



Cisco Process Orchestrator Northbound Web Services Guide

Release 3.0.2
July 2014

Americas Headquarters
Cisco Systems, Inc.
170 West Tasman Drive
San Jose, CA 95134-1706
USA
<http://www.cisco.com>
Tel: 408 526-4000
800 553-NETS (6387)
Fax: 408 527-0883

Text Part Number: OL-29988-01

THE SPECIFICATIONS AND INFORMATION REGARDING THE PRODUCTS IN THIS MANUAL ARE SUBJECT TO CHANGE WITHOUT NOTICE. ALL STATEMENTS, INFORMATION, AND RECOMMENDATIONS IN THIS MANUAL ARE BELIEVED TO BE ACCURATE BUT ARE PRESENTED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. USERS MUST TAKE FULL RESPONSIBILITY FOR THEIR APPLICATION OF ANY PRODUCTS.

THE SOFTWARE LICENSE AND LIMITED WARRANTY FOR THE ACCOMPANYING PRODUCT ARE SET FORTH IN THE INFORMATION PACKET THAT SHIPPED WITH THE PRODUCT AND ARE INCORPORATED HEREIN BY THIS REFERENCE. IF YOU ARE UNABLE TO LOCATE THE SOFTWARE LICENSE OR LIMITED WARRANTY, CONTACT YOUR CISCO REPRESENTATIVE FOR A COPY.

The Cisco implementation of TCP header compression is an adaptation of a program developed by the University of California, Berkeley (UCB) as part of UCB's public domain version of the UNIX operating system. All rights reserved. Copyright © 1981, Regents of the University of California.

NOTWITHSTANDING ANY OTHER WARRANTY HEREIN, ALL DOCUMENT FILES AND SOFTWARE OF THESE SUPPLIERS ARE PROVIDED "AS IS" WITH ALL FAULTS. CISCO AND THE ABOVE-NAMED SUPPLIERS DISCLAIM ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING, WITHOUT LIMITATION, THOSE OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT OR ARISING FROM A COURSE OF DEALING, USAGE, OR TRADE PRACTICE.

IN NO EVENT SHALL CISCO OR ITS SUPPLIERS BE LIABLE FOR ANY INDIRECT, SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR LOSS OR DAMAGE TO DATA ARISING OUT OF THE USE OR INABILITY TO USE THIS MANUAL, EVEN IF CISCO OR ITS SUPPLIERS HAVE BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

Cisco and the Cisco logo are trademarks or registered trademarks of Cisco and/or its affiliates in the U.S. and other countries. To view a list of Cisco trademarks, go to this URL: www.cisco.com/go/trademarks. Third-party trademarks mentioned are the property of their respective owners. The use of the word partner does not imply a partnership relationship between Cisco and any other company. (1110R)

Any Internet Protocol (IP) addresses and phone numbers used in this document are not intended to be actual addresses and phone numbers. Any examples, command display output, network topology diagrams, and other figures included in the document are shown for illustrative purposes only. Any use of actual IP addresses or phone numbers in illustrative content is unintentional and coincidental.

Cisco Process Orchestrator Northbound Web Services Guide
© 2011–2014 Cisco Systems, Inc. All rights reserved.

Contents

CHAPTER 1	Preface	5
	Audience.....	5
	Related Documentation.....	5
	Obtaining Documentation and Submitting a Service Request.....	5
CHAPTER 2	Configuring Cisco Process Orchestrator Web Services	6
	Configuring HTTP Settings in the Console.....	6
	Securing the Cisco Process Orchestrator Web service.....	6
	Enabling a Non-Encrypted Endpoint of the Web service.....	8
	Refreshing the Cisco Process Orchestrator Web service	9
CHAPTER 3	Process Web Service	11
	CreateProcessEvent.....	11
	EnableOrDisableProcess	11
	ListProcessDefinitions.....	11
	Start[StartbyWebService]	12
	StartProcessByName	12
CHAPTER 4	Process Instance Web Service	13
	GetInstanceStatuses	13
	GetOutputVariablesGeneric.....	13
	GetOutputVariablesFor[UniqueProcessName]	13
	StopProcessInstance.....	13
CHAPTER 5	Target Web Service	14
	Creating Targets.....	14
	Updating Targets.....	25
	ViewingTargets	38
CHAPTER 6	Runtime User Web Service	39
	Creating Runtime Users	39
	Updating Runtime Users	42
	UpdateSnmpUserConfiguration	44
	Viewing Runtime Users.....	46
CHAPTER 7	Task Web Service	48
	Creating Tasks	48
	Updating Tasks.....	54
	Viewing Tasks.....	60
CHAPTER 8	System Web Service	62

GetPublicKey.....	62
ImportEncryptionKeys.....	62
GetEnvironmentInformation.....	62

Preface

The Northbound Web services documentation describes the Web services API used with Cisco Process Orchestrator. This documentation describes the XML formatting used to present the input and output of jobs processed via Web services as well as configuration of the http ports used to access the services.

Audience

The information in this guide is intended for experienced users; typically, your IT organization. With Cisco Process Orchestrator Northbound Web services, your IT developers can, for example:

- Start Cisco Process Orchestrator processes and monitor the started process until its completion.
- View the process instance information of a started process.
- Programmatically automate the process of creating targets, runtime user accounts, and tasks using the Web service.

Related Documentation

For more information about the Cisco Process Orchestrator and related products, see the Cisco Process Orchestrator Documentation Overview.

Obtaining Documentation and Submitting a Service Request

For information on obtaining documentation, submitting a service request, and gathering additional information, see *What's New in Cisco Product Documentation* at:

<http://www.cisco.com/en/US/docs/general/whatsnew/whatsnew.html>

Subscribe to *What's New in Cisco Product Documentation*, which list all new and revised Cisco technical documentation, as an RSS feed deliver content directly to your desktop using a reader application. The RSS feeds are a free service.

Configuring Cisco Process Orchestrator Web Services

In Cisco Process Orchestrator, the end user can expose a Northbound SOAP Web service into the Cisco Process Orchestrator server. This Web service is disabled by default, but the end user can expose it either via HTTP or HTTPS end points, on the port of their choosing.

After the Web service is exposed, it can be used by other tools as an integration point to start processes, disable/enable targets and perform other actions.

Configuring HTTP Settings in the Console

Use the Web service to modify Cisco Process Orchestrator Web service configuration settings. The fields displayed on this property page allow users to modify the HTTP and HTTPS ports as well as the authentication of the HTTP endpoints.

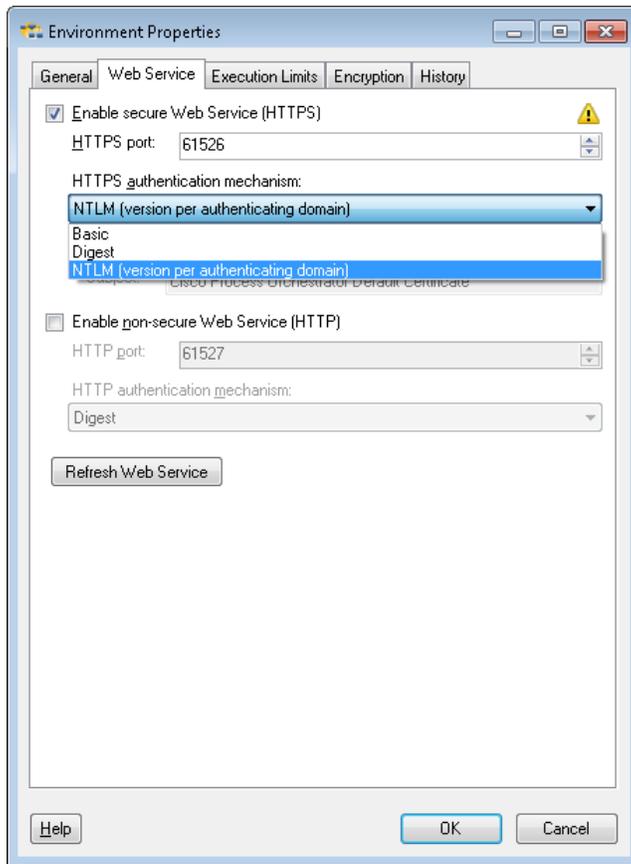
Securing the Cisco Process Orchestrator Web service

Cisco Process Orchestrator allows users the ability to modify the authentication for the HTTP endpoints. Use the following steps to secure the Cisco Process Orchestrator Web service.

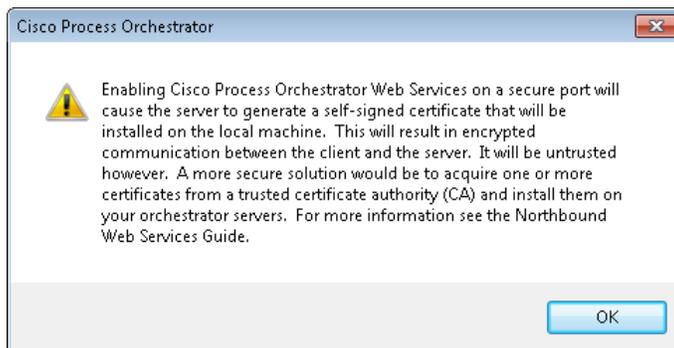
To enable the HTTPs Web service:

- Step 1** On the Cisco Process Orchestrator Console, choose **File > Environment Properties**. The Environment Properties dialog box displays.
- Step 2** Click the **Web service** tab to continue.

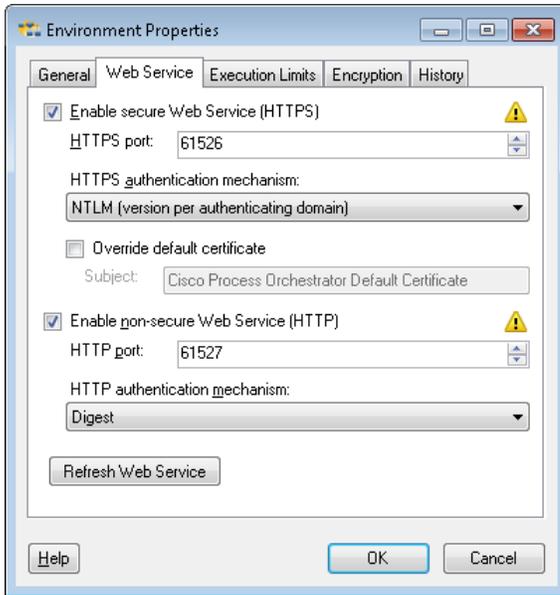
Figure 1: Server Properties Dialog Box, Web service Tab



Step 3 Check the **Enable secure Web service (HTTPS)** check box to configure the authentication for the HTTPS endpoint.



Step 4 Click **OK** to continue.



Step 5 Complete the following fields, as necessary.

Field	Description
HTTPS port	Enter or verify the secure HTTPS port for the Cisco Process Orchestrator Web service. (Default: 61526)
HTTPS authentication mechanism	<p>Choose the appropriate authentication for the Web service.</p> <ul style="list-style-type: none"> ▪ Basic—sends a username and password as the method of authentication. It's the simplest method of authentication, but the least secure. ▪ Digest—sends cryptographic representation of the password rather than the password itself. This authentication method is more secure than basic authentication. ▪ Ntlm—authentication protocol used on networks that include systems running on the Windows operating system. This option can be used to return to the normal mode of operation.
Override default certificate	If left unchecked the default certificate will be created, installed and associated with the HTTPs port. If checked, the certificate whose subject is listed in the Subject field will be associated with the HTTPs port. If using a certificate from a certificate authority (CA) the certificate must be installed in the local computer's certificate store.

Step 6 Click **OK** to save the settings.

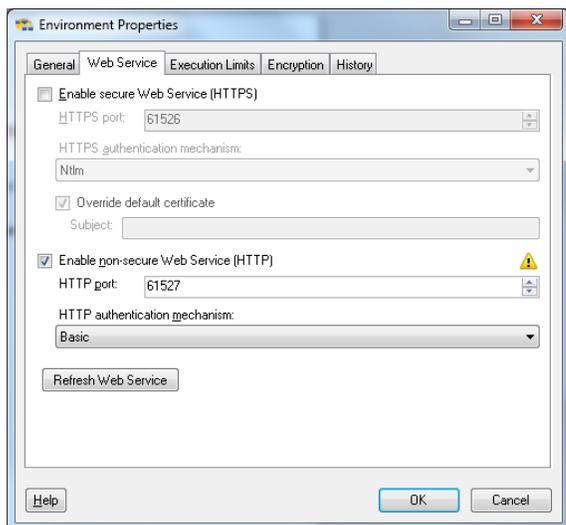
Enabling a Non-Encrypted Endpoint of the Web service

Use the following steps to open a non-encrypted endpoint of the Cisco Process Orchestrator Web service.

To open a non-encrypted endpoint:

- Step 1** On the Cisco Process Orchestrator Console, choose **File > Environment Properties**. The Environment Properties dialog box displays.
- Step 2** Click the **Web Service** tab to continue.

Figure 2: Environment Properties Dialog Box—Web Service Tab



- Step 3** Check the **Enable non-secure Web service (HTTP)** check box to unencrypt the HTTP endpoints.
- Step 4** Click **OK** to continue.
- Step 5** Complete the following fields, as necessary.

Field	Description
HTTP port	Enter or verify the secure HTTP port for the Web service. (Default: 61527)
HTTP authentication mechanism	Choose the appropriate authentication for the Web service. <ul style="list-style-type: none"> ▪ Basic—sends a username and password as the method of authentication. It's the simplest method of authentication, but the least secure. ▪ Digest—sends cryptographic representation of the password rather than the password itself. This authentication method is more secure than basic authentication. ▪ Ntlm—authentication protocol used on networks that include systems running on the Windows operating system. This option can be used to return to the normal mode of operation.

- Step 6** Click **OK** to save the settings.

All transmissions through the chosen *NonsecuredHttpPort* are unencrypted. Communications over the SSL-enabled ports (and between the server and Console) will all be unaffected by this setting.

Refreshing the Cisco Process Orchestrator Web service

Click the **Refresh Web services** button to regenerate the dynamic Web service methods in the Northbound Web service. This affects the Web service methods which start processes and retrieve process instance output variables.

For example, if you create a new process called My Process with a Started By Web service trigger, the method would be StartMyProcess. Click the **Refresh Web services** button to regenerate the Northbound Web service so that the Process service can launch the new StartMyProcess call.

Process Web Service

The Process Web service allows users to start processes and retrieve information, such as the description, ID, and whether the process is enabled or disabled.

The WSDL for the Process Web service methods is: <http://<server>:<port>/WS/Process?wsdl>

CreateProcessEvent

Create a process event in Cisco Process Orchestrator.

Parameters

eventSource (string) —source of the process event

severity (string) —event severity as Error, Warning, Information, Success, or Failure

description (string) —event description

eventId (integer) —event Id

category (string) —event category

subject (string) —event subject

parameters (string[]) – event parameters

targetNameOrId (string) —name or Guid of a target

Return Type

None

EnableOrDisableProcess

Enable or disable a process definition in Cisco Process Orchestrator

Parameters

processNameOrId (string) —name or Guid of a process definition

enable (boolean) —flag to enable or disable a process

Return Type

None

ListProcessDefinitions

Enumerates all process definitions in Cisco Process Orchestrator

Parameters

northboundOnly (boolean) —enumerate northbound processes only

Return Type

ProcessDefinition[]

Start[StartbyWebService]

Users can start any process that is defined in Cisco Process Orchestrator and contains a “Started by Web service” trigger. These Web services, which display in the list as *Start/Started by Web service*, are based on the names of the triggers in the process.

The input variables for the process are the parameters of each process listed. You can also specify the `StartPointNameOrId` parameter that sets a start point for the process.

The Web service publishes these processes as dynamic methods that can change as processes are added, removed, or the input variables are modified. The list of the processes changes each time the Web service is refreshed or restarted. See [Chapter 0 Refreshing the Cisco Process Orchestrator Web service](#).

StartProcessByName

Starts a Cisco Process Orchestrator process using a single process name or process ID. This method can only start processes that contain a "Start by Web service" trigger. To ensure the process can start on the trigger, be sure to add the "Start by Web service" trigger to the process during the authoring phase.

When starting a process, users have the option of overriding the target (or targets) that the job runs against. The user can specify either a single target or a single target group. If a target group is selected, the server will broadcast the job to all members of that target group.

If no target is specified, then the process will execute against the default target selection of the process.

Parameters

`processNameOrId` (string)—display name or Id of the process

`targetOverride` (string)—display name or Id of a target to specify a non-default target for the run

`startPointNameOrId`(string) —point at which a process can be started

Return Type

Guid[]

Exceptions

`DeserializationFailed` if an improper type of variable parameter is provided to this call.

If no process is found whose Id or display name matches the given name. "The request to run a process with name <name> could not be completed because no process with this name was found."

Process Instance Web Service

This Web service allows users to stop processes and retrieve information, such as whether the process is completed and any input and output variables.

The WSDL for this Web service method is: <http://<server>:<port>/WS/ProcessInstance?wsdl>.

GetInstanceStatuses

Checks the status of process instances that have run or are currently running

Parameters

instanceIds (Guid[])—Ids of the instances with the statuses to be retrieved

Return Type

InstanceStatus[]

GetOutputVariablesGeneric

Retrieves all output variable values of a process instance. The values include their values, names, and types.

Parameters

instanceId (Guid)—process Instance ID in guid format

Return Type

VariableValue[]

GetOutputVariablesFor[UniqueProcessName]

Retrieves output variables for a specific process instance. These processes show up in the list as `GetOutputVariablesFor[UniqueProcessName]`.

The Web service publishes these processes as dynamic methods that can change as processes are added, removed, or the input variables are modified. The list of the processes changes each time the Web service is refreshed or restarted.

Parameters

processInstanceId (Guid)—process Instance ID in Guid format

Return Type

VariableValue[]

StopProcessInstance

Stop a running process instance in Cisco Process Orchestrator.

Parameters

instanceId (Guid)—process Instance ID in Guid format

Return Type

None

Target Web Service

This Web services allows users to create, update, and view targets for specific Cisco Process Orchestrator target types.

The WSDL for the Targets Web service is <http://<server>:<port>/WS/Target?wsdl>.

Creating Targets

The following topics describe how to create targets for specific Cisco Process Orchestrator target types.

CreateActiveDirectoryDomainTarget

Specifies the connection information for the Active Directory Domain server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

ConnectionString (string)—Active Directory authentication string

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateAMQPBrokerTarget

Specifies the connection information for the AMQP Broker server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—host name of the AMQP Broker server

Port (string)—port number used by the protocol

VirtualHost (string)—name of the virtual host that specifies the namespace for entities (exchanges and queues) referred to by the protocol

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

UseSSL (boolean)—indicates whether the target should use SSL

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target
Description (string)—text that describes the target
Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateCiscoServicePortalTarget

Specifies the connection information for the Cisco Prime Service Catalog server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target
Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.
Server (string)—host name or IP address of the Cisco Prime Service Catalog server
UseSSL (boolean)—indicates whether the target should use SSL
IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors
ServiceLinkPort (int32)—indicates the port number used by the ServiceLink application
RequestCenterPort (int32)—indicates the port number used by the RequestCenter application
Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.
Name (string)—display name of the target
Description (string)—text that describes the target
Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateCiscoUCSDirectorTarget

Specifies the connection information for the Cisco UCS Director server used for processes to run against.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target
Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.
Server (string)—host name or IP address of the Cisco Prime Service Catalog server
UseSSL (boolean)—indicates whether the target should use SSL
IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors
Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.
Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateCspTarget

Specifies the connection information for the Cisco Server Provisioner server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

HostNameOrIPAddress (string)—host name or IP Address of the CSP server

Port (string)—port number used by the CSP server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateEmailIMAPTarget

Specifies the connection information to an IMAP email server

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

EmailServer (string)—DNS name or IP address of the IMAP server

Port (string)—port number used by the protocol

EnableTLSAuthentication (boolean)—Enable Transport Layer Security (TLS) authentication

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateEmailPOP3Target

Specifies the connection information to a POP3 email server

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

EmailServer (string)—DNS name or IP address of the POP3 server

Port (string)—port number used by the protocol

EnableTLSAuthentication (boolean)—Enable Transport Layer Security (TLS) authentication

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateEmailSMTPTarget

Specifies the connection information to a SMTP email server

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

SMTPServer (string)—DNS name or IP address of the SMTP gateway to use for sending email messages

SMTPPort (int32)—port used in the DNS name or IP address of the SMTP gateway

Sender (string)—email message address of the sender

CredentialRequired (boolean)—indicates if authentication credentials are required.

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateESXTarget

Specifies the connection information to an ESX/ESXi server

VMware ESX and VMware ESXi are "bare-metal" hypervisors, and are installed directly on top of the physical server and partitioned into multiple virtual machines that can run simultaneously, sharing the physical resources of the underlying server.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

VirtualCenterESXServerName (string)—host name or IP address of the Virtual Center/ESX Server

VirtualCenterESXServerServicePort (int)—port number used to access the Virtual Center/ESX Server service

IsHttps (bool)—indicates VMware target is configured for HTTPS

IsSSLCertificateErrorIgnored (boolean)—indicates whether the target should ignore any SSL certificate errors

ConnectionLanguage (string)—default language to use when connecting to the server

UseDefaultLanguage (boolean)—indicates whether the target should use the default language when connecting to the server

ConnectionOverrideLanguage (string)—alternative language to use when connecting to the server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateNetworkDeviceModuleTarget

Some Cisco network devices are chassis systems that can hold other network devices such as ACE, FWSM, on boards that plug into the chassis.

This method creates a network device module target which can be used as a dependent of a terminal target, as well as, an independent network device target that can be used by network processes for execution.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

SwitchNumber (string)—switch number for the chassis system

SlotNumber (string)—slot number on which the network device module resides

ProcessorID (string)—processor Id on which the network device module resides

ChassisSystem (string)—display name or target ID of the terminal target on which the network module resides

PromptPrefix (string)—command prompt prefix that will be used by the device type configurations and expects when issuing commands and connecting to the device. Adding a regex character, such as \$, >, and #, at the end of a prompt in the Prompt Prefix field invalidates the command prompt prefix.

ExpectTemplateNameOrId (string)—name or ID of the expect template

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateOracleDatabaseTarget

Specifies the connection information for the Oracle database used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

DataSource (string)—ODBC data source name

SID (string)—site identifier

PortNumber (string)—port number used by the protocol

TNSAlias (string)—name of your Oracle service. This is the name that is specified in the tnsnames.ora file that is defined for your Oracle client.

DatabaseOwner (string)—user that created the database

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateRemedyServerTarget

Specify the connection information to a Remedy server which is used for processes to run against. It is recommended that the Remedy target is defined before attempting to define any Remedy activities. The Remedy target accesses the list of properties on the Remedy server.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Server (string)—host name or IP address of the Remedy server

Authentication (string)—string used by the client for authentication, such as domain name

Port (int)—port number used to access the Remedy server

PollingInterval (int)—interval used to query the Remedy system

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateServiceTarget

Creates a target that represents an IT or business service. The service target can be used by process authors when creating content within Cisco Process Orchestrator. The Service target is a specialized target that cannot be used against any activities or triggers in Cisco Process Orchestrator.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

ServiceType (string)—represents a "service" target. String value representing a service type. For example, *Bronze SQL Server* or *HR Portal*.

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateSnmpAgentTarget

Configures the host and operation and notification settings for accessing an SNMP agent

Parameters

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—host name or IP address of the SNMP agent

PortNumber (int)—listening SNMP port to be used by Cisco Process Orchestrator to execute SNMP GET/SNMP SET activities against the device

GetRuntimeUser (string)—credential properties that enable reading only from device

SetRuntimeUser (string)—credential properties that enable writing to device

TrapRuntimeUser (string)—credential properties that enable traps from the device

EngineID (string)—SNMP v3 agent engine ID that serves as a unique identifier for the agent

ContextName (string)—context name to be used during SNMP V3 operation

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateSnmptarget

Configures the host and security settings for sending traps to a SNMP server

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target

Host (string)—host name or IP address of the SNMP server

PortNumber (int)—listening port to be used by Cisco Process Orchestrator to send traps to the SNMP server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateTerminalTarget

Specifies the connection information used to access the terminal host used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target

Host (string)—DNS name or IP address of the terminal host

Port (int)—port number used to access the appropriate terminal target port (Default: SSH server: 22, Telnet server: 23)

Protocol (TransProtocolType)—target protocol which can be either SSH or TELNET

PromptPrefix (string)—command prompt prefix that will be used by the device type configurations and expects when issuing commands and connecting to the device. Adding a regex character, such as \$, >, and #, at the end of a prompt in the Prompt Prefix field invalidates the command prompt prefix.

MaxConcurrentSessions (int32)—maximum number of sessions a device can accept

ExpectTemplateNameOrId (string)—name or ID of the expect template

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateUcsManagerTarget

Specifies the connection information for the UCS Manager server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target

UcsManagerHostName (string)—host name of the UCS Manager server

UcsManagerPortNumber (int32)—port number used by the UCS Manager server

IsHttps (boolean)—indicates VMware target is configured for HTTPS

IgnoreSSLCertError (boolean)—indicates whether the target should ignore any SSL certificate errors

TimeZoneNameOrId (string)—instance-specific time zone setting used to ensure the correct time display

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateUnixTarget

Specifies the connection information for the SSH server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target

Host (string)—DNS name or IP address of selected server

Port (int)—port number used to access the appropriate Unix/Linux target port (Default: SSH server: 22, Telnet server: 23)

Protocol (TransProtocolType)—target protocol, which can be either SSH or TELNET

KshPath (string)—path on the host where Korn Shell (ksh) is located. The default path is /usr/bin/ksh, but some systems use a different path like /bin/ksh.

PromptPrefix (string)—command prompt prefix that will be used by the device type configurations and expects when issuing commands and connecting to the device. Adding a regex character, such as \$, >, and #, at the end of a prompt in the Prompt Prefix field invalidates the command prompt prefix.

MaxConcurrentSessions (int32)—maximum number of sessions the server can accept

ExpectTemplateNameOrId (string)—name or ID of the expect template

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateVCloudDirectorTarget

Specifies the connection information for the VCloud Director server used for processes to run against

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

UsePublicUrl (boolean)—indicates whether the target should use the public URL

HostName (string)—host name or IP address of selected server

PublicApiUrl (string)—URL used to connect to the VCloud Director

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

APIVersion (string)—API version of the VCloud Director

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target
Description (string)—text that describes the target
Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateVCTarget

Specifies the connection information to the VMware virtual center server target

Virtual Center Server provides unified management of all the hosts and VMs in your datacenter from a single console with an aggregate performance monitoring of clusters, hosts and VMs.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

VirtualCenterESXServerName (string)—host name or IP address of the Virtual Center/ESX Server

VirtualCenterESXServerServicePort (int)—port number used to access the Virtual Center/ESX Server service

IsHttps (boolean)—indicates VMware target is configured for HTTPS

IsSSLCertificateErrorIgnored (boolean)—indicates whether the target should ignore any SSL certificate errors

ConnectionLanguage (string)—default language to use when connecting to the server

UseDefaultLanguage (boolean)—indicates whether the target should use the default language when connecting to the server

ConnectionOverrideLanguage (string)—alternative language to use when connecting to the server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateWebTarget

Configures a target for execution by a Web service activity on which a web site may be hosted on several machines. The target allows an activity to execute against the specified URL address.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

BaseUrl (string)—target URL to use as a base for execution

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateWindowsTarget

Specifies the connection information for the Windows computer used for processes to run against

If Windows 2008 is used as the target, then the Windows firewall settings need to be adjusted in order to allow Windows Management Instrumentation (WMI) to pass through.

Parameters

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

ComputerName (string)—name of the computer (Local computer name, DNS name, NetBIOS name, IP address)

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

Updating Targets

The Update Targets Web services allow users to update existing targets for specific Cisco Process Orchestrator target types.

Note: Any use of an ambiguous name as the target identifier will result in an error being returned. For example, if two different targets are each named “name,” Cisco Process Orchestrator will not be able to choose which target the user intends to update.

The following topics describe how to update targets for specific Cisco Process Orchestrator target types.

DeleteTarget

Deletes any type of defined target in Cisco Process Orchestrator

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

Return Type

None

EnableOrDisableTarget

Enables or disables a specified target in Cisco Process Orchestrator using a Boolean operator that determines whether the target will be enabled or disabled

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

enable (bool)—*True* or *False* determines whether the target will be enabled or disabled

Return Type

None

UpdateActiveDirectoryDomainTarget

Updates the connection information for the Active Directory Domain server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

ConnectionString (string)—Active Directory authentication string

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateAMQPBrokerTarget

Updates the connection information for the AMQP Broker server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—host name of the AMQP Broker server

Port (string)—port number used by the protocol

VirtualHost (string)—name of the virtual host that specifies the namespace for entities (exchanges and queues) referred to by the protocol

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

UseSSL (boolean)—indicates whether the target should use SSL

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateCiscoServicePortalTarget

Updates the connection information for the Cisco Prime Service Catalog server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Server (string)—host name or IP address of the Cisco Prime Service Catalog server

UseSSL (boolean)—indicates whether the target should use SSL

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

ServiceLinkPort (int32)—indicates the port number used by the ServiceLink application

RequestCenterPort (int32)—indicates the port number used by the RequestCenter application

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateCiscoUCSDirectorTarget

Updates the connection information for the Cisco UCS Director server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Server (string)—host name or IP address of the Cisco Prime Service Catalog server

UseSSL (boolean)—indicates whether the target should use SSL

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

CreateCspTarget

Updates the connection information for the Cisco Server Provisioner server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

HostNameOrIPAddress (string)—host name or IP Address of the CSP server

Port (string)—port number used by the CSP server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateEmailIMAPTarget

Updates the connection information to an IMAP email server target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

EmailServer (string)—DNS name or IP address of the IMAP server

Port (string)—port number used by the protocol

EnableTLSAuthentication (boolean)—Enable Transport Layer Security (TLS) authentication

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateEmailPOP3Target

Updates the connection information to a POP3 email server target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

EmailServer (string)—DNS name or IP address of the POP3 server

Port (string)—port number used by the protocol

EnableTLSAuthentication (boolean)—Enable Transport Layer Security (TLS) authentication

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateEmailSMTPTarget

Updates the connection information to a SMTP email server

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target

SMTPServer (string)—DNS name or IP address of the SMTP gateway to use for sending email messages

SMTPPort (int32)—port used in the DNS name or IP address of the SMTP gateway

Sender (string)—email message address of the sender

CredentialRequired (boolean)—indicates if authentication credentials are required

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateESXTarget

Updates the connection information to a VMware ESX server target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

VirtualCenterESXServerName (string)—host name or IP address of the Virtual Center/ESX Server

VirtualCenterESXServerServicePort (int)—port number used to access the Virtual Center/ESX Server service

IsHttps (bool)—indicates VMware target is configured for HTTPS

IsSSLCertificateErrorIgnored (boolean)—indicates whether the target should ignore any SSL certificate errors

ConnectionLanguage (string)—default language to use when connecting to the server

UseDefaultLanguage (boolean)—indicates whether the target should use the default language when connecting to the server

ConnectionOverrideLanguage (string)—alternative language to use when connecting to the server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateNetworkDeviceModuleTarget

Updates a network device module target which can be used as a dependent of a terminal target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

SwitchNumber (string)—switch number for the chassis system

SlotNumber (string)—slot number on which the network device module resides

ProcessorID (string)—processor Id on which the network device module resides

ChassisSystem (string)—display name or target ID of the terminal target on which the network module resides

PromptPrefix (string)—command prompt prefix that will be used by the device type configurations and expects when issuing commands and connecting to the device. Adding a regex character, such as \$, >, and #, at the end of a prompt in the Prompt Prefix field invalidates the command prompt prefix.

ExpectTemplateNameOrId (string)—name or ID of the expect template

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateOracleDatabaseTarget

Updates the connection information for the Oracle database used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

DataSource (string)—ODBC data source name

SID (string)—Site identifier

PortNumber (string)—port number used by the protocol

TNSAlias (string)—name of your Oracle service. This is the name that is specified in the tnsnames.ora file that is defined for your Oracle client.

DatabaseOwner (string)—user that created the database

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateRemedyServerTarget

Updates the connection information to a Remedy server target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Server (string)—host name or IP address of the Remedy server

Authentication (string)—string used by the client for authentication, such as domain name

Port (int)—port number used to access the Remedy server

PollingInterval (int)—interval used to query the Remedy system

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateServiceTarget

Updates a target that represents an IT or business service

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

ServiceType (string)—represents a "service" target. String value representing a service type. For example, *Bronze SQL Server* or *HR Portal*.

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateSnmpAgentTarget

Updates the host and operation and notification settings for accessing an SNMP agent

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—host name or IP address of the SNMP agent

PortNumber (int)—listening SNMP port to be used by Cisco Process Orchestrator to execute SNMP GET/SNMP SET activities against the device

GetRuntimeUser (string)—credential properties that enable reading only from device

SetRuntimeUser (string)—credential properties that enable writing to device

TrapRuntimeUser (string)—credential properties that enable traps from the device

EngineID (string)—SNMP v3 agent engine ID that serves as a unique identifier for the agent.

ContextName (string)—context name to be used during SNMP V3 operation

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateSnmpManagerTarget

Updates the host and security settings for sending traps to a SNMP server

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—host name or IP address of the SNMP server

PortNumber (int)—listening port to be used by Cisco Process Orchestrator to send traps to the SNMP server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateTerminalTarget

Updates the connection information used to access the terminal host used for a terminal target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—DNS name or IP address of the terminal host

Port (int)—port number used to access the appropriate terminal target port (Default: SSH server: 22, Telnet server: 23)

Protocol (TransProtocolType)—target protocol which can be either SSH or TELNET

PromptPrefix (string)—command prompt prefix that will be used by the device type configurations and expects when issuing commands and connecting to the device. Adding a regex character, such as \$, >, and #, at the end of a prompt in the Prompt Prefix field invalidates the command prompt prefix.

MaxConcurrentSessions (int32)—maximum number of sessions a device can accept

ExpectTemplateNameOrId (string)—name or ID of the expect template

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateUcsManagerTarget

Updates the connection information for the UCS Manager server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

UcsManagerHostName (string)—host name of the UCS Manager server

UcsManagerPortNumber (int32)—port number used by the UCS Manager server

IsHttps (boolean)—indicates VMware target is configured for HTTPS

IgnoreSSLCertError (boolean)—indicates whether the target should ignore any SSL certificate errors

TimeZoneNameOrId (string)—instance-specific time zone setting used to ensure the correct time display

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateUnixTarget

Updates the connection information for the SSH server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

Host (string)—DNS name or IP address of selected server

Port (int)—port number used to access the appropriate Unix/Linux target port (Default: SSH server: 22, Telnet server: 23)

Protocol (TransProtocolType)—target protocol, which can be either SSH or TELNET

KshPath (string)—path on the host where Korn Shell (ksh) is located. The default path is /usr/bin/ksh, but some systems use a different path like /bin/ksh.

PromptPrefix (string)—command prompt prefix that will be used by the device type configurations and expects when issuing commands and connecting to the device. Adding a regex character, such as \$, >, and #, at the end of a prompt in the Prompt Prefix field invalidates the command prompt prefix.

MaxConcurrentSessions (int32)—maximum number of sessions the server can accept

ExpectTemplateNameOrId (string)—name or ID of the expect template

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

None

UpdateVCloudDirectorTarget

Updates the connection information for the VCloud Director server used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

UsePublicUrl (boolean)—indicates whether the target should use the public URL

HostName (string)—host name or IP address of selected server

PublicApiUrl (string)—URL used to connect to the VCloud Director

IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors

APIVersion (string)—API version of the VCloud Director

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target

Description (string)—text that describes the target

Organization (string)—name of the company that supports the target

Return Type

String ID of the new target

UpdateVCTarget

Updates the connection information to the VMware virtual center server target

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target

defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target

Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.

VirtualCenterESXServerName (string)—host name or IP address of the Virtual Center/ESX Server

VirtualCenterESXServerServicePort (int)—port number used to access the Virtual Center/ESX Server service

IsHttps (boolean)—indicates VMware target is configured for HTTPS

IsSSLCertificateErrorIgnored (boolean)—indicates whether the target should ignore any SSL certificate errors

ConnectionLanguage (string)—default language to use when connecting to the server

UseDefaultLanguage (boolean)—indicates whether the target should use the default language when connecting to the server

ConnectionOverrideLanguage (string)—alternative language to use when connecting to the server

Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.

Name (string)—display name of the target
Description (string)—text that describes the target
Organization (string)—name of the company that supports the target

Return Type

None

UpdateWebTarget

Updates the properties used target for execution by a Web service activity on which a web site may be hosted on several machines

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target
defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target
Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.
BaseUrl (string)—target URL to use as a base for execution
IgnoreCertificateErrors (boolean)—indicates whether the target should ignore any certificate errors
Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.
Name (string)—display name of the target
Description (string)—text that describes the target
Organization (string)—name of the company that supports the target

Return Type

None

UpdateWindowsTarget

Updates the connection information for the Windows computer target used for processes to run against

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find this target
defaultRuntimeUserNameOrId (string)—display name or unique identifier of the default runtime user that should be associated with this target
Validate (boolean)—when validate is set to true, the adapter verifies specified connection information by connecting to the target.
ComputerName (string)—name of the computer (Local computer name, DNS name, NetBIOS name, IP address)
Enabled (boolean)—indicates if this target is enabled for execution. Targets that are not enabled are not available for execution.
Name (string)—display name of the target
Description (string)—text that describes the target
Organization (string)—name of the company that supports the target

Return Type

None

ViewingTargets

The View Targets Web services allow users to view the properties of existing targets for specific Cisco Process Orchestrator target types.

This section describes how to update targets for specific Cisco Process Orchestrator target types.

ListTargets

Retrieves the list of defined targets in Cisco Process Orchestrator

Parameters

nameFilter (string)—A filter that will be applied to the display names of these objects. This filter may contain the "*" wildcard character

typeFilter (string)—A filter that will be applied to the type names of these objects. This filter may contain the "*" wildcard character

Return Type

TargetDefinition[]

View[UniqueTargetType]TargetProperties

Users can view properties of a target that is defined in Cisco Process Orchestrator.

Parameters

targetNameOrId (string)—display name or unique identifier that will be used to find the target

Return Type

[UniqueTargetType]TargetConfigurationData

Runtime User Web Service

This Web service allows users to create, update, and view specific runtime users in Cisco Process Orchestrator. The WSDL for the Runtime User Web service is <http://<server>:<port>/WS/RuntimeUser?wsdl>.

Creating Runtime Users

The following topics describe how to create runtime users in Cisco Process Orchestrator.

CreateClientCertificateUserConfiguration

Specifies the user administrative credentials required to configure client certificates

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated

RawData (string)—raw data of the certificate

Note: The RawData is expected to be a Base64 string returned by the following sequence of calls in C#:
X509Certificate2 cert = new X509Certificate2(filePath, password,X509KeyStorageFlags.Exportable);
byte[] bytes = cert.Export(X509ContentType.Pfx, "");
string rawDataString = Convert.ToBase64String(bytes);

UserName (string)—user name that will be associated with this user object

Name (string)—display name of the runtime user

Password (string)—password for this user account

Description (string)—text that describes the runtime user

Return Type

string

CreateCspUser

Specifies the credentials required to create a CSP runtime user

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated

Authorization APID (string)—authorization APID of a CSP user from a CSP server

UserName (string)—user name that will be associated with this user object

Name (string)—display name of the runtime user

Password (string)—password for this user account

Description (string)—text that describes the object

Return Type

string

CreateGenericUser

Specifies the security credentials for a runtime user that can be assigned to processes and activities for different adapters

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated
UserName (string)—user name that will be associated with this user object
Name (string)—display name of the runtime user
Password (string)—password for this user account
Description (string)—text that describes the object

Return Type

string

CreateIOSUserConfiguration

Specifies the user administrative credentials required to access a Cisco IOS Device. The level of access for the Cisco IOS device is dependent upon the type of password used.

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated
AdminPassword (string)—password for the administrator
UserName (string)—user name that will be associated with this user object
Name (string)—display name of the runtime user
Password (string)—password for this user account
Description (string)—text that describes the object

Return Type

string

CreatePublicKeyAdminUserConfiguration

Specifies the credentials required to allow public key authentication and an administrative password to perform privileged operations.

If a target has set up public key authentication on the remote SSH server, the private key of the Public-key Authenticated Admin Runtime User will be used to form the SSH authentication request. The request is then authenticated against the stored public key on the remote server. It requires user level public key authentication as opposed to host level public key authentication.

If the target does not allow public key authentication, the SSH authentication will fail.

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated
AdminPassword (string)—password for the administrator
PrivateKeyPassphrase—private key passphrase used for authentication
PrivateKey—private key used for authentication

UserName (string)—user name that will be associated with this user object

Name (string)—display name of the runtime user

Password (string)—password assigned to access Privileged EXEC mode on the device. The Privileged EXEC mode provides the highest level of commands to users

Description (string)—text that describes the object

Return Type

string

CreateSnmpUserConfiguration

Specifies the credentials for a SNMP runtime user to be used to assign run options for SNMP processes or activities

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated

SnmpVersion (SnmpVersion)—appropriate SNMP version (SNMPv1, SNMPv2c, SNMPv3), case sensitive

Community (string)—indicates the relationship between the SNMP server system and the client system

SecurityLevel (SnmpSecurityLevels)—security level assigned to the user (noAuthNoPriv, authNoPriv, authPriv), case sensitive

AuthenticationProtocol (SnmpAuthenticationProtocol)—protocol used for authentication for authNoPriv or authPriv security levels (SHA, MD5), case sensitive

PrivacyProtocol (SnmpPrivacyProtocol)—format for transmitting encrypting data between the two devices for the security level authPriv. (DES, 3DES, AES128, AES256), case sensitive

EncryptedAuthenticationKey (string)—password used for authentication

EncryptedPrivacyKey (string)—password used for encrypting data

UserName (string)—user name that will be associated with this user object.

Name (string)—display name of the runtime user

Password (string)—password for this user account

Description (string)—text that describes the object

Return Type

string

CreateVCloudDirectorUser

Specify the credentials required to access a VCloud Director

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated

UserType (vCloudUserType)—System or Organization

Organization (string)—name of the company that supports the runtime user

UserName (string)—user name that will be associated with this user object

Name (string)—display name of the runtime user

Password (string)—password for this user account

Description (string)—text that describes the object

Return Type

string

CreateWindowsUser

Specify the credentials for a Windows user to be used to assign run options for processes or activities

Parameters

Validate (boolean)—indicates if the runtime user credentials are validated

Domain (string)—Windows domain in which the user account resides

UserName (string)—user name that will be associated with this user object

Name (string)—display name of the runtime user

Password (string)—password for this user account

Description (string)—text that describes the object

Return Type

String

Updating Runtime Users

This section describes how to update existing runtime users in Cisco Process Orchestrator.

DeleteRuntimeUser

Deletes a runtime user based on the name or the provided name

Parameters

runtimeUserNameOrId (string)—display name or id of the runtime user

Return Type

None

UpdateClientCertificateUserConfiguration

Updates the user administrative credentials required to configure client certificates

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Validate (boolean)—indicates if the runtime user credentials are validated

RawData (string)—raw data of the certificate.

Note:

The RawData is expected to be a Base64 string returned by the following sequence of calls in C#:

```
X509Certificate2 cert = new X509Certificate2(filePath, password,X509KeyStorageFlags.Exportable);  
byte[] bytes = cert.Export(X509ContentType.Pfx, "");  
string rawDataString = Convert.ToBase64String(bytes);
```

UserName (string)—user name that will be associated with this user object

Name (string)—name of the object

Password (string)—password for this user account

Description (string)—text that describes the runtime user

Return Type

string

UpdateCspUser

Updates the user credentials required to create a CSP user

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Validate (boolean)—indicates if the runtime user credentials are validated

Authorization APID (string)—authorization APID of a CSP user from a CSP server

UserName (string)—user name that will be associated with this user object

Name (string)—display name of the runtime user

Password (string)—password for this user account

Description (string)—text that describes the object

Return Type

string

UpdateGenericUser

Updates the security credentials for a generic runtime user

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Validate (boolean)—indicates if the runtime user credentials are validated

UserName (string)—user name that is associated with this user object

Name (string)—name of the object

Password (string)—password for this user account

Description (string)—text that describes the object

Return Type

None

UpdateIOSUserConfiguration

Updates the user administrative credentials required to access a Cisco IOS Device

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Validate (boolean)—indicates if the runtime user credentials are validated

AdminPassword (string)—password for the administrator
UserName (string)—user name that will be associated with this user object
Name (string)—name of the object
Password (string)—password for this user account
Description (string)—text that describes the object

Return Type

None

UpdatePublicKeyAdminUserConfiguration

Updates the credentials required to allow public key authentication and an administrative password to perform privileged operations

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user
Validate (boolean)—indicates if the runtime user credentials are validated
AdminPassword (string)—password for the administrator
PrivateKeyPassphrase—private key passphrase used for authentication
PrivateKey—private key used for authentication
UserName (string)—user name that will be associated with this user object
Name (string)—name of the object
Password (string)—password assigned to access Privileged EXEC mode on the device. The Privileged EXEC mode provides the highest level of commands to users
Description (string)—text that describes the object

Return Type

None

UpdateSnmpUserConfiguration

Updates the credentials for a SNMP runtime user to be used to assign run options for SNMP processes or activities

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user
Validate (boolean)—indicates if the runtime user credentials are validated
SnmpVersion (SnmpVersion)—appropriate SNMP version (SNMPv1, SNMPv2c, SNMPv3), case sensitive
Community (string)—indicates the relationship between the SNMP server system and the client system
SecurityLevel (SnmpSecurityLevels)—security level assigned to the user (noAuthNoPriv, authNoPriv, authPriv), case sensitive
AuthenticationProtocol (SnmpAuthenticationProtocol)—protocol used for authentication for authNoPriv or authPriv security levels (SHA, MD5), case sensitive
PrivacyProtocol (SnmpPrivacyProtocol)—format for transmitting encrypting data between the two devices for the security level *authPriv*. (DES, 3DES, AES128, AES256), case sensitive
EncryptedAuthenticationKey (string)—password used for authentication

EncryptedPrivacyKey (string)—password used for encrypting data
UserName (string)—user name that will be associated with this user object.
Name (string)—name of the object
Password (string)—password for this user account
Description (string)—text that describes the object

Return Type

None

UpdateVCloudDirectorUser

Updates the credentials required to access a VCloud Director

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user
Validate (boolean)—indicates if the runtime user credentials are validated
UserType (vCloudUserType)—System or Organization
Organization (string)—name of the company that supports the runtime user
UserName (string)—user name that will be associated with this user object
Name (string)—name of the object
Password (string)—password for this user account
Description (string)—text that describes the object

Return Type

string

UpdateWindowsUser

Updates the credentials for a Windows user to be used to assign run options for processes or activities

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user
Domain (string)—Windows domain in which the user account resides
UserName (string)—user name that will be associated with this user object
Name (string)—name of the object
Password (string)—password for this user account
Description (string)—text that describes the object

Return Type

None

Viewing Runtime Users

This section describes how to review the properties of existing runtime users in Cisco Process Orchestrator.

ListRuntimeUsers

Retrieves the list of defined runtime users in Cisco Process Orchestrator

Parameters

nameFilter (string)—filter that will be applied to the display names of these objects. This filter may contain the "*" wildcard character.

typeFilter (string)—filter that will be applied to the type names of these objects. This filter may contain the "*" wildcard character.

Return Type

RuntimeUserDefinition[]

ViewClientCertificateuserConfiguraitonProperties

View the configuration properties for a client certificate user

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

ClientCertificateUserConfigurationData

ViewCspUserProperties

View the configuration properties for a CSP user

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

CspUserData

ViewGenericUserProperties

View the configuration properties of a runtime user

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

GenericRuntimeUserConfigurationData

ViewIOSUserConfiguraitonProperties

View the configuration properties for the IOS user.

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

IOSUserConfigurationData

ViewPublicKeyAdminUserConfigurationProperties

View the configuration properties for public key administrator

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

PublicKeyAdminUserConfigurationData

ViewSnmpUserProperties

View the SNMP user configuration properties

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

SnmpUserConfigurationData

ViewVCloudDirectorUserProperties

View the VCloud Direct user configuration properties

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

VCloudDirectorUserData

ViewWindowsUserProperties

Retrieves the properties of a defined Windows user account in Cisco Process Orchestrator

Parameters

userNameOrId (string)—display name or unique identifier that will be used to find this user

Return Type

WindowsUserConfigurationData

Task Web Service

This Web service allows users to create, update, and view specific task in Cisco Process Orchestrator.

The WSDL for the Task Web service is located at the following location: <http://<server>:<port>/WS/Task?wsdl>

Creating Tasks

The following topics describe how to create tasks for Cisco Process Orchestrator.

CreateAlertTask

Creates an alert regarding any potential problems

An alert reflects potential problems that a user may want to investigate and possibly diagnose the problem.

Parameters

AlertClass (int)—incident identifier for the alert

DuplicateTaskId (Guid)—Task ID of the duplicated alert

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

ItilStatus (ItilTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Canceled, Duplicate, Resolved, Closed)

AffectedTargetConfigurationItemId (Guid)—System ID on which the condition was detected

ConfigurationItemId (Guid)—IT component to which the alert pertains

AffectedServices (string)—IT Service affected by the alert or incident

AffectedOrganizations (string)—organizations that consume the IT service affected by the alert or incident

Severity (ItilTechnicalSeverity)—severity of the task (Low, Normal, High)

AutomationSummary (string)—file path for the related automation summary

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guids>)—Task ID of the related task

CategoryIds (List<Collection of Guids>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

CreateApprovalTask

Specifies the user or group required to approve a task including the message associated for the approver

Parameters

Message (string)—informs the approver what is being requested

ApprovalChoiceIndex (int)—0-based index of the approval choices in the task

AutomationSummary (string)—file path for the related automation summary

ApprovalChoices (List<Collection of strings>)—choices available to the approver

ApprovalStatus (ApprovalTaskStatus)—current status of the task (New, Assigned, Pending, InProgress, Waiting, Canceled, Completed)

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guids>)—Task ID of the related task

CategoryIds (List<Collection of Guids>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

CreateChangeRequestTask

Requests a modification to the configuration of an object or system

The change requests are used to request system enhancements, report problems with a system, or report changes from one system which affects another system.

Parameters

ChangeRequestClass (int)—identifier for the change request

ChangeStatus (ChangeRequestTaskStatus)—current status of the task (New, Assigned, AuthorizationPending, AuthorizationDenied, Authorized, ChangeInProgress, ChangeComplete, Canceled, Duplicate)

ChangeRequestIdentifier (string)—Cisco Process Orchestrator generated ID number for the change request task

ReasonForChange (string)—describes the business justification for the request

ChangeTiming (string)—deadline date or time for the change

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

AffectedTargetConfigurationItemId (Guid)—System ID on which the condition was detected

ConfigurationItemId (Guid)—IT component to which the alert pertains.

AffectedServices (string)—IT Service affected by the alert or incident

AffectedOrganizations (string)—organizations that consume the IT service affected by the alert or incident

Severity (ItilTechnicalSeverity)—severity of the task (Low, Normal, High)

AutomationSummary (string)—file path for the related automation summary

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guids>)—Task ID of the related task

CategoryIds (List<Collection of Guids>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

CreateGuidedOperationTask

Creates detailed instructions for a user or group to perform a guided operation task

Parameters

GuidedOperationStatus (GuidedOperationTaskStatus)—current status of the task (New, Assigned, Pending, InProgress, Waiting, Closed, Bypassed, Canceled, Completed)

Instructions (string)—step-by-step process for handling a task

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guids>)—Task ID of the related task

CategoryIds (List<Collection of Guids>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

CreateIncidentTask

Creates a task which requires an operator to take action in order to resolve an issue

Parameters

IncidentClass (int)—value indicating the class of the incident

IncidentIdentifier (string)—ID of the incident

ReportingUser (string)—user name of the individual who reported the incident and contact information of the user who called IT to report the problem

ReportingUserDetails (string)—contact information of the individual who reported the incident

OriginatingAlertIds (List<Collection of Guids>)—Alert ID which triggered the incident

ResolveOriginatingAlerts (bool)—indicates whether Alert ID was resolved using *True/False* value

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

ItilStatus (ItilTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Canceled, Duplicate, Resolved, Closed)

AffectedTargetConfigurationItemId (Guid)—System ID on which the condition was detected

ConfigurationItemId (Guid)—IT component to which the alert pertains.

AffectedServices (string)—IT Service affected by the alert or incident

AffectedOrganizations (string)—organizations that consume the IT service affected by the alert or incident

Severity (ItilTechnicalSeverity)—severity of the task (Low, Normal, High)

AutomationSummary (string)—file path for the related automation summary

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guids>)—Task ID of the related task

CategoryIds (List<Collection of Guids>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

CreateReviewTask

Submit a document for review as well as provide a message for the reviewer. In Cisco Process Orchestrator, this task is called the Review Request task.

Parameters

ReviewStatus (ReviewTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Waiting, Canceled, Completed)

DocumentPath (string)—file path for the document to be reviewed

Message (string)—message that informs the reviewer of why document needs to be reviewed

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

CreateSurveyTask

Creates a set of questions requiring a user or group response in order to gather a large set of information

In Cisco Process Orchestrator, this task is called the Input Request task.

Parameters

Message (string)—introductory message for the input request

SurveyStatus (SurveyTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Waiting, Canceled, Completed)

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

string

Updating Tasks

This section describe how to modify configuration properties of an existing task in Cisco Process Orchestrator.

AddNoteToTask

Updates an existing task with notes

Parameters

taskId (Guid)—Id of the task

noteText (string)—Any notes related to the task

Return Type

None

UpdateAlertTask

Updates the properties or status of a defined alert containing potential problems that a user may want to investigate and possibly diagnose the problem.

Parameters

nameOrId (string)—display name or unique identifier of the task

AlertClass (int)—incident identifier for the alert

DuplicateTaskId (Guid)—Task ID of the duplicated alert

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

ItilStatus (ItilTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Canceled, Duplicate, Resolved, Closed)

AffectedTargetConfigurationItemId (Guid)—System ID on which the condition was detected

ConfigurationItemId (Guid)—IT component to which the alert pertains

AffectedServices (string)—IT Service affected by the alert or incident

AffectedOrganizations (string)—organizations that consume the IT service affected by the alert or incident

Severity (ItilTechnicalSeverity)—severity of the task (Low, Normal, High)

AutomationSummary (string)—file path for the related automation summary

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

UpdateApprovalTask

Updates the properties of a defined approval task

Parameters

nameOrId (string)—display name or unique identifier of the task

Message (string)—informs the approver what is being requested

ApprovalChoiceIndex (int)—0-based index of the approval choices in the task

AutomationSummary (string)—file path for the related automation summary

ApprovalChoices (List<Collection of strings>)—choices available to the approver

ApprovalStatus (ApprovalTaskStatus)—current status of the task (New, Assigned, Pending, InProgress, Waiting, Canceled, Completed)

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

UpdateChangeRequestTask

Updates the properties of a change request task

Parameters

nameOrId (string)—display name or unique identifier of the task.

ChangeRequestClass (int)—identifier for the change request

ChangeStatus (ChangeRequestTaskStatus)—current status of the task (New, Assigned, AuthorizationPending, AuthorizationDenied, Authorized, ChangeInProgress, ChangeComplete, Canceled, Duplicate)

ChangeRequestIdentifier (string)—Cisco Process Orchestrator generated ID number for the change request task

ReasonForChange (string)—describes the business justification for the request

ChangeTiming (string)—deadline date or time for the change

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

AffectedTargetConfigurationItemId (Guid)—System ID on which the condition was detected

ConfigurationItemId (Guid)—IT component to which the alert pertains.

AffectedServices (string)—IT Service affected by the alert or incident

AffectedOrganizations (string)—organizations that consume the IT service affected by the alert or incident

Severity (ItiTechnicalSeverity)—severity of the task (Low, Normal, High)

AutomationSummary (string)—file path for the related automation summary

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

UpdateGuidedOperationTask

Updates the properties of a guided operation task

Parameters

nameOrId (string) —display name or unique identifier of the task

GuidedOperationStatus (GuidedOperationTaskStatus)—current status of the task (New, Assigned, Pending, InProgress, Waiting, Closed, Bypassed, Canceled, Completed)

Instructions (string)—step-by-step process for handling a task

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>—Task ID of the related task

CategoryIds (List<Collection of Guid>—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

UpdateIncidentTask

Updates the properties of a task which requires the assignee to resolve an issue

Parameters

nameOrId (string)—display name or unique identifier of the task

IncidentClass (int)—value indicating the class of the incident

IncidentIdentifier (string)—ID of the incident

ReportingUser (string)—user name of the individual who reported the incident and contact information of the user who called IT to report the problem

ReportingUserDetails (string)—contact information of the individual who reported the incident

OriginatingAlertIds (List<Collection of Guid>)—Alert ID which triggered the incident

ResolveOriginatingAlerts (bool)—indicates whether Alert ID was resolved using True/False value

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

ItilStatus (ItilTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Canceled, Duplicate, Resolved, Closed)

AffectedTargetConfigurationItemId (Guid)—System ID on which the condition was detected

ConfigurationItemId (Guid)—IT component to which the alert pertains

AffectedServices (string)—IT Service affected by the alert or incident

AffectedOrganizations (string)—organizations that consume the IT service affected by the alert or incident

Severity (ItilTechnicalSeverity)—severity of the task (Low, Normal, High)

AutomationSummary (string)—file path for the related automation summary

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

UpdateReviewTask

Updates the properties of the review task which requires a message and a file path for a document for review. In Cisco Process Orchestrator, this task is called the Review Request task.

Parameters

nameOrId (string)—display name or unique identifier of the task

ReviewStatus (ReviewTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Waiting, Canceled, Completed)

DocumentPath (string)—file path for the document to be reviewed

Message (string)—message that informs the reviewer of why document needs to be reviewed

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

UpdateSurveyTask

Updates the set of questions requiring a user or group response in order to gather a large set of information. In Cisco Process Orchestrator, this task is called the Input Request task.

Parameters

nameOrId (string)—display name or unique identifier of the task

Message (string)—introductory message for the input request

SurveyStatus (SurveyTaskStatus)—status of the task (New, Assigned, Pending, InProgress, Waiting, Canceled, Completed)

WebFormXSLFileName (string)—name of the source XML text file to transform the task XML into HTML for viewing in the Web Console

Name (string)—name of the object

Description (string)—text that describes the object

DueDate (string)—indicates the time period the task should be resolved. Note that this is the date AND time in UTC when the task is due.

ExpirationDate (string)—when the task expires. Note that this is the date AND time in UTC when the task expired.

CompletedTime (string)—indicates the time period the task was completed. Note that this is the date AND time in UTC when the task is completed.

Priority (TaskPriority)—indicates the priority of the task (Low, Medium, High)

NotificationRecipients (List<Collection of strings>)—list of recipients to be notified about the task

ExternalSystem (string)—external system for the task

ExternalId (string)—external Id for the task

RelatedTaskIds (List<Collection of Guid>)—Task ID of the related task

CategoryIds (List<Collection of Guid>)—categories that this task directly belongs to, if any. Note that this does not include categories that the process has an INdirect membership in, such as in the case of a category within a category.

Parameters (List<NamedParameter>)—collection of named parameters. The named parameter is a generic name/value pair that can be used for any task to add extra information.

Return Type

None

Viewing Tasks

This section describes how to view configuration properties of an existing task in Cisco Process Orchestrator.

ViewAlertTaskProperties

Retrieves the configuration properties of an alert task

Parameters

taskId (string)—Id of the task

Return Type

AlertTaskConfigurationData

ViewApprovalTaskProperties

Retrieves the configuration properties of an approval task

Parameters

taskId (string)—Id of the task

Return Type

ApprovalTaskConfigurationData

ViewChangeRequestTaskProperties

Retrieves the properties of a change request task

Parameters

taskId (string)—Id of the task

Return Type

ChangeRequestTaskConfigurationData

ViewGuidedOperationTaskProperties

Retrieves the properties of a guided operation task

Parameters

taskId (string)—Id of the task

Return Type

GuidedOperationTaskConfigurationData

Exception

If an ambiguous name is provided. "The given name matches more than one item. This operation will not be performed."

ViewIncidentTaskProperties

Retrieves the properties of an incident task

Parameters

taskId (string)—Id of the task

Return Type

IncidentTaskConfigurationData

ViewReviewTaskProperties

Retrieves the properties of a review task

Parameters

taskId (string)—Id of the task

Return Type

ReviewTaskConfigurationData

ViewSurveyTaskProperties

Retrieves the properties of an input request task

Parameters

taskId (string)—Id of the task

Return Type

SurveyTaskConfigurationData

System Web Service

The System Web service allows users to import and retrieve external encryption RSA key information.

The WSDL for the System Web service methods is: <http://<server>:<port>/WS/System?wsdl>.

GetPublicKey

Users will be able to retrieve a string representation of Cisco Process Orchestrator's public RSA key to be used for external string encryption. The returned string will be Base64 encoded.

Parameters

None

Return Type

String

ImportEncryptionKeys

Imports a RSA public / private key pair file into a Cisco Process Orchestrator environment. Update permission on the "Environment Settings" object is required to import new public / private key pair.

Parameters

keyFilePath (string)—Universal Naming Convention (UNC) file name of the RSA key file

encryptedPassword (string)—password to access the key file, encrypted by Cisco Process Orchestrator's RSA public key from the GetPublicKey Web service method

Return Type

Boolean – Indicates if the method succeeds.

Exceptions

Upon failure to decrypt the password, it raises an exception "The server failed to import encryption key file. It encountered an error when decrypting password of the encryption key file. The password should be encrypted with Cisco Process Orchestrator's external public key. Clear text password is not supported."

Upon failure to import the encryption keys, it raises an exception "The server failed to import encryption key file". Its inner exception has more error information.

GetEnvironmentInformation

Returns Cisco Process Orchestrator's environment information, including environment name and environment GUID

Parameters

None

Return Type

EnvironmentInformation object