<https://www.gliffy.com>

You were selected to design a small peer-to-peer network for a new facility which has six

computers and a networked printer. Each desk computer must have a wired network connection. The rooms are to

have wireless access for mobile devices.

For this assignment, you will utilize Gliffy®, (Links to an external site.) a software application to create a basic

network diagram depicting a star topology with a switch as the central communications node. The focus here is on

the network communications equipment for this LAN. Include only that equipment and end node devices on the

network diagram. There is no need to draw out the layout of the physical space.

In addition to providing a network diagram, you must also provide a short essay that describes the details of the LAN

equipment that is being used and the connections. In the essay, be sure to explain why each device is positioned

where it is.

Also, briefly state any assumptions you've made about the kind of work being done, the demands the personnel in

the office will put on the network, how they'll use it, and how that influenced your design. For example, if the business

that uses the LAN is a small video-based news streaming service, they will probably need more performance from

both their network and ISP than a small rental property management office might need.

Gliffy is the diagramming software you will utilize for this activity.

To familiarize yourself with this application, review the Gliffy Online Help. (Links to an external site.)

Use network images for this assignment. To access, select More Shapes (bottom left menu) > Network > Business

Depict a star topology that uses Ethernet.

Provide a 'cloud' shape or another symbol for the ISP WAN service. Label the symbol as 'Dial-up,' 'Cable,' or 'Fiber

Optic.'

Label all network devices in the LAN (brand and model names are acceptable but not required).

Connect to the ISP service using a dial-up modem, cable modem, or, if using fiber optic service, an optical network

terminal (ONT). Do not use a combination device such as a modem/router.

Connect the LAN router (wireless router) to the ISP WAN service device. The LAN router provides many capabilities

to include: DHCP, (Links to an external site.) NAT translation, (Links to an external site.) port forwarding, (Links to an

external site.) QoS, (Links to an external site.) and software firewall services. Do not use a router/switch combination

device; however, a router with integrated wireless capabilities is acceptable.

Use a managed switch as a centrally-located device to provide wired network connectivity for the seven end nodes

(six desktop computers and a printer). Connect the switch directly to the main LAN router.

Connect the seven end nodes directly to the central switch.

Label the specific type of physical media (cables) being used to connect the LAN router to the ISP service device,

the central switch to the LAN router, and the seven end nodes to the central switch.

Use a screen capture tool such as Snagit (Links to an external site.) or the Microsoft Clipping Tool to copy your

diagram and paste the copied image into a Word document with the written essay.

Optional:

Provide a separate network firewall hardware device in your diagram. Locate the firewall between the ISP WAN

device and the LAN router.

To alleviate some of the workloads placed on the LAN router, you could disable the wireless functionality of the LAN

router and provide a separate Wireless Access Point (WAP) to provide wireless network access for the mobile

devices (e.g., cell phones, iPads, etc.).

Connecting the Wireless Access Point (WAP) directly to the primary router will enable isolation of the wireless LAN

(WLAN).

Your application response is a reflective written assignment relating to the module readings, discussion, and other

activities presented. All work must be original and not taken from Internet sources.

In a document, compose an essay consisting of three paragraphs (250-300 words). This assignment must be in

essay format with an introductory paragraph, body, and conclusion.

Formatting requirements: Use double line spacing, 1" margins, indent the first line of each new paragraph by .5",

include your essay title at the top with center alignment.

To see the formatting, refer to this Example Essay. download

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For help formatting, refer to Word Help Center. (Links to an external site.)

If you refer to ideas on a website, be sure to include the link to the source. If this is not an electronic source with a

link, then list as much information as possib