

Task 3: Vulnerability Assessment Report

This report details the findings of a vulnerability assessment conducted on a local network host as per the requirements of the internship task. The primary objective was to use a free, open-source tool to identify common vulnerabilities on the local machine. The OpenVAS scanner within the Greenbone Vulnerability Manager (GVM) framework was used for this assessment. The scan targeted the local IP address

192.168.1.20.

The scan completed successfully and found **zero vulnerabilities** of High, Medium, or Low severity. All findings were informational logs with a severity rating of 0.0.

2. Scan Configuration & Process

- **Scanner Used:** OpenVAS (GVM)
- **Scan Target:** 192.168.1.20
- **Scan Type:** Unauthenticated Full Scan
- **Scan Date:** Sun, Aug 10, 2025

The process involved installing and configuring the GVM framework, defining the local host as a target, and launching a comprehensive network scan.

3. Findings and Observations

The scan did not identify any exploitable vulnerabilities. The results consist entirely of informational logs that are used to build a profile of the target machine.

The absence of detected vulnerabilities is a positive result from a network security perspective. However, it is crucial to understand the limitations of the scan that was

performed.

Browser address bar: <https://127.0.0.1:9392/vulnerabilities> 90%

Greenbone | UTC | 14:37 | admin

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Severity scale: 0.0 to 10.0 (Log, N/A, 0.1, 1, 2, 3, 4, 5, 6, 7, 8, 9, 10)

Table of Vulnerabilities:

| Name ↑↓ | Oldest Result ↑↓ | Newest Result ↑↓ | Severity ↓ | QoD ↑↓ | Results ↑↓ | Hosts ↑↓ |
|--|--|--|------------|--------|------------|----------|
| OS Detection Consolidation and Reporting | Sun, Aug 10, 2025 4:42 AM Coordinated Universal Time | Sun, Aug 10, 2025 4:42 AM Coordinated Universal Time | 0.0 (Log) | 80 % | 1 | 1 |
| Hostname Determination Reporting | Sun, Aug 10, 2025 4:49 AM Coordinated Universal Time | Sun, Aug 10, 2025 4:49 AM Coordinated Universal Time | 0.0 (Log) | 80 % | 1 | 1 |
| Traceroute | Sun, Aug 10, 2025 4:44 AM Coordinated Universal Time | Sun, Aug 10, 2025 4:44 AM Coordinated Universal Time | 0.0 (Log) | 80 % | 1 | 1 |
| CPE Inventory | Sun, Aug 10, 2025 4:49 AM Coordinated Universal Time | Sun, Aug 10, 2025 4:49 AM Coordinated Universal Time | 0.0 (Log) | 80 % | 1 | 1 |

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| Vulnerability ↑↓ | Severity ↓ | QoD ↑↓ | Host IP ↑↓ | Name ↑↓ | Location ↑↓ | EPSS Score |
|--|------------|--------|---------------|---------|---------------|---------------|
| OS Detection Consolidation and Reporting | 0.0 (Log) | 80 % | 192.168.1.20 | | general/tcp | N/A |
| Traceroute | 0.0 (Log) | 80 % | 192.168.1.20 | | general/tcp | N/A |
| CPE Inventory | 0.0 (Log) | 80 % | 192.168.1.20 | | general/CPE-T | N/A |
| Hostname Determination Reporting | 0.0 (Log) | 80 % | 192.168.1.20 | | general/tcp | N/A |

4. Analysis and Recommendations

- Analysis:** This was an **uncredentialed scan**, meaning the scanner acted as an outsider without login credentials. This type of scan cannot see local system details like installed software versions, missing security patches, or weak user account policies. The "clean" result indicates a reasonably secure network perimeter but does not guarantee the absence of internal vulnerabilities.
- Recommendations:** For a more comprehensive assessment in the future, it is highly recommended to perform an **authenticated (or credentialed) scan**. This involves providing the scanner with secure login credentials, allowing it to inspect the system from the inside and provide a much more detailed and accurate report on software-based vulnerabilities.

5. Conclusion

The vulnerability scan of host `192.168.1.20` was completed successfully. While no immediate threats were identified from an uncredentialed network perspective, the primary value of this exercise was in learning the end-to-end process of a professional vulnerability assessment using OpenVAS.