



# 640-878

Building Cisco Service Provider Next-Generation  
Networks Part 2

NWExam.com

**SUCCESS GUIDE TO CISCO CERTIFICATION**

Exam Summary – Syllabus – Questions

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# Introduction to 640-878 Exam on Building Cisco Service Provider Next-Generation Networks Part 2

A great way to start the Cisco Certified Network Associate Service Provider (SPNGN2) preparation is to begin by properly appreciating the role that syllabus and study guide play in the Cisco 640-878 certification exam. This study guide is an instrument to get you on the same page with Cisco and understand the nature of the Cisco CCNA Service Provider exam.

Our team of experts has composed this Cisco 640-878 exam preparation guide to provide the overview about Cisco Building Cisco Service Provider Next-Generation Networks Part 2 exam, study material, sample questions, practice exam and ways to interpret the exam objectives to help you assess your readiness for the Cisco SPNGN2 exam by identifying prerequisite areas of knowledge. We recommend you to refer the simulation questions and practice test listed in this guide to determine what type of questions will be asked and the level of difficulty that could be tested in the Cisco CCNA Service Provider certification exam.

## Cisco 640-878 Certification Details:

Exam Name	Building Cisco Service Provider Next-Generation Networks Part 2
Exam Number	640-878 SPNGN2
Exam Price	\$300 USD
Duration	90 minutes
Number of Questions	65-75
Passing Score	Variable (750-850 / 1000 Approx.)
Recommended Training	<a href="#">Building Cisco Service Provider Next-Generation Networks, Part 2 (SPNGN2)</a>
Exam Registration	PEARSON VUE
Sample Questions	<a href="#">Cisco 640-878 Sample Questions</a>
Practice Exam	<a href="#">Cisco Certified Network Associate Service Provider Practice Test</a>

## Cisco 640-878 Exam Syllabus:

Section	Weight	Objectives
IP NGN Architecture	21%	<ul style="list-style-type: none"> <li>- Identify the functional components required to meet a given network specification</li> <li>- Troubleshoot common network problems at layers 1, 2, 3, 4, and 7 using a layered model approach</li> <li>- Describe the different types of service providers</li> <li>- Describe service provider principal and reference NGN architecture</li> <li>- Describe the IP address and AS number allocation process via IANA/RIRs</li> </ul>
Switched Network Technologies II	23%	<ul style="list-style-type: none"> <li>- Configure enhanced switching technologies (including RSTP, MST, and PVSTP) on Cisco IOS switches</li> <li>- Describe how VLANs create logically separate networks and the need for routing between them</li> <li>- Configure VLANs on Cisco IOS switches</li> <li>- Configure trunking on Cisco IOS switches</li> <li>- Configure InterVLAN routing</li> <li>- Configure REP on Cisco IOS switches</li> <li>- Configure QinQ on Cisco IOS Switches</li> </ul>
Routed Network Technologies II	24%	<ul style="list-style-type: none"> <li>- Configure basic single area OSPFv2 and OSPFv3 routing on Cisco Routers</li> <li>- Configure basic single area IS-IS routing on Cisco routers</li> <li>- Describe the differences between static versus dynamic routing, as well as distance vector versus link-state routing protocol operations</li> <li>- Configure basic BGP routing on Cisco routers</li> <li>- Describe the address family concept on Cisco routers</li> <li>- Describe IPv6 transitioning technologies</li> <li>- Configure first hop router redundancy protocol (HSRP, VRRP, GLBP on Cisco routers)</li> <li>- Implement ACL on Cisco routers</li> <li>- Describe Carrier Grade NAT and NAT64</li> <li>- Describe MPLS functions in the SP IP NGN</li> <li>- Configure LDP on Cisco routers</li> </ul>
Cisco Operating Systems and Platforms II	32%	<ul style="list-style-type: none"> <li>- Manage the IOS XR configurations and software packages</li> <li>- Describe IOS XE software packagings</li> <li>- Describe Cisco SP router platforms, their operating system and placement in the SP IP NGN</li> </ul>

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## 640-878 Sample Questions:

### 01. Which two statements about NAT444 are true?

(Choose two.)

- a) NAT444 packets are translated three times.
- b) NAT packets traverse three IPv4 addressing domains.
- c) NAT444 needs to work together with DNS64.
- d) There are two types of NAT444 (stateful or stateless).
- e) NAT is performed by the CPE and also by the service provider router.

### 02. A VLAN is a logical grouping of switch ports that belong to which two of these?

(Choose two.)

- a) the same virtual switch cluster
- b) the same IP subnet
- c) the same collision domain
- d) the same broadcast domain
- e) the same virtual routing and forwarding instance

### 03. Which IPv6 address block is reserved for 6to4 tunneling?

- a) 2000::/16
- b) 2001::/16
- c) 2002::/16
- d) 3ffe::/16
- e) e80::/16

### 04. When is a route-policy configuration needed on a Cisco IOS XR router using RPL?

- a) when enabling an IGP routing protocol configuration
- b) when enabling an EBGP peering configuration
- c) when enabling an IBGP peering configuration
- d) when enabling route redistribution
- e) when enabling an LDP peering configuration

### 05. Which three Cisco platforms are classified as core routers?

(Choose three.)

- a) Cisco XR 12000
- b) Cisco ME 3400
- c) Cisco ASR 1006
- d) Cisco CRS-3
- e) Cisco ASR 9010
- f) Cisco 3900

**06. The permit 172.16.32.0 0.0.15.255 access-list entry permits exactly which IP address range?**

- a) 172.16.32.0 to 172.16.47.255
- b) 172.16.32.0 to 172.16.48.255
- c) 172.16.32.0 to 172.16.62.255
- d) 172.16.32.0 to 172.16.63.255
- e) 172.16.32.0 to 172.16.64.255
- f) 172.16.32.0 to 172.16.255.255

**07. Which three statements about service provider network requirements are true?**

(Choose three.)

- a) Service provider networks are becoming more specialized, with providers offering only one service.
- b) Service providers connect customers to the Internet.
- c) Jitter and packet loss are no longer an issue.
- d) Multiple access technologies are supported.
- e) Customers can connect directly using copper, wireless, or fiber-optic links.

**08. Which two statements about NAT64 are true?**

(Choose two.)

- a) NAT64 packets traverse two IPv4 addressing domains.
- b) NAT64 packets are translated two times.
- c) There are two types of NAT64 (stateful or stateless).
- d) NAT is performed by the CPE and also by the service provider edge router.
- e) The DNS64 server embeds the IPv4 address from the DNS A record with a preconfigured IPv6 translation prefix.

**09. Which Cisco platform runs the Cisco IOS XE operating system?**

- a) Cisco ASR9K
- b) Cisco CRS
- c) Cisco 12000 GSR
- d) Cisco ASR1K
- e) Cisco ME 3400
- f) Cisco ISR-G2

**10. On Cisco IOS XR software, what is the default commit option?**

- a) best-effort
- b) psuedo-atomic
- c) replace
- d) force

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## Answers to 640-878 Exam Questions:

Question: 01 Answer: b, e	Question: 02 Answer: b, d	Question: 03 Answer: c	Question: 04 Answer: b	Question: 05 Answer: a, d, e
Question: 06 Answer: a	Question: 07 Answer: b, d, e	Question: 08 Answer: c, e	Question: 09 Answer: d	Question: 10 Answer: b

Note: If you find any typo or data entry error in these sample questions, we request you to update us by commenting on this page or write an email on [feedback@nwexam.com](mailto:feedback@nwexam.com)