Load Balanced Network Setup

This playbook describes the procedure for designing and deploying load balancers in a network environment. The goal is to distribute traffic efficiently across multiple servers to achieve high availability and optimal performance.

Step 1: Assessment

Conduct a thorough assessment of the current network architecture, server capacity, anticipated traffic load, performance metrics, and requirements for high availability.

Step 2: Design

Create a design blueprint for the load balanced network that includes the placement of load balancers, the selection of load balancing algorithms, and the identification of server clusters to handle incoming traffic.

Step 3: Procurement

Acquire the necessary hardware or software-based load balancers as per the design specifications and ensure compatibility with existing network infrastructure.

Step 4: Configuration

Configure the load balancers with appropriate settings, including the chosen load balancing algorithm (e.g., round-robin, least connections,

IP-hash, etc.), server health checks, and session persistence as needed.

Step 5: Integration

Integrate the new load balancers into the network by updating DNS settings for traffic routing, establishing the connections between the load balancers and servers, and implementing any necessary firewall rules.

Step 6: Testing

Perform rigorous testing to validate that the load balancers correctly distribute traffic among the servers without any single point of failure, and that they meet the performance requirements set in the assessment phase.

Step 7: Monitoring

Set up monitoring systems to continuously track the performance of the load balancers and the server clusters. Implement alerting mechanisms to notify the network team of any issues, overloads, or failures.

Step 8: Maintenance

Establish a maintenance schedule for regular updates, health checks, and performance tuning to keep the load balancers and the overall network functioning optimally.

General Notes

Capacity Planning

During the assessment phase, pay special attention to capacity planning to ensure that the network can cope with current and future traffic demands.

Failover Testing

As part of the testing process, include failover tests to verify that the system can handle the loss of a server or a load balancer without noticeable disruption to services.

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