

# CompTIA Network+

1. A systems administrator needs to improve WiFi performance in a densely populated office tower and use the latest standard. There is a mix of devices that use 2.4 GHz and 5 GHz. Which of the following should the systems administrator select to meet this requirement?

A. 802.11ac

B. 802.11ax

C. 802.11g

D. 802.11n

**Answer(s): B**

---

2. Which of the following would be BEST to use to detect a MAC spoofing attack?

A. Internet Control Message Protocol

B. Reverse Address Resolution Protocol

C. Dynamic Host Configuration Protocol

D. Internet Message Access Protocol

**Answer(s): B**

---

3. A technician receives feedback that some users are experiencing high amounts of jitter while using the wireless network. While troubleshooting the network, the technician uses the ping command with the IP address of the default gateway and verifies large variations in latency. The technician thinks the issue may be interference from other networks and non-802.11 devices. Which of the following tools should the technician use to troubleshoot the issue?

A. NetFlow analyzer

B. Bandwidth analyzer

C. Protocol analyzer

D. Spectrum analyzer

**Answer(s): D**

---

4. Wireless users are reporting intermittent internet connectivity. Connectivity is restored when the users disconnect and reconnect, utilizing the web authentication process each time. The network administrator can see the devices connected to the APs at all times. Which of the following steps will MOST likely determine the cause of the issue?

A. Verify the session time-out configuration on the captive portal settings

B. Check for encryption protocol mismatch on the client's wireless settings

C. Confirm that a valid passphrase is being used during the web authentication

D. Investigate for a client's disassociation caused by an evil twin AP

**Answer(s): A**

---

5. A network administrator walks into a datacenter and notices an unknown person is following closely. The administrator stops and directs the person to the security desk. Which of the following attacks did the network administrator prevent?

A. Evil twin

B. Tailgating

C. Piggybacking

D. Shoulder surfing

**Answer(s): B**

---

## 6. SIMULATION

You have been tasked with setting up a wireless network in an office. The network will consist of 3 Access Points and a single switch. The network must meet the following parameters:

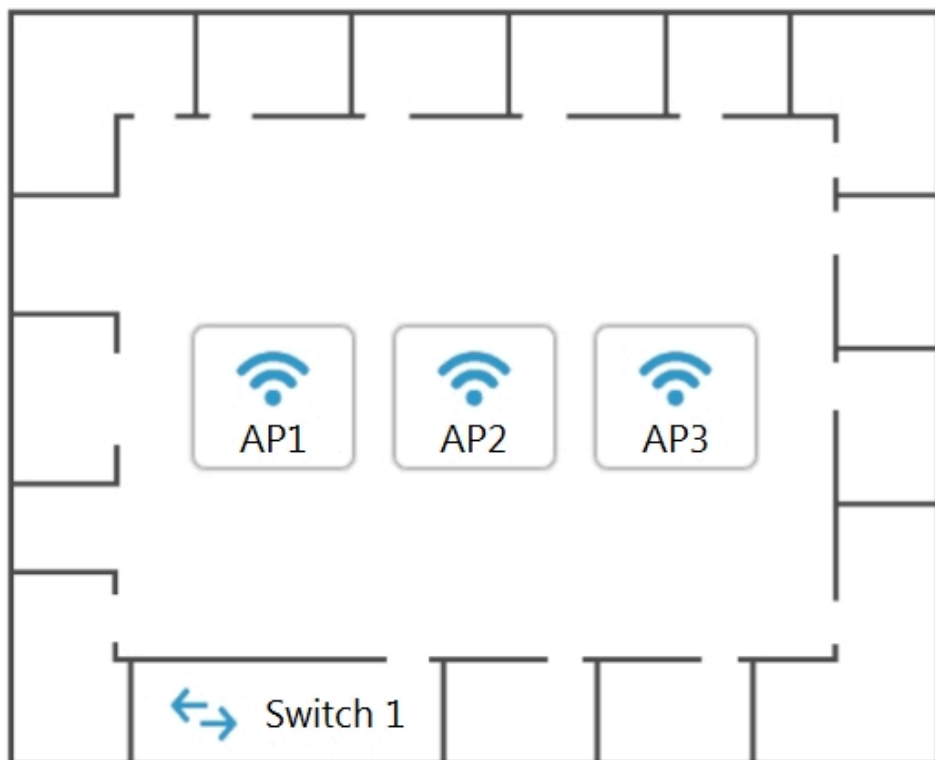
- The SSIDs need to be configured as CorpNet with a key of S3cr3t!
- The wireless signals should not interfere with each other
- The subnet the Access Points and switch are on should only support 30 devices maximum

-The Access Points should be configured to only support TKIP clients at a maximum speed

### INSTRUCTIONS

Click on the wireless devices and review their information and adjust the settings of the access points to meet the given requirements.

If at any time you would like to bring back the initial state of the simulation, please click the Reset All button.



192.168.1.2  
Speed: Auto  
Duplex: Auto

# AP1 Configuration



https://ap1.setup.do

## Basic Configuration

Access Point Name

IP Address  /

Gateway

SSID

SSID Broadcast  Yes  No

## Wireless

Mode

B  
G

Channel

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11

## Wired

Speed  Auto  100  1000

Duplex  Auto  Half  Full

## Security Configuration

Security Settings  None  WEP  WPA  WPA2  WPA2 - Enterprise

Key or Passphrase

Reset to Default

Save

Close

# AP2 Configuration



https://ap2.setup.do

## Basic Configuration

Access Point Name

IP Address  /

Gateway

SSID

SSID Broadcast  Yes  No

## Wireless

Mode

Channel

## Wired

Speed  Auto  100  1000

Duplex  Auto  Half  Full

## Security Configuration

Security Settings  None  WEP  WPA  WPA2  WPA2 - Enterprise

Key or Passphrase

Reset to Default

Save

Close

# AP3 Configuration



https://ap3.setup.do

## Basic Configuration

Access Point Name

IP Address

/

Gateway

SSID

SSID Broadcast  Yes  No

## Wireless

Mode

B  
G

Channel

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11

## Wired

Speed  Auto  100  1000

Duplex  Auto  Half  Full

## Security Configuration

Security Settings  None  WEP  WPA  WPA2  WPA2 - Enterprise

Key or Passphrase

Reset to Default

Save

Close

A. See explanation below.

**Answer(s):** A

---

7. A network is experiencing a number of CRC errors during normal network communication. At which of the following layers of the OSI model will the administrator MOST likely start to troubleshoot?

A. Layer 1

B. Layer 2

C. Layer 3

D. Layer 4

E. Layer 5

F. Layer 6

G. Layer 7

**Answer(s):** B

---

8. A client recently added 100 users who are using VMs. All users have since reported slow or unresponsive desktops. Reports show minimal network congestion, zero packet loss, and acceptable packet delay. Which of the following metrics will MOST accurately show the underlying performance issues? (Choose two.)

A. CPU usage

B. Memory

C. Temperature

D. Bandwidth

E. Latency

F. Jitter

**Answer(s):** A B

---

9. Client devices cannot enter a network, and the network administrator determines the DHCP scope is exhausted. The administrator wants to avoid creating a new DHCP pool. Which of the following can the administrator perform to resolve the issue?

A. Install load balancers

B. Install more switches

C. Decrease the number of VLANs

D. Reduce the lease time

**Answer(s):** D

---

10. An administrator is writing a script to periodically log the IPv6 and MAC addresses of all the devices on a network segment. Which of the following switch features will MOST likely be used to assist with this task?

A. Spanning Tree Protocol

B. Neighbor Discovery Protocol

C. Link Aggregation Control Protocol

D. Address Resolution Protocol

**Answer(s):** B

---

11. Which of the following DNS records works as an alias to another record?

A. AAAA

B. CNAME

C. MX

D. SOA

**Answer(s):** B

---



**12.** A company built a new building at its headquarters location. The new building is connected to the company's LAN via fiber-optic cable. Multiple users in the new building are unable to access the company's intranet site via their web browser, but they are able to access internet sites. Which of the following describes how the network administrator can resolve this issue?

A. Correct the DNS server entries in the DHCP scope

B. Correct the external firewall gateway address

C. Correct the NTP server settings on the clients

D. Correct a TFTP Issue on the company's server

**Answer(s):** A

---

**13.** A technician is installing a new fiber connection to a network device in a datacenter. The connection from the device to the switch also traverses a patch panel connection. The chain of connections is in the following order:

-Device

-LC/LC patch cable

-Patch panel

-Cross-connect fiber cable

-Patch panel

-LC/LC patch cable

-Switch

The connection is not working. The technician has changed both patch cables with known working patch cables. The device had been tested and was working properly before being installed. Which of the following is the MOST likely cause of the issue?

A. TX/RX is reversed

B. An incorrect cable was used

C. The device failed during installation

D. Attenuation is occurring

**Answer(s):** A

---

**14.** A technician is searching for a device that is connected to the network and has the device's physical network address. Which of the following should the technician review on the switch to locate the device's network port?

A. IP route table

B. VLAN tag

C. MAC table

D. QoS tag

**Answer(s): C**

---

**15.** Which of the following provides redundancy on a file server to ensure the server is still connected to a LAN even in the event of a port failure on a switch?

A. NIC teaming

B. Load balancer

C. RAID array

D. PDUs

**Answer(s): A**

---

**16.** An IT organization needs to optimize speeds for global content distribution and wants to reduce latency in high-density user locations. Which of the following technologies BEST meets the organization's requirements?

A. Load balancing

B. Geofencing

C. Public cloud

D. Content delivery network

E. Infrastructure as a service

**Answer(s): D**

---

17. A user reports being unable to access network resources after making some changes in the office. Which of the following should a network technician do FIRST?

A. Check the system's IP address

B. Do a ping test against the servers

C. Reseat the cables into the back of the PC

D. Ask what changes were made

**Answer(s): D**

---

18. A new cabling certification is being requested every time a network technician rebuilds one end of a Cat 6 (vendor-certified) cable to create a crossover connection that is used to connect switches. Which of the following would address this issue by allowing the use of the original cable?

A. CSMA/CD

B. LACP

C. PoE+

D. MDIX

**Answer(s): D**

---

19. A company hired a technician to find all the devices connected within a network. Which of the following software tools would BEST assist the technician in completing this task?

A. IP scanner

B. Terminal emulator

C. NetFlow analyzer

D. Port scanner

**Answer(s): A**

---

**20.** A technician is installing a high-density wireless network and wants to use an available frequency that supports the maximum number of channels to reduce interference. Which of the following standard 802.11 frequency ranges should the technician look for while reviewing WAP specifications?

A. 2.4GHz

B. 5GHz

C. 6GHz

D. 900MHz

**Answer(s):** B

---