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Policy Manager for IBM WebSphere DataPower 8.0: Installation Guide

Policy Manager for IBM WebSphere DataPower

Install Guide

AKANA_PMDP_Install_8.0

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Akana, Inc.

Akana, Inc.

12100 Wilshire Blvd, Suite 1800

Los Angeles, CA 90025

1-866-762-9876

www.akana.com

info@akana.com

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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

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

Akana'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 Akana's Policy Manager as the source of service and policy information as well as the reporting console for the monitoring data. Akana'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 Akana'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 Akana Platform installations as follows:

- **Scenario #1: Single Akana 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 Akana Platform installations**

Each platform installation includes the following:

 - Akana Platform #1: Policy Manager (PM) and Policy Manager for IBM for WebSphere DataPower (PMDP) installed. You will have one container instance (PM).
 - Akana 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 must be installed to each Akana Platform location where PMDP is indicated in the installation scenario.

Install Policy Manager for IBM WebSphere DataPower

Step 1: Complete Prerequisites

Verify that you have completed the following prerequisite steps:

- Verify your system meets the requirements in *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_X.X.X_XXX.zip`) includes a `repository.xml` that contains the Akana Policy Manager for IBM WebSphere DataPower Schema Update and Akana Policy Manager for IBM WebSphere DataPower features.

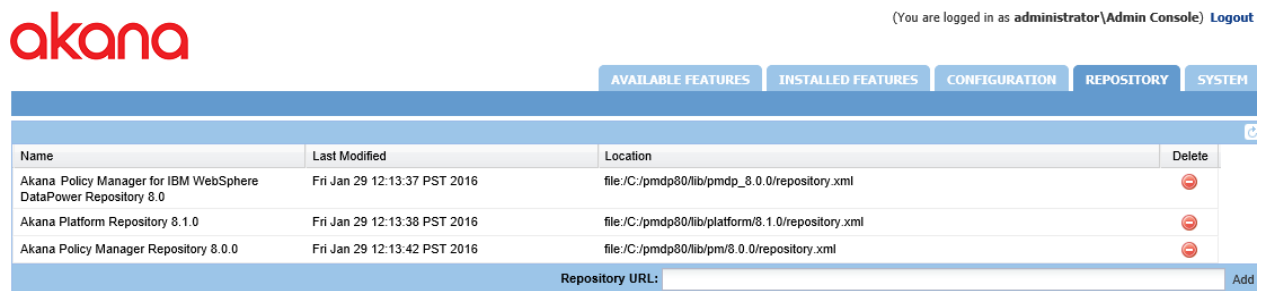
- 1 Download the Policy Manager for IBM WebSphere DataPower zip file (PolicyManagerForDataPower_XXXXXX_X.X.X_XXX.zip) to your local machine via the Akana Customer Support website (<http://support.akana.com>) from the following location:

Downloads -> Agents -> PolicyManagerForDataPower

Step 3: Install Policy Manager for DataPower Zip File

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

- 1 Copy the PolicyManagerForDataPower_XXXXXX_X.X.X_XXX.zip file into the Akana Platform release directory.
- 2 Extract the .zip file to the Policy Manager Release Directory.
- 3 Log into the Akana 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:



- 4 Click the *Available Features* tab. The following DataPower features display:
 - Akana Policy Manager Custom Policy Support
 - Akana Policy Manager WebSphere MQ Support
 - Akana Policy Manager for IBM WebSphere DataPower
 - Akana Policy Manager for IBM WebSphere DataPower (Slave Node)
 - Akana Policy Manager for IBM WebSphere DataPower Console Policy
 - Akana Policy Manager for IBM WebSphere DataPower Malicious Pattern Detection Default Policy
 - Akana Policy Manager for IBM WebSphere DataPower OAuth Support
 - Akana 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: 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
Akana Platform	Collection of Akana framework "bundles" used by the container runtime that Policy Manager for DataPower executes in.	Akana Platform 8.1
Policy Manager > <i>Akana Policy Manager Console</i> and <i>Akana Policy Manager Services</i>	Running Policy Manager instance. Not necessarily the same version as the "Akana Platform." Note: The <i>Akana Policy Manager for IBM WebSphere DataPower Schema Update</i> feature must be installed on the platform where the <i>Akana Policy Manager Console</i> and <i>Akana Policy Manager Services</i> are installed.	Policy Manager 8.0
Community Manager	API Management feature	Community Manager 7.2.4.2
IBM WebSphere DataPower Appliance	DataPower appliance model and firmware level.	XI52 7.2.0.1, 7.2.0.2
Akana CA SiteMinder Security Provider	Akana Option Pack needed for CA SiteMinder integration.	7.2.174354
CA SiteMinder Web Agent	CA agent that integrates with Akana CA SiteMinder Security Provider	V12.0 SP3 V6QMR5
IBM WebSphere Transformation Extender Design	IBM product to deploy transformations to DataPower	8.4.0.3

Product	Description	Certified Versions
Studio		
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.

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 appliance models (versions 7.2.0.1 and 7.2.0.2).

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 displays 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 'Export', 'View Log', 'View Status', and 'Help' on the right. The configuration fields 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.
- Port Number:** Text input field containing '5550'.
- Access Control List:** Dropdown menu showing 'xml-mgmt' and a '+' button.
- Comments:** Empty text input field.
- Enabled Services:** A list of 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 tabs, there are 'Apply' and 'Cancel' buttons. The 'Name' field is set to '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', 'Enable Auditing' and 'Enable Logging' 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:

- 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:

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

Install and configure Policy Manager. Refer to the latest installation guide for your platform version on the *Akana Documentation Repository* for instructions:

http://docs.akana.com/sp/platform_install/installing_policy_manager_v80.htm

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

- Akana Platform is installed using the appropriate setup file for your operating system.
- Akana Platform updates are installed. Verify that all the required updates outlined in *Appendix A: System Requirements* are applied before continuing.
- A container instance is configured using the "Configure Container Instance Wizard"
- Policy Manager features *Akana Policy Manager Console Feature* and *Akana Policy Manager Services* are installed on the container instance.

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
Akana 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
Akana 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
Akana 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 Configuration Guide</i>
Akana Policy Manager for IBM WebSphere DataPower Schema Update Akana 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 Configuration Guide</i>
Akana 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 Configuration Guide</i>
Akana 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 Configuration Guide</i>
Akana PingFederate Integration Add-On Feature	Provides support for the PingFederate federation server using a PingFederate connector domain.

Feature Name	Description / Reference Documentation
	<p>Chapter 7: Install Akana PingFederate Integration Add-On Feature</p> <p>Guide: <i>Policy Manager for IBM WebSphere DataPower Configuration Guide</i></p>
<p>Akana 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 Configuration Guide</i></p>
<p>Akana CA SiteMinder Security Provider</p> <p>Akana 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 Akana CA-SiteMinder 7.1</p> <p>Guide: <i>Policy Manager for IBM WebSphere DataPower Configuration Guide</i></p>
<p>DataPower Router Listener</p>	<p>Provides instructions for configuring DataPower Router Listener properties that enable the ability to expose SOAP or REST virtual service as a single URL for consumption.</p> <p>Chapter 10: Configure DataPower Router Listener</p> <p>Guide: <i>Policy Manager for IBM WebSphere DataPower Configuration Guide</i></p>

Appendix D | Customer Support

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

Support Option	Details
Email	support@akana.com
Phone	1-866-762-9876
Support Site	The Support section of the Akana website at https://servicedesk.akana.com 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@akana.com . Specify the product and version you're using.

For more information, visit <https://servicedesk.akana.com>.