Network Usability and Security SOP

Purpose:

To ensure the network is secure and maintained properly.

Scope:

This SOP applies to members of the IT team responsible for managing the network.

Responsibilities:

- Implement and maintain network upgrades based on best practices
- Conduct regular assessments and audits
- Document network configurations, changes, and security measures for reference

Prerequisites:

- Understand the components, protocols and architecture
- Access to network monitoring tools
- Knowledge of organization's network requirements

Procedure:

Network Design and Configuration

1. Design the architecture based on end-user needs, budget, and any other relevant considerations (initial network architecture diagram illustrated below)

2. Implement port and firewall configuration on all networked devices (see network connectivity guide - Lab 7)
3. Install pfSense and configure router (see pfSense install guide - Lab 12)
4. Test network performance
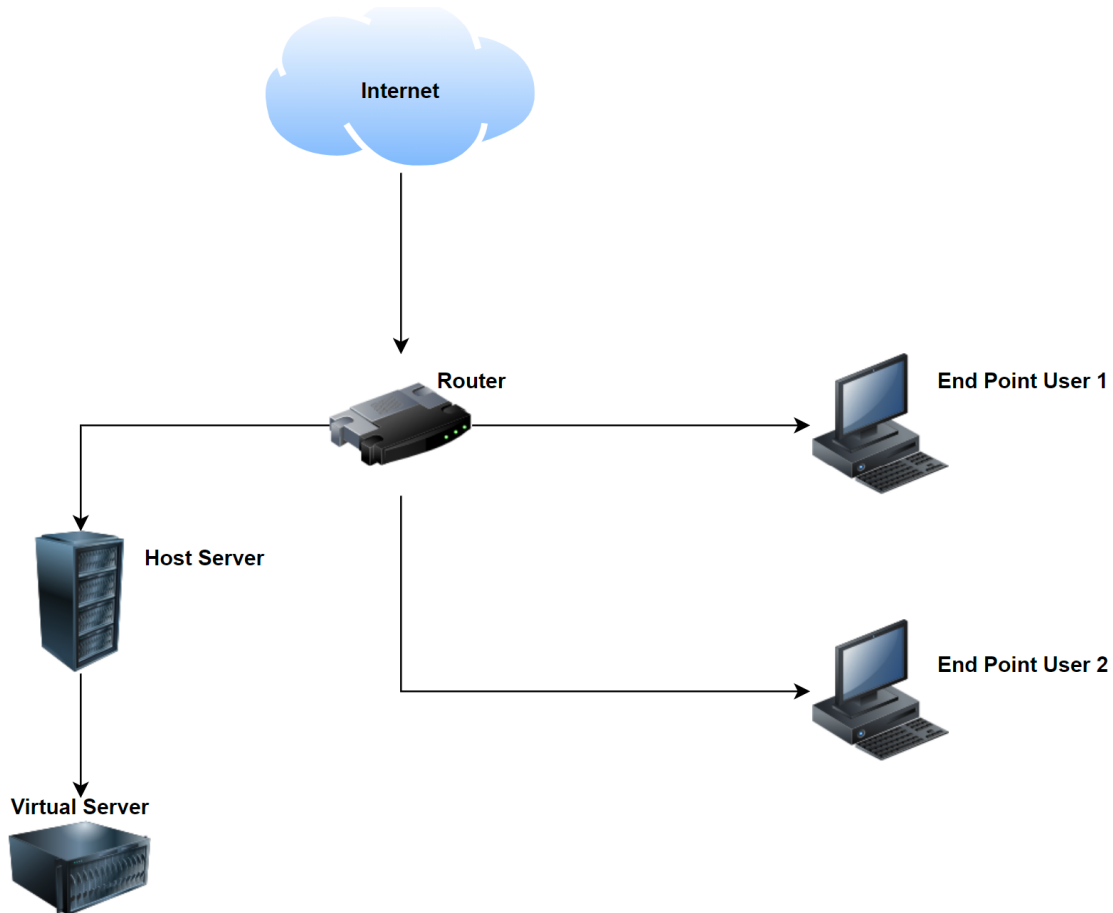
Ongoing Network Monitoring and Maintenance:

- Continuously monitor network performance; implement network monitoring / alert tools as necessary
- Regularly review network logs to identify and respond to incidents (see log review and analysis guide)
- Conduct routine maintenance such as backups, firmware upgrades, and system health checks

References:

- [Network connectivity guide](#)
- [pfSense guide](#)
- [Log review and analysis guide](#)

Definitions:

Network Infrastructure: The hardware, software, and protocols that enable the communication and connectivity within an organization's network.

Network Security: The practices and measures taken to protect the confidentiality, integrity, and availability of network resources and data.

Revision History:

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