

Configuration Exercises

- 1 Table 8-13 shows the interfaces and addresses of 14 routers. Also shown is the OSPF area to which each interface is connected. The following facts apply:

All interfaces of each router are shown in the table.

If no area is shown (-), OSPF should not be running on the associated interface.

The second octet of the subnet address is the same as the area ID.

The first 16 bits of the address of every OSPF interface are specific to the area. For example, addresses with the prefix 10.30.x.x will be found only within area 30.

Write OSPF configurations for the routers in Table 8-13. (Tip: Draw a picture of the routers and subnets first.)

Table 8-13 *The router information for Configuration Exercises 1 through 6*

Router	Interface	Address/Mask	Area ID
A	L0	10.100.100.1/32	-
	E0	10.0.1.1/24	0
	E1	10.0.2.1/24	0
	E2	10.0.3.1/24	0
	E3	10.0.4.1/24	0
B	L0	10.100.100.2/32	-
	E0	10.0.1.2/24	0
	E1	10.5.1.1/24	5
	S0	10.5.255.13/30	5
	S1	10.5.255.129/30	5

Table 8-13 The router information for Configuration Exercises 1 through 6 (Continued)

Router	Interface	Address/Mask	Area ID
C	L0	10.100.100.3/32	-
	E0	10.0.2.2/24	0
	E1	10.10.1.1/24	10
	S0	10.30.255.249/30	30
D	L0	10.100.100.4/32	-
	E0	10.0.3.2/24	0
	E1	10.20.1.1/24	20
E	L0	10.100.100.5/32	-
	E0	10.0.4.2/24	0
	S0	10.15.255.1/30	15
F	L0	10.100.100.6/32	-
	E0	10.5.5.1/24	5
	S0	10.5.255.130/30	5
	S1	10.5.255.65/30	5
G	L0	10.100.100.7/32	-
	E0	10.10.1.58/24	10
	S0	10.10.255.5/30	-
H	L0	10.100.100.8/32	-
	E0	10.20.1.2/24	20
	E1	10.20.100.100/27	20
	S0	10.20.255.225/30	-
I	L0	10.100.100.9/32	-
	E0	10.35.1.1/24	35
	S0	10.5.255.66/30	5
J	L0	10.100.100.10/32	-
	E0	10.15.227.50/24	15
	S0	10.15.225.2	15
K	L0	10.100.100.11/32	-
	E0	10.30.1.1/24	30
	S0*	10.30.254.193/26	30

continues

Table 8-13 *The router information for Configuration Exercises 1 through 6 (Continued)*

Router	Interface	Address/Mask	Area ID
L	L0	10.100.100.12/32	-
	E0	10.30.2.1/24	30
	S0*	10.30.254.194/26	30
M	L0	10.100.100.13/32	-
	E0	10.30.3.1/24	30
	S0*	10.30.254.195/26	30
	S1	10.30.255.250/30	30
N	L0	10.100.100.14/32	-
	E0	10.30.4.1/24	30
	S0*	10.30.254.196/26	30

*Indicates Frame Relay encapsulation.

- 2 Configure summarization on all ABRs in Table 8-13.
- 3 Modify the configurations to make area 15 a stub area.
- 4 Modify the configurations to make area 30 a totally stubby area.
- 5 Interface S0 of router H is connected to a router running another routing protocol, and the routes learned from that protocol are being redistributed into OSPF. Modify the configurations as necessary to allow these redistributed routes to be advertised throughout the OSPF domain, but do not allow any type 5 LSAs to enter area 20.
- 6 The serial link between routers C and M is a very low bandwidth link. Modify the configurations so that OSPF treats this link as a demand circuit.