DCN Graded Assignment 01

1) The network model in this Packet Tracer Tutored Activity (PTTA) incorporates many of the technologies that you can master in Cisco Networking Academy courses. It represents a simplified version of how a small to medium-sized business network might look.

Most of the devices in the Seward Branch Office (top left) and Warrenton (bottom right) data center are already deployed and configured. You have just been hired to review the devices and networks deployed. It is not important that you understand everything you see and do in this activity. Feel free to explore the network and become familiar with the menus on your own. Hints will also appear after a certain amount of time. You can select a hint level with the slider bar in the bottom left hand corner.

**Note:** There are two way to look at a network in Packet Tracer. **Logical** mode shows you how devices are connected in the network. **Physical** mode shows you where the devices are located in the network. This activity opens in and focuses on **Physical** mode. Many of the Packet Tracer activities you encounter in Cisco Networking Academy courses will use **Logical** mode. You can switch between these modes at any time to compare the differences by clicking the **Logical** (Shift-L) and **Physical** (Shift-P) buttons. However, in other activities in this course you may be locked out of one mode or the other.

Part 2:

Newer models of networking devices can be accessed for management configuration through a USB port. This is necessary because newer laptops and PCs typically do not include an RS232 port for console cable connections.

In this step, you will install and power up a new router in the Rack. You will also connect to this device via the USB console with a USB cable.

In Packet Tracer, an inventory of devices can be stored on the Shelf. These devices are powered off and can be previously configured and deployed to replace or add to the production devices on the Rack.

Part 3 :

You have connected Laptop\_1 to Backup\_Router via a USB console cable. With the USB console connected, you will access the command line interface (CLI) of Backup\_Router via terminal software and configure a hostname.

Every computer, including network devices, such as routers and switches, requires an operating system to function. The operating system allows the device hardware to function and provides an inteface for users to interact.

The Cisco Internetwork Operating System (IOS) is an operating system used in Cisco networking devices. It allows creation of configurations that customize the operation of network devices in different network environments. The CLI is accessible via the device console port using terminal software or remotely via Secure Shell (SSH). Network administrators use a computer to access the device console in order to create or modify the device configuation.

Network administrators typically assign names to networking devices. The host name is used to identify a device when accessing its operating system for configuration. To do this, you will use your console connection to the **Backup\_Router**. After the hostname has been configured, the hostname appears as part of the IOS command prompt.

In this step, you will configure the hostname on **Backup\_Router**.

Questions 1:

**Besides Ethernet and the console cables, what are other ways to connect devices?**

Besides Ethernet and console cables, devices can connect via:

* **Wireless:** Wi-Fi, Bluetooth, cellular.
* **Wired:** Fiber optic, coaxial, powerline, USB.

Question 2:

**What is the difference between the wiring closet Rack, Table, and Shelf?**

 **Rack:** For mounting operational network devices.

 **Table:** For placing general-purpose devices.

 **Shelf:** For storing inactive devices.

Question 3:

**How does logical mode differ from physical mode?**

 **Logical:** Network topology, connectivity, data flow.

 **Physical:** Real-world device placement, cabling.

