HP Operations Orchestration

For Windows and Linux operating systems

Software Version: Content Pack 11

Microsoft System Center 2012 - Orchestrator Integration Guide

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The title page of this document contains the following identifying information:

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To find more information about access levels, go to:

http://h20230.www2.hp.com/new_access_levels.jsp

Contents

Chapter 1

Introduction

This chapter includes:

About the Microsoft System Center 2012 - Orchestrator Integration

With this integration, you can use and build HP Operations Orchestration (OO) flows that are integrated with Microsoft System Center 2012 - Orchestrator.

The Microsoft System Center 2012 - Orchestrator integration integrates with OO to run and manage runbooks (workflows) defined on the Microsoft System Center 2012 - Orchestrator management server. To use this integration successfully, you should have knowledge of the Microsoft System Center 2012 - Orchestrator technology.

This document explains how this integration has been implemented and how the operations included communicate between OO and Microsoft System Center 2012 - Orchestrator.

Supported Versions

Operations Orchestration Version	System Center 2012 - Orchestrator Version
OO Content Pack 11	System Center Orchestrator 2012

Downloading OO Releases and Documents on HP Live Network

HP Live Network provides an Operations Orchestration Community page where you can find and download supported releases of OO and associated documents.

To download OO releases and documents, visit the following site:

https://hpln.hp.com/

> **Note:** This site requires that you register for an HP Passport and sign-in.

To register for an HP Passport ID:

1. Go to: http://h20229.www2.hp.com/passport-registration.html

   Or

   Click the **New users - please register** link on the HP Passport login page.

2. On the HP Live Network page, click **Operations Orchestration**.

3. On the left-hand side, click **Operations Orchestration Content Packs**.

4. In the **Operations Orchestration Content Packs** box, click **Content**. The HP Passport and sign-in page appears.

5. Enter your user ID and Password to access to continue.

6. Click **HP Operations Orchestration 9.00**.

7. Search for the required HP Operations Orchestration Content Pack.

Chapter 2

Getting Started

This chapter includes:

Installing and Configuring the Installation

There are no special installation and configuration instructions required for this integration.

Use Cases

Following are the major use cases for the Microsoft System Center 2012 - Orchestrator integration, and the operations that you can use to implement them.

1. Get information about System Center Orchestrator runbooks:

   - Get All Runbooks

   - Get Runbook Details

2. Get information about System Center Orchestrator jobs:

   - Get Job Details

   - Get Runbook Jobs

3. Start System Center Orchestrator runbooks:

   - Start Runbook

4. Stop jobs:

   - Stop All Jobs

   - Stop Job

System Center 2012 - Orchestrator — OO Architecture

Local Data Center

OO Central Cluster

Orchestration Engine
Web UI Application
Scheduler
Repository

SOAP

RAS Host

REST

JDBC

Database Cluster

Server Running
IIS (Internet
Information
Services)
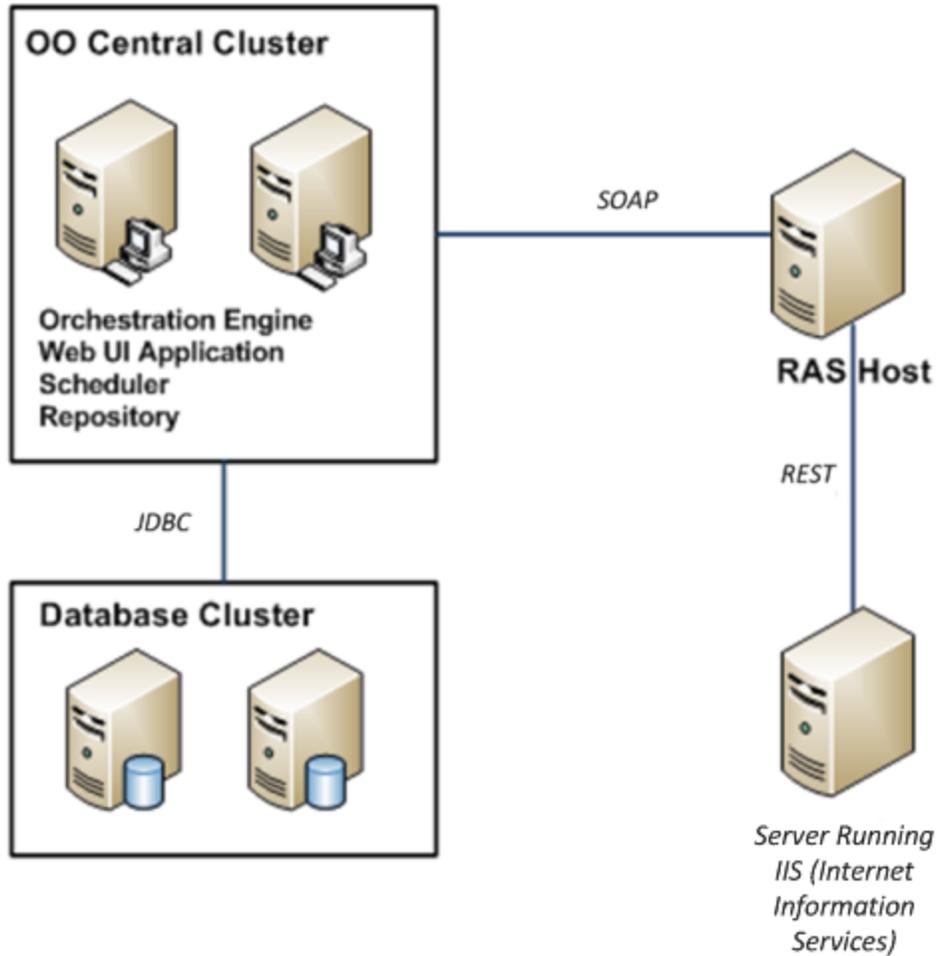
For more information about System Center Orchestrator architecture, see
http://technet.microsoft.com/en-us/library/hh420377.aspx.

Location of Microsoft System Center 2012 - Orchestrator Integration Operations and Flows in OO Studio

The System Center 2012 - Orchestrator integration includes the following operations and flows in the **OO Studio Library/Integrations/Microsoft/System Center Orchestrator/** folder.

- System Center Orchestrator
  - Samples
    - Get All Jobs
    - Get Jobs Subflow
    - Get Runbook Info
  - Get All Runbooks
  - Get Job Details
  - Get Runbook Details
  - Get Runbook Jobs
  - Start Runbook
  - Stop All Jobs
  - Stop Job
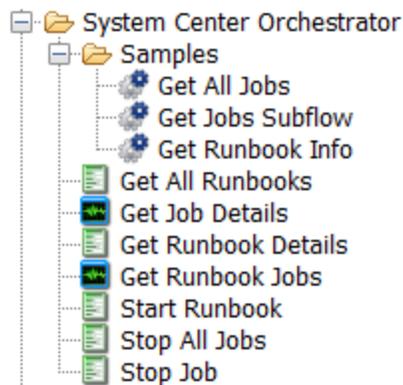
Troubleshooting

This chapter includes:

Troubleshooting Overview

This section provides troubleshooting procedures and tools that you can use to solve problems you may encounter while using this integration. It also includes a list of the error messages you may receive while using the integration and offers descriptions and possible fixes for the errors.

General Troubleshooting Procedures and Tools

This section describes the troubleshooting procedures and tools you can use to fix problems that you may experience while using this integration.

By default, the Internet Information Services (IIS) web server running the Orchestrator web service allows the OO RAS Host client to connect over the HTTP protocol and authenticate users using the NTLM protocol.

The authentication types that are supported by the System Center 2012 - Orchestrator integration are: **basic**, **digest** and **NTLM**. To change the authentication type accepted by the System Center 2012 - Orchestrator Web Service, you can use IIS Manager as described in http://technet.microsoft.com/en-us/library/cc733010.aspx.

To configure the System Center 2012 - Orchestrator Web Service to use HTTPS, you can use the steps described in http://technet.microsoft.com/en-us/library/hh529160.aspx.

Another important issue is to allow System Center 2012 - Orchestrator users remote access. This can be done by running the command: `<path to Microsoft System Center 2012 installation folder>\Orchestrator\Management Server> ./PermissionsConfig.exe -OrchestratorUsersGroup "CUSTOMGROUP" -OrchestratorUser "CUSTOMUSER" -remote`.

For more details about configuring System Center 2012 - Orchestrator users, see http://technet.microsoft.com/en-us/library/hh463588.aspx.

Error Messages

This section lists the error messages you may receive while using this integration. Each error message includes possible causes and fixes for the error.

- `No runbook with id <RUNBOOK_ID> was found`

  There is no runbook having the specified id. Get All Runbooks operation can be used in order to get the ids of all existent runbooks.

- `The job with id <JOB_ID> was not found`

  There is no job having the specified id. Get Runbook Jobs operation can be used in order to get the ids of all jobs for a runbook. Another option is to use the sample flow Get All Jobs in order to get the ids of all existent jobs.

- `The job cannot be stopped because job status is <INVALID_STATUS>`

  This message occurs when the job is not in Pending or Running state and therefore cannot be stopped. Use the Get Job Details operation to get the status of a job.

- `Id <INVALID_ID> is not a valid GUID`

  This message occurs when the specified runbook or job id does not have a valid GUID format. A valid GUID contains letters and digits and has the following format: xxxxxxxx- xxxx- xxxx- xxxx- xxxxxxxxxxxx.

- `Input parameter "authType"/"host"/"port"/"protocol"/"username" is not valid.`

  This message occurs for one of the quoted strings if the corresponding parameter value is not the expected format. To find accepted values check the operation's description.

- `org.apache.http.conn.HttpHostConnectException: Connection to http://HOSTNAME:81 refused`

  This message occurs if the OO RAS Host cannot connect to the Orchestrator Web Service

- `Server responded with code 401, Unauthorized for request: GET http://HOSTNAME:81/Orchestrator2012/Orchestrator.svc/$metadata HTTP/1.1`

  This message occurs if IIS running the Orchestrator Web Service cannot authenticate the OO RAS Host client with the provided credentials.

Chapter 3

OO Tools You Can Use with the System Center 2012 - Orchestrator – OO Integration

RSFlowInvoke.exe and JRSFlowInvoke.jar – RSFlowInvoke (**RSFlowInvoke.exe** or the Java version, **JRSFlowInvoke.jar**) is a command-line utility that allows you to start a flow without using Central (although the Central service must be running). RSFlowInvoke is useful when you want to start a flow from an external system, such as a monitoring application that can use a command line to start a flow.

These tools are available in the Operations Orchestration home directory in the /Studio/tools/ folder.

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