Course: IT Project Management
Date: 27.01.2025

Assignment weight:

Software list for Group Assignment

Pick software from the list and install it on the linux operating system -Ubuntu recommended. And prepare yourself for presentation next week Monday

Areas to be evaluated

1. Technical competence (manual installation, do not use system Installer(stack))
2. Presentation skill
3. Application of IT Project Management skills
4. Team Collaboration (team work)
5. Solution understanding

Use your traditional assignment groups but members should not exceed 10

Network Security

1. **Wireshark**
   A network protocol analyzer for troubleshooting, analysis, and education.

2. **Snort**
   An intrusion detection and prevention system (IDS/IPS) that monitors network traffic.

Penetration Testing

1. **Kali Linux**
   A Linux distribution preloaded with tools for penetration testing and ethical hacking.

2. **Metasploit Framework**
   A penetration testing tool to find, exploit, and validate vulnerabilities.

3. **John the Ripper**
   A password-cracking tool for testing password strength.

Web Application Security

1. **OWASP ZAP (Zed Attack Proxy)**
   A tool for finding security vulnerabilities in web applications.

2. **Burp Suite Community Edition**
   A web vulnerability scanner and testing tool.

Open-Source Healthcare and Hospital Management Systems

1. **Bahmni**
   An open-source HIS designed for hospitals and low-resource healthcare environments

2. **Care2x**

Mail Servers

1. Zimbra

2. Mailtrain

Network Firewalls

1. **pfSense**
   A highly popular open-source firewall and router platform based on FreeBSD, with features like VPN, traffic shaping, and intrusion detection.

2. **OPNsense**
   A FreeBSD-based firewall solution that offers a user-friendly interface and advanced security features.

3. **IPFire**
   A flexible open-source firewall that also serves as a router and VPN gateway.

4. **Smoothwall Express**
   A Linux-based firewall designed for simplicity and effectiveness in securing networks.

5. **Endian Firewall Community**
   An open-source security gateway that includes firewall, VPN, and content filtering.

Application Firewalls

6. **ModSecurity**
   A web application firewall (WAF) used to protect websites from attacks such as SQL injection and XSS.

7. **Naxsi**
   A lightweight WAF for Nginx that defends against common web application vulnerabilities.

8. **HAProxy**
   A high-performance load balancer with advanced traffic routing and application firewall capabilities.

Enterprise-Level Firewalls

1. **ClearOS**
   A Linux-based OS that includes advanced firewall features, DNS services, and intrusion detection.

2. **VyOS**
   An open-source network operating system with built-in firewall capabilities for enterprise environments.

Intrusion Detection and Prevention Systems (IDS/IPS)

1. **Snort**
   An intrusion detection system that can also act as an inline intrusion prevention firewall.

2. **Suricata**
   An IDS/IPS with firewall capabilities for real-time traffic analysis.

Cloud and Container Firewalls

1. **Kubernetes Network Policies**
   A feature in Kubernetes to control communication between pods and external systems.

2. **Calico**
   A container networking and firewall solution for Kubernetes and cloud-native environments.

Why Learn Open-Source Firewalls?

- **Network Security Skills**: Understand how to protect systems from unauthorized access and cyber threats.
- **Practical Deployment**: Learn to configure firewalls in real-world scenarios for homes, businesses, and cloud systems.
- **Career Advancement**: Firewall configuration and management are essential skills in cybersecurity and IT roles.

These tools provide hands-on opportunities for students to master firewall technologies and enhance their expertise in securing networks.

Why These Tools Are Useful

- **Practical Learning**: Gain hands-on experience with tools used by cybersecurity professionals.
- **Diverse Applications**: Cover a wide range of topics, from network monitoring to ethical hacking.
- **Career Opportunities**: Skills in cybersecurity tools are highly sought after in industries like IT, healthcare, and government.

By learning these tools, students can acquire valuable expertise in identifying vulnerabilities, securing systems, and protecting against cyber threats.