

Policy Manager for IBM WebSphere DataPower 7.1: Installation Guide

SOA | software™



Policy Manager for IBM WebSphere DataPower

Install Guide
SOAPMDP_Install_7.1.0

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Chapter 1 | Introduction

This guide provides instructions for installing *Policy Manager for IBM WebSphere DataPower* (PMDP) on supported Windows and Linux platforms.

Documentation Summary

This guide includes the following:

- Chapter 1: Introduction
- Chapter 2: Installing Policy Manager for IBM WebSphere DataPower
- Appendix A: System Requirements
- Appendix B: Prerequisites
- Appendix C: Documentation Reference
- Appendix D: Customer Support

Upgrade Path

Select your current Policy Manager version to determine the upgrade path (if applicable) you need to follow to install *Policy Manager for IBM WebSphere DataPower 7.1*.

Installation Scenario

PMDP 6.x has been installed

- PMDP installed on single Policy Manager Installation
 - Perform Policy Manager and PMDP Upgrade outlined in *Policy Manager and Policy Manager for IBM WebSphere DataPower Upgrade (PM6x to PM71 and PMDP6x to PMDP70) Technical Note*.
- PMDP and Policy Manager Console on separate installations

PM Console Installation

- Perform the 6.1 to 7.1 Upgrade outlined in the *Policy Manager Upgrade (7.0 to 7.1 and 6.1 to 7.1) Technical Note*.

http://docs.soa.com/ag/assets/PM71_Upgrade_Technical_Note.pdf

PMDP Installation

- Perform Policy Manager and PMDP Upgrade outlined in *Policy Manager and Policy Manager for IBM WebSphere DataPower Upgrade (PM6x to PM71 and PMDP6x to PM2DP70) Technical Note*.

PMDP 6.x has never been installed

- Install SOA Software Platform 7.1 (through update 7.1.2). See http://docs.soa.com/sp/assets/SOA_Software_Platform_Install_Guide_v71.pdf
- Install the PMDP 7.1 update outlined in *Chapter 2: Install Policy Manager for IBM WebSphere DataPower* of this guide.

DataPower Overview

Policy Manager for IBM WebSphere DataPower provides centralized policy definition and service monitoring for DataPower appliances, and supports virtualization of enterprise services for high-availability, load-balancing, and offloading of XML and security processing.

Integration

SOA Software's integration with IBM WebSphere DataPower appliances provides the ability to control the DataPower Appliance directly from the Policy Manager console, without the need to duplicate the configuration manually. This facilitates one-click' management and leverages DataPower as the runtime and the SOA Software's Policy Manager as the source of service and policy information as well as the reporting console for the monitoring data. SOA Software's Policy Manager supports management of the catalog of services, drives policy definition and distribution, collects and displays monitoring data for the DataPower devices, and supports end-to-end policy enforcement and transaction monitoring. It allows users to implement and enforce consistent, uniform policies throughout their infrastructure, and provides visibility into enterprise service usage, performance, and availability from network edge to application.

Governance

Policy Manager for IBM WebSphere DataPower can provide operational governance capabilities supporting SOA Software's' Portfolio Manager and Repository Manager solutions for planning and development governance. This helps ensure the fidelity of governance models, processes and structures throughout the enterprise service lifecycle.

Features

Policy Manager for IBM WebSphere DataPower allows users to:

- Leverage DataPower as part of a unified governance automation solution.
- Centrally define policies and apply them to services distributed across multiple DataPower appliances.
- Manage a cluster of DataPower appliances as a single entity.
- Gain visibility into service and appliance performance, individual messages, and business transactions from a single administration console.
- Monitor and enforce SLAs for services distributed across a cluster of appliances generating alerts for faults, performance issues, and security violations.

- Publish virtual services into DataPower appliances leveraging the performance and security capabilities of the appliance for enterprise service federation.

Chapter 2 | Install Policy Manager for IBM WebSphere DataPower

The following instructions tell you how to install Policy Manager for IBM WebSphere DataPower on supported Windows platforms.

Installation Scenarios

The *Policy Manager for IBM WebSphere DataPower* deployment can be installed on single or multiple SOA Software Platform installations as follows:

- **Scenario #1: Single SOA Software Platform installation**
 - Policy Manager (PM) and Policy Manager for IBM for WebSphere DataPower (PMDP) installed. You will have two container instances (PM and PMDP).
- **Scenario #2: Multiple SOA Software Platform installations**

Each platform installation includes the following:

 - SOA Software Platform #1: Policy Manager (PM) and Policy Manager for IBM for WebSphere DataPower (PMDP) installed. You will have one container instance (PM).
 - SOA Software Platform #2: Policy Manager for IBM for WebSphere DataPower (PMDP) installed. You will have one container instance (PMDP).

Note: Policy Manager for IBM WebSphere DataPower 7.1 must be installed to each SOA Software Platform (sm70) location where PMDP is indicated in the installation scenario.

Install Policy Manager for IBM WebSphere DataPower 7.1

Step 1: Complete Prerequisites

Verify that you have completed the following prerequisite steps:

- Verify your system meets the requirements *Appendix A: System Requirements*.
- Verify and/or complete the prerequisite steps outlined in *Appendix B: Prerequisites*.

Step 2: Download Policy Manager for DataPower Zip File


Policy Manager for IBM WebSphere DataPower zip file (`PolicyManagerForDataPower_XXXXXX_7.X.X_XXX.zip`) includes a `repository.xml` that contains the SOA Software Policy Manager for IBM WebSphere DataPower Schema Update and SOA Software Policy Manager for IBM WebSphere DataPower features.

- 1 Download the Policy Manager for IBM WebSphere DataPower zip file (PolicyManagerForDataPower_XXXXXX_7.X.X_XXX.zip) to your local machine via the SOA Software Customer Support website (<http://support.soa.com>) from the following location:

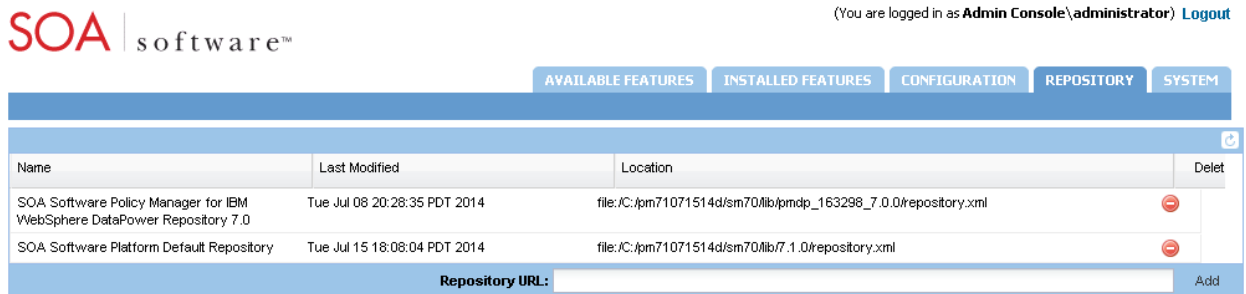
Downloads -> Agents -> PolicyManagerForDataPower



Step 3: Install Policy Manager for DataPower Zip File

Install the Policy Manager for IBM WebSphere DataPower 7.1 zip file to each Software Platform (sm70) location based on your installation scenario (i.e. single or multiple) outlined in the *Installation Scenarios* section.

- 1 Copy the PolicyManagerForDataPower_XXXXXX_7.X.X_XXX.zip file into the SOA Software Platform release directory (\sm70).
- 2 Extract the .zip file to the sm70 directory.
- 3 Log into the SOA Software Administration Console of the Policy Manager container instance and click the *Repository* tab. Click the **Refresh** control  to add the *Policy Manager for IBM DataPower* repository. After the refresh is complete, your screen will look similar to the following:

(You are logged in as Admin Console\administrator) [Logout](#)



Name	Last Modified	Location	Delet
SOA Software Policy Manager for IBM WebSphere DataPower Repository 7.0	Tue Jul 08 20:28:35 PDT 2014	file://C:/pm71071514d/sm70/lib/pmdp_163298_7.0.0/repository.xml	
SOA Software Platform Default Repository	Tue Jul 15 18:08:04 PDT 2014	file://C:/pm71071514d/sm70/lib/7.1.0/repository.xml	

Repository URL: [Add](#)

- 4 Click the *Available Features* tab. The following DataPower features display:
 - SOA Software Policy Manager Custom Policy Support
 - SOA Software Policy Manager WebSphere MQ Support
 - SOA Software Policy Manager for IBM WebSphere DataPower
 - SOA Software Policy Manager for IBM WebSphere DataPower (Slave Node)
 - SOA Software Policy Manager for IBM WebSphere DataPower Console Policy
 - SOA Software Policy Manager for IBM WebSphere DataPower Malicious Pattern Detection Default Policy
 - SOA Software Policy Manager for IBM WebSphere DataPower OAuth Support
 - SOA Software Policy Manager for DataPower Schema Update

Refer to *Appendix C: Reference Documentation* for a list of Policy Manager for IBM WebSphere DataPower features and associated reference documentation.

- 5 Next, go to the *Policy Manager for IBM WebSphere DataPower 7.1: Configuration Guide*, select your *Upgrade Path*, and complete the configuration.

Appendix A | System Requirements

The following system requirements are necessary to successfully install Policy Manager for IBM WebSphere DataPower. The following configurations are supported.

Product	Description	Certified Versions
SOA Software Platform	<p>Collection of SOA Software framework "bundles" used by the container runtime that Policy Manager for DataPower executes in.</p> <p>Note: The <i>SOA Software Policy Manager for IBM WebSphere DataPower</i> feature must be installed on SOA Software Platform 7.x environment ONLY.</p>	SOA Software Platform 7.1.7
Policy Manager 7.x > <i>SOA Software Policy Manager Console</i> and <i>SOA Software Policy Manager Services</i>	<p>Running Policy Manager instance. Not necessarily the same version as the "SOA Software Platform."</p> <p>Note: The <i>SOA Software Policy Manager for IBM WebSphere DataPower Schema Update</i> feature must be installed on the platform where the <i>SOA Software Policy Manager Console</i> and <i>SOA Software Policy Manager Services</i> are installed.</p>	Policy Manager 7.1.7
Community Manager	API Management feature; requires Policy Manager 7.1	Community Manager 7.1.4.2
IBM WebSphere	DataPower appliance model	XS40, XI50, XI52

Product	Description	Certified Versions
DataPower Appliance	and firmware level.	6.0.0.11, 6.0.1.7, 7.0.0.4, 7.1.0.2
SOA Software CA SiteMinder Security Provider	SOA Software Option Pack needed for CA SiteMinder integration.	7.1.162356
CA SiteMinder Web Agent	CA agent that integrates with SOA Software CA SiteMinder Security Provider	V6QMR5
IBM WebSphere Transformation Extender Design Studio	IBM product to deploy transformations to DataPower	8.4.0.3
IBM WebSphere MQ	IBM product DataPower can send to and receive messages from.	7.0.1.3

Appendix B | Prerequisites

Perform the following prerequisite steps before installing Policy Manager for IBM WebSphere DataPower (Version 7.1).

Step 1: Configure DataPower Appliance

Use the WebSphere DataPower WebGUI to configure a *DataPower Appliance* so it can be managed by the *Policy Manager for IBM WebSphere DataPower* feature. The DataPower Appliance for this release has been tested with model the XI52, XI50, and XS40 appliance models.

Enable XML Management Interfaces for Policy Manager for IBM WebSphere DataPower Feature

Use the WebSphere DataPower WebGUI to enable the XML Management Interface via the *Configure XML Management Interface* screen under the "Network" bar.

This task is performed once for the entire DataPower Appliance.

- 1 Log into the WebSphere DataPower WebGUI as Admin in the default domain.
- 2 Navigate to the Network / XML Management Interface.
- 3 Configure the XML Management Interface screen, as shown below:

The screenshot shows the 'XML Management Interface' configuration page. At the top, there are tabs for 'main', 'Advanced', and 'SLM'. Below the tabs, the page title is 'XML Management Interface [up]'. There are buttons for 'Apply', 'Cancel', and 'Undo' on the left, and links for 'Export', 'View Log', 'View Status', and 'Help' on the right. The configuration options are as follows:

- Administrative State:** Radio buttons for 'enabled' (selected) and 'disabled'.
- Local IP Address:** Text input field containing '0.0.0.0' and a 'Select Alias' button with an asterisk.
- Port Number:** Text input field containing '5550' with an asterisk.
- Access Control List:** A dropdown menu showing 'xmi-mgmt' and a button with three dots.
- Comments:** A text input field.
- Enabled Services:** A list of services with checkboxes:
 - SOAP Management URI
 - SOAP Configuration Management
 - SOAP Configuration Management (v2004)
 - AMP Endpoint
 - SLM Endpoint
 - WS-Management Endpoint
 - WSDM Endpoint
 - UDDI Subscription
 - WSRR Subscription

- 4 Click **Apply** and **Save Config**.

Create DataPower Domain for Policy Manager for IBM WebSphere DataPower Feature

Use the WebSphere DataPower WebGUI to create the domain that will be managed by the *Policy Manager for IBM WebSphere DataPower* feature.

Follow these steps for each domain that will be managed by a *Policy Manager for IBM WebSphere DataPower* feature.

- 1 Log into the WebSphere DataPower WebGUI as **admin** in the default domain.
- 2 Navigate to the Administration / Configuration / Application Domain.
- 3 Click **Add**.
- 4 Enter a name for the domain, and select all the defaults, as shown below.

The screenshot shows the 'Application Domain' configuration page in the WebSphere DataPower WebGUI. The page has a 'Main' tab and a 'Configuration' sub-tab. Below the 'Application Domain' header are 'Apply' and 'Cancel' buttons. The 'Name' field contains 'myDomain'. The 'Administrative State' is set to 'enabled'. The 'Comments' field is empty. The 'Visible Domains' list contains 'default'. Under 'local: File Permissions', all checkboxes are checked: 'Allow files to be copied from', 'Allow files to be copied to', 'Allow files to be deleted', 'Allow file content to be displayed', 'Allow files to be run as scripts', and 'Allow subdirectories to be created'. Under ''local: File Monitoring', both 'Enable Auditing' and 'Enable Logging' checkboxes are unchecked.

- 5 Click **Apply** and then **Save Config**.

Create DataPower User for Policy Manager for IBM WebSphere DataPower Feature

Use the WebSphere DataPower WebGUI to create a new account that the *Policy Manager for IBM WebSphere DataPower* feature will use to log into this domain to manage.

- Grant an access level of **Privileged** to the user or place the user in a group that has Read, Write, Add, Delete, and Execute permissions in the specified domain.
- This procedure assumes you are creating a user **templateUser** for a domain **template**. Adjust to your environment accordingly.

Follow these steps for each domain that will be managed by the *Policy Manager for IBM WebSphere DataPower* feature.

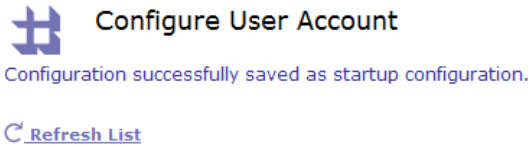
- 1 Log into the WebSphere DataPower WebGUI as **admin** in the default domain.
- 2 Navigate to Administration / Access / Manage User Groups.
- 3 Click **Add**.
- 4 Type in the Name of the group: `templateGroup`.
- 5 Remove the default Access Profile.
- 6 Build an Access Profile. Select `myDomain` for the domain, and click all 5 permissions. All other fields should remain as defaults. Apply the changes and **Save Config**. The final result of saving the group should look similar to the following:

The screenshot shows the 'CLI Command Groups' configuration page. The 'Name' field contains 'templateGroup'. The 'Administrative State' is set to 'enabled'. The 'Access Profile' section has a dropdown menu with '*/*/?*Access=r' selected, and 'Add' and 'Build' buttons are visible.

- 7 Click Manage User Accounts.
- 8 Click **Add**.
- 9 Enter the Name and Password.
- 10 For Access Level, select **Group**. For the Group select **templateGroup**. The entry should look as follows:

The screenshot shows the 'SNMP V3 User Credentials' configuration page. The 'Name' field contains 'tenplateUser'. The 'Access Level' dropdown is set to 'User'. The 'Domain Restriction' field is empty.

11 Apply the changes and **Save Config**. The entry should look as follows:



Configure User Account
Configuration successfully saved as startup configuration.

[Refresh List](#)

Name▲	Status	Op-State	Logs	Access Level	User Group	Comments
templateUser	new	up		group-defined	templateGroup	

12 Log out of the WebSphere DataPower WebGUI and log back in using this new user (into the template domain). Change the default password to a new password and use this username and password to configure the *Policy Manager for IBM WebSphere DataPower* feature that will be managing this template domain.

Step 2: Install and Configure Policy Manager 7.1

Install and configure Policy Manager 7.1. Refer to the latest installation guide for your platform version on the SOA Software Support Site for instructions.

At the end of the process the following tasks should be completed:

- SOA Software Platform 7.1 is installed using the appropriate setup file for your operating system.
- SOA Software Platform 7.1 updates are installed.
- A container instance is configured using the "Configure Container Instance Wizard"
- Policy Manager features *SOA Software Policy Manager Console Feature* and *SOA Software Policy Manager Services* are installed on the container instance.

Download the latest installation from the SOA Software Support Site. You can find installation files and documentation on the support.soa.com in the following locations:

SOA Software Platform 7.1:

- Downloads -> PolicyManager -> PM71

Step 3: Apply Updates to Policy Manager 7.1

If your deployment configuration includes Policy Manager 7.1 with *SOA Software Policy Manager Console* and *SOA Software Policy Manager Services* features installed, apply the Policy Manager 7.1 updates as outlined in the *Appendix A: System Requirements* before continuing.

Download the latest updates from the SOA Software Support Site. You can find update files and documentation on the support.soa.com in the following locations:

Policy Manager 7.1:

- Downloads -> PolicyManager -> PM71 -> Updates

Appendix C: Reference Documentation

This appendix provides a list of Policy Manager for IBM WebSphere DataPower features and associated reference documentation.

Feature Name	Description / Reference Documentation
SOA Software Policy Manager for IBM WebSphere DataPower Console Policy	Provides a series of DataPower specific polices. Documentation: http://docs.soa.com/ag/dp_policies/datapower_policies.htm
SOA Software Policy Manager Custom Policy Framework	Provides functionality for adding custom policies to Policy Manager. Documentation: http://docs.soa.com/ag/dp_policies/datapower_policies.htm
SOA Software Policy manager WebSphere MQ Support	Provides support for IBM WebSphere MQ-based services. Chapter 5: Install and Configure IBM WebSphere MQ-based Services Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i>
SOA Software Policy Manager for IBM WebSphere DataPower Schema Update SOA Software Policy Manager for IBM WebSphere DataPower Console Policy	Provides instructions for installing PMDP schema and console policy features. Chapter 2: Configure Policy Manager and Policy Manager for IBM WebSphere DataPower Containers Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i>
SOA Software Policy Manager for IBM WebSphere DataPower (Slave Node)	Provides a slave node instance of PMDP that combines with a master node to provide a PMDP cluster for purposes of load balancing and high availability. Chapter 4: Configure Policy Manager for IBM for WebSphere DataPower Slave Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i>
SOA Software Policy Manger for IBM WebSphere DataPower OAuth Support	Integrates Policy Manager for IBM WebSphere DataPower with Community Manager to enable the ability to create APIs for services, and authenticate using an OAuth Provider for services, and authenticate using an OAuth Provider. Chapter 6: Install Policy Manager for IBM WebSphere DataPower OAuth Support Feature Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i>
SOA Software PingFederate Integration Add-On Feature	Provides support for the PingFederate federation server using a PingFederate connector domain. Chapter 7: Install SOA Software PingFederate Integration Add-

Feature Name	Description / Reference Documentation
	<p>On Feature</p> <p>Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i></p>
<p>SOA Software Policy Manager for IBM WebSphere DataPower Malicious Pattern Detection Default Policy</p>	<p>Provides installation instructions for the WS-Malicious Pattern Detection sample policy.</p> <p>Chapter 8: Install Policy Manager for IBM WebSphere DataPower Malicious Pattern Detection Default Policy</p> <p>Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i></p>
<p>SOA Software CA SiteMinder Security Provider</p> <p>SOA Software CA SiteMinder Security Provider UI</p>	<p>Provides installation instructions installing the CA-SiteMinder 7.1 Option pack and associated features.</p> <p>Chapter 9: Install SOA Software CA-SiteMinder 7.1</p> <p>Guide: <i>Policy Manager for IBM WebSphere DataPower 7.1 Configuration Guide</i></p>

Appendix D | Customer Support

SOA Software offers a variety of support services by email and phone. Support options and details are listed below.

Support Option	Details
Email	<ul style="list-style-type: none"> • support@soa.com • The Support section of the SOA Software website at https://support.soa.com/support provides an option for emailing product-related inquiries to our Support team.
Phone	1-866-SOA-9876 (1-866-762-9876)
Support Site	The Support section of the SOA Software website at https://support.soa.com/support includes many product-related articles and tips that might help answer your questions.
Documentation Updates	We update our product documentation for each version. If you're not sure you have the latest documentation, send an email request to support@soa.com . Specify the product and version you're using.

For more information, visit <https://support.soa.com/support/>.