# Scan Report

# January 4, 2025

# Summary

This document reports on the results of an automatic security scan. All dates are displayed using the timezone "Coordinated Universal Time", which is abbreviated "UTC". The task was "hi". The scan started at Sat Jan 4 15:46:42 2025 UTC and ended at . The report first summarises the results found. Then, for each host, the report describes every issue found. Please consider the advice given in each description, in order to rectify the issue.

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# 1 Result Overview

Host	High	Medium	Low	Log	False Positive
192.168.1.1	0	2	1	0	0
192.168.1.17	0	0	2	0	0
192.168.1.18	0	0	1	0	0
192.168.1.16	0	0	1	0	0
192.168.1.5	0	0	1	0	0
Total: 5	0	2	6	0	0

Vendor security updates are not trusted.

Overrides are off. Even when a result has an override, this report uses the actual threat of the result.

Information on overrides is included in the report.

Notes are included in the report.

This report might not show details of all issues that were found.

Issues with the threat level "Log" are not shown.

Issues with the threat level "Debug" are not shown.

Issues with the threat level "False Positive" are not shown.

Only results with a minimum QoD of 70 are shown.

This report contains all 8 results selected by the filtering described above. Before filtering there were 105 results.

# 2 Results per Host

# $2.1 \quad 192.168.1.1$

Host scan start Sat Jan 4 15:48:03 2025 UTC

 ${\rm Host\ scan\ end}$ 

Service (Port)	Threat Level
$53/\mathrm{udp}$	Medium
80/tcp	Medium
general/tcp	Low

# 2.1.1 Medium 53/udp

Medium (CVSS: 5.0)

NVT: DNS Cache Snooping Vulnerability (UDP) - Active Check

# Summary

The DNS server is prone to a cache snooping vulnerability.

Quality of Detection (QoD): 70%

#### Vulnerability Detection Result

Received (an) answer(s) for a non-recursive query for "example.com".

Result:

93.184.215.14

## Impact

Attackers might gain information about cached DNS records which might lead to further attacks. Note: This finding might be an acceptable risk if you:

- trust all clients which can reach the server
- do not allow recursive queries from outside your trusted client network.

#### Solution:

## Solution type: Mitigation

There are multiple possible mitigation steps depending on location and functionality needed by the DNS server:

- Disable recursion
- Don't allow public access to DNS Servers doing recursion
- Leave recursion enabled if the DNS Server stays on a corporate network that cannot be reached by untrusted clients

#### Vulnerability Insight

DNS cache snooping is when someone queries a DNS server in order to find out (snoop) if the DNS server has a specific DNS record cached, and thereby deduce if the DNS server's owner (or its users) have recently visited a specific site.

This may reveal information about the DNS server's owner, such as what vendor, bank, service provider, etc. they use. Especially if this is confirmed (snooped) multiple times over a period.

This method could even be used to gather statistical information - for example at what time does the DNS server's owner typically access his net bank etc. The cached DNS record's remaining TTL value can provide very accurate data for this.

DNS cache snooping is possible even if the DNS server is not configured to resolve recursively for 3rd parties, as long as it provides records from the cache also to 3rd parties (a.k.a. 'lame requests').

## Vulnerability Detection Method

Sends a crafted DNS query and checks the response.

Details: DNS Cache Snooping Vulnerability (UDP) - Active Check

OID:1.3.6.1.4.1.25623.1.0.146591 Version used: 2023-03-24T10:19:42Z

# References

url: https://www.cs.unc.edu/~fabian/course\_papers/cache\_snooping.pdf

url: https://docs.microsoft.com/en-us/troubleshoot/windows-server/networking/dns

⇔-server-cache-snooping-attacks

url: https://kb.isc.org/docs/aa-00509
url: https://kb.isc.org/docs/aa-00482

[ return to 192.168.1.1 ]

# 2.1.2 Medium 80/tcp

#### Medium (CVSS: 4.8)

NVT: Cleartext Transmission of Sensitive Information via HTTP

## Summary

The host / application transmits sensitive information (username, passwords) in clear text via HTTP.

# Quality of Detection (QoD): 80%

## Vulnerability Detection Result

The following input fields were identified (URL:input name):

http://192.168.1.1/:Frm\_Password

#### Impact

An attacker could use this situation to compromise or eavesdrop on the HTTP communication between the client and the server using a man-in-the-middle attack to get access to sensitive data like usernames or passwords.

# Solution:

# Solution type: Workaround

Enforce the transmission of sensitive data via an encrypted SSL/TLS connection. Additionally make sure the host / application is redirecting all users to the secured SSL/TLS connection before allowing to input sensitive data into the mentioned functions.

## Affected Software/OS

Hosts / applications which doesn't enforce the transmission of sensitive data via an encrypted SSL/TLS connection.

#### **Vulnerability Detection Method**

Evaluate previous collected information and check if the host / application is not enforcing the transmission of sensitive data via an encrypted SSL/TLS connection.

The script is currently checking the following:

- HTTP Basic Authentication (Basic Auth)
- HTTP Forms (e.g. Login) with input field of type 'password'

Details: Cleartext Transmission of Sensitive Information via HTTP

OID:1.3.6.1.4.1.25623.1.0.108440 Version used: 2023-09-07T05:05:21Z

#### References

url: https://www.owasp.org/index.php/Top\_10\_2013-A2-Broken\_Authentication\_and\_Se  $\hookrightarrow$ ssion\_Management

url: https://www.owasp.org/index.php/Top\_10\_2013-A6-Sensitive\_Data\_Exposure

url: https://cwe.mitre.org/data/definitions/319.html

[ return to 192.168.1.1 ]

## 2.1.3 Low general/tcp

Low (CVSS: 26)

NVT: TCP Timestamps Information Disclosure

#### Summary

The remote host implements TCP timestamps and therefore allows to compute the uptime.

# Quality of Detection (QoD): 80%

#### Vulnerability Detection Result

It was detected that the host implements  ${\tt RFC1323/RFC7323}.$ 

The following timestamps were retrieved with a delay of 1 seconds in-between:

Packet 1: 23602019 Packet 2: 23602129

# Impact

A side effect of this feature is that the uptime of the remote host can sometimes be computed.

## Solution:

## Solution type: Mitigation

To disable TCP timestamps on linux add the line 'net.ipv4.tcp\_timestamps = 0' to /etc/sysctl.conf. Execute 'sysctl-p' to apply the settings at runtime.

To disable TCP timestamps on Windows execute 'netsh int tcp set global timestamps=disabled' Starting with Windows Server 2008 and Vista, the timestamp can not be completely disabled.

The default behavior of the TCP/IP stack on this Systems is to not use the Timestamp options when initiating TCP connections, but use them if the TCP peer that is initiating communication includes them in their synchronize (SYN) segment.

See the references for more information.

## Affected Software/OS

TCP implementations that implement RFC1323/RFC7323.

#### Vulnerability Insight

The remote host implements TCP timestamps, as defined by RFC1323/RFC7323.

# Vulnerability Detection Method

Special IP packets are forged and sent with a little delay in between to the target IP. The responses are searched for a timestamps. If found, the timestamps are reported.

Details: TCP Timestamps Information Disclosure

OID:1.3.6.1.4.1.25623.1.0.80091 Version used: 2023-12-15T16:10:08Z

# References

url: https://datatracker.ietf.org/doc/html/rfc1323 url: https://datatracker.ietf.org/doc/html/rfc7323

url: https://web.archive.org/web/20151213072445/http://www.microsoft.com/en-us/d

→ownload/details.aspx?id=9152

url: https://www.fortiguard.com/psirt/FG-IR-16-090

[ return to 192.168.1.1 ]

#### $2.2 \quad 192.168.1.17$

Host scan start Sat Jan 4 15:48:03 2025 UTC Host scan end Sat Jan 4 16:02:45 2025 UTC

Service (Port)	Threat Level
general/tcp	Low
general/icmp	Low

#### 2.2.1 Low general/tcp

Low (CVSS: 2.6)

NVT: TCP Timestamps Information Disclosure

## Summary

The remote host implements TCP timestamps and therefore allows to compute the uptime.

Quality of Detection (QoD): 80%

## Vulnerability Detection Result

It was detected that the host implements  ${\tt RFC1323/RFC7323}$  .

The following timestamps were retrieved with a delay of 1 seconds in-between:

Packet 1: 3672544858

## Packet 2: 3672545922

#### Impact

A side effect of this feature is that the uptime of the remote host can sometimes be computed.

#### Solution:

# Solution type: Mitigation

To disable TCP timestamps on linux add the line 'net.ipv4.tcp timestamps = 0' to /etc/sysctl.conf. Execute 'sysctl-p' to apply the settings at runtime.

To disable TCP timestamps on Windows execute 'netsh int tcp set global timestamps=disabled' Starting with Windows Server 2008 and Vista, the timestamp can not be completely disabled. The default behavior of the TCP/IP stack on this Systems is to not use the Timestamp options when initiating TCP connections, but use them if the TCP peer that is initiating communication includes them in their synchronize (SYN) segment.

See the references for more information.

#### Affected Software/OS

TCP implementations that implement RFC1323/RFC7323.

#### Vulnerability Insight

The remote host implements TCP timestamps, as defined by RFC1323/RFC7323.

#### Vulnerability Detection Method

Special IP packets are forged and sent with a little delay in between to the target IP. The responses are searched for a timestamps. If found, the timestamps are reported.

Details: TCP Timestamps Information Disclosure

OID:1.3.6.1.4.1.25623.1.0.80091

Version used: 2023-12-15T16:10:08Z

# References

url: https://datatracker.ietf.org/doc/html/rfc1323 url: https://datatracker.ietf.org/doc/html/rfc7323

url: https://web.archive.org/web/20151213072445/http://www.microsoft.com/en-us/d

→ownload/details.aspx?id=9152

url: https://www.fortiguard.com/psirt/FG-IR-16-090

[ return to 192.168.1.17 ]

#### 2.2.2 Low general/icmp

# Summary

The remote host responded to an ICMP timestamp request.

# Quality of Detection (QoD): 80%

### Vulnerability Detection Result

The following response / ICMP packet has been received:

- ICMP Type: 14 - ICMP Code: 0

#### Impact

This information could theoretically be used to exploit weak time-based random number generators in other services.

#### Solution:

# Solution type: Mitigation

Various mitigations are possible:

- Disable the support for ICMP timestamp on the remote host completely
- Protect the remote host by a firewall, and block ICMP packets passing through the firewall in either direction (either completely or only for untrusted networks)

#### Vulnerability Insight

The Timestamp Reply is an ICMP message which replies to a Timestamp message. It consists of the originating timestamp sent by the sender of the Timestamp as well as a receive timestamp and a transmit timestamp.

# Vulnerability Detection Method

Sends an ICMP Timestamp (Type 13) request and checks if a Timestamp Reply (Type 14) is received.

Details: ICMP Timestamp Reply Information Disclosure

OID:1.3.6.1.4.1.25623.1.0.103190 Version used: 2023-05-11T09:09:33Z

## References

cve: CVE-1999-0524

url: https://datatracker.ietf.org/doc/html/rfc792
url: https://datatracker.ietf.org/doc/html/rfc2780

cert-bund: CB-K15/1514
cert-bund: CB-K14/0632
dfn-cert: DFN-CERT-2014-0658

[ return to 192.168.1.17 ]

# 2.3 192.168.1.18

Host scan start Sat Jan 4 15:48:03 2025 UTC

Host scan end

Service (Port)	Threat Level
general/tcp	Low

### 2.3.1 Low general/tcp

Low (CVSS: 2.6)

NVT: TCP Timestamps Information Disclosure

# Summary

The remote host implements TCP timestamps and therefore allows to compute the uptime.

Quality of Detection (QoD): 80%

### Vulnerability Detection Result

It was detected that the host implements  ${\tt RFC1323/RFC7323}.$ 

The following timestamps were retrieved with a delay of 1 seconds in-between:

Packet 1: 3695514 Packet 2: 3695790

#### **Impact**

A side effect of this feature is that the uptime of the remote host can sometimes be computed.

#### Solution:

## Solution type: Mitigation

To disable TCP timestamps on linux add the line 'net.ipv4.tcp\_timestamps = 0' to /etc/sysctl.conf. Execute 'sysctl-p' to apply the settings at runtime.

To disable TCP timestamps on Windows execute 'netsh int tcp set global timestamps=disabled' Starting with Windows Server 2008 and Vista, the timestamp can not be completely disabled. The default behavior of the TCP/IP stack on this Systems is to not use the Timestamp options when initiating TCP connections, but use them if the TCP peer that is initiating communication includes them in their synchronize (SYN) segment.

See the references for more information.

#### Affected Software/OS

TCP implementations that implement RFC1323/RFC7323.

#### Vulnerability Insight

The remote host implements TCP timestamps, as defined by RFC1323/RFC7323.

### **Vulnerability Detection Method**

Special IP packets are forged and sent with a little delay in between to the target IP. The responses are searched for a timestamps. If found, the timestamps are reported.

Details: TCP Timestamps Information Disclosure

OID:1.3.6.1.4.1.25623.1.0.80091

Version used: 2023-12-15T16:10:08Z

#### References

url: https://datatracker.ietf.org/doc/html/rfc1323 url: https://datatracker.ietf.org/doc/html/rfc7323

url: https://web.archive.org/web/20151213072445/http://www.microsoft.com/en-us/d

 $\hookrightarrow$ ownload/details.aspx?id=9152

url: https://www.fortiguard.com/psirt/FG-IR-16-090

[ return to 192.168.1.18 ]

#### $2.4 \quad 192.168.1.16$

Host scan start Sat Jan 4 15:48:03 2025 UTC Host scan end Sat Jan 4 15:58:30 2025 UTC

Service (Port)	Threat Level
general/tcp	Low

## 2.4.1 Low general/tcp

Low (CVSS: 2.6)

NVT: TCP Timestamps Information Disclosure

## Summary

The remote host implements TCP timestamps and therefore allows to compute the uptime.

Quality of Detection (QoD): 80%

#### Vulnerability Detection Result

It was detected that the host implements RFC1323/RFC7323.

The following timestamps were retrieved with a delay of 1 seconds in-between:

Packet 1: 1310326672 Packet 2: 1310327757

#### Impact

A side effect of this feature is that the uptime of the remote host can sometimes be computed.

#### Solution:

Solution type: Mitigation

To disable TCP timestamps on linux add the line 'net.ipv4.tcp\_timestamps = 0' to /etc/sysctl.conf. Execute 'sysctl-p' to apply the settings at runtime.

To disable TCP timestamps on Windows execute 'netsh int tcp set global timestamps=disabled'

Starting with Windows Server 2008 and Vista, the timestamp can not be completely disabled. The default behavior of the TCP/IP stack on this Systems is to not use the Timestamp options when initiating TCP connections, but use them if the TCP peer that is initiating communication includes them in their synchronize (SYN) segment.

See the references for more information.

# Affected Software/OS

TCP implementations that implement RFC1323/RFC7323.

## Vulnerability Insight

The remote host implements TCP timestamps, as defined by RFC1323/RFC7323.

## **Vulnerability Detection Method**

Special IP packets are forged and sent with a little delay in between to the target IP. The responses are searched for a timestamps. If found, the timestamps are reported.

Details: TCP Timestamps Information Disclosure

OID:1.3.6.1.4.1.25623.1.0.80091

Version used: 2023-12-15T16:10:08Z

#### References

url: https://datatracker.ietf.org/doc/html/rfc1323
url: https://datatracker.ietf.org/doc/html/rfc7323

url: https://web.archive.org/web/20151213072445/http://www.microsoft.com/en-us/d

→ownload/details.aspx?id=9152

url: https://www.fortiguard.com/psirt/FG-IR-16-090

[ return to 192.168.1.16 ]

## $2.5 \quad 192.168.1.5$

Host scan start Sat Jan 4 15:48:03 2025 UTC Host scan end Sat Jan 4 15:52:26 2025 UTC

Service (Port)	Threat Level
general/icmp	Low

#### 2.5.1 Low general/icmp

Low (CVSS: 2.1)

NVT: ICMP Timestamp Reply Information Disclosure

#### Summary

The remote host responded to an ICMP timestamp request.

## Quality of Detection (QoD): 80%

#### Vulnerability Detection Result

The following response / ICMP packet has been received:

- ICMP Type: 14 - ICMP Code: 0

#### Impact

This information could theoretically be used to exploit weak time-based random number generators in other services.

#### Solution:

## Solution type: Mitigation

Various mitigations are possible:

- Disable the support for ICMP timestamp on the remote host completely
- Protect the remote host by a firewall, and block ICMP packets passing through the firewall in either direction (either completely or only for untrusted networks)

#### Vulnerability Insight

The Timestamp Reply is an ICMP message which replies to a Timestamp message. It consists of the originating timestamp sent by the sender of the Timestamp as well as a receive timestamp and a transmit timestamp.

## Vulnerability Detection Method

Sends an ICMP Timestamp (Type 13) request and checks if a Timestamp Reply (Type 14) is received.

Details: ICMP Timestamp Reply Information Disclosure

OID:1.3.6.1.4.1.25623.1.0.103190 Version used: 2023-05-11T09:09:33Z

# References

cve: CVE-1999-0524

url: https://datatracker.ietf.org/doc/html/rfc792
url: https://datatracker.ietf.org/doc/html/rfc2780

cert-bund: CB-K15/1514 cert-bund: CB-K14/0632 dfn-cert: DFN-CERT-2014-0658

[ return to 192.168.1.5 ]

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