1. What type of services that your server will support? It needs to at least support HTTP/HTTPS service. If you want to add other services, and successfully accomplish the configuration in Packet Tracer, they will be considered as bonus points, e.g., the email server in the graph below.

HTTP website from website server, to display art gallery information to guests.

HTTP website from inventory server, to display the inventory in html format.

Wireless access for guests at art gallery location.

1. How will you set up the wireless segments of your network?

Wireless segment consist of one access point at the art gallery location, for on-site employees or guests to connect vie external devices, using WPA2 and a password. The access point is connected to the gallery switch.

1. How will you include DHCP service in the network?

DHCP is handled by network router, on interface GigabitEthernet0/0/0, using 20.0.0.1 as the default router and subnet mask of 255.255.255.0.

DHCP is also split between VLANs. For example, VLAN 10 would use 20.0.10.1 and 255.255.255.0.

1. How will you design the VLANs in your network? Specify VLAN ID, the user types of each VLAN, and the ports on switches that are assigned to each VLAN.

VLAN 10 - for onsite device access

VLAN 20 - for warehouse entry

VLAN 30 - for warehouse admin

VLAN 40 - for wireless access art gallery

1. How will you set up the access control list and apply it to your network?

For devices in VLAN 10, devices have access to website server and port 80 of inventory server.

For devices in VLAN 20, devices have access to inventory server and port 80 of website server.

For devices in VLAN 30, devices have full access to both servers.

For devices in VLAN 40, devices are denied access to every other device other than website server port 80.

For all other devices, access control is denied to every other device other than website server port 80.

