Internship Program for TEIN3 HRD in VinaREN

WEEKLY REPORT (for second week of the program, 09th to 13th July, 2012)

09th July 2012

We were continuing about OSPF and forcing on this chapter.

1. OSPF Data Structures
    - Immediate neighbor routers
    - All routers in the network
    - Best paths to each destination

2. OSPF Adjacency Database
3. OSPF Area Structure
    - Transit area
    - Regular area
4. OSPF Router Types
    - Internal Routers
    - Backbone Routers
    - Area border routers
    - Autonomous System Boundary Routers
5. OSPF Terminology
6. Calculating the OSPF Metric
7. Link-State Data Structures
8. OSPF Network Type
    - Point to point
    - Broadcast
    - Nonbroadcast multi-access (NBNA)
9. Adjacency Behavior for point to point link
10. Adjacency Behavior for a Broadcast Link
    - Reduce Routing update traffic
    - Manage link-state synchronization
11. Selecting the DR (Designated Router) and BDR (Backup Designated Router)
12. Adjacency Behavior for a NBMA Network
13. DR Election in NBMA Topology
14. OSPF Over Frame Relay
    - Hub-and-spoke

- Full-mesh
- Partial-mesh

15. OSPF over NBMA Topology Modes
    - Nonbroadcast
    - Point-to-multipoint
    - Point-to-multipoint nonbroadcast
    - Broadcast
    - Point-point
16. Configuring the OSPF Network Type
17. Configuring OSPF over Frame Relay
18. Using the neighbor Command
    - Used statically define neighbor relationships in an NBMA network
    - Show IP OSPF neighbor Command
19. Point-to-multipoint configuration
20. Point-to-multipoint configuration Nonbroadcast Configuration
21. Using subinterfaces in OSPF over a frame relay configuration
22. Configuring point-to-point subinterface
23. Configuring a Multipoint Subinterface

10th July 2012

For this day he was been given exercises that i was studied yesterday about OSPF
Configuration OSPF and NBMA Networks
Configuration OSPF and Broadcast Networks
Configuration OSPF and point-to-Multipoint Networks
Configuration OSPF and point-to-Multipoint NonBroadcast Networks
Configuration OSPF and point-to-point Networks Using Subinterfaces

11th July 2012

He was gave documents OSPF detail
Multi area OSPF Operation

1. Large OSPF Network Issues
2. OSPF LSA Types
   2.1 Type 1 (Router LSAs)
   2.2 Type 2 (Network LSAs)
   2.3 Type 3 (Network Summary LSAs)
   2.4 Type 4 (ASBR Summary LSAs)
   2.5 Type 5 (Autonomous System External LSAs)

2.6 Type 6 (Multicast OSPF LSAs)
2.7 Type 7 (Defined for Not-So-Stubby Areas)
2.8 Type 8 (External Attributes LSAs)
2.9 Type 9,10 and 11 (opaque LSAs
3. Interpreting the OSPF LSDB and Routing Table
4. Interpreting the Routing Table
5. Calculating Costs for E1 and E2 Routes
6. Configuring OSPF LSDB Overload Protection
7. Changing the Cost Metric
8. Stub, Totally Stubby, and NSSAs
   8.1 Configuring OSPF Area Types
   8.2 Using Stub and Totally Stubby Areas
   8.3 Configuring Stub Area
   8.4 OSPF Stub Area Configuration Example
   8.5 Configuring Totally Stub Areas
   8.6 Totally Stubby Area Configuration Example
   8.7 Interpreting Routing Tables
   8.8 Configuring NSSAs
   8.9 Configuring NSSA Example
   8.10 Configuring an NSSA Totally Stubby Area Example
   8.11 Verifying All Stub Area Types
9. Virtual Link
   9.1 OSPF Virtual Links
   9.2 Configuring Virtual Links
   9.3 Virtual Link Configuration Example
   9.4 Verifying a Virtual Link Configuration

12th July 2012

He was explained me about Virtual Link and gave example on the VinaREN. And did exercises with multi-Area OSPF.

13th July 2012

Continue exercises with multi-Area OSPF.