Lab Activity

Learning Objectives

• Explore and compare multiple Linux distributions for performance and usability.

• Use performance monitoring tools to evaluate key system metrics.

• Document and reflect on system performance data effectively.

Task 1: Setup and Exploration of Linux Distributions

Objective: Familiarize with at least two Linux distributions.

Steps:

1. Launch two virtual machines.
2. Explore package managers (apt, dnf, yum), default services, and directory structures.
3. Record differences in a comparison table.

Task 2: Performance Monitoring Tools

Objective: Use monitoring tools to observe system performance.

Steps:

4. Install and run htop, iotop, and nmon on both systems.
5. Observe CPU, memory, and I/O usage in different conditions (idle, during updates, and while copying files).
6. Take screenshots or note observations for later documentation.

Task 3: Documentation and Reflection

Objective: Summarize findings and reflect on performance differences.

Steps:

7. Write a short summary describing the setup, tests, and key results.
8. Include screenshots and explanations of findings.
9. Reflect on which distribution was more efficient and why.

Reflection & Discussion

• Which distribution performed better and why?
• What factors affected CPU and I/O usage?
• How might these findings inform system selection for specific workloads?