

H3C Access Controllers License Command Reference

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Preface

This command reference describes the AP license synchronization, license client, and license management configuration commands.

This preface includes the following topics about the documentation:

- [Audience.](#)
- [Conventions.](#)
- [Documentation feedback.](#)

Audience

This documentation is intended for:

- Network planners.
- Field technical support and servicing engineers.
- Network administrators working with the H3C access controllers.

Conventions

The following information describes the conventions used in the documentation.





Command conventions

Convention	Description
Boldface	Bold text represents commands and keywords that you enter literally as shown.
<i>Italic</i>	<i>Italic</i> text represents arguments that you replace with actual values.
[]	Square brackets enclose syntax choices (keywords or arguments) that are optional.
{ x y ... }	Braces enclose a set of required syntax choices separated by vertical bars, from which you select one.
[x y ...]	Square brackets enclose a set of optional syntax choices separated by vertical bars, from which you select one or none.
{ x y ... }*	Asterisk marked braces enclose a set of required syntax choices separated by vertical bars, from which you select a minimum of one.
[x y ...]*	Asterisk marked square brackets enclose optional syntax choices separated by vertical bars, from which you select one choice, multiple choices, or none.
&<1-n>	The argument or keyword and argument combination before the ampersand (&) sign can be entered 1 to n times.
#	A line that starts with a pound (#) sign is comments.













GUI conventions

Convention	Description
Boldface	Window names, button names, field names, and menu items are in Boldface. For example, the New User window opens; click OK .
>	Multi-level menus are separated by angle brackets. For example, File > Create > Folder .

Symbols

Convention	Description
 WARNING!	An alert that calls attention to important information that if not understood or followed can result in personal injury.
 CAUTION:	An alert that calls attention to important information that if not understood or followed can result in data loss, data corruption, or damage to hardware or software.
 IMPORTANT:	An alert that calls attention to essential information.
NOTE:	An alert that contains additional or supplementary information.
 TIP:	An alert that provides helpful information.

Network topology icons

Convention	Description
	Represents a generic network device, such as a router, switch, or firewall.
	Represents a routing-capable device, such as a router or Layer 3 switch.
	Represents a generic switch, such as a Layer 2 or Layer 3 switch, or a router that supports Layer 2 forwarding and other Layer 2 features.
	Represents an access controller, a unified wired-WLAN module, or the access controller engine on a unified wired-WLAN switch.
	Represents an access point.
	Represents a wireless terminator unit.
	Represents a wireless terminator.
	Represents a mesh access point.
	Represents omnidirectional signals.
	Represents directional signals.
	Represents a security product, such as a firewall, UTM, multiservice security gateway, or load balancing device.
	Represents a security module, such as a firewall, load balancing, NetStream, SSL VPN, IPS, or ACG module.

Examples provided in this document

Examples in this document might use devices that differ from your device in hardware model, configuration, or software version. It is normal that the port numbers, sample output, screenshots, and other information in the examples differ from what you have on your device.

Documentation feedback

You can e-mail your comments about product documentation to info@h3c.com.

We appreciate your comments.

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AP license synchronization commands

The following compatibility matrixes show the support of hardware platforms for AP license synchronization:

Hardware series	Model	Product code	AP license synchronization compatibility
WX1800H series	WX1804H	EWP-WX1804H-PWR-CN	No
WX2500H series	WX2508H-PWR-LTE WX2510H WX2510H-F WX2540H WX2540H-F WX2560H	EWP-WX2508H-PWR-LTE EWP-WX2510H-PWR EWP-WX2510H-F-PWR EWP-WX2540H EWP-WX2540H-F EWP-WX2560H	No
WX3000H series	WX3010H WX3010H-X WX3010H-L WX3024H WX3024H-L WX3024H-F	EWP-WX3010H EWP-WX3010H-X-PWR EWP-WX3010H-L-PWR EWP-WX3024H EWP-WX3024H-L-PWR EWP-WX3024H-F	No
WX3500H series	WX3508H WX3510H WX3520H WX3520H-F WX3540H	EWP-WX3508H EWP-WX3510H EWP-WX3520H EWP-WX3520H-F EWP-WX3540H	Yes
WX5500E series	WX5510E WX5540E	EWP-WX5510E EWP-WX5540E	Yes
WX5500H series	WX5540H WX5560H WX5580H	EWP-WX5540H EWP-WX5560H EWP-WX5580H	Yes
Access controller modules	LSUM1WCME0 EWPXM1WCME0 LSQM1WCMX20 LSUM1WCMX20RT LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMD0F EWPXM1MAC0F	LSUM1WCME0 EWPXM1WCME0 LSQM1WCMX20 LSUM1WCMX20RT LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMD0F EWPXM1MAC0F	Yes

Hardware series	Model	Product code	AP license synchronization compatibility
WX1800H series	WX1804H	EWP-WX1804H-PWR	No

	WX1810H WX1820H WX1840H	EWP-WX1810H-PWR EWP-WX1820H EWP-WX1840H-GL	
WX3800H series	WX3820H WX3840H	EWP-WX3820H-GL EWP-WX3840H-GL	Yes
WX5800H series	WX5860H	EWP-WX5860H-GL	Yes

ap-license-synchronization enable

Use **ap-license-synchronization enable** to enable the AP license synchronization feature.

Use **undo ap-license-synchronization enable** to disable the AP license synchronization feature.

Syntax

```
ap-license-synchronization enable
undo ap-license-synchronization enable
```

Default

AP license synchronization is disabled.

Views

AP license synchronization group view

Predefined user roles

network-admin

Usage guidelines

This feature synchronizes AP licenses from master ACs to the backup AC in an AP license synchronization group via AP license synchronization connections.

Before enabling this feature, specify IP addresses and roles for the AC and its member ACs in the AP license synchronization group.

- In a dual-link backup network, configure both ACs as the master devices.
- In an N+1 cold-backup network, configure a minimum of one AC as the backup device and a maximum of four ACs as the master devices.

Examples

```
# Enable AP license synchronization.
<Sysname> system-view
[Sysname] wlan ap-license-group
[Sysname-wlan-ap-license-group] ap-license-synchronization enable
```

display wlan ap-license-group

Use **display wlan ap-license-group** to display AP license synchronization group information.

Syntax

```
display wlan ap-license-group
```


Views

Any view

Predefined user roles

network-admin

network-operator

Examples

Display AP license synchronization group information.

```
<Sysname> display wlan ap-license-group
```

```
Group total licenses: 256
```

```
Group used licenses: 128
```

```
AP license synchronization: Enabled
```

```
Local IP: 2.2.2.2
```

```
Local role: Master
```

```
Member information:
```

IP address	Total	Used	Member role	State	Online duration
2.2.2.3	128	64	Master	Up	00hr 00min 04sec
2.2.2.4	128	64	Backup	Up	00hr 00min 09sec
2.2.2.5	N/A	N/A	Master	Down	00hr 00min 00sec
2.2.2.6	N/A	N/A	Master	Down	00hr 00min 00sec

Table 1 Command output

Fields	Description
Group total licenses	Total number of AP licenses in the AP synchronization group.
Group used licenses	Number of used AP licenses in the AP synchronization group.
AP license synchronization	Whether the AP synchronization feature is enabled.
Local IP	IP address of the local AC.
Local role	Role of the local AC: <ul style="list-style-type: none">• Master.• Backup.• Not configured.
IP address	IP address of a member AC in the AP synchronization group.
Total	Total number of AP licenses for the member AC.
Used	Number of used AP licenses for the member AC.
Member role	Role of the member AC: <ul style="list-style-type: none">• Master.• Backup.
State	Member status in the AP license synchronization group: <ul style="list-style-type: none">• Up.• Down.
Online duration	Accumulated online duration of the member AC.

local ip

Use **local ip** to specify the IP address and role for the AC in an AP license synchronization group.

Use **undo local ip** to restore the default.

Syntax

```
local ip ipv4-address [ backup ]  
undo local ip
```

Default

No IP address and role is specified for the AC in the AP license synchronization group.

Views

AP license synchronization group view

Predefined user roles

network-admin

Parameters

ipv4-address: Specifies the IPv4 address of the AC in the AP license synchronization group.

backup: Specifies the backup role for the AC in the AP license synchronization group. If you do not specify this keyword, the AC acts as the master AC.

Usage guidelines

Before executing this command, make sure the AP license synchronization feature is disabled.

Examples

```
# Specify the IP address and role for the AC in the AP license synchronization group.  
<Sysname> system-view  
[Sysname] wlan ap-license-group  
[Sysname-wlan-ap-license-group] local ip 192.168.10.10 backup
```

member ip

Use **member ip** to add a member AC to an AP license synchronization group.

Use **undo member ip** to delete a member AC from the AP license synchronization group

Syntax

```
member ip ipv4-address [ backup ]  
undo member ip ipv4-address
```

Default

An AP license synchronization group does not have any member ACs.

Views

AP license synchronization group view

Predefined user roles

network-admin

Parameters

ipv4-address: Specifies the IPv4 address of a member AC.

backup: Specifies the backup role for the member AC in the AP license synchronization group. If you do not specify this keyword, the member AC acts as the master AC.

Usage guidelines

Before executing this command, make sure the AP license synchronization feature is disabled.

You can add a maximum of four member ACs in the AP license synchronization group.

The AP license synchronization group can have a minimum of one AC that is specified as the backup device.

Examples

Add a member AC to the AP license synchronization group.

```
<Sysname> system-view
```

```
[Sysname] wlan ap-license-group
```

```
[Sysname-wlan-ap-license-group] member ip 192.168.10.11 backup
```

wlan ap-license-group

Use **wlan ap-license-group** to enter AP license synchronization group view.

Syntax

```
wlan ap-license-group
```

Views

System view

Predefined user roles

network-admin

Usage guidelines

An AC can have only one AP license synchronization group.

Examples

Enter AP license synchronization group view

```
<Sysname> system-view
```

```
[Sysname] wlan ap-license-group
```

```
[Sysname-wlan-ap-license-group]
```

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License management commands

The WX1800H series, WX2500H series, and WX3000H series access controllers do not support parameters or commands that are available only in IRF mode.

The following compatibility matrixes show the support of hardware platforms for licensing methods:

Hardware series	Model	Product code	Activation file	Activation key
WX1800H series	WX1804H	EWP-WX1804H-PWR-CN	Yes	No
WX2500H series	WX2508H-PWR-LTE WX2510H WX2510H-F WX2540H WX2540H-F WX2560H	EWP-WX2508H-PWR-LTE EWP-WX2510H-PWR EWP-WX2510H-F-PWR EWP-WX2540H EWP-WX2540H-F EWP-WX2560H	Yes: <ul style="list-style-type: none"> WX2508H-PWR-LTE WX2510H WX2540H WX2560H No: <ul style="list-style-type: none"> WX2510H-F WX2540H-F 	No
WX3000H series	WX3010H WX3010H-X WX3010H-L WX3024H WX3024H-L WX3024H-F	EWP-WX3010H EWP-WX3010H-X-PWR EWP-WX3010H-L-PWR EWP-WX3024H EWP-WX3024H-L-PWR EWP-WX3024H-F	Yes	No
WX3500H series	WX3508H WX3510H WX3520H WX3520H-F WX3540H	EWP-WX3508H EWP-WX3510H EWP-WX3520H EWP-WX3520H-F EWP-WX3540H	Yes	No
WX5500E series	WX5510E WX5540E	EWP-WX5510E EWP-WX5540E	Yes	Yes
WX5500H series	WX5540H WX5560H WX5580H	EWP-WX5540H EWP-WX5560H EWP-WX5580H	Yes	No
Access controller modules	LSUM1WCME0 EWPXM1WCME0 LSQM1WCMX20 LSUM1WCMX20RT LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMD0F	LSUM1WCME0 EWPXM1WCME0 LSQM1WCMX20 LSUM1WCMX20RT LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMD0F EWPXM1MAC0F	Yes	Yes: <ul style="list-style-type: none"> LSUM1WCME0 EWPXM1WCME0 No: <ul style="list-style-type: none"> LSQM1WCMX20 LSUM1WCMX20RT

Hardware series	Model	Product code	Activation file	Activation key
	EWPXM1MAC0F			<ul style="list-style-type: none"> LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMDF EWPXM1MAC0F

Hardware series	Model	Product code	Activation file	Activation key
WX1800H series	WX1804H WX1810H WX1820H WX1840H	EWP-WX1804H-PWR EWP-WX1810H-PWR EWP-WX1820H EWP-WX1840H-GL	Yes: WX1840H No: <ul style="list-style-type: none"> WX1804H WX1810H WX1820H 	No
WX3800H series	WX3820H WX3840H	EWP-WX3820H-GL EWP-WX3840H-GL	Yes	No
WX5800H series	WX5860H	EWP-WX5860H-GL	Yes	No

display license

Use `display license` to display detailed license information.

Syntax

In standalone mode:

```
display license [ activation-file | activation-key ]
```

In IRF mode:

```
display license [ activation-file | activation-key ] [ slot slot-number ]
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

activation-file: Displays license information about activation files.

activation-key: Displays license information about activation keys.

slot slot-number: Specifies the member ID of an IRF member device. If no member device is specified, this command displays license information for all IRF member devices. (In IRF mode.)

Examples

Display detailed information about all licenses.

```
<Sysname> display license
```

flash:/license/219801A0WL9166Q000042018122016485038123.ak

Feature: APMGR

Product Description: Enhanced Access Controller License,16 APs,for Verticals,for V7

Registered at: 2018-12-20 21:59:46

License Type: Trial (days restricted)

Trial Time Left (days): 180

Current State: In use

Table 1 Command output

Field	Description
Feature	Feature name.
Product Description	License description.
Registered at	Time when the license was installed.
License Type	License type by validity period: <ul style="list-style-type: none">• NA—The system cannot obtain the license type.• Permanent—Purchased license that never expires and is always valid.• Days restricted—Purchased license that is valid for a period of days, for example, 30 days.• Trial (days restricted)—Free trial license that is valid for a period of days.
Time Left (days)	Remaining days of the license. This field is available for a purchased license.
Trial Time Left (days)	Remaining days of the trial period. This field is available for a trial license.
Current State	State of the license: <ul style="list-style-type: none">• In use—The license is being used.• Usable—The license is available for use.<ul style="list-style-type: none">○ If multiple days-restricted licenses for one feature are installed, only one license is in In use state and the rest licenses are in Usable state.○ A date restricted license is in this state if its start date is not reached.• Expired—The license has expired.• Uninstalled—The license has been uninstalled.• Unusable—The license cannot be used.• Invalid—The license is invalid and cannot be used.
Uninstall Key	This field is available for licenses that have been uninstalled. When you uninstall an activation file, an Uninstall file that contains an Uninstall key is created. The Uninstall key is required for transferring the license.
Uninstall Date	Date when the activation file was uninstalled.

display license device-id

Use `display license device-id` to display SN and DID information.

Syntax

In standalone mode:

```
display license device-id
```

In IRF mode:

```
display license device-id slot slot-number
```

Views

Any view

Predefined user roles

network-admin

network-operator

Parameters

slot *slot-number*: Specifies the member ID of an IRF member device. (In IRF mode.)

Usage guidelines

When you register a license for a device, you must provide its unique SN and DID.

The DID changes each time you use the **license compress** command to compress the license storage. Use the **display license device-id** command to identify the up-to-date DID each time you register licenses.

The DID is contained in a .did file. Upload the file when you register the license with the license center.

Examples

(In standalone mode.) Display the device SN and DID.

```
<Sysname> display license device-id
```

```
SN: 219801A11XH133000015
```

```
SN CHECK_SUM: 157E907E
```

```
Device ID: flash:/license/219801A11XH133000015.did
```

(In IRF mode.) Display the SN and DID for the specified slot.

```
<Sysname> display license device-id slot 1
```

```
SN: 210235A1JNC14B900031
```

```
SN CHECK_SUM: BBB9E675
```

```
Device ID: flash:/license/210235A1JNC14B900031.did
```

display license feature

Use **display license feature** to display brief license information for features.

Syntax

```
display license feature
```

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

(In standalone mode.) Display brief feature license information.

```
<Sysname> display license feature
```

```
Total: 360 Usage: 0
```

Feature	Licensed	State
APMGR	N	-

(In IRF mode.) Display brief feature license information.


```

<Sysname> display license feature
Slot 1:
Total: 360 Usage: 0
Feature                Licensed      State
APMGR                  N            -

```

Table 2 Command output

Field	Description
Total	Total number of licenses that can be installed.
Usage	Number of licenses stored in the license storage.
Feature	Feature that must be licensed before being used.
Licensed	Licensing state of the feature: <ul style="list-style-type: none"> • N—Not licensed. • Y—Licensed.
State	License type by purchasing state: <ul style="list-style-type: none"> • Formal—Purchased license. • Trial—Trial license. <p>If the feature is not licensed, this field displays a hyphen (-). To use the feature, you must install a valid license file.</p>

license activation-file install

Use `license activation-file install` to install an activation file.

Syntax

In standalone mode:

```
license activation-file install license-file
```

In IRF mode:

```
license activation-file install license-file slot slot-number
```

Views

System view

Predefined user roles

network-admin

Parameters

license-file: Specifies the path of an activation file, a case-sensitive string of 1 to 127 characters. The activation file must be valid and stored on the device.

slot slot-number: Specifies the member ID of an IRF member device. (In IRF mode.)

Usage guidelines

(In standalone mode.) License registration requires the device's hardware SN and DID.

In IRF mode:

To install a license activation file successfully, make sure the SN and DID used for registering the feature license matches the current SN and DID of the device.

Activation files are device locked rather than MPU locked. A licensed feature can run on the entire system even after an MPU replacement.

Examples

```
# (In standalone mode.) Install activation file 20170810.ak.
<Sysname> system-view
[Sysname] license activation-file install flash:/license/20170810.ak
This operation might take some time. Do not perform any other operations until the operation
is completed or a failure message is displayed. Please wait...Done.

# (In IRF mode.) Install activation file 20170811.ak to the specified slot.
<Sysname> system-view
[Sysname] license activation-file install flash:/license/20170811.ak slot 1
This operation might take some time. Do not perform any other operations until the operation
is completed or a failure message is displayed. Please wait...Done.
```

Related commands

```
display license activation-file
display license device-id
license activation-file uninstall
```

license activation-file uninstall

Use **license activation-file uninstall** to uninstall an activation file.

Syntax

In standalone mode:

```
license activation-file uninstall license-file
```

In IRF mode:

```
license activation-file uninstall license-file slot slot-number
```

Views

System view

Predefined user roles

network-admin

Parameters

license-file: Specifies the file path, a case-sensitive string of 1 to 127 characters.

slot *slot-number*: Specifies the member ID of an IRF member device. (In IRF mode.)

Usage guidelines

Use this command to revoke an unexpired license if you want to transfer the license from one device to another.

When an activation file is uninstalled, the system creates an Uninstall file. Use this file together with the SN and DID of the transfer destination to register the license for the transfer destination.

A feature cannot run after you uninstall all of its activation files.

Trial licenses are not transferrable. When you uninstall the activation file of a trial license, no Uninstall file is created.

Examples

```
# (In standalone mode.) Uninstall activation file flash:/license/20130810.ak.
<Sysname> system-view
```

```
[Sysname] license activation-file uninstall flash:/license/20130810.ak
This operation might take some time. Do not perform any other operations until the operation
is completed or a failure message is displayed. Please wait...Done.
Uninstall file: flash:/license/20130810.uak

# (In IRF mode.) Uninstall activation file flash:/license/20130811.ak from the specified slot.
<Sysname> system-view
[Sysname] license activation-file uninstall flash:/license/20130811.ak slot 1
This operation might take some time. Do not perform any other operations until the operation
is completed or a failure message is displayed. Please wait...Done.
Uninstall file: flash:/license/20130811.uak
```

Related commands

```
display license activation-file
license activation-file install
```

license activation-key install

Use **license activation-key install** to install an activation key.

Syntax

In standalone mode:

```
license activation-key install activation-key-string
```

In IRF mode:

```
license activation-key install activation-key-string slot slot-number
```

Views

System view

Predefined user roles

network-admin

Parameters

activation-key-string: Specifies the activation key in the XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX format. The string is case sensitive and must be valid.

slot *slot-number*: Specifies the member ID of an IRF member device. (In IRF mode.)

Usage guidelines

(In standalone mode.) License registration requires the device's hardware SN and DID.

In IRF mode:

To install a license activation key successfully, make sure the SN and DID used for registering the feature license matches the current SN and DID of the device.

Activation keys are device locked rather than MPU locked. A licensed feature can run on the entire system even after an MPU replacement.

Examples

```
# (In standalone mode.) Install activation key XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX.
<Sysname> system-view
[Sysname] license activation-key install XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX
```

This operation might take some time. Do not perform any other operations until the operation is completed or a failure message is displayed. Please wait...Done.

(In IRF mode.) Install activation key XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX on the specified slot.

```
<Sysname> system-view
```

```
[Sysname] license activation-key install XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX-XXXX slot 1
```

This operation might take some time. Do not perform any other operations until the operation is completed or a failure message is displayed. Please wait...Done.

Related commands

display license activation-key

display license device-id

license activation-key uninstall

license compress

Use **license compress** to compress the license storage.

Syntax

In standalone mode:

```
license compress
```

In IRF mode:

```
license compress slot slot-number
```

Views

System view

Predefined user roles

network-admin

Parameters

slot *slot-number*: Specifies the member ID of an IRF member device. (In IRF mode.)

Usage guidelines

Use this command if the free license storage (see the **display license feature** command) is not sufficient.

This command clears expired licenses and uninstalled licenses that are installed by using activation files or activation keys.

If uninstalled licenses or expired licenses exist on the device, the compression operation will make the DID change. Before performing a compression, make sure all licenses registered with the old DID have been installed. You will be unable to install such licenses after the compression.

This command clears invalid licenses (expired licenses and uninstalled licenses) and Uninstall keys from the license storage area. Back up the Uninstall keys before you compress the license storage.

Examples

(In standalone mode.) Compress the license storage.

```
<Sysname> system-view
```

```
[Sysname] license compress
```

This command will delete all data relevant to uninstalled and expired keys/licenses, including Uninstall keys, and create a new device ID for activation keys/files. Make sure

you have saved the Uninstall keys so you can apply for a new activation key/file for the unexpired licenses that were covered by the uninstalled activation keys/files.

Are you sure you want to continue? [Y/N]: Y

This operation might take some time. Do not perform any other operations until the operation is completed or a failure message is displayed. Please wait...Done.

(In IRF mode.) Compress the license storage on the specified slot.

```
<Sysname> system-view
```

```
[Sysname] license compress slot 1
```

This command will delete all data relevant to uninstalled and expired keys/licenses, including Uninstall keys, and create a new device ID for activation keys/files. Make sure you have saved the Uninstall keys so you can apply for a new activation key/file for the unexpired licenses that were covered by the uninstalled activation keys/files.

Are you sure you want to continue? [Y/N]: Y

This operation might take some time. Do not perform any other operations until the operation is completed or a failure message is displayed. Please wait...Done.

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License client commands

The following compatibility matrixes show the support of hardware platforms for license client:

Hardware series	Model	Product code	License client compatibility
WX1800H series	WX1804H	EWP-WX1804H-PWR-CN	Yes
WX2500H series	WX2508H-PWR-LTE WX2510H WX2510H-F WX2540H WX2540H-F WX2560H	EWP-WX2508H-PWR-LTE EWP-WX2510H-PWR EWP-WX2510H-F-PWR EWP-WX2540H EWP-WX2540H-F EWP-WX2560H	Yes
WX3000H series	WX3010H WX3010H-X WX3010H-L WX3024H WX3024H-L WX3024H-F	EWP-WX3010H EWP-WX3010H-X-PWR EWP-WX3010H-L-PWR EWP-WX3024H EWP-WX3024H-L-PWR EWP-WX3024H-F	Yes
WX3500H series	WX3508H WX3510H WX3520H WX3520H-F WX3540H	EWP-WX3508H EWP-WX3510H EWP-WX3520H EWP-WX3520H-F EWP-WX3540H	Yes
WX5500E series	WX5510E WX5540E	EWP-WX5510E EWP-WX5540E	Yes
WX5500H series	WX5540H WX5560H WX5580H	EWP-WX5540H EWP-WX5560H EWP-WX5580H	Yes
Access controller modules	LSUM1WCME0 EWPXM1WCME0 LSQM1WCMX20 LSUM1WCMX20RT LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMD0F EWPXM1MAC0F	LSUM1WCME0 EWPXM1WCME0 LSQM1WCMX20 LSUM1WCMX20RT LSQM1WCMX40 LSUM1WCMX40RT EWPXM2WCMD0F EWPXM1MAC0F	Yes

Hardware series	Model	Product code	License client compatibility
WX1800H series	WX1804H WX1810H WX1820H WX1840H	EWP-WX1804H-PWR EWP-WX1810H-PWR EWP-WX1820H EWP-WX1840H-GL	No

Hardware series	Model	Product code	License client compatibility
WX3800H series	WX3820H WX3840H	EWP-WX3820H-GL EWP-WX3840H-GL	No
WX5800H series	WX5860H	EWP-WX5860H-GL	No

display license client

Use `display license client` to display the license client configuration and the obtained license information on the license client.

Syntax

```
display license client
```

Views

Any view

Predefined user roles

network-admin
network-operator

Examples

Display the license client configuration and the obtained license information on the license client.

```
<Sysname> display license client
Username: user
Ciphertext password: *****
License server's IPv4 address: 192.168.3.124, port: 5555
License server's IPv6 address: 2001::1, port: 6000
License client: Enabled, Registering, Miss sync count 0
Cache Size:
  License name: APMGR, cache size: 64
License Count: 1

ID: 34153395526cf65b09000000
License Name: APMGR
Licensed Count:32
License Description: H3C WLAN AP Management, 32 licenses
Current State: In use
Get Time: 2018-11-22 16:55:01
```

Table 1 Command output

Field	Description
Username	Username for login to the license server. This field displays Not configured if no username is specified.
Ciphertext password	Password in encrypted form for login to the license server. This field displays Not configured if no password is specified.
License server's IPv4 address:	IPv4 address and port number of the license server.

Field	Description
192.168.3.124, port: 5555	
License server's IPv6 address: 2001::1, port: 6000	IPv6 address and port number of the license server.
License server's IPv4/IPv6 address: Not configured, port: Not configured	IP address and port number of the license server. This field displays Not configured if no IP address or port number of the license server is specified.
License client	Status of the license client: <ul style="list-style-type: none"> • Enabled. • Disabled. • Registering. • Registered.
Miss sync count	Number of packets for synchronization that are dropped by the license client.
Cache Size: License name: APMGR, cache size: 64	Name and size of the license cached on the license client.
License Count	Number of licenses cached on the license client.
ID	Identification of the license allocated by the license server. The license server assigns an ID for each license request.
Licensed Count	Maximum number of licensed nodes in the license. For example, this field displays 32 for the license H3C WLAN AP Management, 32 licenses . The value 32 indicates that the license allows a maximum of 32 concurrent online APs. For a feature license, this field always displays 1 .
License description	Description of the license.
Current State	Current status of the license: <ul style="list-style-type: none"> • In use—The license is in use. • Unusable—The license is not in use. • Expired (will be reclaimed in <i>n</i> days)—The license is expired and will be reclaimed in <i>n</i> days.
Get Time	Time when the license was obtained from the license server.

display license client statistics

Use `display license client statistics` to display license statistics on the license client.

Syntax

```
display license client statistics
```

Views

Any view

Predefined user roles

network-admin

network-operator

Examples

```
# Display license statistics on the license client.
<Sysname> display license client statistics
Name      Type      Total
APMGR     UINT32    64
```

Table 2 Command output

Field	Description
Name	License name.
Type	License data type: <ul style="list-style-type: none">• UINT32—Quantity type.• BOOL—Boolean type. It defines whether the license client can use the feature.• STRING—String type. It defines whether the license client can use the feature with specific settings.
Total	For a quantity type, this field displays total number of licenses. For a Boolean or string type, this field displays total number of licensed users.

Related commands

```
display license client
```

license client config cache

Use `license client config cache` to configure license cache on the license client.

Use `undo license client config cache` to disable license cache.

Syntax

```
license client config cache license-name license-name size cache-size
undo license client config cache license-name license-name
```

Default

License cache is not configured. No license can be cached on the license client.

Views

System view

Predefined user roles

network-admin

Parameters

license-name: Specifies a license by its license name. Only APMGR is supported.

cache-size: Specifies the maximum number of licenses that can be cached.

Examples

```
# Configure the license client to accommodate a maximum of 64 APMGR licenses.
<Sysname> system-view
[Sysname] license client config cache license-name APMGR size 64
```

license client enable

Use `license client enable` to enable the license client.

Use `undo license client enable` to disable the license client.

Syntax

```
license client enable
undo license client enable
```

Default

License client is disabled, and it cannot get licenses from the license server.

Views

System view

Predefined user roles

network-admin

Usage guidelines

Specify the IP address, username, and password of the license server before enabling license client. Otherwise, the configuration fails.

After you enable the license client, the device automatically initiates a connection to the license server. The license server verifies the device identity through the username and password. If they are consistent with those specified on the license server, the device passes authentication. Then the device can apply for licenses from the license server and use the licensed features.

Examples

```
# Enable the license client.
<Sysname> system-view
[Sysname] license client enable
```

Related commands

```
license client username
license server
```

license client username

Use `license client username` to specify the username and password on the license client for logging in to the license server.

Use `undo license client username` to delete the username and password settings.

Syntax

```
license client username username password { cipher | simple } password
undo license client username
```

Default

No username or password is specified on the license client.

Views

System view

Predefined user roles

network-admin

Parameters

username: Specify the username, a case-sensitive string of 1 to 31 characters.

cipher: Specify a password in encrypted form.

simple: Specifies a password in plaintext form.

password: Specifies the password. Its plaintext form is a case-sensitive string of 1 to 31 characters. Its encrypted form is a case-sensitive string of 33 to 73 characters.

Usage guidelines

You can specify only one username and one password on the license client for login to the license server.

If you execute the command multiple times before enabling the license client, the most recent configuration takes effect.

After the license client is enabled, you cannot modify the username or password. To modify the settings, disable the license client first.

Examples

Specify **test** and **123456** as the username and password on the license client.

```
<Sysname> system-view
```

```
[Sysname] license client username test password simple 123456
```

Related commands

license client enable

license server

Use **license server** to specify the IP address and port number of the license server.

Use **undo license server** to delete the license server settings on the license client.

Syntax

```
license server { ipv4 ipv4-address | ipv6 ipv6-address } port port-number  
[ vpn-instance vpn-instance-name ]
```

```
undo license server { ipv4 ipv4-address | ipv6 ipv6-address }
```

Default

No IP address or port number of the license server is specified.

Views

System view

Predefined user roles

network-admin

Parameters

ipv4 *ipv4-address*: Specifies the IPv4 address of the license server.

ipv6 *ipv6-address*: Specifies the IPv6 address of the license server.

port-number: Specifies the port number of the license server, in the range of 1 to 65535.

vpn-instance *vpn-instance-name*: Specifies an MPLS L3VPN instance to which the license server belongs. The *vpn-instance-name* argument is a case-sensitive string of 1 to 31 characters. If the license server is on the public network, do not specify this option.

Usage guidelines

You can specify a maximum of four license servers on the license client. Each license server is uniquely identified by the combination of an IPv4 address and a port number.

When the upper limit is reached, you cannot specify new license servers unless you delete existing license server settings.

As a best practice, make sure only one license server is reachable. If multiple license servers are reachable, the license client selects the first license server with which the client establishes a connection.

After the license client is enabled, you cannot modify the license server settings on the client. To modify the settings, disable the license client first.

Examples

Specify 192.168.100.1 and 5555 as the IPv4 address and port number of the license server, respectively.

```
<Sysname> system-view
```

```
[Sysname] license server ipv4 192.168.100.1 port 5555
```

Specify 3001::1 and 5555 as the IPv6 address and port number of the license server, respectively.

```
<Sysname> system-view
```

```
[Sysname] license server ipv6 3001::1 port 5555
```

Related commands

license client enable