

HP Operations Orchestration

For the Windows and Linux operating systems

Software Version: CP13 (9.x)

Continuous Delivery Automation Integration Guide

Document Release Date: December 2013

Software Release Date: December 2013



Legal Notices

Warranty

The only warranties for HP products and services are set forth in the express warranty statements accompanying such products and services. Nothing herein should be construed as constituting an additional warranty. HP shall not be liable for technical or editorial errors or omissions contained herein.

The information contained herein is subject to change without notice.

Restricted Rights Legend

Confidential computer software. Valid license from HP required for possession, use or copying. Consistent with FAR 12.211 and 12.212, Commercial Computer Software, Computer Software Documentation, and Technical Data for Commercial Items are licensed to the U.S. Government under vendor's standard commercial license.

Copyright Notice

© Copyright 2013 Hewlett-Packard Development Company, L.P.

Trademark Notices

Adobe™ is a trademark of Adobe Systems Incorporated.

This product includes an interface of the 'zlib' general purpose compression library, which is Copyright © 1995-2002 Jean-loup Gailly and Mark Adler.

AMD and the AMD Arrow symbol are trademarks of Advanced Micro Devices, Inc.

Google™ and Google Maps™ are trademarks of Google Inc.

Intel®, Itanium®, Pentium®, and Intel® Xeon® are trademarks of Intel Corporation in the U.S. and other countries.

Java is a registered trademark of Oracle and/or its affiliates.

Microsoft®, Windows®, Windows NT®, Windows® XP, and Windows Vista® are U.S. registered trademarks of Microsoft Corporation.

Oracle is a registered trademark of Oracle Corporation and/or its affiliates.

UNIX® is a registered trademark of The Open Group.

Documentation Updates

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

- Software Version number, which indicates the software version.
- Document Release Date, which changes each time the document is updated.
- Software Release Date, which indicates the release date of this version of the software.

To check for recent updates or to verify that you are using the most recent edition of a document, go to: <http://h20230.www2.hp.com/selfsolve/manuals>

This site requires that you register for an HP Passport and sign in. To register for an HP Passport ID, go to: <http://h20229.www2.hp.com/passport-registration.html>

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

You will also receive updated or new editions if you subscribe to the appropriate product support service. Contact your HP sales representative for details.

Support

Visit the HP Software Support Online web site at: <http://www.hp.com/go/hpsupport>

This web site provides contact information and details about the products, services, and support that HP Software offers.

HP Software online support provides customer self-solve capabilities. It provides a fast and efficient way to access interactive technical support tools needed to manage your business. As a valued support customer, you can benefit by using the support web site to:

- Search for knowledge documents of interest
- Submit and track support cases and enhancement requests
- Download software patches
- Manage support contracts
- Look up HP support contacts
- Review information about available services
- Enter into discussions with other software customers
- Research and register for software training

Most of the support areas require that you register as an HP Passport user and sign in. Many also require a support contract. To register for an HP Passport ID, go to:

<http://h20229.www2.hp.com/passport-registration.html>

To find more information about access levels, go to:

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

HP Software Solutions Now accesses the HPSW Solution and Integration Portal Web site. This site enables you to explore HP Product Solutions to meet your business needs, includes a full list of Integrations between HP Products, as well as a listing of ITIL Processes. The URL for this Web site is

<http://h20230.www2.hp.com/sc/solutions/index.jsp>

Contents

Contents	3
Introduction	4
Purpose of the CDA — OO Integration	4
Supported Versions	4
The CDA APIs	5
Downloading OO Releases and Documents on HP Live Network	5
Getting Started	7
Installing and Configuring the Integration	7
CDA Use Cases	7
CDA — OO Integration Architecture	8
CDA Terminology	8
Location of CDA Integration Operations and Flows in OO Studio	9
Troubleshooting	10
Troubleshooting Overview	10
General Troubleshooting Procedures and Tools	10
Error Messages	10

Introduction

This chapter includes:

Purpose of the CDA — OO Integration	4
Supported Versions	4
The CDA APIs	5
Downloading OO Releases and Documents on HP Live Network	5

Purpose of the CDA — OO Integration

The purpose of the Continuous Delivery Automation (CDA) integration is to provide:

- The OO operations
- Application/topology deployment (or undeployment) in CDA systems based on the pre-defined or pre-configured logical models of platforms, applications, and topologies in the CDA systems.

Also included in the OO-CDA integration are the operations that are used to find:

- Applications, application versions, and recipes
- Software artifact details and deployable software artifact bundles
- Platform models, stored parameters, and provisioned platforms
- Application topologies, deployed application topologies, and deployment progress

This discovered information can be used as inputs to the operations of provisioning (or deprovisioning) platform and application topology deployment (or undeployment).

Regarding the infrastructure module of CDA, OO includes a set of operations that allow the user to create, list, get details, update, and delete:

- Servers
- Server Groups
- Templates

Supported Versions

Operations Orchestration Version	CDA Version
OO Content Pack 13	HP CDA 1.1, 1.20, 1.30

The CDA APIs

The OO-CDA integration operations are developed based on the following:

- **hp-adam-remote-api-1.0.1.jar** (operations that are NOT in the Infrastructure folder)
- CDA REST API 1.0.1

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.

Note: The Community page requires that you register for an HP Passport and sign-in.

To register for an HP Passport ID:

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

Or

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

To download OO releases and documents:

1. Go to the HPLN site: <https://hpln.hp.com/>. Page 1 of HP Live Network page opens.
2. Go to page 2 and click the **Content** link under **Operations Orchestration**.



Operations Orchestration

[Announcements](#) | [Forum](#) | [Content](#)

Optimize operational cost and
Improve service quality by
enabling end-to-end IT
Process Automation

3. From the **Content Catalog** tab, select **Operations Orchestration Content Packs**.
4. Select the Downloads link.
5. Click **Downloads > HP Operations Orchestration 10.00**.
6. Search for the required HP Operations Orchestration Content Pack.

Getting Started

This chapter includes:

Installing and Configuring the Integration	7
CDA Use Cases	7
CDA — OO Integration Architecture	8
CDA Terminology	8
Location of CDA Integration Operations and Flows in OO Studio	9

Installing and Configuring the Integration

When installing CDA, the server can be accessed using a URL with the following format: `<protocol> ://<server>:<port>/<productContext>` where:

- protocol is **http** or **https**
- server is the hostname or IP address of the CDA server
- port, by default, is 8080 for **http**, and 8443 for **https**.
- productContext by default, is `cda`, but can be changed during installation

An example of a URL for the default installation of CDA is: **`http://my-CDA-server:8080/cda`**.

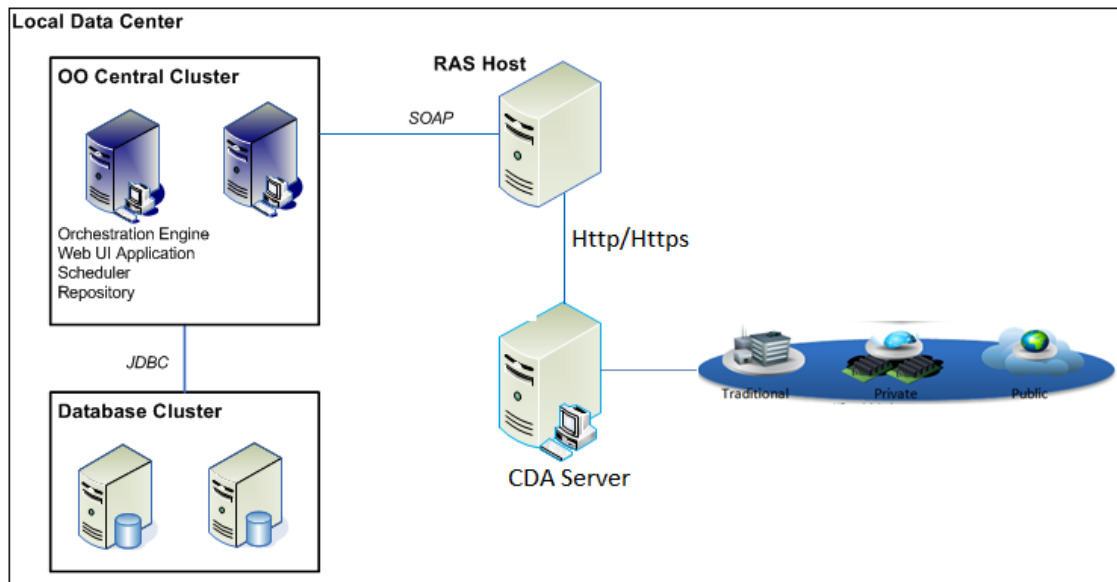
CDA Use Cases

Following are the major use cases for the CDA integration:

- **Core DevOps** - Consistent composite application deployment, monitoring, and management in heterogeneous IT environments.
- **Lab Management Automation** - Deploy the AUT and testing tools correctly the first time. Do not waste test cycles.
- **Cloud Maps** - Model driven app ecosystem design blueprints with application-aware configuration parameters.
- **Performance Application Lifecycles** - Pinpoint production issues by reusing monitors and replication of production snapshots.
- **Infrastructure Administration** - Define servers, organize them in server groups, and create templates with the existing server groups.

CDA — OO Integration Architecture

The following diagram shows that OO communicates with the CDA server using **Http** or **Https** to send the request to the server. The operations from the **/Library/Integrations/Hewlett-Packard/Continuous Delivery Automation/Infrastructure** folder are implemented through the CDA REST API.



CDA Terminology

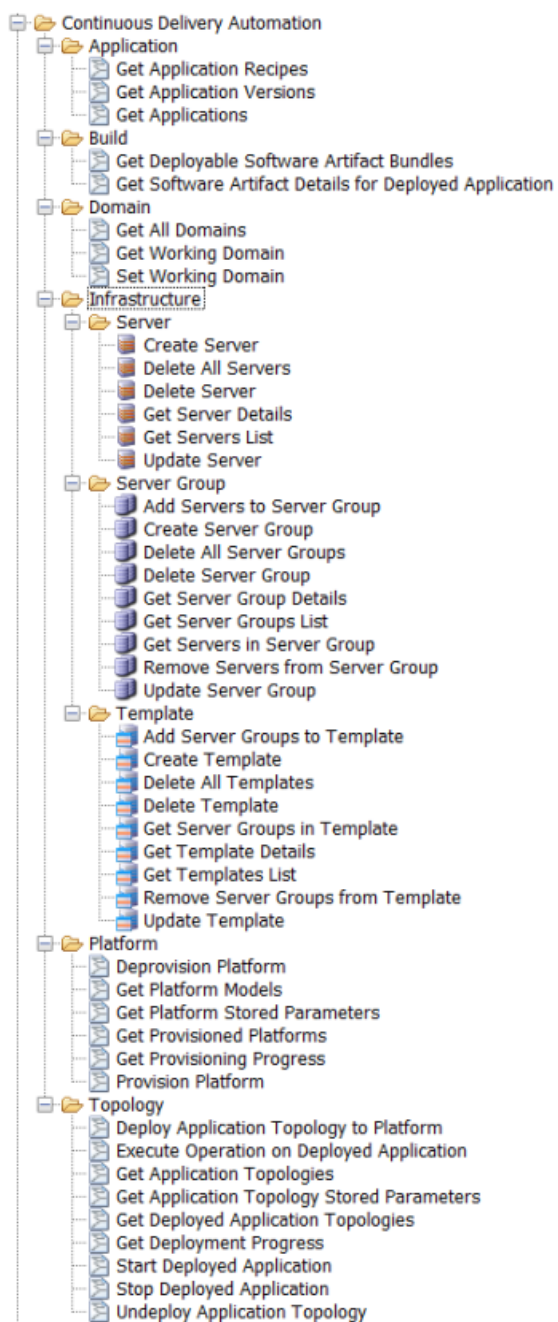
HPCDA - HP Continuous Delivery Automation

Adam:

- A - ARM (Application Release Management)
- D - DSL (Definitive Software Library)
- A - AWM (Application Workload Management)
- M - MAL (Monitoring Abstraction Layer)

Location of CDA Integration Operations and Flows in OO Studio

The HP CDA integration includes the following operations and flows in the **OO Studio Library/Integrations/Hewlett-Packard/Continuous Delivery Automation/** folder.



Troubleshooting

This chapter includes:

Troubleshooting Overview	10
General Troubleshooting Procedures and Tools	10
Error Messages	10

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

The most common problems you may encounter are trying to access a CDA server that is not available on the network, or cannot be accessed with the provided connection parameters.

When receiving access related errors, verify that:

- The hostname or IP address of the CDA server is correct
- The CDA server is listening for requests on the specified port
- The proxy configuration is correct
- The values passed to proxy-related inputs are valid.
- When using the **https** protocol, make sure that you either set the **trust all roots** option to true, or provide a keystore location through the operation inputs.

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.

- Error parsing the operation result.
The response returned by the CDA server could not be parsed as an XML document.
- Could not parse the given XML.
The XML response returned by the CDA server is invalid.

- %1 is a required input. Assign a value to the %1 if you want this operation to succeed.

A value for a required input was not provided.

- The active input must be assigned a boolean value.

An invalid value was provided for the active input.

- The newActive input must be assigned a boolean value.

An invalid value was provided for the newActive input.

Other errors may occur when requests are made to the CDA system with invalid parameters. For example, when you execute the **Create Server** operation and provide a name to the server that already exists in the CDA system you are using. In such cases, the exception message retrieved by CDA is returned in the operation's output:

```
Server 'ServerName' already exists
```

