

Cisco Express Foundation for Field Engineers

Cisco 648-385

Version Demo

Total Demo Questions: 11

Total Premium Questions: 111

Buy Premium PDF

<https://passqueen.com>

support@passqueen.com

QUESTION NO: 1

Which statement correctly describes Cisco IOS Software?

- A. A universal Cisco IOS image includes all software features; enabled features depend on license keys.
- B. Only Cisco Channel Partners can issue Cisco IOS license keys.
- C. Newer Cisco routers support only Cisco IOS Software version 15 and above.
- D. Cisco IOS-XE Software is a subset of the Cisco IOS Software.
- E. Cisco Business Edition 6000 is integrated into Cisco IOS Software.

ANSWER: A

Explanation:

A universal Cisco IOS image includes all software features; enabled features depend on license keys. Cisco introduced the universal-image approach to simplify software distribution and operational deployment: a single IOS image can be installed on a supported platform rather than requiring separate images for each feature set. The capabilities that become available on the device are then controlled through the applicable software license and feature activation process. This permits an organization to enable the feature package it has purchased without replacing the IOS image, provided that the platform, hardware, and IOS release support those capabilities.

In practical terms, the image contains the code for multiple technology packages, while licensing establishes the right to activate and use the selected package. Administrators can view license and package status with IOS licensing commands and activate supported capabilities according to Cisco's licensing workflow. This model reduces image-management overhead, helps standardize software deployment, and allows features to be added through licensing when business requirements change. Cisco documents the universal-image and package-licensing model in its [IOS licensing overview](#) and provides supporting licensing guidance in its [Cisco software licensing documentation](#).

QUESTION NO: 2

Which two statements are true when designing a new technical solution? (Choose two.)

- A. The technical solution has to be based on the previously defined architecture.
- B. The technical solution must not consider existing solution; it must be built from scratch.
- C. CVDs provide proven design of single-vendor solutions.
- D. Numerous CVDs are available that provide all the information needed for a successful deployment.
- E. The SBA toolkit includes foundation design guides that focus on concepts as well as foundation design guides that show detailed configurations.

ANSWER: A D

Explanation:

A new technical solution should be based on the architecture defined during the earlier architecture and requirements work. The architecture establishes the business and technical framework for the solution, including the required capabilities, constraints, service requirements, and major technology domains. Using that framework ensures that the detailed solution design directly supports the customer's stated business outcomes rather than being an isolated product selection exercise.

Numerous Cisco Validated Designs (CVDs) are also available to support successful deployments. CVDs provide documented, tested, and validated design and implementation guidance for specific solution scenarios. They are intended to help engineers apply repeatable architectures and deployment practices, including design considerations, configuration information, and operational guidance where applicable. A field engineer can use an appropriate CVD as a reliable design

reference while tailoring the implementation to the customer's previously defined architecture and requirements. Cisco's Design Zone is the central resource for validated design guidance: [Cisco Design Zone](#). Cisco also describes its validated-design approach and related resources at [Cisco Validated Designs](#).

QUESTION NO: 3

Which two of the following are unique advantages of the PD/PSE Cisco Catalyst Compact Switches? (Choose two.)

- A. Due to the fanless design, they can be placed in the workplace and drastically reduce in-house cabling needs.
- B. They support 16 PoE output ports.
- C. They support PoE+ output.
- D. They diminish the power infrastructure by supporting PoE+ input and PoE output at the same time.

ANSWER: A D

Explanation:

The correct advantages are "Due to the fanless design, they can be placed in the workplace and drastically reduce in-house cabling needs." and "They diminish the power infrastructure by supporting PoE+ input and PoE output at the same time." Cisco Catalyst Compact PD/PSE switches were designed for deployments such as work areas, classrooms, retail locations, and conference rooms, where a small, quiet switch can be installed near connected devices rather than in a wiring closet. Their fanless design supports this placement, while local connectivity reduces the amount of horizontal cabling required back to a central access switch. In addition, a powered-device/power-sourcing-equipment compact-switch design can receive power from an upstream PoE+ source and use that power to provide PoE to downstream endpoint devices, such as IP phones. This allows endpoints and the compact switch to be powered without requiring a separate local electrical outlet or power infrastructure at the deployment location. Cisco documents this PoE-powered, PoE pass-through capability for applicable Catalyst Compact models and identifies fanless operation as a deployment benefit. See the [Cisco Catalyst 2960-C Series data sheet](#) and the [Cisco Catalyst 2960-C product information](#).

QUESTION NO: 4

Which statement about the Cisco switching product portfolio is correct?

- A. Only Cisco Catalyst 3750 Series switches and above can support PoE.
- B. The Cisco Catalyst 3750 Series switches are stackable.
- C. The Cisco Catalyst 2000 Series support 802.1X and MACsec encryption.
- D. The Cisco Catalyst 3560 Series switches are high-end switches for data.

ANSWER: B

Explanation:

The Cisco Catalyst 3750 Series switches are stackable. This family was designed to use Cisco StackWise technology, which allows multiple compatible physical switches to be interconnected and managed as one logical switching system. A StackWise stack provides a single management interface and presents the member switches as a unified system, simplifying administration while allowing the network to grow by adding stack members. The architecture also supports resilience through redundant stack connections and distributed forwarding across the stack, features that made the Catalyst 3750 a widely deployed enterprise access-layer platform. The key point is that stackability is an explicit platform capability of the Catalyst 3750 family rather than merely the ability to connect several independent switches together. Cisco's Catalyst 3750 product documentation identifies StackWise as a core technology of the series, and Cisco's StackWise overview describes how this technology combines multiple switches into a single logical unit. See the [Cisco Catalyst 3750 Series data sheet](#) and the [Cisco StackWise technology overview](#).

QUESTION NO: 5

A customer needs to provide redundant default-gateway service while also distributing host traffic across multiple gateway routers. Which first-hop redundancy protocol should be recommended?

- A. GLBP
- B. HSRP
- C. VRRP
- D. Rapid PVST+

ANSWER: A

Explanation:

GLBP is the correct choice. Gateway Load Balancing Protocol provides first-hop redundancy while enabling load sharing among multiple routers in a GLBP group. Hosts use a single virtual IP address as their default gateway, while multiple active virtual forwarders can forward traffic for that virtual gateway.

HSRP provides an active and standby gateway model, and VRRP provides a master and backup model. Although these protocols provide gateway availability, GLBP is specifically designed to combine default-gateway redundancy with load balancing. See the [Cisco First Hop Redundancy Protocols overview](#).

QUESTION NO: 6

Which statement correctly describes Cisco WAAS Mobile?

- A. The Cisco WAAS Mobile client is optimized for smartphones with 4G connections only.
- B. One Cisco WAAS Mobile server can serve up to 10,000 concurrent mobile users.
- C. The Cisco WAAS Mobile server provides up to 200 Mb/s LAN throughput.
- D. The Cisco WAAS Mobile server is based on a UCS-C series server and provides up to 10 Gb/s WAN throughput.

ANSWER: B

Explanation:

One Cisco WAAS Mobile server can serve up to 10,000 concurrent mobile users. Cisco WAAS Mobile was designed to extend WAN optimization to users working remotely or from mobile networks by using a client on the endpoint and a centrally deployed WAAS Mobile server. The server maintains and services the mobile-client population, applying optimization policies and data-reduction techniques to traffic between those users and enterprise applications. Its published scalability target of up to 10,000 concurrent mobile users is therefore a capacity characteristic of the centralized server role, rather than a statement about a particular client access technology or an interface-speed measurement. In a deployment, this figure is used for initial capacity planning: engineers estimate the expected simultaneously connected client population, then deploy and size WAAS Mobile server resources accordingly, while also accounting for traffic patterns, application mix, and high-availability requirements. Cisco's WAAS product documentation and support resources provide the platform context for this centralized WAN-optimization architecture: [Cisco Wide Area Application Services](#) and [Cisco WAAS support resources](#).

QUESTION NO: 7

Which of the following statements correctly describes the Cisco WAAS portfolio?

- A. Cisco WAAS is available as WAAS Mobile, WAAS Express, WAAS ISR modules, WAAS on SRE for ISR G2, WAAS appliances, vWAAS, and WAAS PC.

B. Cisco WAAS is available as WAAS Mobile, WAAS Express, WAAS ISR modules, WAAS on SRE for ISR G2, WAAS appliances, and vWAAS.

C. Cisco WAAS is available as WAAS Mobile, WAAS Express, WAAS ISR modules, WAAS on SRE for ISR G2, WAAS appliances, vWAAS, WAAS PC, and WAAS Server.

D. Cisco WAAS is available as WAAS Mobile, WAAS Express, WAAS ISR modules, WAAS appliances, and vWAAS.

E. Cisco WAAS is available as WAAS Express, WAAS ISR modules, WAAS on SRE for ISR G2, WAAS appliances, vWAAS, and WAAS PC.

ANSWER: B

Explanation:

Cisco WAAS is available as WAAS Mobile, WAAS Express, WAAS ISR modules, WAAS on SRE for ISR G2, WAAS appliances, and vWAAS. This accurately represents the WAAS delivery portfolio for the relevant product generation. Cisco designed WAAS as a family of WAN-optimization offerings that could be deployed in different locations and hardware form factors rather than solely as a dedicated appliance. WAAS Mobile extended optimization capabilities to mobile and remote users, while WAAS Express provided an integrated branch-office WAN-optimization capability on supported Cisco ISR platforms. ISR modules and the Services Ready Engine for second-generation ISR routers enabled WAAS services to run within branch routers, reducing the need for a separate physical device. Dedicated WAAS appliances supported purpose-built deployments, and vWAAS supplied a virtualized form factor for data-center or private-cloud environments. This range allowed organizations to select an implementation that matched their branch size, infrastructure, and virtualization strategy while retaining the core WAN-optimization architecture. Cisco's WAAS documentation describes the platform and its deployment components, including appliance, router-integrated, and virtual implementations. See the [Cisco WAAS product information](#) and the [Cisco WAAS Administration Guide overview](#).

QUESTION NO: 8

Which three statements correctly describe switching? (Choose three.)

A. A Layer 2 switch operates up to the data link layer of the OSI network model.

B. A Layer 3 switch operates up to the transport layer of the OSI network model.

C. A dual-layer switch operates at the application layer of the OSI network model.

D. A multilayer switch operates at all layers of the OSI network model.

E. A Layer 2 switch operates up to the physical layer of the OSI network model.

F. A Layer 3 switch operates up to the network layer of the OSI network model.

ANSWER: A E F

Explanation:

A Layer 2 switch operates up to the data link layer of the OSI network model because its primary forwarding function is to examine Ethernet frame information, especially source and destination MAC addresses, and use a MAC address table to forward frames within a LAN. This Layer 2 function necessarily relies on the physical layer beneath it, which carries bits as electrical, optical, or radio signals over the medium. Therefore, the statement that a Layer 2 switch operates up to the physical layer is also accurate: physical-layer operation is part of the lower-layer foundation used by a Layer 2 Ethernet switch.

A Layer 3 switch operates up to the network layer of the OSI model. In addition to Layer 2 frame switching, it can make forwarding decisions based on Layer 3 information such as IP addresses and can route traffic between IP subnets, commonly using hardware-based forwarding for high performance. Cisco describes switches as devices that forward traffic using MAC addresses and notes that multilayer capabilities can add IP routing functions. See Cisco's [overview of network switches](#) and its [Layer 3 switching documentation](#).

QUESTION NO: 9

Which two options show the correct associations of use cases with VPN technologies? (Choose two.)

- A. SP or large enterprise: MPLS, VPLS, SSL VPN
- B. SP or large enterprise: MPLS, VPLS, OTV
- C. site-to-site VPN: GRE, DMVPN, FlexVPN, GET-VPN, IPsec
- D. site-to-site VPN: OTV, DMVPN, GRE, GET-VPN, IPsec
- E. client access: SSL VPN, EZ-VPN, FlexVPN, MPLS

ANSWER: B C

Explanation:

“SP or large enterprise: MPLS, VPLS, OTV” is correct because these technologies address large-scale provider or enterprise transport and data-center connectivity requirements. MPLS supports scalable, service-provider VPN offerings and enterprise WAN designs, while VPLS provides multipoint Layer 2 VPN service over an MPLS provider backbone. Overlay Transport Virtualization (OTV) is designed for extending Layer 2 connectivity between geographically separate data centers across an IP network, a common requirement in large enterprise environments. Cisco describes OTV as a technology that virtualizes the transport between data centers while maintaining separation between the overlay and the transport network. See [Cisco's OTV overview](#).

“site-to-site VPN: GRE, DMVPN, FlexVPN, GET-VPN, IPsec” is correct because these are technologies used to protect or build connectivity between routers, sites, and private networks. IPsec supplies the core encryption and authentication framework; GRE can encapsulate routed traffic; DMVPN automates scalable hub-and-spoke or spoke-to-spoke tunnel deployments; FlexVPN uses standards-based IKEv2/IPsec; and GET VPN distributes group security policy for private WANs without requiring tunnel overlays. Cisco's [DMVPN product information](#) describes its role in scalable, secure site connectivity.

QUESTION NO: 10

Which two statements correctly describe Cisco EnergyWise? (Choose two.)

- A. It can monitor power consumption of network-connected devices.
- B. It can apply policies to reduce energy use during defined periods.
- C. It provides Layer 2 encryption for Ethernet frames.
- D. It replaces the PoE power-negotiation process.
- E. It requires all managed devices to be Cisco routers.

ANSWER: A B

Explanation:

Cisco EnergyWise provides a framework for monitoring and managing power consumption across network-connected devices. A network administrator can define policies that reduce power use based on schedules, device role, or organizational requirements. For example, compatible endpoints can be placed into lower-power states outside normal business hours.

EnergyWise also supports visibility into energy consumption. This allows an organization to collect power-related information from managed infrastructure and use it for reporting, planning, and energy-management decisions. EnergyWise does not replace Power over Ethernet, nor does it provide encryption for Ethernet traffic. See the [Cisco EnergyWise white paper](#).

QUESTION NO: 11

Which statement correctly describes Cisco WAAS Express?

- A. It is integrated into Cisco IOS Software on supported routers.
- B. It requires a dedicated WAAS appliance at every branch.
- C. It provides persistent disk-based DRE cache on all ISR platforms.
- D. It is an endpoint client designed only for mobile users.

ANSWER: A

Explanation:

Cisco WAAS Express is integrated into Cisco IOS Software on supported branch routers. It provides a streamlined WAN optimization capability without requiring a dedicated WAAS appliance at every branch. WAAS Express can optimize eligible WAN traffic by using capabilities such as TCP optimization, compression, and memory-based data redundancy elimination.

WAAS Express is distinct from a full WAAS appliance deployment because it offers a focused IOS-integrated feature set rather than the complete appliance-based optimization framework. Cisco documents WAAS Express as a Cisco IOS Software feature for supported routers. See the [Cisco WAAS Express Configuration Guide](#).