



Demo Company Security Assessment Findings Report

Business Confidential

*Date: Oct 7th, 2024
Project: 897-19
Version 1.0*

Table of Contents

Table of Contents	2
Confidentiality Statement.....	3
Disclaimer.....	3
Contact Information.....	3
Assessment Overview	4
Assessment Components.....	4
External Penetration Test.....	4
Finding Severity Ratings	5
Scope.....	6
Scope Exclusions	6
Client Allowances.....	6
Executive Summary	7
Attack Summary.....	7
Security Strengths	8
SIEM alerts of vulnerability scans	8
Security Weaknesses	8
Missing Multi-Factor Authentication.....	8
Weak Password Policy.....	8
Unrestricted Logon Attempts	8
Vulnerabilities by Impact	9
External Penetration Test Findings.....	10
Service Version Detection using Nmap.....	10
Top Ports Scan	10
Version Scan with Verbose Output.....	11
TCP SYN Scan, Double Verbose Scan	12
Comprehensive Scan with Default Scripts	13
Accessing FTP Service.....	13
Analyzing list.xyz and readme.txt Files.....	14
Extracting Information for ethack Username	16
Additional Reports and Scans (Informational)	18

Confidentiality Statement

This document is the exclusive property of Demo Company (DC) and TCM Security (TCMS). This document contains proprietary and confidential information. Duplication, redistribution, or use, in whole or in part, in any form, requires consent of both DC and TCMS.

TCMS may share this document with auditors under non-disclosure agreements to demonstrate penetration test requirement compliance.

Disclaimer

A penetration test is considered a snapshot in time. The findings and recommendations reflect the information gathered during the assessment and not any changes or modifications made outside of that period.

Time-limited engagements do not allow for a full evaluation of all security controls. TCMS prioritized the assessment to identify the weakest security controls an attacker would exploit. TCMS recommends conducting similar assessments on an annual basis by internal or third-party assessors to ensure the continued success of the controls.

Contact Information

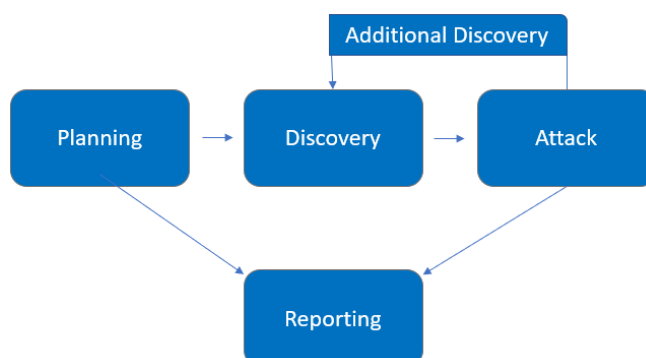
Name	Title	Contact Information
Demo Company		
John Smith	VP, Information Security (CISO)	Office: (555) 555-5555 Email: john.smith@demo.com
TCM Security		
Zidny Ilman N	Lead Penetration Tester	Email: zidnyilman224@gmail.com

Assessment Overview

From Oct 4th, 2024 to Oct 7th, 2024, DC engaged TCMS to evaluate the security posture of its infrastructure compared to current industry best practices that included an external penetration test. All testing performed is based on the NIST SP 800-115 *Technical Guide to Information Security Testing and Assessment*, OWASP Testing Guide (v4), and customized testing frameworks.

Phases of penetration testing activities include the following:

- Planning – Customer goals are gathered and rules of engagement obtained.
- Discovery – Perform scanning and enumeration to identify potential vulnerabilities, weak areas, and exploits.
- Attack – Confirm potential vulnerabilities through exploitation and perform additional discovery upon new access.
- Reporting – Document all found vulnerabilities and exploits, failed attempts, and company strengths and weaknesses.



Assessment Components

External Penetration Test

An external penetration test emulates the role of an attacker attempting to gain access to an internal network without internal resources or inside knowledge. A TCMS engineer attempts to gather sensitive information through open-source intelligence (OSINT), including employee information, historical breached passwords, and more that can be leveraged against external systems to gain internal network access. The engineer also performs scanning and enumeration to identify potential vulnerabilities in hopes of exploitation.

Finding Severity Ratings

The following table defines levels of severity and corresponding CVSS score range that are used throughout the document to assess vulnerability and risk impact.

Severity	CVSS V3 Score Range	Definition
Critical	9.0-10.0	Exploitation is straightforward and usually results in system-level compromise. It is advised to form a plan of action and patch immediately.
High	7.0-8.9	Exploitation is more difficult but could cause elevated privileges and potentially a loss of data or downtime. It is advised to form a plan of action and patch as soon as possible.
Moderate	4.0-6.9	Vulnerabilities exist but are not exploitable or require extra steps such as social engineering. It is advised to form a plan of action and patch after high-priority issues have been resolved.
Low	0.1-3.9	Vulnerabilities are non-exploitable but would reduce an organization's attack surface. It is advised to form a plan of action and patch during the next maintenance window.
Informational	N/A	No vulnerability exists. Additional information is provided regarding items noticed during testing, strong controls, and additional documentation.

Scope

Assessment	Details
External Penetration Test	10.15.42.245

Scope Exclusions

Per client request, TCMS did not perform any Denial of Service attacks during testing.

Client Allowances

DC did not provide any allowances to assist the testing.

Executive Summary

TCMS evaluated DC's external security posture through an external network penetration test from Oct 4th, 2024 to Oct 7th, 2024. By leveraging a series of attacks, TCMS found critical level vulnerabilities that allowed full internal network access to the DC headquarter office. It is highly recommended that DC address these vulnerabilities as soon as possible as the vulnerabilities are easily found through basic reconnaissance and exploitable without much effort.

Attack Summary

The following table describes how TCMS gained internal network access, step by step:

Step	Action	Recommendation
1	Executed nmap -sV, -top-ports, -sO, etc., to identify open ports and services on the target IP	Recommend restricting network access to open services or enhancing firewall configurations.
2	Accessed FTP using ftp 10.15.42.245 with anonymous login and found publicly accessible files	Limit anonymous FTP access and encrypt data stored on the server so it is accessible only by administrators.
3	Downloaded list.xyz containing sensitive data (username, email, password hash) and readme.txt	Improve file access permissions or encrypt sensitive files to prevent access by unauthorized users.
4	Used grep to find the bcrypt hash for <i>ethack</i> and attempted to crack it using <i>hashcat</i>	Increase password complexity and limit sensitive information access without additional encryption layers.

Security Strengths

SIEM alerts of vulnerability scans

During the assessment, the DC security team alerted TCMS engineers of detected vulnerability scanning against their systems. The team was successfully able to identify the TCMS engineer's attacker IP address within minutes of scanning and was capable of blacklisting TCMS from further scanning actions.

Security Weaknesses

Missing Multi-Factor Authentication

TCMS leveraged multiple attacks against DC login forms using valid credentials harvested through open-source intelligence. Successful logins included employee e-mail accounts through Outlook Web Access and internal access via Active Directory login on the VPN. The use of multi-factor authentication would have prevented full access and required TCMS to utilize additional attack methods to gain internal network access.

Weak Password Policy

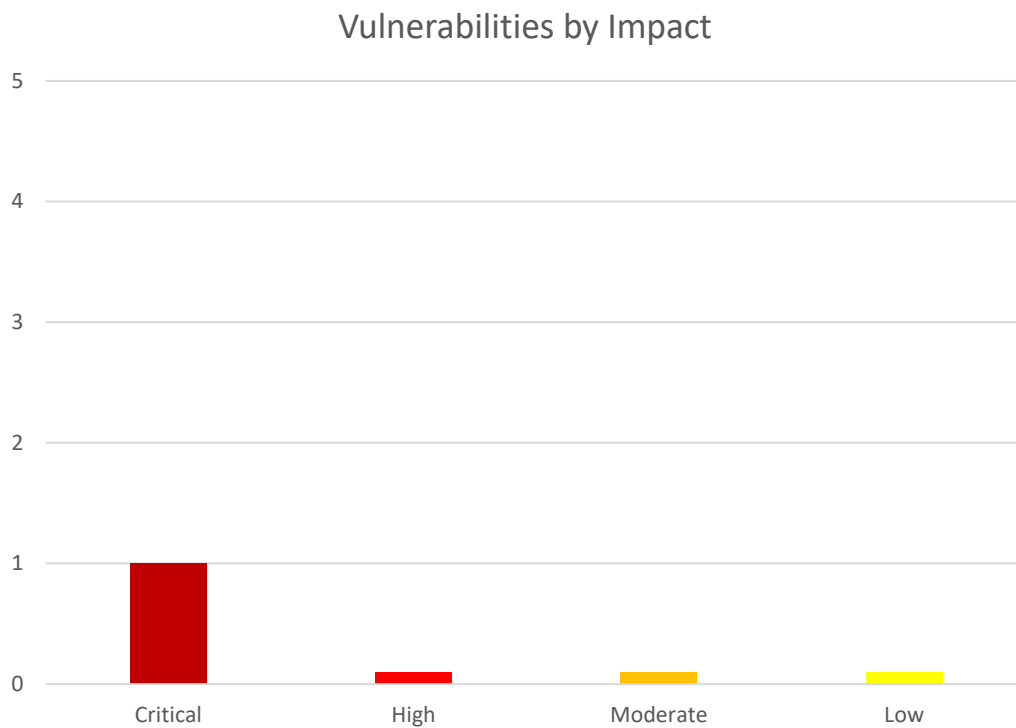
TCMS successfully performed password guessing attacks against DC login forms, providing internal network access. A predictable password format of Summer2018! (season + year + special character) was attempted and successful.

Unrestricted Logon Attempts

During the assessment, TCMS performed multiple brute-force attacks against login forms found on the external network. For all logins, unlimited attempts were allowed, which permitted an eventual successful login on the Outlook Web Access application.

Vulnerabilities by Impact

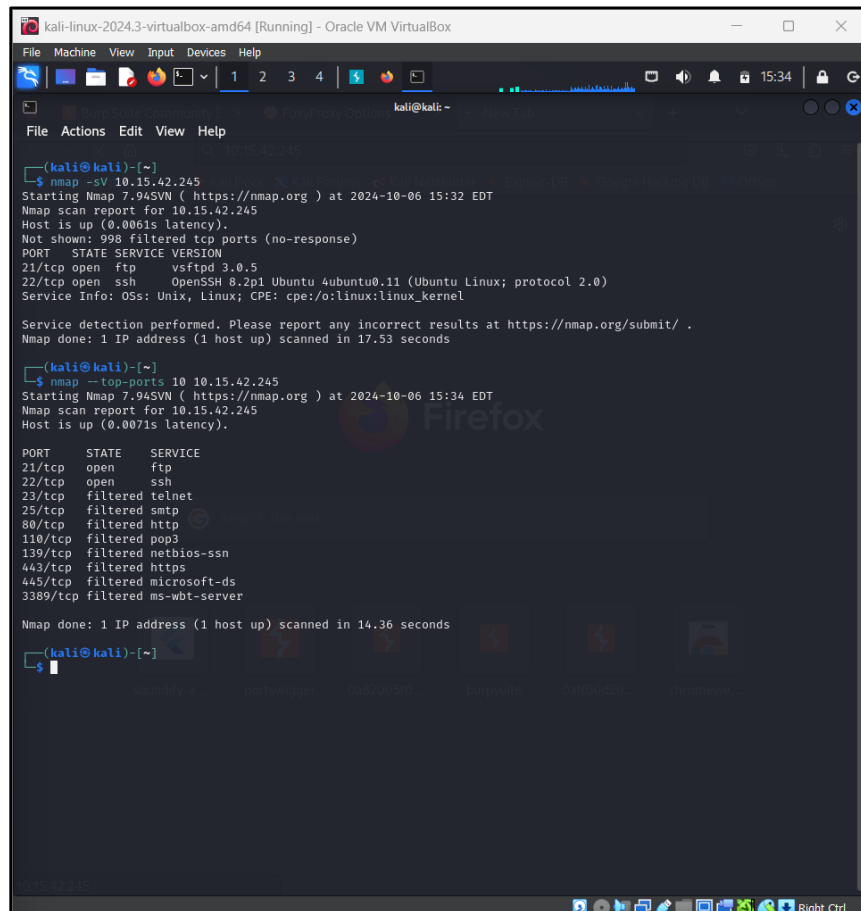
The following chart illustrates the vulnerabilities found by impact:



External Penetration Test Findings

Service Version Detection using Nmap

Description:	identifies open ports and attempts to determine the versions of services running on the target system at 10.15.42.245. This provides insight into potential service vulnerabilities.
System:	nmap -sV 10.15.42.245



```

kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ nmap -sV 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:32 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0061s latency).
Not shown: 998 filtered tcp ports (no-response)
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 3.0.5
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.11 (Ubuntu Linux; protocol 2.0)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 17.53 seconds

(kali@kali)-[~]
$ nmap --top-ports 10 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:34 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0071s latency).
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    filtered telnet
25/tcp    filtered smtp
80/tcp    filtered http
110/tcp   filtered pop3
139/tcp   filtered netbios-ssn
443/tcp   filtered https
445/tcp   filtered microsoft-ds
3389/tcp  filtered ms-wbt-server

Nmap done: 1 IP address (1 host up) scanned in 14.36 seconds
  
```

Figure 1: Sample list of breached user credentials

Top Ports Scan

Description:	Option limits scanning to the most common 10 ports, providing a quick overview of the high-traffic ports and services that might be exposed.
System:	nmap --top-ports 10 10.15.42.245

```
kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
(kali@kali)-[~]
$ nmap -sV 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:32 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0061s latency).
Not shown: 998 filtered tcp ports (no-response)
PORT      STATE SERVICE VERSION
21/tcp    open  ftp      vsftpd 3.0.5
22/tcp    open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.11 (Ubuntu Linux; protocol 2.0)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 17.53 seconds

(kali@kali)-[~]
$ nmap --top-ports 10 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:34 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0071s latency).

PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh
23/tcp    filtered telnet
25/tcp    filtered smtp
80/tcp    filtered http
110/tcp   filtered pop3
139/tcp   filtered netbios-ssn
443/tcp   filtered https
445/tcp   filtered microsoft-ds
3389/tcp  filtered ms-wbt-server

Nmap done: 1 IP address (1 host up) scanned in 14.36 seconds

(kali@kali)-[~]
$
```

Version Scan with Verbose Output

Description:	The protocol scan identifies IP protocols in use by the target, enabling detection of non-standard protocols that might be active on the system.
System:	<code>nmap -sO 10.15.42.245</code>

```
(kali@kali)-[~]
$ nmap -sO 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:35 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0039s latency).
Not shown: 254 open/filtered n/a protocols (no-response)
PROTOCOL STATE SERVICE
1        open  icmp
6        open  tcp

Nmap done: 1 IP address (1 host up) scanned in 16.02 seconds
```

TCP SYN Scan, Double Verbose Scan

Description:	<ul style="list-style-type: none"> - TCP SYN scan provides a stealthier approach to identifying open ports without fully establishing connections, often bypassing simple firewall detection. - enhances the output, providing detailed live updates and helping with troubleshooting during the scan process.
System:	<ul style="list-style-type: none"> - nmap -sS 10.15.42.245 - nmap -vv 10.15.42.245

```
kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4
kali@kali: ~
File Actions Edit View Help
Compiled with: liblua-5.4.6 openssl-3.3.2 libssh2-1.11.0 libz-1.3.1 libpcap-1.10.5 nmap-libdnet-1.12
Compiled without:
Available nsock engines: epoll poll select

(kali@kali)-[~]
$ nmap -sS 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:39 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0097s latency).
Not shown: 998 filtered tcp ports (no-response)
PORT      STATE SERVICE
21/tcp    open  ftp
22/tcp    open  ssh

Nmap done: 1 IP address (1 host up) scanned in 17.80 seconds

(kali@kali)-[~]
$ nmap -sn 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:40 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0010s latency).
Nmap done: 1 IP address (1 host up) scanned in 13.12 seconds

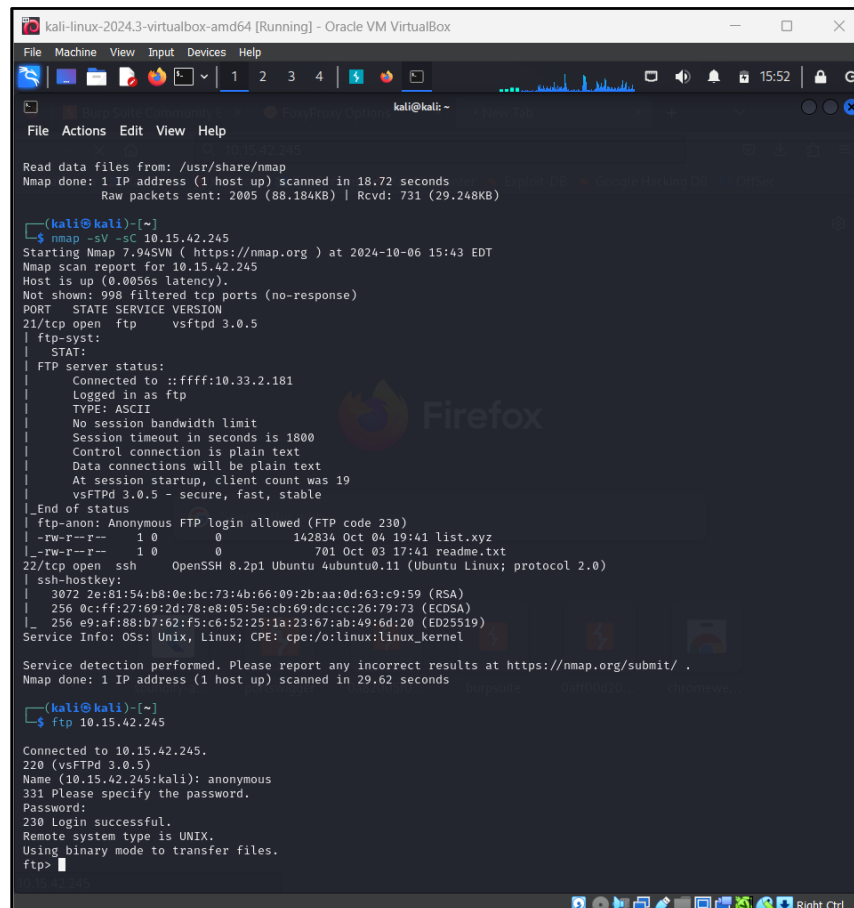
(kali@kali)-[~]
$ nmap -vv 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:41 EDT
Initiating Ping Scan at 15:41
Scanning 10.15.42.245 [4 ports]
Completed Ping Scan at 15:41, 0.04s elapsed (1 total hosts)
Initiating Parallel DNS resolution of 1 host. at 15:41
Completed Parallel DNS resolution of 1 host. at 15:41, 13.03s elapsed
Initiating SYN Stealth Scan at 15:41
Scanning 10.15.42.245 [1000 ports]
Discovered open port 22/tcp on 10.15.42.245
Discovered open port 21/tcp on 10.15.42.245
Completed SYN Stealth Scan at 15:41, 5.56s elapsed (1000 total ports)
Nmap scan report for 10.15.42.245
Host is up, received reset ttl 255 (0.0058s latency).
Scanned at 2024-10-06 15:41:30 EDT for 5s
Not shown: 998 filtered tcp ports (no-response)
PORT      STATE SERVICE REASON
21/tcp    open  ftp    syn-ack ttl 64
22/tcp    open  ssh    syn-ack ttl 64

Read data files from: /usr/share/nmap
Nmap done: 1 IP address (1 host up) scanned in 18.72 seconds
Raw packets sent: 2005 (88.184KB) | Rcvd: 731 (29.248KB)

(kali@kali)-[~]
```

Comprehensive Scan with Default Scripts

Description:	The -sC option with -sV combines service version detection with default NSE (Nmap Scripting Engine) scripts to gather extensive information about the target, including detailed fingerprinting.
System:	nmap -sV -sC 10.15.42.245



```

kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help

kali@kali: ~
File Actions Edit View Help

Read data files from: /usr/share/nmap
Nmap done: 1 IP address (1 host up) scanned in 18.72 seconds
Raw packets sent: 2005 (88.184KB) | Rcvd: 731 (29.248KB)

(kali@kali)~$ nmap -sV -sC 10.15.42.245
Starting Nmap 7.94SVN ( https://nmap.org ) at 2024-10-06 15:43 EDT
Nmap scan report for 10.15.42.245
Host is up (0.0056s latency).
Not shown: 998 filtered tcp ports (no-response)
PORT      STATE SERVICE
21/tcp    open  ftp
|_ ftp-syst:
|_ STAT:
|_ FTP server status:
|_   Connected to ::ffff:10.33.2.181
|_   Logged in as ftp
|_   TYPE: ASCII
|_   No session bandwidth limit
|_   Session timeout in seconds is 1800
|_   Control connection is plain text
|_   Data connections will be plain text
|_   At session startup, client count was 19
|_   vsFTPD 3.0.5 - secure, fast, stable
|_ End of status
|_ ftp-anon: Anonymous FTP login allowed (FTP code 230)
|_ -rw-r--r-- 1 0 0 142834 Oct 04 19:41 list.xyz
|_ -rw-r--r-- 1 0 0 701 Oct 03 17:41 readme.txt
22/tcp    open  ssh
|_ ssh-hostkey:
|_   3072 2e:81:54:b8:0e:bc:73:4b:66:09:2b:aa:0d:63:c9:59 (RSA)
|_   256 0c:ff:27:69:2d:78:e8:05:5e:cb:69:dc:cc:26:79:73 (ECDSA)
|_   256 e9:af:88:b7:62:f5:c6:52:25:1a:23:67:ab:49:6d:20 (ED25519)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel

Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 29.62 seconds

(kali@kali)~$ ftp 10.15.42.245
Connected to 10.15.42.245.
220 (vsFTPD 3.0.5)
Name (10.15.42.245:kali): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp>

```

Accessing FTP Service

Description:	Using the FTP service with anonymous login, the identified files (list.xyz and readme.txt) are accessed and downloaded for further inspection.
System:	ftp 10.15.42.245

```
kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
1 2 3 4
kali@kali: ~
File Actions Edit View Help
STAT:
FTP server status:
  Connected to ::ffff:10.33.2.181
  Logged in as ftp
  TYPE: ASCII
  No session bandwidth limit
  Session timeout in seconds is 1800
  Control connection is plain text
  Data connections will be plain text
  At session startup, client count was 19
  vsFTPD 3.0.5 - secure, fast, stable
_End of status
ftp-anon: Anonymous FTP login allowed (FTP code 230)
-rw-r--r-- 1 0 0 142834 Oct 04 19:41 list.xyz
-rw-r--r-- 1 0 0 701 Oct 03 17:41 readme.txt
22/tcp open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.11 (Ubuntu Linux; protocol 2.0)
ssh-hostkey:
  3072 2e:81:54:b8:0e:bc:73:4b:66:09:2b:aa:0d:63:c9:59 (RSA)
  256 0c:ff:27:69:2d:78:e8:05:5e:cb:69:dc:cc:26:79:73 (ECDSA)
_ 256 e9:af:88:b7:62:f5:c6:52:25:1a:23:67:ab:49:6d:20 (ED25519)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 29.62 seconds
(kali@kali)-[~]
$ ftp 10.15.42.245
Connected to 10.15.42.245.
220 (vsFTPD 3.0.5)
Name (10.15.42.245:kali): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> get list.xyz
local: list.xyz remote: list.xyz
229 Entering Extended Passive Mode (|||21070|)
150 Opening BINARY mode data connection for list.xyz (142834 bytes).
100% |*****| 139 KiB 1.23 MiB/s 00:00 ETA
226 Transfer complete.
142834 bytes received in 00:00 (0.98 MiB/s)
ftp> get readme.txt
local: readme.txt remote: readme.txt
229 Entering Extended Passive Mode (|||25702|)
150 Opening BINARY mode data connection for readme.txt (701 bytes).
100% |*****| 701 15.19 MiB/s 00:00 ETA
226 Transfer complete.
701 bytes received in 00:00 (30.93 KiB/s)
ftp>
```

Analyzing list.xyz and readme.txt Files

Description:	The file list.xyz contains user information such as usernames, passwords, and emails. Meanwhile, readme.txt contains a hint or keyword, specifically mentioning the username “ethack” within a pantun.
System:	Cat list.xyz readme.txt

```
kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
└─$ cd /home/kali

(kali@kali)~$ cat list.xyz
[{"id":1,"username":"blorryman0","password":"$2a$04$XQrRSaQwn4CdNh7T901aB0Hwc70Rnyvdc84aEnTfCm2V3dnhNrbQ","email":"icunradi0@theatlantic.com"},
{"id":2,"username":"idudmesh1","password":"$2a$04$1V55YwnyhREBVOKCRBJ3eEmmHyLseRSRRQTQ4TFgdikJQksdkm","email":"ptod1anaver.com"},
{"id":3,"username":"tseldner2","password":"$2a$04$P6k.EcrE6GfAmCg51AsfLORTh3GcLIEP71j4MUXPn3hsAtbLcrYV2","email":"mparissos2@paginagialle.it"},
{"id":4,"username":"eguiot3","password":"$2a$04$kuhBMB/9T4rxNDov9Q6bXeahipyyqEFyZik/znfN2Za1CVyQ4itAoy","email":"eollier3@google.it"},
{"id":5,"username":"gmlior4","password":"$2a$04$yBPhqihCt55ciA0X9dP2ecGoe3mbajZk0YrYHhu/cAxpIpSh/ze","email":"jantonoyev4@yellowbook.com"},
{"id":6,"username":"lniee5","password":"$2a$04$5zwn/qMB28IUIkKobpdYsuw6f/wUK55pHKGnVxMzqyep519LMLJW","email":"gschreiner5@go.com"},
{"id":7,"username":"darnholz6","password":"$2a$04$HH.EgnmTP86ys7dr3oL5.ADO01X631B3AsxAKhNsvQ7MmfOD.iy","email":"uaillenby6@rlog.org"},
{"id":8,"username":"stlillman7","password":"$2a$04$5vleLKNbdNIFrthAaIIhKMuLAWdLJ6bbgqUWUeJo2pwUKXxYcU8hW","email":"meth7@wordpress.org"},
{"id":9,"username":"aperdue8","password":"$2a$04$RKH5km/vhNqLQ.H9/UDbU.MB33JDQxptfPkD9UoaluThv1KkF4E0","email":"dmitchelhill8@godaddy.com"},
{"id":10,"username":"kcosgrave9","password":"$2a$04$rLmvx3BQd.Bwgkar23nuz.RKENjhKCG19DQhMumW74QB3sD5K266","email":"rmutter9@pgp.org"},
{"id":11,"username":"danthonaa","password":"$2a$04$NiIEBjI5vEYpIngbaM01f.PzWyEKND0r2f5q8KJHA3U28Vch5z1","email":"cayresaa@iglobe.ne.jp"},
{"id":12,"username":"rfribitts","password":"$2a$04$zvd0skFJfLskf6971v98uYqjzxf.RwGorxaQczX9S4wOG.Dn3lq","email":"mgagellib@adamin.ch"},
{"id":13,"username":"kbrutyc","password":"$2a$04$7mo3hI84LLSt/Ywj485YudLZkFlwUXfNu79KhZeuEiUKAybitI1K","email":"dcharettc@yolasite.com"},
{"id":14,"username":"cspellssyd","password":"$2a$04$RyEL/oSQYLeHQYVKCFwOLnb/RMcG47atHePxFaaeOKDYa06RAV0","email":"nventurrol1@phoca.cz"},
{"id":15,"username":"everricoe","password":"$2a$04$d83bJGbhLHzVf3oMpaTgs09Q.LNdIvNOHIGi6h0rt/oOEcbR2r","email":"ckuhnerte@a8.net"},
{"id":16,"username":"mkirkhousef","password":"$2a$04$C501W2Q9g00w150aBe.CMxeOIcQ/YkL8kLrtGV9jPgDPqh2","email":"kdenajeraf@nba.com"},
{"id":17,"username":"nkisbeyg","password":"$2a$04$0dBBR.0SE597UatzBAH/60u5EbUyV.8bD9PMF4VdahYGVPAWxVU6","email":"pbonhang@netscape.com"},
{"id":18,"username":"jdimancheh","password":"$2a$04$ggm6t103apIBVadv3y3a1.iS2GM1MkwnDY0XULTRTAGML4U2N7","email":"mambrogih@youtu.be"},
{"id":19,"username":"fezzelli","password":"$2a$04$E0e8mPE4Q4xLHv4h6TiZONdsfLn9GBtjrdtdnXK5q1M3JB8PFzfa","email":"bdunsmuir1@theforest.net"},
{"id":20,"username":"srawesj","password":"$2a$04$IY25UqYd6iOWFbP664eAJoEnI52YveoGRK63sHTWd16WPU1566","email":"arevelyj@samsung.com"},
{"id":21,"username":"seglink","password":"$2a$04$.qY3NbLafFe6x2wsMaiHoSMDNP9hNNAW5Ag6yIagWhNpe2556a2","email":"medwickk@techcrunch.com"},
{"id":22,"username":"tunderdownl","password":"$2a$04$E9wrezJvXkNVAJP1sA740PumJ0.m659mJhJLZrAtjpu/6Su/WGG","email":"dbrabham1@java.com"},
{"id":23,"username":"mclealm","password":"$2a$04$RkrdkvJFAhE80a9DVhExOu.UaapiVnmPQ2iQn8ikheD./lRkam","email":"fdechellen@independent.co.uk"},
{"id":24,"username":"fgodmarn","password":"$2a$04$3rpsRi18gh777CGLTDmqeg1QyHhXBNJTq3qjLUVDQhwaLT9bciVu","email":"im

(kali@kali)~$ cat readme.txt
Di dunia maya yang penuh warna,
Ada satu nama, bersinar cerah,
ethack namanya, unik dan berharga,
Melangkah pasti, tak kenal lelah.

Dalam labirin kode dan cahaya,
Ia menelusuri jejak yang tak terlihat,
Dengan semangat, tiada tara,
Menggali ilmu, menjelajah rahasia.

Di balik layar, petualangan menanti,
Dengan ketekunan, takkan pernah berhenti,
ethack hadir, menciptakan harmoni,
Di dunia digital, penuh inovasi.

Seperti bintang yang menghiasi malam,
Ia berkilau, penuh harapan,
Dengan username ethack, gemerlapan,
Membawa semangat, membawa perubahan.

Di setiap langkah, ada cerita,
Perjuangan dan mimpi yang tak sirna,
Dengan keberanian, menggapai cita,
ethack, sang pahlawan digital yang setia.
```

```
kali-linux-2024.3-virtualbox-amd64 [Running] - Oracle VM VirtualBox
File Machine View Input Devices Help
kali@kali: ~
File Actions Edit View Help
STAT:
FTP server status:
  Connected to ::ffff:10.33.2.181
  Logged in as ftp
  TYPE: ASCII
  No session bandwidth limit
  Session timeout in seconds is 1800
  Control connection is plain text
  Data connections will be plain text
  At session startup, client count was 19
  vsFTPD 3.0.5 - secure, fast, stable
_End of status
ftp-anon: Anonymous FTP login allowed (FTP code 230)
-rw-r--r-- 1 0 0 142834 Oct 04 19:41 list.xyz
-rw-r--r-- 1 0 0 701 Oct 03 17:41 readme.txt
22/tcp open  ssh      OpenSSH 8.2p1 Ubuntu 4ubuntu0.11 (Ubuntu Linux; protocol 2.0)
ssh-hostkey:
  3072 2e:81:54:b8:0e:bc:73:4b:66:09:2b:aa:0d:63:c9:59 (RSA)
  256 0c:ff:27:69:2d:78:e8:05:5e:cb:69:dc:cc:26:79:73 (ECDSA)
  256 e9:af:88:b7:62:f5:c6:52:25:1a:23:67:ab:49:6d:20 (ED25519)
Service Info: OSs: Unix, Linux; CPE: cpe:/o:linux:linux_kernel
Service detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 29.62 seconds
(kali@kali)-[~]
$ ftp 10.15.42.245
Connected to 10.15.42.245.
220 (vsFTPD 3.0.5)
Name (10.15.42.245:kali): anonymous
331 Please specify the password.
Password:
230 Login successful.
Remote system type is UNIX.
Using binary mode to transfer files.
ftp> get list.xyz
local: list.xyz remote: list.xyz
229 Entering Extended Passive Mode (|||21070|)
150 Opening BINARY mode data connection for list.xyz (142834 bytes).
100% |*****| 139 KiB 1.23 MiB/s 00:00 ETA
226 Transfer complete.
142834 bytes received in 00:00 (0.98 MiB/s)
ftp> get readme.txt
local: readme.txt remote: readme.txt
229 Entering Extended Passive Mode (|||25702|)
150 Opening BINARY mode data connection for readme.txt (701 bytes).
100% |*****| 701 15.19 MiB/s 00:00 ETA
226 Transfer complete.
701 bytes received in 00:00 (30.93 KiB/s)
ftp>
```

Extracting Information for ethack Username

Description:	The grep command is used to extract information specifically related to the “ethack” username from list.xyz, including a bcrypt password hash.
System:	grep "ethack" list.xyz

```
(kali@kali)-[~]
$ grep "ethack" list.xyz
{"id":270,"username":"ethack","password":"$2a$14$mfaS50bZaMRVC1oks.JYK.BvVOKFltGg/c5Qu8xyr.YYXJPUIdp1e","email":"ethack@hasciencedirect.com"}
ethack@hasciencedirect.com
```

Remediation

Who:	IT Team
Vector:	Remote
Action:	Item 1: VPN and OWA login with valid credentials did not require Multi-Factor Authentication (MFA). TCMS recommends DC implement and enforce MFA across all external-facing login services.

Additional Reports and Scans (Informational)

TCMS provides all clients with all report information gathered during testing. This includes vulnerability scans and a detailed findings spreadsheet. For more information, please see the following documents:

- Demo Company-867-19 Full Findings.xlsx
- Demo Company-867-19 Vulnerability Scan Summary.xlsx
- Demo Company-867-19 Vulnerability Scan by Host.pdf



Last Page