**Create a User Account :**

1. From the Administration Menu, select Accounts > User Accounts.
2. Next to Create a new Account, click Go!
3. In the New Account page.
4. Enter the User ID as “BFGAPIUser”
5. Enter the Password.
6. Confirm the Password. Click Next.
7. On the SSH Authorized User Key page, click Next.
8. On the Groups page, click Next.
9. On the Permissions page, assign “APIUser” permissions. Move the permission from the Available pane to the Assigned pane and click Next.
10. On the User Information page, enter the Given Name, Surname. click Next.
11. Review the user account settings. click Finish.

The user account is created, and this message is displayed:

The system update completed successfully.

**Adding BFG\_DYNAMIC\_REST JDBC Pools :**

Go to /opt/ibm/sbi/install/properties and edit the jdbc\_customer.properties.in and add the below lines. Update the database url, catalog and password as per the environment.

BFG\_DYNAMIC\_REST.driver=oracle.jdbc.OracleDriver

BFG\_DYNAMIC\_REST.url=jdbc:oracle:thin:@(DESCRIPTION=(CONNECT\_TIMEOUT=1)(TRANSPORT\_CONNECT\_TIMEOUT=5)(RETRY\_DELAY=1)(RETRY\_COUNT=3)(ADDRESS\_LIST=(FAILOVER=ON)(LOAD\_BALANCE=OFF)(ADDRESS=(PROTOCOL=tcp)(HOST=mghmefgtest-scan.vip.banksvcs.net)(PORT=1700))(ADDRESS=(PROTOCOL=tcp)(HOST=mmhmefgtest-scan.vip.banksvcs.net)(PORT=1676)))(CONNECT\_DATA=(SERVER =DEDICATED)(SERVICE\_NAME=NOGBEF11\_APP)))

BFG\_DYNAMIC\_REST.user=bfgrest\_appuser

BFG\_DYNAMIC\_REST.password=Bfgrest\_12345\_nft

BFG\_DYNAMIC\_REST.prop\_TCP.NODELAY=YES

BFG\_DYNAMIC\_REST.storedProcClassName=com.sterlingcommerce.woodstock.util.frame.jdbc.OracleNoAppStoredProcQuery

BFG\_DYNAMIC\_REST.varDataClassName=com.sterlingcommerce.woodstock.util.frame.jdbc.OracleBlobVarData

BFG\_DYNAMIC\_REST.catalog=NOGBEF11\_APP

BFG\_DYNAMIC\_REST.schema=BFG\_DYNAMIC

BFG\_DYNAMIC\_REST.type=remote

BFG\_DYNAMIC\_REST.testOnReserve=true

BFG\_DYNAMIC\_REST.testOnReserveQuery=SELECT \* from dual fetch first 1 rows only

BFG\_DYNAMIC\_REST.testOnReserveInterval=60000

BFG\_DYNAMIC\_REST.maxRetries=100

BFG\_DYNAMIC\_REST.blobPageSize=1024000

BFG\_DYNAMIC\_REST.compressBlob=true

BFG\_DYNAMIC\_REST.max8177RetryCount=-1

BFG\_DYNAMIC\_REST.dbvendor=oracle

BFG\_DYNAMIC\_REST.buffersize=500

BFG\_DYNAMIC\_REST.maxsize=60

BFG\_DYNAMIC\_REST.initsize=1

BFG\_DYNAMIC\_REST.factory=com.sterlingcommerce.woodstock.util.frame.jdbc.ConnectionFactory

BFG\_DYNAMIC\_REST.behaviour=2

BFG\_DYNAMIC\_REST.lifespan=0

BFG\_DYNAMIC\_REST.idletimeout=86400000

BFG\_DYNAMIC\_REST.housekeepinginterval=3600000

BFG\_DYNAMIC\_REST.waittime=1000

BFG\_DYNAMIC\_REST.errorMissingTable=942

BFG\_DYNAMIC\_REST.transaction=true

BFG\_DYNAMIC\_REST.systemPool=true

Once done, go to /opt/ibm/sbi/install/bin and run setupfiles.sh.

**Certificate Creation and Import :**

1. Generate CSR file (The reference in the CN is your reference code received from SNOW)

/opt/nfast/bin/openssl req -out CSRBFGUISIRNFT.csr -new -newkey rsa:2048 -nodes -subj "/CN=86993426/OU=Devices/OU=Proving G1 PKI Service/O=The Royal Bank of Scotland Group" -keyout privateKeyBFGSIRNFT.key

1. Obtain DER certificate from portal using CSR and then convert it into pfx

/opt/nfast/bin/openssl pkcs12 -export -out BFGUI\_SIRNFT\_CERTIFICATE.pfx -inkey BFGUI\_SIRNFT\_CERTIFICATE\_Key.txt -in BFGUI\_SIRNFT\_CERTIFICATE.cer  -passout pass:password

1. Use the above file and import that in Sterling B2Bi System Certificates.
2. Rename the BFGUI\_SIRNFT\_CERTIFICATE.pfx to BFGUI\_SIRNFT\_CERTIFICATE.p12 and place the file in “/opt/ibm/sbi/install/liberty/wlp/usr/servers/SIServer/resources/security”.
3. Take the backup of server.xml file present at “/opt/ibm/sbi/install/liberty/wlp/usr/servers/SIServer” and edit the file.
4. Look for “keyStore” xml tag and replace the existing tag with below data after changing the appropriate values. Save the file and restart Sterling B2Bi (we can perform this at last).

<keyStore id="defaultKeyStore" location="BFGUI\_SIRNFT\_CERTIFICATE.p12" password="password"></keyStore>

1. Concatenate the public cert and private cert into a pem file to upload to Tyk

/opt/nfast/bin/openssl x509 -in CSRBFGUISIRNFT.der -out BFGUISIRNFT.pem

/opt/nfast/bin/openssl rsa -in privateKeyBFGSIRNFT.key -out privateKeyBFGSIRNFT.pem

Use cat to concatenate the above both PEM files.

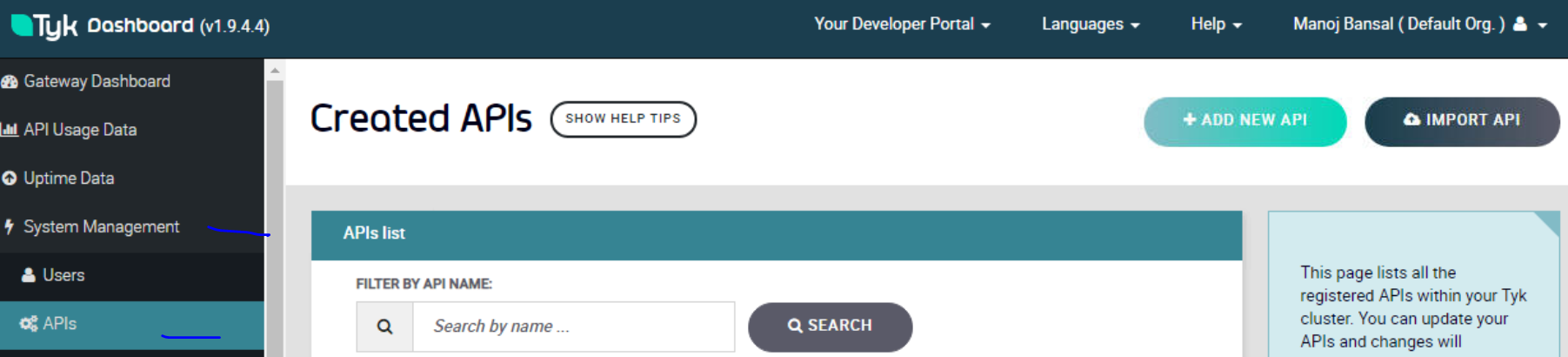
**TYK Configuration :**

Attached are the 3 export files from NFT.

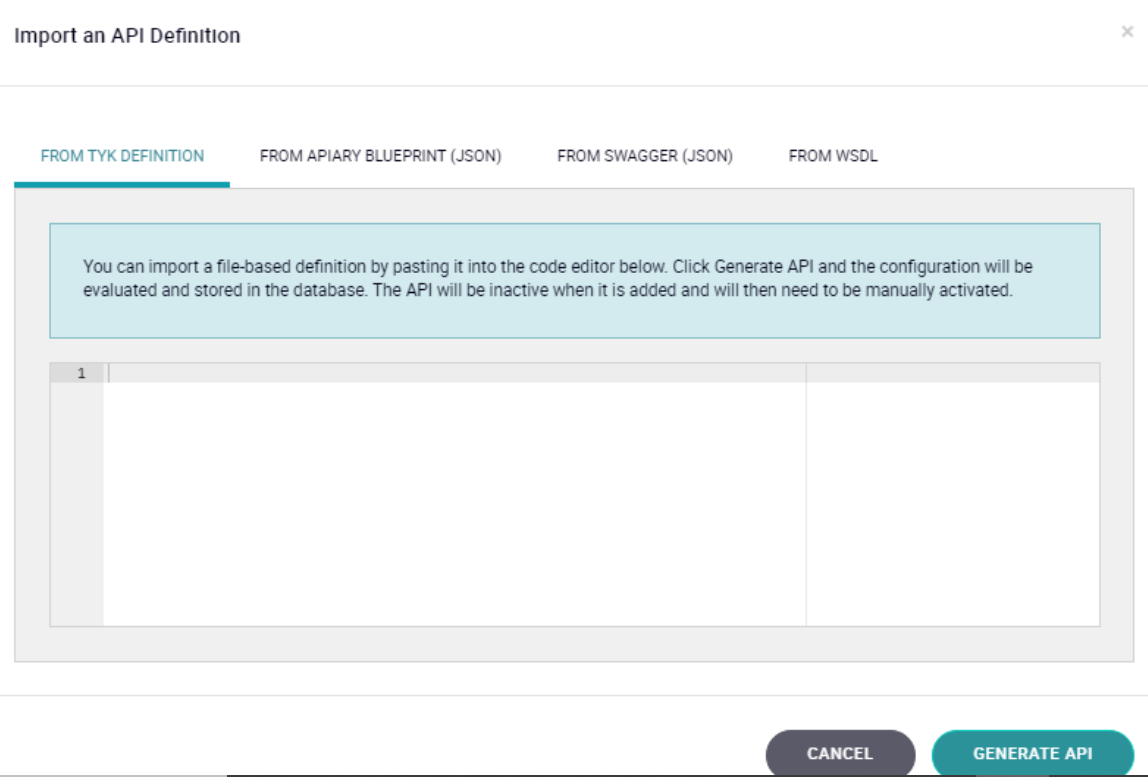


To deploy tyk configuration for PSE or PROD, one need to edit export files (attached above) and update the “name” from “sbi-product-rest-nft” to “sbi-product-rest-<<pse-prod>>” , “target\_list” with the respective environment hostname and also update the listen\_path from "/payments-bfg-sbi-nft/product/rest" to "/payments-bfg-sbi-<<PSE-PROD>>/product/rest".

After updating the json files, open tyk and import the files.

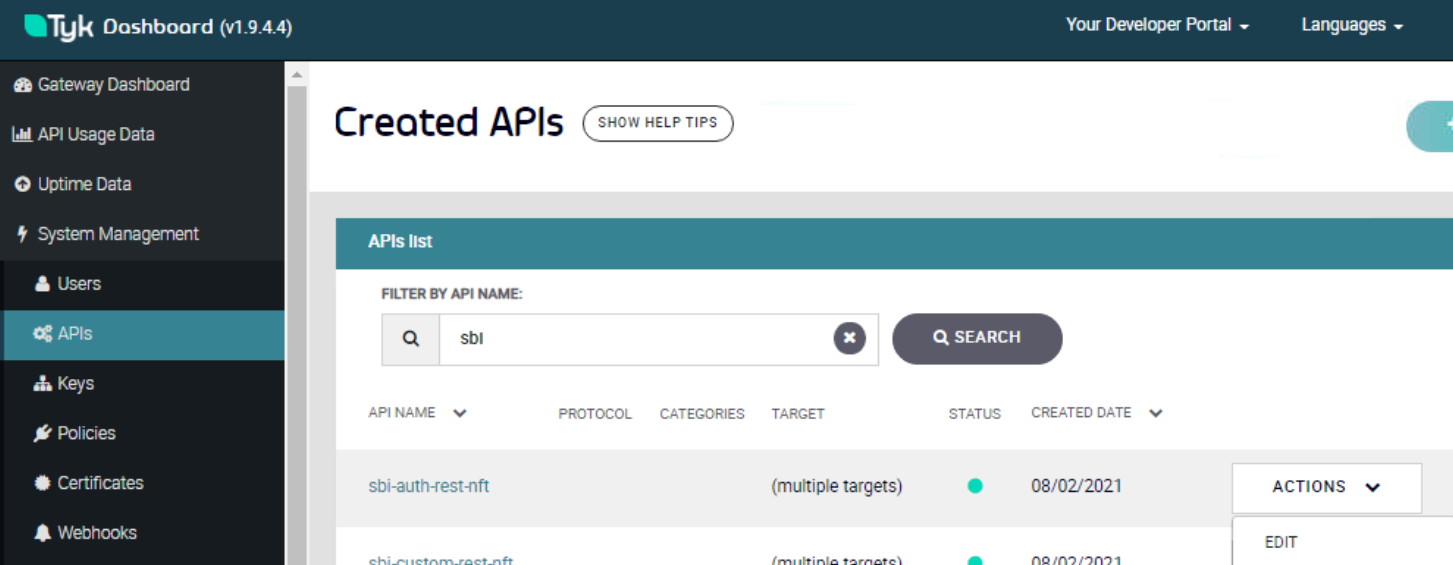


Click on “IMPORT API” and copy paste the content of above json files in the below window

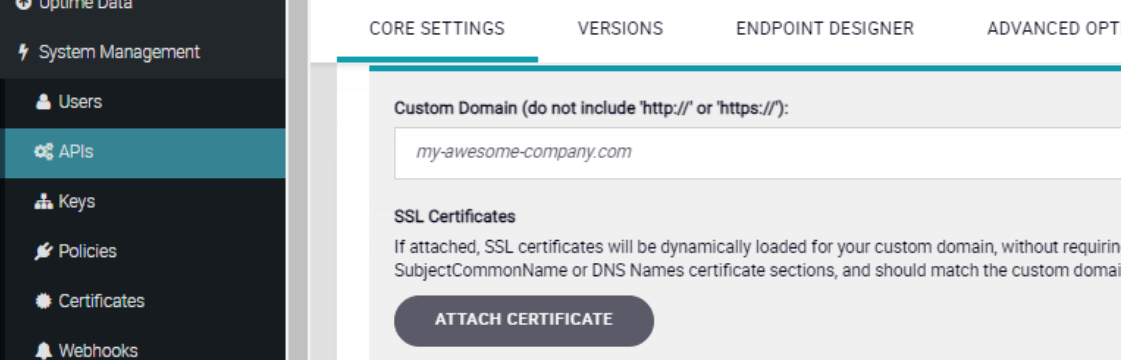


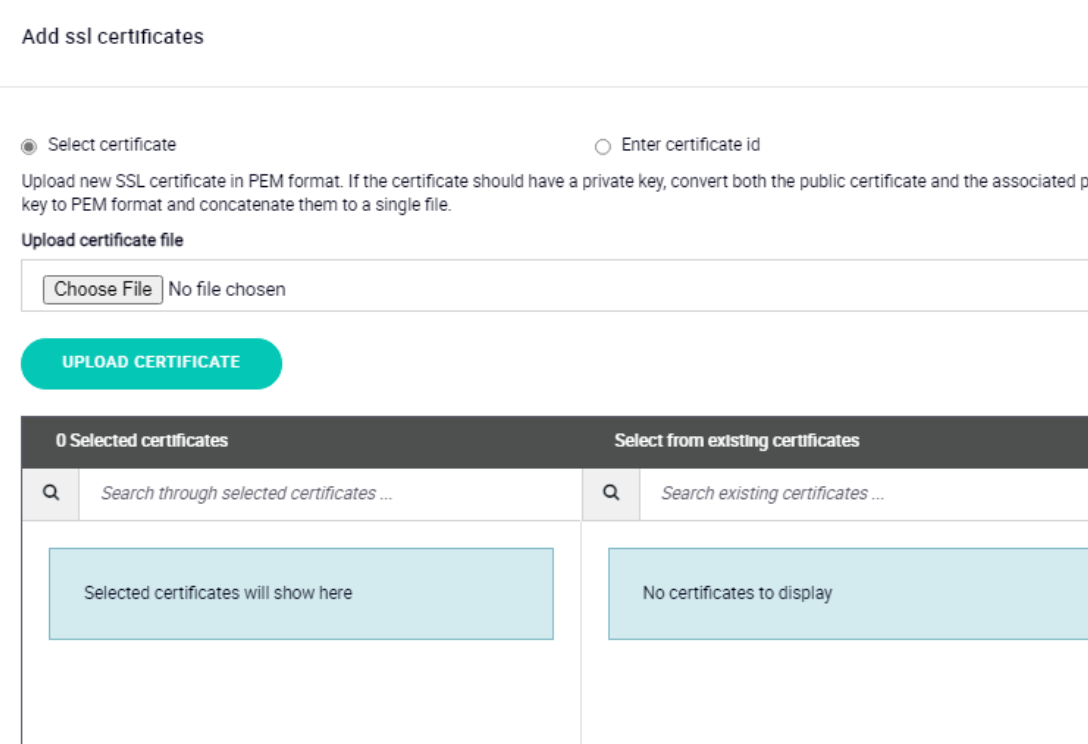
and click on “GENERATE API”.

Now search for 1 of the API and edit it

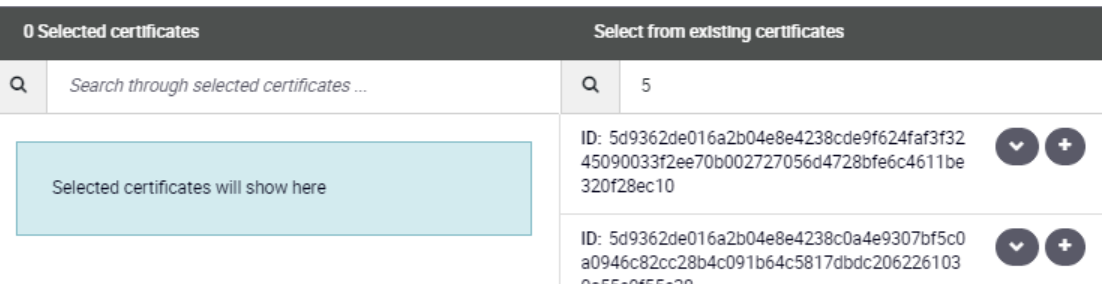


Click on “ATTACH CERTIFICATE”

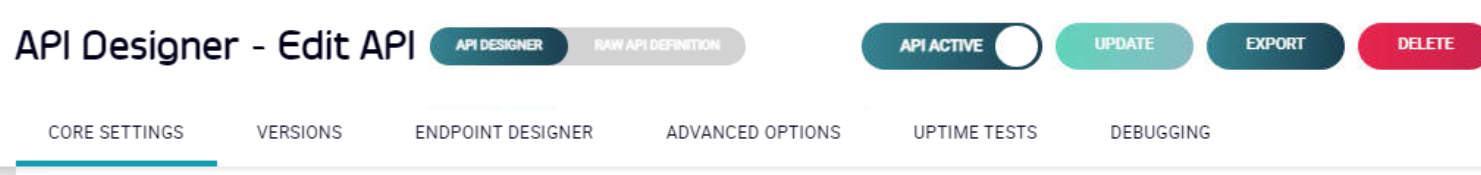


Browse the certificate , upload it and make the note of the certificate id.

Search the certificate with the id and click on Plus(+) sign



Click on “UPDATE” button to save the changes.



Attach the same certificate in other 2 APIs.

**Rest Support War :**

Copy the /opt/ibm/custom-wars/BFGUIRestSupport.war from DEV or NFT and place the war file in new environment under the /opt/ibm/custom-wars folder.

**Rest Support Log Folder :**

Create a folder “bfgui” for rest support war logs under /opt/ibm/sbi/install/logs/

**Create Rest Support HTTP Server Adapter :**

1. From the Deployment Menu, select Services > Configuration.
2. Next to Create a new Service, click Go!
3. Enter “HTTP Server Adapter” in the Service Type and click Next.
4. Enter “FB\_BFGUI\_REST\_SPRT\_HTTP\_SVR\_ADPT\_N1” and provide description as “BFGUI Rest Support HTTP Server Adapter for Node1”
5. Select “Node1” as the Environment. click Next.
6. Enter 35001 as the HTTP Listen Port.
7. Enter 0 as Total Business Process queue depth threshold.
8. Document Storage “System Default”.
9. User Authentication Required as “Yes”.
10. Use SSL as “Must”.
11. Select System Certificate “BFGUI\_SIR<Env>\_CERTIFICATE”, click Next.
12. Select “Yes” on adapter restriction page. click Next.
13. Select “BFGAPIUSer” from Users options and move to right box. click Next.
14. Click “add” (New URI)
15. Enter URI as /bfgui-rest and select war file, click Next.
16. Enter the path as “/opt/ibm/custom-wars/BFGUIRestSupport.war, click Next.
17. Click Next.
18. Review the user account settings. click Finish.
19. Copy the configuration of this adapter and update the name and environment values (step 4 and 5) to create the adapter on remaining nodes.

**Create Rest Auth HTTP Server Adapter**

1. From the Deployment Menu, select Services > Configuration.
2. Search for “REST Http Server Adapter”
3. Disable the adapter as it’s a default adapter.
4. Make a Copy of this adapter and name it as “FB\_REST\_AUTH\_HTTP\_SVR\_ADPT\_N1” and enter the description as “Rest API Authentication HTTP server Adapter for Node 4”
5. Select “Node1” as the Environment. click Next.
6. Enter 10 as Total Business Process queue depth threshold and keep rest as default
7. Select System Certificate “BFGUI\_SIR<Env>\_CERTIFICATE”, click Save
8. Review the user account settings. click Finish.
9. Copy the configuration of this adapter and update the name and environment values (step 4 and 5) to create the adapter on remaining nodes.

**User Permissions and User Groups:**

We have useraccount.groups and useraccount.permissions key values in bfgui.properties file which has lists of permissions and groups that being used.

**SQL To Run Post Migrating Data From LEGACY**

UPDATE "$$TBLUSER$$".SCT\_ENTITY  
 SET ISDELETED = 1,  
 SERVICE = ('DEL\_' || ENTITY\_ID || '\_' || SERVICE),  
 MAILBOXPATHOUT = ('DEL\_' || ENTITY\_ID || '\_' || MAILBOXPATHOUT),  
 MQQUEUEOUT= ('DEL\_' || ENTITY\_ID || '\_' || MQQUEUEOUT)  
 WHERE SERVICE IN ('SDD', 'ROI', 'TRD');

**Deploying the BFGUI Application**

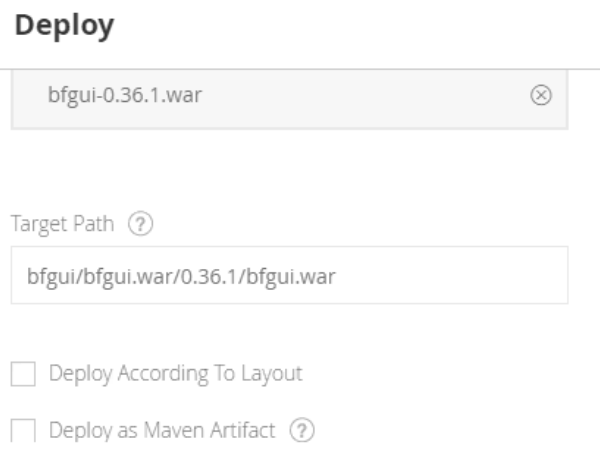
Deploying a new version of the BFGUI has three steps:

1. Upload the new BFGUI WAR version to Artifactory
2. Pull the new version to Urban Code Deploy (UCD)
3. Deploy to the target environment from UCD

Pre-requisites :

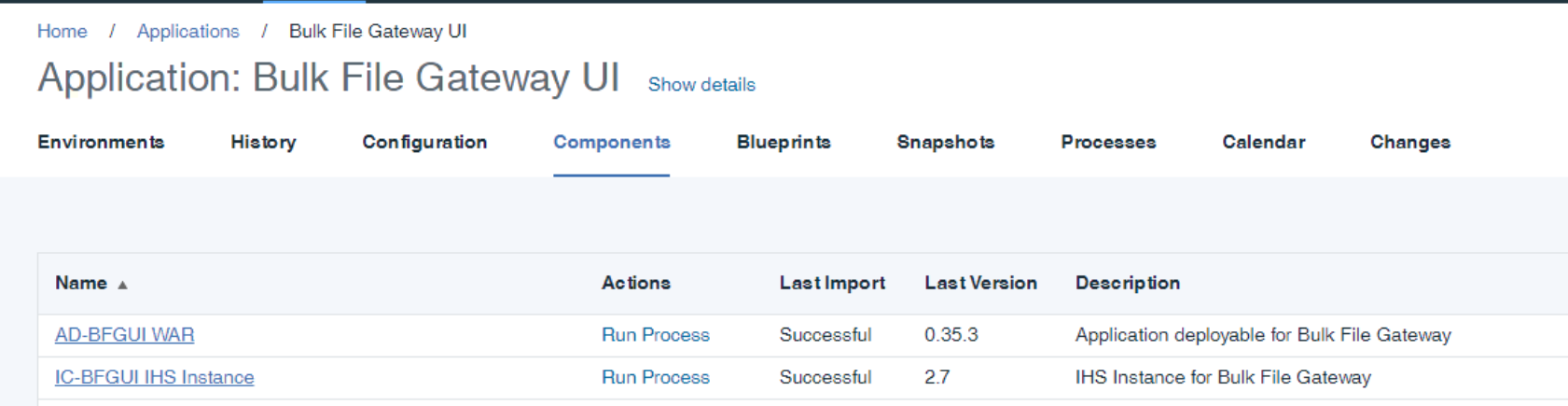
1. you have permissions in the two systems to work with the repositories (Artifactory) and the BFGUI application (UCD)
2. you have locally (file system) a new version of the war, and
3. you know the version number that you want to label the new WAR with e.g. 1.0.2

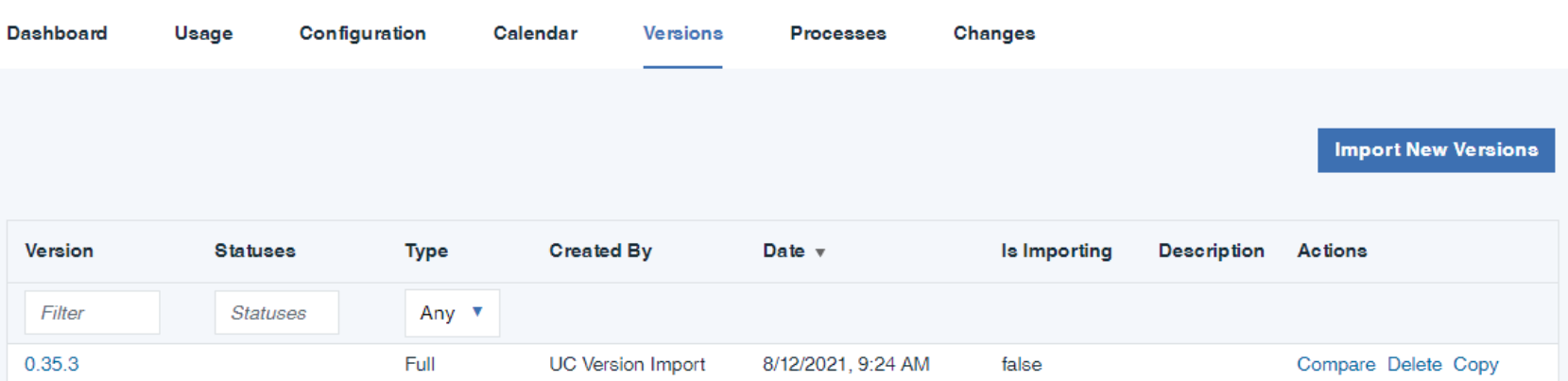
## Upload the new BFGUI WAR version to Artifactory

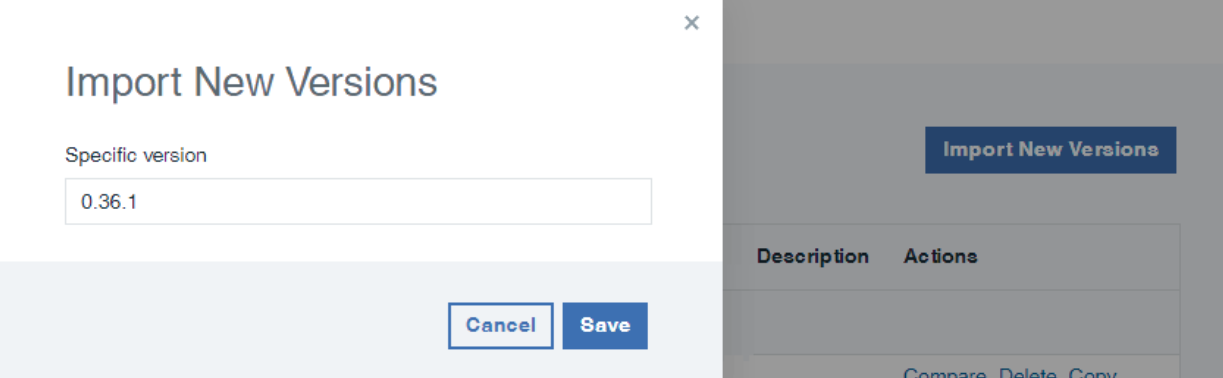
1. Open a browser on Artifactory at the SIR repository root (<https://artifactory.server.rbsgrp.net/artifactory/webapp/#/artifacts/browse/simple/General/sir-maven-all-repos>).
2. Login and select the "Deploy" option on the top right.
3. In the dialog, set the following fields:
   1. Target Repository "sir-maven-ext-local"
   2. "Single file", and browse to the new bfgui war file, e.g. bfgui-0.36.1.war
   3. Uncheck "Deploy as Maven Artifact"
   4. In "Target path", enter (without quotes) "bfgui/bfgui.war/n.n.n/bfgui.war" where n.n.n is the version that you want to upload the war as.  Example bfgui/bfgui.war/0.36.1/bfgui.war.  Make sure the version is in the path and the war file name in the target path is bfgui.war.   The war will be renamed on upload.  
        
      
   5. "Deploy" to upload the war.

## Pull the new version to Urban Code Deploy (UCD)

1. Open a browser on Urban Code Deploy at the BFGUI application (<https://www.ucd-prod.web.rbsgrp.net/#application/1732401b-701f-d392-f4cd-85561b3b7661>)
2. Select "Components" and "AD-BFGUI-WAR":

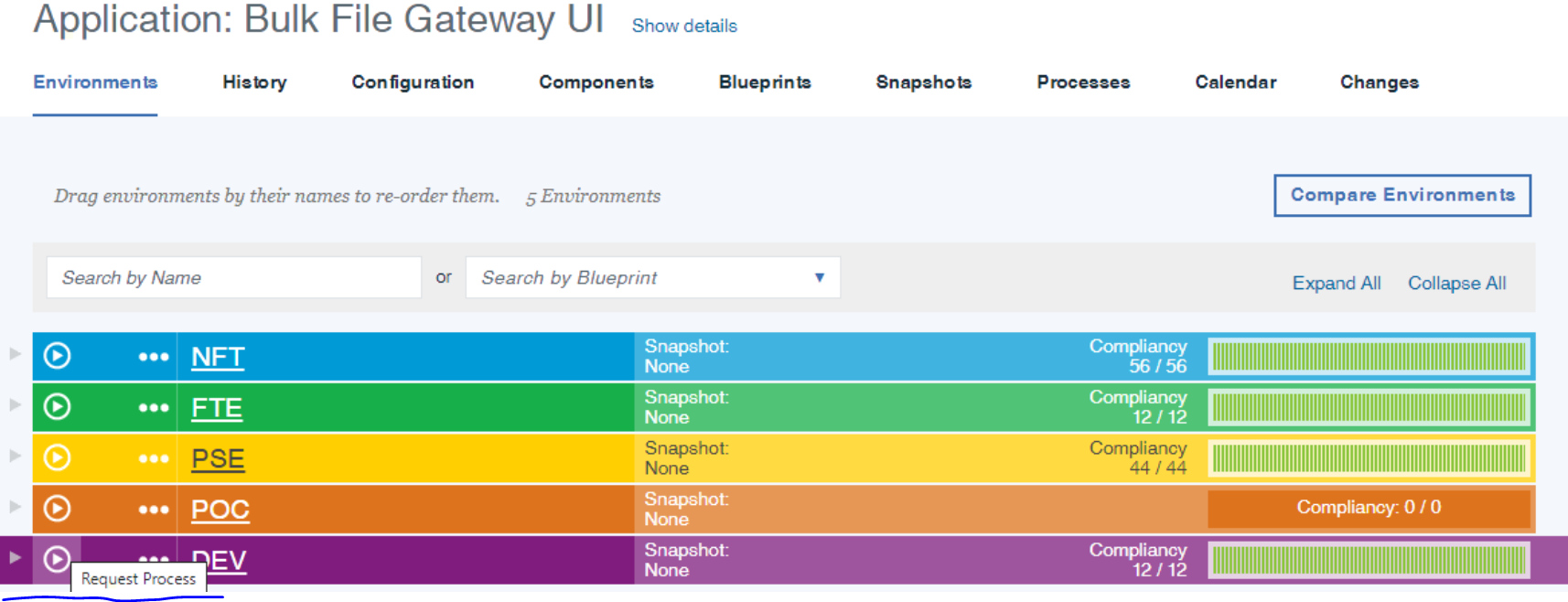
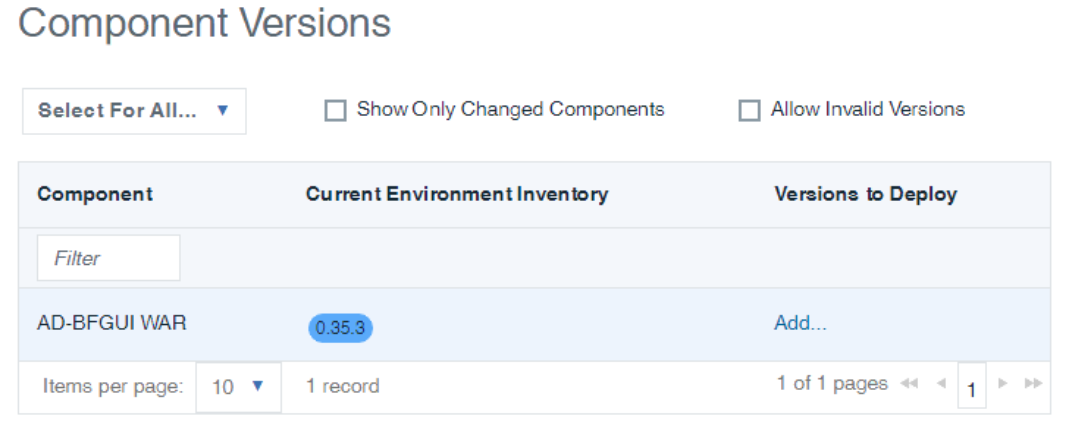


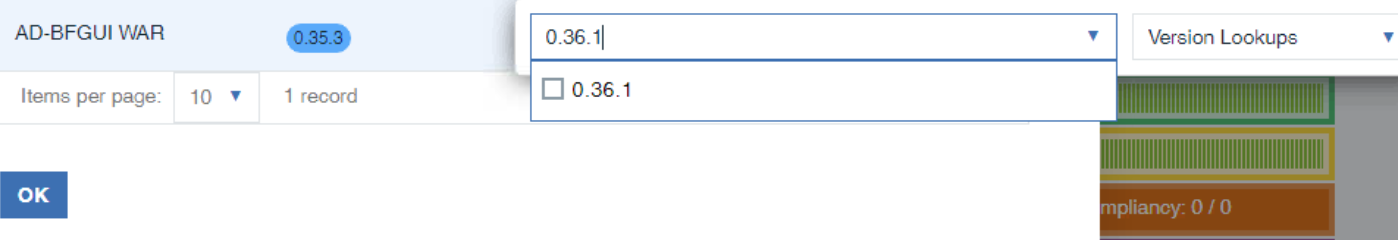
1. In the dialog that appears, you can see the current deployed version.   Select "Versions" from the menu at the top:  
   
2. In the "Versions" screen, on the right, select "Import new versions", In the dialog, enter the version identifier you used in Artifactory eg. 0.36.1 following the example earlier

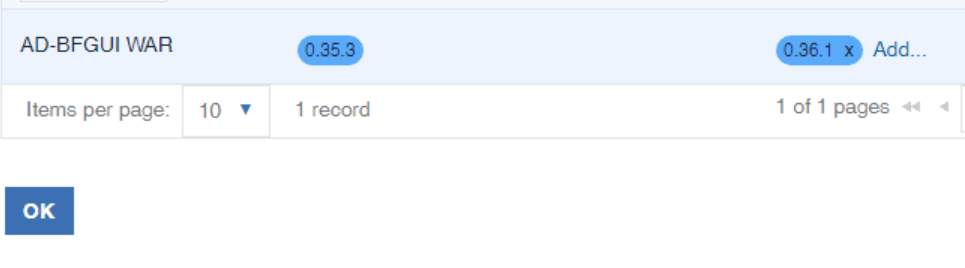


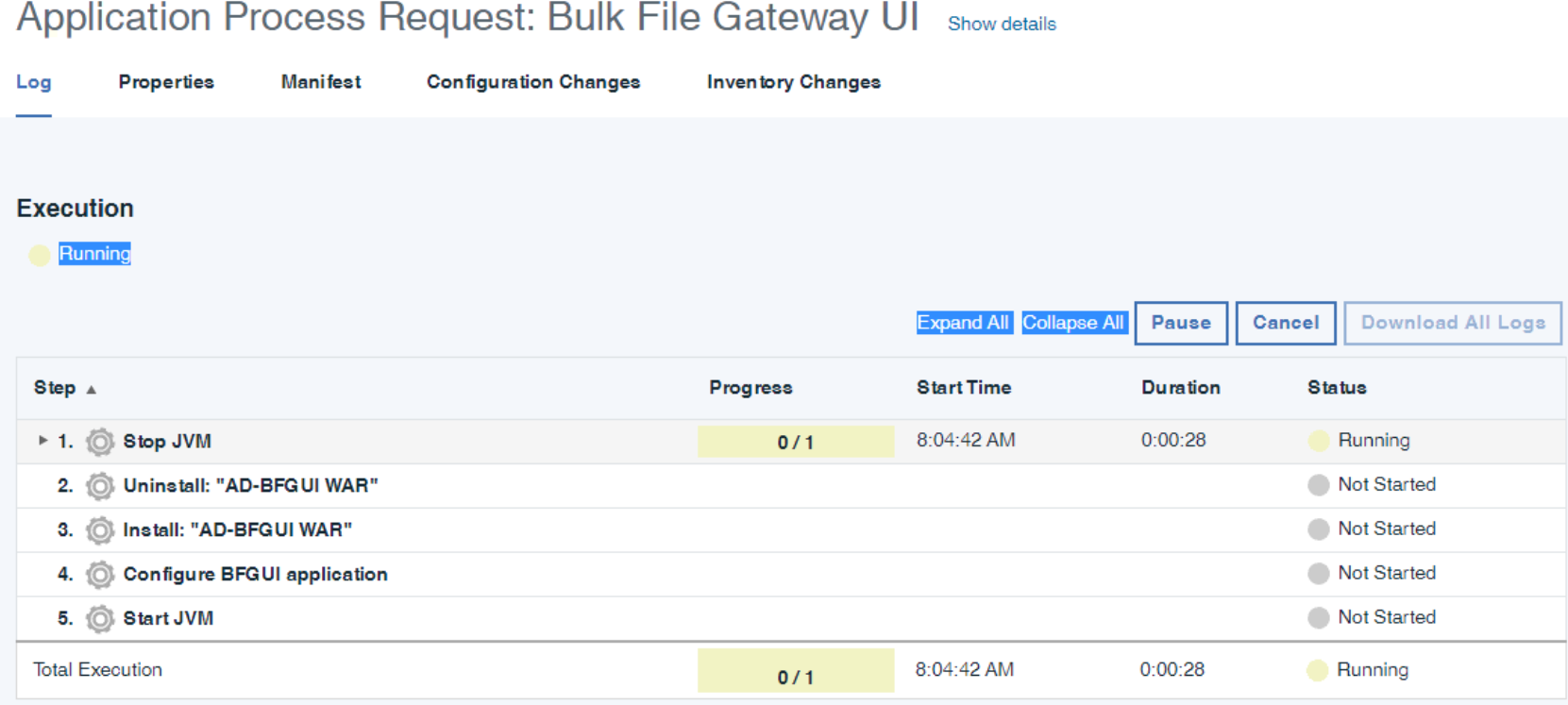
1. Enter "Save" and UCD will import the WAR into the Versions for the BFGUI application.

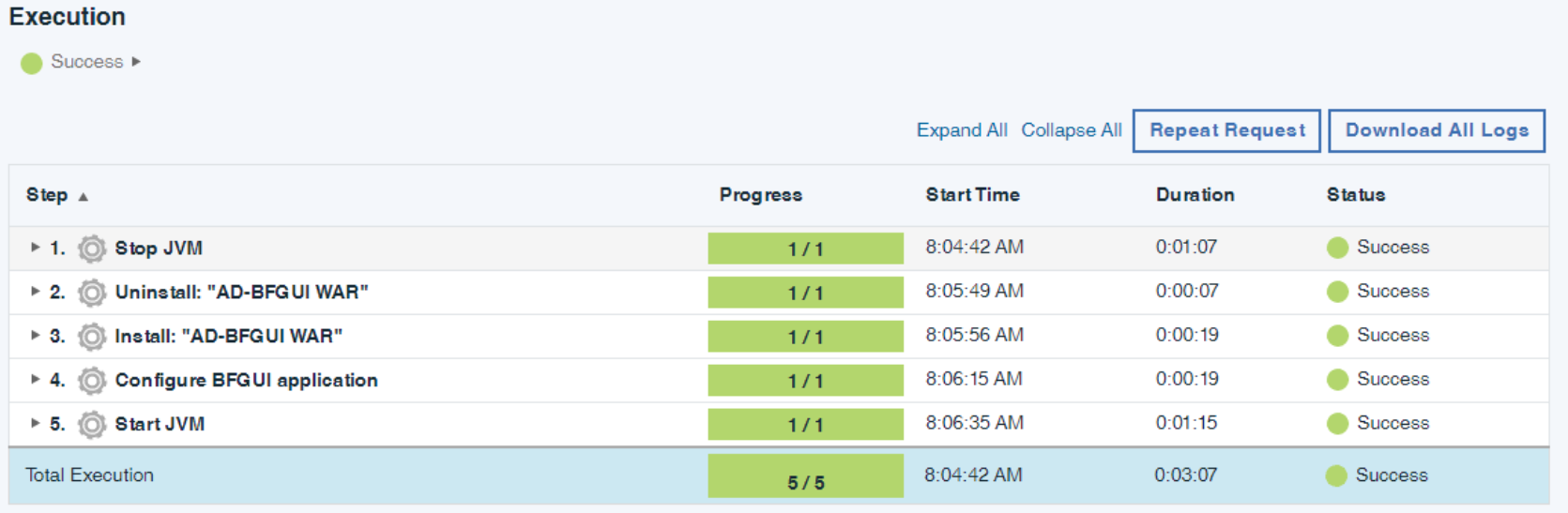
## Deploy to the target environment from UCD

1. Login (<https://www.ucd-prod.web.rbsgrp.net/#application/1732401b-701f-d392-f4cd-85561b3b7661>) and select "Request process" against the environment to which you want to deploy:  
     
   
2. This will raise a "Run process on {env}" dialog like the following.  Select process "Update BFGUI WAR File":  
   
3. Under component versions, select "Choose version" to raise the following dialog:  
     
   
4. Choose "Add ... " and in the dialog that follows, use the drop down to choose the version identifier you used when uploading/importing the new WAR, and OK to confirm:





1. In the Run process dialog,  with 1 version selected, a description (optional) choose Submit to start the process
2. The process is queued and then executed:  
     
   
3. Successful deployment: - anything else needs troubleshooting:



**FG Bundle Link to BFGUI**

1) Copy sso-forwarder.jar (inside sso-forwarder.7z with password of 'password') to node1 (e.g. /opt/ibm/media/bundle/sso-forwarder)

  
2) Edit /opt/ibm/sbi/install/properties/sandbox.cfg and INSERT the following entries:  
  
    BFGUI\_SCHEME={http|https}  
    BFGUI\_HOST={hostname for BFGUI}  
    BFGUI\_PORT={port for BFGUI}  
      
    E.g. for SIR DEV  
      
    BFGUI\_SCHEME=https  
    BFGUI\_HOST=bfgui-dev.webdev.banksvcs.net  
    BFGUI\_PORT=443  
      
3) Edit /opt/ibm/sbi/install/properties/pages.properties.in and INSERT the following values:  
  
    ##SSO-FOWARDER  
      
    page.sso-forwarder.path                =        /jsp/ssofwd/sso-forwarder.jsp  
      
4) Edit /opt/ibm/sbi/install/properties/customer\_overrides.properties.in and UPDATE the following entry:  
  
    filegateway\_eventlinks.FB\_SFG\_BUNDLE\_LINK=<a HREF="javascript:window.open(fgapp.addDLSSOCSRFToken(''/dashboard/Page?next=page.sso-forwarder&bfgurl=''+encodeURIComponent(''&BFGUI\_SCHEME;://&BFGUI\_HOST;:&BFGUI\_PORT;/bfgui/file-search/file-details/{0}'')),''Bundle'',''top=10,left=15,location=no,status=yes,menubar=no,scrollbars=yes,resizable=yes,width=850,height=750'').focus();">{0}</a>  
      
5) Install the previously copied JAR: /opt/ibm/sbi/install/bin/InstallService.sh

/opt/ibm/media/bundle/sso-forwarder/sso-forwarder.jar  
  
6) Restart the node  
  
    /opt/ibm/sbi/install/bin/hardstop.sh  
    /opt/ibm/sbi/install/bin/setupfiles.sh  
    /opt/ibm/sbi/install/bin/run.sh  
      
7) Repeat steps 1-6 for all other nodes