



Open SDN Controller Basics

The following topics provide an overview of Open SDN Controller and describe basic information you will need to use this product:

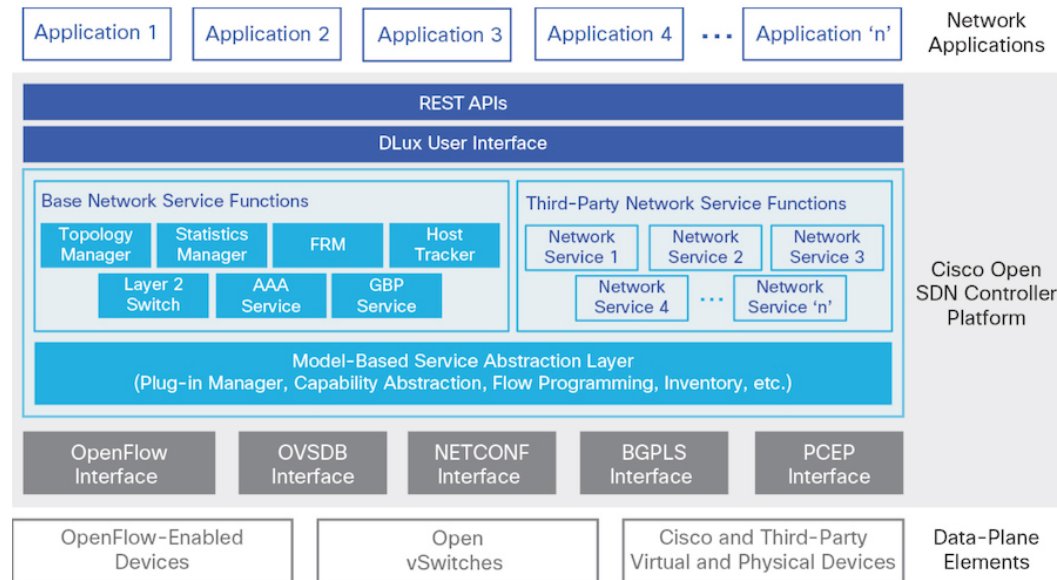
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Overview

The Cisco Open SDN Controller is a commercial distribution of OpenDaylight that delivers business agility through the automation of standards-based network infrastructure. Built as a highly scalable software-defined

networking (SDN) application platform, the Open SDN Controller abstracts away the complexity of managing heterogeneous networks to improve service delivery and reduce operating costs.

Figure 1: Open SDN Controller Platform Overview



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Key Features

The following table summarizes the key features that Open SDN Controller provides.

Feature	Description
Commercial distribution	Provides a hardened, validated, and supported OpenDaylight distribution.
Clustering	Allows you to configure multiple controller nodes to act as one in order to ensure the controller's continuous operation.
Serviceability	Provides features such as log collection, metrics collection, and system monitoring.
Open Virtual Appliance (OVA) packaging	Enables simplified installation and deployment flexibility.
Cisco DevNet Integration	Provides access to the Open SDN Controller application development environment. For more information, visit developer.cisco.com/site/opensdn .
IP/MPLS and OpenFlow network support	Integrated application support of IP/MPLS and OpenFlow networks

Feature	Description
Northbound Representational State Transfer (REST) APIs	Support application integration to the network.
Network services Java APIs	Enable the creation of embedded functions to deliver custom controller capabilities.
Southbound device plug-ins	Connect virtual and physical network elements, supporting heterogeneous network environments.

Logging In

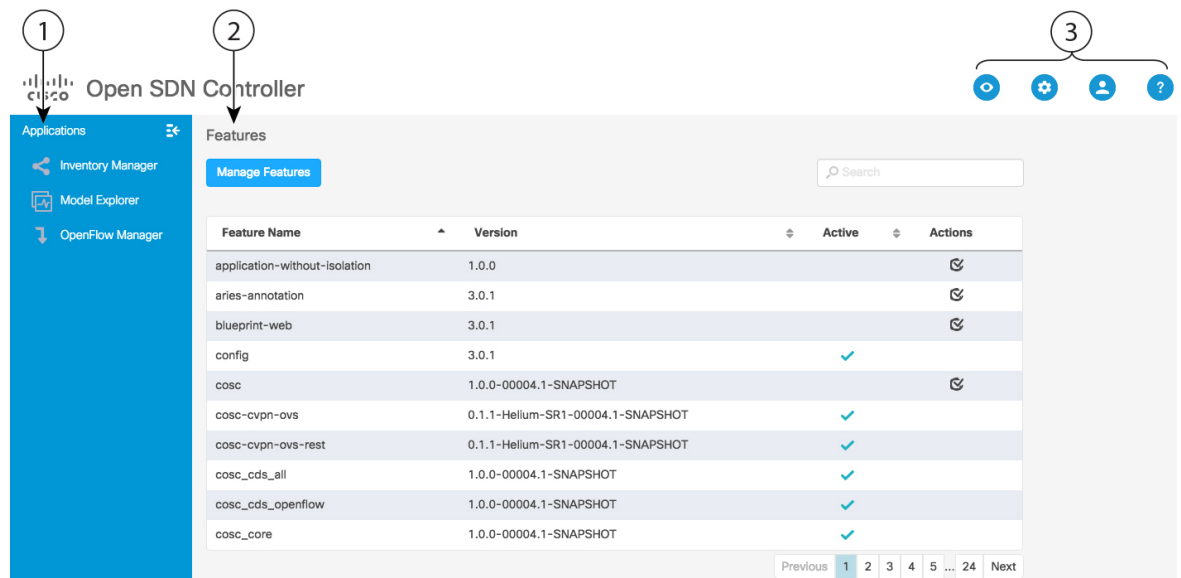
Procedure

- Step 1** In a browser supported by Open SDN Controller, open the following URL:
`https://<controller-IP-address>/#/login`
- Step 2** In the login screen, enter **admin** as both the username and passphrase and then click **Login**.
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Open SDN Controller GUI

The Open SDN Controller GUI is comprised of the following components:

Figure 2: Open SDN Controller GUI Components












Callout	Component	Description
1	Applications pane	<p>Provides a launching point for the applications that Open SDN Controller provides to facilitate the administration of your network:</p> <ul style="list-style-type: none"> • BGPLS Manager • Inventory Manager • Model Explorer • OpenFlow Manager • PCEP Manager <p>Note To minimize or maximize the Applications pane, click the arrow icon located in the top right-hand corner of the pane.</p>
2	Content pane	<p>Displays the content applicable to the application or page that was last opened.</p> <ul style="list-style-type: none"> • For more information about a particular application or page, see its corresponding topic in this guide. • For a description of the toolbar available in the BGPLS Manager, OpenFlow Manager, and PCEP Manager applications, see Application Toolbar.

3	Main toolbar	<p>Provides the following four menus:</p> <ul style="list-style-type: none"> • Monitoring menu: From here, you can open the Logs Dashboard, Metrics Dashboard, and Services Status page. See Monitoring Your System for more information. • Management menu: From here, you can open the feature and user management pages. See Managing Your System for more information. • User menu: From here, you can select Logout to log out of Open SDN Controller. • Help menu: From here, you can access documentation for the REST APIs that the controller supports. You can also export the latest diagnostic information for your system. See Viewing REST API Documentation and Exporting Diagnostic Information for more information.
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Application Toolbar

The following table describes the features available in the toolbar shared by the BGPLS Manager, OpenFlow Manager, and PCEP Manager applications.

Button	Description
	Click to select one or multiple devices in the topology. To select multiple devices, either hold down the Shift key while you click each device or draw a rectangle around them.
	Click to move the entire topology or particular devices within the topology.
	Click to zoom out the topology.
	Click to zoom in the topology.
	Click to zoom in on a particular area of the topology. Draw a rectangle around the device or devices you want to focus on.
	Click to restore the default topology view and display the entire topology within the content pane.
	When multiple devices are selected, click to group those devices. Once devices are grouped, a single icon depicts all of the devices in that group. To toggle between viewing the group icon and the icons for the individual devices, click the +/- sign.
	Click to view the application in full-screen mode.

Button	Description
	Click to specify how devices are displayed in the topology and the color theme that is used.