

# Release/Hydrogen/Base/User Guide/Config

From Daylight Project

This page contains installation and configuration for the base edition. Click [here](#) to return to the main Base Edition User Guide page.

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## Installation

The installation instructions for the Base Edition can be found here ([https://wiki.opendaylight.org/view/Release/Hydrogen/Base/Installation\\_Guide](https://wiki.opendaylight.org/view/Release/Hydrogen/Base/Installation_Guide)) .

A list of troubleshooting steps for installation can be found here ([https://wiki.opendaylight.org/view/OpenDaylight\\_Controller:Installation](https://wiki.opendaylight.org/view/OpenDaylight_Controller:Installation)) under the **Troubleshooting** section.

## Configuration

To configure OpenDaylight Base edition using the OpenFlow 1.3 plugin, start Opendaylight Controller with the *-of13* option. If you do not use the option, the controller will use the OpenFlow 1.0 version.

- To start mininet for the OpenFlow 1.3 simulation, use the following command: `$ sudo mn --controller=remote,ip=a.b.c.d --topo tree,2 --switch ovsk,protocols=OpenFlow13`
- To start mininet for the OpenFlow 1.0 simulation, use the following command: `$ sudo mn --controller=remote,ip=10.125.136.52 --topo tree,2`

## Setup Using the Graphical Interface

Log in using your credentials. The default credentials are user=admin/password=admin. The first page appears.

The screenshot displays the OpenDaylight web interface in a browser window. The address bar shows the URL `192.168.1.114:8080`. The interface includes a top navigation bar with tabs for **Devices**, **Flows**, and **Troubleshoot**, and a user profile dropdown for **admin**. The main content area is divided into two columns. The left column contains the **Nodes Learned** section, which includes a search bar and a table with columns **Node Name**, **Node ID**, and **Ports**. The table currently shows **0 items**. The right column features a large diagram of a central yellow node connected to five peripheral nodes (three blue, two green), with the text **No Network Elements Connected** below it. The bottom section of the interface is split into two panels: **Static Route Configuration** on the left and **Subnet Gateway Configuration** on the right. The **Subnet Gateway Configuration** panel is further divided into **Subnet Gateway Configuration** and **SPAN Port Configuration** tabs. Both panels include search bars and buttons for adding and removing configurations. The **Subnet Gateway Configuration** panel also has an **Add Ports** button. The **Static Route Configuration** panel has a table with columns **Static** and **Next Hop**.

**Nodes Learned**

Node Name	Node ID	Ports
0 items		

**Static Route Configuration**

Static	Next Hop
--------	----------

**Subnet Gateway Configuration**

Name	Gateway IP Address/Mask	Ports
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<input type="checkbox"/>	Name	Route	Address
<input type="checkbox"/>	default (cannot be modified)		0.0.0.0/0

Under the Devices tab, all of the created nodes are listed with their Node ID and Ports. For example, if you set up Mininet to emulate a network topology by running `sudo mn --controller=remote,ip=a.b.c.d --topo tree,2`, you create a network of tree structure with 3 switches. Those switches will be shown under the Devices menu as well as on the graphical interface, as shown below:

The screenshot shows the OpenDaylight web interface. The browser address bar displays `192.168.1.114:8080`. The interface has tabs for **Devices**, **Flows**, and **Troubleshoot**. The **Devices** tab is active, showing a **Nodes Learned** table and a **Connection Manager** section.

**Nodes Learned Table:**

Node Name	Node ID	Port
None	OF 00:00:00:00:00:00:00:02	3
None	OF 00:00:00:00:00:00:00:03	3
None	OF 00:00:00:00:00:00:00:01	2

Below the table, it indicates "1-3 of 3 items" and "Page 1 of 1".

The **Connection Manager** section displays a graphical network topology. It shows a central switch at the top with ID `OF|00:00:00:00:00:00:00:01`, connected to two other switches at the bottom. The bottom-left switch has ID `OF|00:00:00:00:00:00:00:02` and the bottom-right switch has ID `OF|00:00:00:00:00:00:00:03`. The connections are represented by yellow lines.

At the bottom of the interface, there are three tabs: **Static Route Configuration**, **Subnet Gateway Configuration**, and **SPAN Port Configuration** (which is currently selected).

## Static Route Configuration

[Add Static Route](#) [Remove Static Route](#)

<input type="text" value="Search"/> <input type="button" value="Q"/>			
<input type="checkbox"/>	Name	Static Route	Next Hop Address
0 items			

## Subnet Gateway Configuration

[Add Gateway IP Address](#) [Remove Gateway IP Address](#) [Add Ports](#)

<input type="text" value="Search"/> <input type="button" value="Q"/>			
<input type="checkbox"/>	Name	Gateway IP Address/Mask	Ports
<input type="checkbox"/>	default (cannot be modified)	0.0.0.0/0	

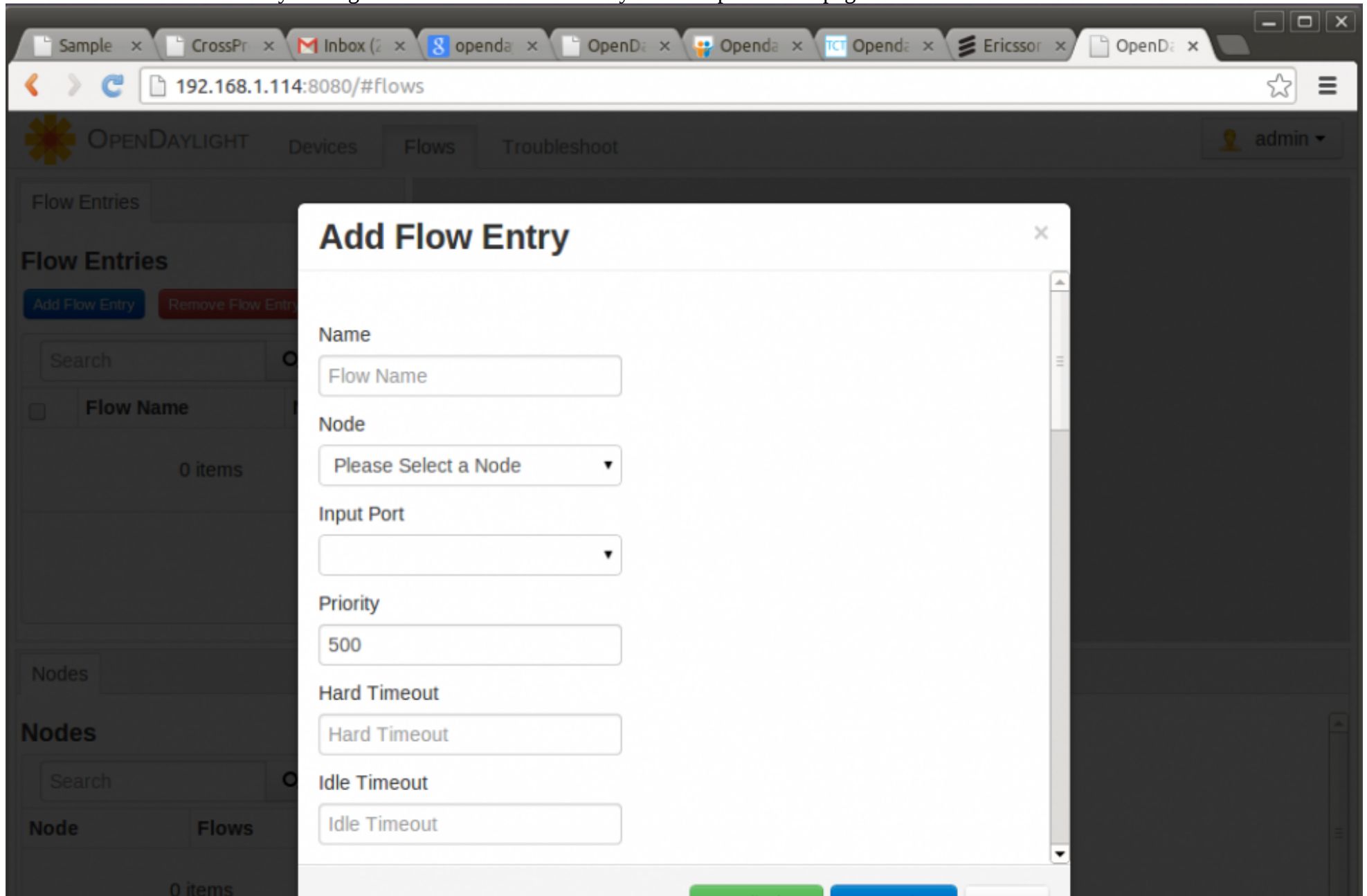
You can add a gateway by clicking on the button "Add Gateway IP Address" on the bottom-middle of the page:

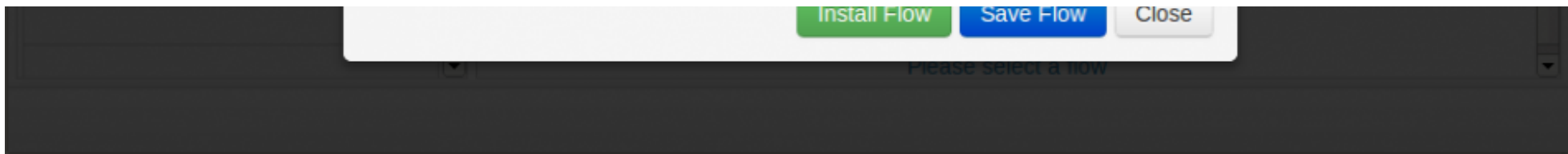
The screenshot shows the OpenDaylight web interface with a modal dialog box titled "Add Gateway IP Address". The dialog has a close button (X) in the top right corner. It contains three input fields: "Name", "Gateway IP Address/Mask", and an example "192.168.10.254/16". A blue "Save" button is located at the bottom right of the dialog.

The background interface shows the "Static Route Configuration" and "Subnet Gateway Configuration" sections. The "Subnet Gateway Configuration" section has a table with the following data:

Name	Gateway IP Address/Mask	Ports
default (cannot be modified)	0.0.0.0/0	

You can also add flow entries by clicking on the button "Add Flow Entry" on the top-left of the page:

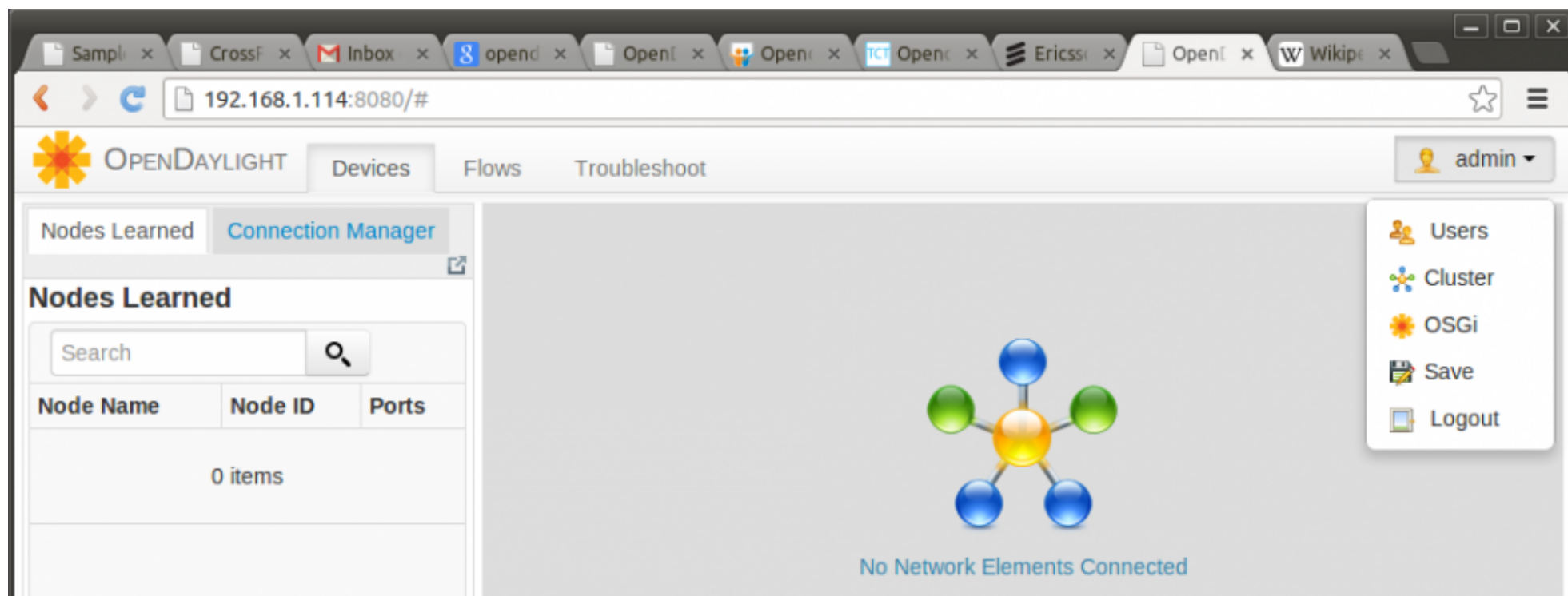


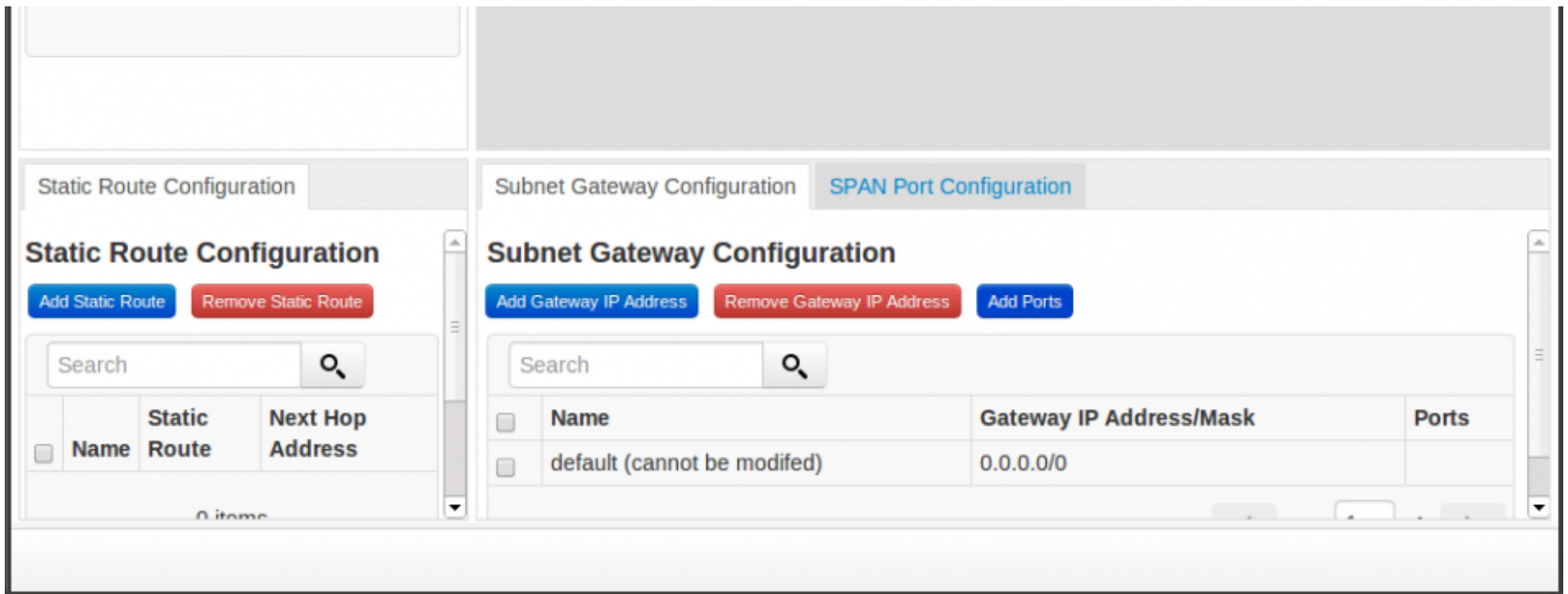


The minimum requirements to install a flow in a node are to identify the node (switch) and action for the flow entry. You can find other parameters for the flow at here (<http://openvswitch.org/cgi-bin/ovsman.cgi?page=utilities%2Fovs-ofctl.8>) under the Flow Syntax.

You can access the Admin menu from top-right of the page by clicking on the **admin** selection. The available options are:

- **Users** to manage the users and their role
- **Cluster** for the cluster manager for high availability
- **OSGi** to access the OSGi management console
- **Save** to save the current setup
- **Logout** to exit from the GUI





## Command Line Interface

The complete descriptions of OpenDaylight command line interfaces can be found here ([https://wiki.opendaylight.org/view/OpenDaylight\\_Command-Line\\_Interface\\_\(CLI\):Main#Switch\\_Commands](https://wiki.opendaylight.org/view/OpenDaylight_Command-Line_Interface_(CLI):Main#Switch_Commands)) .

## Console Interface

This information will be available soon.

## Programmatic Interfaces

For programmatic interfaces, the starting point for developers is here ([https://wiki.opendaylight.org/view/GettingStarted:Developer\\_Main](https://wiki.opendaylight.org/view/GettingStarted:Developer_Main)) . This page provides information about pulling, hacking, and pushing the code from CLI. The OpenDaylight Controller allows developers to observe and manage the controller via web applications. A programmer guide can be found here ([https://wiki.opendaylight.org/view/OpenDaylight\\_Controller:Programmer\\_Guide](https://wiki.opendaylight.org/view/OpenDaylight_Controller:Programmer_Guide)) .

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