

Design Hierarchy

Objective

Identify the three layers of a hierarchical network and how they are used in network design.

Scenario

A network administrator is tasked with designing an expanded network for the company.

After speaking with network administrators in other branches of the company, it was decided to use the Cisco three-layer hierarchical network design model to guide the expansion. This model was chosen for its simple influence upon network planning.

The three layers of the expanded network design include:

- Access
- Distribution
- Core

Resources

- World Wide Web access
- Presentation software

Step 1: Use the Internet to research the Cisco three-layer design model for images only.

- a. Find two images that show the three-layer hierarchical design model.
- b. Note the online image's web address.

Step 2: Study the two images you have selected from Step 1.

- a. Notice the types of equipment in each layer of the designs you have chosen.
- b. Differentiate why it is assumed the types of equipment shown in the images are located where they are on the design.
- c. Notice any other differences between the chosen images.
 - 1) Number of devices used within the layers
 - 2) Redundancy, if any

Step 3: Create a three-slide presentation to include:

- a. The two chosen designs with hyperlinks as to their Internet site locations.
- b. A statement on each slide as to why the particular image was chosen.
- c. Comparison statements as to how the two images differ, but with an explanation of why they are classified as three-level hierarchical designs.

Step 4: Present the slides to a classmate, another group, or the class for discussion.