Cisco TEO Release Notes for Release 2.3

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This document describes key features, product requirements, enhancements, and known issues in Tidal™ Enterprise Orchestrator release 2.3 and updated for releases 2.3.2, 2.3.4, and 2.3.5. Release dates may vary in documents because of the content update in which they were delivered. For more TEO information, refer to the appropriate product guides.

This document includes the following sections:

- Features and Enhancements
- Installing Content Updates
- Cisco Intelligent Automation for Cloud
- Configuration Access Requirements
- Limitations and Restrictions
- Related Documentation

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Features and Enhancements

The following items are noted features that have been implemented in Tidal Enterprise Orchestrator releases 2.3, 2.3.2, and 2.3.4 to extend and improve product functionality. The tables also note where more detailed information can be found in the product documentation.

TEO 2.3 Reference Guide Feature Changes

The table below indicates the features that are new or were improved in releases 2.3, 2.3.2, 2.3.4, and 2.3.5 were documented in the Reference Guide.

Table 1   TEO 2.3 Release Feature Changes

Feature	Location
New Security tab in Options dialog box which specifies the default owner when creating objects in TEO	Chapter 1, Understanding the Console
New Change Request Task and Create Change Request activity requests a modification to the configuration of an object or system	Chapter 4, Managing Tasks Appendix B, Task Activities
The following new triggers were created to improve how processes can start • Extended Property Value Updated—Specifies the target properties which will cause an event to trigger • Process Event—Matches data from an internal event to use to start a process • Started by Parent Process—Allows any process to use the newly created process. • Started by User—Allows process to be started manually by user.	Chapter 8, Managing Triggers
In 2.3, access and development of Condition properties have been reconfigured to allow ease of use In 2.3.5, the new Component License Condition was created to verify whether a product component is licensed.	Chapter 10, Managing Conditions
All global variables have been reconfigured to be created in a wizard style	Chapter 11, Managing Variables
New Service target which represents an IT or business service	Chapter 13, Managing Targets
New extended target properties allow users to assign a value to a specific target property.	Chapter 14, Managing Extended Target Properties
New task rules are used to manage task assignment and notifications for various customer-specific tasks.	Chapter 19, Managing Task Rules
Automation packs modified to allow objects within the automation pack to be more customizable.	Chapter 22, Managing Automation Packs

Table 1   *TEO 2.3 Release Feature Changes*

Feature	Location
The following activities have been added to the Core Functions Adapter • Calculate Time Difference—Calculates the time difference between two different dates • Convert JSON to XML—Converts JavaScript Object Notation text to XML • Convert XML to JSON—Converts XML to JavaScript Object Notation text • Find Targets—Queries all defined targets • Raise Process Event—Raises an internal event to the TEO server based on specific data • Set Multiple Variables—Updates multiple variables in a single activity • Set Target Reference—Modifies the target ID assigned to a target reference • XPath Query—Queries information based on XML path expressions • Wait for Task to Enter State—Waits for a task to match a specific state before the activity continues	Appendix A, Core Activities Appendix B, Task Activities
New Glossary of terms added to end of reference guide	Glossary appendix

TEO 2.3 Adapter Feature Changes

The following tables describes significant new and changed information for the adapters of Tidal Enterprise Orchestrator that were improved in releases 2.3, 2.3.2, 2.3.4, and 2.3.5. The highlighted features have been implemented to improve the product functionality for TEO adapters.

Cisco TEO Adapter Help for Cisco Network Services Manager

The new Cisco TEO Network Services Manager adapter in release 2.3.4 manages network services which allows users to create, revise, review, update physical and virtual networks in a cloud computing infrastructure. Cloud computing provides IT services in a self-service and highly automated manner.

To view the documentation for the Cisco Network Services Manager adapter, refer to the online help. An adapter guide is not produced in release 2.3.4.

Cisco TEO Adapter Help for Cisco Service Portal

The new Cisco TEO Service Portal adapter provided in release 2.3.4 establishes a relationship between Tidal Enterprise Orchestrator and the Cisco Service Portal. In TEO, users can now manage services items and service requests in Cisco Service Portal. Users can create, delete, and update service items using attributes of the service item. Additionally users can submit and update service requests by manually creating dictionaries or browsing for dictionaries in a Cisco Service Portal Server target.

To view the documentation for the Cisco Service Portal adapter, refer to the online help. An adapter guide is not produced in release 2.3.4.

Cisco TEO Adapter Guide for Cisco Server Provisioner

Table 2   Cisco TEO Adapter for Cisco Server Provisioner Feature Changes

Feature	Location
Rebranded adapter name to Cisco Server Provisioner Adapter	Cisco TEO Adapter Guide for Cisco Server Provisioner
Added new activity "Find Provisioning Role Templates"	Chapter 4, "Using the Cisco Server Provisioner Activities"

Cisco TEO Adapter Guide for JMX Adapter

JMX functionality was removed from the SAP adapter in 2.3 release. The new Cisco TEO Adapter for JMX provides more generic JMX functionality in TEO to support general MBean monitoring on JMX servers using Sun RMI transport or SAP P4 protocol.

Because of the upgrade, it is recommended that users upgrade their TAP files because the changes will prevent the java content from working. Also because of the upgrade, certain activities have changed and the custom content may require reconfiguration.

TEO 2.3 no longer support 6.40 jar files. TEO only supports 7.0 and 7.1 jar files.

Note   To use SAP P4 transport protocol, you must create the JMX Server targets using the SAP System Wizard. See the *Cisco TEO Adapter Guide for SAP Java*.

Cisco TEO Adapter Guide for SAP ABAP

Table 3   Cisco TEO Adapter for SAP ABAP Feature Changes

Feature	Location
Renamed Alerts property page to Options	Chapter 1, "Understanding the SAP ABAP Adapter Objects"
Added RFC Trace property page, which allows the the RFC trace settings for SAP .NET Connector to be modified.	
Added .NET 4.0 64-bit version 3.0.7 as prerequisite for SAP .NET Connector 3.0 dll files	
See Installing SAP .NET Connector Files, page 9.	
New feature to support duplicate SAP system IDs	"Creating an SAP Target" section in "Chapter 3, "Managing SAP ABAP Targets"

Cisco TEO Adapter Guide for SAP Solution Manager

The new Cisco TEO Adapter for SAP Solution Manager added to the TEO release 2.3.2 provides the functionality to manage alerts triggered by the alert management solution on SAP Solution Manager 7.1 systems. The Cisco add-on that is installed on the SAP Solution Manager provides the functionality in TEO to retrieve and close the open alerts in the SAP Solution Manager interface.

To properly run the SAP Solution Manager activities, the SAP Solution Manager 7.1 SP05 and the SAP .NET 3.0 Connector for .NET 4.0 64-bit version 3.0.7 are required. The following dll files must also be copied to the TEO server before attempting to configure aSAP Solution Manager target:

- sapnco.dll
- sapnco_utils.dll

See Installing SAP .NET Connector Files, page 9.

Cisco TEO Software Adapter Guide for Cisco UCS

Table 4   Cisco TEO VMware vCloud Adapter Feature Changes

Feature	Document Location
Added new feature on the target properties Options tab—Wait time for asynchronous UCS commands Removed option to select whether to archive UCS audit logs as Reporting Database events.	Cisco TEO Software Adapter Guide for Cisco UCS
Added support for C-Series servers: • Associate UCS Service Profile to Server (updated) • Collect UCS Statistics (updated) • Find UCS Managed Objects (updated) • Get UCS Blade Server Configuration (new) • Get UCS C-Series Server Configuration (new) • Reset UCS Server (updated) • Shutdown UCS Server (updated)	

Cisco TEO Adapter Help for VMware vCloud

The new Cisco TEO VMware vCloud Director adapter in release 2.3.4 allows users to retrieve data from vCloud data centers. The vCloud adapter supports vCloud Director 5.0. For users who are on vCloud Director 1.0, it is recommended that they use the existing vCloud automation pack.

To view the documentation for the VMware vCloud adapter, refer to the online help. An adapter guide is not produced in release 2.3.4.

Table 5   Cisco TEO VMware vCloud Adapter Feature Changes

Feature	Document Location
New Execute vCloud Command activity sends a HTTP request against a VMware vCloud Director REST API based on a URL and HTTP headers data.	vCloud Director Online Help
New VMware vCloud Director Server target configures the connection information to a vCloud Directory server	

Cisco TEO Adapter Guide for VMware

In release 2.3.5, TEO will limit support of the VMware ESX target to only the Execute PowerCLI Script activity. Users will be able to create ESX targets, as necessary, but only the Execute PowerCLI Script activity will be able to successfully execute the target.

Table 6   Cisco TEO VMware Adapter Feature Changes

Feature	Document Location
The Execute PowerCLI Script specifies the script command to execute using the VMware vSphere PowerCLI module.	Chapter 8, VMware Power Management Activities

Table 6 Cisco TEO VMware Adapter Feature Changes

Feature	Document Location
Updated the following activities with the new "Fail on duplicate snapshot name" feature. • Remove Snapshot • Rename Snapshot • Revert to Snapshot	Chapter 9, "VMware Snapshot Management Activities"

TEO 2.3 Content Feature Changes

The following table describes the new content and updates to existing content that is supported in Tidal Enterprise Orchestrator release 2.3.

Table 7 Content Updates in TEO v2.3

New Content/Enhancements	Document
Parameters of events raised by the SAP ABAP adapter were changed in Release 2.3. This could result in errors in the custom content/monitoring set up by customers in SCOM/HPOV or similar tools.	N/A
New parameter added to Display/Modify Document methods to ensure language support for SAP documents	SAP Online Help
Removed all SAP Transports from SAP automation packs	
New Automation Packs: • Automation for SAP HANA—Contains content to provide intelligent automation, analysis, and corrective actions to support the operations, management, and maintenance of the SAP HANA database and its related technologies. • SAP Solution Manager E23 Response—contains the content used to automate analysis and problem resolution for incidents triggered by SAP Solution Manager alerts.	• Cisco TEO Process Automation Guide for Automation for SAP HANA • Cisco TEO Process Automation Guide for SAP Solution Manager E2E Response • Cisco TEO Getting Started Guide for SAP
Added .NET 4.0 64-bit version 3.0.7 as prerequisite for SAP .NET Connector 3.0 dll files See Installing SAP .NET Connector Files, page 9.	Cisco TEO Getting Started Guide for SAP

Installing Content Updates

Content updates are not major releases, but do provide new content and/or features for TEO. In order to access the new content and/or features provided by the content, an existing installation of the TEO server must already be installed. All content updates can be installed directly onto the current TEO server.

It is recommended that users close the Console before installing the content update.

To install the content update:

Step 1   Launch the Content Update Setup.exe file from the installation directory.

Step 2   Click **Install** to begin installing the Content Update.

The Setup Wizard begins installing the latest update.

Step 3   Click **Finish** upon completion.

All new features provided by the content update will display when the Console is restarted.

Cisco Intelligent Automation for Cloud

The following section describes CIAC information related to Tidal Enterprise Orchestrator.

Licensing Information

Intelligent Automation for Cloud customers who purchased IAC 2.0 must request a new TEO license code in order to upgrade to IAC 3.1 and get full access to all the new features. When IAC 2.0 customers upgrade to IAC 3.1, they will be entitled to the following new TEO adapters and their objects: Cisco Network Services Manager, Cisco Service Portal, and VMware vCloud Director. The new license code will activate the new features in TEO.

Customers who purchased the IAC 3.0 Starter Edition will not have access to the new features provided in TEO unless IAC 3.1 is purchased.

When an order is placed, the customer receives their Claim Certificate. The Claim Certificate provides the PAK keys and a link to the SWIFT licensing portal where the PAK keys are registered. The licensing team will then issue the customer their keys.

For the IAC 3.1 upgrade, the customer should contact TAC and will be referred to GLO (Global Licensing Organization) to request a new license code. The request should reference the original PAK key, the need for a new license code for Cisco Intelligent Automation for Cloud, and the host name on which Cisco Process Orchestrator will be installed.

CIAC Starter Edition Compatibility Limitations

TEO release 2.3.4 is not provided in the compatibility matrix for any CIAC Starter Edition version. Therefore, Starter Edition customers do not have access to the new TEO 2.3.4 features.

Refer to the Cisco Intelligent Automation for Cloud Compatibility Matrix in the customer documentation for compatibility.

Configuration Access Requirements

The following user rights and configuration requirements must be met prior to installing Tidal Enterprise Orchestrator. The following SAP system information must be gathered, SAP user account created, and access rights granted prior to installing TEO.

Verifying User Rights

Tidal Enterprise Orchestrator Server

To install the product, the user must be a member of the *Local Administrators* group on the computer where Tidal Enterprise Orchestrator is to be installed.

DB2 Client

If DB2 client was installed to use local group security, the client install creates local DB2 groups on the computer where the client is installed. The logged in user should be a member of the DB2 groups on the local computer.

Microsoft® SQL Server Account

The reporting database user account is used by the SQL Server Reporting Services server to connect to the TEOReporting database. The account needs at least the *Operator* permission on the TEOReporting database. For information on the specific tasks that can be performed by users assigned to the *Operator* role, see the *Cisco TEO Training Guide for Operators*.

Microsoft Windows 2008

For the Reporting Services server that runs on Windows Server 2008, users who import reports should be a direct member of the *Local Administrators* group on the Reporting Services server machine.

The import report process will not work if a user is a member of a global group and the global group is a member of the *Local Administrators* group.

For information on importing reports, see the *Cisco TEO Installation and Administration Guide*.

Microsoft System Center Operations Manager (SCOM) Accounts

The SCOM Adapter requires a user account that has the SCOM Operations Manager *Operator* role. The account is used by the SCOM adapter to connect to the SCOM management server at runtime. For information on the specific tasks that can be performed by users assigned to the *Operator* role, see the *Cisco TEO Training Guide for Operators*.

SAP Support User Account

The TEO Auditor Role, which has read-only permissions, can be used for SAP support users to perform troubleshooting and maintenance tasks in TEO. The default assignment of the TEO Auditor Role is to members of the TEO Auditors group in Windows Computer Management. Create the support user account and add it to the TEO Auditors group in Windows Computer Management. Alternately, the created account may be directly assigned to the TEO Auditor Role in TEO.

For information on assigning support users to the TEO Auditors security group, refer to the *Cisco TEO Installation and Administration Guide*. For information on the viewing options for users assigned to the *Auditor* role, see the *Cisco TEO Training Guide for Auditors*.

SAP User Account

The user must create a SAP user account for TEO to use to log into SAP. Cisco recommends that the user creates a user account as follows:

Recommendation	Description
Required Authorization	S_A.System profile
Account Type	System, Service, or Communication user type is recommended
Language Setting	English

SAP ABAP System Information

The following information about your SAP environment should be gathered prior to installing TEO. You will need this information during the installation process.

Field	Description
Display Name	Name used to identify the SAP system
Application Server	Name or IP address for the ABAP application server
System Number	SAP-specific system number
SAP Router String (optional)	Used for SAP systems outside the firewall
Logon Information	User name, password and client for logging onto the SAP ABAP application server

Installing SAP .NET Connector Files

The SAP ABAP Adapter requires the SAP .NET 3.0 Connector for .NET 4.0 on x64 version 3.0.7. Before you can create an SAP ABAP target, the dll files must be installed on the TEO server.

To obtain the required files, go to SAP Service Marketplace.

Step 1 Choose **Start > Administrative Tools > Service** to stop the Tidal Enterprise Orchestrator service.

Step 2 From the SAP .NET 3.0 Connector for .NET 4.0 on x64 version 3.0.7 program files folder on the server where NCo is installed, locate the following files:

- sapnco.dll
- sapnco_utils.dll

Step 3 Copy the files to the following folder on the TEO server:

<Install drive>:\Program Files\Cisco\Tidal Enterprise Orchestrator\Adapters

Step 4 Restart the TEO service.

SAP Java System Information

The following information about your SAP Java System should be gathered prior to installing TEO. You will need this information during the installation process.

Field	Description
Application Server	Name or IP address for the Java application server
Port	The port number to connect to the server. The following convention should be used for specifying the port number: 5<J2EEinstance_number>04 **Example:** If your J2EE instance number is *15*, the P4 port is *51504*.
Logon Information	User name and password for logging onto the SAP Java application server

TEO Interfaces to SAP Target Systems

The communication that occurs between TEO and SAP target systems use one of the following technologies:

- SAP .NET Connector for RFC
- SAP .NET Connector for Web Services
- SAP JMX

The communication mechanisms used are not currently configured to enable SAP Secure Network Communications (SAP SNC) or secure HTTP. It is recommended that TEO is installed within a secured environment.

SAP Database Access Rights

These access rights are optional. To collect SAP database SQL query information, the user must have the following access rights to the SAP database.

Microsoft SQL Server Database Access Rights

Microsoft SQL Server Windows Authentication

If SQL Server Windows authentication is being used, the following access rights must be set on the machine where TEO is installed. To change the connection settings through the database user configuration utility on TEO server, the logged in user needs to have *write* permission to the TEO installation folder.

- Windows Server 2003—The following user rights are required:

  – The user account that connects to the database must be assigned *Logon as Service* rights.

  – The user account that is logged in and using the user interface must be assigned *Act as part* of *the OS* rights.

- Windows Server 2008—The following user rights are required:

  – The user account that connects to the database must be assigned *Logon as Service* rights.

  – The user account that is logged in and using the user interface must be assigned *Act as part* of *the OS* rights.

Microsoft SQL Server SQL Authentication

If SQL authentication is being used, the user account that connects to the database must have sysadmin (sa) rights on the machine where TEO is installed. However, if the company requires a higher level of access than the standard sysadmin access, then use the following scripts to create the logon script for access.

Process Database Logon Script

Use the following logon SQL script to create the necessary credentials for accessing the TEO processes database.

```
IF  EXISTS (SELECT * FROM sys.server_principals WHERE name = N'teoprocess')
DROP LOGIN [teoprocess]
GO
CREATE LOGIN [teoprocess] WITH PASSWORD=N'teo', DEFAULT_DATABASE=[TEOProcess],
CHECK_EXPIRATION=OFF, CHECK_POLICY=OFF
--For Windows authentication
--CREATE LOGIN [domain\userID] FROM WINDOWS WITH DEFAULT_DATABASE=[TEOProcess]
GO
USE [TEOProcess]
GO
IF  EXISTS (SELECT * FROM sys.database_principals WHERE name = N'teoprocess')
DROP USER [teoprocess]
GO
CREATE USER [teoprocess] FOR LOGIN [teoprocess] WITH DEFAULT_SCHEMA=[dbo]
GO
EXEC sp_addrolemember N'db_datareader', N'teoprocess'
GO
EXEC sp_addrolemember N'db_datawriter', N'teoprocess'
GO
```

Reporting Database Authentication Script

Use the following logon script to create a SQL user account for the TEO reporting database. The assumption is that TEOReporting database will be created by a sysadmin account first, after which the script can be used to create a teoreporting database account with limited permission, and change reporting database to use the TEOReporting user account.

```
IF  EXISTS (SELECT * FROM sys.server_principals WHERE name = N'teoreporting')
DROP LOGIN [teoreporting]
GO
CREATE LOGIN [teoreporting] WITH PASSWORD=N'teo', DEFAULT_DATABASE=[TEOReporting],
CHECK_EXPIRATION=OFF, CHECK_POLICY=OFF
--For Windows authentication
--CREATE LOGIN [domain\userID] FROM WINDOWS WITH DEFAULT_DATABASE=[TEOReporting]
GO
```

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```
USE [TEOReporting]
GO
IF  EXISTS (SELECT * FROM sys.database_principals WHERE name = N'teoreporting')
DROP USER [teoreporting]
GO
CREATE USER [teoreporting] FOR LOGIN [teoreporting] WITH DEFAULT_SCHEMA=[dbo]
GO
EXEC sp_addrolemember N'db_datareader', N'teoreporting'
GO
EXEC sp_addrolemember N'db_datawriter', N'teoreporting'
GO
```

Oracle Database Access Rights

If using an Oracle database, Cisco recommends that the user account be assigned read access rights to all tables and views. The following minimum access rights must be assigned to the user account:

- SAP tables (SNAP and EDIDC)
- V$session
- V$rowcache
- V$librarycache
- Dba_free_space
- Dba_data_files

- V$lock
- V$sqlarea
- V$sql_plan
- V$sgastat
- all_objects

Reporting Database Authentication

The following is a list of privileges required by the TIAReport user account. The TEOReportingCreateUser.sql script should be used if a customer wants to create TEOReporting db manually.

- ALTER ANY INDEX
- ALTER ANY PROCEDURE
- ALTER ANY SEQUENCE
- ALTER ANY TABLE
- ALTER ANY TRIGGER
- ALTER SYSTEM
- ALTER TABLESPACE
- ALTER USER
- CREATE SEQUENCE
- CREATE SYNONYM
- CREATE TABLE
- CREATE VIEW
- CREATE PROCEDURE
- CREATE CLUSTER
- CREATE JOB
- CREATE TRIGGER
- DROP ANY INDEX
- DROP ANY PROCEDURE
- DROP ANY ROLE
- DROP ANY SYNONYM
- DROP ANY TRIGGER
- DROP ANY VIEW
- EXECUTE ANY PROCEDURE
- EXPORT FULL DATABASE
- IMPORT FULL DATABASE
- LOCK ANY TABLE
- SELECT ANY TABLE
- SELECT ANY TRANSACTION
- UPDATE ANY TABLE
- CONNECT

DB2 Database Access Rights

The following rights must be assigned to the user accounts for DB2 databases:

- The user account that connects to the DB2 UDB database must have SYSMON authority.

✎

Note After assigning the user account to the SYSMON group, the DB2 instance needs to be restarted to ensure that the privilege is active.

- The user account should have *Select* access on the following SAP tables:
  - SNAP
  - EDIDC

Limitations and Restrictions

Beginning with Cisco Tidal Enterprise Orchestrator 2.3, users will now to go to Cisco Bug Toolkit to view open and resolved bugs. Use the following steps to query open and resolved TEO issues in the Bug ToolKit.

Searching for Specific Bug

To search for a specific bug:

Step 1 Click http://tools.cisco.com/Support/BugToolKit/action.do?hdnAction=searchBugs to log into the Bug Toolkit.

Step 2 On the Cisco Login page, under Existing User, enter the appropriate username and password, and click **Log In**.

The Bug Toolkit page displays. The Search Bugs tab is displayed by default.

Step 3 To search for a specific bug, enter the bug ID in the Search for Bug ID field and click **Go**.

Searching for Bug by Release

To search for bugs in a specific release:

Step 1 On the Search Bugs tab, in the Select Products box, choose **Cisco Process Orchestrator**.

Step 2 From the Software Version drop-down list, select the appropriate release number of the product.

Step 3 In the Search for Keyword(s) field, enter search phrases to search within the bug title and details. Boolean expressions (AND, NOT, OR) can be used.

Step 4 Click **Search**.

The queried bugs display on the Search Bugs tab.

Searching for Bugs using Advanced Criteria

Step 1   On the Search Bugs tab, in the Select Products box, choose **Cisco Process Orchestrator**.

Step 2   From the Software Version drop-down list, select the appropriate release number of the product.

Step 3   In the Search for Keyword(s) field, enter search phrases to search within the bug title and details. Boolean expressions (AND, NOT, OR) can be used.

Step 4   To the right of Advanced Options, click **Use custom settings for severity, status, and others** to define custom search criteria, and then enter the appropriate search criteria:

Criteria	Description
Severity	Check the check box of the severity level of the bug(s) to query.
Status	Check the check box of the appropriate status. • Open—Check this check box and the appropriate sub-check boxes to view all bugs that are open. Uncheck this check box to filter the open bugs based on the appropriate status from the query. • Fixed—Check this check box and the appropriate sub-check boxes to view bugs that have been resolved. Uncheck this check box to filter the fixed bugs from the query. • Terminated—Check this check box and the appropriate sub-check boxes to view terminated bugs in the query. Uncheck this check box to filter the terminated bugs from the query.
Advanced	Check the check box to the appropriate option to filter the type of bug details that display. • Check the **Show only bugs containing bug details** check box to view only those bugs that contain detailed information, such as symptoms and workarounds. • Check the **Include only bugs available to customers** check box to view bugs only available to customers.
Modified Date	From the drop-down list, select this option to filter the number of bugs based on the date on which the bugs were last modified.
Results Displayed Per Page	From the drop-down list, select the appropriate option from the list to restrict the number of results that appear per page.

Step 5   Click **Search**.

The Bug Toolkit displays the list of bugs based on the specified search criteria.

Related Documentation

The following section includes the list of available Tidal Enterprise Orchestrator software documentation.

Product Guide	Description
Reference Documentation	
Cisco Tidal Enterprise Orchestrator Installation and Administration Guide	Guides the user on the basic installation and initial configuration of the producT
Cisco TEO Northbound Web Services Guide	Provides information about the TEO web services that can be used to start processes, monitor the started process until its completion, create targets, runtime user accounts, and tasks.
Cisco TEO CLI Guide for PowerShell CLI Snap-In	Provides information on the use of the PowerShell command line interface Snap-In for TEO
Cisco Tidal Enterprise Orchestrator Reference Guide	Provides extensive reference material on the features and functionality of the product
Cisco TEO Getting Started Guide for SAP	Provides information on installing, configuring, and using the SAP-related objects in TEO
Adapter Documentation	
Cisco TEO Adapter Guide for BMC Remedy	Provides information on automating the process of querying, creating, and modifying incidents in a Remedy client
Cisco TEO Software Adapter Guide for Cisco UCS	Provides information on the objects supported by the Cisco UCS Software Adapter, including targets, triggers, and activities to support task automation on Cisco Unified Computing System (UCS) Manager instances
Cisco TEO Adapter Guide for IBM DB2 Database	Provides information on defining activities and targets to manage DB2 database objects and execute SQL queries
Cisco TEO Adapter Guide for Email	Provides support for sending email via SMTP and receiving email via POP3 and IMAP email accounts
Cisco TEO Adapter Guide for Generic (Microsoft OLEDB) Database	Provides information on defining activities and targets to manage generic database objects and execute SQL queries
Cisco TEO Adapter Guide for Microsoft Active Directory	Provides access to Active Directory groups, containers and organizational units through common administrative tasks and objects provided by the Active Directory adapter
Cisco TEO Adapter Guide for JMX	Provides the functionality in Tidal Enterprise Orchestrator to support general MBean monitoring on JMX servers.
Cisco TEO Process Automation Guide for Microsoft Active Directory	Provides information on the content provided by the Active Directory automation pack

Product Guide	Description
Cisco TEO Adapter Guide for Microsoft SCOM	Provides information on alerts and performance counters in SCOM 2007.
Cisco TEO Adapter Guide for Microsoft SQL Server Database	Provides information on defining activities and targets to manage SQL Server database objects and execute SQL queries
Cisco TEO Adapter Guide for Microsoft Windows	Provides information on querying and executing, common Windows performance tasks
Cisco TEO Adapter Guide for OLAP Database	Provides information on configuring and managing the objects provided by the OLAP Database Adapter to support collecting statistics from SAP BI Data Warehouse environments
Cisco TEO Adapter Guide for Oracle Database	Provides information on defining activities and targets to manage Oracle database objects and execute SQL queries
Cisco TEO Adapter Guide for SAP ABAP	Provides information on configuring and managing the objects provided by the SAP ABAP Adapter to monitor and analyze your SAP ABAP environment
Cisco TEO Adapter Guide for SAP Java	Provides information on configuring and managing the objects provided by the SAP Java Adapter to monitor and analyze your SAP Java environment
Cisco TEO Adapter Guide for SAP Solution Manager	Provides the functionality to manage alerts triggered by the alert management solution on SAP Solution Manager 7.1 systems.
Cisco TEO Adapter Guide for SNMP Adapter	Provides the necessary information for sending and receiving SNMP traps
Cisco TEO Adapter Guide for Terminal Adapter	Provides information on executing commands or scripts against a system or network device using a SSH or Telnet protocol
Cisco TEO Adapter Guide for Cisco Server Provisioner	Supports the automation of tasks on Tidal Server Provisioner servers and provides activities for creating, deleting, updating, and finding provisioning roles
Cisco TEO Adapter Guide for VMware	Provides information on connecting to a virtual infrastructure and automate the process managing virtual machines
Cisco TEO Adapter Guide for Web Services	Supports general web service calls and allows users to send requests using web service methods and other parameters to generate an XML output
Content Documentation	
Cisco TEO Process Automation Guide for Automation for SAP HANA	Contains content to provide intelligent automation, analysis, and corrective actions to support the operations, management, and maintenance of the SAP HANA database and its related technologies.

Product Guide	Description
Cisco TEO Process Automation Guide for SAP Solution Manager E2E Response	Contains the content used to automate analysis and problem resolution for incidents triggered by SAP Solution Manager alerts.
Cisco TEO Process Automation Guide for Assessment for SAP BWA	Contains the content used to generate an assessment report to automate query evaluation and hardware sizing necessary for implementing SAP BWA.
Cisco TEO Process Automation Guide for SAP BW and BWA	Contains the content used to automate best practices for monitoring SAP BW availability, operations and performance.
Cisco TEO Process Automation Guide for SAP BOBJ Accelerator	Contains the content used to automate monitor BWA TREX (non BW environment) and Business Objects XI Data Services Content.
Cisco TEO Process Automation Guide for SAP BOBJ Enterprise	Contains the content used to automate system monitoring and corrective actions for Business Objects XI Data Services content.
Cisco TEO Process Automation Guide for BMC Remedy	Contains the content to support synchronization of TEO incidents with the corresponding Remedy incidents.
Cisco TEO Process Automation Guide for Cisco UCS	Contains the content to support task automation on Cisco UCS Manager instances.
Cisco Tidal Enterprise Orchestrator Reference Guide	Contains default TEO objects to support other automation packs.
Cisco TEO Process Automation Guide for Incident Response for SAP	Contains the content used to automate best practices for identifying and analyzing availability and performance problems within your SAP environment.
Cisco TEO Process Automation Guide for IT Task Automation for SAP	Contains the content used to support task automation for SAP.
Cisco TEO Process Automation Guide for Microsoft Active Directory	Contains objects used to support Active Directory environments.
Cisco TEO Process Automation Guide for Microsoft Windows Server	Contains objects which support Windows environments as well as content used in other automation packs, such as Active Directory.
Cisco TEO Process Automation Guide for System Copy for SAP	Contains the content used to automate your system copy procedures for SAP systems.
Cisco Intelligent Automation for Cloud Starter Edition Configuration Guide Cisco Intelligent Automation for Cloud Starter Edition User Guide	Contains the content for Cloud Portal Starter Edition.

This document is to be used in conjunction with the documents listed in the "Related Documentation" section.

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