



300-360]

Designing Cisco Wireless Enterprise Networks

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SUCCESS GUIDE TO CISCO CERTIFICATION

Exam Summary – Syllabus – Questions

Table of Contents

Introduction to 300-360 Exam on Designing Cisco Wireless Enterprise Networks	2
Cisco 300-360 Certification Details:	2
Cisco 300-360 Exam Syllabus:.....	3
300-360 Sample Questions:	6
Answers to 300-360Exam Questions:	8

Introduction to 300-360 Exam on Designing Cisco Wireless Enterprise Networks

A great way to start the Cisco Certified Network Professional Wireless (WIDESIGN) preparation is to begin by properly appreciating the role that syllabus and study guide play in the Cisco 300-360 certification exam. This study guide is an instrument to get you on the same page with Cisco and understand the nature of the Cisco CCNP Wireless exam.

Our team of experts has composed this Cisco 300-360 exam preparation guide to provide the overview about Cisco Designing Cisco Wireless Enterprise Networks exam, study material, sample questions, practice exam and ways to interpret the exam objectives to help you assess your readiness for the Cisco WIDESIGN 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 CCNP Wireless certification exam.

Cisco 300-360 Certification Details:

Exam Name	Designing Cisco Wireless Enterprise Networks
Exam Number	300-360 WIDESIGN
Exam Price	\$300 USD
Duration	90 minutes
Number of Questions	55-65
Passing Score	Variable (750-850 / 1000 Approx.)
Recommended Training	Designing Cisco Wireless Enterprise Networks (WIDESIGN) v1.0
Exam Registration	<u>PEARSON VUE</u>
Sample Questions	Cisco 300-360 Sample Questions
Practice Exam	Cisco Certified Network Professional Wireless Practice Test

Cisco 300-360 Exam Syllabus:

Section	Weight	Objectives
Obtaining Customer Requirements as Related to the WLAN Installation	12%	<ol style="list-style-type: none"> 1. Identify business and RF application needs 2. Identify client density, capabilities and their impact on the wireless network <ul style="list-style-type: none"> - Client quantity, radio type, spatial streams 3. Identify the challenges of setting up a wireless network by various vertical markets 4. Describe required site survey documentation <ul style="list-style-type: none"> - Customer questionnaire - Floor plans & their quality - Describe the deliverables of the site survey 5. Identify coverage area requirements <ul style="list-style-type: none"> - Mesh - High density - Security sensitive - Real time applications
Determine Facility Type and Constraints Related to WLAN Deployments	12%	<ol style="list-style-type: none"> 1. Describe impact of regulatory domains <ul style="list-style-type: none"> - Mesh - Channel and power - Multi-national deployments 2. Identify deployment location safety considerations 3. Identify the impact of customer aesthetic limitations on the installation 4. Assess the existing wired and wireless infrastructure <ul style="list-style-type: none"> - Determine high-throughput and very high throughput (VHT) protocol (n/ac) impact - Determine existing wireless infrastructure if required 5. Identify impact of material attenuation <ul style="list-style-type: none"> - Walls, cubicles, and the likes - Single/multi-floor - Campus - Warehouse/retail
WLAN Predictive Design	14%	<ol style="list-style-type: none"> 1. Select the criteria used for coverage design <ul style="list-style-type: none"> - Data vs voice vs video vs location 2. Demonstrate the impact of frequency planning in a high density environment <ul style="list-style-type: none"> - Band select for high density - Optimize 2.4 GHz radio utilization - Legacy devices - Channel width 3. Use PI and Ekahau planning tools to make network plan <ul style="list-style-type: none"> - Enter network requirements in the tool Capacity requirements Coverage requirements

Section	Weight	Objectives
		<ul style="list-style-type: none"> - Define the environment Maps and scale Types of RF obstacles - Place and configure simulated APs and antennas Place simulated APs (manual, automatics) Adjust APs and Antennas / AP TX power height and down tilt - Analyze key network metrics using heat maps for 2.4 and 5GHz Analyze coverage, SNR, and channel overlap Analyze AP placements in regards to real time handoffs around corner
Pre-Deployment Site Survey	14%	<ol style="list-style-type: none"> 1. Identify the appropriate site survey equipment and access requirements based on environmental needs 2. Complete the Layer 2 site survey for indoor, and outdoor MESH environments <ul style="list-style-type: none"> - Select proper AP and antenna for conducting site survey - Configure AP - Survey for worst case client 3. Complete Layer 1 survey (Cisco CleanAir, Metageek Chanalyzer)
Post-Deployment Site Survey	15%	<ol style="list-style-type: none"> 1. Verify RF coverage <ul style="list-style-type: none"> - Utilize tools (Ekahau) for audit - RRM, controller - Analyze SNR, channel overlap, and packet loss 2. Verify network applications and performance <ul style="list-style-type: none"> - Apply PI tools (voice readiness, location readiness, site calibration) 3. Reconcile any deployment issues 4. Assemble and deliver installation report to customer <ul style="list-style-type: none"> - Indoor - Outdoor MESH
Design the Infrastructure of the Wireless Network	15%	<ol style="list-style-type: none"> 1. Determine physical infrastructure requirements <ul style="list-style-type: none"> - AC Power and POE - Understand cable plant considerations - Mounting considerations: NEMA - Outdoor grounding and lighting protection - Rack capacity - Switch port capacity 2. Determine logical infrastructure requirements <ul style="list-style-type: none"> - Determine AP count, controller count, and license requirements

Section	Weight	Objectives
		<ul style="list-style-type: none"> - Decide the type of architecture for the deployment 3. Describe IPv6 optimization on the WLC <ul style="list-style-type: none"> - RA filter - DHCP Server guard - DHCPv6 Source guard
Describe and Design Wireless Architecture for Real time Applications	18%	<ul style="list-style-type: none"> 1. Describe the relationship between real time applications & the wireless networks <ul style="list-style-type: none"> - Packet Error Rate (PER) - RF Coverage - Bit Error Rate (BER) - QoS - Call Admission Control (CAC) - Client roaming decision algorithm 2. Describe voice and video as they apply to the wireless network <ul style="list-style-type: none"> - Device capabilities (hardware and software) - Call setup/data flow overview - Other wireless voice and video services (i.e. Jabber, Lync, Skype, Viber, Facetime) - Standards and WIFI Alliance (WFA) certifications (.11r, .11e, .11n/ac, .11k, CCKM, voice enterprise, voice personal, WMM, UAPSD) - Cisco Compatible Extensions (voice features) - Voice and video codecs - Skinny Client Control Protocol (SCCP) - Session Initiation Protocol (SIP) 3. Describe real time applications (other than voice and video) as they apply to the wireless network <ul style="list-style-type: none"> - Session based and non-session based - Roaming sensitivity - Disconnection issue 4. Design wireless roaming parameters for supporting real time applications <ul style="list-style-type: none"> - 802.11 r/k, CCKM, OKC, mobility groups, interface groups, - Tuning RF parameters - AP placement considerations 5. Design wireless parameters for supporting real time applications <ul style="list-style-type: none"> - Minimum speed requirements-RSSI and SNR - Client transmit and receive sensitivity / mismatch with AP - Cell overlap requirements - Cell separations - Traffic control and management, QoS, VLAN, WMM, AVC - Delay and jitter requirements

Section	Weight	Objectives
		<ul style="list-style-type: none"> - CAC and TSPEC - Spectrum - 802.11n/ac enhancements - Concurrent client connections - Band select

300-360 Sample Questions:

01. A downstream packet that contains a DSCP value arrives at the WLC Ethernet interface from the wired source network. The WLC is configured for QoS WLAN 802.1p mapping.

How does the WLC treat the CAPWAP QoS marking when leaving the controller interface for the respective AP and final wireless client destination?

- a) No outer CAPWAP or inner QoS tagging is applied.
- b) The outer CAPWAP CoS is marked and capped and the inner DSCP maintains the original marking.
- c) No outer CAPWAP QoS tag is applied, but the original DSCP is maintained inside CAPWAP.
- d) The outer CAPWAP DHCP is marked and capped without any inner DSCP value.

02. After the completion of a site survey with Ekahau Site Survey tool, using the default color palette, it is noted that multiple areas are shown as white on the heat map when viewing 5 GHz signal strength data. What does this indicate about the signal strength?

- a) The area is below the minimum threshold configured on the tool.
- b) The area is below the detectable level and indicates no RF signal.
- c) The area is below -100 dBm at coverage cell edge.
- d) The area is below -67 dBm at coverage cell edge.

03. The AP has been configured property for a VoWLAN survey The RF environment contains a noise of -87 to -90 dBm. What is the target value for the cell edge reading?

- a) -62 dBm
- b) -67 dBm
- c) -60 dBm
- d) -70 dBm

04. An engineer is determining the signal levels for the wireless cells. Which signal-to-noise ratio is an optimal configuration to achieve?

- a) minimum SNR of -33 dBm
- b) minimum SNR of -25 dBm
- c) minimum SNR of 25 dB
- d) minimum SNR of 33 dB

05. An engineer is planning for a 24 Mbps data rate for a new installation. What is the coverage area from the AP if the environment and other factors are not taken into consideration?

- a) 225 feet
- b) 80 feet
- c) 150 feet
- d) 100 feet

06. Which list of characteristics must all controllers in a mobility group have in common based on best practices?

- a) mobility group name, version of controller code, Control and Provisioning of Wireless Access Points mode, ACLs, and WLANs (SSIDs)
- b) mobility domain name, version of controller code, and Control and Provisioning of Wireless Access Pointsmode
- c) mobility domain name, version of controller code, Control and Provisioning of Wireless Access Pointsmode, ACLs, and WLANs (SSIDs)
- d) mobility group name, version of controller code, and Control and Provisioning of Wireless Access Pointsmode

07. An engineer is tuning RRM parameters to improve client connectivity. Which channel band results in the best 802.11n client compatibility?

- a) UNII-2
- b) UNII-2e
- c) UNII-3
- d) UNII
- e) UNII-1

08. A cabling contractor is working at a customer facility. The contractor is asking what rating of cable should be installed in return-air areas. Which information can be referenced to provide the contractor the requested information?

- a) OSHA Codes
- b) BICSI TDDM
- c) NEC Ratings
- d) IEEE Standards

09. What is a common cause for signal attenuation?

- a) Cinder block wall
- b) Office window
- c) Metal door
- d) Glass wall

10. A customer has dual-band devices that they want to use 40 MHz channels. If the customer is using Cisco 3600 Series access points with a 5508 controller. Which setting assists with this change?

- a) Enable aggressive load balancing.
- b) Disable lower data rates on 802.11G GHz radios.
- c) Disable overlapping 802.11G channels.
- d) Enable band select globally.

Answers to 300-360 Exam Questions:

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

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