Configuration Exercise Equipment Requirements and Backbone Configurations

NOTE
This document is an addendum to Appendix H, “Configuration Exercise Equipment Requirements and Backbone Configurations,” in the Building Scalable Cisco Networks book from Cisco Press. The materials in this document support the supplemental online chapter, “Configuring IS-IS Protocol,” which has been provided to you in accordance with the latest Building Scalable Cisco Internetworks (BSCI) objectives.

Backbone Router Configuration

Table H-6 has been modified from the version in the book to include the IS-IS configuration exercise from the supplemental online chapter, “Configuring IS-IS Protocol.” The new material has been shaded for your convenience.

Table H-6 When Configurations Should Be Used on the Backbone Routers

<table>
<thead>
<tr>
<th>Configuration Exercise</th>
<th>Use This Configuration in This Device (Load the Configuration at the Beginning of the Configuration Exercise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>backbone_r1 backbone_r2</td>
<td></td>
</tr>
<tr>
<td>Discovering the Network (Chapter 1)</td>
<td>backbone_r1 discovery.txt</td>
</tr>
<tr>
<td>Configuring OSPF for a Single Area (Chapter 3)</td>
<td>backbone_r1 ospf single.txt</td>
</tr>
<tr>
<td>Configuring OSPF for a Single Area in an NBMA Environment (Chapter 3)</td>
<td>Continue to use backbone_r1 ospf single.txt</td>
</tr>
<tr>
<td>Configuring a Multiarea OSPF Network (Chapter 4)</td>
<td>Continue to use backbone_r1 ospf single.txt</td>
</tr>
<tr>
<td>Configuring a Multiarea IS-IS Network (Online IS-IS Supplement)</td>
<td>backbone_r1 isis.txt</td>
</tr>
<tr>
<td>Configuring EIGRP (Chapter 5)</td>
<td>backbone_r1 eigrp.txt</td>
</tr>
<tr>
<td>Configuring EIGRP in an NBMA Environment (Chapter 5)</td>
<td>Continue to use backbone_r1 eigrp.txt</td>
</tr>
<tr>
<td>Configuring BGP (Chapter 6)</td>
<td>backbone_r1 bgp.txt</td>
</tr>
</tbody>
</table>

continues


3 Appendix H: Configuration Exercise Equipment Requirements and Backbone Configurations

Table H-6 When Configurations Should Be Used on the Backbone Routers (Continued)

<table>
<thead>
<tr>
<th>Configuration Exercise</th>
<th>Use This Configuration in This Device (Load the Configuration at the Beginning of the Configuration Exercise)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configuring BGP Route Reflectors and Prefix-List Filtering (Chapter 7)</td>
<td>backbone_r1 bgp.txt backbone_r2</td>
</tr>
<tr>
<td>Configuring Multihome BGP (Chapter 7)</td>
<td>backbone_r1 bgp.txt backbone_r2 bgp multihome.txt</td>
</tr>
<tr>
<td>Configuring Policy-Based Routing (Chapter 8)</td>
<td>backbone_r1 bgp.txt backbone_r2 bgp multihome.txt</td>
</tr>
<tr>
<td>Configuring Route Redistribution Between OSPF and EIGRP (Chapter 8)</td>
<td>backbone_r1 bgp.txt backbone_r2 bgp multihome.txt</td>
</tr>
<tr>
<td>Super Lab, Part I and Part II (Chapter 9)</td>
<td>backbone_r1 super.txt backbone_r2 bgp multihome.txt</td>
</tr>
</tbody>
</table>

Backbone_r1 Configurations

This section provides the text of the configuration files for the backbone_r1 router. The new IS-IS configuration bbr1 isis.txt has been added (see Configuration H-7), and the EIGRP configuration bbr1 eigrp.txt has been modified (see Configuration H-3).

Configuration H-7 bbr1 isis.txt

```plaintext
! backbone_r1 IS-IS multi-area configuration exercise configuration
!
! This file is designed to be copied and pasted into a router that already
! has the previous BSCN configuration files loaded, at the # prompt
!
conf t
!
no access-list 1
no route-map passext
no router ospf 200
!
router isis
net 13.1111.2222.3333.00
is-type level-2-only
!
clns routing
!
interface Loopback100
```
Configuration H-3 is a modified version of the configuration that appears in the book. This configuration replaces the Configuration H-3 in the book. Because the IS-IS configuration exercise is meant to be done before the EIGRP exercise, the router must be

```plaintext
ip router isis
! interface Loopback101
  ip router isis
! interface Serial1/0
  ip router isis
! interface Serial1/1
  ip router isis
! interface Serial1/2
  ip router isis
! interface Serial1/3
  ip router isis
! interface Serial1/4
  ip router isis
! interface Serial1/5
  ip router isis
! interface Serial1/6
  ip router isis
! interface Serial1/7
  ip router isis
! interface Serial2/0
  ip router isis
! interface Serial2/1
  ip router isis
! interface Serial2/2
  ip router isis
! interface Serial2/3
  ip router isis
! Exit
exit
exit
copy run start
```

Configuration H-3 was made by modifying the configuration that appears in the book. This configuration replaces Configuration H-3 in the book. Because the IS-IS configuration exercise is meant to be done before the EIGRP exercise, the router must be
configured differently before EIGRP is enabled if you previously worked on the IS-IS configuration exercise. The changes to the configuration are as follows:

- The IS-IS protocol, instead of the OSPF protocol, is removed from the router.
- Access list 1 and route map passext are added to the router.

**Configuration H-3**

```plaintext
!backbone_r1 EIGRP configuration exercise configuration
!
! This file is designed to be copied and pasted into a router that already
! has the previous BSCN configuration files loaded, at the # prompt
!
conf t
!
no router isis
no clns routing
!
access-list 1 permit 172.16.10.0
access-list 1 permit 172.16.11.0
route-map passext permit 10
  match ip address 1
!
router eigrp 200
  redistribute connected metric 10000 100 255 1 1500 route-map passext
  network 10.0.0.0
!
exit
exit
copy run start
```