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| VAPT Report – {{ conn.info.name }}  Internet Banking Penetration Testing and Vulnerability Assessment | |
| 31 October 2022 | Document Version 0.02 | |
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Contribution (C) and distribution (D) list

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# About This Design Document

## Document Purpose

A vulnerability assessment (VA) report is a document that summarizes the findings of a vulnerability assessment, which is a process of identifying, analyzing, and prioritizing vulnerabilities in an organization's assets

The purpose of this document is to provide in detail the recommended findings and remediations for the IP/Sytems in scope. This document provides details on the findings and remediations that can be implemented to have a better overall security posture.

## Intended Audience

The intended audience of this document are Fauli Microfiance / Dimension Data technical staff who will be implementing and operating the new network.

## Document Usage Guidelines

The document should be used as a guideline for deriving the necessary information to ultimately remediate the findings that were discovered during the external assessment.

* This document comprises the following components: -
* In Scope URL’s
* Findings
* Remediations
* Vulnerability References
* Evidence

# Executive Summary

## Introduction

We have the pleasure of presenting the main findings on our VA scan of as enumerated and documented in the shared IPs. We also want to express our appreciation to for the support given by the respective staff during this review.

## Scope

The following IP addresses were in scope for the vulnerability Assessment:

|  |  |
| --- | --- |
| IPs | IPs {{ conn.info.targets }} |

## **Risk Break down**

This Is a severity based approach which involves ranking vulnerabilities based on the potential impact they could have on an organization's assets, such as the potential for data loss, disruption of service, or unauthorized access to sensitive information.

Vulnerabilities with a higher potential impact are typically considered more severe and are given a higher priority for remediation.

{{risk\_summary}}

{{ risk\_breakdown }}

## **Host Breakdown**

In the context of vulnerabilities, a host refers to a computer, device, or network that is connected to the internet or another network and is potentially vulnerable to attack.

{{ host\_risk\_summary }}

## **Common Vulnerabilities**

The frequency of vulnerabilities refers to how often new vulnerabilities are discovered in systems, applications, or networks.

{{ name\_synopsis }}

## **Critical Vulnerabilities**

Critical vulnerabilities are vulnerabilities that have the potential to cause significant damage to an organization's assets or compromise the confidentiality, integrity, or availability of sensitive information.

These types of vulnerabilities are typically considered the most serious and should be prioritized for remediation as soon as possible.

{{ critical\_synopsis }}

## Risk Rating Matrix

Risks are classified as Critical, High, Moderate or Low as per the matrix defined below.

| Rating | Description |
| --- | --- |
| Critical | Loss of [confidentiality | integrity | availability] is proven and is currently being exploited in the wild.  Countermeasures recommended to mitigate these risks should be implemented as soon as possible and the environment should be reviewed for any signs of  compromise. |
| High | Loss of [confidentiality | integrity | availability] is likely to have a serious adverse effect on the organization or individuals associated with the organization (e.g.,  employees, customers).  Countermeasures recommended to mitigate these risks should be implemented as soon as possible |
| Medium | Loss of [confidentiality | integrity | availability] is likely to have a moderately adverse effect on the organization or individuals associated with the organization (e.g.,  employees, customers).  Countermeasure implementation should be planned for the near future |
| Low | Loss of [confidentiality | integrity | availability] is likely to have only a limited to little adverse effect on the organization or individuals associated with the organization (e.g., employees, customers).  Countermeasure implementation will enhance security and  is of less urgency than the above risks. |

Table 1: Risk Rating Matrix

## Vulnerability Assessment Review

### Vulnerability Assessment Summary Findings

This section details the summary findings of the vulnerability Assessment conducted on the IPs in scope.

**NB: The detailed findings have been shared as an addendum to this report. It serves as the remediation tracker**

### Vulnerability Count

| IP Address | Critical | High | Medium | Low |
| --- | --- | --- | --- | --- |
| {%tr for item, item\_group in conn.hosts|groupby(‘hostname’) %} | | | | |
| {{ item }} | {{ item\_group|sum(attribute='critical') }} | {{ item\_group|sum(attribute='high') }} | {{ item\_group|sum(attribute='medium') }} | {{ item\_group|sum(attribute='low') }} |
| {%tr endfor %} | | | | |
| Total | {{hosts|sum(attribute='critical')}} | {{hosts|sum(attribute='high')}} | {{hosts|sum(attribute='medium')}} | {{hosts|sum(attribute='low')}} |

Table 2: Vulnerability Count Per Host

### Summary of Vulnerabilities

This section defines the Vulnerabilities found, their count as well as their risks.

| Vulnerability | Count | Severity |
| --- | --- | --- |
| {%tr for a in conn.vulnerabilities%} | | |
| {%tr if a. score!= None %} | | |
| {{ a. plugin\_name}} | {{ a.count }} | {% if a.score >= “9.0” %} Critical {% elif a.score >= “7.0” < “9.0” %} High {% elif a.score >= “4.0” < “7.0” %} Medium {% elif a.score >= ”1.0” < “4.0” %} Low {% endif %} |
| {%tr endif %} | | |
| {%tr endfor %} | | |

Table 3: Summary of Key Findings

### Prioritizations

This section indicates which vulnerabilities on which asset poses the greatest risk to {{ conn.info.name }} We recommend that they are addressed first to address the highest risks.

The following factors have been taken into consideration when prioritizing vulnerabilities:

1. The severity of the vulnerability
2. The severity of the vulnerability
3. The complexity of the vulnerability
4. The availability of a fix or workaround
5. The potential for damage

|  |  |  |
| --- | --- | --- |
| {%tr for a in conn.prioritization.plugins%} |  |  |
| **Vulnerability Title** | **{{ a.pluginname }}** | |
| Risk Profile | CVSS3 Score | {{ a.pluginattributes.risk\_information.cvss\_base\_score }} |
|  | {%tr if a.pluginattributes.risk\_information.risk\_factor == ‘High’ %} |
| Risk Factor | {{ a.pluginattributes.risk\_information.risk\_factor }} |
|  | {%tr endif%} |
|  | {%tr if a.pluginattributes.risk\_information.risk\_factor == ‘Critical’ %} |
| Risk Factor | {{ a.pluginattributes.risk\_information.risk\_factor }} |
|  | {%tr endif%} |
|  | {%tr if a.pluginattributes.risk\_information.risk\_factor == ‘Medium’ %} |
| Risk Factor | {{ a.pluginattributes.risk\_information.risk\_factor }} |
|  | {%tr endif%} |
|  | {%tr if a.pluginattributes.risk\_information.risk\_factor == ‘Low’ %} |
| Risk Factor | {{ a.pluginattributes.risk\_information.risk\_factor }} |
|  | {%tr endif%} |
| Exploitability | Ease | {{ a.pluginattributes.vuln\_information.exploitability\_ease }} |
| Exploit Available | {{ a.pluginattributes. vuln\_information.exploit\_available }}  Exploited by malware: **{{ a.pluginattributes.exploited\_by\_malware }}** |
| IP | {% for item in a.hosts %} {{ item.hostname }} {% endfor %} | |
| Synopsis | {{ a.pluginattributes.synopsis }} | |
| Solution | {{ a.pluginattributes.solution }} | |
| Reference | CVE | {{ a.pluginattributes.cvss\_score\_source }} |
| Links | {% for url in a.pluginattributes.see\_also %} {{ url }} {% endfor %} |
| {%tr endfor %} |  |  |

Table 4: Prioritizations

### Strategic Recommendations

To continuously map out and manage the attack surface, have a patch management process in place to:

* + - 1. Remove unused dependencies, unnecessary features, components, files, and documentation.
      2. Continuously inventory the versions of both client-side and server-side components (e.g., frameworks, libraries) and their dependencies
      3. Monitor for libraries and components that are unmaintained or do not create security patches for older versions. If patching is not possible, consider deploying a virtual patch to monitor, detect, or protect against the discovered issue.
      4. A penetration test should be done when considerable change has been introduced to the system.

1. VAPT Report acceptance

I hereby confirm acceptance and agreement of VAPT Report document for the Internet Banking Penetration Testing and Vulnerability Assessment for and the contents contained within, excluding the exceptions described in the notes below.

Notes:

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|  |  |  |
| Date |  | Date |

should send this signed VAPT Report Acceptance Sheet to ayub.mwangi@dimensiondata.com