# Vulnerability Scanning with OpenVAS

Laboratory Report in EDA263/DAT641 Computer Security

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### 1 Introduction

Much like the globalized world of today, the internet is not a safe place. The office of TravelBiscuit AB may be located in peaceful area, but on the internet anyone is your neighbor, and there is always a risk of sensitive or private information falling into the wrong hands.

To protect yourself from malicious intents, your servers need to be set up with security in mind. Like when securing your office, you would want professionals securing your servers. You can see us as "honest thieves", knowing the tools of the trade but using our knowledge to find weaknesses and help secure your assets. To our aid we are using advanced and powerful tools in order to scan a system for vulnerabilities.

In this report the details of a vulnerability scan on the host known as "Rome" will be presented. The purpose of conducting this report is to analyse the current security level, and with these analyses recommend the measurements that are needed to provide the host with the highest security possible.

The structure of the report is as follows:

Section 2 provides a description of the vulnerability scanning utility OpenVAS in general and the specific setup of this scan. Section 3 is the section where the results are presented, section 4 is where the discussion of the results is held and lastly, in section 5, the conclusion will be stated.

## 2 Description of OpenVAS Setup

Open Vulnerability Assessment System is a system that collects multiple services and tools, called "Network Vulnerability Tests" (NVT) and presents them in a single interface, allowing the user to combine them to a thoroughly vulnerability scan [1].

The logical layout of the network scanned for this report is presented in Figure 1, where the target is "rome.secnet". OpenVAS is installed on the intermediate server between the target and our client machine.

Scanning a host is a method to control in which ways a system is open to the outside, and it is one of the methods an attacker might conduct to search for entry points in a system [2]. There are several types of vulnerability scans, such as "port scan", "database scan", "web application security scan" and others [3].

The scans used in this report is in order: "port scan", "service fingerprinting" and "network vulnerability scan". The different scans will produce a list of open ports found on the host, combined with a fingerprint scan that will search through these open ports and generate a fingerprint of what type of services that are behind these ports. The fingerprint will contain the available information, such as the names and versions of services.

In the scans we expect a result in the form of information about open ports and the services behind them, marked with the security risk of each port and/or service.

To perform a scan with OpenVAS, the system needs to be installed on a server. In the interface of OpenVAS, the user choose which types of NVTs should be conducted with each scan, what port range to use and which target in the network the scan is aimed at.

To detect as many open ports as possible within a reasonable time, the optimized Open-VAS default port range was chosen. This setting checks a wide range of well known ports, and is optimized to lower the time consumption of the scan, compared to a scan over all ports.

#### 2.1 Port Scanning

A set of tests in OpenVAS, called "Port Scanners", were used to perform the port scanning, see Figure 2.

These NVTs where chosen so that a thorough port scan were conducted, and the open ports on the target will be displayed clearly. By doing this, information is gained on which ports on the target there are services listening for incoming connections. This is also similar to what a potential attacker would do.

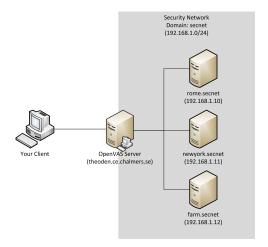


Figure 1: The network setup

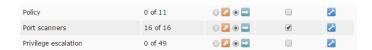


Figure 2: Port Scanners NVT

### Service fingerprinting

The settings we used in this section is the ones presented in Figures 3 and 4

#### 2.2.1 Service Fingerprinting

To see which kind of services are running on the target system, OpenVAS was set up to try to get identifying information from them. Here the NVT families used were the ones collected in the NVT families "General" and "Service detection". In addition to the self-explaining "Service detection", "General" was added to broaden the detection possibilities.

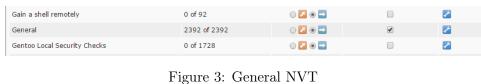




Figure 4: Service detection NVT

### 2.2.2 Remote Host Fingerprinting

When doing this fingerprinting we will try to conclude what information is revealed of the system, in form of operative system such as Windows or Linux.

### 2.3 Vulnerability Scanning

When the vulnerability scan was preformed, the predefined scan "full and fast" was used in order to detect all possible issues, see Figure 5.

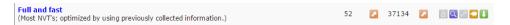


Figure 5: Vulnerability scan

## 3 Results

As shown in Table 1, there are a number of open ports that belongs to relatively well known services. There is no imminent threat on these ports, although some services might be old and unused, it depends on what services on the host that are actually in use.

The services detected are presented in Table 2, even though there are very few of them.

### 3.1 Port Scanning

When performing a port scan on the system, the ports found to be open are listed in Table 1. If the server is not part of a Microsoft Windows network, it should be considered to close the Windows related services and ports. Nothing abnormal was found.

Table 1: Information about open ports

Port Number	Service Name	Service Task	Suggestion
53	DNS	Domain Name System	Keep
80/8080	HTTP	Web traffic	Keep
143/993	IMAP/ IMAPS	Email retrieval	Keep
445	Microsoft-DS	Microsoft network services $^1$	$\mathrm{Keep^2}$
139	NetBIOS Session Service	Used by Microsoft-DS	$\mathrm{Keep^2}$
110/995	POP3/ POP3S	Email retrieval	Keep
22	SSH	Secure data communication	Keep

<sup>&</sup>lt;sup>1</sup>Includes 'Active Directory: authentication and authorization' and 'SMB: File and printer sharing'

 $<sup>^2</sup>$ Keep if the network rely on MS services related to this server

### 3.2 Fingerprinting

#### 3.2.1 Services

As seen in Table 2, one service was identified from the service fingerprinting scan, a Domain Name System (DNS) server called bind with the version number 9.7.0-p1. This version was released in 2010 and is outdated.

However, when performing the vulnerability scan, the fingerprints of the services listed in Table 3 were found.

Of interest here is that all the listed services are old and outdated. Apache Tomcat 6.0.24 is a java servlet/web server that was released in 2010. Being published in 2009, the installed version of Apache HTTP web server is one year older than its java counterpart. The SMB server, Samba, is used for Linux/UNIX program interoperability with Windows and the current version dates back to 2010. Also OpenSSH, used for secure connections between computers, is of a version from 2010. All of the aforementioned services have multiple known security vulnerabilities.

Table 2: Service fingerprint

Service	Version
DNS server	bind 9.7.0-p1

Table 3: Vulnerability scan fingerprint

Service	Version
Java servlet web server	Apache Tomcat 6.0.24
HTTP web server	Apache 2.2.14
mail server	Dovecot
SMB server	Samba 3.4.7
OpenSSH	OpenSSH 5.3p1

#### 3.2.2 Remote Host

Analysing the information gained by the vulnerability scan, the system's operating system were confirmed to be of the Linux distribution Ubuntu. Combining this knowledge with the information provided in 3.2.1, it is also possible determine that the version of Ubuntu is of the 10.04 LTS [4, 5]. It was also found that the system is part of a SMB/Windows workgroup with the name "WORKGROUP".

#### 3.3 Vulnerability Scan

As mentioned in 3.2.1, the vulnerability scan revealed the version of many of the system's services and that they are outdated. With outdated software it is common that there are publicly known vulnerabilities and weaknesses. OpenVAS classifies the threats found in the vulnerability scan by severity, high, medium and low. In the performed particular scan there were six high threats, ten medium threats and one low threat.

In Apache Tomcat 6.0.24, the java servlet/web server, the vulnerability scan found two high risk and five medium risk vulnerabilities. These security risks include, but are not limited to, that potential attackers can gain access to sensitive data and cause denial-of-service.

OpenSSL, in this case used for secure retrieval of email, were found to have two high risk and two medium risk vulnerabilities. The most critical vulnerability is the possibility of man-in-the-middle attacks; a session can be hijacked or compromised.

Remaining security risks classified as medium threats were a denial-of-service vulnerability in the SMB server Samba, risk of information-disclosure by the OpenSSH server and one vulnerability related to giving away timestamps, which can potentially open the system for denial-of-service attacks.

One threat were classified as low risk, the DNS server bind. The issues related to system's version of bind is mostly related to availability issues, as in cause the DNS server to crash or denial-of-service.

### 4 Discussion

The first two scans, the ones carried out in section 2.1 and 2.2, yielded very little results, which is a good sign from a security perspective. The most basic entry points to the system is secure as shown in Table 1. This table displays that there were no uncommon ports in use, and those who were could be open for legitimate reasons.

The only item that the fingerprint scan raised as an issue was an outdated DNS–server software, as seen in Table 2, which in itself was not a great threat to the system. From this fingerprint scan we were not able to tell anything about the host operating system.

The vulnerability scan reported, contrary to the other two scans, a number of issues that needs to be addressed. The primary reason for the issues are based on outdated software, so in order to improve the system's security, software updates need to be preformed. OpenVAS raised six (6) high security risks, and ten (10) medium risks and all of them were based on old software and need to be tended to. For specific applications that needs updates, see Table 4.

Of the applications listed in Table 4, the highest priority are 'Tomcat' and 'OpenSSL' because they generate the threat level 'high' from OpenVAS. Dovecot does not generate any issues in OpenVAS, though it is known to have had security threats [6], so an update is recommended if it is as outdated as the rest of the systems software.

Table 4: Summary of vulnerability scan recommendations

Service Name	Problems	Suggestions
Dovecot	Unknown version	Check for update
Apache Tomcat 6.0.24	Outdated	Software update
Apache 2.2.14	Outdated	Software update
OpenSSL	Outdated	Software update
Samba 3.4.7	Outdated	Software update
OpenSSH 5.3p1	Outdated	Software update

## 5 Conclusion

Our conclusion of this OpenVAS scan is that the host "Rome" is not secure, because of outdated software. The host could be considered secure if the software were to be updated.

Our first recommendation to secure the host is to implement a routine for software updates and patches. A designated person should be appointed to make sure that the software update routine is followed through, if there are more than one person that administrates the host.

Our second recommendation is to upgrade the operating system. From the vulnerability scan we can conclude that the OS installed on the host is the 'Ubuntu 10.04 LTS' system, which by now is quite old. To make sure that the OS is up to date, a system upgrade should be performed, some months after a new 'Long Time Support' OS is released from the vendor.

### References

- [1] OpenVAS. About OpenVAS. 2015. URL: http://www.openvas.org/about.html (visited on 03/03/2015).
- [2] Wikipedia. Vulnerability scanner. 2014. URL: http://en.wikipedia.org/wiki/ Vulnerability\_scanner (visited on 03/03/2015).
- [3] The Government of the Hong Kong Special Administrative Region. AN OVERVIEW OF VULNERABILITY SCANNERS. 2008. URL: http://www.infosec.gov.hk/english/technical/files/vulnerability.pdf (visited on 03/03/2015).
- [4] Canonical Ltd. Software Packages in "lucid-updates", Subsection net. 2015. URL: http://packages.ubuntu.com/en/lucid-updates/net/ (visited on 03/03/2015).
- [5] E. K. Joseph. "Updates and Security for 10.04, 12.04, 12.10 and 13.10". In: *Ubuntu Weekly Newsletter* (361 2014). URL: https://wiki.ubuntu.com/UbuntuWeeklyNewsletter/Issue361 (visited on 03/03/2015).
- [6] Canonical Ltd. USN-2213-1: Dovecot vulnerability. 2014. URL: http://www.ubuntu.com/usn-2213-1/ (visited on 03/03/2015).

A Report from OpenVAS Vulnerability Scanning

# Scan Report

## February 26, 2015

#### Summary

This document reports on the results of an automatic security scan. The scan started at Thu Feb 26 22:57:18 2015 UTC and ended at Thu Feb 26 23:13:57 2015 UTC. 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	Most Severe Result(s)	High	Medium	Low	Log	False Positives
192.168.1.10 (ROME )	Severity: High	6	10	1	53	0
Total: 1		6	10	1	53	0

Vendor security updates are not trusted.

Overrides are on. When a result has an override, this report uses the threat of the override.

Notes are included in the report.

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

It only lists hosts that produced issues.

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

This report contains all 70 results selected by the filtering described above. Before filtering there were 71 results.

# 2 Results per Host

### $2.1 \quad 192.168.1.10$

Host scan start Thu Feb 26 22:57:23 2015 UTC Host scan end Thu Feb 26 23:13:57 2015 UTC

Service (Port)	Threat Level
http-alt (8080/tcp)	High
imap (143/tcp)	High
imaps (993/tcp)	High
pop3 (110/tcp)	High
pop3s (995/tcp)	High
http-alt (8080/tcp)	Medium
pop3s (995/tcp)	Medium
general/tcp	Medium
http (80/tcp)	Medium
netbios-ssn (139/tcp)	Medium
ssh (22/tcp)	Medium
domain (53/udp)	Low
http-alt (8080/tcp)	Log
imap (143/tcp)	Log
imaps (993/tcp)	Log
pop3 (110/tcp)	Log
pop3s (995/tcp)	Log
general/tcp	Log
http (80/tcp)	Log
netbios-ssn (139/tcp)	Log

 $<sup>\</sup>dots$  (continues)  $\dots$ 

	( , 1)	١.		
	(continued)	).		

Service (Port)	Threat Level
ssh (22/tcp)	Log
domain (53/udp)	Log
domain (53/tcp)	Log
general/CPE-T	Log
general/HOST-T	Log
general/SMBClient	Log
general/icmp	Log
microsoft-ds (445/tcp)	Log
netbios-ns (137/udp)	Log

#### 2.1.1 High http-alt (8080/tcp)

#### High (CVSS: 6.8)

#### NVT: Apache Tomcat servlet/JSP container default files

Default files, such as documentation, default Servlets and JSPs were found on the Apache Tomcat servlet/JSP container.

Remove default files, example JSPs and Servlets from the Tomcat Servlet/JSP container.

These files should be removed as they may help an attacker to guess the exact version of Apache Tomcat which is running on this host and may provide other useful information.

The following default files were found :

/examples/servlets/index.html

/examples/jsp/snp/snoop.jsp

/examples/jsp/index.html

OID of test routine: 1.3.6.1.4.1.25623.1.0.12085

#### High (CVSS: 6.4)

NVT: Apache Tomcat 'Transfer-Encoding' Information Disclosure and Denial Of Service Vulnerabilities

#### Product detection result

cpe:/a:apache:tomcat:6.0.24

Detected by Apache Tomcat Version Detection (OID: 1.3.6.1.4.1.25623.1.0.800371)

#### Summary

Apache Tomcat is prone to multiple remote vulnerabilities including information-disclosure and denial-of-service issues.

Remote attackers can exploit these issues to cause denial-of-service

... continued from previous page ... conditions or gain access to potentially sensitive information; information obtained may lead to further attacks. The following versions are affected: Tomcat 5.5.0 to 5.5.29 Tomcat 6.0.0 to 6.0.27 Tomcat 7.0.0 Tomcat 3.x, 4.x, and 5.0.x may also be affected. Solution: The vendor released updates. Please see the references for more information. OID of test routine: 1.3.6.1.4.1.25623.1.0.100712 References CVE: CVE-2010-2227 BID:41544 Other: URL:https://www.securityfocus.com/bid/41544 URL:http://tomcat.apache.org/security-5.html URL:http://tomcat.apache.org/security-6.html URL:http://tomcat.apache.org/security-7.html URL:http://tomcat.apache.org/ URL:http://www.securityfocus.com/archive/1/512272

[ return to 192.168.1.10 ]

### 2.1.2 High imap (143/tcp)

High (CVSS: 6.8) NVT: OpenSSL CCS Man in the Middle Security Bypass Vulnerability (STARTTLS Check)

OID of test routine: 1.3.6.1.4.1.25623.1.0.105043

#### References

CVE: CVE-2014-0224

BID:67899 Other:

URL:http://www.securityfocus.com/bid/67899

URL:http://openssl.org/

[ return to 192.168.1.10 ]

### 2.1.3 High imaps (993/tcp)

High (CVSS: 6.8)

NVT: OpenSSL CCS Man in the Middle Security Bypass Vulnerability

OID of test routine: 1.3.6.1.4.1.25623.1.0.105042

References

CVE: CVE-2014-0224

BID:67899 Other:

URL:http://www.securityfocus.com/bid/67899

URL:http://openssl.org/

[ return to 192.168.1.10 ]

### 2.1.4 High pop3 (110/tcp)

High (CVSS: 6.8)

NVT: OpenSSL CCS Man in the Middle Security Bypass Vulnerability (STARTTLS Check)

OID of test routine: 1.3.6.1.4.1.25623.1.0.105043

References

CVE: CVE-2014-0224

BID:67899 Other:

URL:http://www.securityfocus.com/bid/67899

URL:http://openssl.org/

[ return to 192.168.1.10 ]

### 2.1.5 High pop3s (995/tcp)

High (CVSS: 6.8)

NVT: OpenSSL CCS Man in the Middle Security Bypass Vulnerability

... continued from previous page ...

OID of test routine: 1.3.6.1.4.1.25623.1.0.105042

#### References

CVE: CVE-2014-0224

BID:67899 Other:

URL:http://www.securityfocus.com/bid/67899

URL:http://openssl.org/

[ return to 192.168.1.10 ]

### 2.1.6 Medium http-alt (8080/tcp)

#### Medium (CVSS: 4.3)

NVT: Apache Tomcat 'sort' and 'orderBy' Parameters Cross Site Scripting Vulnerabilities

### Product detection result

cpe:/a:apache:tomcat:6.0.24

Detected by Apache Tomcat Version Detection (OID: 1.3.6.1.4.1.25623.1.0.800371)

#### Summary:

Apache Tomcat is prone to multiple cross-site scripting vulnerabilities because it fails to properly sanitize user-supplied input.

An attacker may leverage these issues to execute arbitrary script code in the browser of an unsuspecting user in the context of the affected site. This may let the attacker steal cookie-based authentication credentials and launch other attacks.

Solution:

Updates are available; please see the references for more information.

OID of test routine: 1.3.6.1.4.1.25623.1.0.103032

#### References

CVE: CVE-2010-4172

BID:45015

URL:https://www.securityfocus.com/bid/45015

URL:http://tomcat.apache.org/security-6.html
URL:http://tomcat.apache.org/security-7.html
URL:http://tomcat.apache.org/security-6.html
URL:http://tomcat.apache.org/security-6.html
URL:http://tomcat.apache.org/security-7.html
URL:http://jakarta.apache.org/tomcat/
URL:http://www.securityfocus.com/archive/1/514866

#### Medium (CVSS: 2.6)

NVT: Apache Tomcat Authentication Header Realm Name Information Disclosure Vulnerability

#### Product detection result

cpe:/a:apache:tomcat:6.0.24

Detected by Apache Tomcat Version Detection (OID: 1.3.6.1.4.1.25623.1.0.800371)

#### Summary:

Apache Tomcat is prone to a remote information-disclosure vulnerability.

Remote attackers can exploit this issue to obtain the host name or IP address of the Tomcat server. Information harvested may lead to further attacks.

The following versions are affected:

Tomcat 5.5.0 through 5.5.29 Tomcat 6.0.0 through 6.0.26

Tomcat 3.x, 4.0.x, and 5.0.x may also be affected.

Solution:

Updates are available. Please see the references for more information.

OID of test routine: 1.3.6.1.4.1.25623.1.0.100598

#### References

CVE: CVE-2010-1157

BID:39635 Other:

URL:http://www.securityfocus.com/bid/39635
URL:http://tomcat.apache.org/security-5.html
URL:http://tomcat.apache.org/security-6.html

URL:http://tomcat.apache.org/

URL:http://svn.apache.org/viewvc?view=revision&revision=936540 URL:http://svn.apache.org/viewvc?view=revision&revision=936541

URL:http://www.securityfocus.com/archive/1/510879

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#### Medium (CVSS: 2.6)

NVT: Apache Tomcat Security bypass vulnerability

#### Product detection result

cpe:/a:apache:tomcat:6.0.24

Detected by Apache Tomcat Version Detection (OID: 1.3.6.1.4.1.25623.1.0.800371)

#### Summary:

This host is running Apache Tomcat server and is prone to security bypass vulnerability.

Vulnerability Insight:

The flaw is caused by 'realm name' in the 'WWW-Authenticate' HTTP header for 'BASIC' and 'DIGEST' authentication that might allow remote attackers to discover the server's hostname or IP address by sending a request for a resource.

#### Impact:

Remote attackers can exploit this issue to obtain the host name or IP address of the Tomcat server. Information harvested may aid in further attacks.

Impact Level: Application

Affected Software/OS:

Apache Tomcat version 5.5.0 to 5.5.29 Apache Tomcat version 6.0.0 to 6.0.26

Solution:

Upgrade to the latest version of Apache Tomcat 5.5.30 or 6.0.27 or later, For updates refer to http://tomcat.apache.org

OID of test routine: 1.3.6.1.4.1.25623.1.0.901114

#### References

CVE: CVE-2010-1157

BID:39635 Other:

URL:http://tomcat.apache.org/security-5.html
URL:http://tomcat.apache.org/security-6.html
URL:http://www.securityfocus.com/archive/1/510879

[ return to 192.168.1.10 ]

#### 2.1.7 Medium pop3s (995/tcp)

Medium (CVSS: 4.3)

NVT: Check for SSL Weak Ciphers

... continued from previous page ... Weak ciphers offered by this service: SSL3\_RSA\_RC4\_40\_MD5 SSL3\_RSA\_RC4\_128\_MD5 SSL3\_RSA\_RC4\_128\_SHA SSL3\_RSA\_RC2\_40\_MD5 SSL3\_RSA\_DES\_40\_CBC\_SHA SSL3\_EDH\_RSA\_DES\_40\_CBC\_SHA SSL3\_ADH\_RC4\_40\_MD5 SSL3\_ADH\_RC4\_128\_MD5 SSL3\_ADH\_DES\_40\_CBC\_SHA TLS1\_RSA\_RC4\_40\_MD5 TLS1\_RSA\_RC4\_128\_MD5 TLS1\_RSA\_RC4\_128\_SHA TLS1\_RSA\_RC2\_40\_MD5 TLS1\_RSA\_DES\_40\_CBC\_SHA TLS1\_EDH\_RSA\_DES\_40\_CBC\_SHA TLS1\_ADH\_RC4\_40\_MD5 TLS1\_ADH\_RC4\_128\_MD5 TLS1\_ADH\_DES\_40\_CBC\_SHA OID of test routine: 1.3.6.1.4.1.25623.1.0.103440

#### Medium (CVSS: 4.3)

NVT: POODLE SSLv3 Protocol CBC ciphers Information Disclosure Vulnerability

OID of test routine: 1.3.6.1.4.1.25623.1.0.802087

#### References

CVE: CVE-2014-3566

BID:70574 Other:

URL:http://osvdb.com/113251

URL:https://www.openssl.org/~bodo/ssl-poodle.pdf

URL: https://www.imperialviolet.org/2014/10/14/poodle.html

URL:https://www.dfranke.us/posts/2014-10-14-how-poodle-happened.html

URL:http://googleonlinesecurity.blogspot.in/2014/10/this-poodle-bites-exploit

 $\hookrightarrow$ ing-ssl-30.html

[ return to 192.168.1.10 ]

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### 2.1.8 Medium general/tcp

#### Medium (CVSS: 2.6) NVT: TCP timestamps

It was detected that the host implements RFC1323.

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

Paket 1: 720558107 Paket 2: 720558210

OID of test routine: 1.3.6.1.4.1.25623.1.0.80091

#### References

Other:

URL:http://www.ietf.org/rfc/rfc1323.txt

[ return to 192.168.1.10 ]

#### 2.1.9 Medium http (80/tcp)

#### Medium (CVSS: 4.3)

NVT: Apache Web Server ETag Header Information Disclosure Weakness

Information that was gathered:

Inode: 152086
Size: 177

OID of test routine: 1.3.6.1.4.1.25623.1.0.103122

#### References

CVE: CVE-2003-1418

BID:6939 Other:

URL:https://www.securityfocus.com/bid/6939

URL:http://httpd.apache.org/docs/mod/core.html#fileetag

URL:http://www.openbsd.org/errata32.html

URL:http://support.novell.com/docs/Tids/Solutions/10090670.html

#### Medium (CVSS: 4.3)

#### NVT: Apache HTTP Server 'httpOnly' Cookie Information Disclosure Vulnerability

#### Summary:

This host is running Apache HTTP Server and is prone to cookie information disclosure vulnerability.

Vulnerability Insight:

The flaw is due to an error within the default error response for status code 400 when no custom ErrorDocument is configured, which can be exploited to expose 'httpOnly' cookies.

#### Impact:

Successful exploitation will allow attackers to obtain sensitive information that may aid in further attacks.

Impact Level: Application
Affected Software/OS:

Apache HTTP Server versions 2.2.0 through 2.2.21

Solution:

Upgrade to Apache HTTP Server version 2.2.22 or later,

For updates refer to http://httpd.apache.org/

OID of test routine: 1.3.6.1.4.1.25623.1.0.902830

#### References

CVE: CVE-2012-0053

BID:51706

URL:http://osvdb.org/78556

URL:http://secunia.com/advisories/47779
URL:http://www.exploit-db.com/exploits/18442

URL:http://rhn.redhat.com/errata/RHSA-2012-0128.html

URL:http://httpd.apache.org/security/vulnerabilities\_22.html

URL:http://svn.apache.org/viewvc?view=revision&revision=1235454

URL: http://lists.opensuse.org/opensuse-security-announce/2012-02/msg00026.htm

 $\hookrightarrow$ 1

[ return to 192.168.1.10 ]

### 2.1.10 Medium netbios-ssn (139/tcp)

#### Medium (CVSS: 5.0)

NVT· Samba Multiple Remote Denial of Service Vulnerabilities

#### Summary:

Samba is prone to multiple remote denial-of-service vulnerabilities.

 $\dots$  continues on next page  $\dots$ 

... continued from previous page ...

An attacker can exploit these issues to crash the application, denying service to legitimate users.

Versions prior to Samba 3.4.8 and 3.5.2 are vulnerable.

Solution:

Updates are available. Please see the references for more information.

OID of test routine: 1.3.6.1.4.1.25623.1.0.100644

#### References

CVE: CVE-2010-1635

BID:40097 Other:

URL:http://www.securityfocus.com/bid/40097

URL:http://bugzilla.samba.org/show\_bug.cgi?id=7254 URL:http://samba.org/samba/history/samba-3.4.8.html URL:http://samba.org/samba/history/samba-3.5.2.html

URL:http://www.samba.org

[ return to 192.168.1.10 ]

#### 2.1.11 Medium ssh (22/tcp)

### Medium (CVSS: 3.5)

NVT: openssh-server Forced Command Handling Information Disclosure Vulnerability

According to its banner, the version of OpenSSH installed on the remote host is older than 5.7:

ssh-2.0-openssh\_5.3p1 debian-3ubuntu7

OID of test routine: 1.3.6.1.4.1.25623.1.0.103503

#### References

CVE: CVE-2012-0814

BID:51702 Other:

URL:http://www.securityfocus.com/bid/51702

URL:http://bugs.debian.org/cgi-bin/bugreport.cgi?bug=657445
URL:http://packages.debian.org/squeeze/openssh-server

URL: https://downloads.avaya.com/css/P8/documents/100161262

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[ return to 192.168.1.10 ]

#### 2.1.12 Low domain (53/udp)

#### Low (CVSS: 5.0)

NVT: Determine which version of BIND name daemon is running

BIND 'NAMED' is an open-source DNS server from ISC.org.
Many proprietary DNS servers are based on BIND source code.
The BIND based NAMED servers (or DNS servers) allow remote users to query for version and type information. The query of the CHAOS TXT record 'version.bind', will typically prompt the server to send the information back to the querying source.
The remote bind version is: 9.7.0-P1
Solution:

Using the 'version' directive in the 'options' section will block the 'version.bind' query, but it will not log such attempts.

OID of test routine: 1.3.6.1.4.1.25623.1.0.10028

[ return to 192.168.1.10 ]

### 2.1.13 Log http-alt (8080/tcp)

### Log NVT:

Open port.

OID of test routine: 0

#### Log (CVSS: 0.0)

NVT: HTTP Server type and version

The remote web server type is : Apache-Coyote/1.1 and the 'ServerTokens' directive is ProductOnly Apache does not permit to hide the server type.

```
... continued from previous page ... OID of test routine: 1.3.6.1.4.1.25623.1.0.10107
```

```
Log (CVSS: 0.0)
NVT: Services

A web server is running on this port

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330
```

```
Log (CVSS: 0.0)

NVT: Web mirroring

The following CGI have been discovered:

Syntax: cginame (arguments [default value])

/examples/servlets/servlet/RequestParamExample (firstname [] lastname [])

/examples/jsp/jsp2/el/implicit-objects.jsp (foo [bar])

/examples/jsp/jsp2/el/functions.jsp (foo [JSP+2.0])

/examples/servlets/servlet/CookieExample (cookiename [] cookievalue [])

/examples/servlets/servlet/SessionExample; jsessionid=OEF89E75F6776AF767786E3F789

\[
\text{OID of test routine: } 1.3.6.1.4.1.25623.1.0.10662
```

### Log (CVSS: 0.0) NVT: Directory Scanner

The following directories were discovered:
/docs, /examples
While this is not, in and of itself, a bug, you should manually inspect
these directories to ensure that they are in compliance with company
security standards

OID of test routine: 1.3.6.1.4.1.25623.1.0.11032

#### References

Other:

OWASP:OWASP-CM-006

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### Log (CVSS: 0.0)

### NVT: Apache Tomcat Version Detection

Detected Apache Tomcat version: 6.0.24

Location: 8080/tcp

CPE: cpe:/a:apache:tomcat:6.0.24

Concluded from version identification result:

Apache Tomcat/6.0.24

OID of test routine: 1.3.6.1.4.1.25623.1.0.800371

### Log (CVSS: 0.0)

### NVT: wapiti (NASL wrapper)

wapiti could not be found in your system path.

 ${\tt OpenVAS}$  was unable to execute wapiti and to perform the scan you requested.

Please make sure that wapiti is installed and that wapiti is available in the PATH variable defined for your environment.

OID of test routine: 1.3.6.1.4.1.25623.1.0.80110

[ return to 192.168.1.10 ]

### 2.1.14 Log imap (143/tcp)

#### Log NVT:

Open port.

OID of test routine: 0

### Log (CVSS: 0.0)

NVT: Services

An IMAP server is running on this port

... continued from previous page ...

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

### Log (CVSS: 0.0)

### NVT: IMAP STARTTLS Detection

Summary:

The remote IMAP Server supports the STARTTLS command.

OID of test routine: 1.3.6.1.4.1.25623.1.0.105007

### Log (CVSS: 0.0)

### NVT: IMAP Banner

The remote imap server banner is :

\* OK [CAPABILITY IMAP4rev1 LITERAL+ SASL-IR LOGIN-REFERRALS ID ENABLE STARTTLS L  $\hookrightarrow$  OGINDISABLED] Dovecot ready.

OID of test routine: 1.3.6.1.4.1.25623.1.0.11414

[ return to 192.168.1.10 ]

### 2.1.15 Log imaps (993/tcp)

### Log NVT:

Open port.

OID of test routine: 0

### Log (CVSS: 0.0)

NVT: Services

A TLSv1 server answered on this port

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... continued from previous page ...

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

### Log (CVSS: 0.0) NVT: Services

An IMAP server is running on this port through SSL

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

### Log (CVSS: 0.0) NVT: IMAP Banner

The remote imap server banner is :

\* OK [CAPABILITY IMAP4rev1 LITERAL+ SASL-IR LOGIN-REFERRALS ID ENABLE AUTH=PLAIN  $\hookrightarrow$ ] Dovecot ready.

OID of test routine: 1.3.6.1.4.1.25623.1.0.11414

### Log (CVSS: 0.0)

NVT: SSL Certificate Expiry

The SSL certificate of the remote service is valid between 2014-12-04 15:16:06 GMT and 2015-12-04 15:16:06 GMT.

OID of test routine: 1.3.6.1.4.1.25623.1.0.15901

[ return to 192.168.1.10 ]

### 2.1.16 Log pop3 (110/tcp)

#### Log NVT:

Open port.

OID of test routine: 0

### Log (CVSS: 0.0) NVT: Services

A pop3 server is running on this port

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

# Log (CVSS: 0.0)

NVT: POP3 STARTTLS Detection

Summary:

The remote POP3 Server supports the STARTTLS command.

OID of test routine: 1.3.6.1.4.1.25623.1.0.105008

[ return to 192.168.1.10 ]

### 2.1.17 Log pop3s (995/tcp)

# $\begin{array}{c} \operatorname{Log} \\ \operatorname{NVT:} \end{array}$

Open port.

OID of test routine: 0

### Log (CVSS: 0.0) NVT: Services

A TLSv1 server answered on this port

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

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### Log (CVSS: 0.0) NVT: Services

A pop3 server is running on this port

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

#### Log (CVSS: 0.0)

**NVT: SSL Certificate Expiry** 

The SSL certificate of the remote service is valid between 2014-12-04 15:16:06 GMT and 2015-12-04 15:16:06 GMT.

OID of test routine: 1.3.6.1.4.1.25623.1.0.15901

### Log (CVSS: 0.0)

### NVT: Check for SSL Ciphers

Service supports SSLv2 ciphers. Service supports SSLv3 ciphers. Service supports TLSv1 ciphers. Medium ciphers offered by this service: SSL3\_RSA\_DES\_192\_CBC3\_SHA SSL3\_EDH\_RSA\_DES\_192\_CBC3\_SHA SSL3\_ADH\_DES\_192\_CBC\_SHA SSL3\_DHE\_RSA\_WITH\_AES\_128\_SHA SSL3\_ADH\_WITH\_AES\_128\_SHA TLS1\_RSA\_DES\_192\_CBC3\_SHA TLS1\_EDH\_RSA\_DES\_192\_CBC3\_SHA TLS1\_ADH\_DES\_192\_CBC\_SHA TLS1\_DHE\_RSA\_WITH\_AES\_128\_SHA TLS1\_ADH\_WITH\_AES\_128\_SHA Weak ciphers offered by this service: SSL3\_RSA\_RC4\_40\_MD5 SSL3\_RSA\_RC4\_128\_MD5 SSL3\_RSA\_RC4\_128\_SHA SSL3\_RSA\_RC2\_40\_MD5 SSL3\_RSA\_DES\_40\_CBC\_SHA SSL3\_EDH\_RSA\_DES\_40\_CBC\_SHA SSL3\_ADH\_RC4\_40\_MD5 SSL3\_ADH\_RC4\_128\_MD5 SSL3\_ADH\_DES\_40\_CBC\_SHA

TLS1\_RSA\_RC4\_40\_MD5
TLS1\_RSA\_RC4\_128\_MD5
TLS1\_RSA\_RC4\_128\_SHA
TLS1\_RSA\_RC2\_40\_MD5
TLS1\_RSA\_DES\_40\_CBC\_SHA
TLS1\_EDH\_RSA\_DES\_40\_CBC\_SHA
TLS1\_ADH\_RC4\_40\_MD5
TLS1\_ADH\_RC4\_128\_MD5
TLS1\_ADH\_DES\_40\_CBC\_SHA
No non-ciphers are supported by this service

```
Log (CVSS: 0.0)

NVT: Check for SSL Medium Ciphers

Medium ciphers offered by this service:

SSL3_RSA_DES_192_CBC3_SHA

SSL3_EDH_RSA_DES_192_CBC3_SHA

SSL3_ADH_DES_192_CBC_SHA

SSL3_ADHE_RSA_WITH_AES_128_SHA

SSL3_ADH_WITH_AES_128_SHA

TLS1_RSA_DES_192_CBC3_SHA

TLS1_EDH_RSA_DES_192_CBC3_SHA

TLS1_EDH_RSA_DES_192_CBC3_SHA

TLS1_ADH_DES_192_CBC_SHA

TLS1_DHE_RSA_WITH_AES_128_SHA

TLS1_DHE_RSA_WITH_AES_128_SHA

OID of test routine: 1.3.6.1.4.1.25623.1.0.902816
```

[ return to 192.168.1.10 ]

### 2.1.18 Log general/tcp

```
Log (CVSS: 0.0)

NVT: OS fingerprinting

ICMP based OS fingerprint results: (100% confidence)

Linux Kernel

... continues on next page ...
```

... continued from previous page ...

OID of test routine: 1.3.6.1.4.1.25623.1.0.102002

#### References

Other:

URL:http://www.phrack.org/issues.html?issue=57&id=7#article

#### Log (CVSS: 0.0)

### NVT: DIRB (NASL wrapper)

DIRB could not be found in your system path.

 ${\tt OpenVAS}$  was unable to execute <code>DIRB</code> and to perform the scan you requested.

Please make sure that DIRB is installed and is available in the PATH variable defined for your environment.

OID of test routine: 1.3.6.1.4.1.25623.1.0.103079

#### Log (CVSS: 0.0)

### NVT: Checks for open udp ports

Open UDP ports: [None found]

OID of test routine: 1.3.6.1.4.1.25623.1.0.103978

### Log (CVSS: 0.0)

#### NVT: arachni (NASL wrapper)

Arachni could not be found in your system path.

 ${\tt OpenVAS}$  was unable to execute Arachni and to perform the scan you requested.

Please make sure that Arachni is installed and that arachni is available in the PATH variable defined for your environment.

OID of test routine: 1.3.6.1.4.1.25623.1.0.110001

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# Log (CVSS: 0.0)

NVT: Nikto (NASL wrapper)

Nikto could not be found in your system path.

 ${\tt OpenVAS}$  was unable to execute  ${\tt Nikto}$  and to perform the scan you requested.

Please make sure that Nikto is installed and that nikto.pl or nikto is available in the PATH variable defined for your environment.

OID of test routine: 1.3.6.1.4.1.25623.1.0.14260

# Log (CVSS: 0.0)

NVT: Traceroute

Here is the route from 192.168.1.1 to 192.168.1.10:

192.168.1.1

192.168.1.10

OID of test routine: 1.3.6.1.4.1.25623.1.0.51662

### Log (CVSS: 0.0)

NVT: Checks for open tcp ports

Open TCP ports: 80, 110, 445, 993, 22, 8080, 995, 139, 53, 143

OID of test routine: 1.3.6.1.4.1.25623.1.0.900239

[ return to 192.168.1.10 ]

#### 2.1.19 Log http (80/tcp)

#### Log

NVT:

Open port.

OID of test routine: 0

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### Log (CVSS: 0.0)

#### NVT: HTTP Server type and version

The remote web server type is :

Apache/2.2.14 (Ubuntu)

Solution : You can set the directive 'ServerTokens Prod' to limit the information emanating from the server in its response headers.

OID of test routine: 1.3.6.1.4.1.25623.1.0.10107

### Log (CVSS: 0.0)

#### **NVT**: Services

A web server is running on this port

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

#### Log (CVSS: 0.0)

### NVT: Directory Scanner

The following directories were discovered:

/cgi-bin, /icons

While this is not, in and of itself, a bug, you should manually inspect these directories to ensure that they are in compliance with company security standards

OID of test routine: 1.3.6.1.4.1.25623.1.0.11032

### References

Other:

OWASP:OWASP-CM-006

#### Log (CVSS: 0.0)

### NVT: wapiti (NASL wrapper)

wapiti could not be found in your system path.

OpenVAS was unable to execute wapiti and to perform the scan you requested.

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... continued from previous page ...

Please  $\overline{\text{make}}$  sure that wapiti is installed and that wapiti is available in the PATH variable defined for your environment.

OID of test routine: 1.3.6.1.4.1.25623.1.0.80110

### Log (CVSS: 0.0)

### NVT: Apache Web ServerVersion Detection

Detected Apache version: 2.2.14

Location: 80/tcp

CPE: cpe:/a:apache:http\_server:2.2.14

Concluded from version identification result:

Server: Apache/2.2.14

OID of test routine: 1.3.6.1.4.1.25623.1.0.900498

[ return to 192.168.1.10 ]

#### 2.1.20 Log netbios-ssn (139/tcp)

#### Log NVT:

Open port.

OID of test routine: 0

[ return to 192.168.1.10 ]

### 2.1.21 Log ssh (22/tcp)

### Log NVT:

Open port.

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... continued from previous page ... OID of test routine: 0

### Log (CVSS: 0.0)

### NVT: SSH Protocol Versions Supported

The remote SSH Server supports the following SSH Protocol Versions: 1.99  $2.0\,$ 

 ${\tt SSHv2\ Fingerprint:\ Oc:d8:26:b3:dd:f0:d4:83:57:95:78:f8:5a:0c:ae:53}$ 

OID of test routine: 1.3.6.1.4.1.25623.1.0.100259

#### Log (CVSS: 0.0)

### NVT: SSH Server type and version

Detected SSH server version: SSH-2.0-OpenSSH\_5.3p1 Debian-3ubuntu7

Remote SSH supported authentication: publickey,password

Remote SSH banner:
(not available)

CPE: cpe:/a:openbsd:openssh:5.3p1

Concluded from remote connection attempt with credentials:

Login: OpenVAS
Password: OpenVAS

OID of test routine: 1.3.6.1.4.1.25623.1.0.10267

### Log (CVSS: 0.0)

#### **NVT**: Services

An ssh server is running on this port

OID of test routine: 1.3.6.1.4.1.25623.1.0.10330

[ return to 192.168.1.10 ]

#### 2.1.22 Log domain (53/udp)

### Log (CVSS: 0.0) NVT: DNS Server Detection

#### Summary:

A DNS Server is running at this Host.

A Name Server translates domain names into IP addresses. This makes it possible for a user to access a website by typing in the domain name instead of the website's actual IP address.

OID of test routine: 1.3.6.1.4.1.25623.1.0.100069

[ return to 192.168.1.10 ]

### 2.1.23 Log domain (53/tcp)

#### Log NVT:

Open port.

OID of test routine: 0

### Log (CVSS: 0.0)

NVT: Identify unknown services with nmap

Nmap service detection result for this port: domain

OID of test routine: 1.3.6.1.4.1.25623.1.0.66286

[ return to 192.168.1.10 ]

### 2.1.24 Log general/CPE-T

### Log (CVSS: 0.0) NVT: CPE Inventory

192.168.1.10|cpe:/a:samba:samba:3.4.7 192.168.1.10|cpe:/a:apache:tomcat:6.0.24

... continued from previous page ...

192.168.1.10|cpe:/a:apache:http\_server:2.2.14

192.168.1.10|cpe:/a:openbsd:openssh:5.3p1

192.168.1.10|cpe:/o:canonical:ubuntu\_linux

OID of test routine: 1.3.6.1.4.1.25623.1.0.810002

[ return to 192.168.1.10 ]

### 2.1.25 Log general/HOST-T

```
Log (CVSS: 0.0)

NVT: Host Summary

traceroute: 192.168.1.1,192.168.1.10

TCP ports: 80,110,445,993,22,8080,995,139,53,143

UDP ports:

OID of test routine: 1.3.6.1.4.1.25623.1.0.810003
```

[ return to 192.168.1.10 ]

#### 2.1.26 Log general/SMBClient

```
Log (CVSS: 0.0)

NVT: SMB Test

The tool "smbclient" is not available for openvasd.

Therefore none of the tests using smbclient are executed.

OID of test routine: 1.3.6.1.4.1.25623.1.0.90011
```

[ return to 192.168.1.10 ]

### 2.1.27 Log general/icmp

### Log (CVSS: 0.0) NVT: ICMP Timestamp Detection

#### Summary:

The remote host responded to an ICMP timestamp request. 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. This information could theoretically be used to exploit weak time-based random number generators in other services.

OID of test routine: 1.3.6.1.4.1.25623.1.0.103190

#### References

CVE: CVE-1999-0524

Other:

URL:http://www.ietf.org/rfc/rfc0792.txt

[ return to 192.168.1.10 ]

#### 2.1.28 Log microsoft-ds (445/tcp)

#### Log NVT:

Open port.

OID of test routine: 0

### Log (CVSS: 0.0) NVT: SMB NativeLanMan

#### Summary:

It is possible to extract OS, domain and SMB server information from the Session Setup AndX Response packet which is generated during NTLM authentication.Detected SMB workgroup: WORKGROUP

Detected SMB server: Samba 3.4.7

Detected OS: Unix

OID of test routine: 1.3.6.1.4.1.25623.1.0.102011

[ return to 192.168.1.10 ]

#### 2.1.29 Log netbios-ns (137/udp)

```
Log (CVSS: 0.0)
NVT: Using NetBIOS to retrieve information from a Windows host
The following 5 NetBIOS names have been gathered:
                 = This is the computer name registered for workstation services
\hookrightarrow by a WINS client.
ROME
                 = This is the current logged in user registered for this workst
\hookrightarrowation.
ROME
                 = Computer name
                 = Workgroup / Domain name (part of the Browser elections)
WORKGROUP
WORKGROUP
                 = Workgroup / Domain name
. This SMB server seems to be a SAMBA server (this is not a security
risk, this is for your information). This can be told because this server
claims to have a null MAC address
If you do not want to allow everyone to find the NetBios name
of your computer, you should filter incoming traffic to this port.
OID of test routine: 1.3.6.1.4.1.25623.1.0.10150
```

[ return to 192.168.1.10 ]

This file was automatically generated.