1 License Management Commands

Command	Function
license copy	Back up license files.
license grace-period	Configure the grace period before a license expires.
license install	Install a license.
license auto-install	Automatically match and install a license.
license uninstall	Uninstall a license.
license auto-uninstall	Uninstall a license.
license unbind	Unbind a license.
license update	Update a license.
show license all-license	Display the list of all installed license files in the device.
show license dev-license	Display the list of license files on each device in the system.
show license file	Display the information about a specified license file on the device.
show license hostid	Display the host ID used for licensing.
show license dev-hostid	Display the host ID used for licensing.
show license usage	Display the usage of the current license in the system.
show license unbind-code	Display the verification code of a license unbound from the local device.
show license dev-unbind-code	Display the verification code of a license unbound from each device in the system.

1.1 license copy

Function

Run the **license copy** command to back up license files.

No license file is backed up by default.

Syntax

license { **copy-all** | **copy-file** *filename* } { **flash:** | **usb0:** } [*target-filename*]

Parameter Description

copy-all: Backs up all permanent license files in the system.

copy-file: Backs up the license file specified by *filename* in the system. *filename* is the name of a license file or a feature that has been installed in the system. When *filename* is a feature name, all the installed license files for this feature are backed up.

flash: Specifies the location of a license file in the internal flash file system.

usb0: Specifies the location of a license file in the USB file system.

target-filename: Name of a license file.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- **copy-file** is used to back up either a single license file or all license files for a feature.

- When all license files in the system are backed up, a .tar file is generated.

- You can run the **dir** command to view the generated license file package. After decompressing the package, compare the license files with the license file names displayed in the **installed license** fields of permanently licensed features in the command output of the **show license all-license** command to check whether licenses are correctly backed up.

  ○ The **installed license** field is available only for multi-instance licenses. The name of a file internally backed up in the multi-instance license system is determined by the ID of the multi-instance license.

  ○ One single-instance license file exists at most in the system at a time. Therefore, the internally backed up single-instance license file is named after the feature.

Examples

The following example backs up all license files in the system to the **orion-license-lics** path (mandatory) of the USB flash drive. The license file package is named **lics.tar**.

```
Hostname> enable
Hostname# license copy-all usb0:orion-license-lics/lics.tar
Success to copy all permanent license.
```

Notifications

When you want to back up all license files but there is no license file for backup in the system, the following notification will be displayed:

```
Copy failed, there's no permanent license in the system.
```

When all license files in the system are backed up, the following notification will be displayed:

```
Success to copy all permanent license.
```

When the specified feature or license file is not on the device, the following notification will be displayed:

```
Copy failed, there's no such service or license installed in the system.
```

When the specified license file is temporary, the following notification will be displayed:

```
Copy failed, the license is temporary.
```

When the specified license file is backed up, the following notification will be displayed:

```
Success to copy license vsd.lic.
```

Common Errors

- The specified license or file does not exist in the system.

- The backup fails as the specified license to be backed up is temporary.

Platform Description

N/A

Related Commands

N/A

1.2 license grace-period

Function

Run the **license grace-period** command to configure the grace period before a license expires.

The grace period before a license expires is 180 days by default.

Syntax

license grace-period *filename days*

Parameter Description

filename: Name of a license feature.

days: Grace period (in days) before a license expires. The range is from 0 to 365.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- A grace period is set for an evaluation license only but not a permanent license.

- When a license is going to expire in 100 days, a warning message is generated at regular intervals.

○ When the expiration time of a license is less than the grace period, a warning is generated once a day.

○ The day before a license expires, a warning is generated every hour. A warning is sent in the form of a log or SNMP trap message.

Examples

The following example configures the temporary license for the installed VSD feature in the system and sets the grace period to 100 days.

```
Hostname> enable
Hostname# license grace-period LIC-VSD 100
Success to set alarm starting point of license LIC-VSD.
```

Notifications

When the grace period is successfully set, the following notification will be displayed:

```
Success to set alarm starting point of license LIC-VSD.
```

When the specified license does not exist in the system, the following notification will be displayed:

```
There's no license abc in the system.
```

Common Errors

The specified license does not exist in the system.

Platform Description

N/A

Related Commands

N/A

1.3   license install

Function

Run the **license install** command to install a license.

Syntax

license install { **flash:** | **usb0:** } *filename*

Parameter Description

flash: Specifies the location of a license file in the internal flash file system.

usb0: Specifies the location of a license file in the USB file system.

filename: Name of a license file.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- The name of a license file can be modified.

- In a VSU environment, run the **license install** command on the master device to install a license on all devices, or run this command on a non-master device to install a license locally.

Examples

The following example installs a license file for the VSD feature.

```
Hostname> enable
Hostname# license install usb0:vsd.lic
License file install success, service name: LIC-VSD.
```

Notifications

When the license file does not exist, the following notification will be displayed:

```
Install failed: no such file or directory.
```

When the license file is invalid, the following notification will be displayed:

```
Install failed: the install license may be wrong.
```

When a license file later than the one to be installed already exists in the system, the following notification will be displayed:

```
Install failed: the system already has a same license which is newer.
```

When a license file is repeatedly installed, the following notification will be displayed:

```
Install failed: the license has been installed before.
```

When a license is temporary and a permanent license for the same feature already exists in the system, the following notification will be displayed:

```
Install failed: The system already has a same permanent license.
```

When a license (the license for the VSD feature above) is installed, the following notification will be displayed:

```
License file install success, service name: LIC-VSD.
```

When a license (the license for the VSD feature above) is installed and converted into a permanent one, the following notification will be displayed:

```
License file install success, service name: LIC-VSD.
The license turns to be permanent.
```

When a license (the license for the VSD feature above) is installed and is to be expired in less than 30 days, the following notification will be displayed:

```
License file install success, service name: LIC-VSD.;
The installed license is approaching deadline, less than 30 days.
```

Common Errors

- The specified license file does not exist.
- The license file is invalid.

- The SN of the license file does not match that of the device.

- The pre-installed license is earlier than that in the system.

- A license file is repeatedly installed.

- The pre-installed license is temporary but the system has installed a permanent license.

Platform Description

N/A

Related Commands

N/A

1.4 license auto-install

Function

Run the **license auto-install** command to automatically match and install a license.

Syntax

license auto-install { **flash:** | **usb0:** } *filename*

Parameter Description

flash:: Specifies the location of a license file in the internal flash file system.

usb0:: Specifies the location of a license file in the USB file system.

filename: Name of a license file.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- The name of a license file can be modified.

- This command is used in a VSU environment.

- In a VSU environment, this command is used to install a license on a matched board only.

- In a non-VSU environment, this command has the same function as the **license install** command.

Examples

The following example installs a license for the FC feature.

```
Hostname> enable
Hostname# license install usb0:fc.lic
License file install success, dev 2 install it, service name: LIC-FC-BLADE-S.
```

Notifications

When the license file does not exist, the following notification will be displayed:

```
Install failed: no such file or directory.
```
When the license file is invalid, the following notification will be displayed:

```
Install failed: the install license may be wrong.
```
When a license file later than the one to be installed already exists on the device, the following notification will be displayed:

```
Install failed: device 2 already has a same license which is newer.
```
When a license file is repeatedly installed, the following notification will be displayed:

```
Install failed: the license has been installed to device 2 before.
```
When a license is temporary and a permanent license for the same feature already exists on the device, the following notification will be displayed:

```
Install failed: device 2 already has a same permanent license.
```
When a license (the license for the FC feature above) is installed for a specific device, the following notification will be displayed:

```
License file install success, device 2 installed it, service name: LIC-FC-BLADE-
S.
```
When a license (the license for the FC feature above) is installed for a specific device and converted into a permanent one, the following notification will be displayed:

```
License file install success, device 2 installed it, service name: LIC-FC-BLADE-S
.
The license turns to be permanent.
```
When a license is installed (the license for the FC feature above) for a specific device and is to be expired in less than 30 days, the following notification will be displayed:

```
License file install success, device 2 installed it, service name: LIC-FC-BLADE-S
.;
The installed license is approaching deadline, less than 30 days.
```

Common Errors

- The specified license file does not exist.

- The license file is invalid.

- No device matches the license file in the environment.

- The pre-installed license is earlier than that in the system.

- A license file is repeatedly installed.

- The pre-installed license is temporary but the system has installed a permanent license.

Platform Description

N/A

Related Commands

N/A

1.5 license uninstall

Function

Run the **license uninstall** command to uninstall a license.

Syntax

license uninstall *license* [*filename*]

Parameter Description

all: Uninstalls all license files in the system.

license: Name of the license to be uninstalled.

filename: Name of the file to be uninstalled.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- If the licensed feature is running, the uninstallation does not take effect immediately.

- An uninstalled license is not restored. It is recommended that you back up the license file before uninstalling it.

Examples

The following example uninstalls the VSD license in the system.

```
Hostname> enable
Hostname# license uninstall LIC-VSD
Uninstall LIC-VSD success.
```

Notifications

When the specified license file (named **defd**) does not exist on the device, the following notification will be displayed:

```
Uninstall failed: there's no license defd in the system.
```

When the specified license file (named **123.lic**) for the specified feature (LIC-WLAN-AP-32) does not exist on the device, the following notification will be displayed:

```
Uninstall failed: there's no license 123.lic of service LIC-WLAN-AP-32 in the
system.
```

When a single license file of a single-instance licensed feature is uninstalled, the following notification will be displayed:

```
Uninstall failed: single instance license does not support license based
uninstalling.
```

When a license is uninstalled (for the VSD feature), the following notification will be displayed:

```
Uninstall LIC-VSD success.
```

When a single license file (named **AP32_1.lic**) of a licensed feature is (LIC-WLAN-AP-32) uninstalled, the following notification will be displayed:

```
Uninstall license AP32_1.lic of service LIC-WLAN-AP-32 success.
```

Common Errors

- No license is installed for the specified feature on the device.

- The specified license file for the specified feature does not exist on the device.

- A license file for a single-instance feature is pre-uninstalled (a single license file is not uninstalled in a single-instance license scenario).

Platform Description

N/A

Related Commands

N/A

1.6   license auto-uninstall

Function

Run the **license auto-uninstall** command to uninstall a license.

Syntax

license auto-uninstall *device-id license* [*filename*]

Parameter Description

device-id: ID of the device that stores the file to be uninstalled.

license: Name of the license to be uninstalled.

filename: Name of the file to be uninstalled.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- If the licensed feature is running, the uninstallation will not take effect immediately.

- An uninstalled license is not restored. It is recommended that you back up the license file before uninstalling it.

Examples

The following example uninstalls the FC license in the system.

```
Hostname> enable
```

```
Hostname# license auto-uninstall 2 LIC-FC-BLADE-S
License file uninstall LIC-FC-BLADE-S of device 2 success.
```

Notifications

When the specified license (named **defd**) does not exist on the specified device (device 2, the same as below), the following notification will be displayed:

```
Uninstall failed: there's no license defd in the device 2.
```

When the specified license file (named **123.lic**) for the specified feature (LIC-WLAN-AP-32) does not exist on the specified device, the following notification will be displayed:

```
Uninstall failed: there's no license 123.lic of service LIC-WLAN-AP-32 in device
2.
```

When a single license file of a single-instance licensed feature is uninstalled, the following notification will be displayed:

```
Uninstall failed: single instance license does not support license based
uninstalling.
```

When a license is uninstalled (for the FC feature), the following notification will be displayed:

```
Uninstall LIC-FC-BLADE-S in device 2 success.
```

When a single license file (named **AP32_1.lic**) of a licensed feature is (LIC-WLAN-AP-32) uninstalled, the following notification will be displayed:

```
Uninstall license AP32_1.lic of service LIC-WLAN-AP-32 in device 2 success.
```

Common Errors

- No license is installed for the specified feature on the specified device.

- The specified license file for the specified feature does not exist on the specified device.

- A license file for a single-instance feature is pre-uninstalled (a single license file is not uninstalled in a single-instance license scenario).

- The specified device does not exist.

Platform Description

N/A

Related Commands

N/A

1.7   license unbind

Function

Run the **license unbind** command to unbind a license.

Syntax

license unbind *pak*

Parameter Description

pak: License code

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

- This command is used to unbind a license file from a device. You must run this command to unbind the license from the device before removing the binding on the website.

- Upon unbinding, you obtain a verification code, which is needed for the unbinding on the website.

Examples

The following example unbinds the license with the license code of LIC-FCOE00000012268888.

```
Hostname> enable
Hostname# license unbind LIC-FCOE00000012268888
Success to unbind license LIC-FCOE00000012268888.
The verification string is
775719468737BA269825589557F558657575B5D5D5D5D785782598859765A8355855.
```

Notifications

When the system has no matched license, the following notification will be displayed:

```
Unbind failed: not match license found.
```

Common Errors

The system has no matched license.

Platform Description

N/A

Related Commands

N/A

1.8 license update

Function

Run the **license update** command to update a license.

Syntax

license update { **flash:** | **usb0:** } *filename*

Parameter Description

flash:: Specifies the location of a license file in the internal flash file system.

usb0:: Specifies the location of a license file in the USB file system.

filename: Name of a license file.

Command Modes

Privileged EXEC mode

Default Level

4

Usage Guidelines

N/A

Examples

The following example updates the temporary license for VSD to a permanent one.

```
Hostname> enable
Hostname# license update usb0:vsd_perm.lic
License file update success, temporary license LIC-VSD changes into permanent.
```

Notifications

When the license file does not exist, the following notification will be displayed:

```
Update failed: No such file or directory.
```

When the license file is invalid, the following notification will be displayed:

```
Update failed: the update license may be wrong.
```

When the pre-installed license is earlier than that in the system, the following notification will be displayed:

```
Update failed: the new installed license is older than the system one
```

When a license has been installed, the following notification will be displayed:

```
Update failed: the license has been installed before.
```

When a temporary license cannot replace a permanent one, the following notification will be displayed:

```
Update failed: the period license cannot replace permanent license.
```

When no license has been installed for the feature of the pre-installed license, the following notification will be displayed:

```
Update failed: now the system does not have the license.
Try "license install" instead.
```

When an evaluation license is updated and converted into a permanent one (the license for the VSD feature), the following notification will be displayed:

```
Update success, temporary license LIC-VSD changes into permanent.
```

Common Errors

- The license file is specific to the current device.
- An earlier license is used to replace a later one.
- The updated license has been installed.
- A temporary license is used to replace a permanent one.

● No license has been installed for the feature during the license update.

Platform Description

N/A

Related Commands

N/A

1.9   show license all-license

Function

Run the **show license all-license** command to display the list of all installed license files in the device.

Syntax

show license all-license

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the information about all installed licenses in the system

```
Hostname> enable
Hostname# show license all-license
Searching license in the system...
1. Service name: LIC-AP-64
    Attribute: Releasable
   [Permanent licenses]   [Licensed serial number]
    19880966.lic           LIC-AP-6400000012264966
    19880988.lic           LIC-AP-6400000012264988
   [Temporary license]    [Licensed serial number]
    19880900.lic           LIC-AP-6400000012264900
    (63 days left)
2. Service name: LIC-VSD
Attribute: Temporary, Releasable
Left days: 362
Licensed serial number: LIC-VSD00000012268888
```

Table 1-1Output Fields of the show license all-license Command

Field	Description
Service name	Name of the licensed feature
Attribute	Attributes of this license
Left days	Remaining days before expiry of the license
Licensed serial number	License code

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.10   show license dev-license

Function

Run the **show license dev-license** command to display the list of license files on each device in the system.

Syntax

show license dev-license

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the information about licenses installed on each device in the system

```
Hostname> enable
```

```
Hostname# show license dev-license
Searching license in the system...
Dev 1:
1. Service name: LIC-AP-64
   Attribute: Releasable
  [Permanent licenses]    [Licensed serial number]
   19880966.lic            LIC-AP-6400000012264966
   19880988.lic            LIC-AP-6400000012264988
  [Temporary license]     [Licensed serial number]
   19880900.lic            LIC-AP-6400000012264900
   (63 days left)
2. Service name: LIC-VSD
Attribute: Temporary, Releasable
Left days: 362
Licensed serial number: LIC-VSD00000012268888
Dev 2:
 1. Service name: LIC-FC-BLADE-S
   Attribute: Temporary, Releasable
   Left days: 99
   Licensed serial number: LIC-FC-BLADE-S 0000001884686
2. Service name: LIC-AP
   Attribute: Permanent, Releasable
  [Installed licenses]   [Licensed serial number]
   19880921.lic            LIC-AP00000012265001
19880922.lic            LIC-AP00000012265002
```

Table 1-1 Output Fields of the show license dev-license Command

Field	Description
Service name	Name of the licensed feature
Attribute	Attributes of this license
Left days	Remaining days before expiry of the license
Installed license	Installed license files
Licensed serial number	License code

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.11 show license file

Function

Run the **show license file** command to display the information about a specified license file on the device.

Syntax

show license file *file-license*

Parameter Description

file-license: Information about a specified license name. *filename* indicates the name of the license file.

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the information about the VSD license.

```
Hostname# show license file LIC-VSD
Service name: LIC-VSD
Attribute: Temporary, Releasable
Left days: 362
Licensed serial number: LIC-VSD00000012268888
```

Table 1-1Output Fields of the show license file Command

Field	Description
Service name	Name of the licensed feature
Attribute	Attributes of this license
Left days	Remaining days before expiry of the license
Licensed serial number	License code

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.12   show license hostid

Function

Run the **show license hostid** command to display the host ID used for licensing.

Syntax

show license hostid

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the host ID of a device.

```
Hostname> enable
Hostname# show license hostid
1234942570021
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.13 show license dev-hostid

Function

Run the **show license dev-hostid** command to display the host ID used for licensing.

Syntax

show license dev-hostid

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the host ID of each device.

```
Hostname> enable
Hostname# show license dev-hostid
Dev 1: 8708EH5F00042
Dev 2: GH3002893D300
```

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.14 show license usage

Function

Run the **show license usage** command to display the usage of the current license in the system.

Syntax

show license usage

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the license information.

```
Hostname> enable
Hostname# show license usage
Searching license in the system...
1. Service name: LIC-AP-64
    Attribute: Releasable
   [Permanent licenses]   [Licensed serial number]
    19880966.lic            LIC-AP-6400000012264966
    19880988.lic            LIC-AP-640000012264988
   [Temporary license]    [Licensed serial number]
    19880900.lic            LIC-AP-640000012264900
    (63 days left)
2. Service name: LIC-VSD
Attribute: Temporary, Releasable
Left days: 362
Licensed serial number: LIC-VSD00000012268888
```

Table 1-1 Output Fields of the show license usage Command

Field	Description
Service name	Name of the licensed feature
Attribute	Attributes of this license
Left days	Remaining days before expiry of the license

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.15   show license unbind-code

Function

Run the **show license unbind-code** command to display the verification code of a license unbound from the local device.

Syntax

show license unbind-code

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the verification code of a license unbound from a device.

```
Hostname> enable
Hostname# show license unbind-code
LICENSE                    UNBINDING-CODE
LIC-VSD00000012264933
77571FF68737BFF69FF55FF557F55FF57575B595E58587857FF59FF59765AFF55FF5
LIC-FCOE00000012264966
77571FF68737BFF69FF55FF557F55FF57575B595E5B5B7857FF59FF59765AFF55FF5
LIC-TRILL00000012264988
77571FF68737BFF69FF55FF557F55FF57575B595E5D5D7857FF59FF59765AFF55FF5
```

Table 1-1Output Fields of the show license unbind-code Command

Field	Description
LICENSE	License code of an unbound license
UNBINDING-CODE	Verification code of an unbound license

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A

1.16   show license dev-unbind-code

Function

Run the **show license dev-unbind-code** command to display the verification code of a license unbound from each device in the system.

Syntax

show license dev-unbind-code

Parameter Description

N/A

Command Modes

All modes except the user EXEC mode

Default Level

2

Usage Guidelines

N/A

Examples

The following example displays the verification codes of licenses unbound from each device in the system.

```
Hostname> enable
Hostname# show license dev-unbind-code
Searching unbound license in the system...
Dev 1:
LICENSE                 UNBINDING-CODE
LIC-FCOE00000012265013
57771FF68737BFF69FF55FF557F55FF57575B5A5556587857FF59FF59765AFF55FF5     LIC-
VSD00000012265011
57771FF68737BFF69FF55FF557F55FF57575B5A5556567857FF59FF59765AFF55FF5     Dev 2:
LICENSE                 UNBINDING-CODE
LIC-VSD00000012264933
```

```
77571FF68737BFF69FF55FF557F55FF57575B595E58587857FF59FF59765AFF55FF5          LIC-
TRILL00000012264966
77571FF68737BFF69FF55FF557F55FF57575B595E5B5B7857FF59FF59765AFF55FF5          LIC-
FCOE00000012264988
77571FF68737BFF69FF55FF557F55FF57575B595E5D5D7857FF59FF59765AFF55FF5
```

Table 1-1Output Fields of the show license dev-unbind-code Command

Field	Description
LICENSE	License code of an unbound license
UNBINDING-CODE	Verification code of an unbound license

Notifications

N/A

Common Errors

N/A

Platform Description

N/A

Related Commands

N/A