RESOURCE AND PATIENT MANAGEMENT SYSTEM

Controlled Drug Export System

(BPDM)

Ensemble Configuration Guide

Version 2.0 Patch 6
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Preface

The Controlled Drug Export System is used to identify prescriptions for controlled drugs and other specified drugs dispensed at Indian Health Service and tribal health care facilities and create an export file for transmission to state Prescription Drug Monitoring Programs (PDMP). Data is extracted from the Resource and Patient Management System (RPMS) Outpatient Pharmacy Application in operation at the local facilities. This software creates the export file and saves it in a secure directory as defined by facility's RPMS Site Manager or other Information Technology (IT) management personnel.

This document details the configuration of an Ensemble production to automate the upload of the export file to the state PDMP. Automated upload via Ensemble provides a more robust, reliable upload process and adds more efficient error monitoring and email alert capability.

1.0   Ensemble Install and Configuration

It is recommended to configure BPDM in RPMS prior to setting up the Ensemble BPDM Production. Sites currently using the BPDM system will have already completed the configuration. For sites new to BPDM, see the BPDM User Manual for parameter set up.

1.1   Create Database and Namespace

Login in to HealthShare Management Portal with appropriate credentials. The Home page displays.
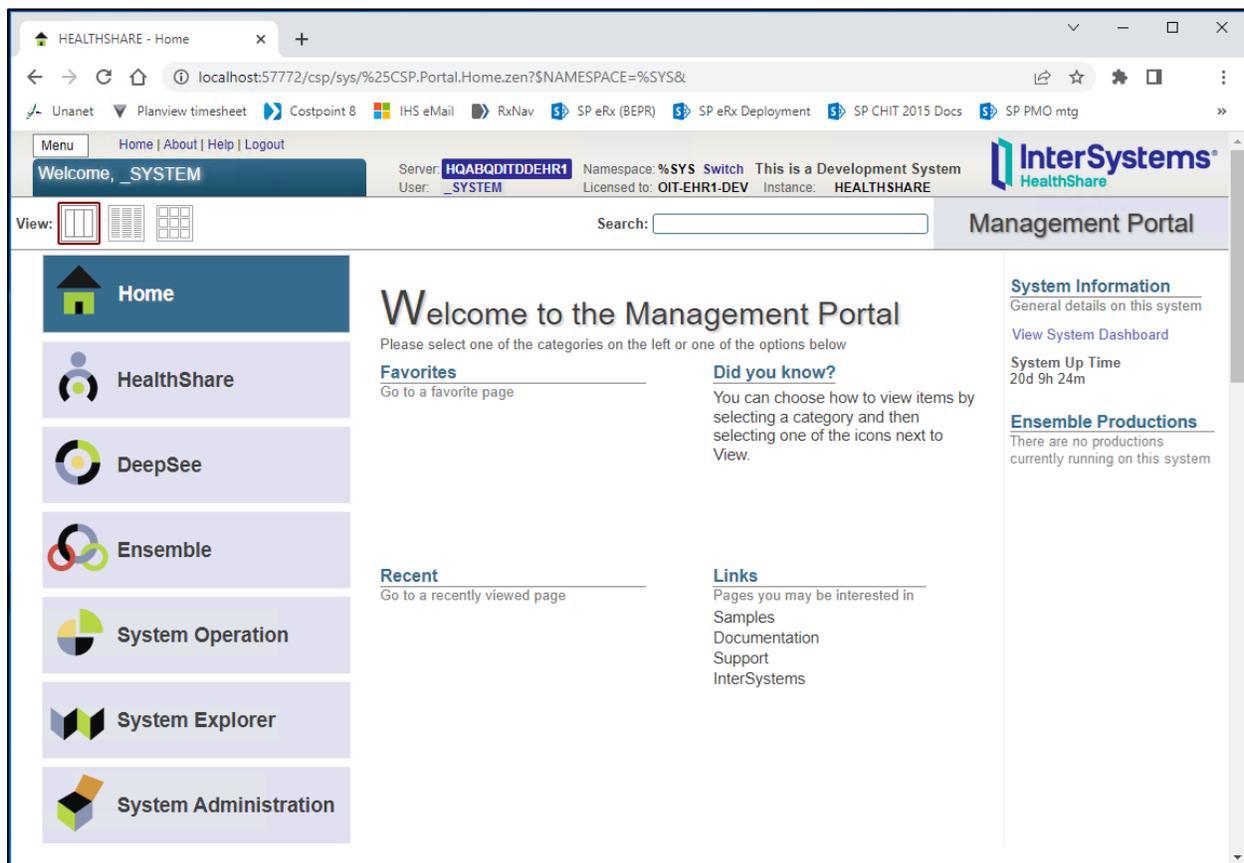
Figure 1-1: Import results

Click on **System Administration**, then select **Configuration**, then **System Configuration**, then **Namespaces**.
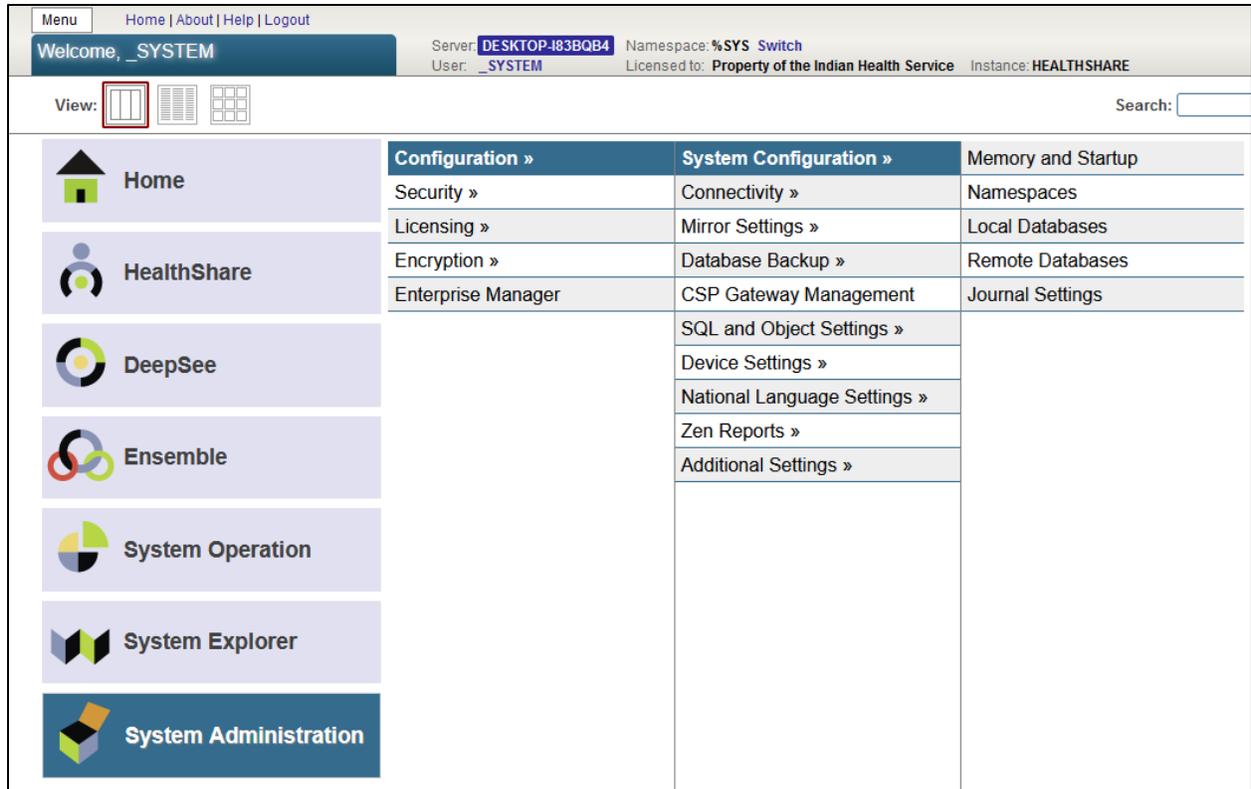
Figure 1-2: Close up view of System Administration window

The Namespaces window opens. Existing namespaces are listed in the main pane and there is a Create New Namespace button at the top.
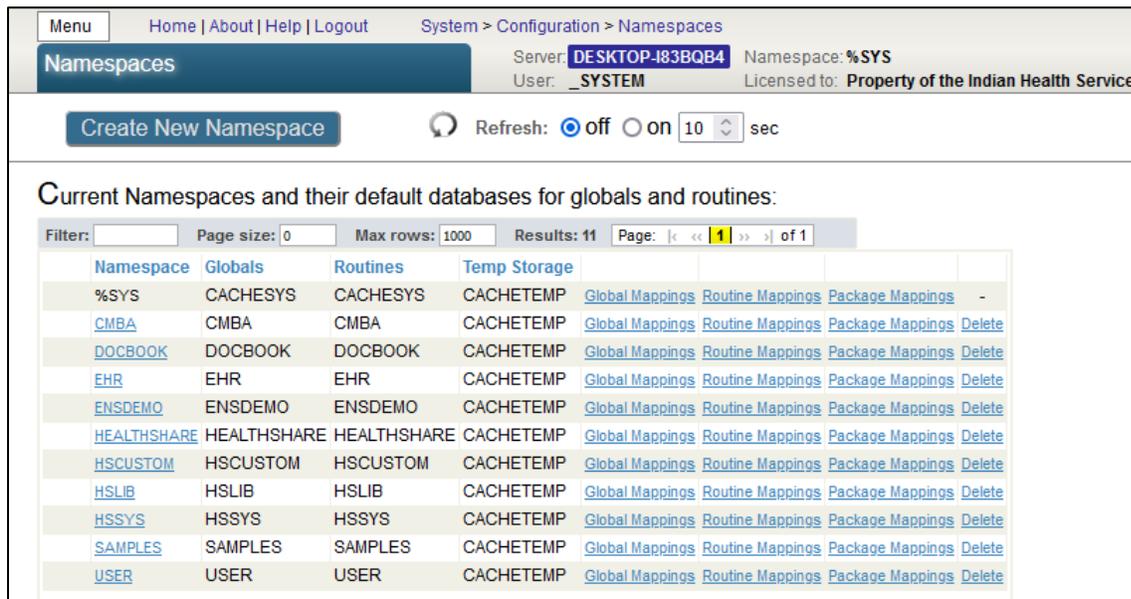
Figure 1-3: Close up view of the Ensemble Namespaces window

Click on **Create New Namespace**. The New Namespace window opens.

Enter the name of the new namespace. It should be named according to your local naming convention but similar in format to what is shown.
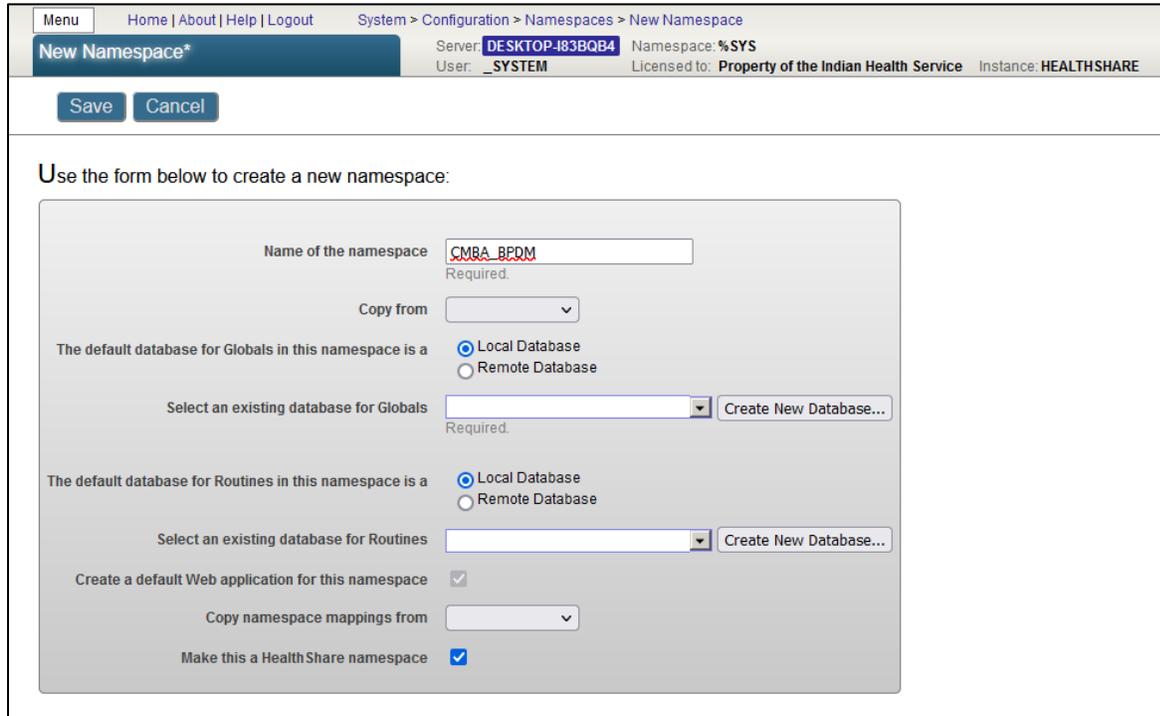
Figure 1-4: Close up view of the New Namespace window

At the 'Select an existing database for Globals' field, click on **Create New Database**. The Database Wizard opens.
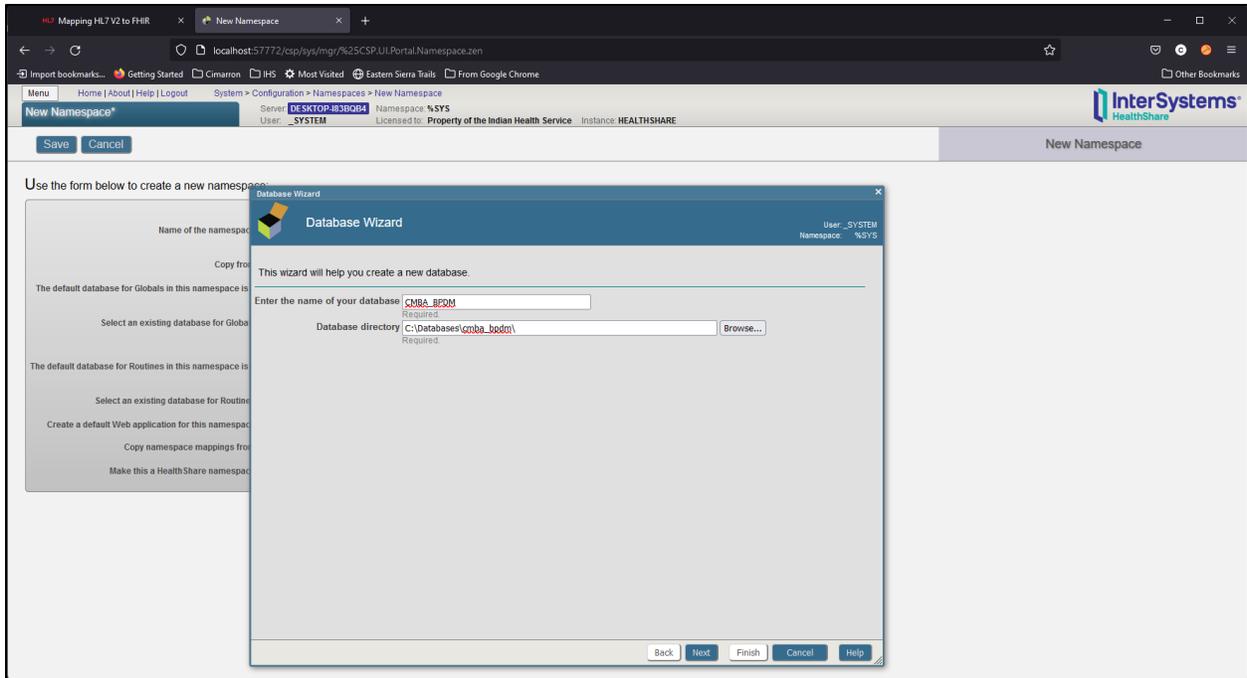
Figure 1-5: Ensemble with Database Wizard window

Enter the name of the database; make it the same as the namespace, unless instructed otherwise. Click **Browse** and navigate to the directory created for this database. If a directory has not been created for this database, you will need to create the directory similar to those for other Ensemble databases.
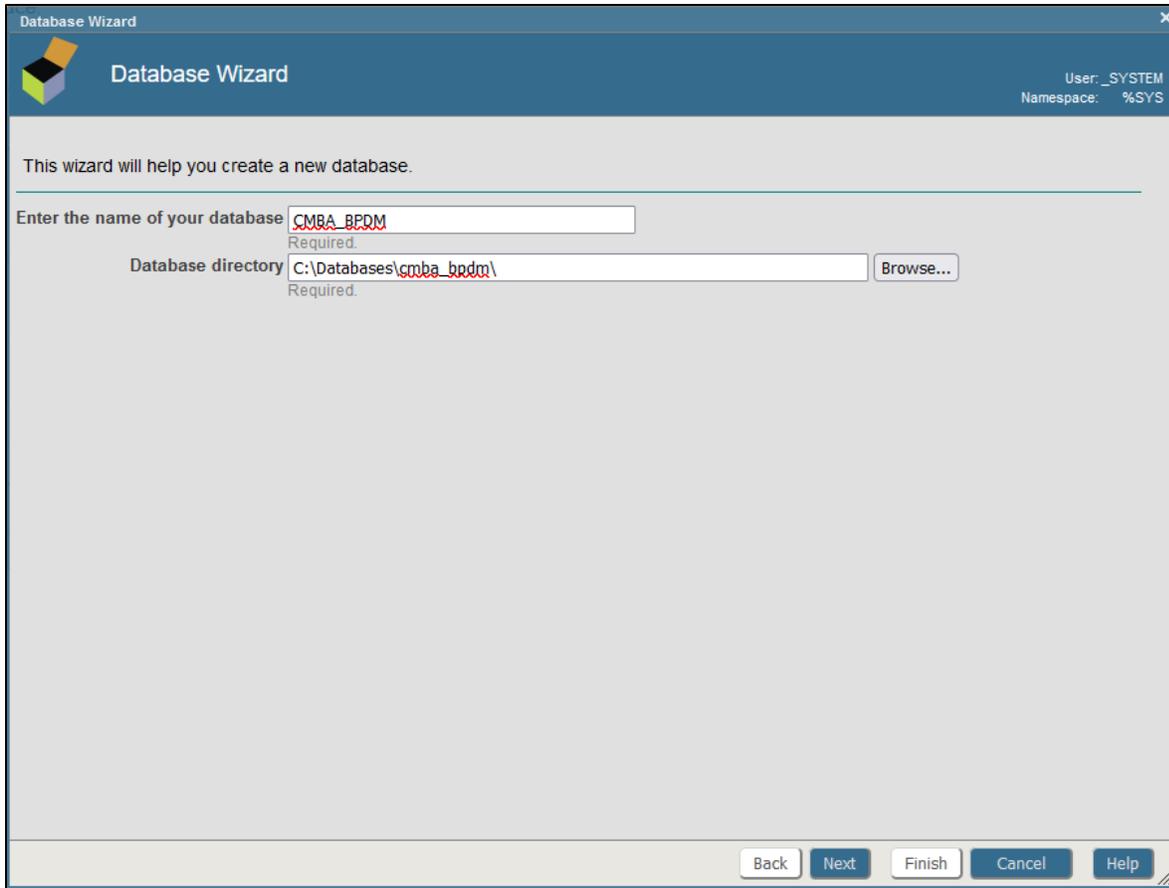
Figure 1-6: Database Wizard name and directory fields

Click **Next**. The database details display. No edits are required on this page.
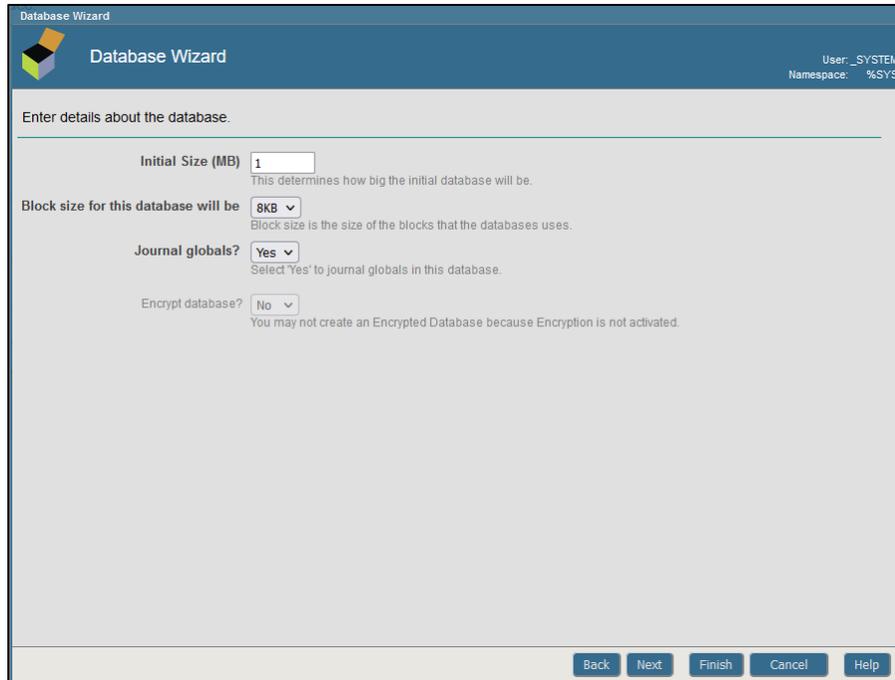
Figure 1-7: Database Wizard database details window

Click **Next**. The database resources display. No edits are required on this page.
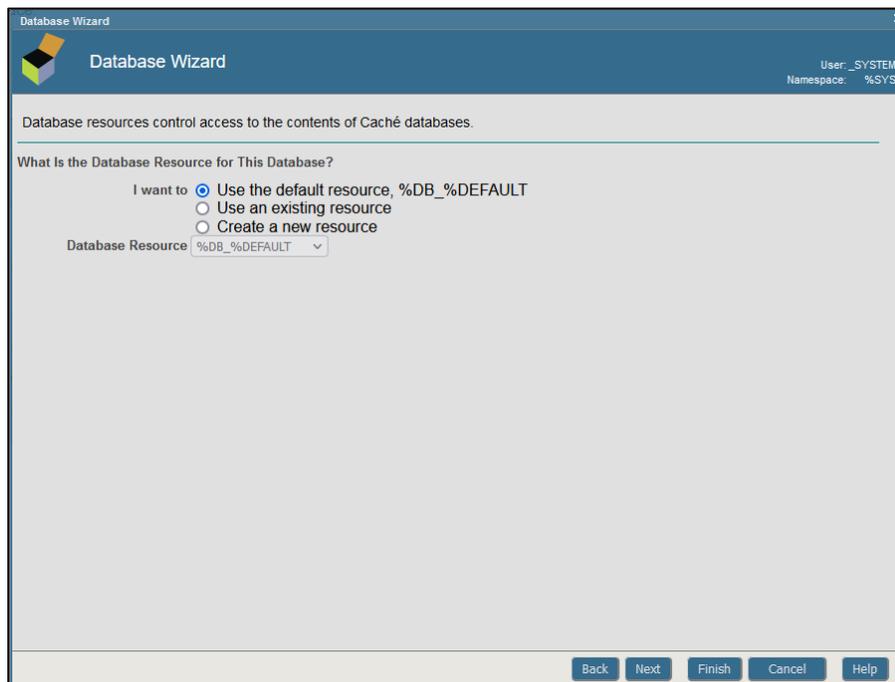
Figure 1-8: Database Wizard resource window

Click **Next**. A summary of the information displays. Review the information and make sure it matches these instructions.
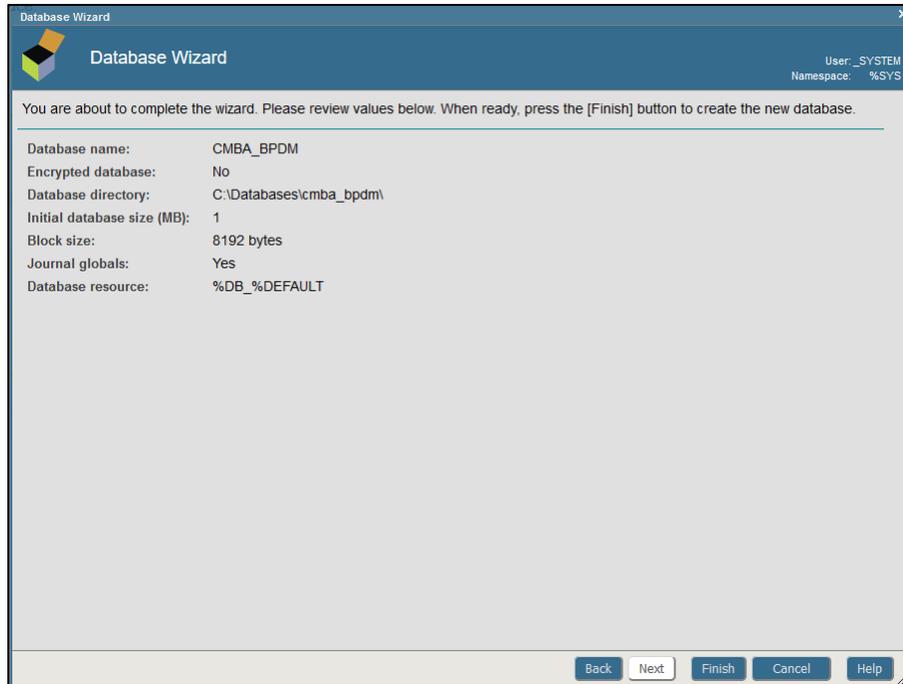
Figure 1-9: Database Wizard summary window

Click **Finish**. You are returned to the New Namespace window.

At the 'Select an existing database for Routines' field, click and select the database just created.

Figure 1-10: Close up view of New Namespace window

> Click **Save** at the top of the form. The namespace is created. The results are listed in a separate page.

Figure 1-11: Partial view of Ensemble namespace creation results

> Scroll to the bottom of the page and click **Close**. The new namespace is created and appears in the list.

1.2 Import the Production

Open Studio from the HealthShare Taskbar icon. Log in with appropriate credentials.

If you have not previously selected a namespace, the Cache Connection Manager opens. If you have previously selected a namespace, you will need to click **File** and select **Change Namespace** to open the Cache Connection Manager window.

Select the namespace that was created in the previous steps and click **OK**.
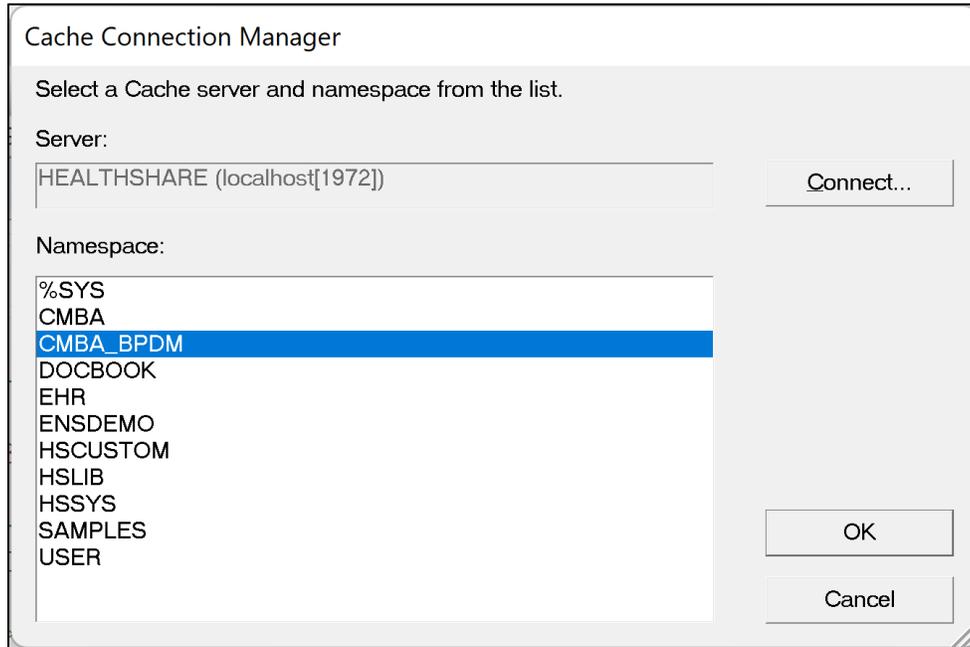
Figure 1-12: Cache Connection Manager window

Click **Tools** then select **Import Local**.
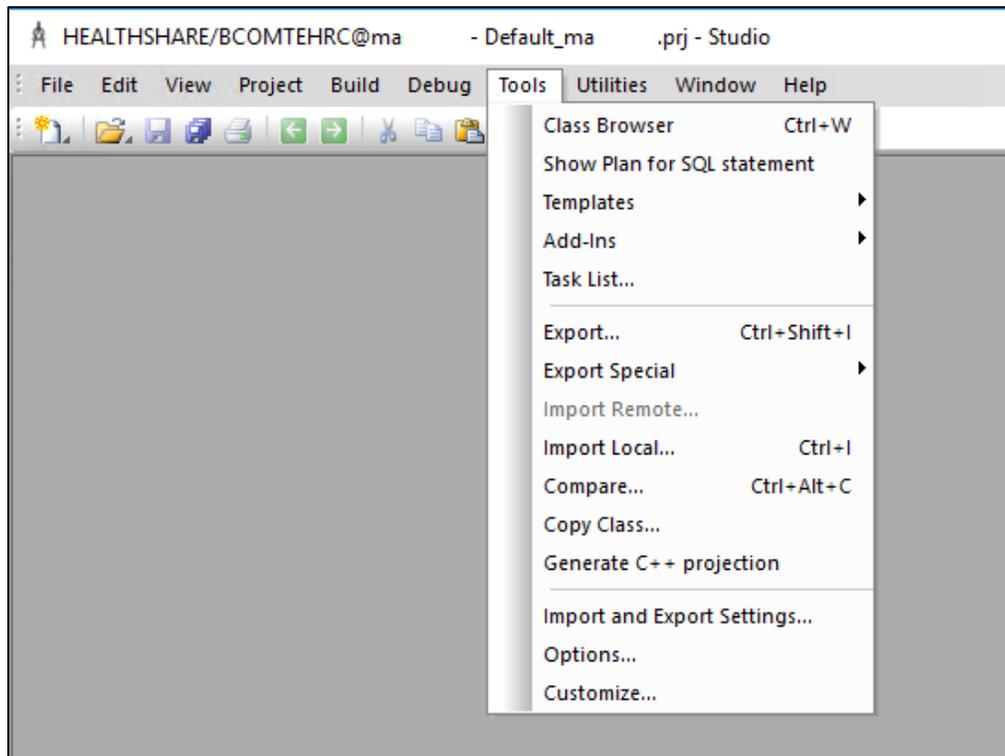
Figure 1-13: A close up view of the Studio Tools menu

The Open window opens. Navigate to and select the **bpdm0200.06.xml** file and click **Open**.
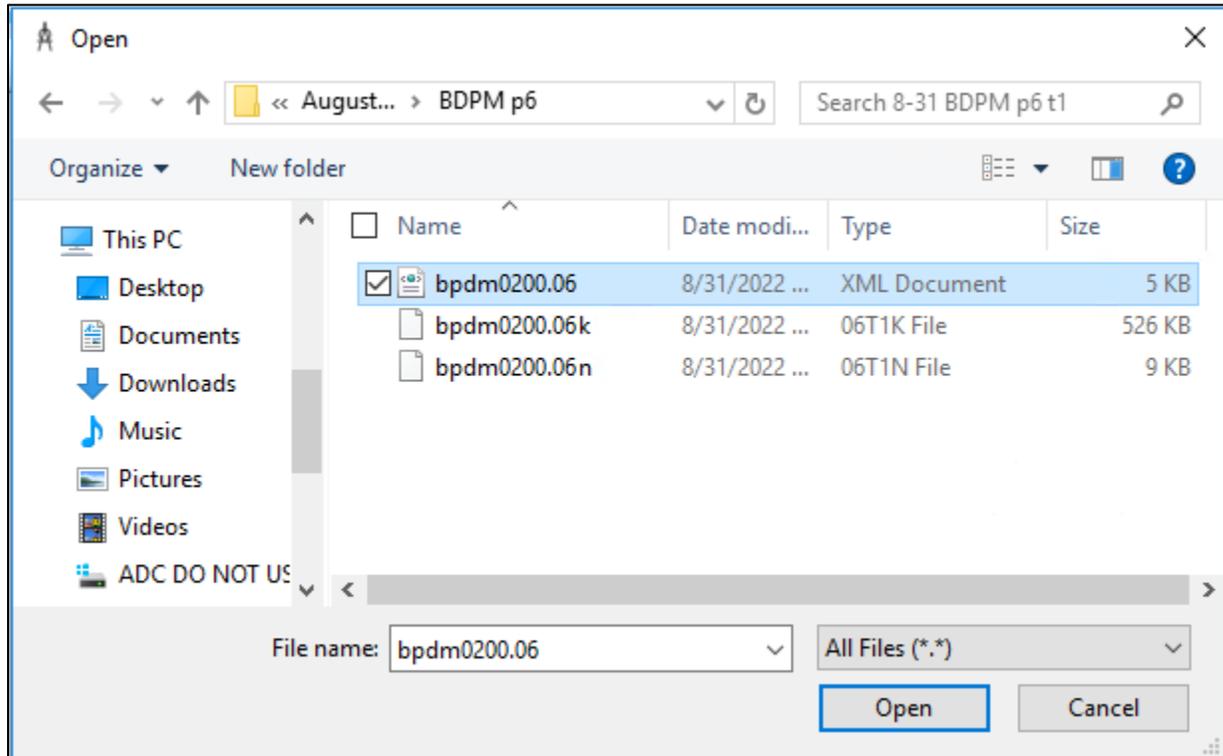
Figure 1-14: Selecting the import file

The import dialog displays. There will be four files to import. The names may be slightly different than shown here.
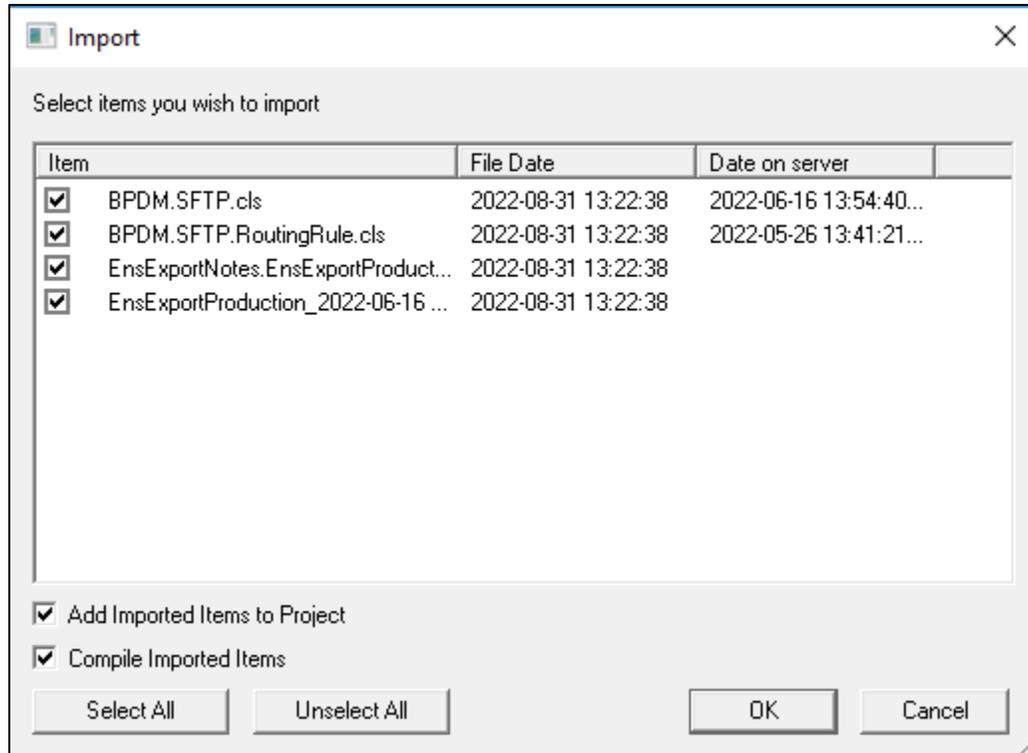
Figure 1-15: Import dialog with 4 files

Click **OK**.

If successful, the following displays in the Output pane:
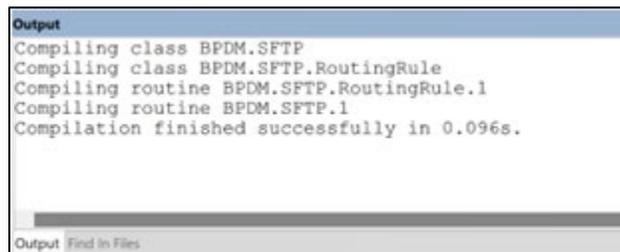
Figure 1-16: Import results

You may exit Studio.

1.3   Configure the sFTP Production for PDMP

The following configuration instructions are for the main or only site. If there are additional divisions at your site that upload using different credentials, please use the instructions in Section 1.4 once the main site is configured.

> **Note:** Before Enabling the BPDM Production you will need to make sure all current files that have already been sent to the PMP are moved to the Archive folder. This is very important otherwise they will get uploaded to the PMP again when the production is Enabled.

Ensure the BPDM Production is installed per the previous steps.

If you are a new PMP Upload site, you will need to create and upload keys as described in the BPDM User Manual section 5.2 before configuring the Ensemble production.

If this is an existing PMP Auto Upload site, someone at the facility with Superuser access will need to run the following from a command prompt on the existing key file(s) in the folder where the key exists:

```
ssh-keygen -p -m pem -f authorized_keys
```

Go to the BPDM Production in Ensemble. Click **Ensemble**, then **Configure**, then **Production**.
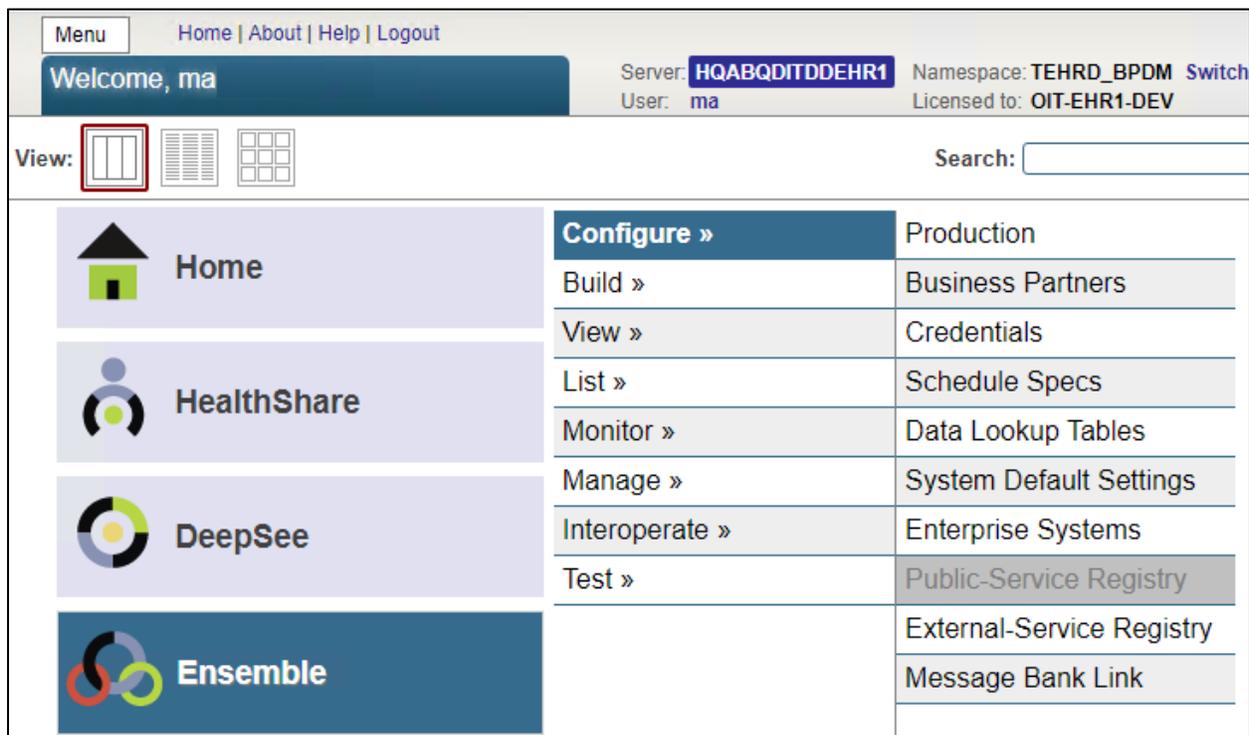
Figure 1-17: A close up of Ensemble selecting Configure menu option

The first time you do this, the production will not be open, but there are New and Open buttons at the top of the page. Click **Open**, then select **BPDM**, then **SFTP**.
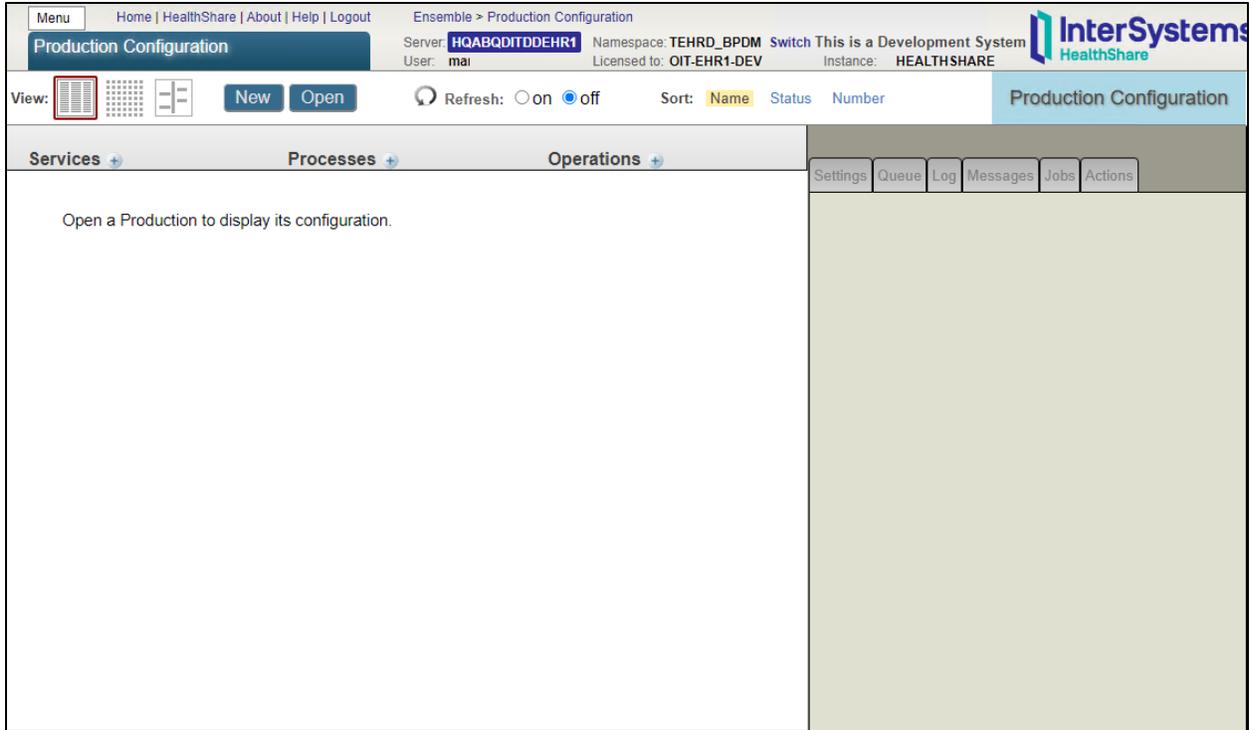
Figure 1-18: Ensemble Production Configuration before opening the production

Select the **GetBPDM** Service and open the Basic Settings.
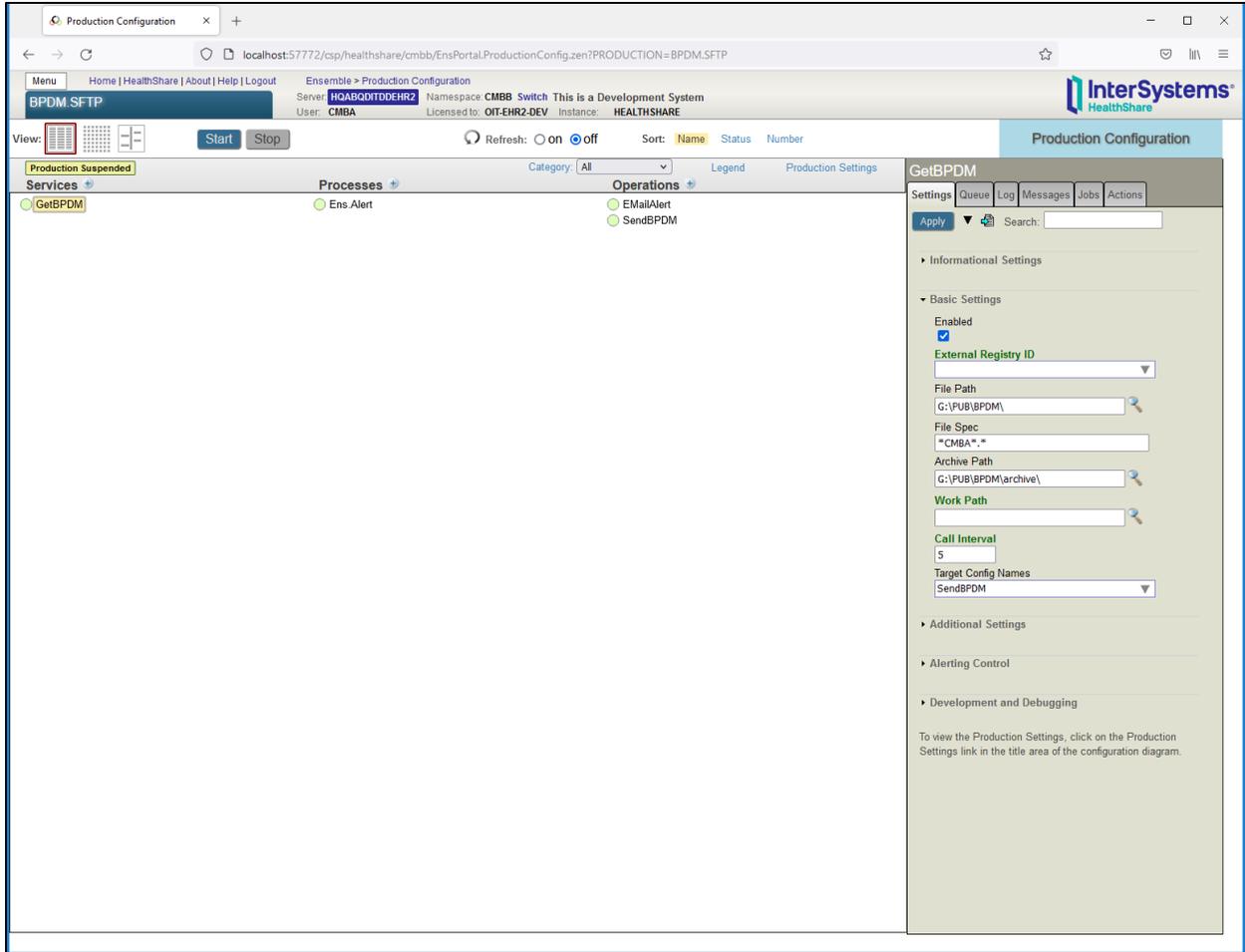
Figure 1-19: Ensemble Production Configuration GetBPDM service.

Check the **Enabled** box if not already checked.

Figure 1-20: GetBPDM Basic Settings detail

In the File Path field enter the path to where the PDM Export files are created or use the magnifying glass to select.

In the File Spec field enter the masking for the file, this will usually be the FILE NAME DESCRIPTOR field in the PDM SITE PARAMETERS concatenated with the DEFAULT FILE EXTENSION field, in the example above it is *CMBA*.*.

In the Archive Path field enter the path where the successfully uploaded files will be moved for backup purposes. If this folder does not currently exist it will need to be created.

Click **Apply**.

In the main pane, click **SendBPDM Operation** and open the Basic Settings.
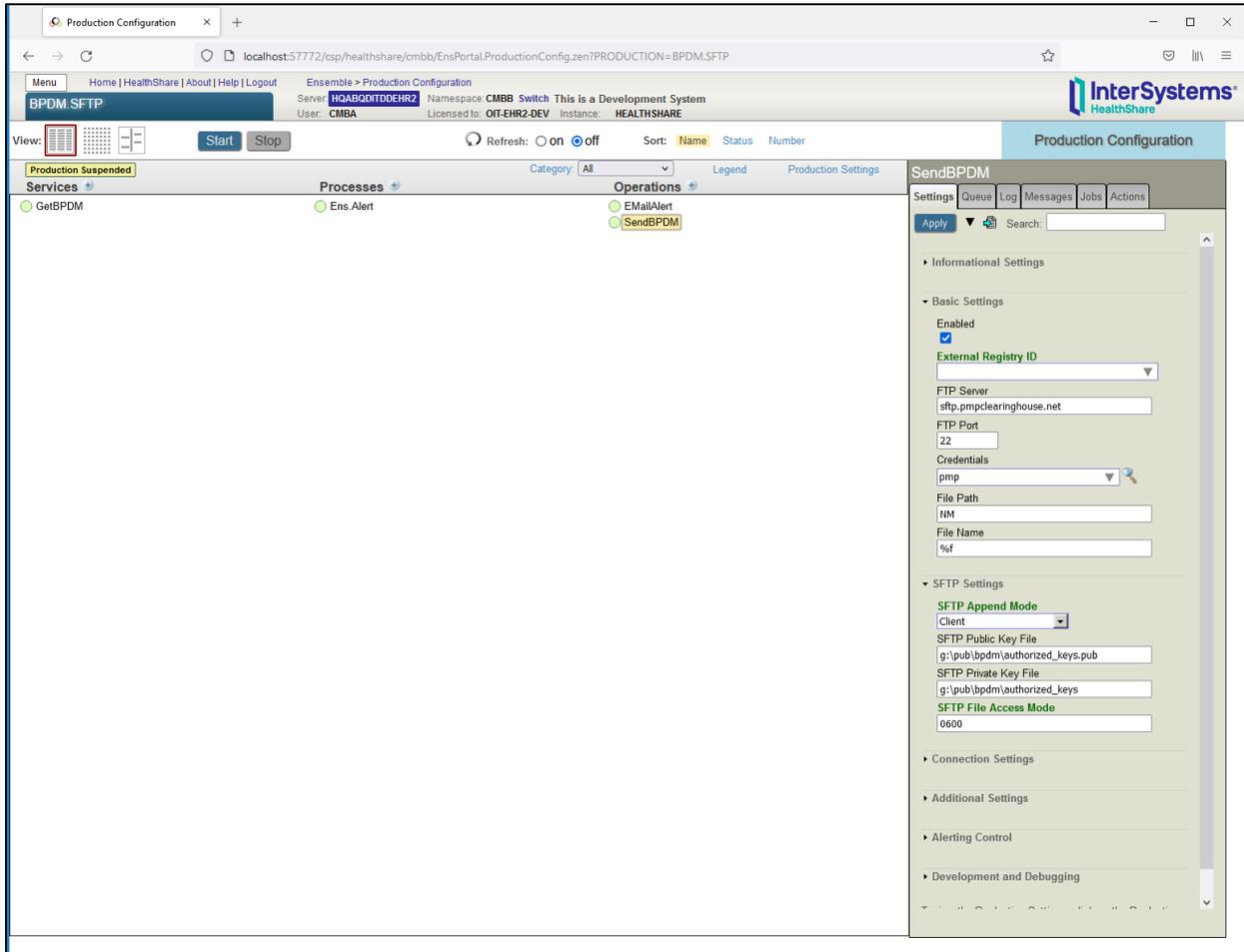
Figure 1-21: SendBPDM Operation Settings

Check the **Enabled** box if not already checked.

Figure 1-22: SendBPDM Operation Basic Settings detail

In the FTP Server field enter **sftp.pmpclearinghouse.net** if not already present.

In the FTP Port field enter **22** if not already present.

Click **Apply**.

In the Credentials field enter **pmp** and then click the magnifying glass. The Credentials Viewer window opens.
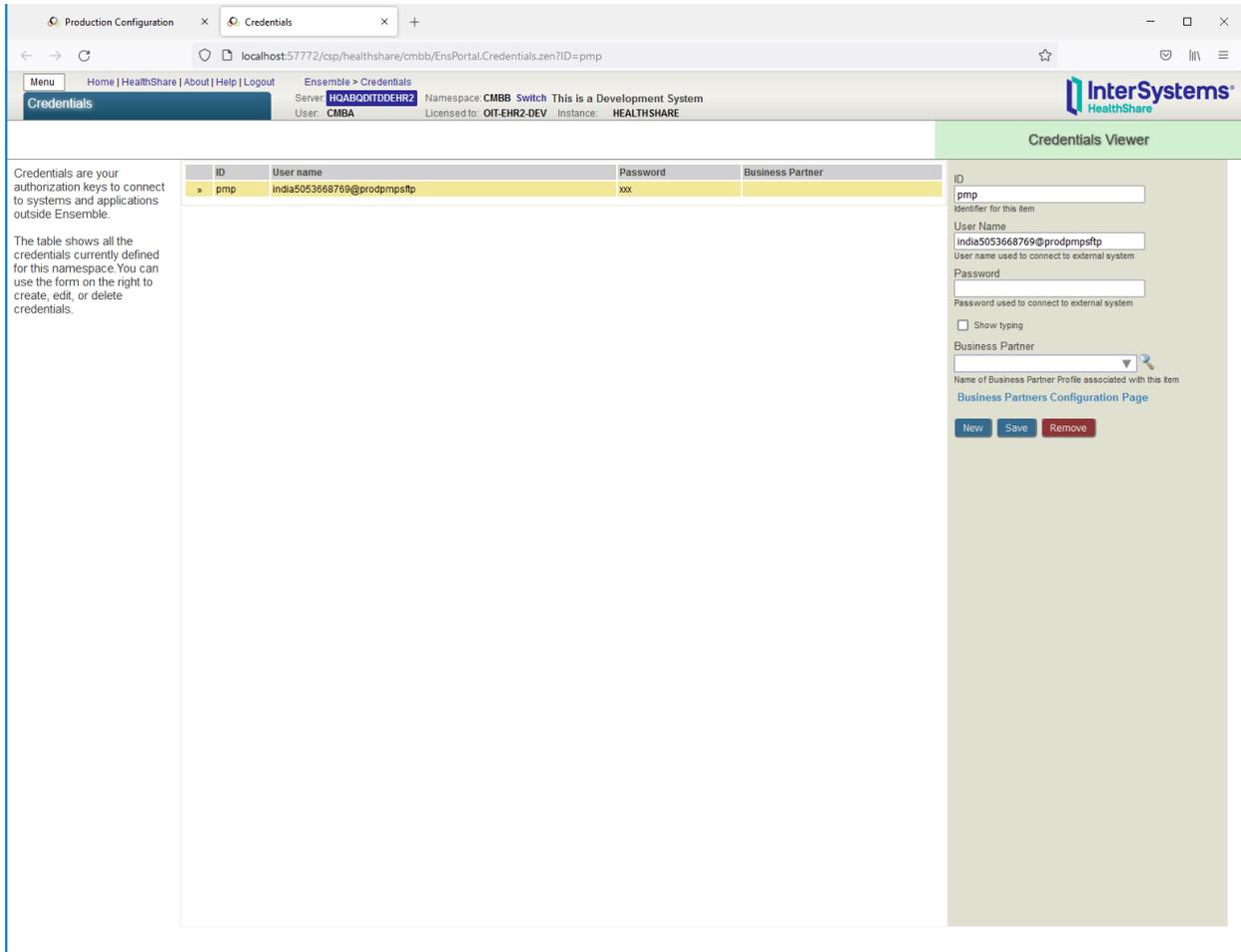
Figure 1-23: Credentials Viewer

In the ID field enter **pmp**.

In the User Name field enter the User Name as listed in the PDM SITE PARAMETERS in RPMS.

In the Password field enter the password for the entered User Name.

> **Note**: If the site has not used automated upload via sFTP before, the User Name and Password may have to be configured on the PMP Clearinghouse website.

Figure 1-24: Credentials Viewer detail

Click **Save**. You should now see the credentials listed.

To Navigate back to the Production, close the Credentials Tab at the top of the window. You should still see the SendBPDM Operation Basic Settings.

In the File Path field enter the path on the PMP server where the files are going to be uploaded. This is typically the relevant state abbreviation with no slashes.
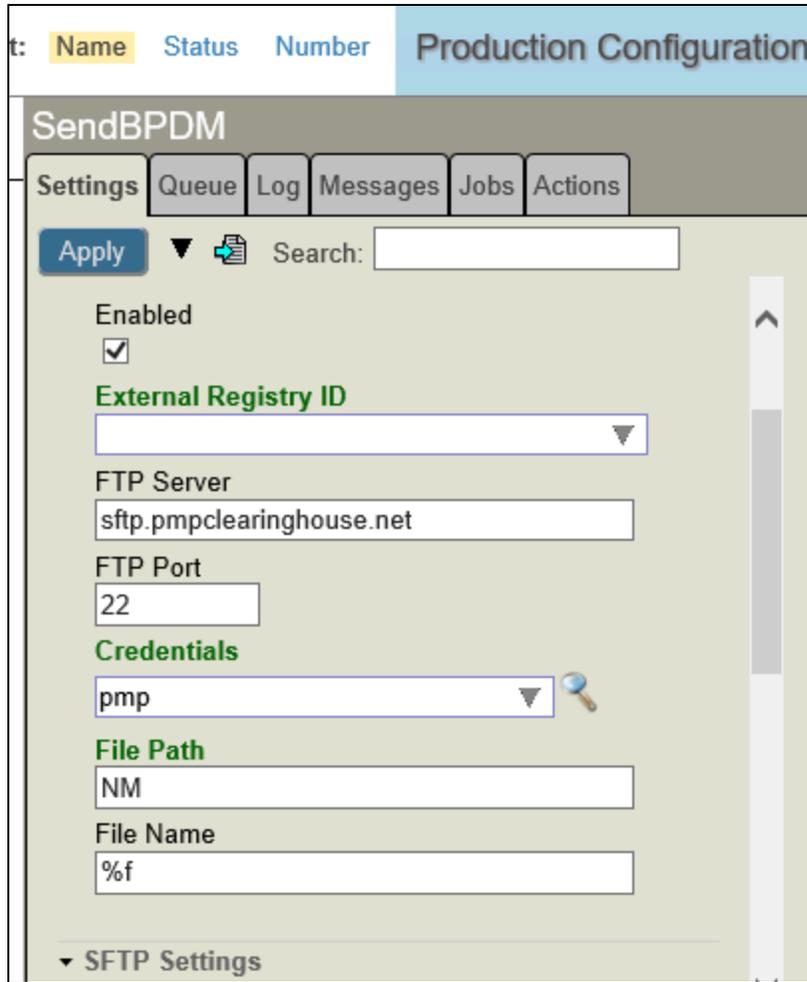
Figure 1-25: Detail view of SendBPDM Basic Settings showing File Path

Open **SFTP** Settings.

Figure 1-26: SFTP Settings for SendBPDM

In the SFTP Public Key File field, enter the path and filename to the public key file. It will typically be named authorized_keys.pub.

In the SFTP Private Key File field, enter the path and filename of the private key file. It will typically be named authorized_keys.

Click **Apply**.

On the main pane, select the **EMailAlert** Operation.

Open **Additional Settings**.

Figure 1-27: EMailAlert Operation Additional Settings

In the Recipient field, enter email addresses of users that should receive transmission failure alerts separated by commas, e.g., demouser.user@ihs.gov, demouser.admin@ihs.gov.

The From email will already be filled in. However, consider adding "error" to the "From" email address as shown.

Open **Alerting Control** and change the Alert Retry Grace Period to 300 seconds.

Figure 1-28: EMailAlert Operation Alerting Control settings

Click **Apply**.

Select the **Ens.Alert** Process. Confirm the Basic Settings and Additional Settings are as follows:

Figure 1-29: Ens.Alert Process settings detail

If needed, configure additional sites as noted in the following section. If no additional sites need to be configured, skip to section 1.5.

1.4   Additional BPDM Sites

If you have additional divisions that use separate credentials, you will need to create a new Service and Operation for each additional site. The following describes the process for creating an additional site.

1.4.1   Services

Click the **plus sign (+)** button next to the Services label.
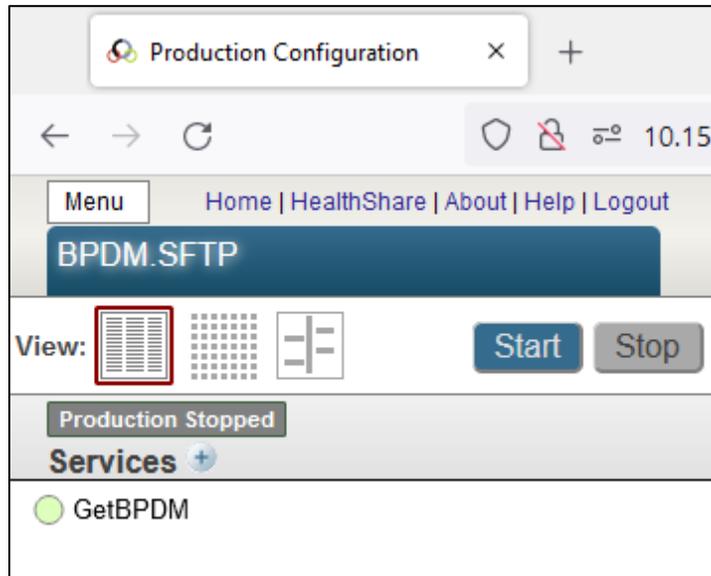
Figure 1-30: Close up of Services label and plus sign button

The Business Service Wizard opens.

Figure 1-31: Business Service Wizard

Under the Service Class select **EnsLib.File.PassthroughService**.

In the Service Name field, name the **Service GetBPDM<sitename>**.

Click **OK**.

Select the service you just created and open **Basic Settings**.

Figure 1-32: The new Service's Basic Settings

In the File Path field enter the path to where the PDM Export files are created or use the magnifying glass to select.

In the File Spec field enter the masking for the file, this will usually be the FILENAME field in the PDM SITE PARAMETERS concatenated with the DEFAULT FILE EXTENSION field, in the example it would be *TEHRD*.*.

In the Archive Path field enter the path where the successfully uploaded files will be moved for backup purposes.

Open **Additional Settings**.

Figure 1-33: The new Service's Additional Settings

In the Append Timestamp field change this to **0**.

In the Confirm Complete field change this to **Writeable**.

In the File Access Timeout field, change this to **10**.

Click **Apply**.

Repeat for any additional sites.

1.4.2   Operations

Click the **plus sign (+)** button next to the Operations label.
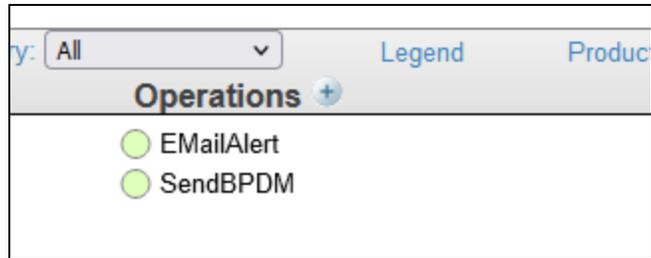
Figure 1-34: The Operations label with the plus sign button to the right

The Business Operation Wizard opens.
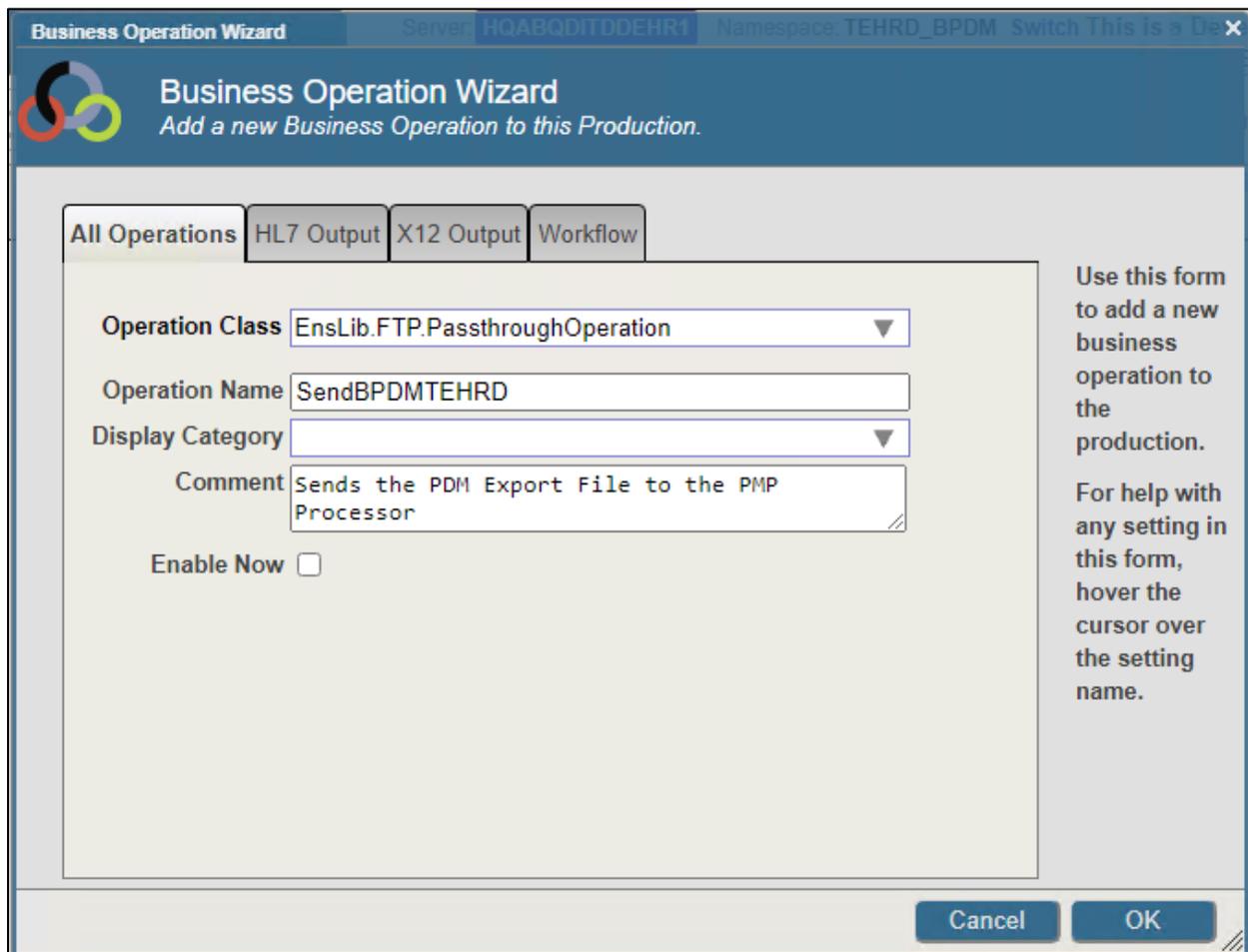
Figure 1-35: Business Operation Wizard

In the Operation Class select **EnsLib.FTP.PassthroughOperation**.

In the Operation Name field, name the operation **SendBPDM<sitename>**.

In the Comment field enter **Sends the PDM Export File to the PMP Processor**.

Click **OK**.

Select the Operation you just created and open **Basic Settings**.

Figure 1-36: The new Operation's Basic Settings

In the FTP Server field enter **sftp.pmpclearinghouse.net**.

In the FTP Port field enter **22**.

Click **Apply**.

In the Credentials field enter **pmp<sitename>** and then click the magnifying glass. The Credentials Viewer window opens.
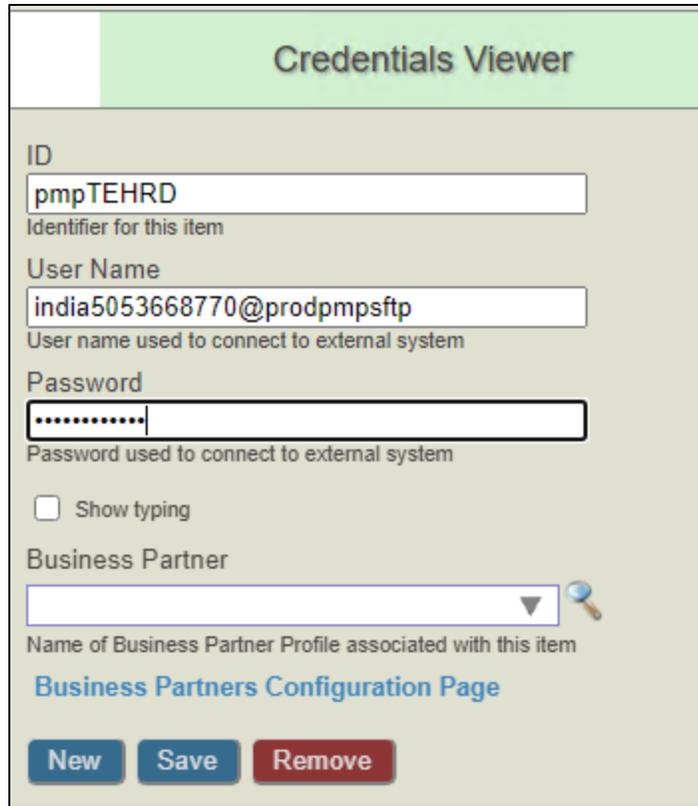
Figure 1-37: Credentials Viewer detail

In the ID field enter **pmp<sitename>**.

In the User Name field enter the User Name as listed in the PDM SITE PARAMETERS.

In the Password field enter the password for the entered User Name.

> **Note**: If the additional site has not used automated upload via sFTP before, the User Name and Password may have to be configured on the PMP Clearinghouse website.

Click **Save**. You should now see the credentials listed.

To Navigate back to the Production, close the Credentials Tab at the top of the window. You should still see the SendBPDM Operation Basic Settings.

Figure 1-38: The new Operation's Basic Settings, continued

In the File Path field enter the path on the PMP server where the files are going to be uploaded. This is typically the relevant state abbreviation with no slashes.

In the File Name field remove everything except %f.

Click **Apply**.

Open **SFTP Settings**.

Figure 1-39: The new Operation's SFTP Settings

In the SFTP Public Key File enter the path and filename of the public key, it should be authorized_keys.pub.

In the SFTP Private Key File field enter the path and filename of the private key, it should be authorized_keys.

Click **Apply**.

Open **Connection Settings**.
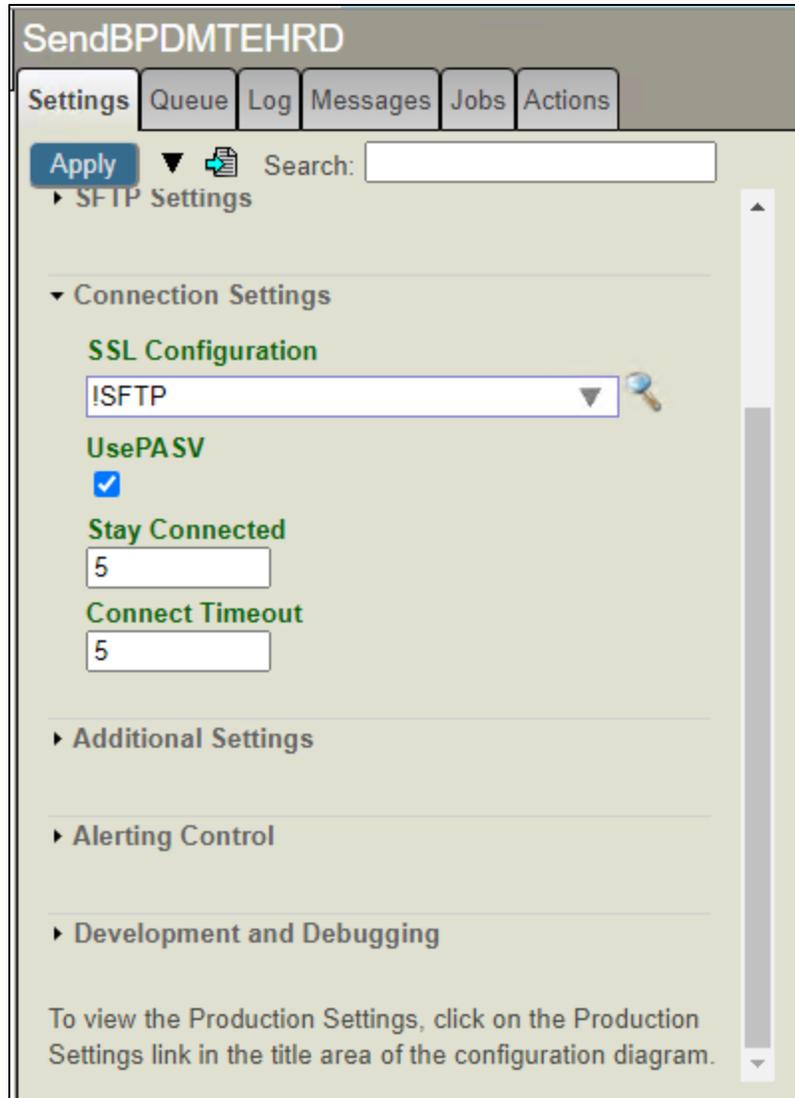
Figure 1-40: The new Operation's Connection Settings

In the SSL Configuration field enter **!SFTP**.

In the Stay Connected field change this to **5**.

Click **Apply**.

Repeat for any additional sites.

1.4.3   Link Operation to Service

Click on the Service that was created in Section 1.4.1.

In the Basic Settings section click on the **Target Config Names** drop down and select the matching Operation that was created.

Figure 1-41: Basic Settings Section, click Target Config Name drop down menu and select newly created matching Operation

Click **Apply**.

Repeat for each Service you created.

1.5   Enable the Production

> **Note:** Before Enabling the BPDM Production you will need to make sure all current files that have already been sent to the PMP are moved to the Archive folder. This is very important otherwise they will get uploaded to the PMP again when the production is Enabled.

If your site is an existing auto upload site, you will need to use Fileman in RPMS to edit the PDM SITE PARAMETERS file. You must set the AUTO UPLOAD and SFTP RENAME EXPORT FILE fields to **NO** as this Ensemble automated upload process does not use those parameters. Leaving the settings will cause duplicate uploads.

```
Select OPTION: ENTER OR EDIT FILE ENTRIES
 INPUT TO WHAT FILE: PDM SITE PARAMETERS
                                           (3 entries)
EDIT WHICH FIELD: ALL// AUTO UPLOAD?
THEN EDIT FIELD: SFTP RENAME EXPORT FILE
THEN EDIT FIELD:

Select PDM SITE PARAMETERS SITE/LOCATION:    DEMO HOSP
AUTO UPLOAD?: YES// NO
SFTP RENAME EXPORT FILE: YES// NO
 Select PDM SITE PARAMETERS SITE/LOCATION:
```

Figure 1-42: FileMan in RPMS to edit the PDM SITE PARAMETERS file

If this is an existing PMP Auto Upload site, someone at the facility with Superuser access will need to run the following from a command prompt on the existing key file(s) in the folder where the key exists:

```
ssh-keygen -p -m pem -f authorized_keys
```

Once everything has been configured, click the **Start** button at the top to start the production.

After clicking Start, any export files in the folder designated in the File Path field in GetBPDM will be automatically uploaded to the state. If no export files exist in the folder, you can move a file from the Archive folder to test the automated upload. This may result in a duplicate upload if the file was previously uploaded but will serve as a valid test of automated upload settings.

2.0   Monitoring the BPDM Production

If transmission fails for any reason, the recipients entered during the configuration steps above should receive an email alert. The emails will be specific to the problem encountered.

Figure 2-1: A sample alert email

If it is a temporary issue, the file will upload once the issue is resolved. If it doesn't resolve, you can view the Event Log in Ensemble for the SendBPDM Operation.

To view the Event Log, click on the **SendBPDM** Operation and click the **Log** tab. This will display what the process has been doing over time.

Figure 2-2: The SendBPDM Log

To get a detailed look at the log, click the **Go To Event Log** link at the top. The Event Log will open in a new tab.
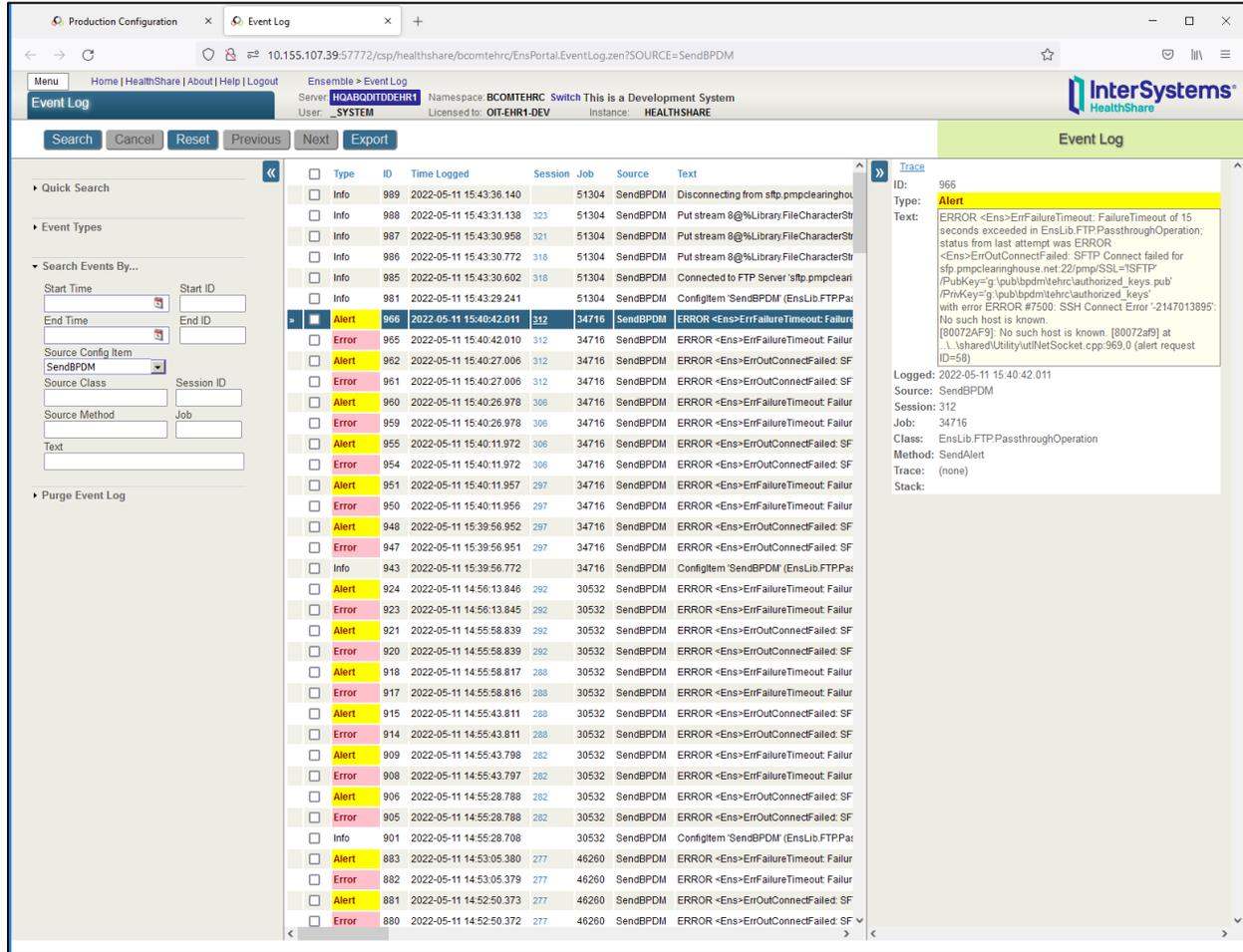
Figure 2-3: Event Log main view

Click on one of the line items to get a description of what is happening.

Figure 2-4: Close up view of an alert's details

Glossary

Controlled Substance

In this context, a medication whose manufacture, possession, and use is regulated and designated as a controlled substance by the Drug Enforcement Administration or State.

Prescription Drug Monitoring Program (Prescription Monitoring Program)

In this context, an electronic database that tracks controlled substance and other designated medication prescriptions in a state.

Acronym List

Acronym	Meaning
IHS	Indian Health Service
IT	Information Technology
KIDS	Kernel Installation and Distribution System
PDMP	Prescription Drug Monitoring Program, also known as Prescription Monitoring Program
PMP	Prescription Monitoring Program, also known as Prescription Drug Monitoring Program
RPMS	Resource and Patient Management System
sFTP	Secure File Transfer Protocol

Contact Information

If you have any questions or comments regarding this distribution, please contact the IHS IT Service Desk.

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