

HP Operations Orchestration

For Windows and Linux operating systems

Software Version: Content Pack 11

Microsoft System Center Configuration Manager Integration Guide

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Chapter 1

Introduction

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Overview of Microsoft System Center Configuration Manager integration

With the Microsoft System Center Configuration Manager (SCCM) integration, administrators can build HP Operations Orchestration (OO) flows that are integrated with Microsoft SCCM.

This document explains how this integration has been implemented, and how the integration's OO operations communicate between OO and SCCM.

SCCM Supported Versions

Operations Orchestration Version	SCCM Version
OO Content Pack 11	<ul style="list-style-type: none">• SCCM 2012• SCCM 2007• SMS 2003

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

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Installing and Configuring the Integration

The Microsoft SCCM integration does not require any special integration installation and configuration. The only requirement is that the system that has the RSJRAS service running on it can access the SCCM site, SMS provider, and SCCM client SMS providers.

The default SCCM site server SMS provider name space is:

\\<siteServer>\root\sms\site_<siteCode>

The default SCCM client system SMS provider name space is:

\\<clientSystem>\root\ccm

In the OO SCCM integration, the namespace is handled so that you do not need to specify it. You can however, use the namespace in wbemtest or CIM studio to check access from the RAS server.

You need a username and password to log on to the SCCM site server or SCCM client system. The username should be in **domain/username** format.

SCCM Use Cases

The following are the major use cases for the SCCM integration, and the operations and flows that you can use to implement them.

1. Manage clients:
 - Get Client Advertisement Status
 - Request Machine Policy
 - Trigger Hardware Inventory Schedule
 - Trigger Software Inventory Schedule
2. Manage collections:

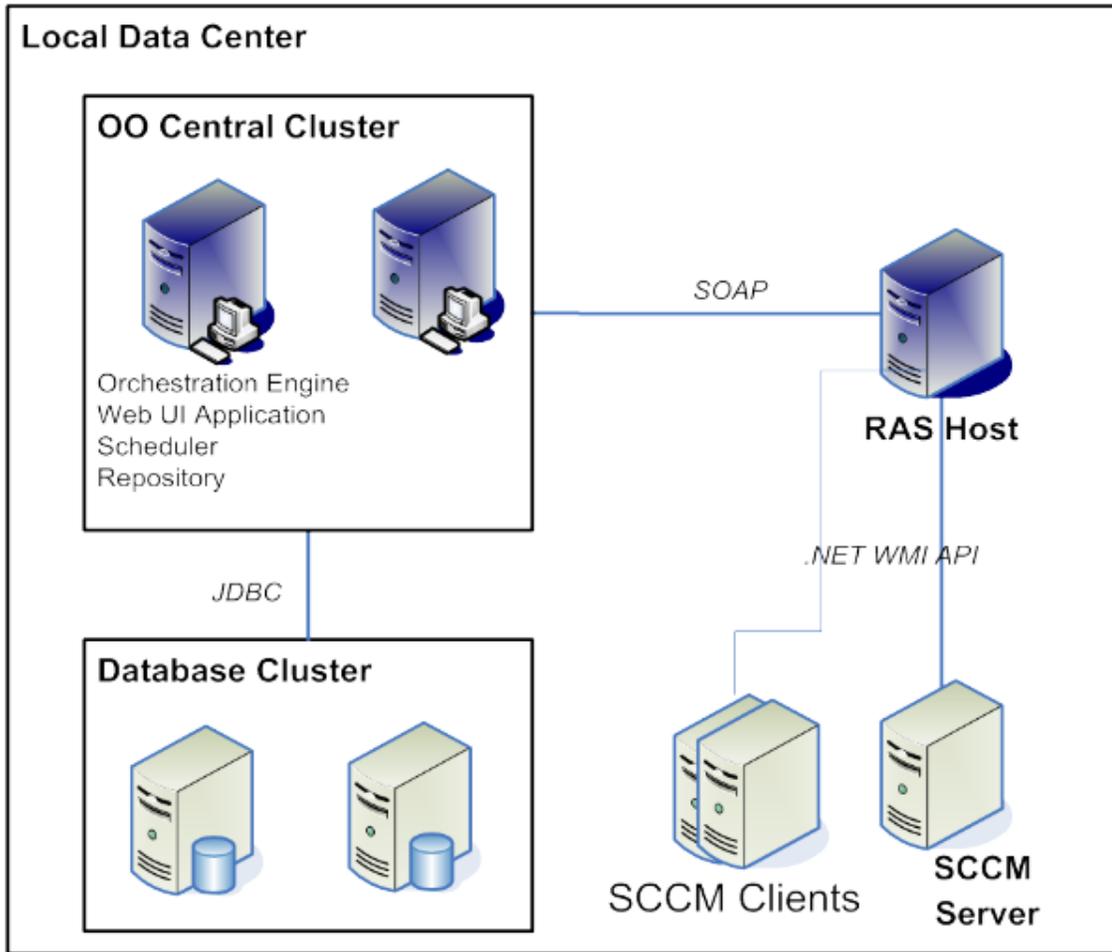
- Add Resource to Static Collection
 - Create Dynamic Collection
 - Create Static Collection
 - Delete Collection
 - Get Collection Names and Ids
 - Get Resources in Collection
 - Is Resource in Collection
 - Remove Resource from Static Collection
 - Request Refresh Collection
 - Update Collection Schedule
3. Manage desired configurations:
- Assign Baseline to Collection
 - Delete Baseline Assignment
 - Get Baseline Ids
4. Manage OS deployment:
- Advertise Task Sequence to Collection
 - Import New System
5. Manage sites:
- Check Component Status
 - Check Site Status
6. Manage software distribution:
- Assign Distribution Point to Package
 - Create Advertisement
 - Create Package
 - Create Program
 - Delete Advertisement
 - Delete Distribution Point from Package
 - Delete Package
 - Delete Program

- Update Advertisement
- Update Package
- Update Program

7. Manage software update:

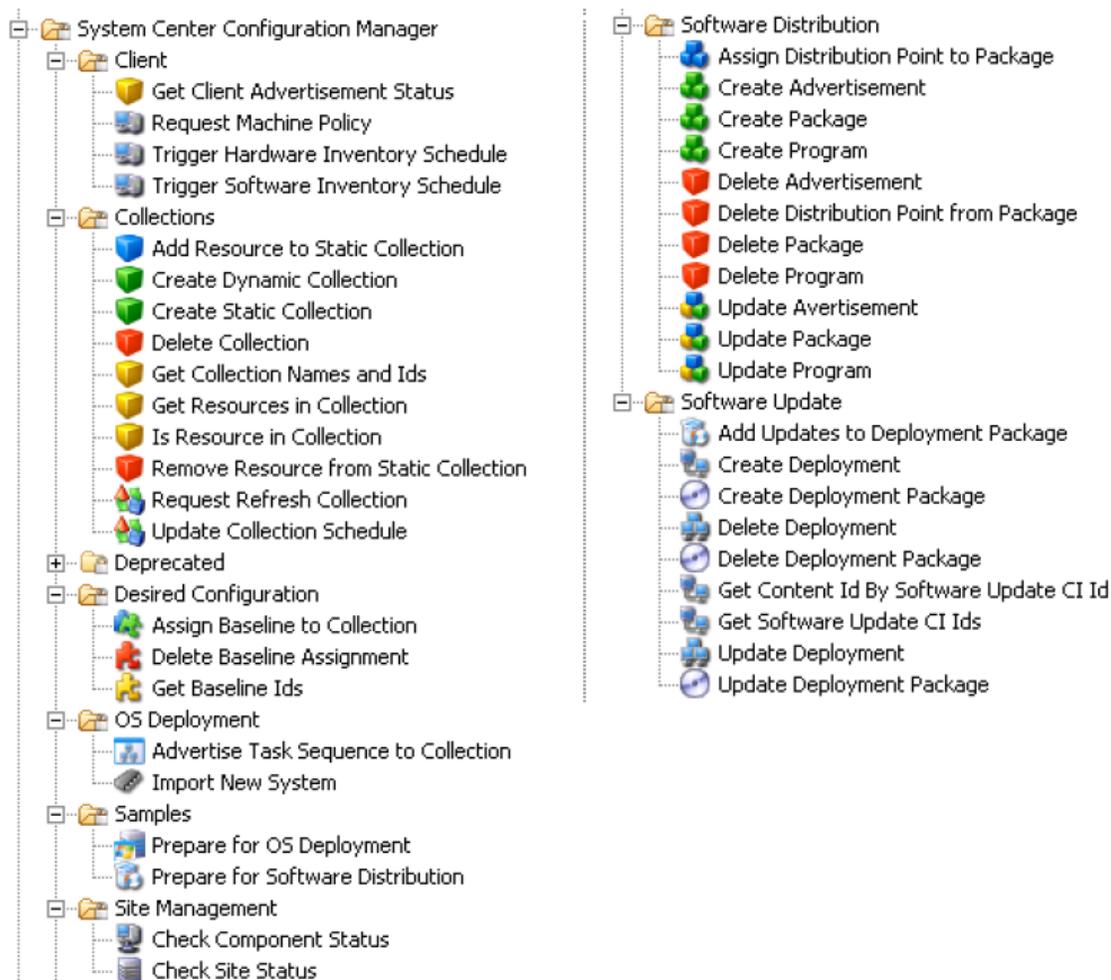
- Add Updates to Deployment Package
- Create Deployment
- Create Deployment Package
- Delete Deployment
- Delete Deployment Package
- Get Content Id By Software Update CI Id
- Get Software Update CI Ids
- Update Deployment
- Update Deployment Package

SCCM — OO Architecture



Location of SCCM Integration Operations and Flows in OO Studio

The Microsoft SCCM integration includes the following operations in the Studio Library, in the **Library/Integrations/Microsoft/System Center Configuration Manager/** folder.



Chapter 3

Troubleshooting

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Troubleshooting Overview

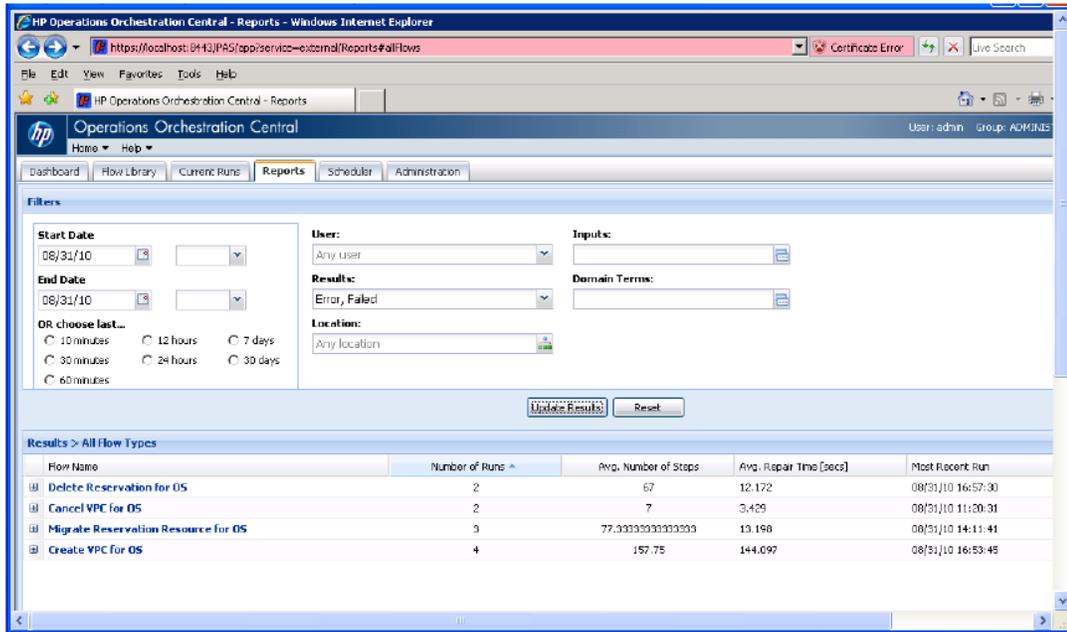
This section provides troubleshooting procedures and tools that you can use to solve problems you may encounter while using this integration. It also includes a list of the error messages you may receive while using the integration and offers descriptions and possible fixes for the errors.

General Troubleshooting Procedures and Tools

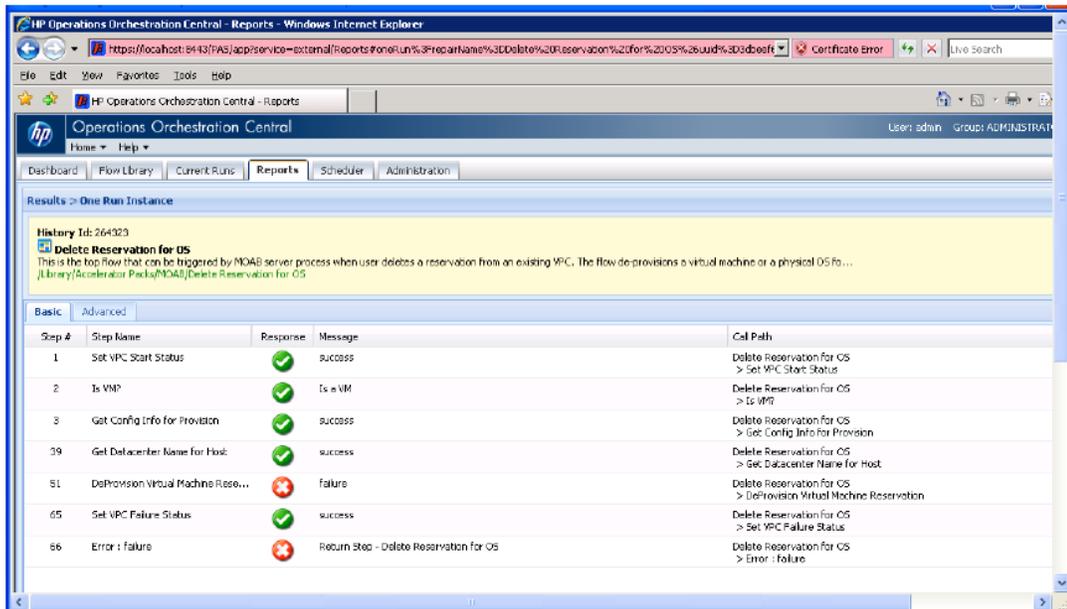
This section describes the troubleshooting procedures and tools you can use to fix problems you may experience while using this integration.

If a flow fails when run in OO Central:

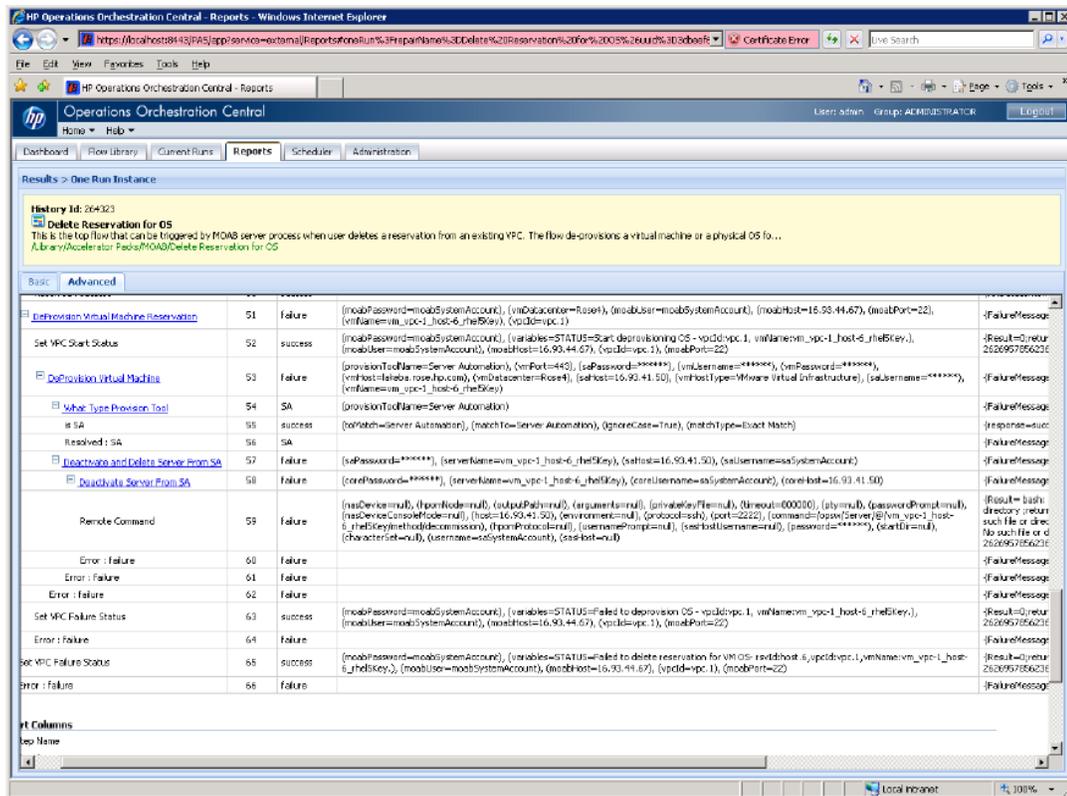
1. In Operations Orchestration Central, click the **Reports** tab and select **Error** and **Failed** in the **Results** list, or select nothing.



2. Find the failed flow you want to examine and click it. For example, in the above figure, you can click **Delete Reservation for OS** and then click the **History ID** of the job based on time.



3. Locate the failure step.
For example, in the above figure note that step number 51 failed.
4. To research the failure, click the **Advanced** tab.



5. In the **Report** column, select the step name, step number, response, bound inputs, and result.
6. Find step 51 and find which step actually failed.
7. Examine the error message from the result.

If you run the flow in OO Studio using the **Debug** feature, you can use the **Step Result Inspector** to check the errors and exceptions in detail.

Similar information can also be found in the OO Central log `Central_wrapper.log` located in the OO home folder in `/Central/logs/`. For information about the RAS service, check `wrapper.log` located in the OO home folder in `/RAS/Java/Default/webapp/logs/`.

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.

The RPC server is unavailable. (Exception from HRESULT: 0x800706BA);

The SMS provider is not available. Check that the input for the host is correct and that the server is running.

Access is denied. (Exception from HRESULT: 0x80070005 (E_ACCESSDENIED));

This message indicates username or password might be wrong. Or the user doesn't have access to the SMS provider. You can use the `wbemtest` to check the user access.

Invalid namespace

The site code might not be correct. Make sure you have correct site code.

Generic failure

You may get this message for one of the following cases:

- If you try to remove a resource that was dynamically added by query in a dynamic collection.
 - When you import a new system into SCCM, if the value of either of the **macAddress** or **smBiosGuid** inputs is in the wrong format. Make sure that the value of the **macAddress** input is in the format of the following example: "00:50:56:94:00:31", and that the value of the **smBiosGuid** input is in the format of the following example: "421440F7-2DF1-6453-0C4C-5A4B04442B17".
 - If you enter an invalid CI ID when you create a deployment.
 - If you enter an invalid content ID when you add updates to a deployment package.
-

Resource (<resourceName>) not found in SCCM

This error occurs when a specified resource is not in SCCM or the resource type is not correct and you try to add a resource to a collection, get resources in a collection, create a static collection with resource names, or remove a resource from a collection. Make sure that the resource has already been discovered by SCCM.

Object reference not set to an instance of an object

This error occurs for one of the following cases:

- You update a collection schedule or assign a baseline to a collection, if you enter a schedule that is not defined in the **SCCM – Schedule** selection list. Make sure that you enter a proper schedule string.
 - You check a component status, if you enter an incorrect component name or tally interval string. Make sure that you enter the correct component name and proper tally interval. You can find the component names under **System Status/Site Status/<site name>/Component Status** in SCCM. You can find the tally interval in the **SCCM – Tally Interval** selection list.
-

Failed to create distribution point for package (ROS00026) in SCCM

This error can happen when you assign a distribution point to a package and the distribution point is not valid or the distribution point resource type is wrong for the distribution point. Make sure that the distribution point is valid with a proper distribution point resource type. The valid values for distribution point types are **Window NT Server** and **Window NT Share**.

Software distribution advertisement did not show up

This error occurs when you create an advertisement with the wrong program name. The operation is successful, but the advertisement does not show up in Computer Management/Software Distribution/Advertisements in SCCM. Make sure that the program name is a correct name in the package.

Not found

This error occurs when you enter an incorrect name when you update an advertisement, package, program, deployment, and deployment package. Check the SMS class for the correct name.

Input string was not in a correct format

Type mismatch

String was not recognized as a valid Boolean

These errors can occur if you enter an incorrect value which when you update an advertisement, package, program, deployment, and deployment package. Check the SMS class for the correct value format.

Add updates to deployment package, but updates did not show up in package source path

Make sure that the update contents in the content source path are available on the network and that the content source path is a valid network path. Also make sure that the deployment package's package source path is a valid network path. The deployment package source path is the target path to which the source content is copied.

Chapter 4

Security

The SCCM site SMS provider and the SCCM client SMS provider are accessed via the .NET WMI API. The username and password are the domain username and password that you use to log on to the SCCM site SMS provider or client SMS provider.

Chapter 5

OO Tools You Can Use with the SCCM Integration

Following are OO tools that you can use with the SCCM 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.

- **Web Services Wizard (wswizard.exe)**

When you run the Web Services Wizard, you provide it with the WSDL for a given Web service. The WSDL string you provide as a pointer can be a file's location and name or a URL. The Web Services Wizard displays a list of the methods in the API of the Web service that you specify. When you run the wizard, pick the methods you want to use, and with one click for each method you have selected, the wizard creates an HP OO operation that can execute the method. This allows you to use the Web Services Wizard to create operations from your monitoring tool's API.

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