

## Monitoring Licenses for the EX-series Switch

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To enable and use some JUNOS software features on the EX-series switch, you must purchase, install, and manage separate software licenses.

To monitor your installed licenses perform the following tasks:

- Displaying Installed Licenses and License Usage Details on page 1
- Displaying License Usage on page 1
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### Displaying Installed Licenses and License Usage Details

**Purpose** Verify that the expected licenses are installed and active on the switch.

**Action** From the CLI, enter the **show system license** command.

**Meaning** The output shows a list of the license usage and a list of the licenses installed on the switch. Verify the following information:

- Each license is present. Licenses are listed in ascending alphanumeric order by license ID.
- The state of each license is **valid**.

A state of **invalid** indicates that the license key is not a valid license key. Either it was entered incorrectly or it is not valid for the specific device.

- The feature for each license is the expected feature. The features enabled are listed by license. An all-inclusive license has **All features** listed.
- All configured features have the required licenses installed. The **Licenses needed** column must show that no licenses are required.

### Displaying License Usage

**Purpose** Verify that the licenses fully cover the feature configuration on the switch.

**Action** From the CLI, enter the **show system license usage** command.

**Meaning** The output shows a list of the licenses installed on the switch and how they are used. Verify the following information:

- Each licensed feature and port is present. Features and ports are listed in ascending alphabetical order by license name. The number of licenses is shown in the fourth column. Verify that the appropriate number of licenses is installed.
- The number of used licenses matches the number of configured features and ports. If a licensed feature or port is configured, the feature or port is considered used.

- A license is installed on the switch for each configured feature and port. For every feature or port configured that does not have a license, one license is needed.

### ***Displaying Installed License Keys***

**Purpose** Verify that the expected license keys are installed on the switch.

**Action** From the CLI, enter the `show system license keys` command.

**Meaning** The output shows a list of the license keys installed on the switch. Verify that each expected license key is present.

**Related Topics**

- Managing Licenses for the EX-series Switch (CLI Procedure)
- Managing Licenses for the EX-series Switch (J-Web Procedure)