Layered Network Design Simulation

1. Objective

Explain the need to design a hierarchical network that is scalable.

1. Scenario

As the network administrator for a very small network, you want to prepare a simulated-network presentation for your branch manager to explain how the network currently operates.

The small network includes the following equipment:

* One Cisco 2911 series router
* One Cisco 3560 switch
* One Cisco 2960 switch
* Four user workstations (PCs or laptops)
* One printer

1. Resources

* Packet Tracer software

1. Directions
   1. Create a simple network topology using Packet Tracer software. Place the devices at the appropriate levels of the Cisco three-layer hierarchical model design, including:
      1. One Cisco 2911 series router
      2. One Cisco 3560 switch
      3. One Cisco 2960 switch
      4. Four user workstations (PCs or laptops)
      5. One printer
   2. Using Packet Tracer’s drawing tool and indicate the hierarchical layers with different color coding and labels:
      1. Access layer
      2. Distribution layer
      3. Core layer
   3. Configure the network and user devices. Check for end-to-end connectivity.
   4. Share your configuration and hierarchical network design Packet Tracer file with another student, group, the class, or the instructor.