

Leaving on a Jet Plane

Objective

Explain the operation of multiarea OSPF to enable internetworking in a small- to medium-sized business network.

Scenario

You and a classmate are starting a new airline to serve your continent. In addition to your core area or headquarters airport, you will locate and map four intra-continental airport service areas and one transcontinental airport service area that can be used for additional source and destination travel.

Use the blank world map provided to design your airport locations. Additional instructions for completing this activity can be found in the accompanying PDF.

Required Resources

- Blank world map diagram
- Word processing software or alternative graphics software for marking airport locations and their connections

Blank World Map Diagram



Directions

Step 1: Design the airport locations.

- a. Use the blank world map diagram provided.

- b. On your map, place a star in the center of the continent in which you live. This is now the Airport Core Site and will serve as your core transit location. Label it as Airport Core Site. This is your first area of intra-continental service and all airports will be connected to the Airport Core Site.

Step 2: Map airports within your continent to serve your passengers.

- a. Map four airport locations within your continent to connect to the Airport Core Site. Call them North, South, East, and West Airport Sites.
- b. Place four circles on your continent's map to represent the North, South, East, and West Airport Sites. Some circles may overlap due to the size of the continent and the sites placement on the map.
- c. Draw a straight line from each of these airports to the Airport Core Site. These intra-continent locations are your first level of service for your airlines. They are also known as area border airport sites.

Step 3: Identify another continent your airline will serve.

- a. On the world map, locate another continent you would like to provide service to and from the Airlines Core Site.
- b. Place a circle in the center of the continent you chose for second-level service. This airport will be called Transcontinental Airport Site.
- c. Draw a line from your Airlines Core Site to the Transcontinental Airport Site. This airport will be known as an autonomous system border router (ASBR) airport site.

Summary

After completing Step 3, you should be able to see that the airport connections resemble a network topology. Complete the reflection questions, save your work, and be prepared to share your answers with the class.

Reflection

1. While designing your airline travel routes, did you pay close attention to the headquarters location? Why would it be important to have a core site for airline travel?

2. Would networks incorporate core, border, and ASBRs into area sites? Justify your answer.

3. What is the significance of mapping transcontinental areas?

