

3.3.5 Practice Questions

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Score: 100%

Passing Score: 80%

Question 1.

✓ Correct

You need to add VoIP and IP telephony support to a router.

Which feature set must be enabled to do this?

- Data
- Security
- IP Base
- Unified Communication

Explanation

Enabling the Unified Communications feature set on a Cisco router allows the device to provide VoIP and IP telephony support.

The IP Base feature set provides basic IP routing functionality. This feature set is a prerequisite for all other feature sets and is enabled by default on all Cisco routers.

The Data feature set provides mobile IP, multicast authentication, token ring, SNTP, and SDLC.

The Security feature set provides firewall, IPS, IPsec, 3DES, and VPN support.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_01_ccna7.question.xml

You need to add the Security feature set to a router. Prior to accessing Cisco's website to purchase the appropriate license, you need to record the router's UDI.

Which command can you use to do this?

- show license feature**
- show license**
- **show license udi**
- license install**

Explanation

Every Cisco device that supports universal images has an identifier assigned to it called the unique device identifier (UDI). The UDI is composed of two parts:

- Product ID (PID)
- Serial number (SN)

To identify a device's UDI, you can use either of the **show license udi** commands.

The **show license** and **show license feature** commands display the feature sets enabled on the device.

The **license install** command is used to install new licenses on the device.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_02_ccna7.question.xml

You need to enable the Security feature set on a router.

You visited the Cisco website to purchase the feature set and create a product authorization key (PAK). Cisco emailed you a license file (FTX1788948P_201304123432565291.lic), which you copied to a USB drive. You connected the USB drive to the device. Now you need to install the license.

Which commands should you enter prior to the **reload** command?

- **license install usbflash1:FTX1788948P_201304123432565291.lic**
- license boot module c2900 technology-package securityk9
usbflash1:FTX1788948P_201304123432565291.lic**
- license install c2900 technology-package securityk9**
- license boot module c2900 technology-package securityk9**

Explanation

To enable a feature set, you need to install the license and then reload the router. In this scenario, this is done using the following commands:

- **license install usbflash1:FTX1788948P_201304123432565291.lic**
- **reload**

The **license boot module c2900 technology-package securityk9** command enables the Security feature set, but it uses a 60-day evaluation license.

The **license install c2900 technology-package securityk9** and the **license boot module c2900 technology-package securityk9
usbflash1:FTX1788948P_201304123432565291.lic** commands use incorrect command syntax.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_03_ccna7.question.xml

Consider the output from the **show license** command shown in the figure below.

Click on the feature set that has been enabled using a right-to-use evaluation license.

```
Router# show license
Index 1 Feature: ipbasek9
  Period left: Life time
  License Type: Permanent
  License State: Active, In Use
  License Count: Non-Counted
  License Priority: Medium
Index 2 Feature: securityk9
  Period left: 6 weeks 4 days
  Period Used: 0 minute 0 second
  License Type: EvalRightToUse
  License State: Active, In Use
  License Count: Non-Counted
  License Priority: Low
Index 3 Feature: uck9
  Period left: Not Activated
  Period Used: 0 minute 0 second
  License Type: EvalRightToUse
  License State: Not in Use, EULA not accepted
  License Count: Non-Counted
  License Priority: None
Index 4 Feature: datak9
  Period left: Life time
  License Type: Permanent
  License State: Active, In Use
  License Count: Non-Counted
  License Priority: Medium
```

Explanation

Features that are displayed with a license type of *EvalRightToUse* and a license state of *Active, In Use* in the output of the **show license** command have been enabled using a 60-day evaluation right-to-use license. In this example, the securityk9 feature has been enabled with this type of license.

In this example, the ipbasek9 and datak9 feature sets have been enabled using a product authorization key (PAK). The uck9 feature set is not enabled.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_04_ccna7.question.xml

You need to add multiprotocol label switching (MPLS) support to a router using the Data feature set.

Which feature set must be enabled before the Data feature set can be enabled?

- ipbasek9
- datak9
- uck9
- securityk9

Explanation

The IP Base (ipbasek9) feature set provides basic IP routing functionality. This feature set is a prerequisite for all other feature sets, and it is enabled by default on all Cisco routers.

Enabling the Unified Communications (uck9) feature set on a Cisco router allows the device to provide VoIP and IP telephony support.

The Data (datak9) feature set provides MPLS, ATM, and multiprotocol support.

The Security (securityk9) feature set provides firewall, IPS, IPsec, 3DES, and VPN support.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_05_ccna7.question.xml

You want to view the feature sets that have been enabled on a router and what types of licenses they use.

Which commands can you use to do this? (Select two. Each option is a complete solution.)

- **show version**
- license install**
- license boot module**
- **show license**
- show license udi**

Explanation

To identify which feature sets have been enabled on a device and view the type of license used for each, you can use either of the following commands:

- **show version**
- **show license**

The **show license udi** command displays the device's UDI.

The **license install** and **license boot module** commands are used to enable features on the device.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_06_ccna7.question.xml

You use a Cisco 2900 router in your network. You are considering purchasing and implementing the Unified Communications feature set on this router. However, you would like to evaluate this feature set for a period of time prior to purchasing it.

Which command activates the evaluation right-to-use license for this feature set?

- **license boot module c2900 technology-package uck9**
- license boot module c2900 technology-package data9**
- license boot module c2900 technology-package securityk9**
- install license feature uck9 EvaluateRightToUse**
- license install evaluate uck9**

Explanation

The **license boot module *device_model* technology-package *feature_set*** command installs a 60-day evaluation license for the specified feature set. Evaluation licenses don't require a PAK. Replace ***device_model*** with the model number of the device. Replace ***feature_set*** with the name of the feature set to be enabled, such as uck9 (for Unified Communications).

The **license boot module c2900 technology-package securityk9** command uses the correct syntax, but installs the Security feature set instead of the Unified Communications feature set.

The **license boot module c2900 technology-package datak9** command also uses the correct syntax, but installs the Data feature set instead of the Unified Communications feature set.

The **license install evaluate uck9** and **install license feature uck9 EvaluateRightToUse** commands use incorrect syntax for installing an evaluation license.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_07_ccna7.question.xml

Consider the output from the **show license** command shown in the figure below.

Click on all feature sets that have been enabled using a product authorization key (PAK).

```
Router# show license
Index 1 Feature: ipbasek9
        Period left: Life time
        License Type: Permanent
        License State: Active, In Use
        License Count: Non-Counted
        License Priority: Medium
Index 2 Feature: securityk9
        Period left: Life time
        License Type: Permanent
        License State: Active, In Use
        License Count: Non-Counted
        License Priority: Medium
Index 3 Feature: uck9
        Period left: Not Activated
        Period Used: 0 minute 0 second
        License Type: EvalRightToUse
        License State: Not in Use, EULA not accepted
        License Count: Non-Counted
        License Priority: None
Index 4 Feature: datak9
        Period left: Not Activated
        Period Used: 0 minute 0 second
        License Type: EvalRightToUse
        License State: Not in Use, EULA not accepted
        License Count: Non-Counted
        License Priority: None
```

Explanation

Features that are displayed with a license type of *Permanent* in the output of the **show license** command have been enabled using a product authorization key (PAK). In this example, the following features have been enabled with a PAK:

- ipbasek9
- securityk9

In this example, the uck9 and datak9 feature sets have not been enabled.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_08_ccna7.question.xml

Which mode is required to install the license on a Cisco device?

- ROMmon mode
- Global configuration mode
- Privileged exec mode
- User exec mode

Explanation

Privileged exec mode provides a user with editing capabilities. Use the license install command in privileged exec mode to install the file.

Global configuration mode provides advanced access to device configurations.

User exec mode provides the most basic level of access to a Cisco device.

ROMmon mode is a command line mode that is used to recover a lost or forgotten password, reinstall the IOS, or to format the flash file system.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_09_ccna7.question.xml

Which command would you use to show you the following information in a table?

- Feature name
- Enforcement
- Evaluation
- Subscription
- Enabled
- RightToUser
- show license**
- show license history**
- show license UDI**
- **show license feature**

Explanation

Entering **show license feature** puts the license information in a table.

Verify that the license has been installed using the **show license** command. This command will present you with information about the name of the feature including:

- License type (either permanent or evaluation)
- License state (either active or in use)
- License count (how many licenses are available and in use)
- License priority (indicates the priority of the license as either high or low)

You can find the unique device identifier, or UDI, with the **show license UDI** command.

show license history is not a valid command.

References



3.3.4 IOS Licensing Facts

resources\text\t_ios_licensing_ccna7\q_ios_licensing_10_ccna7.question.xml