</p> <ul style="list-style-type: none"> <li>• filegateway.ignoreFilename1=</li> <li>• filegateway.ignoreFilename2=</li> <li>• filegateway.ignoreFilename3=</li> <li>• filegateway.ignoreFilenameex=</li> </ul>
ftpClientAdapterName	<p>The FTP Client Adapter instance or service group that the FileGatewayDeliverFTP BP will use. Override this property in customer_overrides.properties if a custom FTP Client Adapter instance must be used to contact trading partners. You can</p>

Property	Description
	also specify an adapter group name to load-balance outbound FTP sessions across multiple adapter instances. Default is ftpClientAdapterName=FTPClientAdapter.
bpCompletionProbes.1 bpCompletionSleepMsec.1 bpCompletionProbes.2 bpCompletionSleepMsec.2	Timeouts and sleep intervals that control how long Sterling File Gateway waits for every sub-business process it invokes. These control the timeouts when a business process is executed synchronously during routing. Used for both Consumer Identification business processes and for PGP processing. It is designed to allow one set of relatively quick probes followed by a second set of slower probes. The first set will be very reactive, but consume more CPU. The second set will activate for longer-running processes and will consume less CPU.  First probe 120 times with 100 Milliseconds between, for a total of 12 seconds. Default is bpCompletionProbes.1=120 and bpCompletionSleepMsec.1=100.  Then probe 600 times with 2000 Milliseconds between, for a total of 1200 seconds (20 minutes). Default is bpCompletionProbes.2=600 and bpCompletionSleepMsec.2=2000.
pgpCmdline2svcname	The name of the Command Line 2 adapter to be used for PGP packaging and unpacking. Override this property in customer_overrides.properties if a custom Command Line 2 adapter must be used for PGP operations. You can also specify an adapter group name to load-balance outbound PGP sessions across multiple adapter instances. Default is pgpCmdline2svcname=PGPCmdlineService.
fgRoutePGPCmdLineSocketTimeout	Timeout value, in milliseconds, for PGP package and unpackage operations invoked by Sterling File Gateway. Default value is 240000 milliseconds (4 minutes)
fgRouteConcurrentSessionLimit (Build 4318 or later)	Determines how many FileGatewayArrivedFileService instances can run concurrently and how many FileGatewayDeliveryService instances can run concurrently. It is best to set this somewhat (but not too much) higher than the number of business process threads in queues 4 and 6 (these are the queues on which the FileGatewayMailboxRouteArrivedFile and FileGatewaySendMessage business processes run, respectively.) The default is 8. To change this value, use the customer_overrides.properties file to set filegateway.fgRouteConcurrentSessionLimit=(# of limit).
required_si_build_ver	The build number (version) of Gentran Integration Suite that Sterling File Gateway requires. this is checked at system start up. If the current version of Gentran Integration Suite does not equal the required_si_build_ver, a warning is issued and the system is shut down. Required.
FGConsecFailedAttempts	Number of consecutive failed login attempts that are allowed before a user is locked out of the application. Default is 0, which means users are never locked out.
FGLockInterval	Length of time, in minutes, that the lock is applied after the number of failed login attempts is exceeded. Default is 30.
userIdMinLength	Minimum number of characters in the user ID. The default is 5. To enable shorter or require longer User IDs, add or modify the following property in customer_overrides.properties:  ui.userIdMinLength = # of characters  The value of # of characters must be greater than zero. To implement single sign-on, this value must match the value set in Gentran Integration Suite.

**Note:** You should always use the customer\_overrides.properties file to make customized changes to your property files. For more information, refer to [Overriding Property File Settings](#) in the Gentran Integration Suite online library.

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## filegateway\_ui.properties (Build 4324 or Later)

The filegateway\_ui.properties file contains properties which control the location of the Help systems for Sterling File Gateway and *myFileGateway*.

The following table describes properties in the filegateway\_ui.properties file:

Property	Description
reportingdirectory	Location of the reports templates. Default - reportingdirectory=&INSTALL_DIR/reporting Required. Do not modify or override.
help.uri	Specifies the URL for the Help used by filegateway. Required. The default is: <code>http://help.sterlingcommerce.com/SFG/index.jsp</code> . This site is hosted by Sterling Commerce.
myFghelp.uri	Specifies the URL for the help used by <i>myFileGateway</i> . Required. The default is: <code>http://help.sterlingcommerce.com/mySFG/index.jsp</code> . This site is hosted by Sterling Commerce.
notification.admin.url	Login URL for admin staff to access FileGateway. Required. Default is <code>notification.admin.url=http://&amp;HOST_ADDR;:&amp;PORT1 /filegateway</code>
notification.partner.url	Login URL for partner users to access <i>myFileGateway</i> . Required. Default is <code>notification.partner.url=http://&amp;HOST_ADDR;:&amp;PORT1;/myfilegateway</code>
fgMaxRoutingChannelRecords (Build 4318 or later)	Limits the total number of routing channel records returned by a search. Required. Default is 1000. You can change this to fine tune performance by editing the <code>customer_overrides.properties</code> file.
fgOnboardingDefaultUserGroupId	The group partner users are automatically assigned to when they are created as a result of creating a partner in Sterling File Gateway, migrated from AFT, or the partner's identity is associated with a File Gateway partner group. Default is File Gateway Partners Users group.
fgSkinName	The file that contains the branding information for Sterling File Gateway. Default is FileGateway.
myfgSkinName	The file that contains the branding information for <i>myFileGateway</i> . Default is FileGateway.
fgWindowTitle	The title of the window that displays in the top browser bar for Sterling File Gateway. Default is "Welcome to Sterling File Gateway."
myfgWindowTitle	The title of the window that displays in the top browser bar for <i>myFileGateway</i> . Default is "Welcome to Sterling File Gateway."
fgMaxActivityRecords	For the Arrived File page and reports, the maximum number of records to be displayed. Default is 1000.

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**Note:** You should always use the `customer_overrides.properties` file to make customized changes to your property files. For more information, refer to [Overriding Property File Settings](#).

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## Edit the Lock Out Parameter (Build 4324 or Later)

The lock out parameter specifies the number of consecutive failed login attempts that are allowed before a user is locked out of the application. By default, the lock out parameter (FGConsecFailedAttempts) is set to 0, which tells the login servlet to not lock users, regardless of the number of failures. System administrators can set this lock out number to any numeric value by editing the customer\_overrides.properties file in the <install\_dir>/properties directory.

---

**Note:** Do not edit the filegateway.properties file. Make all changes in the customer\_overrides.properties file.

The following parameters control the user lock out behavior:

Property	Description
FGConsecFailedAttempts	Number of consecutive failed login attempts that are allowed before a user is locked out of the application. Default is 0, which means users are never locked out.
FGLockInterval	Length of time, in minutes, that the lock is applied after the number of failed login attempts is exceeded. Default is 30.

To change the lock out behavior:

1. Stop Sterling File Gateway.
2. In the <install\_dir>/properties directory, locate customer\_overrides.properties.
3. In a text editor, open or create customer\_overrides.properties.
4. Locate or add the filegateway.FGConsecFailedAttempts = 0 entry.
5. Highlight and change 0 to the new number of login attempts.
6. Locate or add the filegateway.FGLockInterval = 30 entry.
7. Highlight and change 30 to the new number of minutes the lock applies.
8. Save the customer\_overrides.properties file with the same name in the same location.
9. In the <install\_dir>/bin directory run the setupfiles script.
10. Restart Sterling File Gateway. The changes you made in the customer\_overrides.properties file are applied and come into effect for all user accounts.

---

## Add Custom Protocols

You can add support for custom protocols for listening consumers in addition to the ones preconfigured in Sterling File Gateway.

The information you provide in performing this procedure determines the text displayed in the Partner management wizard. That is, after you perform this procedure, new choices are available for protocols offered by Sterling File Gateway when creating a community and when creating a listening consumer in a community that is configured for the custom protocol.

1. Write a business process that implements the custom protocol. The business process name must be unique for each custom protocol. Do not use an underscore character (\_) in the name of the business process.

2. Use the existing AFTExtensions.xml as a guide to create an AFTExtensionsCustomer.xml file to describe the protocol. Do not edit the AFTExtensions.xml file.

The AFTExtensions.xml file is located in the following directory:  
`<install_dir>\container\Applications\aft\WEB-INF\classes\resources\xml.`

3. Save the AFTExtensionsCustomer.xml file to the same directory as AFTExtensions.xml.
4. Use the existing AFTExtensions.properties file as a guide to create the AFTExtensionsCustomer.properties file. Do not edit the AFTExtensions.properties file. The AFTExtensions.properties is located in the following directory:

`<install_dir>\container\Applications\aft\WEB-INF\classes\resources`

---

**Note:** The user interface elements to describe the protocol are specified in the `htmlType` parameter. Valid values are text, password, select. When "select" is chosen for `htmlType`, the UI presents a list whose contents are derived from an "options" class. An example of an "options" class list is in the AFTExtensions.xml file (the text starts with "`<OPTION name="SSHRemoteProfiles" class="`")

---

5. Copy the AFTExtensionsCustomer.properties file to:

`<install_dir>\container\Applications\aft\WEB-INF\classes\resources`

6. Reference the business process you created in step 1 in a new AFTExtension element in the AFTExtensionsCustomer.xml file.
7. Stop Sterling File Gateway.
8. Run `<install_dir>\bin\setupfiles.sh.`
9. Run `<install_dir>\bin\deployer.sh.`
10. Start Sterling File Gateway.

The additional protocol will be available when adding and editing communities. After this protocol has been chosen for a community, it then becomes available when creating and editing partners in that community.

---

## Example Custom Protocols

A set of example business processes, a properties file, and an xml file are provided in your installation of Sterling File Gateway in the following directory:

```
<install>/samples/filegateway/protocol_extensions/
```

The README.txt file provides additional information about the files. You can use these files as a model for creating the files to add these or other custom protocols.

This directory contains the following files:

- AFTExtensionsCustomer.properties
- AFTExtensionsCustomer.xml
- AFTRouteViaCEU.bpml
- AFTRouteViaHTTP.bpml
- CustomFileGatewayDeliverFTPS.bpml
- README.txt



## ProcessData for Business Processes Implementing Custom Protocols

The following elements are available in ProcessData when the business process implementing an custom protocol is executed:

Element	Description
Primary document	The primary document contains the data as it will be delivered to the consumer, so that, if the producer's document required PGP operations (such as decryption) or the consumer required PGP processing, the contents of the primary document contains the results of performing those PGP operations.
PrimaryDocumentId	Document ID for the primary document
DestinationMessageName	Name of the primary document
TransportBP	Name of the business process that will be executed for the protocol
AFTRouteld	An internal identifier needed if the AFT Route Progress Event Reporting service is called. The value of this element must not be changed by the extensibility business process.
AFTRouteWorkFlowId	An internal work flow identifier needed if the AFT Route Progress Event Reporting service is called. The value of this element must not be changed by the extensibility business process.
ProducerName	Name of the data producer
ConsumerName	Name of the data consumer
Parameters added to AFTExtensionsCustomer.xml	Any parameters you supply as part of your custom protocol are available in process data.

To set the route status to "failed" add the following to your business process onfault condition:

```
<assign to="FG/TransportError">true</assign>
```

### Example Adding an Connect:Enterprise UNIX Extension

For example, if you were adding Connect:Enterprise UNIX as a outbound file transfer mechanism, your business process could be the following:

```
<process name="AFTRouteViaCEU">
<sequence>
  <operation name="CEU Add Service">
    <participant name="CEUServerAdd"/>
    <output message="AddRequest">
      <assign to="." from="*" />
      <assign to="CEUServerAdapterInstanceName"
        from="string(CEUServerAdapterInstanceName)"/>
      <assign to="CEUMailboxId" from="string(CEUMailboxId)"/>
    </output>
    <input message="inmsg">
      <assign to="CEUAddServiceResults" from="*" />
    </input>
  </operation>
```

```
</sequence>
</process>
```

**Note:** ProcessData does not include the producer name or consumer name for custom protocol business processes.

### AFTEExtensionsCustomer.xml Adding Connect:Enterprise UNIX

The following is an example AFTEExtensionsCustomer.xml adding Connect:Enterprise UNIX for outbound file transfer:

```
<AFTEExtensions>
  <AFTEExtension name="ceu-protocol" type="consumer-delivery-protocol"
    label="cdp.protocol.label.ceuprotocol" bp="AFTRouteViaCEU">
    <GROUP title="ceu.instance.group1.title">
      <VARDEF varname="CEUServerAdapterInstanceName" type="String" htmlType="text"
        validator="ALPHANUMERIC" size="30" maxsize="250"
        label="cdp.label.ceuprotocol.ceuserveradapterinstancename" defaultVal="BP"
        required="yes"/>
      <VARDEF varname="CEUMailboxId" type="String" htmlType="text"
        validator="ALPHANUMERIC" size="30" maxsize="250"
        label="cdp.label.ceuprotocol.ceumailboxid" required="no"/>
    </GROUP>
  </AFTEExtension>
</AFTEExtensions>
```

### AFTEExtensionsCustomer.properties Adding Connect:Enterprise UNIX

The following is an example AFTEExtensionsCustomer.properties adding Connect:Enterprise UNIX for outbound file transfer:

```
#####
# Connect:Enterprise UNIX
#####
cdp.protocol.label.ceuprotocol = Connect:Enterprise UNIX
ceu.instance.group1.title = Connect:Enterprise UNIX
cdp.label.ceuprotocol.ceuserveradapterinstancename = CEU Server Adapter Instance
Name
cdp.label.ceuprotocol.ceumailboxid = Connect:Enterprise UNIX Mailbox Id
```

### Example Adding an HTTP Send Extension

The following is a business process that adds the HTTP protocol:

```
<process name="AFTRouteViaHTTP">
  <sequence>
    <operation name="HTTP Client Begin Session Service">
      <participant name="HTTPClientBeginSession"/>
      <output message="HTTPClientBeginSessionServiceTypeInputMessage">
        <assign to="." from="*"/>
        <assign to="HTTPClientAdapter">HTTPClientAdapter</assign>
        <assign to="RemoteHost" from="string(RemoteHost)"/>
        <assign to="RemotePasswd" from="revealObscured(RemotePasswd)"/>
        <assign to="RemotePort" from="string(RemotePort)"/>
        <assign to="RemoteUserId" from="string(RemoteUserId)"/>
        <assign to="UsingRevealedPasswd">true</assign>
      </output>
    </operation>
  </sequence>
</process>
```

```

    <input message="inmsg">
      <assign to="." from="*" />
    </input>
  </operation>
</operation name="HTTP Client POST Service">
  <participant name="HTTPClientPost" />
  <output message="HTTPClientPostServiceTypeInputMessage">
    <assign to="." from="*" />
    <assign to="DocumentId" from="string(DocumentId)" />
    <assign to="RawRequest">false</assign>
    <assign to="RawResponse">true</assign>
    <assign to="ResponseTimeout">60</assign>
    <assign to="SessionToken" from="string(SessionToken)" />
    <assign to="ShowResponseCode">true</assign>
    <assign to="URI" from="string(URI)" />
  </output>
  <input message="inmsg">
    <assign to="." from="*" />
  </input>
</operation>
</operation name="HTTP Client End Session Service">
  <participant name="HTTPClientEndSession" />
  <output message="HTTPClientEndSessionServiceTypeInputMessage">
    <assign to="." from="*" />
  </output>
  <input message="inmsg">
    <assign to="." from="*" />
  </input>
</operation>
</sequence>
</process>

```

Notice the process above uses the `revealObscured(RemotePasswd)` Xpath function. This is needed because every parameter defined in `AFTEExtensionsCustomer.xml` of `htmlType="Password"` is stored either encrypted (if the parameter name has a suffix of `"_ENCRYPTED"`) or obscured (for all other parameters of `htmlType="Password"`). In this specific case, the password is passed into the BP as an obscured value but the HTTP Client Adapter requires a password that is not obscured (because `UsingRevealedPasswd` is set to `"true"`).

When extending protocols and using passwords consider how the service or adapter you plan to use accepts passwords.

### **AFTEExtensionsCustomer.xml for HTTP Send**

The following is an example `AFTEExtensionsCustomer.xml` file to add HTTP Send support to Sterling File Gateway:

```

<AFTEExtension name="http-protocol" type="consumer-delivery-protocol"
  label="cdp.protocol.label.httpprotocol" bp="AFTRouteViaHTTP">
  <GROUP title="http.instance.group1.title">
    <VARDEF varname="RemoteHost" type="String" htmlType="text"
      validator="ALPHANUMERIC" size="20" maxsize="20"
      label="cdp.label.httpprotocol.httpip" required="yes" />
    <VARDEF varname="RemotePort" type="String" htmlType="text"
      validator="ALPHANUMERIC" size="20" maxsize="20"
      label="cdp.label.httpprotocol.httpport" required="no" />
    <VARDEF varname="RemoteUserId" type="String" htmlType="text"

```

```

    validator="ALPHANUMERIC" size="20" maxsize="20"
    label="cdp.label.httpprotocol.httpuser" required="no"/>
<VARDEF varname="RemotePasswd" type="String" htmlType="password"
    validator="ALPHANUMERIC" size="20" maxsize="20"
    label="cdp.label.httpprotocol.httppassword" required="no"/>
<VARDEF varname="URI" type="String" htmlType="text" validator="ALPHANUMERIC"
    size="20" maxsize="20" label="cdp.label.httpprotocol.uri" required="no"/>
</GROUP>
</AFTEExtension>

```

The mandatory parameter for this example is Remote Host. Optional parameters include Remote Port, Remote User Id, Remote Password, and URI.

### AFTEExtensionsCustomer.properties for HTTP Send

The following is an AFTEExtensionsCustomer.properties file to add HTTP Send support to Sterling File Gateway:

```

#####
HTTP Send
#####
cdp.protocol.label.httpprotocol = HTTP Send
http.instance.group1.title = HTTP Send
cdp.label.httpprotocol.httpip = HTTP IP Address
cdp.label.httpprotocol.httpport = HTTP Port
cdp.label.httpprotocol.httpuser = HTTP User
cdp.label.httpprotocol.httppassword = HTTP Password
cdp.label.httpprotocol.uri = URI

```

The user interface created by this example AFTEExtensionsCustomer.properties file adds the attribute for cdp.protocol.label.httpprotocol in the Protocol list.

In the next page of the Create Partner wizard, the following elements and attributes are added:

- cdp.protocol.label.httpprotocol is at the top of the white screen
- http.instance.group1.title is title in parameter box
- cdp.label.httpprotocol.httpip parameter label
- cdp.label.httpprotocol.httpport parameter label
- cdp.label.httpprotocol.uri parameter label

In the next page of the Create Partner wizard, the following elements and attributes are added:

- cdp.protocol.label.httpprotocol is at the top of the white screen
- http.instance.group2.title is the title in parameter box
- cdp.label.httpprotocol.httpuser parameter label
- cdp.label.httpprotocol.httppassword parameter label

### Encrypted Passwords

If you include an "\_ENCRYPTED" suffix on a parameter it causes the user-entered values to be encrypted when saved (use only for fields of htmlType="Password"). Do not use the revealObscured() function with passwords that are encrypted. Rather, use the encrypted password only if the particular service to be invoked can accept an encrypted password and decrypt it internally.

If a value is declared to be of type "password" and does not have an "\_ENCRYPTED" suffix, the value is saved into the database obscured and delivered to ProcessData obscured. Call the revealPassword (XPath) XPath function to reveal the password, immediately before using the password.

## Example Adding an FTPS Extension

For example, if you were adding FTPS as a outbound file transfer mechanism, AFTEExtensionsCustomer.xml could be the following:

```
<!--Custom FTP/S Protocol for internal and external connections -->
  <AFTEExtension name="custom-ftps-protocol" type="consumer-delivery-protocol"
label="custom.ftps.protocol.label"
  bp="CustomFileGatewayDeliverFTPS">
  <GROUP title="custom.ftps.instance.group1.title">
  <VARDEF varname="FTPLocation" type="String" htmlType="select"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.ftplocation"

  options="CUSTOMInternalExternal" required="yes" defaultVal="External"/>

  <VARDEF varname="HostName" type="String" htmlType="text"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.hostname"
required="yes"/>
  <VARDEF varname="Port" type="String" htmlType="text" validator="ALPHANUMERIC"

  size="30" maxsize="250" label="custom.ftps.protocol.label.port"
required="yes"/>
  <VARDEF varname="ConnectionType" type="String" htmlType="select"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.connectiontype"

  options="CUSTOMFTPConnType" required="yes"/>
  <VARDEF varname="Username" type="String" htmlType="text"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.user"
required="yes"/>
  <VARDEF varname="ObscuredRemotePasswd" type="String" htmlType="password"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.remotepasswd"
required="yes"/>
  <VARDEF varname="CACertificateId" type="String" htmlType="select"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.cacertificateid"
  options="CACertListerbyID" required="no"/>
  <VARDEF varname="SystemCertificateId" type="String" htmlType="select"
validator="ALPHANUMERIC"
  size="30" maxsize="250"
label="custom.ftps.protocol.label.systemcertificateid"
  options="SystemCertListerbyID" required="no"/>
  <VARDEF varname="SSL" type="String" htmlType="select"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.ssl"
  options="CUSTOMSSLMode"
  required="yes" defaultVal="SSL_EXPLICIT"/>
  <VARDEF varname="CipherStrength" type="String" htmlType="select"
validator="ALPHANUMERIC"
  size="30" maxsize="250" label="custom.ftps.protocol.label.cipherstrength"
```

```

        options="CUSTOMCipherStrength" required="yes" defaultVal="STRONG"/>
        <VARDEF varname="ClearControlChannel" type="String" htmlType="select"
validator="ALPHANUMERIC"
        size="30" maxsize="250"
label="custom.ftp.protocol.label.clearcontrolchannel"
        options="CUSTOMClearControlChannel" required="yes" defaultVal="NO"/>
        <VARDEF varname="BaseDirectory" type="String" htmlType="text"
validator="ALPHANUMERIC"
        size="30" maxsize="250" label="custom.ftp.protocol.label.directory"
required="no"/>
        <VARDEF varname="Retries" type="String" htmlType="text"
validator="ALPHANUMERIC"
        size="30" maxsize="250" label="custom.ftp.protocol.label.retries"
required="Yes" defaultVal="3"/>
        <VARDEF varname="RetryInterval" type="String" htmlType="text"
validator="ALPHANUMERIC"
        size="30" maxsize="250" label="custom.ftp.protocol.label.retryinterval"
required="Yes" defaultVal="1"/>
    </GROUP>
</AFTEExtension>
<OPTION name="CACertListerbyID"
class="com.sterlingcommerce.woodstock.ui.CACertLister"/>
<OPTION name="SystemCertListerbyID"
class="com.sterlingcommerce.woodstock.ui.SystemCertLister"/>
<OPTION name="CUSTOMInternalExternal">
    <ELE value="Internal" displayname="custom.internal"/>
    <ELE value="External" displayname="custom.external"/>
</OPTION>
<OPTION name="CUSTOMFTPConnType">
    <ELE value="ACTIVE" displayname="custom.active"/>
    <ELE value="PASSIVE" displayname="custom.passive"/>
</OPTION>
<OPTION name="CUSTOMSSLMode">
    <ELE value="SSL_EXPLICIT" displayname="custom.ssl_explicit"/>
    <ELE value="SSL_IMPLICIT" displayname="custom.ssl_implicit"/>
</OPTION>
<OPTION name="CUSTOMCipherStrength">
    <ELE value="ALL" displayname="custom.ciperhAll"/>
    <ELE value="STRONG" displayname="custom.ciperhStrong"/>
    <ELE value="WEAK" displayname="custom.ciperhWeak"/>
</OPTION>
<OPTION name="CUSTOMClearControlChannel">
    <ELE value="YES" displayname="custom.yes"/>
    <ELE value="NO" displayname="custom.no"/>
</OPTION>

```

The following is an AFTEExtensionsCustomer.properties file to add FTPS support to Sterling File Gateway:

```

#####
# CUSTOM custom FTPS listening consumer
#####
custom.ftp.protocol.label=CUSTOM FTP/SSL
custom.ftp.instance.group1.title=FTP/SSL Parameters
custom.ftp.protocol.label.ftplocation=Internal or External FTP Server:
custom.ftp.protocol.label.hostname=FTP Server Host Name(or IP address):

```

```

custom.ftps.protocol.label.port=FTP Listen Port:
custom.ftps.protocol.label.connectiontype=Connection Type:
custom.ftps.protocol.label.user=User Name:
custom.ftps.protocol.label.remotepasswd>Password:
custom.ftps.protocol.label.directory=Base Directory:
custom.ftps.protocol.label.retries=Number of retries:
custom.ftps.protocol.label.retryinterval=Interval between retries (in minutes):
custom.ftps.protocol.label.cacertificateid=Partner's Self-Signed Certificate Id:
custom.ftps.protocol.label.systemcertificateid=System Certificate Id Used To
Identify Client to Server
custom.ftps.protocol.label.ssl=SSL Negotiation, Explicit or Implicit
custom.ftps.protocol.label.cipherstrength=SSL Cipher Strength
custom.ftps.protocol.label.clearcontrolchannel=Enable Clear Control Channel
#####
# CUSTOM Custom labels for OPTION Elements
#####
custom.internal=Internal
custom.external=External
custom.active=Active
custom.ssl_explicit=Explicitcustom.passive=Passive
custom.ssl_explicit=Explicit
custom.ssl_implicit=Implicit
custom.ciperhAll=ALL
custom.ciperhStrong=STRONG
custom.ciperhWeak=WEAK
custom.yes=YES
custom.no=NO

```

---

## Create Custom E-Mail Notifications

This procedure requires knowledge of XSLTs. Sterling Commerce cannot provide support for modifying XSLTs.

To modify the text or subject for email notification of events:

1. From Sterling File Gateway, select **Tools > B2B Console**.
2. Select **Deployment > XSLT**.
3. In the Search box, type FG.
4. To edit email notifications received by administrative users, select FgRouteEventEmailNotification. To edit email notifications received by partner users, select FgRouteEventPartnerEmailNotification. Click on **Source Manager** next to the one you want to edit.

---

**Note:** To change the email notifications for both administrative and partner users, you must edit both XSLTs.

---

5. Select **Check Out**. Click **OK** to lock the file for editing. An example of the original file contents is:

```

<?xml version="1.0" encoding="UTF-8"?>
<xsl:stylesheet version="1.0" xmlns:xsl="http://www.w3.org/1999/XSL/Transform">
<xsl:output method="text"/>
<xsl:template match="/">
The following File Gateway routing event occurred:

```

Route Event Details:

```
=====
Event Code:      <xsl:value-of select="/FgRouteEvent/EventCode"/>
Event Message:  <xsl:value-of select="/FgRouteEvent/EventMessage"/>
Producer:       <xsl:value-of select="/FgRouteEvent/Producer"/>
Consumer:       <xsl:value-of select="/FgRouteEvent/Consumer"/>
Filename:       <xsl:value-of select="/FgRouteEvent/Filename"/>
Timestamp:      <xsl:value-of select="/FgRouteEvent/Time"/>
=====
Use the link below to sign into your myFileGateway Suite instance:
<xsl:value-of select="/FgRouteEvent/TargetURL"/>
</xsl:template>
</xsl:stylesheet>
```

6. Revise the file with the changes you need.  
See *About Event Codes* for descriptions of the codes.
7. Save the file to your local disk without changing the name.
8. Check the file back in, releasing the edit lock. Browse to the location where you saved it to your local disk. This new version will persist when you apply future upgrades.
9. To change the subject for an email notification, create or edit the `customer_overrides.properties` file. This applies to all event codes for your system. The subject is in the following property:

```
filegateway_eventcodes.EventNotificationEmailSubject=File Gateway Routing Event  
E-mail Notification [Event Code = {0}]
```

In `customer_overrides.properties`, add the following:

```
filegateway_eventcodes.EventNotificationEmailSubject=CUSTOM SUBJECT HERE {0}
```

Where the {0} parameter will be substituted with the event code.

10. To change the text for an event code, create or edit the `customer_overrides.properties` file. The event message is in the following property:

```
filegateway_eventcodes.text=event message
```

For example, to change the text for event code FG\_0506, Route Candidate Does Not Match, make the following entry in the `customer_overrides.properties` file:

```
filegateway_eventcodes.FG_0506.text=CUSTOM TEXT HERE
```

Substitute your message for CUSTOM TEXT HERE.

---

**Note:** Do not edit the `FgEventCodes.properties` file. Make all changes in the `customer_overrides.properties` file. See *Using Property Files*.

---

11. Stop and restart your system for your changes to take effect.

---

## Add Custom Event Codes

You can add custom events to Sterling File Gateway that are associated with any custom protocols and business processes you create. You will need a code, a name, and a description for each event you want to create, as well as permission and subscription settings.



To add custom event codes:

1. Open or create a file named `<install_dir>/properties/customer_overrides.properties`.
2. Add entries in the `customer_overrides.properties` file with the appropriate details about the custom event codes you are creating.

Your new event will be a series of properties describing attributes of the event. See the `FGEventCodes.properties` file for examples. Do not edit the `FGEventCodes.properties` file. Start each line of the custom event code description with:

```
filegateway_eventcodes.CUST
```

The following is a basic example:

```
filegateway_eventcodes.CUST_0265.name=  
filegateway_eventcodes.CUST_0265.attributes=  
filegateway_eventcodes.CUST_0265.text=  
filegateway_eventcodes.CUST_0265.description=  
filegateway_eventcodes.CUST_0265.permissions=  
filegateway_eventcodes.CUST_0265.EventNotificationEmailSubject=  
filegateway_eventcodes.CUST_0265.EventNotificationEmailContentType=
```

- **Event Code:** The event code in the example above is `CUST_0265`. It consists of keyword underscore 4-digit code. It is used to identify all the attributes for a particular event code. Required.
- **Keyword** - any text, optimally 4 characters long, but cannot be `FG_` nor `AFT_`. In the example, the keyword is `CUST`.
- **4-digit Code** - consists of two 2-digit codes - a category identifier and a unique identifier. No two events can have the same 4-digit code.
- **Category Identifier** - The first 2-digit code is a category identifier. You can use a system-defined category or create your own 2-digit code to categorize your codes in a way that is convenient for you. In the example, the category identifier is `02`. The following are the system-defined category codes:

Code	Category
00	Producer File Transfer
02	Routing Business Process
04	File Gateway General
05	Route Plan Determination
06	File Transformation
07	Consumer File Transfer

- **Unique Identifier** - The second 2-digit code is the unique identifier for the event within the category. 00 to 49 are successful events and 50 to 99 are error events. Error events display in red in Sterling File Gateway. You cannot exceed 99 event codes in a category. In the example, the unique identifier is `65`.
- `<EventCode>.name` - This is the name of your event. It will be shown in the subscription UI (**Profile > Notifications**) if subscriptions are enabled, and in the log. Required.

- `<EventCode>.attributes` - A comma-delimited list of attributes for this event. While any attribute can be passed into the event, only these attributes will be stored in the database, will be searchable through the UI, and are usable in the event text defined below. They are generally indexed with the first one in the list having an index of 0. The attribute names must be names that can be passed as an xml element (no special characters, no spaces). This property is required but the list can be empty.
  - `<EventCode>.text` - This property contains the text that will show up in the UI when this event is viewed. It can contain text and is generally limited by the Java Format rules (for example, in order to have a single quote, you must put two of them right next to each other.) You can also use attributes above by using the notation `{#}` which will substitute in the UI the value of the attribute at the index of the `#`. You do not have to use attributes, the user in the UI can click on the event and see all the attributes and they will still be searchable. So you can send in and store more attributes than you might want to show in the UI.  
Required.
  - `<EventCode>.description` - This description is shown in the subscription UI (**Profile > Notifications**).  
Required.
  - `<EventCode>.permissions` - This is a comma-delimited list of permissions for this event. There are three possible values to use: producer, consumer, subscription. This property is required but it can be empty. Empty means that only the Operator can see the event, and no one can subscribe for notifications to the event.
    - producer - This event can be seen by the producer for this route, and the producer receives notifications if subscribed.
    - consumer - This event can be seen by the consumer for this route, and the consumer receives notifications if subscribed.
    - subscription - This event can be subscribed to. After the subscription is selected for an event, the producer or consumer receives notification of the event if the event has the corresponding producer or consumer permission AND the subscription permission. For an Operator to receive notification of an event, the event must have the subscription permission.
  - `<EventCode>.EventNotificationEmailSubject` - This is the subject line for the email notification when the event occurs. The default value is File Gateway Routing Event E-mail Notification [Event Code = {0}], where 0 is the four-digit identifier for the event code.
- `<EventCode>.EventNotificationEmailContentType` - This specifies the content type for the email notification when the event occurs. Valid values are text/plain and html. The default is text/plain.

---

**Note:** See the `<install_dir>/properties/FGEventCodes.properties` file as an example for how to structure your event properties. Do not edit the `FGEventCodes.properties` file. See [Using Property Files](#).

---

3. Save the `customer_overrides.properties` file and restart Sterling File Gateway for the new file to take effect.
4. Edit your business process that generates the new event codes to call the `FileGatewayRouteEventService`, with the proper parameters, including the new custom event codes.
5. Add the `FileGatewayRouteEventService`, with the proper parameters, including the new custom event code. The following example will fire a hypothetical event:

```
<operation>
  <participant name=" FileGatewayRouteEventService "/>
  <output message="Output">
    <assign to="EventCode">CUST_0265</assign>
    <assign to="ExceptionLevel">Normal</assign>
    <assign to="EventAttributes/Directory"
      from="directory/text()" append="true"/>
  </output>
</operation>
```

```

    <assign to="EventAttributes/Comment" >
      BP changed directories</assign>
    <assign to="." from="*"></assign>
  </output>
  <input message="Input">
    <assign to="." from="*"></assign>
  </input>
</operation>

```

To send attributes to the FileGatewayRouteEventService, use the following guidelines. These guidelines only apply to the EventAttributes, not to other parameters of the service:

- The attributes will be sent to the service as a series of assigns. They need to be a series of assigns in order to support the advanced event attribute naming of Sterling File Gateway.
- The first assign must have an attribute append="true". This will append the EventAttributes the first time. The remaining assigns cannot have the append attribute.
- **Hardcoded Values.** If you want to send a hardcoded attribute value to the service (for example, IsError=true, when you know it will be true every time) then use the following assign statement template:

```

<assign to="EventAttributes/IsError"
  from="string('true')" />

```

- **Process Data.** If you want to send an attribute that is copied from another attribute in the service (for example, the results of another service, stored in the ProcessData at MyService/ResultCode) then use the following assign statement template:

```

<assign to="EventAttributes/MyServiceResultCode"
  from="MyService/ResultCode/text()" />

```

You can combine those two methods to send both types of attributes into the service, adding the append to the first one:

```

<assign to="EventAttributes/IsError"
  from="string('true')" append="true" />
<assign to="EventAttributes/MyServiceResultCode"
  from="MyService/ResultCode/text()" />

```

### Example Section in customer\_overrides.properties File

**Note:** Although the example below shows the items displaying on multiple lines, do not do so in your implementation.

```

filegateway_eventcodes.CUST_0265.name=Custom Event - File Error
filegateway_eventcodes.CUST_0265.attributes=ConsumerName,MyServiceResultCode,IDNumber
filegateway_eventcodes.CUST_0265.text=File Error generated during
processing:Result code: {1} reported for File ID {2}
  received for Consumer {0}
filegateway_eventcodes.CUST_0265.description=Event from Custom BP
generated when error occurs
filegateway_eventcodes.CUST_0265.permissions=producer,consumer,subscription

```

---

## Customized Business Processes (Build 4324 or Later)

Upgrading to a new build may install new versions of Sterling File Gateway system business processes. If you have modified the previous version of a system business process, the new version will be installed but will not be set as the default version. Your modified version will continue to be the default version. During the build installation, the output will produce a message on the screen and in the `installService.log` similar to the following:

```
Adding New system flow: FileGatewayMailboxRoute.bpml BPML has not been set as default version.
```

To use the new version of the system business process, you will need to manually update the business process to reflect your modifications and set it as the default version.

Sterling File Gateway performs a version check on system business processes to verify that the latest version is being run. If the version check fails, all routes are marked as “Failed”. For a failed route, click on the row to view details. Look for the error message:

```
FG-0458 A newer version of Business Process xxx is installed, but is not the default chosen version.
```

This is a reminder to perform the changes and reset the default business process.

There is also a log entry when this occurs.

---

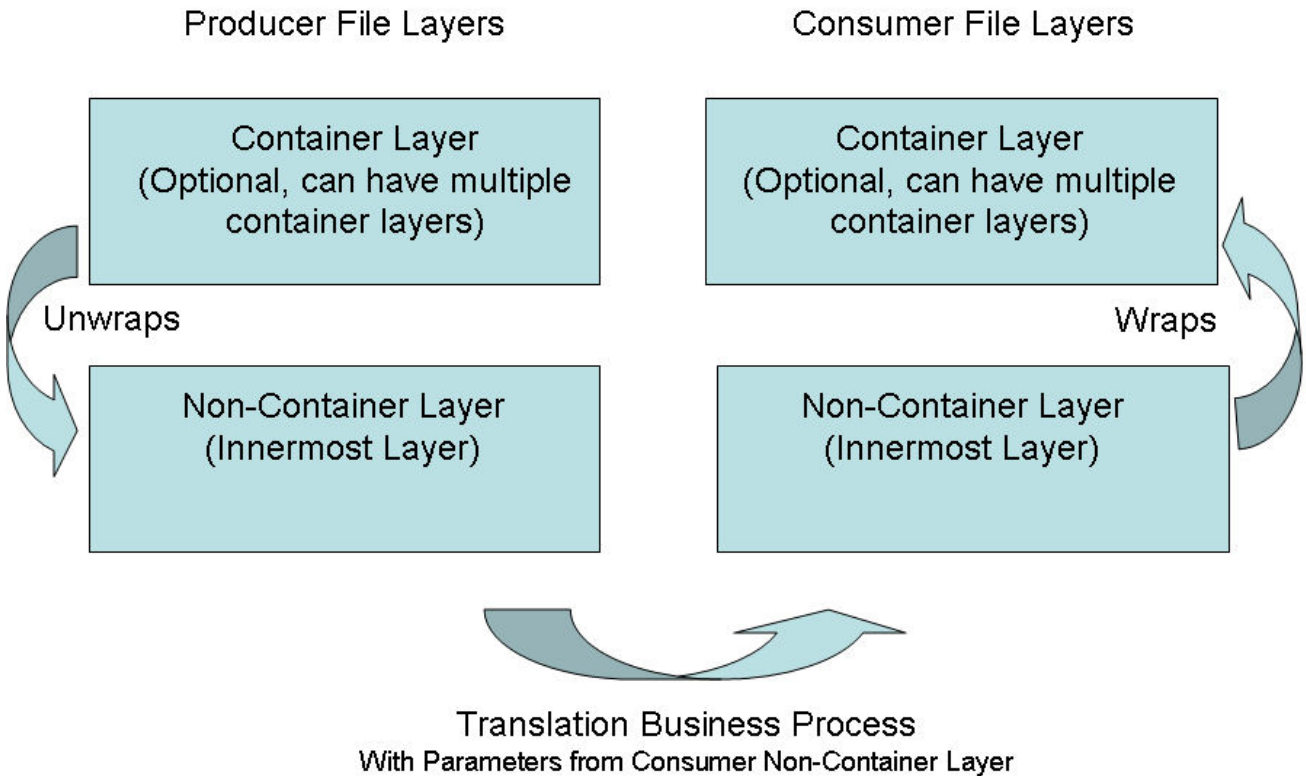
## Custom File Layer Types

### About Custom File Layer Types

Routing channel templates use file layer types to describe producer and consumer file structures. The following file types are supported when you install Sterling File Gateway:

- Container type layers - contain other container or non-container layers. For example, a PGP layer can contain a ZIP layer and a ZIP layer can contain a TEXT layer. A zip file can only contain multiple files if it is the outermost layer. The standard container types are:
  - ZIP
  - GZIP
  - PGP
- Non-container type layers - or primitive, do not contain any nested layers. The standard non-container layers are:
  - Text
  - Unknown

The following graphic shows the relationship between the file layers for the producer and the consumer and the processing that Sterling File Gateway performs between each layer:



If you have additional requirements, request that your System Administrator add custom file layer types. When they are added, the new file layer types will be available when you create new routing channel templates. The custom file layers can be container or non-container type, and can be used for either or both the producer or consumer file layers. System Administrators can create a maximum of 100 custom layer types.

## Add Custom File Layer Types

System Administrators can add custom file layer types to supplement the supplied file layer ZIP, GZIP, PGP, Text or Unknown types.

This procedure is for advanced users with a knowledge of XAPIs and APIs.

The following constraints apply to custom file layer types:

- Custom file layer types can be container or non-container types.
- A single custom file layer type can be used for the producer layer, the consumer layer, or both.
- A custom container layer type must be configured with a business process that will perform the appropriate function on the container layer.
- A custom non-container layer type on the producer side may map to a custom non-container layer type on the consumer side, but a business process must be specified to perform the appropriate translation from one format to the other.
- The name provided for custom file layer types must begin with "FGC\_". This indicates that table entries for the LAYER\_TYPE column in the FG\_P\_FLR\_TYPE and FG\_C\_FLR\_TYPE tables must begin with "FGC\_". The maximum length for LAYER\_TYPE is 10 characters, including the "FGC\_".
- There are a maximum of 100 custom layers types, and each type can have a maximum of 10 parameters, including the required parameters.
- All parameter values for custom file layer type tables should conform to the corresponding max character length specified in the tables below.

- In the FG\_P\_FLR\_PRM\_TYPE table and FgProducerFileLayerParameterType XML element, the ordinal value “0” is reserved for the “File name pattern as regular expression” parameter and ordinal value “1” is reserved for the “File name pattern group fact names, comma delimited” parameter, both of which are required for the producer file structure in every producer file layer type.
- In the FG\_C\_FLR\_PRM\_TYPE table and FgConsumerFileLayerParameterType XML element, ordinal value “0” is reserved for the “File name format” parameter, which is required for the consumer file structure in every consumer file layer type.
- Although parameters that correspond to ordinal value “0” show up as bold in the UI and are required, the user has no control of this for any other parameters that they might add for custom file layer types.
- A file layer type can be edited or deleted only if it is not used in a template.

Before you begin, create the business processes to perform the functions, such as translation, on the custom layers. Plan the mappings from your layers in the following sequence:

- Producer container
- Producer non-container
- Consumer non-container
- Consumer container

The following procedure creates some example file layers to demonstrate the process. The specific XML will be different when you create different custom file layers. To create the example custom file layers:

1. Create a business process named FileGatewayCustomLayerXAPI with the following BPML:

```
<process name="FileGatewayCustomLayerXAPI">
  <!--
  This business process can be used to manage File
  Gateway Custom Layers.
  -->
  <sequence name="Begin Process">
    <operation name="XAPIServiceType">
      <participant name="XAPIService"/>
      <output message="XAPIServiceTypeInputMessage">
        <assign to="api">multiApi</assign>
        <assign to="." from="*"></assign>
      </output>
      <input message="inmsg">
        <assign to="." from="*"></assign>
      </input>
    </operation>
  </sequence>
</process>
```

2. Using a text editor, create a file named CreateCustomLayersSampleBPInput\_EX.xml. Copy and paste the following contents into the XML file, removing any page breaks:

```
<MultiApi>
  <API Name="manageFgProducerFileLayerType">
  <!-- This API affects the first Producer File Layer Type
  and the Parameter types associated with it. See the
  FG_P_FLR_TYPE, FG_P_FLR_PRM_TYPE, and FG_P_FLR_TRANS
  table information below. -->
  <Input>
  <FgProducerFileLayerType ContainsName="N"
```

```

Description="EX Prod Container"
DisplayLabel="EX Prod Container " IsContainer="Y"
LayerType="FGC_EXPCON" Lockid="0"
ProducerFileLayerTypeKey="EXPCON_GUID">
<FgProducerFileLayerParameterTypeList
  TotalNumberOfRecords="3">
<FgProducerFileLayerParameterType DefaultValue="."+
  Description="File name pattern as regular expression"
  DisplayLabel="File name pattern"
  DisplayType="String" Ordinal="0"
  ParameterName="FILENAME_PATTERN"
  ProducerFileLayerParameterTypeKey="EXPCON_P1_GUID"
  ProducerFileLayerTypeKey="EXPCON_GUID" />
<FgProducerFileLayerParameterType Description=
  "File name pattern group fact names, comma delimited"
  DisplayLabel="File name pattern fact names"
  DisplayType="String" Ordinal="1"
  ParameterName="FILENAME_PATTERN_FACTNAMES"
  ProducerFileLayerParameterTypeKey="EXPCON_P2_GUID"
  ProducerFileLayerTypeKey="EXPCON_GUID" />
<FgProducerFileLayerParameterType
  Description="Spin value for encryption"
  DisplayLabel="Spin"
  DisplayType="String" Ordinal="2"
  ParameterName="EncryptionSpin"
  ProducerFileLayerParameterTypeKey="EXPCON_P3_GUID"
  ProducerFileLayerTypeKey="EXPCON_GUID" />
</FgProducerFileLayerParameterTypeList>
</FgProducerFileLayerType>
</Input>
</API>
<API Name="manageFgProducerFileLayerType">
<!-- This API affects the second Producer File Layer Type
and the Parameter types associated with it. See the
FG_P_FLR_TYPE, FG_P_FLR_PRM_TYPE, and FG_P_FLR_TRANS
table information below. -->
<Input>
  <FgProducerFileLayerType ContainsName="N"
    Description="EX Prod Non Container"
    DisplayLabel="EX Prod Non Container"
    IsContainer="N" LayerType="FGC_EXPNCN"
    ProducerFileLayerTypeKey="EXPNCN_GUID">
  <FgProducerFileLayerParameterTypeList
    TotalNumberOfRecords="2">
  <FgProducerFileLayerParameterType
    DefaultValue="."+
    Description="File name pattern as regular expression"
    DisplayLabel="File name pattern"
    DisplayType="String" Ordinal="0"
    ParameterName="FILENAME_PATTERN"
    ProducerFileLayerParameterTypeKey="EXPNCN_P1_GUID"
    ProducerFileLayerTypeKey="EXPNCN_GUID" />
  <FgProducerFileLayerParameterType
    Description="File name pattern group fact names,

```

```

        comma delimited"
        DisplayLabel="File name pattern fact names"
        DisplayType="String" Ordinal="1"
        ParameterName="FILENAME_PATTERN_FACTNAMES"
        ProducerFileLayerParameterTypeKey="EXPNCON_P2_GUID"
        ProducerFileLayerTypeKey="EXPNCON_GUID" />
    </FgProducerFileLayerParameterTypeList>
</FgProducerFileLayerType>
</Input>
</API>
<API Name="manageFgConsumerFileLayerType">
    <!-- This API affects the first Consumer File Layer Type
         (container type) and the Parameter types associated with
         it. See the FG_C_FLR_TYPE, FG_C_FLR_PRM_TYPE,
         and FG_C_FLR_TRANS
         table information below. -->
    <Input>
        <FgConsumerFileLayerType
            ConsumerFileLayerTypeKey="EXCCON_GUID"
            Description="EX Con Container"
            DisplayLabel="EX Con Container"
            IsContainer="Y" LayerType="FGC_EXCCON">
        <FgConsumerFileLayerParameterTypeList
            TotalNumberOfRecords="2">
        <FgConsumerFileLayerParameterType
            ConsumerFileLayerParameterTypeKey="EXCCON_P1_GUID"
            ConsumerFileLayerTypeKey="EXCCON_GUID"
            DefaultValue="{ProducerFilename}"
            Description="File name format"
            DisplayLabel="File name format"
            DisplayType="String" Ordinal="0"
            ParameterName="FILENAME_FORMAT" />
        <FgConsumerFileLayerParameterType
            ConsumerFileLayerParameterTypeKey="EXCCON_P2_GUID"
            ConsumerFileLayerTypeKey="EXCCON_GUID"
            DefaultValue="3" Description="Encryption Charm"
            DisplayLabel="Encryption Charm"
            DisplayType="String" Ordinal="1"
            ParameterName="EncryptionCharm" />
        </FgConsumerFileLayerParameterTypeList>
    </FgConsumerFileLayerType>
</Input>
</API>
<API Name="manageFgConsumerFileLayerType">
    <!-- This API affects the second Consumer File Layer Type
         (non-container type) and the Parameter types associated
         with it. See the FG_C_FLR_TYPE, FG_C_FLR_PRM_TYPE, and
         FG_C_FLR_TRANS table information below.
         -->
    <Input>
        <FgConsumerFileLayerType
            ConsumerFileLayerTypeKey="EXCNCN_GUID"
            Description="EX Con Non-Container"
            DisplayLabel="EX Con Non-Container"

```



```

    IsContainer="N" LayerType="FGC_EXCNCN">
<FgConsumerFileLayerParameterTypeList
  TotalNumberOfRecords="1">
<FgConsumerFileLayerParameterType
  ConsumerFileLayerParameterTypeKey="EXCNCN_P1_GUID"
  ConsumerFileLayerTypeKey="EXCNCN_GUID"
  DefaultValue="{ProducerFilename}"
  Description="File name format"
  DisplayLabel="File name format"
  DisplayType="String" Ordinal="0"
  ParameterName="FILENAME_FORMAT" />
</FgConsumerFileLayerParameterTypeList>
</FgConsumerFileLayerType>
</Input>
</API>
<API Name="manageFgConsumerFileLayerTranslation">
  <Input>
    <FgConsumerFileLayerTranslation
      BusinessProcessName="CustomBP3"
      ConsumerFileLayerTranslationKey=
        "EXCTRN1_GUID"
      ConsumerFileLayerTypeKey="EXCCON_GUID"
      ProducerFileLayerTypeKey="EXPNCN_GUID" />
    </Input>
  </API>
<API Name="manageFgConsumerFileLayerTranslation">
  <Input>
    <FgConsumerFileLayerTranslation
      BusinessProcessName="CustomBP1"
      ConsumerFileLayerTranslationKey=
        "EXCTRN2_GUID"
      ConsumerFileLayerTypeKey="EXCCON_GUID"
      ProducerFileLayerTypeKey="" />
    </Input>
  </API>
<API Name="manageFgProducerFileLayerTranslation">
  <Input>
    <FgProducerFileLayerTranslation
      BusinessProcessName="CustomBP2"
      ProducerFileLayerTypeKey="EXPNCN_GUID"
      ProducerFileLayerTranslationKey="EXPTRAN1_GUID" />
    </Input>
  </API>
</MultiApi>

```

## Container File Layer Types for Producer File Structure

To add a container file layer type for the Producer File Structure, three tables must be updated.

Table 1 - FG\_P\_FLR\_TYPE - This table specifies the new file layer type. The value provided in this table for P\_FLR\_TYPE\_KEY will need to be repeated in the FG\_P\_FLR\_PRM\_TYPE and FG\_P\_FLR\_TRANS tables to properly configure a custom file layer type. This table contains the following parameters:

Parameter	Example	Where in UI	Type	Max Characters
P_FLR_TYPE_KEY	DR13D_GUID	Not visible	char	24
LAYER_TYPE	FGC_DR13D	Not visible	vvarchar	10
IS_CONTAINER	Y	If Y, PFS configuration requires selection of inner layer type	char	1
CONTAINS_NAME	N	Not visible	char	1
DISP_LABEL	Double Rot13 Decrypt	Not visible	vvarchar	255
DESCRIPTION	Double Rot13 Decrypt	File layer drop down menu	vvarchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	vvarchar	40
MODIFYUSERID	SYSTEM	Not visible	vvarchar	40
CREATEPROGID	XMLMigrator	Not visible	vvarchar	40
MODIFYPROGID	XMLMigrator	Not visible	vvarchar	40

Table 2 - FG\_P\_FLR\_PRM\_TYPE – This table specifies the individual parameters for the new producer file layer type. Multiple entries may be made for any file layer type. At least two entries are required for the two parameters that are automatically displayed with standard producer file layer types:

- File name pattern as regular expression
- File name pattern group fact names, comma delimited. Each entry for a file layer type requires a new ordinal, increasing in increments of one. Parameters are displayed in the UI in the order indicated by the ordinal (0 is the first parameter in the UI, 1 is the second, and so on).

This table must be provided a value for the P\_FLR\_TYPE\_KEY parameter that matches the value for the P\_FLR\_TYPE\_KEY parameter in the FG\_P\_FLR\_TYPE table. This table takes the following parameters:

**Note:** DEFAULT\_VALUE and ALLOWABLE\_VALUES are required to be in the table, but are not supported in the application.

#### File Layer Type Parameter #1

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
P_FLR_PRM_TYPE_KEY	DR13D_FP_GUID	Not visible	char	24
P_FLR_TYPE_KEY	DR13D_GUID	Not visible	char	24
ORDINAL	0	Controls order of appearance in UI for PFS configuration	int	9
DESCRIPTION	File name pattern as regular expression	PFS configuration	vvarchar	255
DISPLAY_TYPE	String	Not visible	vvarchar	255

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
DISPLAY_LABEL	File name pattern	Not visible	varchar	255
PARAM_NAME	FILENAME_PATTERN	Not visible	varchar	255
DEFAULT_VALUE	.+	Not visible	varchar	255
ALLOWABLE_VALUES	null	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

**Note:** DEFAULT\_VALUE and ALLOWABLE\_VALUES are required to be in the table, but are not supported in the application.

#### File Layer Type Parameter #2

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
P_FLR_PRM_TYPE_KEY	DR13D_FPF_GUID	Not visible	char	24
P_FLR_TYPE_KEY	DR13D_GUID	Not visible	char	24
ORDINAL	1	Controls order of appearance in UI for PFS configuration	int	9
DESCRIPTION	File name pattern group fact names, comma delimited	PFS configuration	varchar	255
DISPLAY_TYPE	String	Not visible	varchar	255
DISPLAY_LABEL	File name pattern fact names	Not visible	varchar	255
PARAM_NAME	FILENAME_PATTERN_FACT_NAMES	Not visible	varchar	255
DEFAULT_VALUE	null	Not visible	varchar	255
ALLOWABLE_VALUES	null	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

Table 3 - FG\_P\_FLR\_TRANS – This table specifies the business process that should be used to perform the work necessary to process the new producer container file layer type. This table must be provided a value for the P\_FLR\_TYPE\_KEY parameter that matches the value for the P\_FLR\_TYPE\_KEY parameter in the FG\_P\_FLR\_TYPE table. It takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
P_FLR_TRANS_KEY	SDKFJSLKFJ_GUID	Not visible	char	24
P_FLR_TYPE_KEY	DR13D_GUID	Not visible	char	24
BP_NAME	DoubleRot13Decrypt	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	admin	Not visible	varchar	40
MODIFYUSERID	admin	Not visible	varchar	40
CREATEPROGID	admin	Not visible	varchar	40
MODIFYPROGID	admin	Not visible	varchar	40

### Non-Container File Layer Types for Producer File Structure

Creating a non-container file layer type is similar to creating a container file layer type, with two exceptions:

- The value for the IS\_CONTAINER parameter in the FG\_P\_FLR\_TYPE should be set to 'N' (No).
- An entry must be made in a new table, FG\_C\_FLR\_TRANS, instead of the FG\_P\_FLR\_TRANS table.

To add a non-container file layer type for the Producer File Structure, three tables must be updated.

Table 1 - FG\_P\_FLR\_TYPE – This table specifies the new producer file layer type, and takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
P_FLR_TYPE_KEY	BLOCK_GUID	Not visible	char	24
LAYER_TYPE	FGC_BLOCK	Not visible	varchar	10
IS_CONTAINER	N	If N, PFS configuration recognizes as inner layer type	char	1
CONTAINS_NAME	N	Not visible	char	1
DISP_LABEL	Blocked Text	File layer drop down menu	varchar	255
DESCRIPTION	Blocked Text Description	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

Table 2 - FG\_P\_FLR\_PRM\_TYPE – This table specifies the individual parameters for the new file layer type. Multiple entries may be made for any file layer type. At least two entries are required for the two parameters that are automatically displayed with standard file layer types:

- File name pattern as regular expression
- File name pattern group fact names, comma delimited. Each entry for a file layer type requires a new ordinal, increasing in increments of one. Parameters are displayed in the UI in the order indicated by the ordinal (0 is the first parameter in the UI, 1 is the second, and so on).

This table must be provided a value for the P\_FLR\_TYPE\_KEY parameter that matches the value for the P\_FLR\_TYPE\_KEY parameter in the FG\_P\_FLR\_TYPE table. This table takes the following parameters:

**Note:** DEFAULT\_VALUE and ALLOWABLE\_VALUES are required to be in the table, but are not supported in the application.

#### File Layer Type Parameter #1

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
P_FLR_PRM_TYPE_KEY	BLOCK_FP_GUID	Not visible	char	24
P_FLR_TYPE_KEY	BLOCK_GUID	Not visible	char	24
ORDINAL	0	Controls order of appearance in UI for PFS configuration	int	9
DESCRIPTION	File name pattern as regular expression	PFS configuration	varchar	255
DISPLAY_TYPE	String	Not visible	varchar	255
DISPLAY_LABEL	File name pattern	Not visible	varchar	255
PARAM_NAME	FILENAME_PATTERN	Not visible	varchar	255
DEFAULT_VALUE	.+	Not visible	varchar	255
ALLOWABLE_VALUES	null	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

**Note:** DEFAULT\_VALUE and ALLOWABLE\_VALUES are required to be in the table, but are not supported in the application.

File Layer Type Parameter #2

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
P_FLR_PRM_TYPE_KEY	BLOCK_FPF_GUID	Not visible	char	24
P_FLR_TYPE_KEY	BLOCK_GUID	Not visible	char	24
ORDINAL	1	Controls order of appearance in UI for PFS configuration	int	9
DESCRIPTION	File name pattern group fact names, comma delimited	PFS configuration	vvarchar	255
DISPLAY_TYPE	String	Not visible	vvarchar	255
DISPLAY_LABEL	File name pattern fact names	Not visible	vvarchar	255
PARAM_NAME	FILE_PATTERN_FACT_NAMES	Not visible	vvarchar	255
DEFAULT_VALUE	null	Not visible	vvarchar	255
ALLOWABLE_VALUES	null	Not visible	vvarchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	vvarchar	40
MODIFYUSERID	SYSTEM	Not visible	vvarchar	40
CREATEPROGID	XMLMigrator	Not visible	vvarchar	40
MODIFYPROGID	XMLMigrator	Not visible	vvarchar	40

Table 3 - FG\_C\_FLR\_TRANS – This table specifies the legitimate mapping between the producer and consumer inner layers. Only layers with a defined mapping can be configured in the routing channel template. It also specifies the business process that should be used to perform the work necessary to translate the producer file layer type into the corresponding consumer file layer type.

This table must be provided a value for the P\_FLR\_TYPE\_KEY parameter that matches the value for the P\_FLR\_TYPE\_KEY parameter in the FG\_P\_FLR\_TYPE table and a value for the C\_FLR\_TYPE\_KEY parameter that matches the value for the C\_FLR\_TYPE\_KEY parameter in the FG\_C\_FLR\_TYPE table. The consumer file layer type specified is required to be a custom type. The table takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_TRANS_KEY	asdfnlsadjfs_GUID	Not visible	char	24
P_FLR_TYPE_KEY	BLOCK_GUID	Not visible	char	24
C_FLR_TYPE_KEY	STREAM_GUID	Not visible	char	24

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
BP_NAME	BaseMFT_Preprocessor	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	admin	Not visible	varchar	40
MODIFYUSERID	admin	Not visible	varchar	40
CREATEPROGID	admin	Not visible	varchar	40
MODIFYPROGID	admin	Not visible	varchar	40

### Container File Layer Types for Consumer File Structure

To add a container file layer type for the Consumer File Structure, three tables must be updated.

Table 1 - FG\_C\_FLR\_TYPE – This table specifies the new file layer type, and takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_TYPE_KEY	DR13E_GUID	Not visible	char	24
LAYER_TYPE	FGC_DR13E	Not visible	varchar	10
IS_CONTAINER	Y	If Y, PFS configuration requires selection of inner layer type	varchar	10
DISP_LABEL	Double Rot13 Encryption	File layer drop down menu	varchar	255
DESCRIPTION	Double Rot13 Encryption Description	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

Table 2 - FG\_C\_FLR\_PRM\_TYPE – This table specifies the individual parameters for the new producer file layer type. Multiple entries may be made for any file layer type. At least one entry is required for the parameter that is automatically displayed with standard consumer file layer types, File name format. Each entry for a file layer type requires a new ordinal, increasing in increments of one. Parameters are displayed in the UI in the order indicated by the ordinal (0 is the first parameter in the UI, 1 is the second, and so on). This table must be provided a value for the C\_FLR\_TYPE\_KEY parameter that matches the value for the C\_FLR\_TYPE\_KEY parameter in the FG\_C\_FLR\_TYPE table. This table takes the following parameters:

**Note:** DEFAULT\_VALUE and ALLOWABLE\_VALUES are required to be in the table, but are not supported in the application.

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_PRM_TYPE_KEY	DR13E_FF_GUID	Not visible	char	24
C_FLR_TYPE_KEY	DR13E_GUID	Not visible	char	24
ORDINAL	0	Controls order of appearance in UI for PFS configuration	int	9
DESCRIPTION	File name format	PFS configuration	varchar	255
DISPLAY_TYPE	String	Not visible	varchar	255
DISPLAY_LABEL	File name format	Not visible	varchar	255
PARAM_NAME	FILENAME_FORMAT	Not visible	varchar	255
DEFAULT_VALUE	\${ProducerFilename}	Not visible	varchar	255
ALLOWABLE_VALUES	null	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

Table 3 - FG\_C\_FLR\_TRANS – This table specifies the business process that should be used to perform the work necessary to process the new consumer file layer type. This table must be provided a value for the C\_FLR\_TYPE\_KEY parameter that matches the value for the C\_FLR\_TYPE\_KEY parameter in the FG\_C\_FLR\_TYPE table. It takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_TRANS_KEY	werioweuro_GUID	Not visible	char	24
P_FLR_TYPE_KEY	DR13D_GUID	Not visible	char	24
C_FLR_TYPE_KEY	DR13E_GUID	Not visible	char	24
BP_NAME	DoubleRot13Encrypt	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	admin	Not visible	varchar	40
MODIFYUSERID	admin	Not visible	varchar	40
CREATEPROGID	admin	Not visible	varchar	40



## Non-Container File Layer Types for Consumer File Structure

Creating a non-container file layer type is similar to creating a container file layer type, with two exceptions:

- The value for the IS\_CONTAINER parameter in the FG\_C\_FLR\_TYPE should be set to 'N' (No).
- A value must be specified for the P\_FLR\_TYPE\_KEY in the FG\_C\_FLR\_TRANS table.

To add a non-container file layer type for the Producer File Structure, three tables must be updated.

Table 1 - FG\_C\_FLR\_TYPE – This table specifies the new consumer file layer type, and takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_TYPE_KEY	STREAM_GUID	Not visible	char	24
LAYER_TYPE	FGC_STREAM	Not visible	varchar	10
IS_CONTAINER	N	If N, CFS configuration recognizes as inner layer type	varchar	10
DISP_LABEL	Streamed Text	File layer drop down menu	varchar	255
DESCRIPTION	Streamed Text Description	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

Table 2 - FG\_C\_FLR\_PRM\_TYPE – This table specifies the individual parameters for the new consumer file layer type. Multiple entries may be made for any file layer type. At least one entry is required for the parameter that is automatically displayed with standard consumer file layer types, File name format. Each entry for a file layer type requires a new ordinal, increasing in increments of one. Parameters are displayed in the UI in the order indicated by the ordinal (0 is the first parameter in the UI, 1 is the second, and so on). This table must be provided a value for the C\_FLR\_TYPE\_KEY parameter that matches the value for the C\_FLR\_TYPE\_KEY parameter in the FG\_C\_FLR\_TYPE table. This table takes the following parameters:

**Note:** DEFAULT\_VALUE and ALLOWABLE\_VALUES are required to be in the table, but are not supported in the application.

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_PRM_TYPE_KEY	STREAM_FF_GUID	Not visible	char	24
C_FLR_TYPE_KEY	STREAM_GUID	Not visible	char	24

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
ORDINAL	0	Controls order of appearance in UI for PFS configuration	int	9
DESCRIPTION	File name format	PFS configuration	varchar	255
DISPLAY_TYPE	String	Not visible	varchar	255
DISPLAY_LABEL	File name format	Not visible	varchar	255
PARAM_NAME	FILENAME_FORMAT	Not visible	varchar	255
DEFAULT_VALUE	\${ProducerFilename}	Not visible	varchar	255
ALLOWABLE_VALUES	null	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	SYSTEM	Not visible	varchar	40
MODIFYUSERID	SYSTEM	Not visible	varchar	40
CREATEPROGID	XMLMigrator	Not visible	varchar	40
MODIFYPROGID	XMLMigrator	Not visible	varchar	40

Table 3 - FG\_C\_FLR\_TRANS – This table specifies the legitimate mapping between the producer and consumer inner layers. Only layers with a defined mapping can be configured in the routing channel template. It also specifies the business process that should be used to perform the work necessary to translate the producer file layer type into the corresponding consumer file layer type. This table must be provided a value for the P\_FLR\_TYPE\_KEY parameter that matches the value for the P\_FLR\_TYPE\_KEY parameter in the FG\_P\_FLR\_TYPE table and a value for the C\_FLR\_TYPE\_KEY parameter that matches the value for the C\_FLR\_TYPE\_KEY parameter in the FG\_C\_FLR\_TYPE table. It takes the following parameters:

Parameter Name	Example	Where Visible in the UI	Type	Max Characters
C_FLR_TRANS_KEY	asdfnlsadjfs_GUID	Not visible	char	24
P_FLR_TYPE_KEY	BLOCK_GUID	Not visible	char	24
C_FLR_TYPE_KEY	STREAM_GUID	Not visible	char	224
BP_NAME	BaseMFT_Preprocessor	Not visible	varchar	255
LOCKID	0	Not visible	int	5
CREATETS	2008-09-22 17:48:45	Not visible	datetime	19
MODIFYTS	2008-09-22 17:48:45	Not visible	datetime	19
CREATEUSERID	admin	Not visible	varchar	40
MODIFYUSERID	admin	Not visible	varchar	40
CREATEPROGID	admin	Not visible	varchar	40
MODIFYPROGID	admin	Not visible	varchar	40

3. Execute the FileGatewayCustomLayerXAPI business process, specifying CreateCustomLayersSampleBPInput\_EX.xml you created in step 2 as the primary document.
4. Stop and restart Sterling File Gateway.
5. Create an RCT using the custom layer types, using the ones you need. In the example XML, the following layers are used:
  - EX Prod Container - outer layer for producer
  - EX Prod Non Container - inner layer for producer
  - EX Con Container - outer layer for consumer
  - EX Con Non-Container - inner layer for consumer

---

**Note:** The parameters for the custom layers can include custom parameters. You can create up to eight custom parameters for each custom layer.

---

6. Now that you have completed the example, you can modify the XML file to create custom file layer types to meet your needs. For practice, substitute each occurrence of EX with your unique characters (represented in the steps as xx), or substituting any descriptive terms. For each one, specify the following:
  - Description - descriptive string for the layer type  
DisplayLabel - this is what gets displayed in the drop-down box while creating layers  
IsContainer - "Y" or "N"  
LayerType - String  
ProducerFileLayertypeKey - a unique value

---

**Note:** For a Layer, the value under “DisplayLabel” is displayed in the UI. For a parameter, the value under “Description” is displayed in the UI.

---

7. Substitute business processes that you write to translate one file type for another for the following business processes in the XML file:
  - CustomBP1 - If creating XX Con Container, substitute the business process you want to use for translation for CustomBP1.
  - CustomBP2 - If creating XX Prod Container, substitute the business process you want to use for translation for CustomBP2.
  - CustomBP3 - If creating XX Prod Non Container and XX Con Non Container, substitute the business process you want to use for translation for CustomBP3.
8. Save the XML file as CreateCustomLayersSampleBPInput\_xx.xml.
9. Execute the FileGatewayCustomLayerXAPI business process, specifying CreateCustomLayersSampleBPInput\_xx.xml as the primary document.
10. Stop and Restart Sterling File Gateway.
11. Create an RCT using the custom layer types you need. In the example XML, the following layers are used:
  - xx Prod Container - outer layer for producer
  - xx Prod Non Container - inner layer for producer
  - xx Con Container - outer layer for consumer
  - xx Con Non-Container - inner layer for consumer

---

**Note:** The parameters for some of the custom layers include custom parameters with the changes you made to the labels.

---

**Note:** You cannot move custom file layer types from one system to another. You must create any custom file layer types you require in each system separately.

---

## Edit Custom File Layer Types

Integration Architects may identify revisions needed for the custom file layer types, and request the System Administrator make the changes.

This procedure is for advanced users with a knowledge of XAPIs and APIs. The java docs that support this functionality are located at [http://lonely/api\\_javadocs](http://lonely/api_javadocs), Package com.sterlingcommerce.fg.xapi.api.

To edit a custom file layer type:

1. Open a text or XML editor.
2. Enter text to edit the custom file layer type by specifying the original primary key for the custom file layer type along with the new values for whatever he wants to change, as in the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
<MultiApi>
  <API Name="manageFgConsumerFileType">
    <Input>
      <FgConsumerFileType
        ConsumerFileTypeKey="DR13E_GUID"
        Description="NEW Double Rot13 Encryption Description"
        DisplayLabel="NEW Double Rot13 Encryption">
        <FgConsumerFileTypeParameterTypeList
          TotalNumberOfRecords="2">
          <FgConsumerFileTypeParameterType
            ConsumerFileTypeParameterTypeKey="DR13E_CH_GUID"
            Description="NEW Encryption Charm Description"
            DisplayLabel="NEW Encryption Charm"
            ParameterName="NewEncryptionCharm"/>
          <FgConsumerFileTypeParameterType
            ConsumerFileTypeParameterTypeKey="DR13E_FF_GUID"
            Description="NEW File name format"
            DisplayLabel="NEW File name format"/>
          </FgConsumerFileTypeParameterTypeList>
        </FgConsumerFileType>
      </Input>
    </API>
  </MultiApi>
```

3. Save the XML file to a local directory.
4. Select **Tools > B2B Console > Business Processes > Manager**.
5. Search for the FileGatewayCustomLayerXAPI business process.
6. Select **Execution Manager** to execute the FileGatewayCustomLayerXAPI business process, specifying the XML file from step 3 as the document.
7. The B2B Console executes the business process and updates the custom file layer type in the database.

8. Stop and Restart Sterling File Gateway to use the revised custom file layer types.

## Add a Parameter to a Custom File Layer Type

Integration Architects may identify additional parameters needed for the custom file layer types, and request the System Administrator make the changes.

This procedure is for advanced users with a knowledge of XAPIs and APIs. The java docs that support this functionality are located at [http://lonely/api\\_javadocs](http://lonely/api_javadocs), Package com.sterlingcommerce.fg.xapi.api.

To add a parameter to a custom file layer type:

1. Open a text or XML editor.
2. Enter text to add a parameter to the custom file layer type by specifying the original primary key for the custom file layer type along with the new parameter values for the file layer type, as in the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
<MultiApi>
<API Name="manageFgConsumerFileLayerType">
<Input>
<FgConsumerFileLayerType ConsumerFileLayerTypeKey="DR13E_GUID">
<FgConsumerFileLayerParameterTypeList>
<FgConsumerFileLayerParameterType
  ConsumerFileLayerParameterTypeKey="FLAVOR_GUID"
  Description="Encryption Flavor Description"
  DisplayLabel="Encryption Flavor"
  ParameterName="EncryptionFlavor" Ordinal="2"/>
</FgConsumerFileLayerParameterTypeList>
</FgConsumerFileLayerType>
</Input>
</API>
</MultiApi>
```

3. Save the XML file to a local directory.
4. Select **Tools > B2B Console > Business Processes > Manager**.
5. Search for the FileGatewayCustomLayerXAPI business process.
6. Select **Execution Manager** to execute the FileGatewayCustomLayerXAPI business process, specifying the XML file from step 3 as the document.
7. The B2B Console executes the business process and updates the custom file layer type in the database.
8. Stop and Restart Sterling File Gateway to use the revised custom file layer types.

## Delete a Parameter from a Custom File Layer Type

Integration Architects may identify parameters no longer needed or valid for the custom file layer types, and request the System Administrator delete the parameter from the custom file layer.

This procedure is for advanced users with a knowledge of XAPIs and APIs. The java docs that support this functionality are located at [http://lonely/api\\_javadocs](http://lonely/api_javadocs), Package com.sterlingcommerce.fg.xapi.api.

To delete a parameter from a custom file layer:

1. Open a text or XML editor.

2. Enter text to remove the parameter from the custom file layer type by specifying the original primary key along with the parameter value that should be removed from the file layer type, as in the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
<MultiApi>
<API Name="manageFgConsumerFileLayerType">
<Input>
<FgConsumerFileLayerType ConsumerFileLayerTypeKey="DR13E_GUID">
<FgConsumerFileLayerParameterTypeList>
<FgConsumerFileLayerParameterType
  ConsumerFileLayerParameterTypeKey="FLAVOR_GUID"
  Operation="Delete"/>
</FgConsumerFileLayerParameterTypeList>
</FgConsumerFileLayerType>
</Input>
</API>
</MultiApi>
```

3. Save the XML file to a local directory.
4. Select **Tools > B2B Console > Business Processes > Manager**.
5. Search for the FileGatewayCustomLayerXAPI business process.
6. Select **Execution Manager** to execute the FileGatewayCustomLayerXAPI business process, specifying the XML file from step 3 as the document.
7. The B2B Console executes the business process and updates the custom file layer type in the database.
8. Stop and Restart Sterling File Gateway to use the revised custom file layer types.

## Delete a Custom File Layer Type

Integration Architects may identify custom file layer types that are no longer needed or valid, and request the System Administrator delete them.

This procedure is for advanced users with a knowledge of XAPIs and APIs. The java docs that support this functionality are located at [http://lonely/api\\_javadocs](http://lonely/api_javadocs), Package com.sterlingcommerce.fg.xapi.api.

To delete a custom file layer type:

1. Open a text or XML editor.
2. Enter text to delete the custom file layer type by specifying the original primary key along with the “Delete” operation, as in the following example:

```
<?xml version="1.0" encoding="UTF-8"?>
<MultiApi>
<API Name="manageFgConsumerFileLayerType">
<Input>
<FgConsumerFileLayerType ConsumerFileLayerTypeKey="DR13E_GUID"
  Operation="Delete"/>
</Input>
</API>
</MultiApi>
```

3. Save the XML file to a local directory.
4. Select **Tools > B2B Console > Business Processes > Manager**.

5. Search for the FileGatewayCustomLayerXAPI business process.
6. Select **Execution Manager** to execute the FileGatewayCustomLayerXAPI business process, specifying the XML file from step 3 as the document.
7. The B2B Console executes the business process and deletes the custom file layer type in the database.
8. Stop and Restart Sterling File Gateway.

# Integration Architect

---

## About Delivery Channels (Build 4324 or Later)

The delivery channel defines what will be delivered to a consumer.

A routing channel template contains one or many delivery channels. Each delivery channel consists of:

- One consumer mailbox name pattern
- One consumer file structure

The mailbox name pattern can be specified using the following:

- System facts (for example, `/${ConsumerName}/Inbox`) where the actual name would be determined dynamically
- Explicit strings (for example, `/${ConsumerName}/myInbox`)
- Provisioning facts (for example, `/${ConsumerName}/${myUserName}`) that are specified on the Provisioning Facts tab of the Routing Channel Template wizard
- A combination of system facts, explicit strings, and provisioning facts. The mailbox pattern must always start with `/${ConsumerName}`

You can specify that a mailbox be created at the time of routing.

---

**Note:** The root mailbox for the user must already exist; only a submailbox for the partner is created by Sterling File Gateway.

---

You can specify that a message be delivered using a consumer listening protocol if available. The default is to always attempt to deliver to a listening protocol if available, but where you have two delivery channels and you only want to send to one listening protocol, uncheck this option for one of the delivery channels. This is useful in scenarios where you have two delivery channels, (for example the second is used to deliver to an archive mailbox) and you want only one of the delivery channels to deliver outbound to a listening consumer to avoid delivering a duplicate message.

The Integration Architect creates a delivery channel as part of the process of creating a routing channel template.



## Create a Routing Channel Template

To create a routing channel template:

1. From the main menu, select **Routes > Templates**.
2. Click **Create**.
3. On the **Type** tab, enter a descriptive name for the template. Only alphanumerics, underscores, and <space> characters are allowed in the template name.

The following are system-designated prefixes and must not be used for user-created templates:

- AFT
  - FileGateway
  - FG
4. Select **Static** or **Dynamic**. If **Dynamic**, select how the consumer is determined, whether by facts or by business process. If by facts, specify the ConsumerName or ConsumerCode facts in every producer file structure. If by business process, specify the business process name and the element name in ProcessData that identifies the consumer.
  5. On the **Special Characters** tab, select how special characters in producer file names should be handled. Use this when the file name the producer gives a file is incompatible with the naming convention the consumer uses. Select from the following:

Selection	Other Input and Results
None	Do not change any special characters.
Substitute characters individually	<p>Enter which characters to substitute with what new characters. The number of characters specified in the search for and replace fields must match. The characters are case-sensitive.</p> <p>For example, Search for character sequence ABC, Replace with 123 would translate a producer file name of:</p> <ul style="list-style-type: none"> <li>• Abbot.txt to a consumer file name of 1bbot.txt</li> <li>• ABBOT.TXT to a consumer file name of 122OT.TXT</li> </ul> <p>Search for abcdef, Replace with ABCDEF would translate producer a file name of:</p> <ul style="list-style-type: none"> <li>• abbot.txt to a consumer file name of ABBot.txt</li> </ul>
Replace characters, then omit consecutive replacements	<p>Enter which sequence to substitute with what new sequence.</p> <p>For example, Search for [*%\$] Replace with -, would translate all of the following producer file names:</p> <ul style="list-style-type: none"> <li>• A*B.txt</li> <li>• A***B.txt</li> <li>• A%***B.txt</li> <li>• A*B.txt</li> <li>• A\$\$\$**%B.txt</li> <li>• A*\$%\$%*\$*%B.txt</li> </ul> <p>to a consumer file name of A-B.txt</p>

Selection	Other Input and Results
Remove characters	Enter the characters to remove from the producer file name to create the consumer file name.
Remove Windows invalid characters <code>^.*?"&lt;&gt; ;%</code>	Characters that are invalid or cause problems in the Windows operating system are removed from producer file names prior to delivering to consumers.
Remove UNIX invalid characters <code>;/\!#\$%*"'"?&lt;&gt;)</code>	Characters that are invalid or cause problems in the UNIX operating system are removed from producer file names prior to delivering to consumers.
Remove all characters, except alphanumeric, dash, and period	All special characters are removed from producer file names prior to delivering to consumers.

- On the **Groups** tab, click **Add** beneath each group box. Select from the drop down lists the producer groups and consumer groups that can use the template. You can select one or more producer groups and consumer groups by clicking **Add** and selecting additional groups from the lists.

---

**Note:** Select the **All Partners** group in the producer and consumer lists to enable all partners present in the application to use the RCT.

---

- On the **Producer** tab, specify the producer mailbox name pattern and producer file structure. Mailbox paths are case insensitive and should therefore be unique without regard to case.
- On the **Consumer** tab, specify the consumer mailbox pattern. Check the following:
  - If checked, mailboxes matching this pattern may be created on demand. For a dynamic template, this mailbox creation at run time is required.

---

**Note:** The root mailbox for the user must already exist; only a submailbox for the partner is created by Sterling File Gateway.

---

- If checked, the delivery channel will attempt to deliver to a listening protocol if available.

---

**Note:** If you have two delivery channels and you only want to send to that listening protocol once, uncheck this option.

---

- Specify the delivery channel, including the consumer file structure. The innermost layer of the consumer file structure must match the innermost layer of the producer file structure, or be Unknown. The consumer file structure defines the file name format delivered to the consumer. To pass the file name through unchanged, enter: `${ProducerFilename}`

---

**Note:** There can only be one consumer file structure for each delivery channel. If you click **Add** and specify another file structure, it will overwrite the previously defined file structure.

---

- Click **Save** to complete the routing channel template. Sterling File Gateway validates the routing channel template and displays errors for invalid criteria. You will get a confirmation when the template is successfully validated and saved.

# Operator

---

## Resolve Problems

Monitor the file activity routinely to check for failed transfers.

To resolve problems with file transfers:

1. From the main menu, select **Tools > Activity Snapshot**, and check for **New Failures**.
2. Click on the number in the **New Failures** column to see a list for the most recent hour, day, or week displayed in the main window. Close the **Activity Snapshot** window to view the list.
3. Click on an item in the returned list to see the details.
4. Verify that all business processes involved in processing and transferring the files completed successfully.
5. Correct the conditions that caused the failure. For example, if there was an FTP failure due to an incorrect password, update the Partner's FTP configuration with the correct password.
6. To replay the failed transfer, right-click in the row of the arrived file and select **Replay this Arrived File**.
7. Mark the activity as **Reviewed** to move it to the **Reviewed Failures** list. Right-click and select **Mark as Reviewed**, or click in the checkbox in the Reviewed column. You can remove the check mark by clicking again, or by right-clicking and selecting **Mark as Not Reviewed**. This field is useful for Operators to track their monitoring of file activity and resolving problems.
8. Check for files in Routing State for extended periods of time, in cases that do not show in **New Failures** or in **Successfully Routed**. Below the **Activity Snapshot**, click the **Total in-flight** link.
9. Close the **Activity Snapshot**.
10. Review the list for any files that may have stalled. Click in a row to view the related events.
11. If there is a halted or failed business process, manually restart the business process to resume the transfer.

---

## Confirm File Delivery

To confirm delivery of a file that may have been affected by a system failure, you can call the consumer to verify that they received it.

Or, you can perform the following procedure:

1. On the Activity page, click on the Arrived File. The Route and Delivery tabs should display.
  - a) If no Delivery tab or there are no deliveries under the Delivery tab, deliveries were not attempted. Replay the Arrived File.
  - b) If there is a Delivery tab, there may have been delivery attempts. Continue with Step 2.
2. For each delivery, look for the following event codes:

Code	Name	Event Description
FG_0201	BusinessProcessStarting	The Business Process was started. The event contains a link to the workflow ID. In the case of FileGatewaySendMessage, this workflow ID is not the one that was started and instead you should look at FG_0203.  For FileGatewaySendMessage, look for the FG/Protocol attribute. If there is one, it provides the protocol. If there is no Protocol attribute, the transfer is a mailbox-only delivery. Use this value to look for mailbox or protocol deliveries in the instructions below.
FG_0202	BusinessProcessCompleted	Successful completion of the Business Process. This means the delivery was also successful, because the process completed without failures.
FG_0203	SendMessageBusinessProcessStarted	The Send Message process was started. This is unique because it is asynchronous to the route. The workflow ID link in this event is the correct process.
FG_0250	BusinessProcessFailed	The Business Process failed. You will not see FG_0250 on a successful process. Click through to the workflow ID on this event to view details about what happened.
FG_0701	DeliveryMailboxMessage	The Mailbox Message was delivered successfully.

3. If all events exist, the delivery to protocol and mailbox succeeded. If some events are missing, the transfer may not have succeeded. Continue with step 4.
4. Verify mailbox delivery by checking the results of the MailboxAddService in the FileGatewaySendMessage business process. A link to the FileGatewaySendMessage business process is in the event text for FG\_0202 and FG\_0203 under the Delivery tab. Click on the workflow ID link to go to the business process.

Based on the events listed, perform the following actions:

Problem	Solution
Only FG_0201 event exists	Click the workflow ID link for FG_0201 to go to the parent business process. Find the correct subprocess under the FileGatewayDeliveryService. If you only have one delivery there will only be one there.  If that service did not run, no mailbox or protocol delivery occurred for that route.  If you find some subprocesses, click each one to determine if it is the one you are interested in. Compare the

Problem	Solution
	DestinationMessageName in Process Data to the delivery that failed to find the matching process.
There are no FG_02xx events	It is possible the SendMessage process was not started, or there was data loss on the events. To verify, click the workflow ID link for FG_0425 under the Arrived File to go to the parent business process. Find the correct subprocess, if it exists. Use the table in Step 2 to find the correct subprocess. If no subprocesses were started, the delivery did not occur Continue to Step 5.

- When you are viewing the correct FileGatewaySendMessage subprocess, look for the MailboxAddService. If there is no MailboxAddService, the mailbox delivery did not occur. If there is a MailboxAddService, check if it failed or succeeded.

Perform the following actions:

Mailbox Delivery	Action
Succeeded for all deliveries	Mark items as Reviewed.
Succeeded for no deliveries	Replay Arrived Files, and mark as Reviewed.
Succeeded for some deliveries	Redeliver only the Failed deliveries, and mark as Reviewed.

- Check for protocol delivery. Find the link to the FileGatewaySendMessage business process. A link to the FileGatewaySendMessage business process is in the event text for FG\_0202 and FG\_0203 under the Delivery tab. Click on the workflow ID link to go to the business process.

Protocol delivery is performed by a business process inside the FileGatewaySendMessage business process. There is no specific service that you can check. With custom protocols, there could be several services responsible for protocol delivery. In general, look for the Invoke Subprocess Service and the next services will be protocol specific. For FTP and SFTP protocols, look for services like FTTPut or SFTTPut. Follow the flow and determine if the protocol delivery reached and completed the service responsible for the actual delivery.

- Check all the deliveries for the Arrived File against the following table. If they all have Yes for “Replay/Redeliver” then Replay the Arrived File. If some are Yes and some are No, then only redeliver the ones that have Yes and do not Replay the Arrived File (or risk duplicate deliveries.)

Protocol	Mailbox	Replay/Redeliver	Action
Succeeded	Succeeded	No	Delivery succeeded. Do not replay or redeliver.
Failed	Succeeded	Yes	Although the file succeeded to the mailbox, replay or redeliver so that it also succeeds to the protocol.
Succeeded	Failed	No	Because the protocol succeeded, do not replay or redeliver because it will cause a duplicate delivery. Ignore that the mailbox failed.

Protocol	Mailbox	Replay/Redeliver	Action
Failed	Failed	Yes	Replay or Redeliver

---

## Resolve a Transport Error

To resolve an error message of

`Transport Error-HTTP Code:12029 for URL:./smartclientRPC.do`

or similar:

1. Close the current browser session and relaunch Sterling File Gateway in a new browser session.
2. Log in to Sterling File Gateway.
3. If the problem recurs, restart Sterling File Gateway at the server.

---

## Troubleshoot and Resolve Pending Transfers After a System or Node Failure

In a failover scenario, some producer messages may not get deleted from the Producer Mailbox. To resolve this situation:

1. Determine whether the message got routed. Select **Tools > B2B Console > Deployment > Mailboxes > Messages** to search for files in the mailbox and locate the message Id.
2. Use **Advanced Search** in Sterling File Gateway to find the message Id.
3. If you find a result, it should be failed. Replay the arrived file. This resolves the issue without producer partner involvement.
4. If you did not find a result, contact the producer partner and have them rename the file.
  - a) The Producer logs in to their producer mailbox and notes the name of the message. It must be the same user that added the file for Sterling File Gateway to detect the route.
  - b) The Producer navigates to the mailbox directory that contains the message using the protocol originally used, such as FTP or SFTP.
  - c) The Producer renames the message using the exact same name. The rename command may have different names for different protocols and clients. For example, in FTP and SFTP command line it is “rename filename filename”.
  - d) If Allow Duplicates=false, then the producer partner can re-put the file which will overwrite the one that did not get routed.

---

## Troubleshoot and Resolve Incomplete File Transfers

If the business process responsible for a route fails or pauses due to a system failure, arrived files may not transfer completely.

If the consumer can receive the same file again without causing problems, replay the arrived file. Mark the arrived file as reviewed and enter comments with the reason for the replay.

If the consumer cannot manage receiving a duplicate file, determine whether an arrived file was already delivered before performing the replay. See *Confirm File Delivery*.

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## Troubleshoot and Resolve Blank Arrived Files

If an arrived file is blank, with no original file name or producer name, a system failure may have caused the Sterling File Gateway router to be unable to process the incoming message. There are several known situations that cause this:

- When a protocol client that uploads files to Sterling File Gateway performs renaming of files upon transfer.
  - **Why this happens** - the original file is deleted and renamed to a file with a new name. If Sterling File Gateway tries to route the file with the original name that was deleted, a failed blank arrived file is created. This happens because the file got deleted before information like producer, original file name and so forth are retrieved.
  - **What to do** - click on the blank arrived file. In the details, locate the message Id. Go to **Tools > B2B Console > Correlation Search** and enter the message Id and click **Find**. In the results, locate the file name and mailbox path to determine the producer. Contact the producer to confirm that their client that uploads files is set to rename files upon transfer. Ensure that the file with the new name is routed correctly.
- Alternatively, In the Arrived File list, click on the Failed route to view the Arrived File Event details. The following event message is listed:

```
FG-0450 ERROR: Producer Mailbox Message Does Not Exist.
```

Click on the Dataflow link in the details. Further details about the dataflow are displayed.

- When a file is sent and immediately sent again, overwriting the first.
  - **Why this happens** - **Allow duplicates**=false in the Mailbox configuration. The second file overwrites and deletes the first file. If this happens before Sterling File Gateway reads the data about this file, then you have a blank route.
  - **What to do** - this is harmless if both files contain the same data because the second file is routed correctly. If multiple files with the same name and different data are to be sent to the system, configure the system so these files go to different mailboxes, or set **Allow duplicates**=true.
- When a system configured with a redundant Oracle RAC has a node failure.
  - **Why this happens** - the arrived file temporarily cannot see the message because of the failure and creates a blank arrived file to show that something was supposed to happen, and then immediately fails the arrived file.
  - **What to do** - replay the arrived file to get it to reroute. If this does not work, the message was deleted before the replay. Investigate the database, the logs, and the Activity list to find which message did not get added or got deleted prematurely. Determine the producer and ask them to re-send the file.
- Both AFT and Sterling File Gateway are enabled at the same time.
  - **Why this happens** - no AFT Routing Rules should be active after Sterling File Gateway is installed.
  - **What to do** - when Sterling File Gateway is installed, AFT is disabled. Do not re-enable AFT Routing Rules.

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## Failed Routes for Renamed Files

If Sterling File Gateway tries to route a file that has been deleted from the mailbox, it results in a failed route. In the Arrived File list, click on the Failed route to view the Arrived File Event details. The following event message is listed:

```
FG-0450 ERROR: Producer Mailbox Message Does Not Exist.
```

Click on the Dataflow link in the details.

This can happen when a protocol client that uploads files to Sterling File Gateway performs renaming of files upon transfer.

System Administrators can specify the temporary file name pattern in the ignoreFilename parameter as a regex expression in filegateway.properties. This causes the specified patterns to be listed in the Arrived File list as Ignored. Multiple file name patterns can be specified.



# myFileGateway

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## Send a File Using *myFileGateway*

To send a file:

1. In *myFileGateway*, click on the Upload tab.
2. Select the mailbox path where the file should be dropped off.
3. Enter the name and location of the file or browse to the file to be uploaded.
4. If you want to rename the file, enter the new file name.
5. Click **Send**.

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**Note:** During the file transfer, if you click **Cancel**, the transfer may or may not be stopped, depending on the size of the file and rate of transfer.

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A message dialog box during file upload shows progress and prevents multiple upload attempts for large uploads. If a session times out, a notification is posted.