Koti Concepts
F5 Load balancer Syllabus

Objectives

In this course, we learn Local and Global server load balancing
We learn the concepts on a real life case study.

The following topics would be covered in LTM module

1. The need for Application delivery manager in datacenter

2. The introduction to the functions of a Load balancer

3. Initial configuration on the F5 load balancer

    a. Changing the passwords to the root and admin accounts
    b. Assigning IP address to the management port
    c. Creating VLANS
    d. Assigning interfaces to the proper VLANS
    e. Assigning self IP addresses
    f. Adding static routes
    g. Adding a default route

4. Understanding and configuration of Local Server Load balancing using LTM module

    a. Understanding and configuration of Nodes
    b. Understanding and configuration of Pool members
    c. Understanding and configuration of Health monitors
    d. Understanding and configuration of Virtual servers
    e. Verification of load balancing using ‘static Round Robin’ method
    f. Verification of load balancing using ‘static Ratio’ method
    g. Verification of load balancing using ‘Dynamic Least Connections’ method
    h. Verification of load balancing using ‘Dynamic Fastest’ method
    i. Verification of load balancing using ‘Dynamic Observed’ method
    j. Verification of load balancing using ‘Dynamic Predictive’ method
    k. Verification of load balancing using ‘Dynamic Ratio’ method
    l. Verification of load balancing by Pool Member VS Node

5. Priority Group Activation Load-Balancing

6. Health Monitoring,Methods and Types Theory

    a. Address Check Monitors in F5 BIG-IP LTM
    b. Service Check Monitors in F5 BIG-IP LTM
    c. Content Check Monitors in F5 BIG-IP LTM
    d. Interactive Check Monitors in F5 BIG-IP
    e. External & Scripted Monitor in F5 LTM
    f. Default Monitor in F5BIG-IP System LTM
    g. Node Specific Monitor in F5 BIG-IP LTM
    h. Pool Monitor in F5 BIG-IP System LTM
    i. Member Specific Monitor in F5 BIG-IP
    j. Test Monitor in F5 BIG-IP System LTM
    k. Monitor Instances in F5 BIG-IP System

7. Understanding different types of profiles in F5 Load balancer

    a. Persistence Profile Theory and Type in LTM
    b. Source Address Persistence Profile Lab
    c. Cookie Insert Persistence Profile Lab
    d. Client SSL Profile Lab in F5 LTM
    e. Fallback Host or Fallback HTTP Profile
    f. Configure & Verify OneConnect Profile

8. Understanding different types of Virtual servers

    a. IP Forwarding virtual server
    b. Standard virtual server
    c. DHCP virtual server

9. Packet Filter in F5 BIG-IP System LTM

    a. TCPDUMP Packet Capture Commands in LTM
    b. Logging in F5 Local Traffic Manager LTM
    c. Working with F5 LTM CLI TMSH Commands

10. Understanding the configuration of Global server load balancing using BIGIP DNS(GTM) module

11. DNS concepts

12.Configuration of Internet Root DNS server with appropriate

a. Zones
b. Top level domains
c. Sub domains
d. Host records
e. Configuration of the ISP-DNS servers with proper ‘Root hints’

13. Configuration of the ‘Root DNS server with proper zone and delegation of the top-level domains

14. Configuration of the ‘Top-level DNS servers with proper zone and delegation of the domains

15. Configuration of the DNS servers of the organisations

16. Understand the DNS recursion process

17.Capture and analysis of DNS recursion packets

18.Understanding the configuration of Global server load balancing using BIGIP DNS(GTM) module

19.Resource provisioning for DNS module

a. Configuration of the following objects
b. Configuration of a ‘Listener’
c. Configuration of ‘Data centers’
d. Configuration of Global server load balancing servers

20. Enabling ‘iquery’ communication between the load balancers

21. Configuration of Global server load balancing pool of Virtual servers

22. Configuration of ‘Wide IP’

23. Configuration of proper domain delegation on the ISP DNS servers

24. Verification of global server load balancing using ‘Round robin’ method’

25. Understanding the process of sending mails between two different organisations and the traffic flow

a. Creation of mailbox enabled user accounts in the domain
b. Configuration of the email clients with proper ‘POP3’ and ‘SMTP’ servers
c. Configuration of conditional forwarding on the DNS server
d. Configuration of proper ‘MX’ records on the DNS server
e. Capture and analysis of the packets and understand the network traffic flow

26.Configurations of SSL certificates

a. Configuration of Stand-alone Root CA
b. Requesting for a Server certificate
c. Receiving and installing a ‘Digital Certificate’
d. Accessing a website with SSL