



## Informatica Proactive Monitoring for PowerCenter Operations (Version 2.5)

# Solutions Guide



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# Table of Contents

<b>Preface</b> .....	<b>v</b>
Informatica Resources. ....	v
Informatica Customer Portal. ....	v
Informatica Documentation. ....	v
Informatica Web Site. ....	v
Informatica How-To Library. ....	vi
Informatica Knowledge Base. ....	vi
Informatica Multimedia Knowledge Base. ....	vi
Informatica Global Customer Support. ....	vi
<b>Chapter 1: Proactive Monitoring for PowerCenter Operations</b> .....	<b>1</b>
Introduction. ....	1
Solution Components. ....	3
Informatica Rulepoint. ....	4
Informatica Real-Time Alert Manager . ....	4
Proactive Monitoring Repository. ....	4
Proactive Monitoring Management Console. ....	4
Node Agent. ....	5
Solution Usage. ....	5
<b>Chapter 2: Monitoring PowerCenter Operations</b> .....	<b>7</b>
Monitoring PowerCenter Operations Overview. ....	7
Solution artifacts. ....	7
Proactive Monitoring Services. ....	8
Proactive Monitoring Rules. ....	10
Monitoring PowerCenter Processes and Hosts. ....	11
Collection of CPU, Memory, and Process Health Information. ....	11
<b>Chapter 3: Introduction to Installation and Configuration</b> .....	<b>12</b>
Installation and Configuration Overview. ....	12
Installation Options. ....	12
<b>Chapter 4: First Time Installation</b> .....	<b>13</b>
First Time Installation Overview. ....	13
Before You Install. ....	13
Verify System Requirements . ....	14
Verify Permissions. ....	14
Create Proactive Monitoring User (Optional). ....	14

Set Up the X Window Server. . . . .	15
Installing in Graphical Mode. . . . .	15
Installing in Console Mode. . . . .	17
<b>Chapter 5: Installing Operations on Proactive Monitoring for PowerCenter Governance. . . . .</b>	<b>20</b>
Installing Operations on Proactive Monitoring for PowerCenter Governance Overview. . . . .	20
Before You Install. . . . .	20
Installing in Graphical Mode. . . . .	21
Installing in Console Mode. . . . .	22
<b>Chapter 6: After You Install. . . . .</b>	<b>24</b>
Post-Installation Tasks. . . . .	24
Restart RulePoint. . . . .	24
Create Users and Groups in RulePoint. . . . .	24
Configure Alerts. . . . .	25
Create PowerCenter Read-Only Users. . . . .	26
Grant Permissions to PowerCenter Read-Only User. . . . .	26
Configure the Proactive Monitoring Solution. . . . .	26
Configure Node Agent. . . . .	27
Configure the RulePoint Components. . . . .	27
Determine the Frequency of Source Services. . . . .	27
Edit Watchlists. . . . .	27
Configure Email Host. . . . .	28
Configure Real-Time Alert Manager Responder Services. . . . .	28
Start Source Services. . . . .	28
Enable Source Schedules. . . . .	29
Validate the Installation. . . . .	30
<b>Chapter 7: Upgrading Proactive Monitoring for PowerCenter Operations. . . . .</b>	<b>31</b>
Upgrading Proactive Monitoring for PowerCenter Operations Overview. . . . .	31
Before You Upgrade. . . . .	31
Upgrading in Graphical Mode. . . . .	32
Upgrading in Console Mode. . . . .	34
After You Upgrade. . . . .	35
Cleanup Tool. . . . .	37
<b>Chapter 8: Proactive Monitoring Configuration. . . . .</b>	<b>38</b>
Proactive Monitoring Configuration Overview. . . . .	38
Proactive Monitoring Management Console. . . . .	39
Proactive Monitoring Management Console Interface. . . . .	39
Logging In to the Management Console. . . . .	40
Setup Configuration. . . . .	40

Steps to configure the Proactive Monitoring solution to monitor a PowerCenter domain. . . . .	41
Host Properties. . . . .	41
Node Properties. . . . .	42
Monitoring a Grid. . . . .	42
Monitoring a PowerCenter Repository Service. . . . .	43
Monitoring a PowerCenter Integration Service. . . . .	44
Monitoring a Web Services Hub Services. . . . .	45
Settings Configuration. . . . .	46
Global Settings Parameters. . . . .	46
Alert Recipients Parameters. . . . .	47
Source Timestamp Configuration. . . . .	48
Configuring Source Timestamp. . . . .	49
<b>Chapter 9: Troubleshooting the Proactive Monitoring Installation. . . . .</b>	<b>50</b>
Troubleshooting Real-Time Alert Manager to Receive Alerts. . . . .	50
<b>Chapter 10: Environment Monitoring. . . . .</b>	<b>51</b>
Environment Monitoring Overview. . . . .	51
Node Agent. . . . .	51
Node Agent Configuration. . . . .	52
Starting the Node Agent. . . . .	52
Node Agent Statistics. . . . .	52
<b>Chapter 11: Proactive Monitoring Watchlists. . . . .</b>	<b>53</b>
Proactive Monitoring Watchlists. . . . .	53
<b>Chapter 12: Proactive Monitoring Topics. . . . .</b>	<b>54</b>
Proactive Monitoring Topics. . . . .	54
<b>Chapter 13: Proactive Monitoring Services. . . . .</b>	<b>57</b>
Source Services. . . . .	57
Analytics. . . . .	60
Responder Services. . . . .	61
<b>Chapter 14: Proactive Monitoring Templates and Rules. . . . .</b>	<b>64</b>
Proactive Monitoring Templates. . . . .	64
Template Rules. . . . .	69
Advanced Rules. . . . .	73
<b>Chapter 15: Proactive Monitoring Responses. . . . .</b>	<b>78</b>
Proactive Monitoring Responses. . . . .	78
<b>Appendix A: Frequently Asked Questions. . . . .</b>	<b>80</b>

<b>Appendix B: Glossary.....</b>	<b>82</b>
<b>Index.....</b>	<b>86</b>

# Preface

The *Proactive Monitoring for PowerCenter Operations Solutions Guide* describes the solution provided for proactively monitoring PowerCenter operations. This guide also contains how to install and configure Proactive Monitoring for PowerCenter Operations.

The target audience of this guide is the Informatica PowerCenter administrator, who is responsible for installing Proactive Monitoring for PowerCenter Operations. This guide assumes that you have a working knowledge of Informatica PowerCenter, the application server, database server, and other system requirements to install and deploy Proactive Monitoring for PowerCenter Operations.

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## CHAPTER 1

# Proactive Monitoring for PowerCenter Operations

This chapter includes the following topics:

- ◆ Introduction, 1
- ◆ Solution Components, 3
- ◆ Solution Usage, 5

## Introduction

Proactive Monitoring for PowerCenter Operations provides advanced monitoring capabilities for PowerCenter.

A PowerCenter domain may contain numerous repository services, databases, integration services, and Web Services Hub running on multiple physical or virtual machines.

The Proactive Monitoring solution collects data from the PowerCenter services and their host machines at regular intervals, checks for anomalies in the processing of workflows and sessions and alerts appropriate users. The alert messages contain the required contextual information, such as the session name, workflow name, and cause of the alert, thus enabling PowerCenter Administrators, developers, or architects to take corrective action effectively.

The solution contains rules that perform a wide range of checks against the PowerCenter runtime and generates alerts whenever there is a deviation. A simple example is to alert users when a session completes successfully, but loads zero rows in the target system. A complex example is to alert users when a session fails to run, after it was changed by developer.

The built-in rules are classified into the following categories:

### **Service failures**

The solution continuously monitors the PowerCenter domain, repository databases, and the application services. Application services include the PowerCenter Integration Service, PowerCenter Repository Service, and Web Services Hub. The solution sends an alert when any service goes down. Immediate notification of such failures allows the administrators to respond to service disruptions quickly.

### **High resource usage on host**

PowerCenter run-time can consist of a grid of hosts and database systems whose CPU, memory, and tablespace availability impacts workflow and session processing. The solution continuously monitors hosts for resource consumption patterns and sends an alert to the administrator if the consumption exceeds user specified thresholds. Timely notification of high resource usage allows administrators to proactively manage resource allocations.

### **Execution failures**

Production deployments of PowerCenter may involve large number of session executions every day. Detailed analysis of session completion data is critical for the overall data movement process. The solution continuously monitors completed workflow and session executions to check for counts of failed rows, zero rows, and non-responsive executions and alerts PowerCenter data architects. The alerts help detect downstream data processing errors quickly and effectively.

### **Service Level Agreement (SLA) violations**

PowerCenter workflow executions may need to meet strict execution time SLAs to ensure timely delivery of data to downstream applications and business processes. The solution continuously analyzes workflow or session completion times, and compares them against user defined SLAs to identify any violations. SLA violation alerts enable administrators and architects to analyze the workflow or session definitions, and tune them for better performance.

### **Execution deviations**

An eExecution deviation is a special case of SLA violations where the solution compares session completion times against historical completion times to determine deviations. Users can specify the minimum deviation beyond which the solution generates an alert when the session or workflow completion time exceeds the historical completion time.

### **Execution failures due to design changes**

Developer changes to PowerCenter artifacts may cause execution failures. The solution monitors both metadata changes and execution failures, and can correlate the change to the failure. Alerts that originate from these checks contain information on the modified artifact, user who performed the change, and the time of execution. Detailed alert allows developers and architects to detect the cause of execution failures and take corrective action effectively.

### **Missed schedules**

Schedule misses may cause a delay and SLA violations for downstream applications and business processes. The solution monitors workflow executions and compares with specified schedules to detect deviations and alert the PowerCenter users.

In addition to the built-in rules that detect the previously mentioned deviations, the solution allows you to create and change rules. The solution gives you the flexibility to customize and extend the solution based on the business requirements.

A single installation of the solution monitors a single domain, and the multiple services and hosts in the domain. Most alerts generated by the Operations monitoring solution include CPU and memory consumption details of the hosts where the workflow or session is executed.

Proactive monitoring solution provides targeted alerting capabilities. The solution contains predefined personas who receive alerts specific to their function.

The Proactive Monitoring solution contains the following predefined personas:

- ◆ **pcadmin.** Any user who ensures proper functioning of PowerCenter domains, integration, repository, and other services.
- ◆ **apparchitect.** Any user who is responsible for the logic of PowerCenter mappings, mapplets, transforms, sources, and targets.
- ◆ **dataarchitect.** Any user who oversees the data movement with in PowerCenter.
- ◆ **itsecurity.** Any user responsible for dealing with IT security issues, such as sensitive data and malware.
- ◆ **pcmonitor.** Any user who tracks PowerCenter performance. By default, the pmonitor persona receives all alerts.

In a continuous monitoring system, the solution can detect the same anomaly multiple times and send the same alert multiple times. To avoid such a situation, the solution provides the snooze feature. You can use the snooze feature to set a time period before which the solution does not generate any alert on the same anomaly.

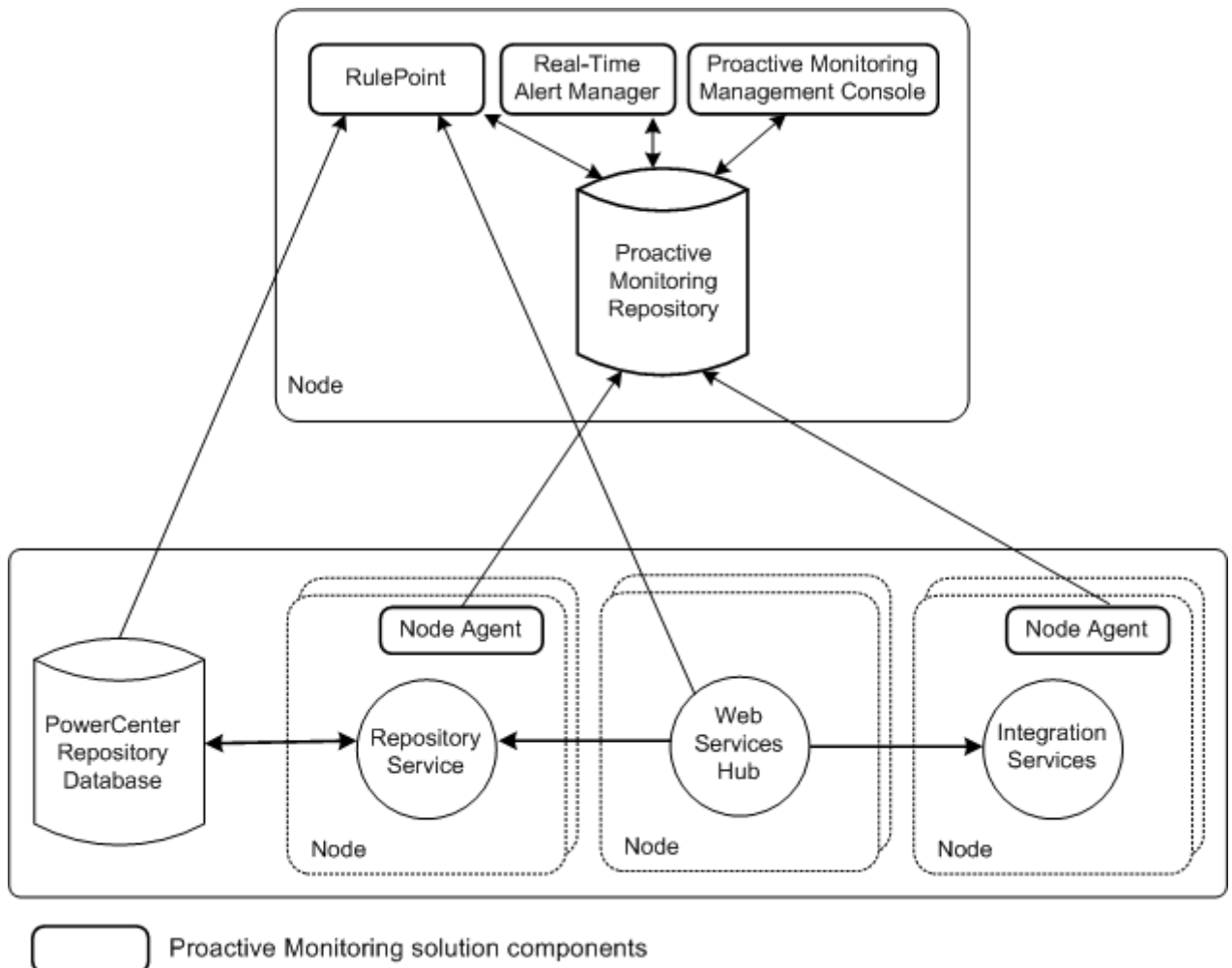
For example, a developer updates a PowerCenter artifact that results in a session processing failure. This could be a planned development activity where the architects would want to stop receiving alerts for a specified period of time.

## Solution Components

The Proactive Monitoring solution monitors both large and small PowerCenter domain configurations.

The Proactive Monitoring solution requires the infrastructure for continuous data collection, continuous processing, analysis, and continuous alerting. Informatica RulePoint provides such an infrastructure and programming model. The Proactive Monitoring solution is a RulePoint application. You must install the solution on a Tomcat server. The Tomcat server must be on a separate host from the PowerCenter environment.

The following illustration gives an overview of the various components of the Proactive Monitoring solution and their purpose in the Proactive Monitoring solution context:



## Informatica Rulepoint

Informatica RulePoint is a general purpose Complex Event Processing server. You can build an application on RulePoint to process large amounts of data in real time, detect anomalies, and take action.

Informatica RulePoint provides a programming model to build such applications.

The RulePoint programming model consists of the following groups:

- ◆ **Sources.** Sources connect to external systems to fetch data. The sources convert the fetched data into Events. The events are published on Topics.
- ◆ **Rules.** Rules process events on topics. You can use the rule processing language, DRQL to create rules. The rule definition includes information about the topics and the number of events to process, the conditions to check, and the response to generate when there is a deviation. As part of overall rule processing, the rule might call out functions called Analytics. Rules also rely on Watchlists that act as reference data sets during rule processing.  
RulePoint also provides an easy way to parameterize rules using templates. Templates are abstract rules that could become a rule when you provide all its parameters. You can create template rules from a template.
- ◆ **Responders.** Responders handle dispatching of alerts to external systems. When a rule condition is matched, the rule processing engine creates a Response which is sent to the specified external system using a conduit called Responder.

The solution ships with a set of sources, topics, rules, templates, analytics, watchlists, responders that are specific for the operational monitoring of PowerCenter. You can manage the solution artifacts with Informatica RulePoint.

## Informatica Real-Time Alert Manager

Informatica Real-Time Alert Manager (RTAM) is a web-based dashboard to receive alerts from RulePoint.

You can group the RTAM alerts as channels. Each alert has a priority, subject, and body. RulePoint includes a standard RTAM responder to send alerts to RTAM.

The Proactive Monitoring solution provides two standard modes of alert delivery, through email and RTAM. You can configure the solution to get alerts through email, RTAM, or both. In case of RTAM, you can log in to the RTAM web application and see the alerts on-demand.

## Proactive Monitoring Repository

The Proactive Monitoring repository stores the solution metadata, solution configuration data, and the data collected from the PowerCenter services and hosts.

The repository stores a cache of historical data of workflow and session executions. The cache populates as the solution monitors executions to reduce the number of queries against the PowerCenter repository, and improve the overall throughput of the solution. The repository also stores the history of alerts generated by the solution.

The solution includes a set of analytics that use the Proactive Monitoring repository as part of rule processing to add additional details, such as CPU and memory consumption information to the alerts.

## Proactive Monitoring Management Console

Proactive Monitoring Management Console is a web-based application for configuring the Proactive Monitoring solution.

The console allows users to add details of PowerCenter hosts, nodes, grids, and application services for monitoring purposes. The application services include PowerCenter Repository Service, PowerCenter Integration

Service, and Web Services Hub. The Management Console allows user to change the monitoring solution settings and the mode of alert delivery, whether to use email or RTAM.

#### RELATED TOPICS:

- ◆ “Proactive Monitoring Configuration” on page 38

## Node Agent

The node agent is a Proactive Monitoring solution component that runs on each of the PowerCenter nodes and collects resource usage information from the host machine.

The node agent periodically gathers CPU, memory, and process lifecycle details from the host machine and stores this information in the Proactive Monitoring repository. The resource consumption information is used in rule processing and to add additional information to the alerts.

## Solution Usage

The Proactive Monitoring solution connects to the PowerCenter environment with minimum configuration requirements.

The following steps provide an overview of the solution usage:

### Installation

Install the Proactive Monitoring solution and its components on a machine that is separate from the host machines in the PowerCenter domain. Install and configure Apache Tomcat, RulePoint, and RTAM before you install the monitoring solution.

The solution artifacts connect to the PowerCenter repository to gather operational data like completed sessions or completed workflows. To fetch data from the tables and views in the PowerCenter repository, the solution requires creation of a read-only user with specific privileges.

After installation, you must copy and run the node agent component binaries on all nodes where the PowerCenter services run.

For more information on pre-requisites and detailed installation instructions, see “Installation and Configuration Overview” on page 12.

### Configuration and customization

The solution needs to connect to a specific PowerCenter domain to start monitoring the domain. This involves configuring the solution through Proactive Monitoring Management Console. After configuration, start the various built-in sources for the events to start flowing in.

When the solution is online, you can customize and extend built-in rules to enhance the monitoring capabilities based on the business needs.

For detailed instructions on the post-installation configuration steps, see the Chapter 6, “After You Install” on page 24 and Chapter 8, “Proactive Monitoring Configuration” on page 38 chapters.

### Receiving alerts

The solution can be configured to send email and RTAM alerts to the personas defined in the solution, namely padmin, pmonitor, dataarchitect, apparchitect, itsecurity. Each of these personas can have an associated RTAM login or email ID. In case of email, the user will start receiving email alerts as and when anomalies are

detected by the solution. In case of RTAM, the user needs to login to the RTAM web application to check the alerts on demand.

## CHAPTER 2

# Monitoring PowerCenter Operations

This chapter includes the following topics:

- ◆ Monitoring PowerCenter Operations Overview, 7
- ◆ Solution artifacts, 7
- ◆ Monitoring PowerCenter Processes and Hosts, 11

## Monitoring PowerCenter Operations Overview

The Proactive Monitoring solution retrieves information from the PowerCenter environment at regular intervals to provide the benefit of continuous operational monitoring.

The Proactive Monitoring solution retrieves the following information:

- ◆ Completed sessions and workflows data
- ◆ Running sessions and workflows data
- ◆ CPU and memory consumption information from domain nodes

The solution includes various sources, analytics, and responders that connect to PowerCenter services and nodes to collect and process data.

## Solution artifacts

The Proactive Monitoring solution uses the RulePoint programming model and includes predefined artifacts.

The solution artifacts are available in the following categories:

- ◆ Proactive monitoring services
- ◆ Proactive monitoring rules

In addition, the solution also includes scripts to perform the following database operations:

- ◆ Create read-only permissions on tables and views to access data from the PowerCenter repository databases
- ◆ Create read and write privileges on the Proactive Monitoring repository database.

## Proactive Monitoring Services

In the RulePoint programming model, the artifacts that connect to external systems are generally referred to as services.

The services are configurable artifacts that can link to other systems like email, Real-Time Alert Manager, and database.

The following classes of services are available:

- ◆ Source services. Source services gather information from a system.
- ◆ Analytic services. Analytics analyze data within a system.
- ◆ Responder services. Responder services run a response through a system

Proactive monitoring includes a set of pre-defined services that connect to PowerCenter services in order to drive rule processing and alerting.

### Source Services

Proactive monitoring source services connect to PowerCenter services, collect data and turn the data into events for rule processing.

The sources execute against the respective PowerCenter services in a pre-defined interval and collect incremental data changes. For example, a query to retrieve completed sessions information from the PowerCenter repository runs every 10 minutes and selects the completed sessions recorded in the 10 minutes by using the time stamp from the previous run.

The solution contains the following types of pre-defined source services:

#### **PMPC SQL Source**

The PMPC SQL Source is a custom built SQL source for the Proactive Monitoring solution. The source can connect to multiple repository databases and run SQL queries in parallel. In addition, the PMPC SQL source includes queries relevant for the database types, Oracle, IBM DB2, and Microsoft SQL Server.

All PMPC SQL related services use the repository configuration provided through the Proactive Monitoring Management Console to connect to the PowerCenter repository databases.

The solution includes multiple instances of PMPC SQL Source that run predefined SQL queries against the configured PowerCenter repository databases at regular intervals.

The PMPC SQL Sources run the SQL queries to create events and publish these events on the following predefined topics:

- pc\_completed\_sessions
- pc\_completed\_workflows
- pc\_concurrent\_workflows
- pc\_running\_sessions
- pc\_running\_sessions\_count
- pc\_running\_workflows
- pc\_missed\_workflows
- pc\_scheduled\_workflows
- pc\_session\_to\_workflow\_ratio
- pc\_sessions



For example, *PowerCenter Completed Sessions* is the PMPC SQL Source that connects to the PowerCenter Repository, retrieves information about sessions that have completed in the last 10 minutes, and publishes them as events on the `pc_completed_sessions` topic.

#### **PMPC WSH Ping Service**

The PMPC WSH Ping Service connects to PowerCenter Web Services Hub instances to check for the availability of repository services and their associated integration services.

All PMPC WSH related services use the Web Services Hub configurations provided in the Proactive Monitoring Management Console to connect to the web service hub instances.

Data collected by this source is converted into events and published on the predefined topic, `pc_ping`.

#### **PMPC WSH Runtime Statistics Receiver**

The PMPC WSH Runtime Statistics Receiver connects to PowerCenter Web Services Hub instances to get information on running workflows and sessions at any given point in time.

Data collected by this source is converted into events and published on the predefined topic, `pc_runtime_stats`.

The solution also includes instances of other predefined RulePoint source types to manage solution specific internal data, such as cache and purge management.

## **Analytic Services**

The solution contains pre-defined SQL analytics that are used in rules.

As part of rule processing, the SQL analytics run pre-defined queries against the proactive monitoring repository database or the configured PowerCenter repositories on demand.

For examples, the SQL Analytic, `get_no_session`, gets the total number of sessions from the PowerCenter repository and the SQL Analytic, `get_pc_email`, gets the email address for a specified alert recipient from the proactive monitoring repository

The solution also uses analytics to fetch CPU and memory consumption details from the hosts that you configured for monitoring and adds these details into the body of the email and RTAM alert notifications.

## **Responder Services**

The solution contains pre-defined responders that dispatch alerts to external systems.

The proactive monitoring solution includes the following responders:

- ◆ The email responder sends email alerts to the various personas.
- ◆ The RTAM responder sends RTAM alerts to the various personas.
- ◆ The PMPC WSH Workflow Controller restarts workflows in response to the detection of unresponsive workflows. The responder connects to Web Services Hub service to either restart or abort workflows. The responder receives the details of the PowerCenter Repository Service and PowerCenter Integration Services as parameters so that it can detect an appropriate Web Services Hub from the configured set of Web Service Hubs.

## RELATED TOPICS:

- ◆ “Proactive Monitoring Services” on page 57

## Proactive Monitoring Rules

The Proactive Monitoring solution contains a large set of predefined rules that detect anomalies across PowerCenter runtime.

The Proactive Monitoring solution provides the following categories of rules based on the types of checks:

- ◆ Service failures
- ◆ High resource usage on host
- ◆ Execution failures
- ◆ Service Level Agreement (SLA) violations
- ◆ Execution deviations
- ◆ Execution failures due to design changes
- ◆ Missed schedules

The Proactive Monitoring solution includes the following types of predefined rules:

- ◆ Templates
- ◆ Advanced rules

### Templates

The Proactive Monitoring solution provides predefined rule templates that include built-in checks and customizable parameters.

Templates enable users to leverage the base logic and customize it for many use cases. For example, a template that checks for SLA violation includes all the predefined conditions to detect the SLA violation. The template also allows the user to specify the workflow or the percentage of deviation that triggers an alert.

You can create template rules from templates. The solution includes a set of template rules to illustrate their usage and behavior.

The template, *PC\_OW7 Workflow running time exceeds the folder SLA*, has built-in checks to detect if the workflow running time exceeds the specified folder SLA. You can customize the folder SLA. The template rule, *PC\_OW2 Workflow running time exceeds folder SLA of 5 minutes*, is created using this template with the folder SLA parameter set to 5 minutes.

Similarly, you can create more rules with this template for folders with different SLAs.

### Advanced Rules

Advanced rules do not provide any parameterization.

For example, a rule that checks for zero loaded rows may not require any parameterization. The Proactive Monitoring solution provides many such advanced rules.

# Monitoring PowerCenter Processes and Hosts

The Proactive Monitoring solution monitors the health of PowerCenter processes, along with the CPU and memory resource consumption on the host machines where they are run.

Inclusion of CPU and memory consumption information in the alerts at the time of session and workflows executions provide overall context for the users to troubleshoot issues, perform effective root cause analysis, and take corrective actions.

## Collection of CPU, Memory, and Process Health Information

The Proactive Monitoring solution provides the Node Agent component to collect resource utilization and lifecycle data of processes running on a host.

The node agent continuously collects CPU and memory utilization of processes running on a host and records them in the Proactive Monitoring repository. The node agent also monitors the lifecycle of a process on a specified host.

For example, the solution can alert users if the *pmdtm* process is not available.

You can configure the node agent through the Proactive Monitoring Management Console. You can specify the frequency for data collection, how many processes to collect data on, and the processes to monitor for lifecycle changes.

## CHAPTER 3

# Introduction to Installation and Configuration

This chapter includes the following topics:

- ◆ Installation and Configuration Overview, 12
- ◆ Installation Options, 12

## Installation and Configuration Overview

You can install the Proactive Monitoring for PowerCenter Operations in graphical or console mode on Windows, Linux, AIX, or Solaris.

The installer creates the staging directory and extracts the Proactive Monitoring for PowerCenter Operations package to the staging directory before deploying it to the target directory on the application server.

Proactive Monitoring for PowerCenter Operations operates in a homogenous database environment for an instance of RulePoint, Real-Time Alert Manager, and PowerCenter. Therefore, use the same database type for both PowerCenter and RulePoint for an instance. For example, if you create a PowerCenter repository on Oracle, you must create the RulePoint repository on Oracle. Differences in the operating system do not affect the functioning of Proactive Monitoring for PowerCenter Operations.

**Note:** Install PowerCenter and the Proactive Monitoring solution on separate systems.

## Installation Options

When you run the Proactive Monitoring for PowerCenter Operations installer, it checks your current environment for previous installations of the Proactive Monitoring solution. The installer then starts one of the following installation processes:

- ◆ Install Proactive Monitoring for PowerCenter Operations 2.5.
- ◆ Install Proactive Monitoring for PowerCenter Operations 2.5 on Proactive Monitoring for PowerCenter Governance 2.5.
- ◆ Upgrade from Proactive Monitoring for PowerCenter Operations 2.1. To upgrade from 2.0 or 2.0 HotFix 1, upgrade to 2.1 and then use the 2.5 installer to upgrade to 2.5.

## CHAPTER 4

# First Time Installation

This chapter includes the following topics:

- ◆ First Time Installation Overview, 13
- ◆ Before You Install, 13
- ◆ Installing in Graphical Mode, 15
- ◆ Installing in Console Mode, 17

## First Time Installation Overview

You can install Proactive Monitoring for PowerCenter Operations in graphical or console mode on Windows, Linux, AIX, or Solaris. Complete the pre-installation tasks to prepare for the first time installation.

You can install Proactive Monitoring for PowerCenter Operations from a DVD or from the root of the directory where you download the installation files.

## Before You Install

Before you install Proactive Monitoring for PowerCenter Operations, set up the machine to meet the requirements to install and run the Proactive Monitoring solution.

Complete the following prerequisites before you install Proactive Monitoring for PowerCenter Operations:

- ◆ Verify the system requirements.
- ◆ Verify permissions.
- ◆ Install RulePoint and Real-Time Alert Manager. RulePoint, Real-Time Alert Manager, and PowerCenter must use the same database type for the repositories.
- ◆ Get the name of the PowerCenter domain that you want to monitor. You can get the PowerCenter domain name from the PowerCenter administrator.
- ◆ Create the Proactive Monitoring user (optional).
- ◆ Set up the X Window server.

## Verify System Requirements

Before you install Proactive Monitoring for PowerCenter Operations, ensure to meet the minimum system requirements to install and run the Proactive Monitoring for PowerCenter Operations installer.

The following table lists the platforms supported by Proactive Monitoring for PowerCenter Operations:

Domain	Supported Platforms
Operating Systems	<ul style="list-style-type: none"><li>- Windows</li><li>- Linux</li><li>- AIX</li><li>- Solaris</li></ul>
Application Servers	Apache Tomcat
Database Servers	<ul style="list-style-type: none"><li>- Oracle</li><li>- IBM DB2</li><li>- Microsoft SQL Server</li></ul>
Recommended Hardware Requirements	<ul style="list-style-type: none"><li>- 64-bit Intel or AMD-compatible, Xeon equivalent or better, 1.7 Ghz minimum CPU</li><li>- 12-16 GB RAM</li><li>- 5-10 GB application disk space</li><li>- 1 GB Ethernet network connection</li></ul>
Informatica RulePoint	RulePoint 5.2 HotFix 3
Informatica Real-Time Alert Manager	Real-Time Alert Manager 3.1 HotFix 1
Informatica PowerCenter	<ul style="list-style-type: none"><li>- Informatica PowerCenter 8.6.1</li><li>- Informatica PowerCenter 9.0.1</li><li>- Informatica PowerCenter 9.1.0</li><li>- Informatica PowerCenter 9.5.0</li></ul>

For more information about Proactive Monitoring for PowerCenter Operations support, see the Product Availability Matrix at <https://communities.informatica.com/community/my-support/tools/product-availability-matrices>.

## Verify Permissions

On Linux, AIX, or Solaris, the user who runs the installer must have read, write, and execute permissions on the installer and its files directory, and write access to the `/tmp` directory.

The `/tmp` directory must have sufficient space, a minimum of 50 MB, for the installer to perform the install.

## Create Proactive Monitoring User (Optional)

By default, the installer chooses the RulePoint repository database to store contents of the Proactive Monitoring repository.

If you want to configure a Proactive Monitoring database that is separate from the RulePoint repository database, create the Proactive Monitoring user, `pc_rp`. The Proactive Monitoring for PowerCenter Operations installer contains a `resources` directory with the database scripts and instructions to create the Proactive Monitoring database user.

You can find the database scripts in the following path of the installer:

- ◆ **Oracle.** ..\resources\dbscripts\rulepoint\oracle\create\_rp\_user.txt  
Run the SQL commands in the `create_rp_user.txt` file to create the Proactive Monitoring database user.
- ◆ **Microsoft SQL Server.** ..\resources\dbscripts\rulepoint\sqlserver\create\_rp\_user.txt  
Follow the steps in the `create_rp_user.txt` file to set up the Microsoft SQL server and create the Proactive Monitoring database user.
- ◆ **IBM DB2.** ..\resources\dbscripts\rulepoint\db2\create\_rp\_user.txt  
Follow the steps in the `create_rp_user.txt` file to set up the IBM DB2 server and create the Proactive Monitoring database user.

## Set Up the X Window Server

When you run the installer in graphical mode, you must use a graphics display server. On UNIX, the graphics display server is typically an X Window server. If you do not have the X Window server installed on the machine where you want to install the product, you can run the installer using an X Window server installed on another machine. Use the DISPLAY variable to redirect output of the X Window server to another UNIX machine.

The following table lists the commands to set the DISPLAY environment variable:

Shell	Command	Example
C	setenv DISPLAY <TCP/IP node of XWindow server>:0	setenv DISPLAY 10.1.50.23:0
Bash/Korn	export DISPLAY=" <code>&lt;TCP/IP node of XWindow server&gt;:0</code> "	export DISPLAY="10.1.50.23:0"
Bourne	DISPLAY=" <code>&lt;TCP/IP node of XWindow server&gt;:0</code> " export display	DISPLAY="10.1.50.23:0" export display

If you do not know the IP address of a UNIX machine where the X Window server is installed, ask your network administrator. For more information about redirecting the DISPLAY variable, see the documentation from the UNIX vendor.

If the X Window server does not support the font that the installer uses, the installer can display incorrect labels on the buttons.

## Installing in Graphical Mode

You can install Proactive Monitoring for PowerCenter Operations in graphical mode on Windows, Linux, AIX, or Solaris.

1. Shut down the instance of Apache Tomcat application server where RulePoint is deployed.
2. Run the Proactive Monitoring for PowerCenter Operations installer based on the operating system.
  - ◆ To install on Windows, run `Informatica_PMPC_Operations_2.5.exe` from the root directory.
  - ◆ To install on Linux, AIX, or Solaris, use a shell command line to run `Informatica_PMPC_Operations_2.5.bin` from the root directory with `-i` gui option for graphical mode installation. For example, enter `Informatica_PMPC_Operations_2.5.bin -i gui`
3. In the **Introduction** page, click **Next**.

The **Choose Staging Folder** page appears.

- Specify the staging directory.

The following table shows the default location of the staging folder:

Operating System	File Path
Windows	C:\PMPC_Operations_2.5
Linux, AIX, and Solaris	/home/PMPC_Operations_2.5

- Click **Next**.

The **RulePoint Deployment Directory** page appears.

- Enter the path to \$RP\_HOME.

Enter the path of the RulePoint directory in the Apache Tomcat server.

```
c:\tomcat\webapps\rulepoint
```

- Click **Next**.

The **Prerequisites** page appears.

- Verify the installation requirements, and click **Next**.

The **PowerCenter Configuration** page appears.

- Enter the PowerCenter domain name.

The domain name is the name of the PowerCenter domain that you want to monitor. You can get the domain information from Informatica Administrator.

**Note:** The installer does not validate the domain name. Enter the correct name for the domain that you want to monitor.

- Click **Next**.

The **Proactive Monitoring Database Configuration** page appears.

- Enter the details for the Proactive Monitoring database.

The following table describes the properties that you specify for the Proactive Monitoring database:

Property	Description
Database User Name	Name for the Proactive Monitoring database user account. By default, it is the name of the RulePoint user account. If the Proactive Monitoring database is not same as the RulePoint database, it is the user account information for the pc_rp user that you created through the create_rp_user.txt script.
Database Password	Password for the Proactive Monitoring database user account. The password is same as the password that you provide when you create the Proactive Monitoring database user.
Database Host	Host address of the Proactive Monitoring database.



Property	Description
Database Port	Port number of the Proactive Monitoring database. For example, the default port number is 1521 on Oracle.
Service Name or SID	Service name for Oracle and IBM DB2 databases or database name for Microsoft SQL Server. For example, on Oracle, <code>ServiceName=orcl.informatica.com</code> .
JDBC Parameters	<p>Optional parameters to include in the database connection string. For example, you can use the following optional parameters for an Oracle database:</p> <pre>MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true</pre> <p>Use the parameters to optimize database operations for the configuration database. You can use the default parameters or you can add or change the parameters based on your database requirements.</p> <p>Verify that the parameter string is valid. If not selected, the installer creates the JDBC URL without additional parameters.</p>

If you select **Custom JDBC Connection String for DataDirect Driver**, type the connection string.

For example, you can refer the following JDBC URL for an Oracle database:

```
jdbc:informatica:oracle://localhost:
1521;ServiceName=orcl.informatica.com;MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true
```

12. Click **Test Connection** to verify that you can connect to the database.
13. Click **Next**.
14. Review the pre-installation summary, and click **Install**.  
After the installation is complete, the **Install Complete** page appears.
15. Review the post installation tasks.
16. Click **Done** to complete the installation procedure and then exit the installer.

## Installing in Console Mode

You can install Proactive Monitoring for PowerCenter Operations in console mode on Windows, Linux, AIX, or Solaris.

**Note:** When you run the installer in console mode, the words Quit and Back are reserved words. You cannot use the reserved words as input text during installation.

1. Shut down the instance of Apache Tomcat application server where RulePoint is deployed.
2. At the command prompt for Windows or on a shell command line for Linux, AIX, and Solaris, run the Proactive Monitoring for PowerCenter Operations installer located in the root directory.
3. Enter the Proactive Monitoring for PowerCenter Operations executable name with the option `-i console`.
  - ◆ For Windows, enter `Informatica_PMPC_Operations_2.5.exe -i console`.

◆ For Linux, AIX, or Solaris, enter `Informatica_PMPC_Operations_2.5.bin -i console`.

4. In the **Introduction** section, press **Enter**.

The **Choose Staging Folder** section appears.

5. Specify the staging directory.

The following table shows the default location of the staging folder:

Operating System	File Path
Windows	C:\PMPC_Operations_2.5
Linux, AIX, and Solaris	/home/PMPC_Operations_2.5

6. Enter Y to confirm the staging directory path.

The **RulePoint Deployment Directory** section appears.

7. Enter the path to \$SRP\_HOME.

Enter the path of the RulePoint directory in the Apache Tomcat server.

```
c:\tomcat\webapps\rulepoint
```

8. Press **Enter**.

The **Prerequisites** section appears.

9. Verify the installation requirements, and press **Enter**.

The **PowerCenter Configuration** section appears.

10. Enter the PowerCenter domain name.

The domain name is the name of the PowerCenter domain that you want to monitor. You can get the domain information from Informatica Administrator.

**Note:** The installer does not validate the domain name. Enter the correct name for the domain that you want to monitor.

11. Press **Enter**.

The **Proactive Monitoring Database Configuration** section appears.

12. Enter the details for the Proactive Monitoring database.

The following table describes the properties that you specify for the Proactive Monitoring database:

Property	Description
Database User Name	Name for the Proactive Monitoring database user account. By default, it is the name of the RulePoint user account. If the Proactive Monitoring database is not same as the RulePoint database, it is the user account information for the pc_rp user that you created through the create_rp_user.txt script.
Database Password	Password for the Proactive Monitoring database user account. The password is same as the password that you provide when you create the Proactive Monitoring database user.

Property	Description
Database Host	Host address of the Proactive Monitoring database.
Database Port	Port number of the Proactive Monitoring database. For example, the default port number is 1521 on Oracle.
Service Name or SID	Service name for Oracle and IBM DB2 databases or database name for Microsoft SQL Server. For example, on Oracle, <code>ServiceName=orcl.informatica.com</code> .
JDBC Parameters	<p>Optional parameters to include in the database connection string. For example, you can use the following optional parameters for an Oracle database:</p> <pre>MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true</pre> <p>Use the parameters to optimize database operations for the configuration database. You can use the default parameters or you can add or change the parameters based on your database requirements.</p> <p>Verify that the parameter string is valid. If not selected, the installer creates the JDBC URL without additional parameters.</p>

If you are entering the connection information using a **Custom JDBC Connection String for DataDirect Driver**, type the connection string.

For example, you can refer the following JDBC URL for an Oracle database:

```
jdbc:informatica:oracle://localhost:
1521;ServiceName=orcl.informatica.com;MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true
```

13. Press **Enter**.
14. Review the pre-installation summary, and then press **Enter**.  
After the installation is complete, the **Install Complete** section appears.
15. Review the post installation tasks.
16. Press **Enter** to complete the installation and exit the installer.

## CHAPTER 5

# Installing Operations on Proactive Monitoring for PowerCenter Governance

This chapter includes the following topics:

- ◆ Installing Operations on Proactive Monitoring for PowerCenter Governance Overview, 20
- ◆ Before You Install, 20
- ◆ Installing in Graphical Mode, 21
- ◆ Installing in Console Mode, 22

## Installing Operations on Proactive Monitoring for PowerCenter Governance Overview

You can install Proactive Monitoring for PowerCenter Operations 2.5 on Proactive Monitoring for PowerCenter Governance 2.5. You can run the installer in graphical or console mode on Windows, Linux, AIX, or Solaris. Complete the pre-installation tasks to prepare for the installation.

You can install Proactive Monitoring for PowerCenter Operations 2.5 from a DVD or from the root of the directory where you download the installation files.

## Before You Install

Complete the following prerequisite before you install Proactive Monitoring for PowerCenter Operations 2.5 on an instance of Proactive Monitoring for PowerCenter Governance 2.5:

On Linux, the user who runs the installer must have read, write, and execute permissions on the installer and its files directory, and write access to the `/tmp` directory. The `/tmp` directory must have sufficient space, a minimum of 50 MB, for the installer to perform the installation.

# Installing in Graphical Mode

You can install Proactive Monitoring for PowerCenter Operations 2.5 on an instance of Proactive Monitoring for PowerCenter Governance 2.5 in graphical mode on Windows, Linux, AIX, or Solaris.

1. Shut down the instance of Apache Tomcat application server where RulePoint is deployed.
2. Run the Proactive Monitoring for PowerCenter Operations installer based on the operating system.
  - ◆ To install on Windows, run `Informatica_PMPC_Operations_2.5.exe` from the root directory.
  - ◆ To install on Linux, AIX, or Solaris, use a shell command line to run `Informatica_PMPC_Operations_2.5.bin` from the root directory with `-i gui` option for graphical mode installation. For example, enter  
`Informatica_PMPC_Operations_2.5.bin -i gui`

3. In the **Introduction** page, click **Next**.

The **Choose Staging Folder** page appears.

4. Specify the staging directory.

The following table shows the default location of the staging folder:

Operating System	File Path
Windows	C:\PMPC_Operations_2.5
Linux, AIX, and Solaris	/home/PMPC_Operations_2.5

5. Click **Next**.

The **RulePoint Deployment Directory** page appears.

6. Enter the path to `$SRP_HOME`.

Enter the path of the RulePoint directory in the Apache Tomcat server.

```
c:\tomcat\webapps\rulepoint
```

7. Click **Next**.

The **Installation Type** page appears.

8. Verify the installation requirements, and click **Next**.

The **PowerCenter Configuration** page appears.

9. Verify the PowerCenter domain name.

The domain name is the name of the PowerCenter domain that you want to monitor. Input for the domain name is taken from the existing Proactive Monitoring for PowerCenter Governance installation. You cannot change the domain name.

10. Click **Next**.

The **Proactive Monitoring Database Configuration** page appears.

11. Enter the password for the Proactive Monitoring database user account.

The installer gets the inputs for the other fields from the existing Proactive Monitoring for PowerCenter Governance installation.

12. Click **Test Connection** to verify that you can connect to the database.

13. Click **Next**.

14. Review the pre-installation summary, and click **Install**.

After the installation is complete, the **Install Complete** page appears.

15. Review the post installation tasks.
16. Click **Done** to complete the installation procedure and then exit the installer.

## Installing in Console Mode

You can install Proactive Monitoring for PowerCenter Operations 2.5 on an instance of Proactive Monitoring for PowerCenter Governance 2.5 in console mode on Windows, Linux, AIX, or Solaris

**Note:** When you run the installer in console mode, the words Quit and Back are reserved words. You cannot use the reserved words as input text during installation.

1. Shut down the instance of Apache Tomcat application server where RulePoint is deployed.
2. At the command prompt for Windows or on a shell command line for Linux, AIX, and Solaris, run the Proactive Monitoring for PowerCenter Operations installer located in the root directory.
3. Enter the Proactive Monitoring for PowerCenter Operations executable name with the option -i console.
  - ◆ For Windows, enter `Informatica_PMPC_Operations_2.5.exe -i console`.
  - ◆ For Linux, AIX, or Solaris, enter `Informatica_PMPC_Operations_2.5.bin -i console`.
4. In the **Introduction** section, press **Enter**.  
The **Choose Staging Folder** section appears.
5. Specify the staging directory.

The following table shows the default location of the staging folder:

Operating System	File Path
Windows	C:\PMPC_Operations_2.5
Linux, AIX, and Solaris	/home/PMPC_Operations_2.5

6. Enter Y to confirm the staging directory path.  
The **RulePoint Deployment Directory** section appears.
7. Enter the path to \$RP\_HOME.  
Enter the path of the RulePoint directory in the Apache Tomcat server.  
`c:\tomcat\webapps\rulepoint`
8. Press **Enter**.  
The **Installation Type** section appears.
9. Verify the installation requirements, and press **Enter**.  
The **PowerCenter Configuration** section appears.
10. Verify the PowerCenter domain name.  
The domain name is the name of the PowerCenter domain that you want to monitor. Input for the domain name is taken from the existing Proactive Monitoring for PowerCenter Governance installation. You cannot change the domain name.
11. Press **Enter**.  
The **Proactive Monitoring Database Configuration** section appears.

12. Enter the password for the Proactive Monitoring database user account.  
The installer gets the inputs for the other fields from the existing Proactive Monitoring for PowerCenter Governance installation.
13. Press **Enter**.
14. Review the pre-installation summary, and then press **Enter**.  
After the installation is complete, the **Install Complete** section appears.
15. Review the post installation tasks.
16. Press **Enter** to complete the installation and exit the installer.

## CHAPTER 6

# After You Install

This chapter includes the following topics:

- ◆ Post-Installation Tasks, 24
- ◆ Restart RulePoint, 24
- ◆ Create Users and Groups in RulePoint, 24
- ◆ Configure Alerts, 25
- ◆ Create PowerCenter Read-Only Users, 26
- ◆ Grant Permissions to PowerCenter Read-Only User, 26
- ◆ Configure the Proactive Monitoring Solution, 26
- ◆ Configure Node Agent, 27
- ◆ Configure the RulePoint Components, 27
- ◆ Validate the Installation, 30

## Post-Installation Tasks

After installation, perform the post-installation tasks to ensure that the services for Proactive Monitoring for PowerCenter Operations run properly.

## Restart RulePoint

Restart the Tomcat server instance that hosts RulePoint and Real-Time Alert Manager.

After you restart the Tomcat server, log in to RulePoint and Real-Time Alert Manager to ensure that the solution is correctly installed.

## Create Users and Groups in RulePoint

Create users and groups in RulePoint based on the authentication mechanism.

The authentication mechanisms are LDAP, Active Directory, or RulePoint database authentication.



### LDAP or Active Directory authentication.

You can use the scripts provided in the following location of the staging directory to create the LDAP or Active Directory users:

```
<Staging_folder>\Operations_2.5\exports\ldap
```

The Idif files provided in the ldap folder are for your reference. You must change the Idif files based on the Active Directory or LDAP configuration of your organization.

Create the users and add them to the rulepoint\_users group. You must create the group as part of the Rulepoint configuration on LDAP or Active Directory.

1. Create the users.  
Refer the following Idif scripts when you create the users or personas on LDAP or Active Directory:
  - ◆ pcmonitor. exports\ldap\pcmonitor.ldif
  - ◆ padmin. exports\ldap\padmin.ldif
  - ◆ apparchitect. exports\ldap\apparchitect.ldif
  - ◆ dataarchitect. exports\ldap\dataarchitect.ldif
  - ◆ itsecurity. exports\ldap\itsecurity.ldif
2. Add the users to the rulepoint\_users group.

### RulePoint database authentication.

To create RulePoint users, add users from the RulePoint administration menu.

1. Log in to RulePoint as the administrator.  
The administrator owns all imported objects in RulePoint.
2. Add users pcmonitor, padmin, apparchitect, dataarchitect, and itsecurity.  
Role is ROLE\_USER for each RulePoint user.

## Configure Alerts

Configure the users or personas to receive alerts through email, Real-Time Alert Manager, or both.

1. Configure Real-Time Alert Manager to receive alerts for the users.

After you create the users, log in to Real-Time Alert Manager with each of the five user IDs. You log in with the IDs to configure Real-Time Alert Manager to receive alerts for each of the users.

2. Configure the alert recipients for personas.

You can configure the delivery of alerts to personas using the **Alert Recipients** settings tab in the Proactive Monitoring Management Console. Edit the alerts recipients for each repository, workflow, or folder to monitor. For more information, see “Alert Recipients Parameters” on page 47.

# Create PowerCenter Read-Only Users

Create the database user, `pcrs_readonly`, with read-only permissions to access each PowerCenter repository database.

**Important:** You must create the PowerCenter read-only user to enable the Proactive Monitoring solution to monitor the PowerCenter Repository Service.

The installer saves the text files to the staging directory. The text files contain the database scripts and instructions to create the PowerCenter read-only user with required privileges for the databases.

You can find the database scripts in the following path of the staging directory:

- ◆ **Oracle.** `..\<product_name>\ddl\powercenter\oracle\create_pc_user.txt`
  1. Log in as `sys`. Run the SQL commands in the `create_pc_user.txt` file to create the PowerCenter repository read-only user.
  2. Log in as the PowerCenter repository read-only user and run the `pcrs_readonly.ddl.sql` script.
- ◆ **Microsoft SQL Server.** `..\<product_name>\ddl\powercenter\mssql\create_pc_user.txt`
  1. Follow the steps in the `create_pc_user.txt` file to create the PowerCenter repository read-only user. Grant `SELECT` permission to `pcrs_readonly` on table, `sys.database_files`.
  2. Log in as the PowerCenter repository read-only user and follow the instructions in the `pcrs_readonly.ddl.sql` script.
- ◆ **IBM DB2.** `..\<product_name>\ddl\powercenter\db2\create_pc_user.txt`
  1. Follow the steps in the `create_pc_user.txt` file to create the PowerCenter repository read-only user.
  2. Log in as the PowerCenter repository read-only user and follow the instructions in the `pcrs_readonly.ddl.sql` script.

**Note:** `<product_name>` is either the `Operations_2.5` or `Governance_2.5` folder based on the installation.

# Grant Permissions to PowerCenter Read-Only User

In Microsoft SQL Server, grant execute permissions to the PowerCenter read-only user on the functions, `TO_DATE_MMDDYYYYHHMI` and `TO_DATE_MMDDYYYYHHMISS`.

Detailed instructions on how to grant permissions to `pcrs_readonly` are available in the `create_pc_user.txt` file in the following directory of the installer:

```
..\resources\dbscripts\powercenter\sqlserver
```

# Configure the Proactive Monitoring Solution

In the Proactive Monitoring Management Console, provide details of the nodes and application services you want to monitor.

You can access the Proactive Monitoring Management Console through a web browser.

```
http://<host>:<port>/pmpc
```

Replace <host> with the host name or IP address of the server where you install the Proactive Monitoring solution. Replace <port> with the HTTP port number of the Apache Tomcat server. Default is 8080.

#### RELATED TOPICS:

- ◆ “Logging In to the Management Console” on page 40

## Configure Node Agent

Configure the node agents on all the PowerCenter nodes that you want to monitor.

The Proactive Monitoring for PowerCenter Operations installer installs the nodeagent.zip file in the following location:

```
$RP_HOME\Solutions\PCPM\nodeagent
```

Copy the nodeagent folder to each node that you want to monitor for CPU and memory utilization. You must manually start the node agent on each monitored node.

The node agent periodically gathers CPU, memory, and process lifecycle details from the host machine and stores this information in the Proactive Monitoring repository. The Proactive Monitoring solution uses the resource consumption information in rule processing and to add additional information to the alerts.

For more information, see “Node Agent Configuration” on page 52.

## Configure the RulePoint Components

Configure the RulePoint components to work with the rules and services of Proactive Monitoring for PowerCenter Operations.

### Determine the Frequency of Source Services

Determine the frequency of SQL source services and PMPC SQL Source services.

The alerting frequency of the sources must not be too high or too low. Each SQL Source can have a different schedule based on your requirements.

You can set the frequency for the SQL source services in the schedules. By default, schedules of all SQL source services are disabled. Activate the schedules of all the source services manually to start monitoring the PowerCenter artifacts.

You can set the frequency of the PMPC SQL Source services in the source configuration.

### Edit Watchlists

Watchlists contains the items that you store as a single object with a unique name that you define. You can reference this name in a rule so that it can use the data stored in the object.

Watchlists are useful because you can change the items within the watchlist at any time, and any rule referencing that watchlist automatically uses those new items. Start modifying a small watchlist, and progressively add to it after you have a good understanding of the solution and the various configuration options.

1. Go to **Watchlists > Show Watchlists**.
2. Click the watchlist you want to edit.
3. In **View Watchlist: <watchlist name>** tab, click **Edit**.
4. Edit and save the changes.

For example, for the *PowerCenter Monitored Folders* watchlist, you can replace the entries with the list of folders in the repository that you want to monitor.

## Configure Email Host

In RulePoint, edit the *PowerCenter Email Responder* service to add information about the email host server and its authentication credentials of the organization.

Real-Time Alert Manager is the default notification mode to receive alerts. You can set the default notification mode to email, Real-Time Alert Manager, or both through the Proactive Monitoring Management Console. You can configure the alert recipients for the personas through the Management Console.

1. Go to **Services > Show Services**.
2. In the **Services** tab, select **Class** as **Responders** and **Type** as **Email**.
3. Click the **PowerCenter Email Responder** service.
4. In **View Service: PowerCenter Email Responder** tab, click **Edit**.
5. Enter the required details for the email service and save the changes.

## Configure Real-Time Alert Manager Responder Services

Configure the responder services of the Real-Time Alert Manager.

1. Go to **Services > Show Services**.
2. In the **Services** tab, select **Class** as *Responders* and **Type** as *RTAM*.
3. Click **RTAM** service.
4. In **View Service: RTAM** tab, click **Edit**.
5. Edit the connection URL field, `tcp://localhost:[port]` with the port number configured for Real-Time Alert Manager.

This value is available in the `activemq.xml`. For example, you can find the `activemq.xml` file in the following location of Tomcat server:

```
c:\tomcat\webapps\RTAM\WEB-INF\classes\activemq.xml
```

Information in the `amq:transportConnector` tag is the input for this field.

6. Enter the required details for the responder service and save the changes.

## Start Source Services

Start all PMPC SQL source and Interval based SQL services.

You can use the *PMPC SQL source* service to connect to a database and run SQL queries or commands to create RulePoint events. The service waits for a configured period after the previous task has completed before running again. You can configure the time interval to wait between the task processing.

1. Log in to RulePoint.
2. Start all the relevant PMPC SQL Source services for Proactive Monitoring for PowerCenter Operations based on the monitoring requirements.
  - a. Go to **Services > Show Services**.
  - b. Click the particular PMPC SQL source services.
  - c. Go to **View Service**.
  - d. Click **Edit** and change the duration based on your requirements.
  - e. Click **Start** to start the service.

By default, the startup type is manual for the PMPC SQL Sources. You can change the startup type to automatic.

For example, *PowerCenter Sessions Modified Incremental* is a PMPC SQL source service. This service connects to the PowerCenter Repository Service and the status is *active* by default. The recommended schedule frequency for this service is 21600 seconds.

## Start the Interval based SQL services

- ▶ Start all the relevant Interval based SQL services for Proactive Monitoring for PowerCenter Operations based on the monitoring requirements.
  - a. Go to **Services > Show Services**.
  - b. Click the particular Interval based SQL services.
  - c. Go to **View Service**.
  - d. Click **Edit** and change the duration based on your requirements.
  - e. Click **Start** to start the service.

By default, the startup type is manual for the Interval based SQL services. You can change the startup type to automatic.

## Enable Source Schedules

Enable the schedules for all other source services.

1. Log in to RulePoint.
2. Enable the other source services for Proactive Monitoring for PowerCenter Operations.
  - a. Go to **Services > Show Services**.
  - b. Select the *PMPC Database Monitor* source service from the **Type** dropdown menu.
  - c. Go to **PowerCenter Repository Database Tablespaces > Status**.
  - d. Change the status to *active*.
  - e. Repeat step a to step e for all other source services.

# Validate the Installation

After you complete installation, configure the Proactive Monitoring solution, and enable the Proactive Monitoring schedules and services, you can see that the events are generated.

When the events are generated, you receive alerts in the Real-Time Alert Manager dashboard or through the configured email. Log in to Real-Time Alert Manager to check alert generation. This verifies that the installation is successful.

1. To verify the events, go to **Events > Show Events**.
2. Select **Topic > PC\_OPERATIONS > PowerCenter Repository Database Tablespaces**.
3. Select **Show All** from the Properties dropdown menu.
4. Verify the `node_database_property` event property values, such as `domain`, `perc_tablespace_usage`, `ping_database`, `connectionstring`, or `tstamp`.

## CHAPTER 7

# Upgrading Proactive Monitoring for PowerCenter Operations

This chapter includes the following topics:

- ◆ Upgrading Proactive Monitoring for PowerCenter Operations Overview, 31
- ◆ Before You Upgrade, 31
- ◆ Upgrading in Graphical Mode, 32
- ◆ Upgrading in Console Mode, 34
- ◆ After You Upgrade, 35

## Upgrading Proactive Monitoring for PowerCenter Operations Overview

You can upgrade Proactive Monitoring for PowerCenter Operations 2.1 to 2.5 on Windows, Linux, or AIX. You can run the upgrade installer in graphical or console mode. Complete the pre-upgrade tasks to prepare for the upgrade.

You can upgrade to Proactive Monitoring for PowerCenter Operations to 2.5 from a DVD or from the root of the directory where you download the installation files.

To upgrade from 2.0 or 2.0 HotFix 1, upgrade to 2.1 and then use the installer to upgrade to 2.5. When you run the installer for upgrade, provide the correct location for \$RP\_HOME.

You must use the Proactive Monitoring Management Console to provide details of the PowerCenter Domain that you want to monitor.

## Before You Upgrade

Before you upgrade Proactive Monitoring for PowerCenter Operations, set up the machine to meet the requirements to install and run the Proactive Monitoring solution.

Complete the following prerequisites before you upgrade to Proactive Monitoring for PowerCenter Operations 2.5:

1. Ensure that Proactive Monitoring for PowerCenter Operations 2.1 is installed on the current system.

- On Linux, the user who runs the installer must have read, write, and execute permissions on the installer and its files directory, and write access to the `/tmp` directory. The `/tmp` directory must have sufficient space, a minimum of 50 MB, for the installer to perform the upgrade.

## Upgrading in Graphical Mode

You can upgrade in graphical mode on Windows, Linux, or AIX.

- Shut down the instance of Apache Tomcat application server where RulePoint is deployed.
- Run the Proactive Monitoring for PowerCenter Operations installer based on the operating system.
  - To upgrade on Windows, run `Informatica_PMPC_Operations_2.5.exe` from the root directory.
  - To upgrade on Linux or AIX, use a shell command line to run `Informatica_PMPC_Operations_2.5.bin` from the root directory with the `-i gui` option for graphical mode installation. For example, enter `Informatica_PMPC_Operations_2.5.bin -i gui`.

- In the **Introduction** page, click **Next**.

The **Choose Staging Folder** page appears.

- Specify the staging directory.

The following table shows the default location of the staging folder:

Operating System	File Path
Windows	<code>C:\PMPC_Operations_2.5</code>
Linux and AIX	<code>/home/PMPC_Operations_2.5</code>

- Click **Next**.

The **RulePoint Deployment Directory** page appears.

- Enter the path to `$RP_HOME`.

Enter the path of the RulePoint directory in the Apache Tomcat server.

```
c:\tomcat\webapps\rulepoint
```

- Click **Next**.

The **Installation Type** page appears.

- Verify the installation requirements, and click **Next**.

The **Proactive Monitoring Database Configuration** page appears.

- Enter the details for the Proactive Monitoring database.

The following table describes the properties that you specify for the Proactive Monitoring database:

Property	Description
Database User Name	Name for the Proactive Monitoring database user account. By default, it is the name of the RulePoint user account.



Property	Description
	If the Proactive Monitoring database is not same as the RulePoint database, it is the user account information for the pc_rp user that you created through the create_rp_user.txt script.
Database Password	Password for the Proactive Monitoring database user account. The password is same as the password that you provide when you create the Proactive Monitoring database user.
Database Host	Host address of the Proactive Monitoring database.
Database Port	Port number of the Proactive Monitoring database. For example, the default port number is 1521 on Oracle.
Service Name or SID	Service name for Oracle and IBM DB2 databases or database name for Microsoft SQL Server. For example, on Oracle, <code>ServiceName=orcl.informatica.com</code> .
JDBC Parameters	Optional parameters to include in the database connection string. For example, you can use the following optional parameters for an Oracle database: <pre>MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true</pre> <p>Use the parameters to optimize database operations for the configuration database. You can use the default parameters or you can add or change the parameters based on your database requirements.</p> <p>Verify that the parameter string is valid. If not selected, the installer creates the JDBC URL without additional parameters.</p>

If you select **Custom JDBC Connection String for DataDirect Driver**, type the connection string. For example, you can refer the following JDBC URL for an Oracle database:

```
jdbc:informatica:oracle://localhost:
1521;ServiceName=orcl.informatica.com;MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true
```

10. Click **Test Connection** to verify that you can connect to the database.
11. Click **Next**.
12. Review the pre-installation summary, and click **Install**.  
After the installation is complete, the **Install Complete** page appears.
13. Review the post installation tasks.
14. Click **Done** to complete the installation procedure and then exit the installer.

# Upgrading in Console Mode

You can upgrade in console mode on Windows, Linux, or AIX.

**Note:** When you run the installer in console mode, the words Quit and Back are reserved words. You cannot use the reserved words as input text during installation.

1. Shut down the instance of Apache Tomcat application server where RulePoint is deployed.
2. At the command prompt for Windows or on a shell command line for Linux and AIX, run Proactive Monitoring for PowerCenter Operations installer located in the root directory.
3. Enter the Proactive Monitoring for PowerCenter Operations executable name with the option `-i console`.
  - ◆ For Windows, enter `Informativa_PMPC_Operations_2.5.exe -i console`.
  - ◆ For Linux or AIX, enter `Informativa_PMPC_Operations_2.5.bin -i console`.
4. In the **Introduction** section, press **Enter**.  
The **Choose Staging Folder** section appears.
5. Specify the staging directory.

The following table shows the default location of the staging folder:

Operating System	File Path
Windows	C:\PMPC_Operations_2.5
Linux and AIX	/home/PMPC_Operations_2.5

6. Enter Y to confirm the staging directory path.  
The **RulePoint Deployment Directory** section appears.
7. Enter the path to `$SRP_HOME`.  
Enter the path of the RulePoint directory in the Apache Tomcat server.

```
c:\tomcat\webapps\rulepoint
```

8. Press **Enter**.  
The **Installation Type** section appears.
9. Verify the installation requirements, and click **Next**.  
The **Proactive Monitoring Database Configuration** section appears.
10. Enter the details for the Proactive Monitoring database.

The following table describes the properties that you specify for the Proactive Monitoring database:

Property	Description
Database User Name	Name for the Proactive Monitoring database user account. By default, it is the name of the RulePoint user account. If the Proactive Monitoring database is not same as the RulePoint database, it is the user account information for

Property	Description
	the pc_rp user that you created through the create_rp_user.txt script.
Database Password	Password for the Proactive Monitoring database user account. The password is same as the password that you provide when you create the Proactive Monitoring database user.
Database Host	Host address of the Proactive Monitoring database.
Database Port	Port number of the Proactive Monitoring database. For example, the default port number is 1521 on Oracle.
Service Name or SID	Service name for Oracle and IBM DB2 databases or database name for Microsoft SQL Server. For example, on Oracle, ServiceName=orcl.informatica.com.
JDBC Parameters	<p>Optional parameters to include in the database connection string. For example, you can use the following optional parameters for an Oracle database:</p> <pre>MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaround=true</pre> <p>Use the parameters to optimize database operations for the configuration database. You can use the default parameters or you can add or change the parameters based on your database requirements.</p> <p>Verify that the parameter string is valid. If not selected, the installer creates the JDBC URL without additional parameters.</p>

If you select **Custom JDBC Connection String for DataDirect Driver**, type the connection string. For example, you can refer the following JDBC URL for an Oracle database:

```
jdbc:informatica:oracle://localhost:
1521;ServiceName=orcl.informatica.com;MaxPooledStatements=20;CatalogOptions=0;BatchPerformanceWorkaroun
d=true
```

11. Press **Enter**.
12. Review the pre-installation summary, and then press **Enter**.  
After the installation is complete, the **Install Complete** section appears.
13. Review the post installation tasks.
14. Press **Enter** to complete the installation and exit the installer.

## After You Upgrade

After you upgrade, perform the post-installation tasks to ensure that the services for Proactive Monitoring for PowerCenter Operations run properly.

1. Restart the Apache Tomcat instance that hosts RulePoint and Real-Time Alert Manager.

2. Run the cleanup tool to remove the obsolete templates, advanced rules, and associated template rules from previous versions of Proactive Monitoring for PowerCenter Operations.

For more information, see “Cleanup Tool” on page 37.

3. In the Proactive Monitoring Management Console, provide details of the nodes and application services that you want to monitor.

Launch Proactive Monitoring Management Console to configure the solution. You can access the Proactive Monitoring Management Console through a web browser.

```
http://<host>:<port>/pmpc
```

Replace <host> with the host name or IP address of the server where you install the Proactive Monitoring solution. Replace <port> with the HTTP port number of the Apache Tomcat server. Default is 8080.

4. Configure the node agents on all the PowerCenter nodes that you want to monitor.

The Proactive Monitoring for PowerCenter Operations installer installs the nodeagent.zip file in the following location:

```
$RP_HOME\Solutions\PCPM\nodeagent
```

Copy the nodeagent folder to each node that you want to monitor for CPU and memory utilization. You must manually start the node agent on each monitored node.

The node agent periodically gathers CPU, memory, and process lifecycle details from the host machine and stores this information in the Proactive Monitoring repository. The Proactive Monitoring solution uses the resource consumption information in rule processing and to add additional information to the alerts.

For more information, see “Node Agent Configuration” on page 52.

5. In RulePoint, enable schedules for the SQL sources and start Rulepoint services based on the monitoring requirements.
6. You can delete the obsolete RulePoint artifacts from the previous release. You must manually delete the following RulePoint artifacts:

#### Sources

Node System Monitor <pc\_node> with source type `Node System Monitor`

Node Process Monitor <pc\_node> with source type `Node Process Monitor`

Node Process Property Table Purge

Node Database Monitor <pc\_node> with source type `Node Database Monitor`

#### Topics

`node_process_table_purge`

#### Analytics

`get_no_running_task`

`get_no_running_workflow`

`get_top_n_CPU_Consumer`

`get_top_n_Memory_Consumer`

#### Responses

`Node Process Property Response`

#### Responders

`Node Process Property Recorder Responder`

## Cleanup Tool

After upgrading, use the cleanup utility to remove obsolete rules and templates from the previous release.

Upgrading Proactive Monitoring for PowerCenter Operations 2.1 to 2.5 creates some rules and templates with new names. The rules and templates configured for Proactive Monitoring for PowerCenter Operations 2.5 install are also available. You can use the cleanup utility to remove the rule and templates with the old names.

The cleanup utility tool does not delete any new template rules and its associated template that you might have created or customized in Proactive Monitoring for PowerCenter Operations 2.1.

**Important:** Ensure to export all XML files from RulePoint to back up the XML files before you run the cleanup utility. You have to perform the customizations that you might have done for any advanced rule, template, or template rules. Do not change the standard rules that are part of the solution. You can create new advanced rules or template rules instead.

After you install Proactive Monitoring for PowerCenter Operations 2.5, use the `input_pmpc_2.1_ops.xml` to remove the old rules.

The input XML files for the cleanup utility are available in the `$RP_HOME\Solutions\PCPM\tools\bin` directory.

### Usage

```
cleanup.sh -c <URL> -u username -p password -i <input.xml> -o <output.xml> -dbuser <user_name> -dbpass <password> -z
```

- ◆ The `-z` option deletes the rules and templates. If you do not specify `-z`, the delete does not occur. You can review the `output.xml` to see if you have selected the correct set of rules to delete. Use the `-z` option to finalize the delete.
- ◆ The `-o` option logs in to the specified `output.xml`.

The following table describes the parameters used by the cleanup tool:

Parameters	Description	Mandatory
<code>-c &lt;url&gt;</code> , <code>-connect &lt;url&gt;</code>	Proactive Monitoring connection URL	Yes
<code>-u &lt;username&gt;</code> , <code>-uname &lt;username&gt;</code>	Proactive Monitoring user name	Yes
<code>-p &lt;password&gt;</code> , <code>-password &lt;password&gt;</code>	Proactive Monitoring password	Yes
<code>-du &lt;username&gt;</code> , <code>-dbuser &lt;username&gt;</code>	Proactive Monitoring repository database user name	Yes
<code>-dp &lt;password&gt;</code> , <code>-dbpass &lt;password&gt;</code>	Proactive Monitoring repository database password	Yes
<code>-i &lt;input file path&gt;</code> , <code>-input &lt;input file path&gt;</code>	Path of the input XML file	Yes
<code>-o &lt;output file path&gt;</code> , <code>-output &lt;output file path&gt;</code>	Path of the output XML file	No
<code>-z</code> , <code>-finalize</code>	Finalize the modifications	Yes

## CHAPTER 8

# Proactive Monitoring Configuration

This chapter includes the following topics:

- ◆ Proactive Monitoring Configuration Overview, 38
- ◆ Proactive Monitoring Management Console, 39
- ◆ Logging In to the Management Console, 40
- ◆ Setup Configuration, 40
- ◆ Host Properties, 41
- ◆ Node Properties, 42
- ◆ Monitoring a Grid, 42
- ◆ Monitoring a PowerCenter Repository Service, 43
- ◆ Monitoring a PowerCenter Integration Service, 44
- ◆ Monitoring a Web Services Hub Services, 45
- ◆ Settings Configuration, 46
- ◆ Global Settings Parameters, 46
- ◆ Alert Recipients Parameters, 47
- ◆ Source Timestamp Configuration, 48

## Proactive Monitoring Configuration Overview

Configure the Proactive Monitoring solution to connect to the PowerCenter domain that you want to monitor.

A PowerCenter domain can contain multiple repository services, repository databases, PowerCenter Integration Service, and Web Services Hub running on multiple physical or virtual machines.

To monitor PowerCenter Operations, the Proactive Monitoring solution collects data from the PowerCenter services and their host machines at regular intervals. The Proactive Monitoring solution uses the collected information to check for anomalies in the processing of workflows and sessions, and alert appropriate users. The alert messages contain required contextual information, such as the PowerCenter artifact name and the cause of the alert.

You can use the Proactive Monitoring Management Console to configure the Proactive Monitoring solution.

# Proactive Monitoring Management Console

The Proactive Monitoring Management Console is a web application that you can use to configure the Proactive Monitoring solution to monitor the PowerCenter domain.

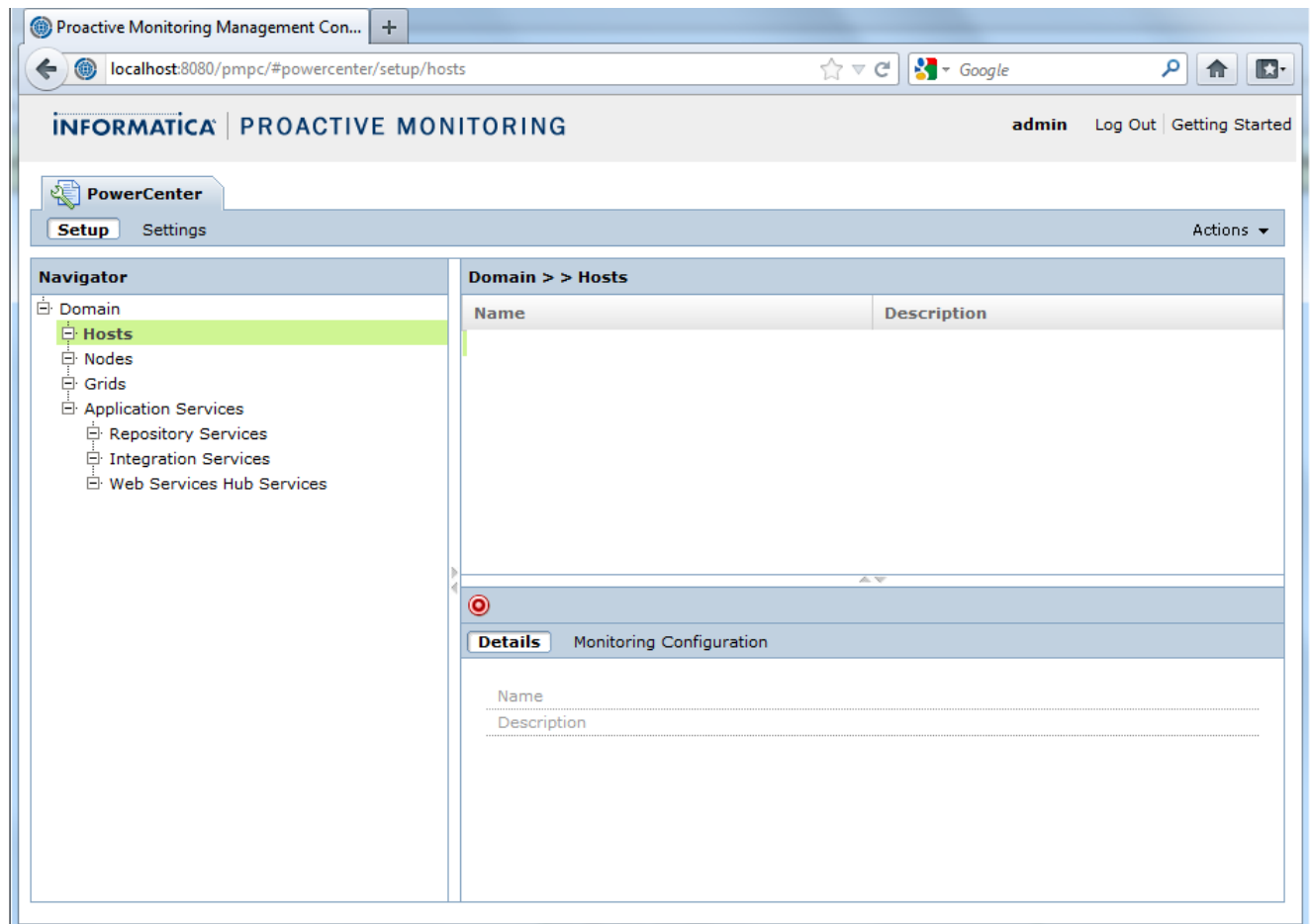
You can use the Management Console to add details of PowerCenter hosts, nodes, grids, and the application services that you want to monitor. The application services include the PowerCenter Repository Service, the PowerCenter Integration Service, and the Web Services Hub. You can use the Management Console to change the monitoring solution settings and the mode of alert delivery, whether to use email or RTAM.

A single installation of the Proactive Monitoring solution can monitor a single domain, with its multiple PowerCenter repository databases, application services, and hosts.

## Proactive Monitoring Management Console Interface

The Proactive Monitoring Management Console includes a Setup and Settings tab.

The following illustration shows the Proactive Monitoring Management Console:



## Setup Tab

You can use the Setup tab to configure the PowerCenter domain to monitor. You can provide details about the hosts, nodes, and the application services of the domain in the Setup tab.

## Settings Tab

You can use the Settings tab to configure the default global settings to receive alerts and the default alert recipients. You can also configure the source timestamp for each workflow from its startup time.

# Logging In to the Management Console

To log in to the Proactive Monitoring Management Console, you must have a RulePoint administrator account.

1. Open Microsoft Internet Explorer or Mozilla Firefox.
2. In the address field, enter the following URL for the Informatica Proactive Monitoring login page:

```
http://<host>:<port>/pmpc
```

Replace <host> with the host name or IP address of the server where you install the Proactive Monitoring solution. Replace <port> with the HTTP port number of the Apache Tomcat server. Default is 8080.

If you configure the Apache Tomcat server with SSL, enter the following URL for the Informatica Proactive Monitoring login page:

```
https://<host>:<port>/pmpc
```

The **Informatica Proactive Monitoring** login page appears.

3. Enter the user name and password.  
The default user name and password is the administrator credentials of RulePoint.
4. Click **Log In**.

## RELATED TOPICS:

- ◆ “Configure the Proactive Monitoring Solution” on page 26

# Setup Configuration

You can use the Proactive Monitoring Management Console to provide details about the hosts, nodes, and the application services that you want to monitor in the PowerCenter domain.

1. In the navigator, select the type of object that you want to add to the Management Console.
2. From the **Actions** menu, click **New**.  
You can edit and delete an existing configuration.
3. Configure the object properties.



## Steps to configure the Proactive Monitoring solution to monitor a PowerCenter domain

1. Provide details of hosts that you want to monitor.  
See “Host Properties” on page 41.
2. Provide details of nodes that you want to monitor.  
See “Node Properties” on page 42.
3. Provide details of PowerCenter Repository Services that you want to monitor.  
See “Monitoring a PowerCenter Repository Service” on page 43.
4. Provide details of PowerCenter Integration Services that you want to monitor.  
See “Monitoring a PowerCenter Integration Service” on page 44.
5. Provide details of Web Services Hub that you want to monitor.  
See “Monitoring a Web Services Hub Services” on page 45.
6. Configure global settings.  
See “Global Settings Parameters” on page 46.
7. Configure alert recipients.  
See “Alert Recipients Parameters” on page 47.
8. Configure source timestamps.  
See “Source Timestamp Configuration” on page 48.

## Host Properties

You can use the Proactive Monitoring Management Console to provide details of the hosts that you want to monitor. You can configure the node agent to monitor the CPU, memory, and the processes that are running in the host.

Before you configure the hosts, start the node agent in all the hosts that you want to monitor.

The following table describes the host properties that you need to enter:

Property	Description
Name	Host name of the machine that you want to monitor. The host name must be the same that you specify when you define a PowerCenter node.
Description	Description of the host. The description cannot exceed 200 characters.
Top CPU stats	Number of the highest CPU consumers that you want to record from the host.
Top Memory stats	Number of the highest memory consumers that you want to record from the host.

Property	Description
Frequency	The time interval at which the node agent collects the memory and CPU statistics from the host.
Processes	List of specified process names that you want to monitor. Enter the process names separated by comma. You can monitor any process running in the host. For example, you can monitor PowerCenter processes, such as pmdtm, pmrepageant, or pmserver.

## Node Properties

You can use the Proactive Monitoring Management Console to provide details of the nodes that you want to monitor.

The following table describes the node properties that you need to enter:

Property	Description
Name	Name of the node associated with the host.
Description	Description of the node. The description cannot exceed 200 characters.
Host	Host name of the node.

## Monitoring a Grid

To monitor a PowerCenter grid, provide details of the nodes associated with the grid.

The Proactive Monitoring solution collects the statistics from the nodes that you assign to the grid. The node agents must run in each node of the grid to collect statistics. If you do not assign a node to the grid, you cannot see the CPU and memory statistics from the node.

The following table describes the properties to configure in a grid:

Property	Description
Name	PowerCenter grid name. The grid name must be the same that you specify in PowerCenter.
Description	Description of the grid. The description cannot exceed 200 characters.
Nodes	Nodes in the PowerCenter grid that you want to monitor.

# Monitoring a PowerCenter Repository Service

You can use the Proactive Monitoring Management Console to provide details of the PowerCenter Repository Service that you want to monitor.

The following table describes the PowerCenter Repository Service properties that you need to enter:

Property	Description
Monitor Option	You can choose from the following options: <ul style="list-style-type: none"> <li>- Operations. You want to monitor the run-time environment.</li> <li>- Governance. You want to monitor the design-time environment.</li> <li>- Both. You want to monitor the run-time and design-time environments.</li> </ul>
Name	Name of the PowerCenter Repository Service.
Description	Description of the PowerCenter Repository Service. The description cannot exceed 200 characters.
Deploy Type	You can choose one of the following options: <ul style="list-style-type: none"> <li>- Standalone. You want to monitor the PowerCenter Repository Service that runs on a single node.</li> <li>- High Availability. You want to monitor the PowerCenter Integration Service that runs on primary and backup nodes configured for high availability.</li> </ul>
Primary Node	The primary node on which the PowerCenter Repository Service runs on.
Backup Node	The backup nodes configured for the PowerCenter Repository Service in a highly available domain.
Connection URL	<p>The DataDirect JDBC connection string used to connect to the repository database.</p> <p>The following list shows the sample connection string for the databases:</p> <ul style="list-style-type: none"> <li>- Oracle.  <code>oracle.database.url=jdbc:informatica:oracle://&lt;host&gt;:&lt;port&gt;;databaseName=&lt;SID&gt;</code></li> <li>- IBM DB2. db2.database.url=jdbc:informatica:db2://&lt;host&gt;:&lt;port&gt;;databaseName=&lt;SID&gt;</li> <li>- Microsoft SQL Server.  <code>mssql.database.url=jdbc:informatica:sqlserver://&lt;host&gt;:&lt;port&gt;;databaseName=&lt;SID&gt;</code></li> </ul> <p><b>Note:</b> The connection URL validates the database connectivity while saving the configuration. Provide valid connection information to save the PowerCenter Repository Service configuration.</p>
Read-Only User Name	<p>Database user name with read-only permissions to access PowerCenter repository.</p> <p>The staging directory of the solution has a ddl folder that has the files with the database scripts and the instructions to create the PowerCenter read-only user with the required privileges.</p>

Property	Description
Read-Only Password	Password for the PowerCenter read-only user.
State	You can choose one of the following options: <ul style="list-style-type: none"> <li>- Enabled. You want to monitor the PowerCenter Repository Service and receive alerts.</li> <li>- Disabled. You do not want to monitor the PowerCenter Repository Service.</li> </ul>

## Monitoring a PowerCenter Integration Service

You can use the Proactive Monitoring Management Console to provide the details of the PowerCenter Integration Service that you want to monitor. The PowerCenter Integration Service must exist in the PowerCenter domain.

The following table describes PowerCenter Integration Service properties that you need to enter:

Property	Description
Name	Name of the PowerCenter Integration Service.
Description	Description of the PowerCenter Integration Service. The description cannot exceed 200 characters.
Deploy Type	You can choose from the following options: <ul style="list-style-type: none"> <li>- Standalone. You want to monitor the PowerCenter Integration Service that runs on a single node.</li> <li>- High Availability. You want to monitor the PowerCenter Integration Service that runs on primary and backup nodes configured for high availability.</li> <li>- Grid. You want to monitor the PowerCenter Integration Service that runs on the nodes of the grid.</li> </ul>
Grid Name	Name of the grid on which the PowerCenter Integration Service runs. Required when you want to monitor the PowerCenter Integration Service that runs on a grid.
Primary Node	The primary node on which the PowerCenter Integration Service runs on. You do not require the primary node when the PowerCenter Integration Service runs on a grid.
Backup Node	The backup nodes configured for the PowerCenter Integration Service in a highly available domain.
Repository Service	PowerCenter Repository Service associated with the PowerCenter Integration Service.

# Monitoring a Web Services Hub Services

You can use the Proactive Monitoring Management Console to provide details of the PowerCenter Web Services Hub Services that you want to monitor..

The following table describes the Web Service Hub Service properties that you need to enter:

Property	Description
Name	Name of the Web Services Hub Service.
Description	Description of the Web Services Hub Service. The description cannot exceed 200 characters.
Integration Service WSDL URL	URL for the PowerCenter Web Services Hub WSDL. You can get the information in the Web Services Hub properties of Informatica Administrator. The URL uses the following format: <code>http://&lt;host&gt;:&lt;portnumber&gt;/wsh/services/BatchServices/DataIntegration?WSDL</code> Replace <host> with the host name or IP address of the machine hosting the Web Services Hub. Replace <port> with the port number for the Web Services Hub on HTTP.
Node	Node on which the Web Services Hub runs.

## Configure Associated Repository

After you configure a Web Services Hub Service, you must provide details of the PowerCenter Repository Service associated with the Web Services Hub Service.

1. Select the Web Services Hub Service name on the content panel.
2. Click **Associated Repository Services** in the content panel.
3. From the **Actions** menu, click **New**.
4. Provide information to connect to the associated repository service.
5. Click **Test Login** and then save the configuration.

The following table describes the properties to configure an associated PowerCenter Repository Service:

Property	Description
Domain	PowerCenter domain name.
Associated Repository Service	PowerCenter Repository Service to which the Web Services Hub connects.
Repository User Name	User name of the PowerCenter repository administrator.
Repository Password	Password for the PowerCenter repository administrator.
Security Domain	Security domain for the user. PowerCenter uses native or LDAP authentication to authenticate users log in to the PowerCenter domain. Default is native authentication.

# Settings Configuration

You can use the Proactive Monitoring Management Console to configure the global settings, alert recipients, and the source timestamp parameters.

1. In the navigator, select the type of object that you want to configure in the Management Console.
2. From the **Actions** menu, click **New** or **Edit**.

You can edit the global settings and the source timestamp configurations. You can add, edit, and delete the alert recipients configurations.

3. Provide details of the object properties.

## Global Settings Parameters

You can change the default response delivery method for alerts. Use the **Global Settings** option in the Management Console to change the global settings for response delivery, configure the notification framework and shadow table framework.

Every template and advanced rule in the Proactive Monitoring solution that is responsible for sending alerts uses a single response, PowerCenter Notification Response. The predefined response uses Real-Time Alert Manager alerts as the default delivery mechanism.

The Proactive Monitoring Management Console contains the default values of the global setting parameters. You can edit the parameters based on the requirements.

The following table lists the attributes that you can configure using the Global Settings option:

Attribute	Description
Do Not Disturb	Settings to temporarily stop alerts. For example, set this value to <b>Yes</b> if the monitored PowerCenter instance is down for maintenance. Proactive Monitoring does not send out alerts during the maintenance period. After the maintenance is over, you can reset the value to <b>No</b> . Default is No.
Alert Purge Frequency	Alert history purge duration specifies the time to retain alert history. The Proactive Monitoring solution database tables contains the alert history. These tables grow with time, and it is a good practice to archive and purge these tables. This attribute specifies the time, in days, to retain the history. All alerts older than this time are archived and purged. Default is 60 days.
Default Notification	Default notification method. You can set the default notification method to RTAM or email, or both. Default is RTAM.
Alert Hyperlink	Alert hyperlink URL included in each Real-Time Alert Manager alert or email alert that the Proactive Monitoring solution sends. You can set this URL to an intranet web page, email ID, or a distribution list. The Proactive Monitoring solution includes a default hyperlink with every notification that points to a landing page. This landing page contains information about the PowerCenter Monitoring project of the organization with contact information.

Attribute	Description
	Default is <a href="https://community.informatica.com/solutions/1514">https://community.informatica.com/solutions/1514</a> .
Workflows and Sessions Persisted	<p>Sets the number of records to persist in the shadow table. The number of records persisted is twice the number of the value entered for this attribute.</p> <p>For example, if the number of workflows and sessions persisted is five, the Proactive Monitoring solution retains the last 10 records in the shadow tables. The shadow tables of <i>pc_completed_workflows</i> and <i>pc_completed_sessions</i> retains these last 10 records.</p> <p>Default is 5.</p>

## Alert Recipients Parameters

You can use the Alert Recipients option of the Proactive Monitoring Management Console to configure the default alert recipients.

When an event occurs, the alert recipients get alerts through email, Real-Time Alert Manager, or both. The alert recipients get the alerts based on the value specified in the default notification global setting.

The following table lists the attributes that you can configure for the Alert Recipients:

Property	Description
Domain	Domain name of the PowerCenter Repository Service.
Repository Service	Name of the PowerCenter Repository Service for which you want to receive alerts. Leave it blank if you want to use the configuration for all PowerCenter Repository Services in the domain.
Folder	Name of the folder for which you want to receive alerts. Leave it blank if you want to use the configuration for all the folders of the PowerCenter repository. The configuration for the folder name will not be used if the PowerCenter Repository Service name is blank.
Workflow	<p>Name of the workflow for which you want to receive alerts. Leave it blank if you want to use the configuration for all the workflows of the PowerCenter Repository Service.</p> <p>The configuration for the folder name will not be used if the Repository Service name or the Folder name is blank.</p>
pcmonitor RTAM List	Real-Time Alert Manager IDs of the users that you want to associate with the pmonitor persona. Enter the IDs separated by semicolon.
pcmonitor Email List	Email IDs of the users that you want to associate with pmonitor persona list. Enter the IDs separated by comma.
pcadmin RTAM List	Real-Time Alert Manager IDs of the users that you want to associate with pcadmin persona list. Enter the IDs separated by semicolon.

Property	Description
pcadmin Email List	Email IDs of the users that you want to associate with pcadmin persona list. Enter the IDs separated by comma.
apparchitect RTAM List	Real-Time Alert Manager IDs of the users that you want to associate with apparchitect persona list. Enter the IDs separated by semicolon.
apparchitect Email List	Email IDs of the users that you want to associate with apparchitect persona list. Enter the IDs separated by comma.
dataarchitect RTAM List	Real-Time Alert Manager IDs of the users that you want to associate with dataarchitect persona list. Enter the IDs separated by semicolon.
dataarchitect Email List	Email IDs of the users that you want to associate with dataarchitect persona list. Enter the IDs separated by comma.
itsecurity RTAM List	Real-Time Alert Manager IDs of the users that you want to associate with itsecurity persona list. Enter the IDs separated by semicolon.
itsecurity Email List	Email IDs of the users that you want to associate with itsecurity persona list. Enter the IDs separated by comma.

**Note:** The Management Console does not validate the configuration information provided for alert recipients. Provide valid values for every field before you save the configuration.

After you save the alert recipient configuration, you cannot change the values in the Repository Service, Folder, and Workflow fields. You can change the email and RTAM values. To change the values for Repository Service, Folder, or Workflow, you must delete the existing alert recipient configuration and create again.

## Source Timestamp Configuration

The Proactive Monitoring installer updates the value of the `tstamp` parameter for source services to that of the system time. You can leave this value as it is, the monitoring of the PowerCenter artifacts will start from the time defined in the `tstamp` parameter. The PMPC SQL source service updates the `tstamp` each time the service runs.

You can update the `tstamp` parameter to have the PMPC SQL Source fetch older events. The `tstamp` parameter value must not be too old or a future value. If you set the `tstamp` to a past time that is too old, you might receive unwanted alerts. If you set the `tstamp` to a future time, you will not receive any alerts.

The installer updates the following services with the `tstamp` value:

- PowerCenter Command Tasks
- PowerCenter Completed Sessions
- PowerCenter Completed Workflows
- PowerCenter Scheduler Scheduled Workflows Incremental
- PowerCenter Session to Workflow Ratio
- PowerCenter Sessions Modified Incremental



## Configuring Source Timestamp

You can use the Proactive Monitoring Management Console to change the source timestamp.

1. On the **Settings** tab, click **Source Timestamp**.
2. Select a source for an appropriate repository service.
3. From the **Actions** menu, click **Edit**.  
The **Source Timestamp Configuration** page appears.
4. Enter the timestamp parameter values for the source.  
Do not change default time format.
5. Click **Save**.

## CHAPTER 9

# Troubleshooting the Proactive Monitoring Installation

This chapter includes the following topic:

- ◆ Troubleshooting Real-Time Alert Manager to Receive Alerts, 50

## Troubleshooting Real-Time Alert Manager to Receive Alerts

**Alerts do not show up in the Real-Time Alert Manager dashboard even when you start all the services after installation.**

1. Ensure that you create the personas or users required by Proactive Monitoring for PowerCenter Operations, such as pcmonitor, dataarchitect, pcadmin, apparchitect, and itsecurity.
2. Log in to Real-Time Alert Manager with these user IDs.
3. Check the Proactive Monitoring Management Console for the correct details of PowerCenter domain, PowerCenter repository service, personas, email, and Real-Time Alert Manager users.
4. Check the global settings for the Proactive Monitoring user through the Proactive Monitoring Management Console. Ensure that the default entries for Real-Time Alert Manager are available.
5. Ensure that all responders are active. System errors disable rules and responders.
6. Check the pc\_notification events created under the **Events** tab in RulePoint.
7. Ensure that all the sources are running.
8. For SQL sources, ensure that the schedules are active.
9. Review the rulepoint.log file and resolve any exceptions.

## CHAPTER 10

# Environment Monitoring

This chapter includes the following topics:

- ◆ Environment Monitoring Overview, 51
- ◆ Node Agent, 51

## Environment Monitoring Overview

The Proactive Monitoring solution collects statistics from the PowerCenter nodes through the node agent.

The node agent periodically collects CPU, memory, and process lifecycle details from the host machine and stores this information in the Proactive Monitoring repository. The Proactive Monitoring solution uses the resource consumption information in rule processing and to add additional information to the alerts.

## Node Agent

The node agent is a Proactive Monitoring solution component that runs on each of the PowerCenter nodes and collects resource usage information from the host machine.

The Proactive Monitoring for PowerCenter Operations installer installs the `nodeagent.zip` file to the staging directory and extracts the files to the following location:

```
$RP_HOME\Solutions\PCPM\nodeagent
```

Copy the `nodeagent` folder to each node that you want to monitor for CPU and memory utilization. You can copy the `nodeagent` folder to any location of the monitored node. You must manually start the node agent in each monitored node. Before you start the node agent, configure the host associated with the node.

The node agent connects to the Proactive Monitoring repository database through a JDBC connection. The node agent then collects statistics from the host and stores the details in the Proactive Monitoring repository database. The source, *Node TopNStats Table Purge*, purges the statistics from the Proactive Monitoring repository database at a scheduled interval of two hours. Start the *Node TopNStats Table Purge* source with the other Proactive Monitoring sources.

If the node agent on a monitored node fails to respond with the statistics details from the node, the Proactive Monitoring solution triggers the *PC\_O16 Node Agent health check* rule. This rule alerts the `pcadmin` persona that the node agent running on the particular node is down.

## Node Agent Configuration

Node agents collect statistics of each node as defined through the Proactive Monitoring Management Console.

## Starting the Node Agent

You must manually start the node agent that you copied to each node.

After you configure the node agent in the monitored nodes, start the node agent in each node:

1. Log in as administrator or root on the host associated with the node.
2. Verify that the `$JAVA_HOME` path is set correctly.
3. Start the node agent on the hosts associated with each node.
  - ◆ To start the node agent on Windows, run the following command from the `nodeagent` folder:  

```
nodeagent.bat start
```
  - ◆ To start the node agent on UNIX, run the following command from the `nodeagent` folder:  

```
nodeagent.sh start
```

## Node Agent Statistics

Node agent collects statistics from each monitored node and stores the information in the Proactive Monitoring repository database.

The following table shows the statistics collected by the node agent from each monitored node:

Property	Description
System CPU utilization	Total CPU usage of the monitored node.
System memory utilization	Total memory usage of the monitored node.
Total number of processes	Total number of processes running on the monitored node.
PID	A number that identifies a process while it runs. The node agent collects the PID of the top processes as configured in the Proactive Monitoring Management Console.
CPU usage	The percentage of CPU used by a process. The node agent collects the CPU usage of the top processes as configured in the Proactive Monitoring Management Console.
Memory usage	The percentage of memory used by a process. The node agent collects the memory usage of the top processes as configured in the Proactive Monitoring Management Console.
Name	Name of processes to be monitored.
Arguments	Command arguments of the processes that you want to monitor.
Elapse Time	Time spent by a process on the node since it was started. The node agent collects the elapse time statistics for the top processes.

## CHAPTER 11

# Proactive Monitoring Watchlists

This chapter includes the following topic:

- ◆ Proactive Monitoring Watchlists, 53

## Proactive Monitoring Watchlists

The following table lists the predefined watchlists that are available by default upon installing Proactive Monitoring for PowerCenter Operations:

Watchlists Name	Description
PowerCenter Monitored Folders	The list of PowerCenter folders that are monitored. To receive notifications add your folder names to this watchlist. If the folder is same for multiple PowerCenter repositories, you receive this notification for all configured repositories.
PowerCenter Verbose Workflows	The list of PowerCenter workflows for which run-time reports are sent. This reports are sent to the padmin persona. If the workflow is same for multiple folders and repository services, you receive the run-time reports for all folders and repository services.
PowerCenter Repository Service Database Tablespace Name	The list of tablespace names from the PowerCenter repository database that are monitored. If the tablespace name is same for multiple databases, you can get alerts for all the databases.

## CHAPTER 12

# Proactive Monitoring Topics

This chapter includes the following topic:

- ◆ Proactive Monitoring Topics, 54

## Proactive Monitoring Topics

The following table lists the predefined topics that are available by default upon installing Proactive Monitoring for PowerCenter Operations:

Topic Name	Description
pc_notifications	This topic contains event properties associated with the proactive monitoring notification framework.
pc_alert_history_purge_request	This topic contains event properties associated with the alert history purge request. Source: PowerCenter Daily Alert History Purge Requestor
pc_pmpc_global_settings	This topic contains event properties associated with global settings framework. Source: PowerCenter Load PMPC Global Settings from Database
pc_sessions	This topic contains event properties associated with PowerCenter sessions. Source: PowerCenter Sessions Modified Incremental
pc_completed_sessions	This topic contains event properties associated with PowerCenter completed sessions. Source: PowerCenter Completed Sessions
pc_session_to_workflow_ratio	This topic contains event properties associated with PowerCenter session to workflow ratio. Source: PowerCenter Session to Workflow Ratio
pc_runtime_server_stats	This topic contains event properties associated with PowerCenter runtime server statistics. Source: PC_O13 Send run time server statistics

Topic Name	Description
pc_missed_workflows	This topic contains event properties associated with missed schedules of PowerCenter workflows. Source: PowerCenter Scheduler Missed Workflows
pc_concurrent_workflows	This topic contains event properties associated with the PowerCenter workflow instances running concurrently. Source: PowerCenter Concurrent Workflows
pc_ping	This topic contains event properties associated with the health status of a PowerCenter Domain. Source: PowerCenter Web Service Hub Ping Service
pc_runtime_session_stats	This topic contains event properties associated with the sessions of scheduled and running PowerCenter workflows. Source: PC_O9 Send run time session statistics
pc_runtime_stats	This topic contains event properties for the PowerCenter domain server, running and scheduled workflows, and the associated sessions and targets. Source: PowerCenter Web Service Hub Runtime Statistics Receiver
pc_runtime_workflow_stats	This topic contains event properties associated with running and scheduled PowerCenter workflows. Source: PC_O8 Send run time workflow statistics
pc_scheduled_workflows	This topic contains event properties associated with the schedules of the PowerCenter workflows. Source: PowerCenter Scheduler Scheduled Workflows Incremental
pc_runtime_target_stats	This topic contains event properties associated with the PowerCenter targets. Source: PC_O7 Send run time transformation statistics
pc_running_workflows	This topic contains event properties associated with the completed workflows in PowerCenter. Source: PowerCenter Running Workflows
pc_completed_workflows	This topic contains event properties associated with the completed workflows in PowerCenter. Source: PowerCenter Completed Workflows
pc_failed_workflows	This topic contains event properties associated with failed workflows in PowerCenter. Source: PC_OW6 Publish events for failed workflows
pc_running_sessions	This topic contains event properties associated with running sessions in PowerCenter. Source: PowerCenter Running Sessions
node_process_property	This topic contains event properties associated with the top 'N' CPU and memory consuming processes on the PowerCenter node.

Topic Name	Description
	Source: Node Process Monitor
node_database_property	This topic contains event properties associated with the PowerCenter Repository Service database health status and the tablespace usage. Source: PowerCenter Repository Database Tablespaces
node_system_property	This topic contains event properties associated with the total CPU and memory consumption on the PowerCenter Integration Service node. Source: Node System Monitor
node_topnstats_table_purge	This topic contains event properties associated with purging the node process property table in the Proactive Monitoring database. Source: Node TopNStats Table Purge
pc_completed_sessions_trending	This topic contains event properties associated with the Persistence Framework. Source: PC_OS13 Completed sessions cache for persistence framework
pc_completed_sessions_table_purge	This topic contains event properties associated with the Persistence Framework. Source: PowerCenter completed sessions shadow table purge
pc_completed_workflows_table_purge	This topic contains event properties associated with the housekeeping of the powercenter completed workflows shadow table in the Proactive Monitoring database. Source: PowerCenter completed workflows shadow table purge
pc_completed_workflows_trending	This topic contains event properties associated with the Persistence Framework. Source: PC_OW11 Completed workflow cache for persistence framework
pc_aggregated_ops_analytics	This topic contains aggregated counts of sessions, workflows, mappings, and transformations. Source: PowerCenter Metadata Counts
node_agent_lifecycle_monitor	This topic contains event properties associated with the node agent health status. Source: Node Agent Monitor
node_process_lifecycle_monitor	This topic contains events for monitored process on a given host that are stopped. Source: Node Process Lifecycle Monitor



## CHAPTER 13

# Proactive Monitoring Services

This chapter includes the following topics:

- ◆ Source Services, 57
- ◆ Analytics, 60
- ◆ Responder Services, 61

## Source Services

The source services fetch data from PowerCenter repositories and run-time instances which are used for rule evaluation.

The following table lists the predefined source services that are available by default after installing Proactive Monitoring for PowerCenter Operations:

Source Service Name	Description	Properties
Node Agent Monitor	Retrieves the health status of the node agent.	<ul style="list-style-type: none"><li>- Type: Interval based SQL Service</li><li>- Topic: node_agent_lifecycle_monitor</li><li>- Connected to: PowerCenter Repository (pcrs_readonly)</li><li>- Default interval: 300 seconds</li></ul>
Node Process Lifecycle Monitor	Retrieves the details of process monitored by node agent.	<ul style="list-style-type: none"><li>- Type: Interval based SQL Service</li><li>- Topic: node_process_lifecycle_monitor</li><li>- Connected to: PowerCenter Repository (pcrs_readonly)</li><li>- Default interval: 300 seconds</li></ul>
Node Process Monitor	Retrieves the CPU and memory consuming process information from all the hosts where you have started the node agent.	<ul style="list-style-type: none"><li>- Type: Interval based SQL Service</li><li>- Topic: node_process_property</li><li>- Connected to: PowerCenter Repository (pcrs_readonly)</li><li>- Default interval: 600 seconds</li></ul>
Node System Monitor	Retrieves the total CPU and memory information of all the hosts where you have started the node agent.	<ul style="list-style-type: none"><li>- Type: Interval based SQL Service</li><li>- Topic: node_system_property</li><li>- Connected to: PowerCenter Repository (pcrs_readonly)</li><li>- Default interval: 600 seconds</li></ul>

Source Service Name	Description	Properties
Node TopNStats Table Purge	This is a system source service which is used for purging node statistics table.	<ul style="list-style-type: none"> <li>- Type: SQL</li> <li>- Topic: node_topnstats_table_purge</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 2 hours</li> </ul>
PowerCenter Completed Sessions	Retrieve the PowerCenter completed sessions information.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_completed_sessions</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter completed sessions shadow table purge	This is a system source service used by the Persistence Framework to purge the completed sessions in the shadow table.	<ul style="list-style-type: none"> <li>- Type: SQL</li> <li>- Topic: pc_completed_sessions_table_purge</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: Daily</li> </ul>
PowerCenter Completed Workflows	Retrieve the PowerCenter completed workflows information.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_completed_workflows</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter completed workflows shadow table purge	This is a system source service used by the Persistence Framework to purge the completed workflows in the shadow table.	<ul style="list-style-type: none"> <li>- Type: SQL</li> <li>- Topic: pc_completed_workflows_table_purge</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: Daily</li> </ul>
PowerCenter Concurrent Workflows	Retrieve the PowerCenter workflows that have more than one instance running concurrently.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_concurrent_workflows</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Daily Alert History Purge Requestor	Retrieve alert history purge frequency from the global settings framework. The frequency is used for purging the alert history.	<ul style="list-style-type: none"> <li>- Type: SQL</li> <li>- Topic: pc_alert_history_purge_request</li> <li>- Connected to: Rulepoint Repository (pc_rp)</li> <li>- Default interval: Daily</li> </ul>
PowerCenter Load PMPC Global Settings from Database	Retrieve Proactive Monitoring global settings from the RulePoint database.	<ul style="list-style-type: none"> <li>- Type: SQL</li> <li>- Topic: pc_pmpc_global_settings</li> <li>- Connected to: -</li> <li>- Default interval: 21600 seconds</li> </ul>
PowerCenter Metadata Counts	This source extracts the aggregate count of sessions, workflows, mappings, and transformations from PowerCenter repository and stores it in Proactive Monitoring database.	<ul style="list-style-type: none"> <li>- Type: PMPC Metadata Receiver</li> <li>- Topic: pc_aggregated_ops_analytics</li> <li>- Connected to: -</li> <li>- Default interval: 21600 seconds</li> </ul>

Source Service Name	Description	Properties
PowerCenter Repository Database Tablespaces	Retrieve the database state and tablespace details from PowerCenter repository databases.	<ul style="list-style-type: none"> <li>- Type: PMPC Database Monitor</li> <li>- Topic: node_database_property</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 10 minutes</li> </ul>
PowerCenter Running Sessions	Retrieve information of the all running sessions of PowerCenter.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_running_sessions</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Running Sessions Count	Retrieve the total number of sessions running in the PowerCenter repository.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_running_sessions_count</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Running Workflows	Retrieve information of all running workflows of PowerCenter.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_running_workflows</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Scheduler Missed Workflows	Retrieve PowerCenter workflows that missed their schedule.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_missed_workflows</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Scheduler Scheduled Workflows Incremental	Retrieve the details of the latest schedule and the next schedule of PowerCenter workflows.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_scheduled_workflows</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Session to Workflow Ratio	Retrieve the PowerCenter sessions to workflow ratio.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_session_to_workflow_ratio</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Sessions Modified Incremental	Retrieve the details of PowerCenter sessions modified since the last run.	<ul style="list-style-type: none"> <li>- Type: PMPC SQL Source</li> <li>- Topic: pc_sessions</li> <li>- Connected to: PowerCenter Repository (pcrs_readonly)</li> <li>- Default interval: 21600 seconds</li> </ul>
PowerCenter Web Service Hub Ping Service	Retrieve the health status of a PowerCenter Domain.	<ul style="list-style-type: none"> <li>- Type: PMPC WSH Ping Service</li> <li>- Topic: pc_ping</li> <li>- Connected to: PowerCenter Web Services Hub</li> <li>- Default interval: 600 seconds</li> </ul>
PowerCenter Web Service Hub Runtime Statistics Receiver	Retrieve the runtime statistics for the PowerCenter domain server, running and	<ul style="list-style-type: none"> <li>- Type: PMPC WSH Runtime Statistics Receiver</li> <li>- Topic: pc_runtime_stats</li> <li>- Connected to: PowerCenter Web Services Hub</li> <li>- Default interval: 600 seconds</li> </ul>

Source Service Name	Description	Properties
	scheduled workflows, and associated sessions and targets.	

## Analytics

RulePoint analytics implement a data processing function, and it can be referenced in rule activations.

The following table lists the predefined analytics that are available by default after installing Proactive Monitoring for PowerCenter Operations:

Name	Connects to...	Analytic Type	Description
get_lp_pc_completed_sessions_csv	RulePoint Repository	SQL	Fetch completed sessions data for reporting purposes
get_lp_pc_completed_workflows_csv	RulePoint Repository	SQL	Fetch completed workflows data for reporting purposes.
get_no_mapping	PowerCenter Repository	SQL	Obtain the total number of PowerCenter mappings.
get_no_rows_lp_pc_completed_sessions	RulePoint Repository	SQL	Get the number of rows from the completed sessions table in the Proactive Monitoring database. This is used by the Persistence Framework.
get_no_rows_lp_pc_completed_workflows	RulePoint Repository	SQL	Get the number of rows from the completed workflows table in the Proactive Monitoring database. This is used by the Persistence Framework.
get_no_session	PowerCenter Repository	SQL	Obtain the total number of PowerCenter sessions.
get_no_transformation	PowerCenter Repository	SQL	Obtain the total number of PowerCenter sessions.
get_no_workflow	PowerCenter Repository	SQL	Obtain the total number of PowerCenter workflows.
get_previous_no_of_completed_sessions	PowerCenter Repository	SQL	Obtain the total number of preceding runs for a specified PowerCenter session that is completed.
get_previous_no_of_completed_workflows	PowerCenter Repository	SQL	Obtain the total number of preceding runs for a specified PowerCenter workflow that is completed.
get_service_resource_stats	RulePoint Repository	PMPC Service Statistics Analytic	Fetches the environment resource stats for PowerCenter node.

Name	Connects to...	Analytic Type	Description
get_tstamp_aggregated_analytic	RulePoint Repository	SQL	Obtains the time stamp of PowerCenter Metadata Counts.
pc_get_alert_history_csv	RulePoint Repository	SQL	Obtain alert history for the previous N days for reporting purposes.
pc_get_alert_history_purge_count	RulePoint Repository	SQL	Obtain the count of alert history records to be purged.
pc_get_email	RulePoint Repository	SQL	Obtain the email address for a specified recipient of an alert.
pc_get_global_setting	RulePoint Repository	SQL	Obtain value from the global settings framework for a specified attribute name.
pc_get_purge_cutoff_date	RulePoint Repository	SQL	Obtain the text string for the cutoff date. The cutoff date is specified in the alerts.
pc_get_rtam	RulePoint Repository	SQL	Obtain the Real-Time Alert Manager target for a specified recipient of an alert.
pc_get_session_count_for_workflow	PowerCenter Repository	PMPC SQL Analytic	Retrieve the number of sessions in a PowerCenter workflow.
pc_getPrevNSessionRows	PowerCenter Repository	SQL	Fetch the number of rows loaded in the previous N runs for a specified PowerCenter session.
pc_getPrevNSessionTimes	PowerCenter Repository	SQL	Obtain the elapsed time for the previous N runs for a specified PowerCenter session.
pc_getPrevNThroughputs	PowerCenter Repository	PMPC SQL Analytic	Fetch the throughput of target for the previous N runs for a specified PowerCenter session.
pc_getPrevNWorkflowTimes	PowerCenter Repository	SQL	Fetch the elapsed time for the previous N runs for a specified PowerCenter workflow.
pc_is_workflow_running	PowerCenter Repository	PMPC SQL Analytic	Obtain the current running status of PowerCenter workflow in a folder.
pc_recent_alert	Rulepoint Repository	SQL	Check if a recent alert has been sent for a specific rule name, key-value combination, and a snooze interval. The snooze parameter determines the most recent alert.
rs_formatter	Rulepoint Repository	SQL	Formats the rs value in the notification response.

## Responder Services

With a responder service, you can define the interface parameters for a particular type of response, that is the action to be taken when a rule activates. From a single responder service, you can create multiple specific responses.

The following table lists the predefined responder services that are available by default after installing Proactive Monitoring for PowerCenter Operations:

Responder Service Name	Description	Properties
PowerCenter Metadata Counts Responder	Records details obtained from PowerCenter Metadata Counts source.	- Type: SQL Responder - Topic: - - Connected to: Rulepoint Repository (pc_rp)
PowerCenter Alert History Purge Responder	Responds to events by purging alert history older than the specified number of days.	- Type: SQL Responder - Topic: - - Connected to: Rulepoint Repository (pc_rp)
PowerCenter Alert Recorder	The alert recorder stores details of alerts in the RulePoint database.	- Type: SQL Responder - Topic: - - Connected to: Rulepoint Repository (pc_rp)
PowerCenter Email Responder	Responds to events by sending email alerts.	- Type: Email - Topic: - - Connected to: Email server
PowerCenter Runtime Stats Transformer	Responds to events by transforming them as runtime server, runtime workflow, runtime session, and runtime target events.	- Type: Event Transformer - Topic: pc_runtime_server_stats, pc_runtime_workflow_stats, pc_runtime_session_stats, pc_runtime_target_stats - Connected to: -
PowerCenter Notification Responder	Responds to events by transforming them as notification events.	- Type: Event Transformer - Topic: pc_notifications - Connected to: -
PowerCenter Web Service Hub Workflow Control Responder	Responds to events by sending start, stop, restart, or abort operation to control the PowerCenter workflow.	- Type: PMPC WSH Workflow Controller - Topic: - - Connected to: PowerCenter Web Services Hub
PowerCenter completed workflows recorder responder	Responds to events by recording the completed workflows data to the Proactive Monitoring database.	- Type: SQL - Topic: - - Connected to: -
RTAM	Sends notifications to the Real-Time Alert Manager.	- Type: RTAM Responder - Topic: - - Connected to: -
Process Monitor Table Update Responder	Deletes the records from the na_process_monitor table after generating the alerts.	- Type: SQL Responder - Topic: - - Connected to: -
PowerCenter completed sessions and workflows responder	This Responder service will transform events generated by PowerCenter Completed	- Type: Event Transformer - Topic: - - Connected to: -

Responder Service Name	Description	Properties
	Sessions and Completed Workflows.	
PowerCenter completed sessions recorder responder	Responds to events by recording the completed sessions data to the Proactive Monitoring database.	<ul style="list-style-type: none"> <li>- Type: SQL</li> <li>- Topic: -</li> <li>- Connected to: -</li> </ul>

## CHAPTER 14

# Proactive Monitoring Templates and Rules

This chapter includes the following topics:

- ◆ Proactive Monitoring Templates, 64
- ◆ Template Rules, 69
- ◆ Advanced Rules, 73

## Proactive Monitoring Templates

Templates provide an easier way to create rules. You can create rules from predefined templates. You can restrict input from users by adding simple validations to the template. You can add specific user assistance wherever required to make the use of the template easier.

The following table lists the predefined templates that are available by default upon installing Proactive Monitoring for PowerCenter Operations:

Template Name	Description	Properties	Template Parameters
PC_OST5 Session elapsed time exceeds the recent average	Notify if the session elapsed time exceeds the recent average.	<ul style="list-style-type: none"><li>- Topic: pc_completed_sessions_trending</li><li>- Sources: -</li><li>- Analytics: get_previous_no_of_completed_sessions, getPrevNSessionTimes, get_service_resource_stats</li><li>- Response: PowerCenter Notification Response</li><li>- Persona: apparchitect</li></ul>	<ul style="list-style-type: none"><li>- &lt;&lt;Minimum Elapsed Minutes&gt;&gt; Minimum elapsed minutes for the session.</li><li>- &lt;&lt;count&gt;&gt; Count of the previous N runs to be used for computing average.</li><li>- &lt;&lt;percent&gt;&gt; Percentage increase over average.</li></ul>
PC_OWT4 Workflow running time exceeds the repository SLA	Notify if the workflow running time exceeds the specified repository SLA.	<ul style="list-style-type: none"><li>- Topic: pc_running_workflows</li><li>- Sources: PowerCenter Running Workflows</li><li>- Analytics: get_service_resource_stats</li><li>- Response: PowerCenter Notification Response</li><li>- Persona: apparchitect</li></ul>	<ul style="list-style-type: none"><li>- &lt;&lt;Minimum Elapsed Minutes&gt;&gt; Minimum elapsed minutes for the workflow</li><li>- &lt;&lt;num_runs&gt;&gt; Number of runs to compute average.</li><li>- &lt;&lt;percent&gt;&gt; Percentage increase over average.</li></ul>



Template Name	Description	Properties	Template Parameters
PC_OWT5 Workflow running time exceeds the recent average	Notify if the workflow running time exceeds the recent average for the specified number of runs.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: pc_getPrevNWorkflowTimes, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;Minimum Elapsed Minutes&gt;&gt; Minimum elapsed minutes for the workflow</li> <li>- &lt;&lt;num_runs&gt;&gt; Number of runs to compute average.</li> <li>- &lt;&lt;percent&gt;&gt; Percentage increase over average.</li> </ul>
PC_OWT6 Workflow running time exceeds specified workflow SLA	Notify if the workflow running time exceeds the specified workflow SLA.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;p_workflow_name&gt;&gt; PowerCenter workflow name.</li> <li>- &lt;&lt;p_folder&gt;&gt; PowerCenter folder name that contains the workflow.</li> <li>- &lt;&lt;sla&gt;&gt; Number of minutes that is the SLA for this workflow.</li> </ul>
PC_OWT7 Workflow running time exceeds the folder SLA	Notify if the workflow running time exceeds the specified folder SLA.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;folder&gt;&gt; PowerCenter folder.</li> <li>- &lt;&lt;sla&gt;&gt; Number of minutes that is the SLA for this workflow.</li> </ul>
PC_OST6 Session running time exceeds the recent average	Notify if the session running exceeds the recent average by the specified threshold.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: prev_no_of_completed_sessions, getPrevNSessionTimes</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;Minimum Elapsed Minutes&gt;&gt; Minimum elapsed minutes for the workflow</li> <li>- &lt;&lt;num_runs&gt;&gt; Number of runs to compute average.</li> <li>- &lt;&lt;percent&gt;&gt; Percentage increase over average.</li> </ul>
PC_OST10 Running Sessions Count exceeds Threshold	Notify if total number of running sessions under a repository exceeds the threshold.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions_count</li> <li>- Sources: PowerCenter Running Sessions Count</li> <li>- Analytics: get_running_sessions_count_csv</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<<p_threshold>> The threshold value for the number of running sessions.
PC_OST8 Session non-responsive for specified duration	Notify if the session is non-responsive for a specified duration.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_session_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response, PowerCenter Web Service Hub Workflow Control Response</li> <li>- Persona: padmin</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;low_watermark&gt;&gt; Number of rows that were processed during the last time window specified. The session is considered non-responsive only if the number of rows processed is less than this value.</li> <li>- &lt;&lt;p_duration&gt;&gt; Enter the time window in minutes for which the above low watermark applies. If you set it to 60, the alert will fire if no more than the</li> </ul>

Template Name	Description	Properties	Template Parameters
			low watermark rows were processed during the past hour.
PC_OT1 Memory consumption of integration service node exceeds threshold	Notify if the memory usage on the node exceeds the set threshold.	<ul style="list-style-type: none"> <li>- Topic: node_system_property</li> <li>- Sources: Node System Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<< memory_perc_usage >> Threshold value for memory usage in percentage.
PC_OT2 Repository service database space consumption exceeds threshold	Notify when tablespace usage exceeds the set threshold.	<ul style="list-style-type: none"> <li>- Topic: node_database_property</li> <li>- Sources: Node Database Monitor</li> <li>- Analytics: get_no_mapping, get_no_session, get_no_transformation, get_no_workflow</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<<database_usage_threshold>> Threshold value for database tablespace usage in percentage.
PC_OT3 PowerCenter statistics when repository service database space consumption exceeds threshold	Notify with statistics when tablespace usage exceeds the set threshold.	<ul style="list-style-type: none"> <li>- Topic: node_database_property</li> <li>- Sources: Node Database Monitor</li> <li>- Analytics: get_no_mapping, get_no_session, get_no_transformation, get_no_workflow</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;database_usage_threshold&gt;&gt; Threshold value for database tablespace usage in percentage.</li> <li>- &lt;&lt;no_mapping_threshold&gt;&gt; Threshold for total number of mappings.</li> <li>- &lt;&lt;no_session_threshold&gt;&gt; Threshold for total number of sessions.</li> <li>- &lt;&lt;no_transformations_threshold&gt;&gt; Threshold for total number of transformations.</li> <li>- &lt;&lt;no_workflows_threshold&gt;&gt; Threshold for total number of workflows.</li> </ul>
PC_OWT10 Number of concurrent workflows exceeds the specified threshold.	Notify if the number of concurrent workflows exceeds the specified threshold.	<ul style="list-style-type: none"> <li>- Topic: pc_concurrent_workflows</li> <li>- Sources: PowerCenter Concurrent Workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<<count>> Threshold for concurrent number of workflow instances.
PC_OWT1 Workflow missed schedule by N minutes	Notify if the workflow misses its schedule by the specified duration.	<ul style="list-style-type: none"> <li>- Topic: pc_missed_workflows</li> <li>- Sources: PowerCenter Scheduler Missed Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<<minutes>> Threshold delay expressed in minutes.

Template Name	Description	Properties	Template Parameters
PC_OST1 Session running time exceeds folder SLA	Notify if the session running time exceeds the folder SLA.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;folder&gt;&gt; PowerCenter folder name to be monitored for SLA.</li> <li>- &lt;&lt;sla&gt;&gt; Enter the number of minutes that is the SLA for this folder.</li> </ul>
PC_OST2 Session running time exceeds repository SLA	Notify if session running time exceeds repository SLA.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<<sla>> Enter the number of minutes that is the SLA for this folder.
PC_OST3 Session running time exceeds specified session SLA	Notify if the session running time exceeds the specified session SLA.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;p_session_name&gt;&gt; PowerCenter session name.</li> <li>- &lt;&lt;p_workflow_name&gt;&gt; PowerCenter workflow that contains the session.</li> <li>- &lt;&lt;p_folder&gt;&gt; PowerCenter folder that contains the session.</li> <li>- &lt;&lt;sla&gt;&gt; Enter the number of minutes that is the SLA for this session.</li> </ul>
PC_OWT2 Workflow elapsed time exceeds the recent average	Notify if the workflow elapsed time exceeds previous average.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_workflows_trending</li> <li>- Sources: PC_OW11 Completed workflow cache for persistence framework</li> <li>- Analytics: prev_no_of_completed_workflows, PrevNWorkflowTimes, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;Minimum Elapsed Minutes&gt;&gt; Minimum elapsed minutes for the workflow.</li> <li>- &lt;&lt;num_runs&gt;&gt; Number of runs to compute average.</li> <li>- &lt;&lt;percent&gt;&gt; Percentage increase over average.</li> </ul>
PC_OWT3 Running workflow missed schedule	Notify if the running workflow misses its next scheduled run by the specified SLA.	<ul style="list-style-type: none"> <li>- Topic: pc_missed_workflows</li> <li>- Sources: PowerCenter Scheduler Missed Workflows</li> <li>- Analytics: pc_is_workflow_running, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: pcadmin</li> </ul>	<<minutes>> Threshold delay expressed in minutes.
PC_OST7 Ratio of session elapsed time to the workflow elapsed time is disproportionate	Notify if session to workflow elapsed time ratio is less than the specified threshold.	<ul style="list-style-type: none"> <li>- Topic: pc_session_to_workflow_ratio</li> <li>- Sources: PowerCenter Session to Workflow Ratio</li> <li>- Analytics: pc_session_count_for_workflow, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: datarchitect</li> </ul>	<<ratio>> Threshold for session to workflow elapsed time.

Template Name	Description	Properties	Template Parameters
PC_OST4 Session loaded fewer rows than the recent average	Notify if the number of rows loaded for a session are less than the recent average.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions_trending</li> <li>- Sources: PowerCenter Session to Workflow Ratio</li> <li>- Analytics: pc_prev_no_of_completed_sessions, pc_getPrevNSessionRows, pc_get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: datarchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;num_runs&gt;&gt; Number of Runs to compute average.</li> <li>- &lt;&lt;percent&gt;&gt; Percent decrease over average.</li> </ul>
PC_OT7 CPU utilization for a process on the integration service node exceeds threshold	Notify if CPU utilization for a process running on the integration service exceeds the threshold value.	<ul style="list-style-type: none"> <li>- Topic: node_process_property</li> <li>- Sources: Node Process Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<< cpu_usage_threshold >> Threshold value for CPU usage in percentage.
PC_OT8 Memory consumption for a process on the integration service node exceeds threshold	Notify if memory usage for a process running on the integration service exceeds the threshold value.	<ul style="list-style-type: none"> <li>- Topic: node_process_property</li> <li>- Sources: Node Process Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<< memory_usage_threshold >> Threshold value for memory usage in percentage.
PC_OST9 Session failed after it was last saved	Notify if session has failed after it was saved.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions, pc_sessions</li> <li>- Sources: PowerCenter Completed Sessions, PowerCenter Sessions Modified Incremental</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<<duration>> Enter the duration in minutes to watch for correlation between session saved and workflow failed.
PC_OWT9 Number of errors in the same workflow matches the threshold	Notify if number of errors in a workflow for a specified duration matches the threshold.	<ul style="list-style-type: none"> <li>- Topic: pc_failed_workflows</li> <li>- Sources: PC_OW6 Send notification for failed workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt;count&gt;&gt; Number of errors that will trigger the alert.</li> <li>- &lt;&lt;duration&gt;&gt; Specify the duration threshold you want to check for.</li> </ul>
PC_OT4 PowerCenter statistics when integration service node CPU consumption exceeds threshold	Notify with statistics if CPU consumption of the integration service node exceeds the specified threshold.	<ul style="list-style-type: none"> <li>- Topic: node_system_property</li> <li>- Sources: Node System Monitor</li> <li>- Analytics: get_no_running_workflow, get_no_running_task</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt; cpu_perc_usage &gt;&gt; Threshold value for CPU usage in percentage.</li> <li>- &lt;&lt; no_of_running_workflow &gt;&gt; Threshold value for number of running workflows.</li> <li>- &lt;&lt; no_of_running_tasks &gt;&gt; Threshold value for number of running tasks.</li> </ul>

Template Name	Description	Properties	Template Parameters
PC_OT5 PowerCenter statistics when memory consumption of the integration service node exceeds threshold	Notify with statistics if memory consumption of the integration service exceeds the specified threshold.	<ul style="list-style-type: none"> <li>- Topic: node_system_property</li> <li>- Sources: Node System Monitor</li> <li>- Analytics: get_no_running_workflow, get_no_running_task</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<ul style="list-style-type: none"> <li>- &lt;&lt; memory_perc_usage &gt;&gt; Threshold value for memory usage in percentage.</li> <li>- &lt;&lt; no_of_running_workflow &gt;&gt; Threshold value for number of running workflows.</li> <li>- &lt;&lt; no_of_running_tasks &gt;&gt; Threshold value for number of running tasks.</li> </ul>
PC_OT6 CPU consumption of the integration service node exceeds threshold	Notify if the total CPU consumption on the integration service node exceeds the specified threshold.	<ul style="list-style-type: none"> <li>- Topic: node_system_property</li> <li>- Sources: Node System Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>	<< cpu_perc_usage >> Threshold value for CPU usage in percentage.

## Template Rules

Template rules are created from templates by specifying values for the parameters. You can customize these template rules based on the requirement.

The following table lists the predefined template rules that are available by default upon installing Proactive Monitoring for PowerCenter Operations:

Rule Name	Description	Properties
PC_O14 CPU consumption of the integration service node exceeds 90 percent	Notify if the total CPU consumption of the integration service node exceeds 90 percent.	<ul style="list-style-type: none"> <li>- Topic: node_system_property</li> <li>- Sources: Node System Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O15 Memory consumption of the integration service node exceeds 90 percent	Notify if the memory consumption of the integration service node exceeds 90 percent.	<ul style="list-style-type: none"> <li>- Topic: node_system_property</li> <li>- Sources: Node System Monitor</li> <li>- Analytics: get_no_running_workflow, get_no_running_task</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O2 CPU utilization for a process on the integration service node exceeds 50 percent	Notify if the CPU utilization of the integration service node exceeds 50 percent.	<ul style="list-style-type: none"> <li>- Topic: node_process_property</li> <li>- Sources: Node Process Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>

Rule Name	Description	Properties
PC_O3 Memory consumption for a process on the integration service node exceeds 50 percent	Notify if the memory consumption of the integration service node exceeds 50 percent.	<ul style="list-style-type: none"> <li>- Topic: node_process_property</li> <li>- Sources: Node Process Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O5 Repository service database space consumption exceeds 90 percent	Notify if the repository service database space consumption exceeds 90 percent.	<ul style="list-style-type: none"> <li>- Topic: node_database_property</li> <li>- Sources: PowerCenter Repository Database Tablespaces</li> <li>- Analytics: get_no_mapping, get_no_session, get_no_transformation, get_no_workflow</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_OS1 Session running time exceeds average of previous 3 runs by 25 percent	Notify if the session running time exceeds the average of the previous three runs by 25 percent.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_previous_no_of_completed_sessions, pc_getPrevNSessionTimes</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OS11 Session is not responding for the specified SLA of 15 minutes	Notify if a running session does not load any rows for 15 minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_session_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response, PowerCenter Web Service Hub Workflow Control Response</li> <li>- Persona: padmin</li> </ul>
PC_OS19 Running Sessions count in any repository is beyond 100	Notify if total number of running sessions under a repository exceeds 100.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions_count</li> <li>- Sources: PowerCenter Running Sessions Count</li> <li>- Analytics: get_running_sessions_count_csv</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_OS2 Session running time exceeds folder SLA of 6 minutes	Notify if the session running time exceeds the folder SLA of 6 minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OS3 Session running time exceeds repository SLA of 10 minutes	Notify if the session running time exceeds the SLA of 10 minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>

Rule Name	Description	Properties
PC_OS5 Session loaded 25 percent less rows than the recent average	Notify if the number of rows loaded by a session is 25 percent less than the recent average.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sess_trending</li> <li>- Sources: PC_OS13 Completed session cache for persistence framework</li> <li>- Analytics: get_previous_no_of_completed_sessions, pc_getPrevNSessionRows, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> </ul>
PC_OS6 Ratio of session elapsed time to the workflow elapsed time is less than 0.6	Notify if the completed session contains failed source or target rows.	<ul style="list-style-type: none"> <li>- Topic: pc_session_to_workflow_ratio</li> <li>- Sources: Session to Workflow Ratio</li> <li>- Analytics: pc_get_session_count_for_workflow</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> </ul>
PC_OS7 Session elapsed time exceeds the recent average by 25 percent	Notify if the session elapsed time exceeds the recent average by 25 percent for the monitored folders.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions_trending</li> <li>- Sources: PC_OS13 Completed session cache for persistence framework</li> <li>- Analytics: get_previous_no_of_completed_sessions, pc_getPrevNSessionRows, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OS8 Session running time for s_m_load_sports_events exceeds repository SLA of 4 minutes	Notify if the session running time for s_m_load_sports_events exceeds the SLA of 4 minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OS9 Session failed within 30 minutes since it was last saved	Notify if a session failed within 30 minutes since it was last saved.	<ul style="list-style-type: none"> <li>- Topic: pc_running_sessions</li> <li>- Sources: PowerCenter Running Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OW1 Running workflow missed schedule by 3 minutes	Notify if a running workflow missed its schedule by three minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_missed_workflows</li> <li>- Sources: PowerCenter Scheduler Missed Workflows</li> <li>- Analytics: is_workflow_running, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>

Rule Name	Description	Properties
PC_OW10 Workflow Load Mobile records running more than 2 minutes	Notify if the Workflow Load Mobile records is running more than two minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OW13 Three errors in the same workflow within 60 minutes	Notify if three errors occur in the same workflow within 60 minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_failed_workflows</li> <li>- Sources: PC_OW6 Send notification for failed workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OW2 Workflow running time exceeds folder SLA of 5 minutes	Notify if a workflow running time exceeds folder SLA of five minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OW3 Workflow running time exceeds repository SLA of 10 minutes	Notify if a workflow running time exceeds repository SLA by 10 minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OW4 Workflow running time exceeds recent average by 25 percent	Notify if the workflow running time exceeds the recent average.	<ul style="list-style-type: none"> <li>- Topic: pc_running_workflows</li> <li>- Sources: PowerCenter Running Workflows</li> <li>- Analytics: pc_getPrevNWorkflowTimes, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>
PC_OW5 Scheduled workflow missed the start time by 3 minutes	Notify if the workflow missed its schedule by three minutes.	<ul style="list-style-type: none"> <li>- Topic: pc_missed_workflows</li> <li>- Sources: PowerCenter Scheduler Missed Workflows</li> <li>- Analytics: get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: pcadmin</li> </ul>



Rule Name	Description	Properties
PC_OW8 Number of concurrent workflows exceeds the threshold of two	Notify if the number of concurrent workflows exceeds the threshold of two.	<ul style="list-style-type: none"> <li>- Topic: pc_concurrent_workflows</li> <li>- Sources: PowerCenter Concurrent Workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_OW9 Workflow elapsed time exceeds the recent average by 25 percent	Notify if the workflow elapsed time exceeds the recent average by 25 percent.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_workflows_trending</li> <li>- Sources: PC_OW11 Completed workflow cache for persistence framework</li> <li>- Analytics: prev_no_of_completed_workflows, pc_getPrevNWorkflowTimes, get_service_resource_stats</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: apparchitect</li> </ul>

## Advanced Rules

Advanced rules do not have parameters. You can extend these rules once you are comfortable with the functioning of these rules.

The following table lists the predefined advanced rules that are available by default upon installing Proactive Monitoring for PowerCenter Operations:

Rule Name	Description	Properties
PC_O1 Aggregated Ops Analytic Rule	Triggers the PowerCenter Metadata Counts Response to insert the details into the Proactive Monitoring database.	<ul style="list-style-type: none"> <li>- Topic: pc_aggregated_ops_analytics</li> <li>- Sources: PowerCenter Metadata Counts</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Metadata Counts Response</li> <li>- Persona: -</li> </ul>
PC_O10 Integration service health check	Notify if the integration service is down.	<ul style="list-style-type: none"> <li>- Topic: pc_ping</li> <li>- Sources: PowerCenter Web Service Hub Ping Service</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O11 Repository service health check	Notify if the repository service is down.	<ul style="list-style-type: none"> <li>- Topic: pc_ping</li> <li>- Sources: PowerCenter Web Service Hub Ping Service</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>

Rule Name	Description	Properties
PC_O12 Domain service health check	Notify if the domain service is down.	<ul style="list-style-type: none"> <li>- Topic: pc_ping</li> <li>- Sources: PowerCenter Web Service Hub Ping Service</li> <li>- Analytics:</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O13 Send run time server statistics	Publish the run time server statistics.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Runtime Stats Transformer Response</li> <li>- Persona: -</li> </ul>
PC_O16 Node Agent health check	Notify if the node agent is down.	<ul style="list-style-type: none"> <li>- Topic: node_agent_lifecycle_monitor</li> <li>- Sources: Node Agent Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O17 Process Lifecycle Monitor Alert	Notifies if any of the process monitored by the node agent has stopped.	<ul style="list-style-type: none"> <li>- Topic: node_process_lifecycle_monitor</li> <li>- Sources: Node Process Lifecycle Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response, Process Monitor table update response</li> <li>- Persona: padmin</li> </ul>
PC_O19 All Integration services health check	Notify if all the integration services under the domain are down.	<ul style="list-style-type: none"> <li>- Topic: pc_ping</li> <li>- Sources: PowerCenter Web Service Hub Ping Service</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O4 Repository service database health check	Notify if the repository service database is down.	<ul style="list-style-type: none"> <li>- Topic: node_database_property</li> <li>- Sources: Node Database Monitor</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_O20 All Repository services health check	Notify if all the repository services under the domain are down.	<ul style="list-style-type: none"> <li>- Topic: pc_ping</li> <li>- Sources: PowerCenter Web Service Hub Ping Service</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>

Rule Name	Description	Properties
PC_O7 Send run time transformation statistics	Publish the run time transformation statistics.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Runtime Stats Transformer Response</li> <li>- Persona: -</li> </ul>
PC_O8 Send run time workflow statistics	Publish the run time workflow statistics.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Runtime Stats Transformer Response</li> <li>- Persona: -</li> </ul>
PC_O9 Send run time session statistics	Publish the run time session statistics.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Runtime Stats Transformer Response</li> <li>- Persona: -</li> </ul>
PC_OS10 Session contains failed rows	Notify if the completed session contains failed source or target rows.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> </ul>
PC_OS12 Check if session runs were successful but zero rows were loaded	Notify if the session run status is successful but zero rows are loaded.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> </ul>
PC_OS13 Completed session cache for persistence framework	Caches the completed session records to the RulePoint repository.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: -</li> </ul>
PC_OS14 Daily report of completed sessions	Send the completed sessions report for the day.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions_table_purge</li> <li>- Sources: PowerCenter completed sessions shadow table purge</li> <li>- Analytics: <ul style="list-style-type: none"> <li>get_no_rows_lp_pc_completed_sessions,</li> <li>get_lp_pc_completed_sessions_csv,</li> <li>pc_get_rtam</li> </ul> </li> <li>- Response: PowerCenter RTAM Alert</li> <li>- Persona: pmonitor</li> </ul>

Rule Name	Description	Properties
PC_OS15 Check whether the Session Source Rejected Records is greater than Zero	Notify if a session has source rejected records greater than zero.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> <li>- Status: Disabled</li> </ul>
PC_OS16 Check whether the Session Target Rejected Records is greater than Zero	Notify if a session has target rejected records greater than zero.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> <li>- Status: Disabled</li> </ul>
PC_OS17 Check whether the Session Source Successful Records is equal to Zero	Notify if a session source successful records is equal to zero.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> <li>- Status: Disabled</li> </ul>
PC_OS18 Check whether the Session Target Successful Records is equal to Zero	Notify if a session target successful records are less than or equal to zero.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: dataarchitect</li> <li>- Status: Disabled</li> </ul>
PC_OS4 Send notification for failed sessions	Notify if the session fails.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_sessions</li> <li>- Sources: PowerCenter Completed Sessions</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_OW11 Completed workflow cache for persistence framework	Caches the completed workflow records to the RulePoint repository.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_workflows</li> <li>- Sources: PowerCenter Completed Workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter completed workflows recorder</li> <li>- Persona: -</li> </ul>
PC_OW12 Daily report of completed workflows	Send the completed workflows report for the day.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_workflows_table_purge</li> <li>- Sources: PowerCenter completed workflows shadow table purge</li> <li>- Analytics: pc_no_rows_lp_pc_completed_workflows, get_lp_pc_completed_workflows_csv, pc_get_rtam</li> <li>- Response: PowerCenter RTAM Alert</li> <li>- Persona: pcmonitor</li> </ul>

Rule Name	Description	Properties
PC_OW14 Send notification for terminated workflows	Notify if a workflow has terminated.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_workflows</li> <li>- Sources: PowerCenter Completed Workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_OW6 Publish events for failed workflows	Publish events of failed workflows to the pc_failed_workflows topic.	<ul style="list-style-type: none"> <li>- Topic: pc_completed_workflows</li> <li>- Sources: PowerCenter Completed Workflows</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Runtime Stats Transformer Response</li> <li>- Persona: -</li> </ul>
PC_OW7 Send runtime report for monitored workflow	Send runtime report for monitored workflow.	<ul style="list-style-type: none"> <li>- Topic: pc_runtime_session_stats</li> <li>- Sources: PowerCenter Web Service Hub Runtime Statistics Receiver</li> <li>- Analytics: -</li> <li>- Response: PowerCenter Notification Response</li> <li>- Persona: padmin</li> </ul>
PC_S1 RTAM Notification	Generate RTAM notification	Internal
PC_S2 Email Notification	Generate email notification.	Internal
PC_S3 Daily alert history report	Send a daily report of the alert history.	<ul style="list-style-type: none"> <li>- Topic: pc_alert_history_purge_request</li> <li>- Sources: PowerCenter Daily Alert History Purge Requestor</li> <li>- Analytics: pc_get_alert_history_csv, pc_get_purge_cutoff_date</li> <li>- Response: PowerCenter RTAM Alert</li> <li>- Persona: pmonitor</li> </ul>
PC_S4 Zero records purged from alert history	Send a daily report when zero records are purged.	<ul style="list-style-type: none"> <li>- Topic: pc_alert_history_purge_request</li> <li>- Sources: PowerCenter Daily Alert History Purge Requestor</li> <li>- Analytics: pc_get_alert_history_purge_count, pc_get_purge_cutoff_date</li> <li>- Response: PowerCenter RTAM Alert</li> <li>- Persona: pmonitor</li> </ul>
PC_S5 Purge alert history	Notify when alert history is purged.	<ul style="list-style-type: none"> <li>- Topic: pc_alert_history_purge_request</li> <li>- Sources: PowerCenter Daily Alert History Purge Requestor</li> <li>- Analytics: pc_get_alert_history_purge_count, pc_get_purge_cutoff_date</li> <li>- Response: PowerCenter RTAM Alert</li> <li>- Persona: pmonitor</li> </ul>
PC_S6 Load Global Settings from Database	Generate RTAM alert when global settings are loaded from the database.	<ul style="list-style-type: none"> <li>- Topic: pc_pmpc_global_settings</li> <li>- Sources: PowerCenter Load PMPC Global Settings from Database</li> <li>- Analytics: pc_get_rtam</li> <li>- Response: PowerCenter RTAM Alert</li> <li>- Persona: pmonitor</li> </ul>

## CHAPTER 15

# Proactive Monitoring Responses

This chapter includes the following topic:

- ◆ Proactive Monitoring Responses, 78

## Proactive Monitoring Responses

The response is where you define how you want responses if the rule's event matches the rule condition. In addition to simple notification response, such as send an email or text message, you can configure a response to function like an action.

You can configure to send responses to a single user or groups of users through email or Real-Time Alert Manager user interface.

The following table lists the predefined responses that are available by default upon installing Proactive Monitoring for PowerCenter Operations:

Name	Response Type	Description
PowerCenter RTAM Alert	RTAM	Sends alerts to Real-Time Alert Manager.
PowerCenter Notification Response	Event Transformer	Transforms events to notification events.
PowerCenter Email Response	Email	Sends email to the specified users with content based on the response properties.
PowerCenter Alert Recorder Response	SQL	Records alerts to the RulePoint database.
PowerCenter Alert History Purge Response	SQL	Purges alert history older than the specified number of days.
PowerCenter Web Service Hub Workflow Control Response	PMPC WSH Workflow Controller	Sends start, stop, restart, or abort operation to control the PowerCenter workflow.
PowerCenter Runtime Stats Transformer Response	Event Transformer	Transforms events to run-time server, run-time workflow, run-time session, and run-time target events.
PowerCenter completed sessions recorder response	SQL	Records completed sessions data in Proactive Monitoring database.

Name	Response Type	Description
PowerCenter completed sessions and workflows response	Event Transformer	Transforms events to pc_completed_sessions_trending and pc_completed_workflows_trending.
PowerCenter completed workflows recorder response	SQL	Records completed workflows data in Proactive Monitoring database.
PowerCenter Metadata Counts Response	SQL	Records aggregated count of sessions, workflows, mappings, and transformations into the Proactive Monitoring database.
Process Monitor Table Update Response	SQL	Purges records from na_process_monitor table.

## APPENDIX A

# Frequently Asked Questions

### **What are the privileges required for enabling PowerCenter environment monitoring?**

Proactive Monitoring for PowerCenter Operations 2.5 can monitor a complex PowerCenter domain with multiple nodes and application services associated with a single domain. The application services are PowerCenter Repository Service, PowerCenter Integration Service, and Web Services Hub. The nodes can be configured for grid and high availability setup within a single domain.

You can collect the environmental data, such as CPU and memory usage, and database statistics through node agents that you install on each PowerCenter monitoring node. The node agents collect the CPU and memory statistics from each node, and report them to the Proactive monitoring repository.

You must run the node agent as a root user or administrator on the node that you want to monitor. Set the JAVA\_HOME in each node before you start the node agent.

### **What is the required database size to create the database user, pc\_rp, to host alerts in the RulePoint database? Do I have to create the pc\_rp user in the same database as the PowerCenter repository user?**

The minimum database size to create the pc\_rp database user is 500 MB. Alerts created in the RulePoint or Real-Time Alert Manager database can grow up to a few gigabytes over a period of 60 days based on the number of activations.

No, you do not have to create pc\_rp user in the same database as the PowerCenter repository user. Install RulePoint and Real-Time Alert Manager on a separate database from the PowerCenter repository. The databases can be on a different instance or on a different machine. Both the RulePoint and PowerCenter database type must be same. If PowerCenter repository is on an Oracle database, the RulePoint or Real-Time Alert Manager databases must be on an Oracle database.

### **Can a single instance of the Proactive Monitoring solution monitor multiple PowerCenter repositories?**

Yes, you can monitor multiple PowerCenter repositories through a single instance of Proactive Monitoring.

### **Can the Proactive Monitoring solution monitor multiple nodes in a grid?**

Yes, you can monitor multiple nodes in a grid.

### **Can the Proactive Monitoring solution monitor multiple PowerCenter domains?**

No, you cannot monitor multiple domain. You can monitor a single domain with an instance of the Proactive Monitoring solution.

### **How does RulePoint communicate with PowerCenter or database servers to collect information?**

RulePoint communicates with PowerCenter or database servers through the pc\_rp user. RulePoint connects to the PowerCenter repository through a JDBC connection. RulePoint connects to PowerCenter Integration Service through Web Services Hub WSDL.



**How do I configure the Proactive Monitoring sources to connect to the PowerCenter artifacts.**

In Proactive Monitoring for PowerCenter Operations 2.5, you can use the Proactive Monitoring Management Console to configure the solution to monitor a PowerCenter domain. You can use the Management Console to provide details of the nodes and services that you want to monitor.

The administrator can use the Management Console to configure one or more PowerCenter services for monitoring. The command line utilities, Global Configuration Tool and Alert Recipient Tool from Proactive Monitoring 2.1 are replaced by user interface configuration screens within the Management Console.

Configuration through the Management Console is a pre-requisite to monitor a PowerCenter domain. To monitor a PowerCenter domain, the administrator provides configuration details of each host and node to the Management Console. The administrator also provides configuration details of each PowerCenter Repository Service, PowerCenter Integration Service, and Web Service Hosts for monitoring.

**Can I upgrade from Proactive Monitoring for PowerCenter Operations 2.0 to 2.5?**

No, you cannot upgrade directly from Proactive Monitoring for PowerCenter Operations 2.0 to 2.5. To upgrade to Proactive Monitoring for PowerCenter Operations 2.5, you must upgrade to Proactive Monitoring for PowerCenter Operations 2.1, and then upgrade to 2.5. The Proactive Monitoring for PowerCenter Operations 2.5 installer does not upgrade the Proactive Monitoring for PowerCenter Operations 2.0 solution.

**Will I get an alert if the node agent is down?**

If the node agent on a monitored node fails to respond with the statistics details from the node, the Proactive Monitoring solution triggers the *PC\_O16 Node Agent health check* rule. This rule alerts the *pcadmin* persona that the node agent running on the particular node is not available.

## APPENDIX B

# Glossary

### A

#### **Analytic**

A service that implements a data processing function. An example of an Analytic is a match function that analyzes a set of input elements and returns a true or false if all elements match specific criteria. RulePoint offers a pre-defined set of Analytics. You can add additional Analytics to the system using the RulePoint SDK.

### E

#### **event**

A piece of data that is pulled or pushed into RulePoint from a variety of sources. Events can be anything that you have deemed of interest, such as 911 dispatches, breaking news headlines, banking transactions, or persons of interest entering a predefined location.

#### **event specific timestamp**

This timestamp is used for events that have timestamp values as part of their source data. It does not pertain to event timestamp values that you create in the RulePoint database.

#### **event set**

A grouping of multiple events into a single entity so that RulePoint can process the events at the same time.

### I

#### **Informatica domain**

A collection of nodes and services that define the Informatica platform. You group nodes and services in a domain based on administration ownership.

#### **Integration Service**

An application service that runs data integration workflows and loads metadata into the Metadata Manager warehouse.

#### **Integration Service process**

A process that accepts requests from the PowerCenter Client and from *pmcmd*. The Integration Service process manages workflow scheduling, locks and reads workflows, and starts DTM processes.

## N

### **node**

A logical representation of a machine or a blade. Each node runs a Service Manager that performs domain operations on that node.

### **node agent**

The node agent is a Proactive Monitoring utility that you copy and run on each monitored PowerCenter node. The node agent connects to the Proactive Monitoring repository database through a JDBC connection. The node agent then collects statistics from the host and stores the details in the Proactive Monitoring repository database.

## P

### **PowerCenter resource**

Any resource that may be required to run a task. PowerCenter has predefined resources and user-defined resources.

### **PowerCenter services**

The services available in the PowerCenter domain. These consist of the Service Manager and the application services.

### **primary node**

A node that is configured as the default node to run a service process. By default, the Service Manager starts the service process on the primary node and uses a backup node if the primary node fails.

## R

### **repository domain**

A group of linked repositories consisting of one global repository and one or more local repositories.

### **Repository Service**

An application service that manages the PowerCenter repository. It retrieves, inserts, and updates metadata in the repository database tables.

### **Responder service**

A service that invokes a response to an underlying service. An example of a Responder service is an email service that notifies specific users of events. RulePoint contains a number of pre-defined Responder Services.

### **response**

A configurable action that is invoked by specific conditions set by a rule.

### **rule**

Rules are used to analyze events based on specific conditions, and then invoke responses when conditions match. For example, when a service produces an event that matches a specific condition a specific response is invoked.

### **rule wizard**

An easy-to-use application within RulePoint that guides users through each step of rule creation, such as define topics, define conditions, and select responses. The rule wizard then generates the rule.

## **S**

### **session**

A task in a workflow that tells the Integration Service how to move data from sources to targets. A session corresponds to one mapping.

### **Service**

A service is a configurable program that connects to the outside world and pulls or pushes information into RulePoint or sends out information.

### **Source service**

A service that has a configurable topic and can be scheduled to run at specific times. An example of a source service is a news reader that extracts events from a RSS or Atom news feed. RulePoint contains a number of pre-defined Source Services.

## **T**

### **transformation**

A repository object in a mapping that generates, modifies, or passes data. Each transformation performs a different function.

### **Template**

A DRQL rule that uses substitution variables to enable users to create rules from a user interface form.

### **Topic**

A category of events. topics are used to group incoming events into logical categories that are familiar to and defined by users. For example, World News, Transactions, or Stock.

## **W**

### **Watchlist**

Container that stores values as a single object with a unique name that you define. This name then can be referenced in a rule so that the rule can use the data stored in the object. You can modify the values within the watchlist at any time, and any rule referencing that watchlist will use those new values. For example, if you want to create several rules regarding your stock portfolio, you can create a watchlist containing symbols for all of the stocks that you currently own. When you create your rules, you would reference the watchlist instead of specifying each individual stock symbol in multiple rules. In the future, if your portfolio changes, you would simply modify the watchlist instead of individual rules.

### **Web Services Hub**

An application service in the PowerCenter domain that uses the SOAP standard to receive requests and send responses to web service clients. It acts as a web service gateway to provide client applications access to PowerCenter functionality using web service standards and protocols.

**Web Services Provider**

The provider entity of the PowerCenter web service framework that makes PowerCenter workflows and data integration functionality accessible to external clients through web services.

**workflow**

A set of instructions that tells the Integration Service how to run tasks such as sessions, email notifications, and shell commands.

**workflow instance**

The representation of a workflow. You can choose to run one or more workflow instances associated with a concurrent workflow. When you run a concurrent workflow, you can run one instance multiple times concurrently, or you can run multiple instances concurrently.

# INDEX

## A

- Alert Recipients
  - parameters 47
- analytics
  - predefined analytics 60

## C

- cleanup tool 37
- configuration
  - Proactive Monitoring 40, 46
  - settings 46
  - setup 40
- configure
  - grid 42
  - grid properties 42
  - host 41
  - host properties 41
  - node 42
  - node properties 42
  - PowerCenter Integration Service 44
- create user
  - ldap user 24
  - RulePoint database user 24

## E

- email
  - host configuration 28
- environment monitoring
  - node agent 51
- environment variables
  - DISPLAY 15

## G

- Global Settings
  - alert hyperlink 46
  - alert purge frequency 46
  - configure 46
  - do not disturb 46
  - workflows and sessions persisted 46
- graphical mode
  - installation requirements 15

## I

- Install
  - validation 30
- installation requirements
  - X Window Server 15

## L

- ldap authentication 24

## M

- management console
  - configure source timestamp 49
  - log in 40
- Management Console
  - settings 39
  - setup 39

## N

- node agent
  - configure 51
  - environment monitoring 51
  - rule 51
  - start 51
  - statistics 52

## P

- Proactive Monitoring
  - apparchitect 1
  - configuration 38
  - dataarchitect 1
  - execution deviation 1
  - execution failure 1
  - introduction 1
  - itsecurity 1
  - pc\_rp 14
  - pcadmin 1
  - pcmonitor 1
  - resource usage 1
  - schedule miss 1
  - service failure 1
  - SLA violation 1
  - user 14
- Proactive Monitoring Management Console
  - overview 39

## R

- Real-Time Alert Manager
  - responder service configuration 28
- responder
  - predefined responder 62
- response
  - predefined response 78

- rule
  - advanced rule
  - description 10

- RulePoint

- responders 4
  - rules 4
  - sources 4

- RulePoint database authentication 24

- rules

- advanced rules 73
  - predefined advanced rules 73

## S

- source services

- start Interval based SQL service 29
  - start PMPC SQL Source 29
  - start service 29

- Source Services

- check frequency 27

## T

- template rules

- predefined template rules 69

- templates

- predefined templates 64

- topics

- predefined topics 54

- tstamp

- configuration 48

## U

- upgrade

- cleanup old artifacts 35
  - post-installation tasks 35

- Upgrade 12

## W

- Watchlist

- configuration 28

- watchlists

- predefined watchlists 53

## X

- X Window Server

- installation requirements 15