



HP Network Node Manager i Software

Step-by-Step Guide to Scheduling Reports using Network Performance Server

NNMi 9.1x Patch 2

This document shows an example of building a daily report for the iSPI Performance for Metrics product. The information in the document is specific to version 9.10 of iSPI Performance for Metrics; although, the general procedure applies to other iSPIs as well. These procedures are subject to change in future releases.

All screenshots in this paper are from the Network Performance Server (NPS) graphical user interface.

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Introduction

This document shows an example of building a daily report for the iSPI Performance for Metrics product.

In this paper, we will build a daily report that graphs the top 10 utilized interfaces in a particular interface group (FA Interfaces in Colorado) using the Top N Chart template. This daily report will be available to all users.

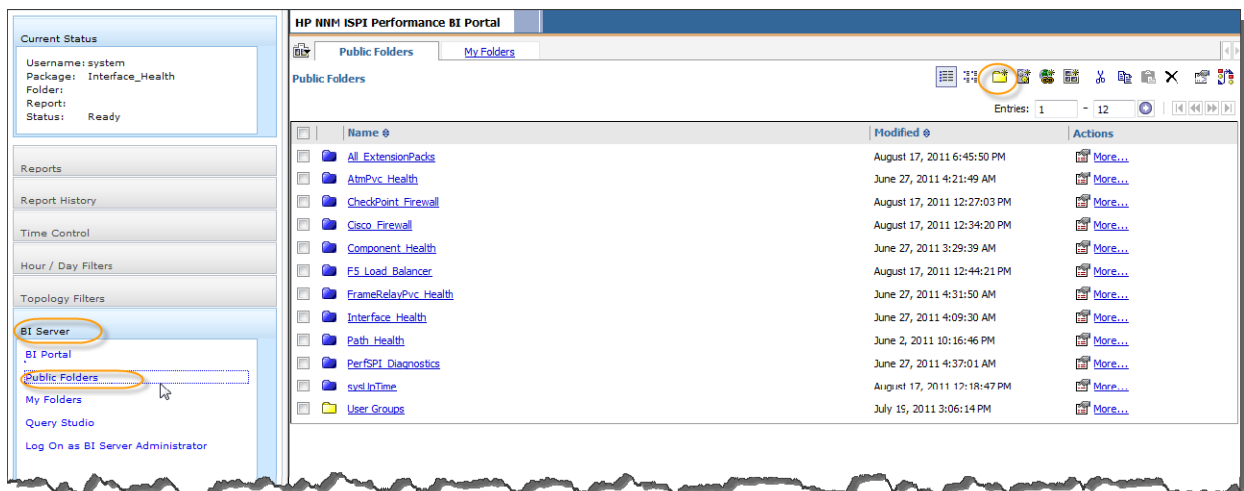
Procedure

Prepare the Infrastructure

We first need to set up a folder to hold our scheduled reports.

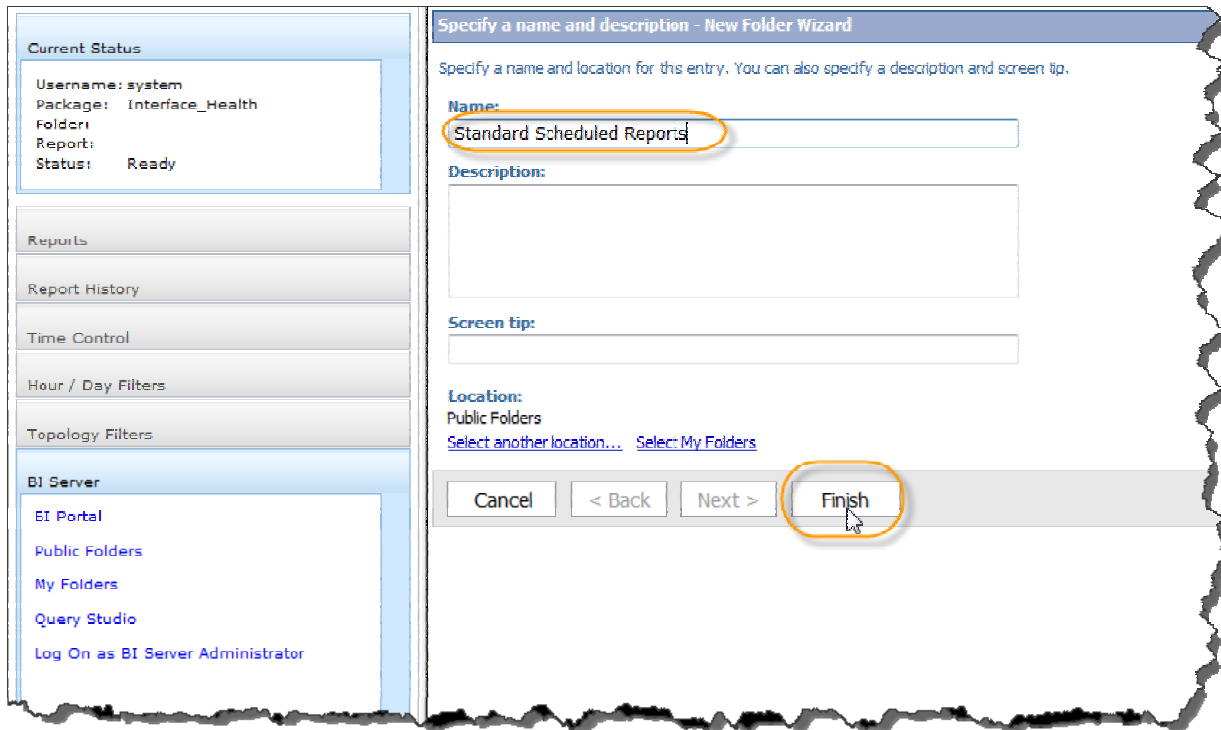
1. Click the **BI Server** workspace. Click the **Public Folders** link, and click the folder icon in the top right to create a new folder.

Figure 1: BI Server: Public Folders



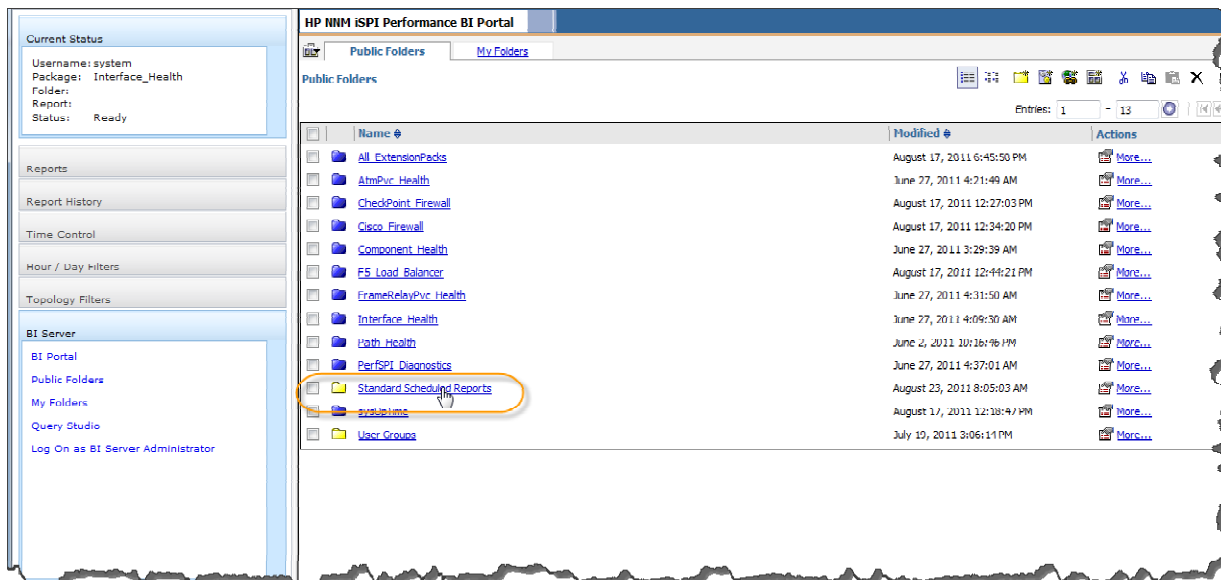
2. Name the folder Standard Scheduled Reports and click **Finish**.

Figure 2: New Folder Wizard: Name



3. We are now going to create a subfolder for our weekly reports under the newly created Standard Scheduled Reports folder.

Figure 3: Standard Scheduled Reports Folder



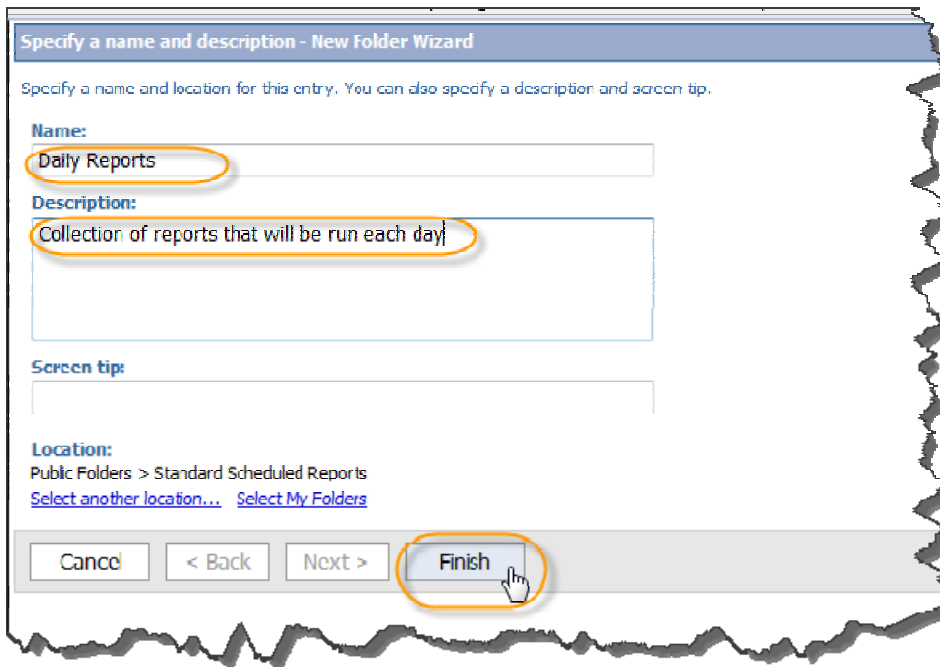
- Click the **Standard Scheduled Reports** folder and then click the folder icon in the top right.

Figure 4: New Folder Icon



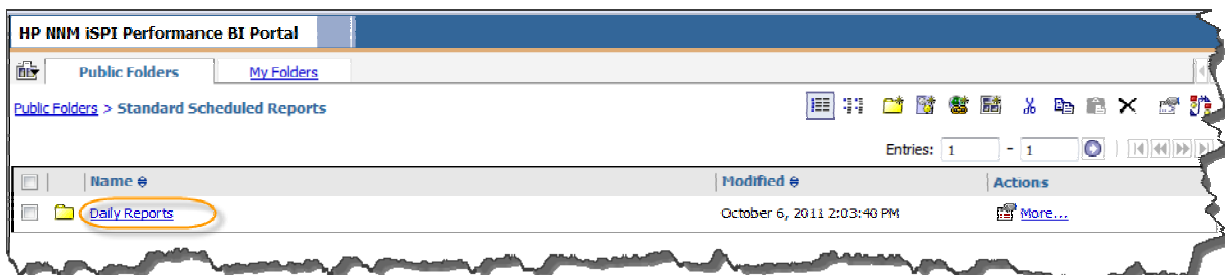
- Create a folder called **Daily Reports**. You could also create **Weekly** and **Monthly** report folders, if you like.

Figure 5: New Folder Name and Description



- You should see the new folder.

Figure 6: Daily Reports Folder



Populate the Report Folder

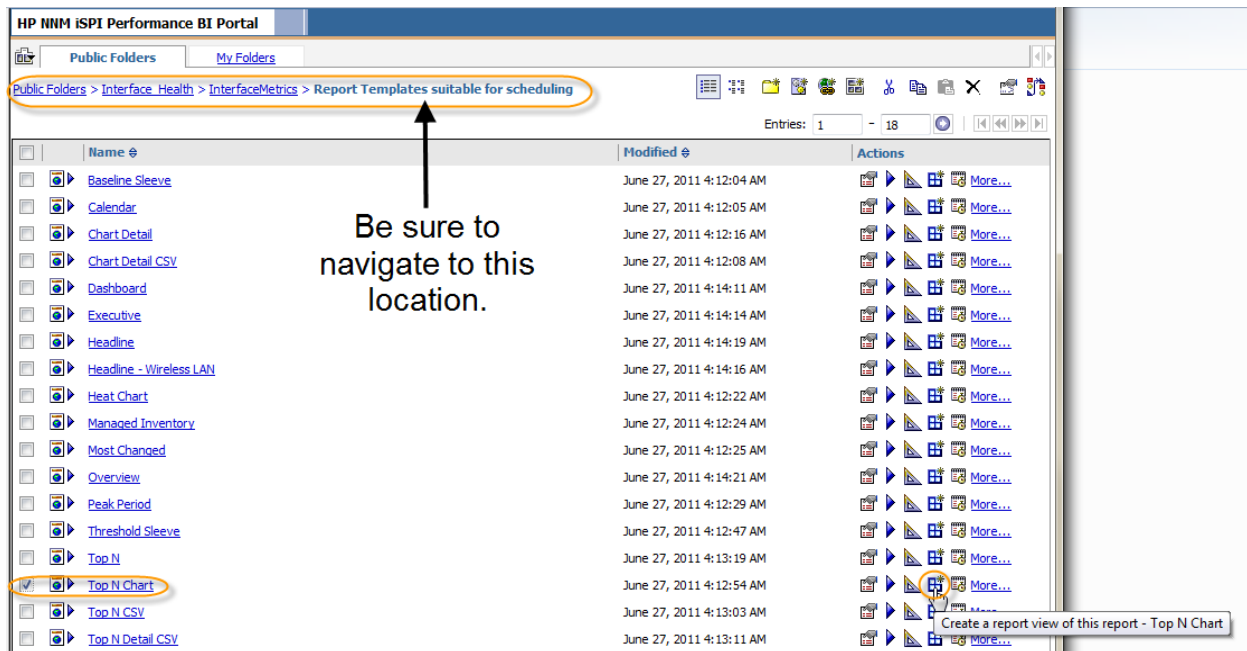
Now we must populate the Daily Reports folder with reports we want to run each day.

1. Navigate to **Public Folders > Interface_Health > InterfaceMetrics > Report Templates suitable for scheduling**.

NOTE: It is critical that you navigate to **Report Templates suitable for scheduling**. It is easy to make the mistake of selecting the report template from **InterfaceMetrics** without drilling down into **Report Templates suitable for scheduling**.

2. Select the check box to the left of **Top N Chart**.
3. Click the small icon on the right to "Create a report view of this report".

Figure 7: Top N Chart: Create Report View



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4. Replace the default name with a more meaningful name. We will name it **Daily Top 10 Utilization Chart of FA Interfaces in Colorado** since we are going to restrict it to the top 10 used interfaces in our Colorado group. Click **Select another location**.

Figure 8: New Report View Wizard: Name

Specify a name and description - New Report View wizard

Specify a name and location for this entry. You can also specify a description and screen tip.

Name:
Daily Top 10 Utilization Chart of FA Interfaces in Colorado

Description:
[Empty text area]

Screen tip:
[Empty text area]

Location:
Public Folders > Interface_Health > InterfaceMetrics > Report Templates suitable for scheduling
[Select another location...](#) [Select My Folders](#)

Cancel < Back Next > Finish

5. At the top of the subsequent window, navigate to **Cognos > Public Folders > Standard Scheduled Reports > Daily Reports** and click **OK**.

Figure 9: Select a Location: Daily Reports

Select a location (Navigate) - Daily Top 10 Utilization Chart of FA Interfaces in Colorado

Navigate the folders or search to find where you want to place the entry.

Cognos > Public Folders > Standard Scheduled Reports > Daily Reports

Name
No entries.

OK Cancel

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- The location where the report will be saved appears: **Cognos > Public Folders > Standard Scheduled Reports > Daily Reports**. Click **Finish**.

Figure 10: New Report View Wizard: Location

Specify a name and description - New Report View wizard

Specify a name and location for this entry. You can also specify a description and screen tip.

Name:
Daily Top 10 Utilization Chart of FA Interfaces in Colorado

Description:

Screen tip:

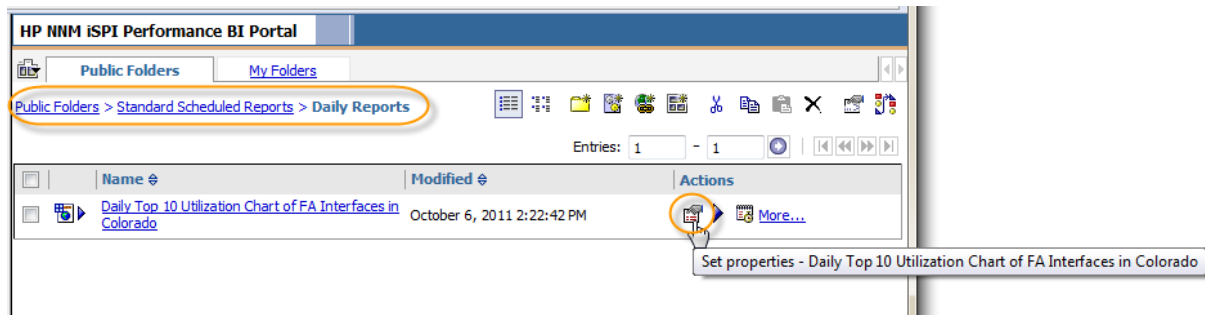
Location:
Public Folders > Standard Scheduled Reports > Daily Reports
[Select another location...](#) [Select My Folders](#)

Cancel < Back Next > Finish

- You can repeat this process for additional reports, as desired.

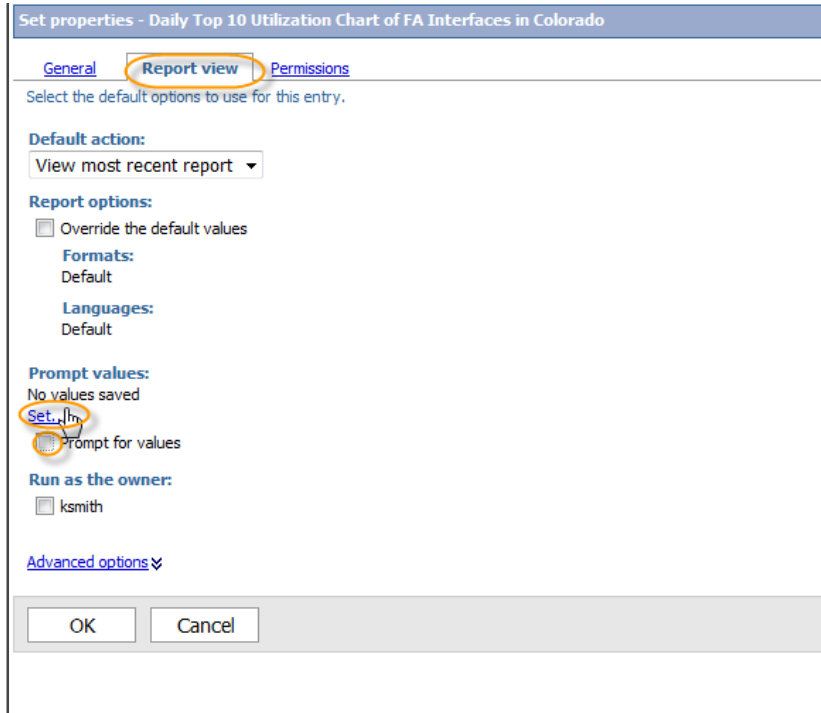
Configure your Individual Report

- Navigate to **Public Folders > Standard Scheduled Reports > Daily Reports** and click the **Set Properties** icon for this particular report.

Figure 11: Set Properties

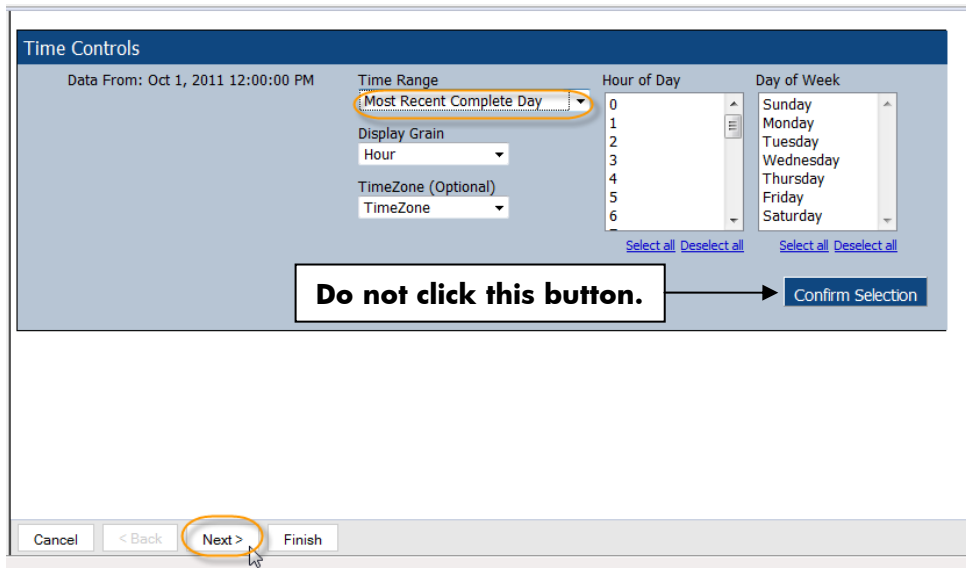
2. Click the **Report View** tab. Uncheck the **Prompt for values** check box and click the **Set** link.

Figure 12: Report View Tab: Set Link



3. Change the Time Range to be **Most Recent Complete Day**.
NOTE: Since we want to include all hours of the day and all days of the week, it is best not to select any values rather than selecting all. Choosing **Select All** will result in a less efficient report. Click **Next**.

Figure 13: Time Controls



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- We want to filter based on membership of a particular Interface Group that we had previously built. Select this Interface Group name. There are two types of Interface Groups (regular and type 1). See the online help for details about these groups, but in most cases, you will want to use type 1 groups. Click the **Next** button.

Figure 14: Topology Filter

The screenshot shows the 'Topology Filter' configuration window. The 'Attribute' column lists various network-related attributes, and the 'Selection' column shows the chosen filter criteria. The 'InterfaceGroup_Type1 Name' attribute is selected with the value 'Fa IFS in Colorado'. A callout box points to the 'Confirm Selection' button with the text 'Do not click this button.' The 'Next >' button is circled in orange.

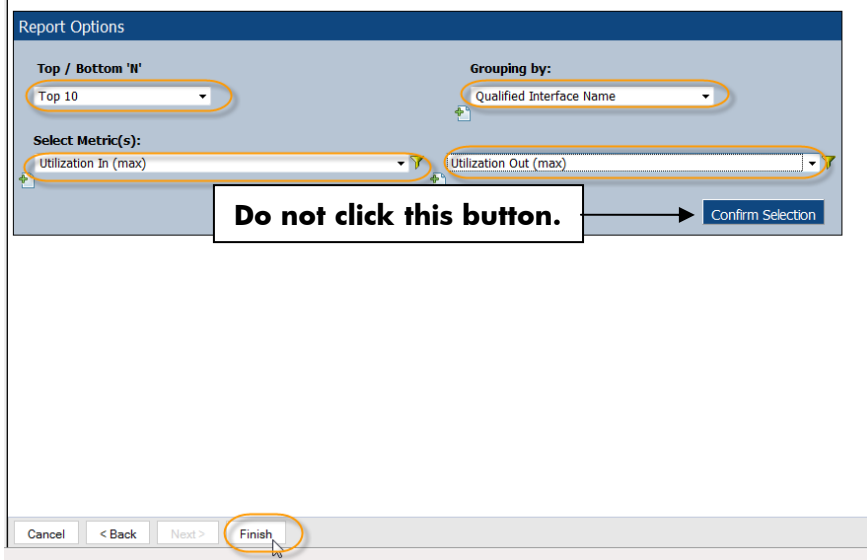
Attribute	Selection
InterfaceGroup Name	
NodeGroup Name	
InterfaceGroup_Type1 Name	= Fa IFS in Colorado
NodeGroup_Type1 Name	
MPLS L3VPN Name	
MPLS VRF Name	
Qualified Interface Name	
Interface Name	
Interface Alias	
Interface Descr	
Interface Index	
Interface Type	
Interface Physical Address	
Interface Speed (In:Out)	
Interface ID	
Interface UUID	
Interface ODBID	
Node Name	
Node Short Name	
Node Contact	
Node Location	
Node Family	
Node Vendor	
Node ID	
Node UUID	
Node ODBID	
Tenant Name	
Tenant UUID	
SecGroup Name	
SecGroup UUID	

Confirm Selection ← **Do not click this button.**

Cancel < Back **Next >** Finish

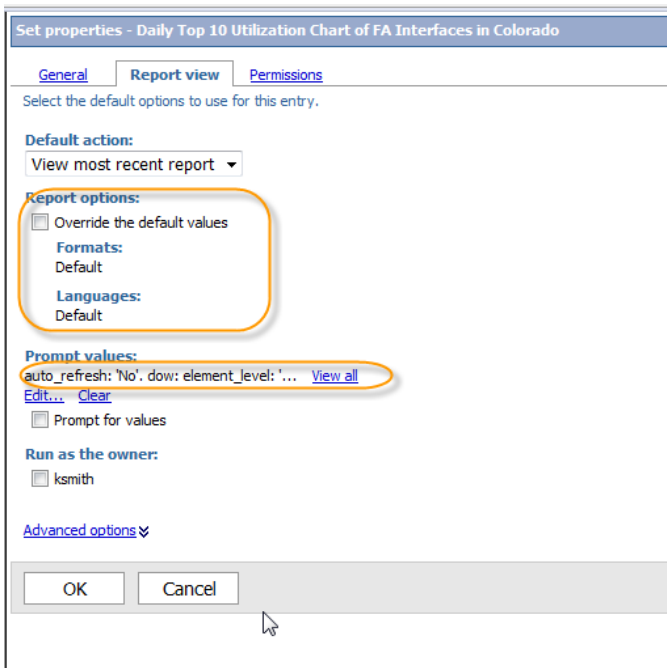
- Set the values. For this example we will choose **Top 10, Qualified Component Name** and **Utilization In (max)** and **Utilization Out (max)** and click **Finish**. Note that you may not always get Figures 13, 14, or 15, depending on the report template you are using. For instance, the Headline report does not give you the report options page. This is by design.

Figure 15: Report Options



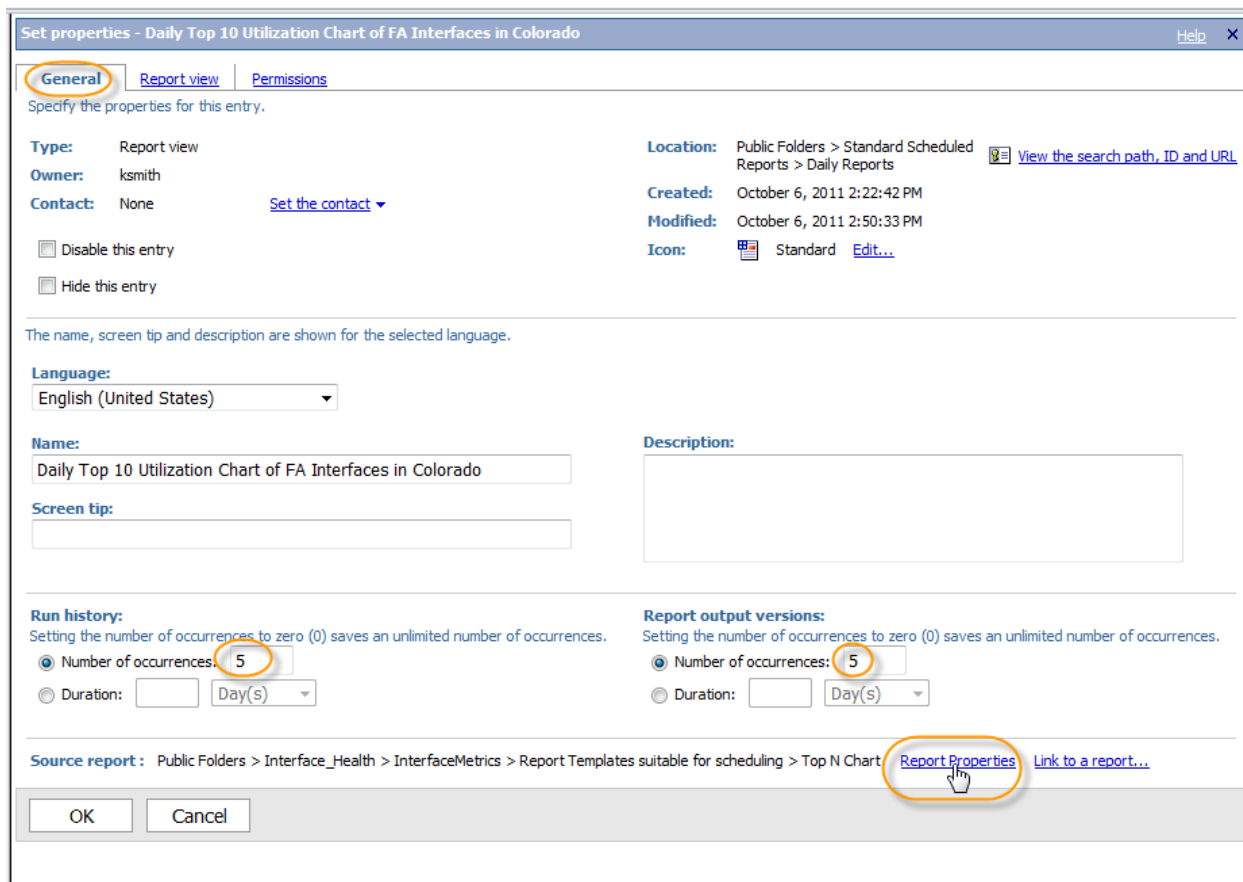
- You can see that the prompt values have been successfully changed. You may want to change the default output for the report. You can select the **Override the default values** check box to change the output to another format like PDF if you like. In this example, we will control the output type in the context of running a report rather than in the window shown in the following figure.

Figure 16: Report Options and Prompt Values



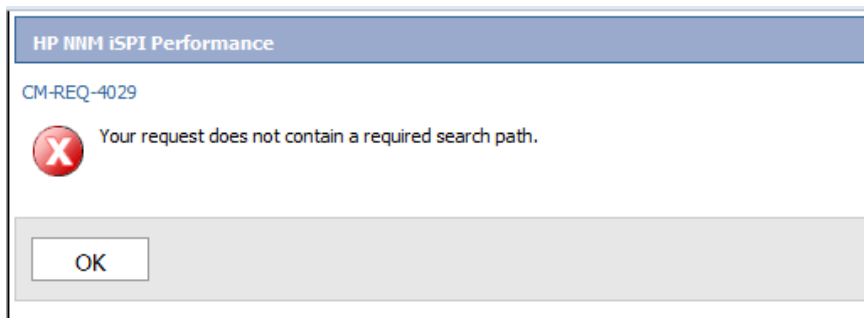
- You may want to change the number of output versions that are stored and the run history. To do this, click the **General** tab. For our example, we will set these options to 5.

Figure 17: General Tab: Run History and Report Output Versions



- There is one final requirement when building reports. If you were to attempt to schedule this report now, you would get the following error:

Figure 18: Error



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- In order to prevent the error shown in the previous figure, set up the correct package for the source report. Click the **Report Properties** link at the bottom of the **General** tab as shown in Figure 17.
- Next, click the **Link to a package** link at the bottom of the window.

Figure 19: General Tab: Link to a Package

Set properties - Top N Chart Help X

General | Report | Permissions

Specify the properties for this entry.

Type: Report
Owner: ErsAdmin [Make me the owner](#)
Contact: None [Set the contact](#) ▼

Disable this entry
 Hide this entry

Location: Public Folders > Interface_Health > InterfaceMetrics > Report Templates suitable for scheduling [View the search path, ID and URL](#)
Created: June 27, 2011 4:12:54 AM
Modified: June 27, 2011 4:12:54 AM
Icon: Standard [Edit...](#)

The name, screen tip and description are shown for the selected language.

Language:
English ▼ [Remove values for this language](#)

Name: Top N Chart
Screen tip:
Description:

Run history: Setting the number of occurrences to zero (0) saves an unlimited number of occurrences.
 Number of occurrences: 5
 Duration: Day(s) ▼

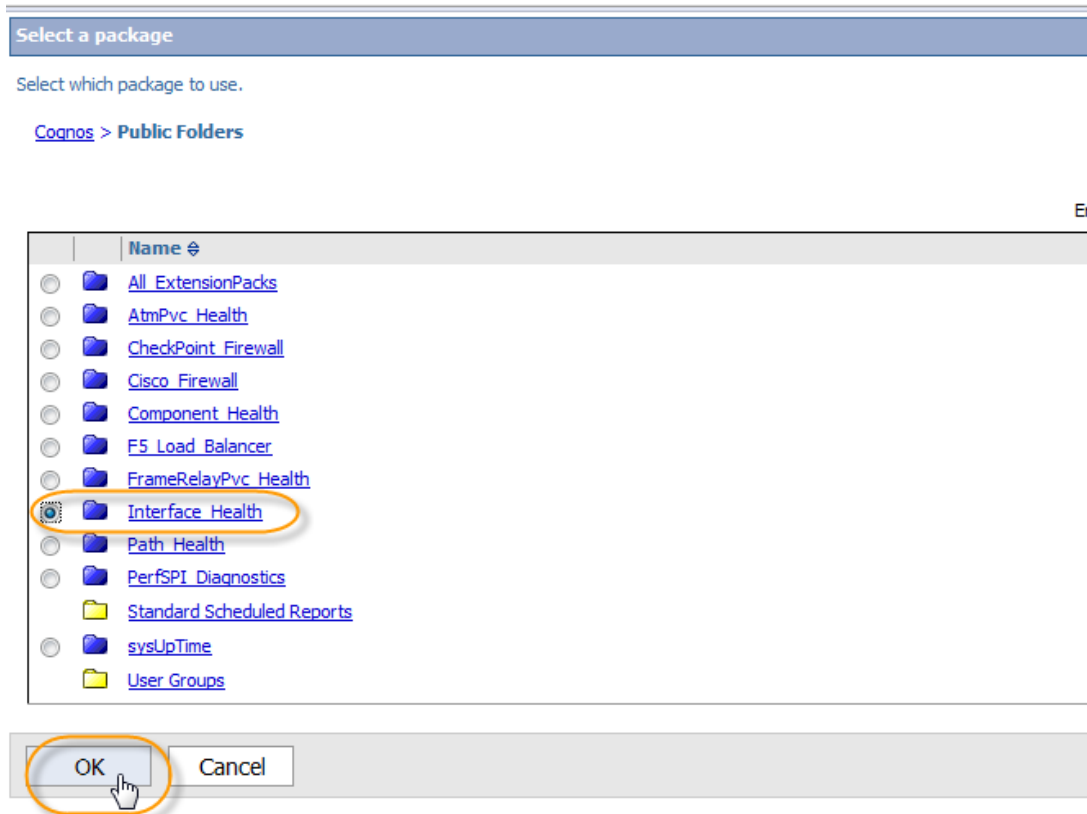
Report output versions: Setting the number of occurrences to zero (0) saves an unlimited number of occurrences.
 Number of occurrences: 1
 Duration: Day(s) ▼

Package: Unavailable [Link to a package...](#)

OK Cancel

11. Select the appropriate report package from which this report comes. In this case, select the **Interface_Health** package and click **OK**.

Figure 20: Select a Package: Interface_Health



12. Now you can see that the package Interface_Health is properly linked. Click **OK**.

Figure 21: General Tab: Interface_Health Package

Set properties - Top N Chart

General
Report
Permissions

Specify the properties for this entry.

<p>Type: Report</p> <p>Owner: ErsAdmin Make me the owner</p> <p>Contact: None Set the contact ▼</p> <p><input type="checkbox"/> Disable this entry</p> <p><input type="checkbox"/> Hide this entry</p>	<p>Location: Public Folders > Interface_Health > InterfaceMetrics > Report Templates suitable for scheduling View the s</p> <p>Created: June 27, 2011 4:12:54 AM</p> <p>Modified: June 27, 2011 4:12:54 AM</p> <p>Icon: Standard Edit...</p>
---	--

The name, screen tip and description are shown for the selected language.

Language:
English ▼ [Remove values for this language](#)

<p>Name: <input style="width: 90%;" type="text" value="Top N Chart"/></p> <p>Screen tip: <input style="width: 90%;" type="text"/></p>	<p>Description: <div style="border: 1px solid #ccc; height: 40px; width: 100%;"></div></p>
---	---

<p>Run history: Setting the number of occurrences to zero (0) saves an unlimited number of occurrences.</p> <p><input checked="" type="radio"/> Number of occurrences: <input style="width: 40px;" type="text" value="5"/></p> <p><input type="radio"/> Duration: <input style="width: 40px;" type="text"/> Day(s) ▼</p>	<p>Report output versions: Setting the number of occurrences to zero (0) saves an unlimited nu</p> <p><input checked="" type="radio"/> Number of occurrences: <input style="width: 40px;" type="text" value="1"/></p> <p><input type="radio"/> Duration: <input style="width: 40px;" type="text"/> Day(s) ▼</p>
--	---

Package:
Interface_Health [Link to a package...](#)

OK
Cancel

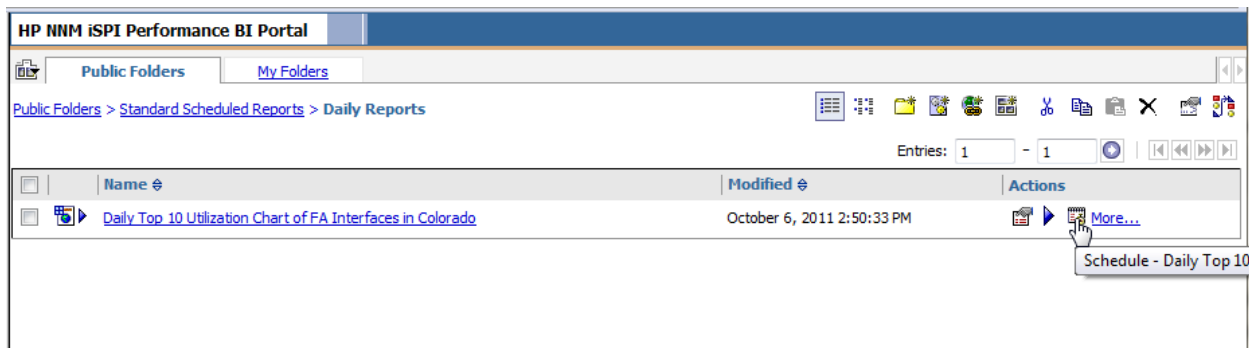
Scheduling Reports

You can either schedule the report directly or you can schedule collections of reports in the context of a "job". You might prefer a job because it gives an easy way to schedule all of your daily reports in one place.

Scheduling a Report

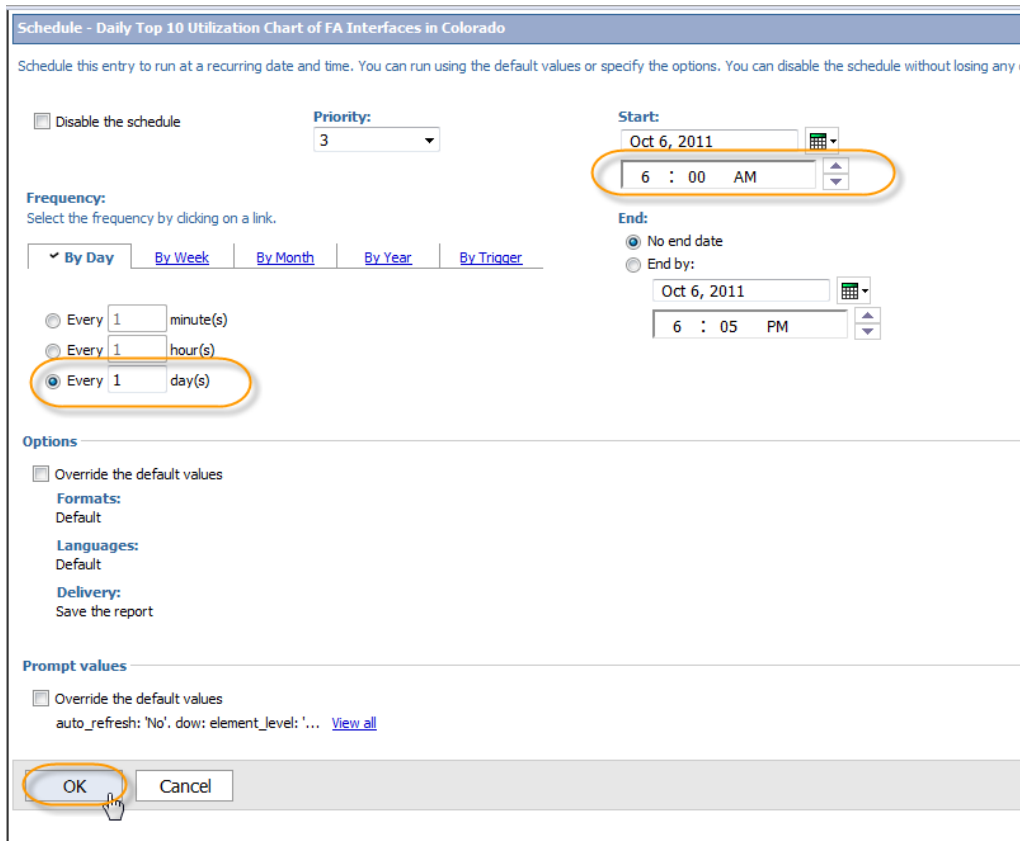
1. To schedule a report directly, click the **Schedule** icon on the right side.

Figure 22: Public Folders: Schedule



2. Then set the frequency to **By Day** every 1 day and choose a starting time.

Figure 23: Report Schedule

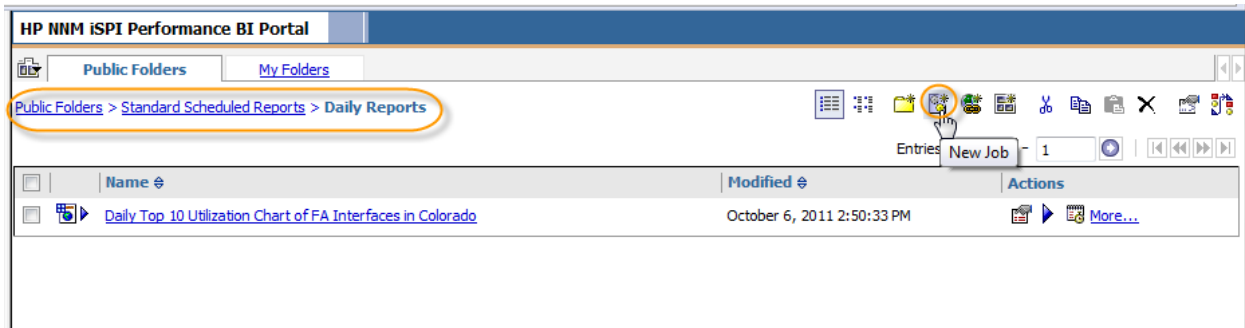


Scheduling a Job

In many cases, you might want to control a set of daily reports in the context of a single job (similar to running a batch). To create a job:

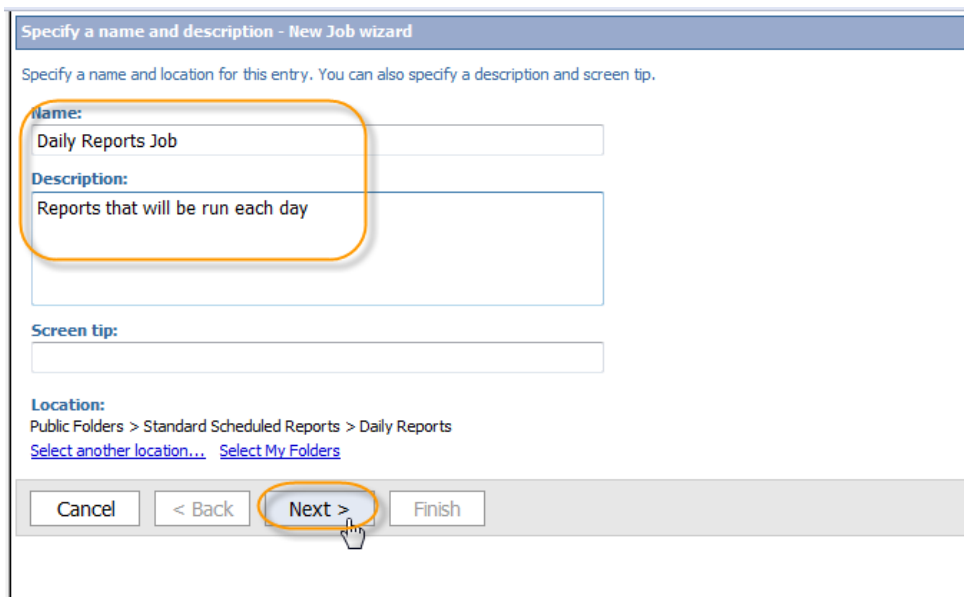
1. Be sure you are in **Public Folders > Standard Scheduled Reports > Daily Reports** and then click the **New Job** icon at the top.

Figure 24: Daily Reports: New Job



2. Give the job a name and a description and click **Next**.

Figure 25: New Job Wizard: Name and Description

A screenshot of the 'Specify a name and description - New Job wizard' dialog box. The 'Name' field contains 'Daily Reports Job' and the 'Description' field contains 'Reports that will be run each day'. Both fields are circled in orange. The 'Next >' button is also circled in orange and has a mouse cursor over it. The 'Cancel', '< Back', and 'Finish' buttons are also visible. The 'Location' field shows the current path: 'Public Folders > Standard Scheduled Reports > Daily Reports' with links to 'Select another location...' and 'Select My Folders'.

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3. Click the **Add...** link to add new reports to this job.

Figure 26: New Job Wizard: Add

Select the steps - New Job wizard Help X

Select the entries to include as steps of this job and the options to use when this entry runs.

Steps:

<input type="checkbox"/>	...> Name	Options and prompt values
No entries.		

[Add...](#) [Remove](#) [Modify the sequence...](#) [Reset to default value](#)

Submission of steps:
Submitting steps in sequence implies that a step is submitted only upon completion of the step before it.

All at once
 In sequence
 Continue on error

Defaults for all steps:
Select this option to specify default values for all steps of this job.

Default
[Set...](#)

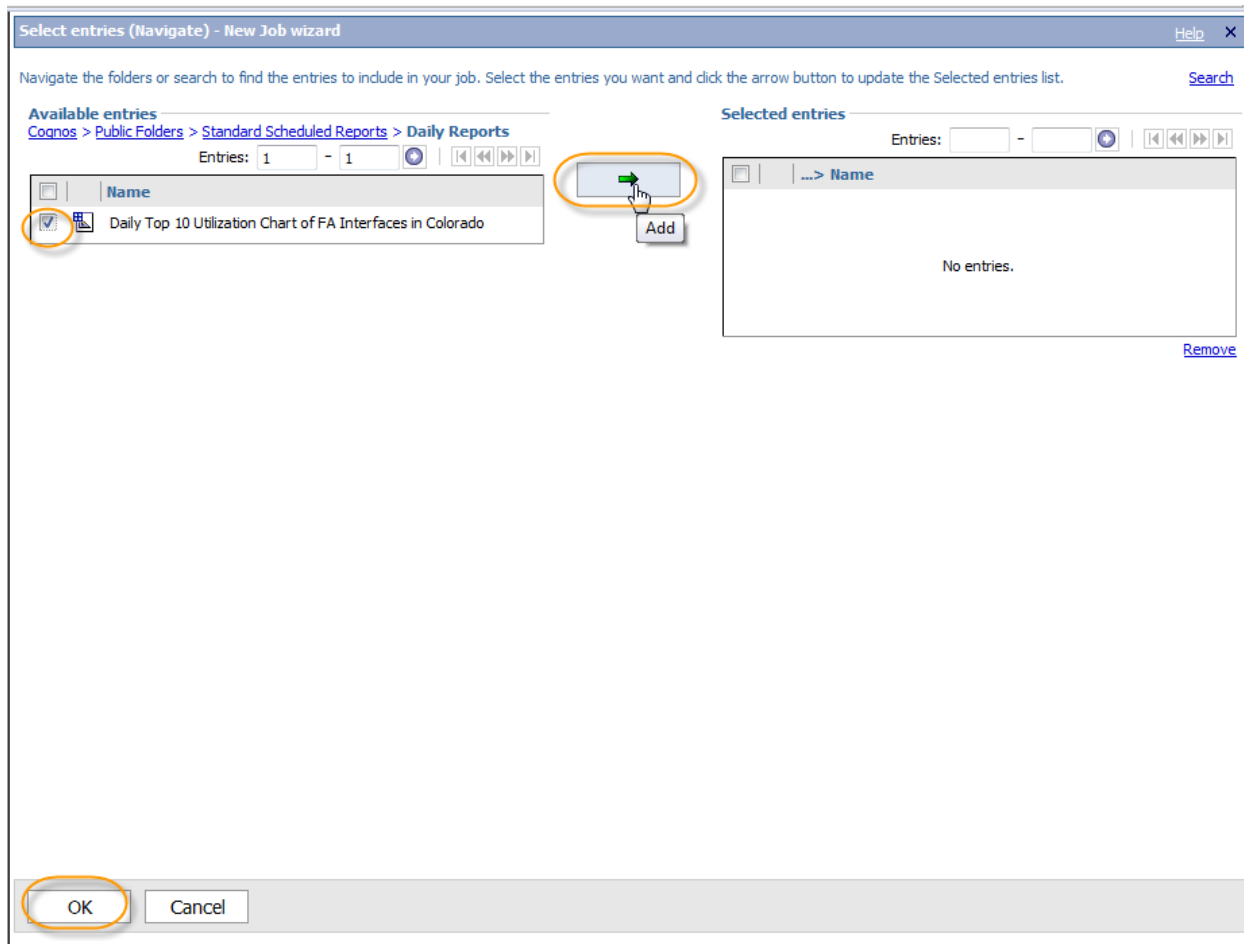
Run history details level:
Select the level of details to save in the run history when the run activity completes successfully. For failed runs, the details are saved.

All ▾

Cancel < Back Next > Finish

4. Since we have only created one report under the Daily Reports folder, there is only one available entry. Typically you would have more from which to choose. Select the report and click the **Add** arrow. Then click **OK**.

Figure 27: New Job Wizard: Add Daily Report



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5. You can then choose if you want to run all the reports at once or in sequence. Since we only have one report, it makes no difference. You can also control the output of the reports in the job. Click the **Set...** link.

Figure 28: New Job Wizard: Set... Link

Select the steps - New Job wizard Help ×

Select the entries to include as steps of this job and the options to use when this entry runs.

Steps: Entries: 1 - 1

<input type="checkbox"/>	...> Name	Options and prompt values
<input checked="" type="checkbox"/>	...> Daily Top 10 Utilization Chart of FA Interfaces in Colorado	Default

[Add...](#) [Remove](#) [Modify the sequence...](#) [Reset to default value](#)

Submission of steps:
Submitting steps in sequence implies that a step is submitted only upon completion of the step before it.

All at once
 In sequence
 Continue on error

Defaults for all steps:
Select this option to specify default values for all steps of this job.

Default
[Set...](#)

Run history details level:
Select the level of details to save in the run history when the run activity completes successfully. For failed runs, the details are saved.

All

6. Click the **Report Options** link.

Figure 29: New Job: Report Options

Select default options - New job

Select the default options for all the steps of this job.

[Report options](#)
No default values set

[Import options](#)
No default values set

7. Select the **Specify default values for all the reports of this job** check box.

Figure 30: New Job: Specify Default Values for all the Reports of this Job

Select default options - New job

Select the default options for all the steps of this job.

[Report options](#) ▲

Specify default values for all the reports of this job

Run the report to:
Produce report outputs

Formats:
Default

Languages:
Default

Delivery:
Save the report

[Import options](#) ▼
No default values set

OK Cancel

8. Now you can select additional output formats for the reports in this job. You might also want to send an email with the report. Note that you must set up the email on the Network Performance Server to use this feature. See the final section of this paper for more details.

Figure 31: New Job: PDF

Select default options - New job

Select the default options for all the steps of this job.

[Report options](#) ▲

Specify default values for all the reports of this job

Run the report to:
Produce report outputs

Formats:
 HTML
Number of rows per Web page:
20
 Enable selection-based interactivity
 PDF
No options saved
[Set...](#)
 Excel 2007
 Excel 2002
 Excel 2000 Single Sheet
 Delimited text (CSV)
 XML

Languages:
English (United States) [Select the languages...](#)

Delivery:
Select at least one delivery method.
 Save the reports
 Print the reports
Printer location:
 [Select a printer...](#)
 Send a link to the reports by email [Edit the options...](#)
0 recipients

Bursting:
 Burst the reports

[Import options](#) ▼
No default values set

OK Cancel

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9. You can see the options that were set up. Now click the **Next** button.

Figure 32: New Job Wizard: Defaults for all Steps

Select the steps - New Job wizard Help X

Select the entries to include as steps of this job and the options to use when this entry runs.

Steps: Entries: 1 - 1

...	Name	Options and prompt values
<input type="checkbox"/>	... > Daily Top 10 Utilization Chart of FA Interfaces in Colorado	Default

[Add...](#) [Remove](#) [Modify the sequence...](#) [Reset to default value](#)

Submission of steps:
Submitting steps in sequence implies that a step is submitted only upon completion of the step before it.

All at once
 In sequence
 Continue on error

Defaults for all steps:
Select this option to specify default values for all steps of this job.
Produce report outputs, HTML (20 rows per page, Enable selection-based interactivity), PDF, English (United States), English (United States)
[Edit...](#) [Clear](#)

Run history details level:
Select the level of details to save in the run history when the run activity completes successfully. For failed runs, the details are saved.
All ▾

Cancel < Back **Next >** Finish

10. Finally, you can choose the **Save and schedule** button and click **Finish**.

Figure 33: Job: Save and Schedule

Select an action - job

Select whether you want to run, schedule, or save only, when the wizard closes.

Action:

Save and run once
 Save and schedule
 Save only

Cancel < Back Next > **Finish**

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11. Now you would set up the frequency of the job and click **OK**.

Figure 34: Daily Reports Job: Frequency

Schedule - Daily Reports Job Help X

Schedule the entry to run at a recurring date and time. You can disable the schedule without losing any of its details.

Disable the schedule Priority: 3 Start: Oct 6, 2011 7 : 29 PM

Frequency:
Select the frequency by clicking on a link.

By Day [By Week](#) [By Month](#) [By Year](#) [By Trigger](#)

Every 1 minute(s)
 Every 1 hour(s)
 Every 1 day(s)

End:
 No end date
 End by: Oct 6, 2011 7 : 29 PM

Steps: Entries: 1 - 1

...> Name
...> Daily Top 10 Utilization Chart of FA Interfaces in Colorado

OK Cancel

Testing

For testing purposes, you might want to schedule your reports to run more frequently just to try them out and work with the output. You could temporarily change the frequency of this report to be every two minutes.

Figure 35: Daily Reports Job: Frequency: Every 2 Minutes

Schedule - Daily Reports Job Help X

Schedule the entry to run at a recurring date and time. You can disable the schedule without losing any of its details.

Disable the schedule Priority: 3 Start: Oct 6, 2011 7 : 29 PM

Frequency:
Select the frequency by clicking on a link.

By Day [By Week](#) [By Month](#) [By Year](#) [By Trigger](#)

Every 2 minute(s)
 Every 1 hour(s)
 Every 1 day(s)

End:
 No end date
 End by: Oct 6, 2011 7 : 29 PM

Steps: Entries: 1 - 1

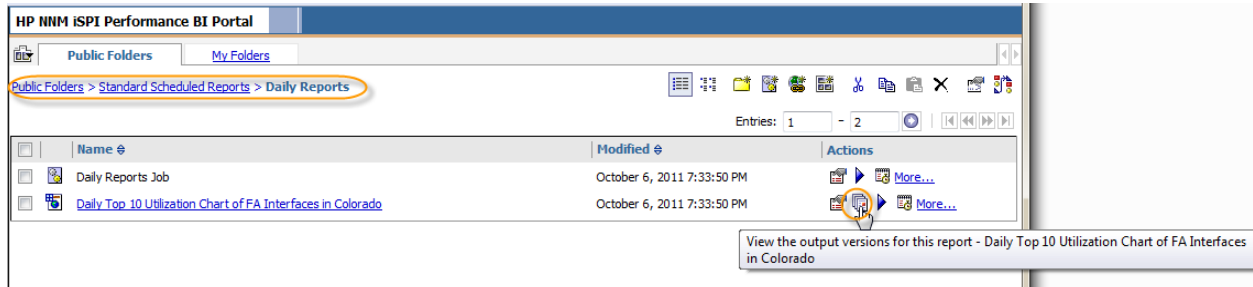
...> Name
...> Daily Top 10 Utilization Chart of FA Interfaces in Colorado

OK Cancel

Viewing and Managing the Reports

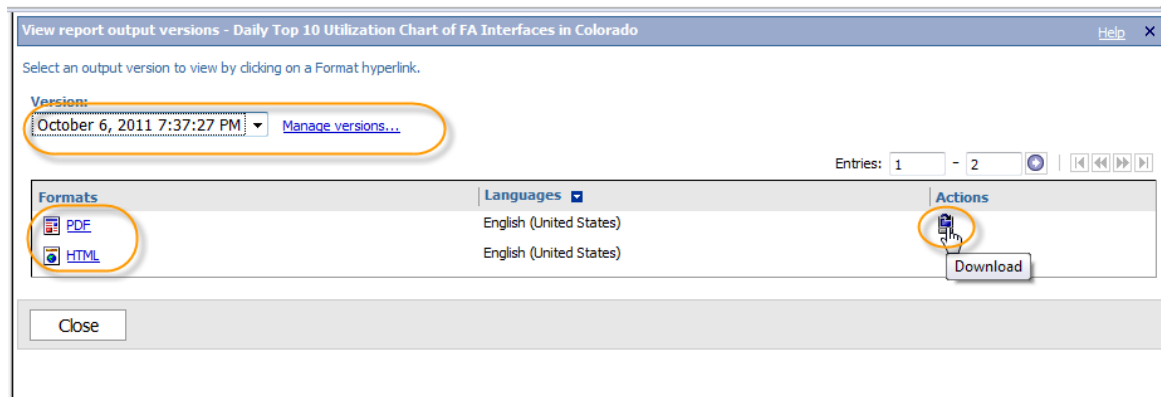
1. To see the reports of your running job, go to **Public Folders > Standard Scheduled Reports > Daily Reports** and click the **View the output versions** button.

Figure 36: Daily Reports: View the Output Versions



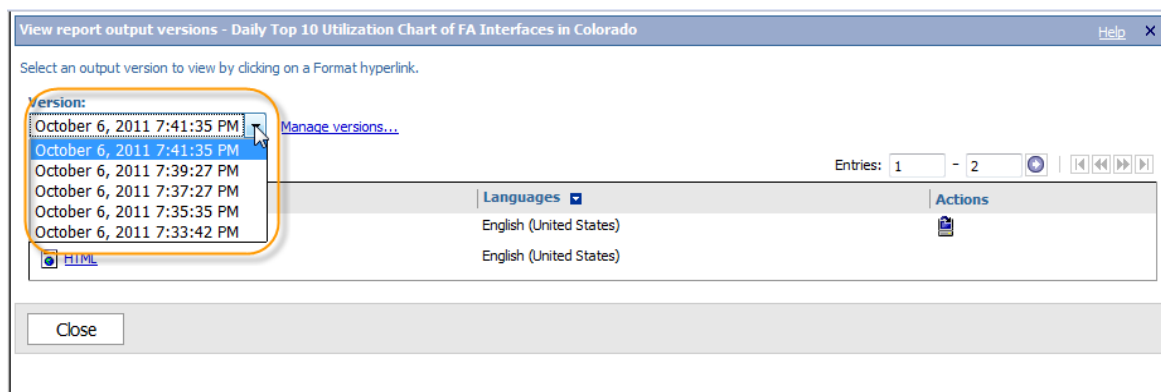
2. From here, you can see the reports that are stored on the server. You can see the two formats that were specified in the job. You can also download the PDF to your local computer by clicking the **Download** button.

Figure 37: View Report Output Versions



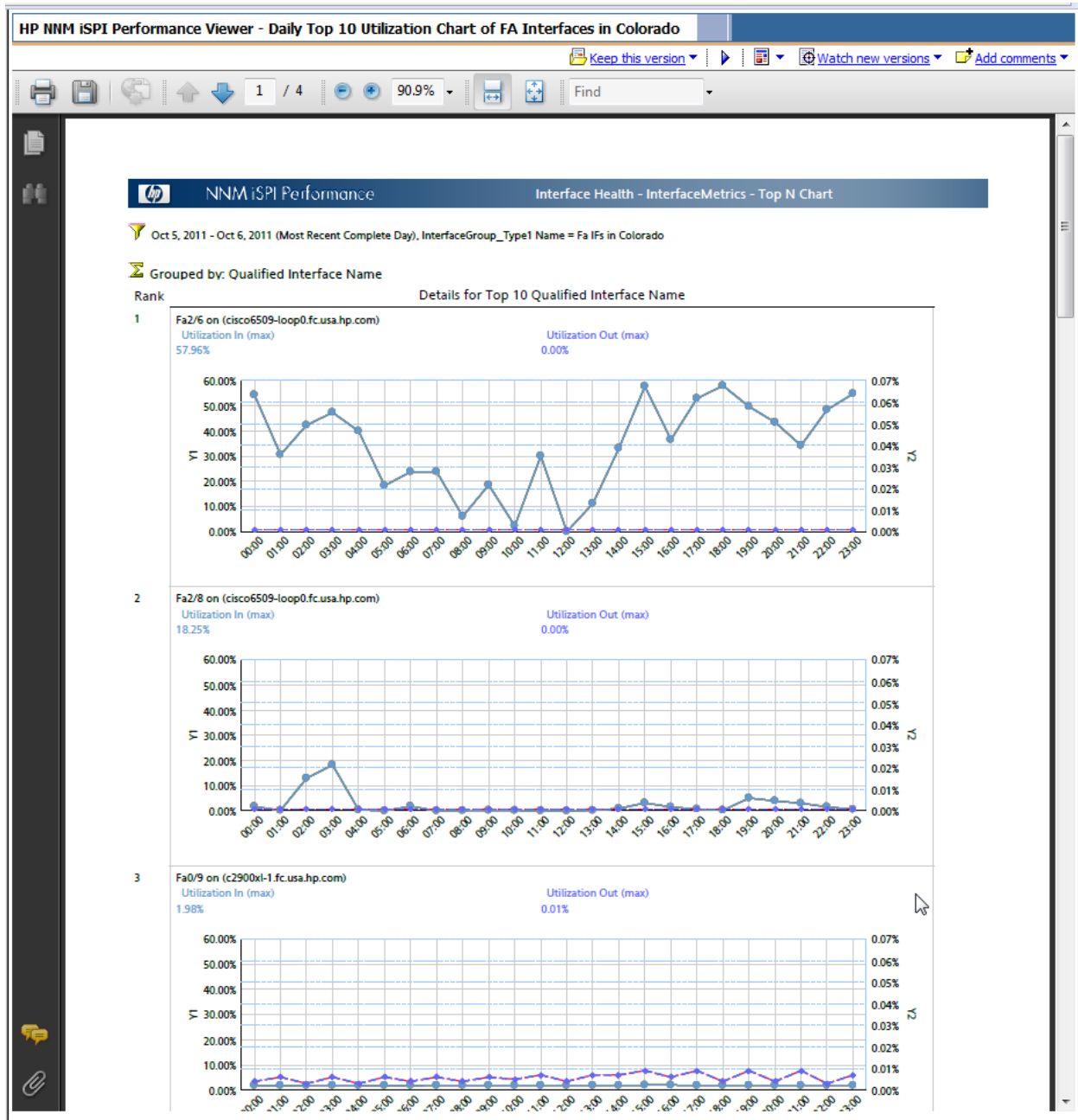
3. You can see previous versions of the reports by selecting the appropriate time stamp from the Version list. Since we set our test to run every two minutes, you can see that each set of output is two minutes apart. Remember that we configured it to only keep five copies on the server so it will not build up too many copies. You can also delete your old reports if you want to by clicking the **Manage versions...** link.

Figure 38: View Report Output Versions



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- You can click the PDF output (see Figure 37) to see the PDF version of the report. Try pressing your BACKSPACE key to return to the previous page after viewing the report.

Figure 39: View Report

- You can also click the HTML format and view the report. Remember that this is a static HTML report and the HTML is not live. This report reflects the graphs as they were when the report was run.

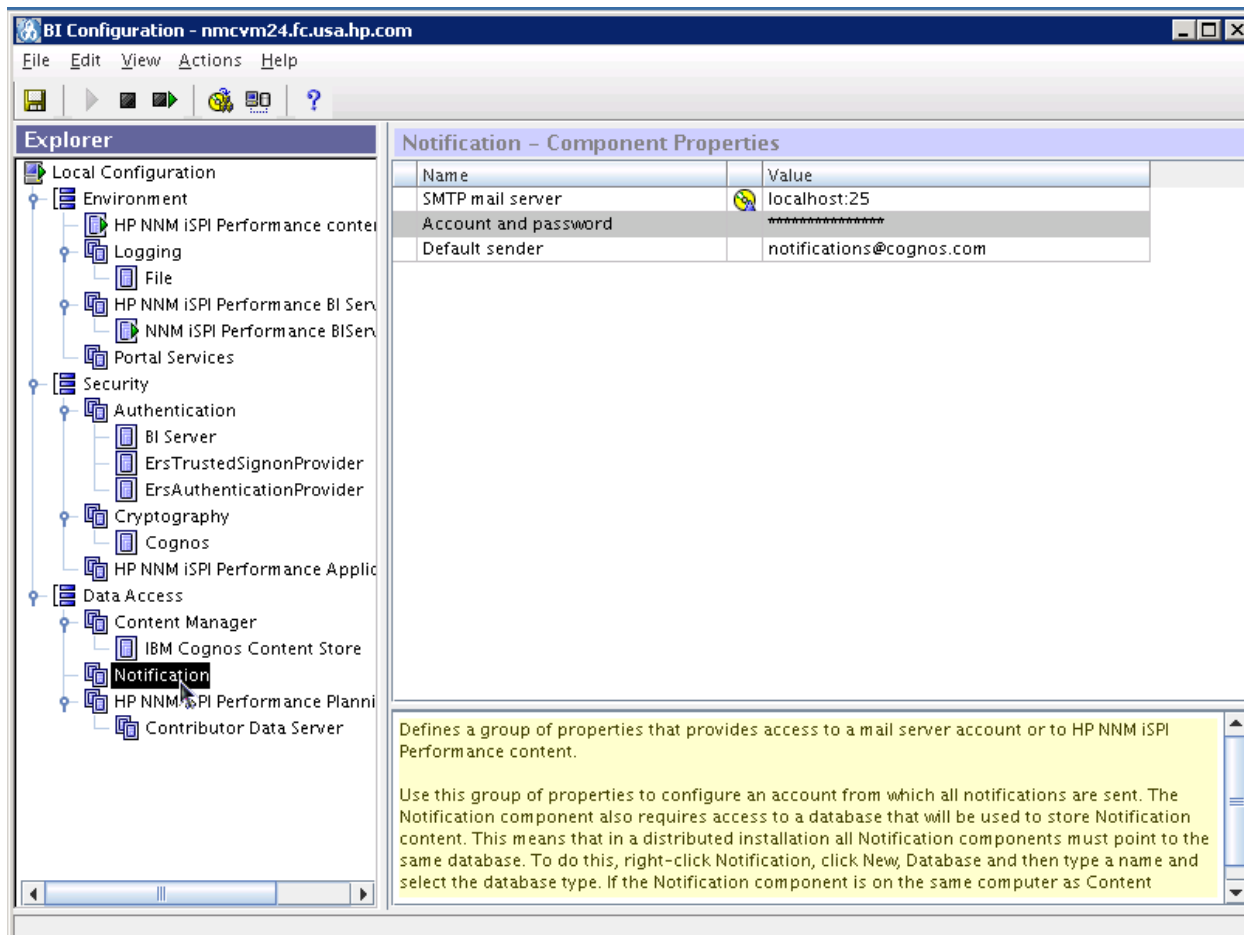
Emailing Reports

If you want to use the NPS to email reports, you must configure the BI Server to use a Simple Mail Transfer Protocol (SMTP) email server.

To configure the BI Server to send emails:

1. Launch the BI Server Configuration graphical user interface.
Windows: %NPSInstallDir%\NNMPerformanceSPI\bin\runBIConfigGUI.ovpl
Linux: /opt/OV/NNMPerformanceSPI/bin/runBIConfigGUI.ovpl
2. In the Explorer pane, select **Notification**.

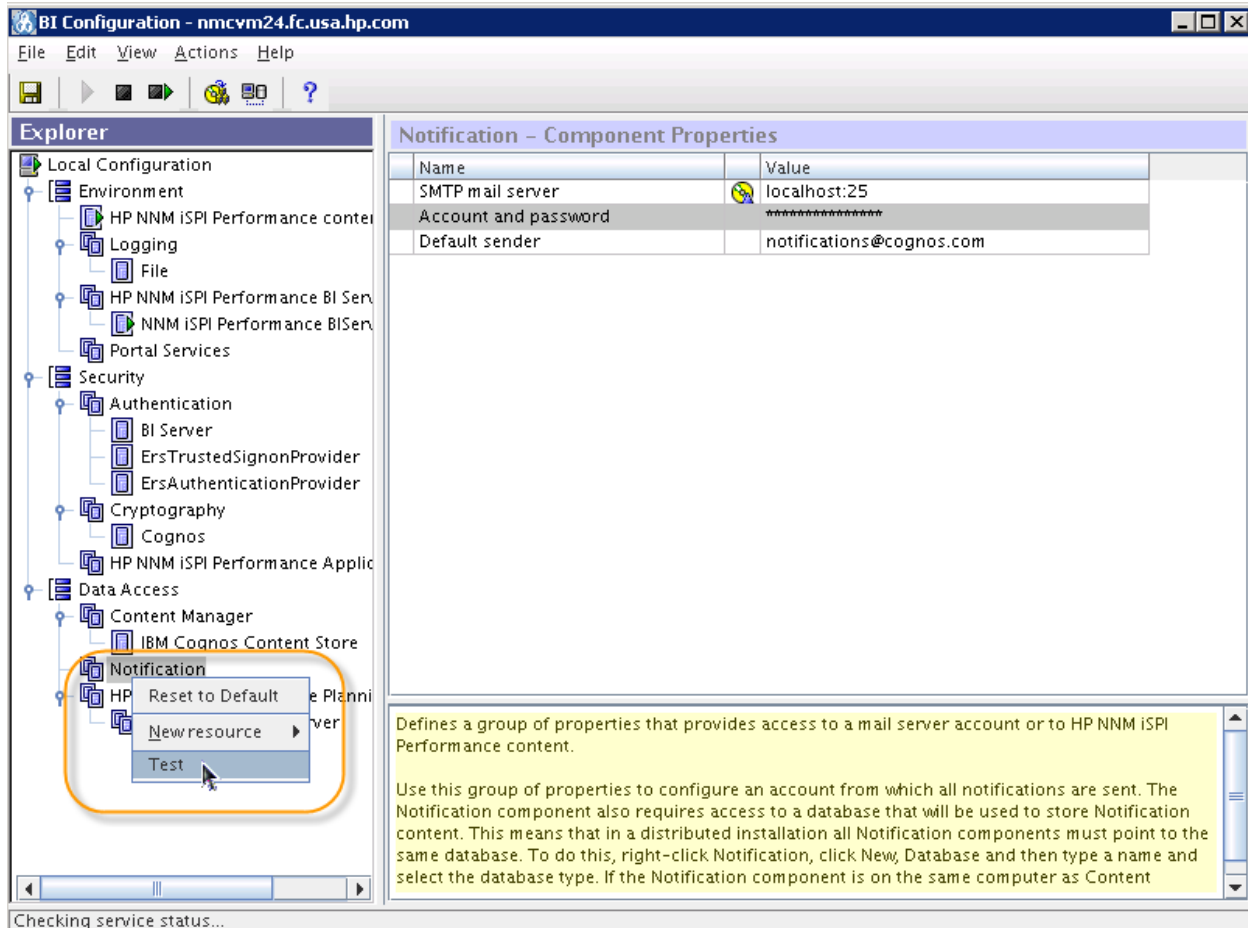
Figure 40: BI Configuration



3. Specify appropriate values for the following fields:
 - SMTP Mail server (usually localhost:25 is a good choice)
 - Account and password
 - Default Sender
4. Click the **Save** button.

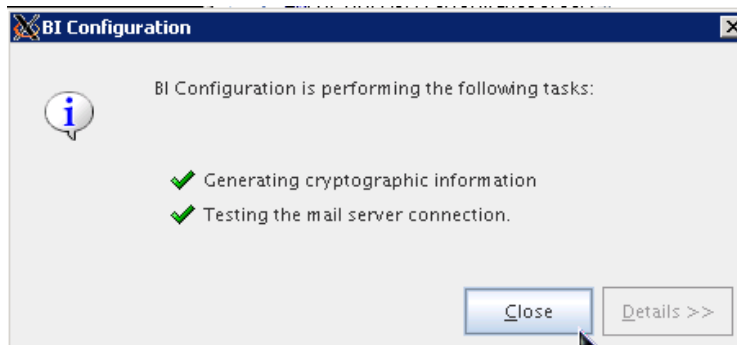
- To test the connection, right-click **Notification** in the left pane, and then click **Test**.

Figure 41: BI Configuration: Notification: Test



- You will see the following dialog box on success:

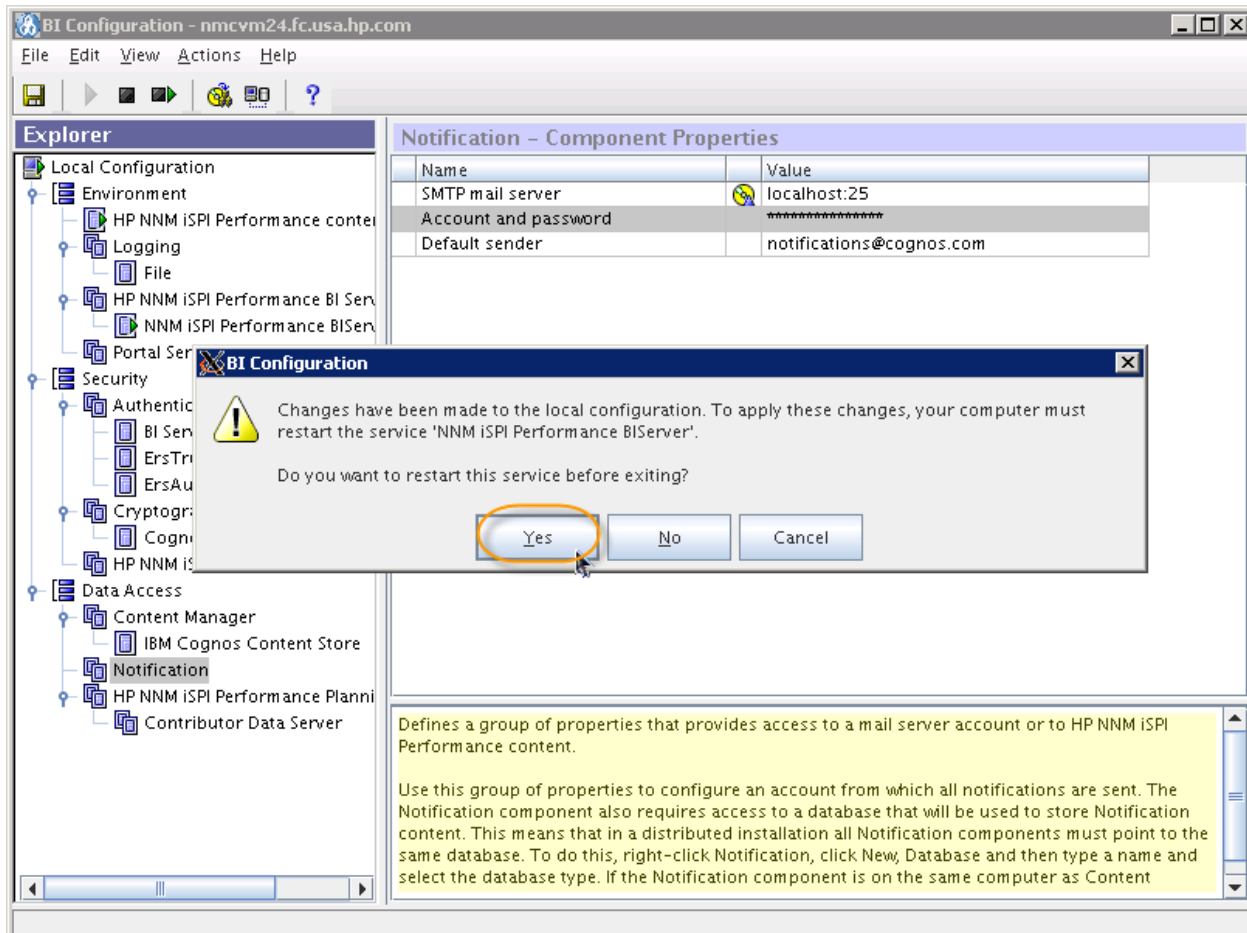
Figure 42: BI Configuration: Success



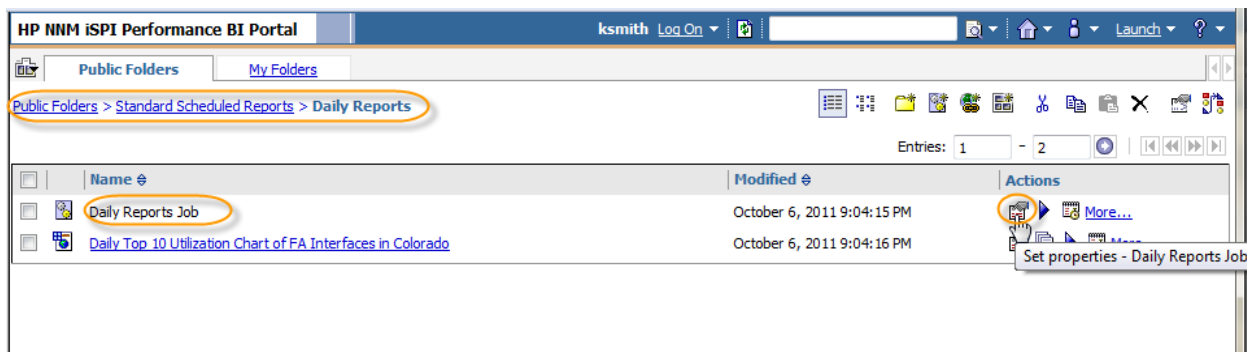
- Click **Close**.

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8. Click **File > Save**.
9. Select **Yes** when prompted to restart the service NNM iSPI Performance BIServer.

Figure 43: BI Configuration: Restart Service

10. After the BI server restarts, you can now configure the job to send email. Return to **Public Folders > Standard Scheduled Reports > Daily Reports** and click **Set Properties** for the job.

Figure 44: Daily Reports Job: Set Properties

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11. Click the **Job** tab and click **Edit...****Figure 45: Daily Reports Job: Job Tab: Edit**

Set properties - Daily Reports Job Help X

General **Job** Permissions

Select the entries to include as steps of this job and the options to use when this entry runs.

Steps: Entries: 1 - 1

Options and prompt values	Name
Default	... > Daily Top 10 Utilization Chart of FA Interfaces in Colorado

[Add...](#) [Remove](#) [Modify the sequence...](#) [Reset to default value](#)

Submission of steps:
Submitting steps in sequence implies that a step is submitted only upon completion of the step before it.

All at once
 In sequence
 Continue on error

Defaults for all steps:
Select this option to specify default values for all steps of this job.

Produce report outputs, HTML (20 rows per page, Enable selection-based interactivity), PDF, English (United States), English (United States)

[Edit...](#) [Clear](#)

Run history details level:
Select the level of details to save in the run history when the run activity completes successfully. For failed runs, the details are saved.

All

OK Cancel

12. Click **Report Options**, check the box to email the report and click **Edit the options...****Figure 46: Daily Reports Job: Report Options**

Select default options - Daily Reports Job

Select the default options for all the steps of this job.

Report options

Specify default values for all the reports of this job

Run the report to:
Produce report outputs

Formats:

HTML

Number of rows per Web page:
20

Enable selection-based interactivity

PDF
No options saved
[Set...](#)

Excel 2007

Excel 2002

Excel 2000 Single Sheet

Delimited text (CSV)

XML

Languages:
English (United States) [Select the languages...](#)

Delivery:
Select at least one delivery method.

Save the reports

Print the reports

Printer location:
 [Select a printer...](#)

Send a link to the reports by email [Edit the options...](#)

0 recipients

Bursting:
 Burst the reports

[Import options](#)

No default values set

OK Cancel

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13. You can choose to include a link to the reports (the link points to the NPS server). You might also want to attach a copy of the HTML and PDF reports to the email. Note that the link in the email will require the user to log on with their NNMi account. Fill in the email address for the destination and click **OK**.

Figure 47: Daily Reports Job: Recipient

Set the email options - Daily Reports Job

Specify the recipients and contents of the email. To add recipients, click Select the recipients or type the email addresses separated by semi-colons. To include an HTML report as the message body, leave the Body box empty and select the report as the only attachment.

To:
admin@mycompany.com

Cc:
[Select the recipients...](#) [Show Bcc](#)

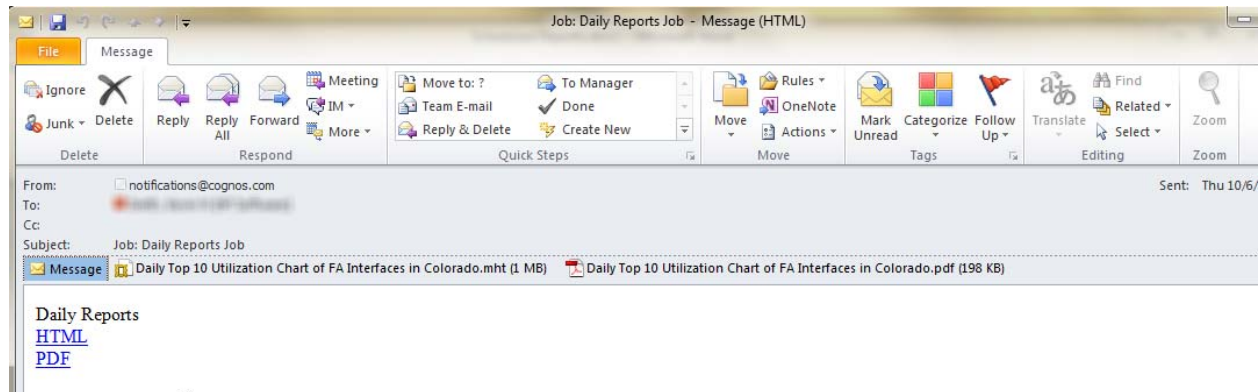
Subject:
Job: Daily Reports Job

Body:
My daily reports.

Include a link to the report
 Attach the report

OK Cancel

14. The email recipient will now begin to receive email messages similar to that shown in the following figure.

Figure 48: Daily Reports Job

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