

ДЗ 18

Цель: Научиться приемам работы с сетевым сканером OpenVAS, анализаторами и IDS/IPS системами

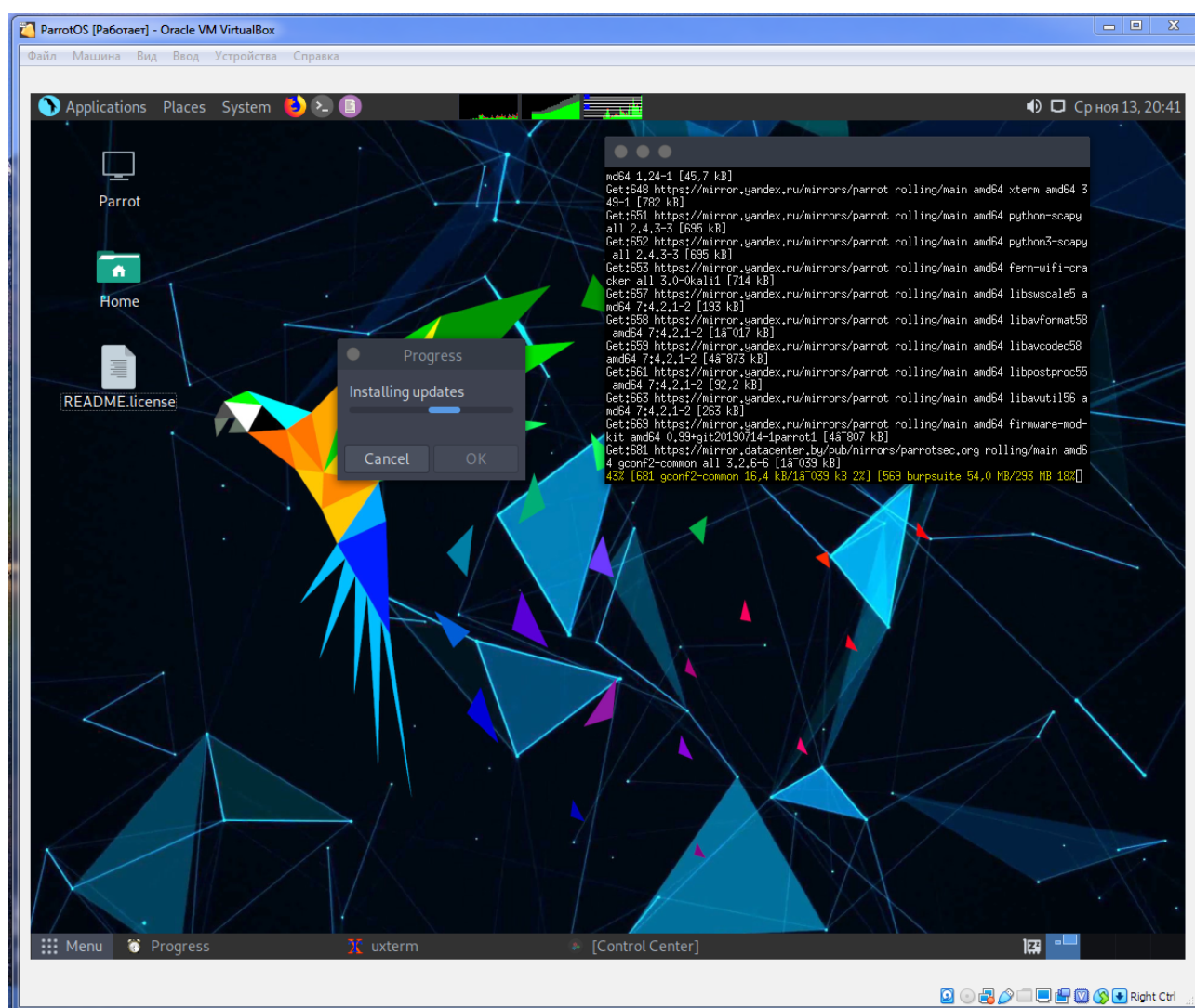
1. С помощью установленного сканера безопасности OpenVAS проверить наличие уязвимостей ПО и ядра Linux на примере Metasploitable2 и прислать отчет

1. Этап подготовительный:

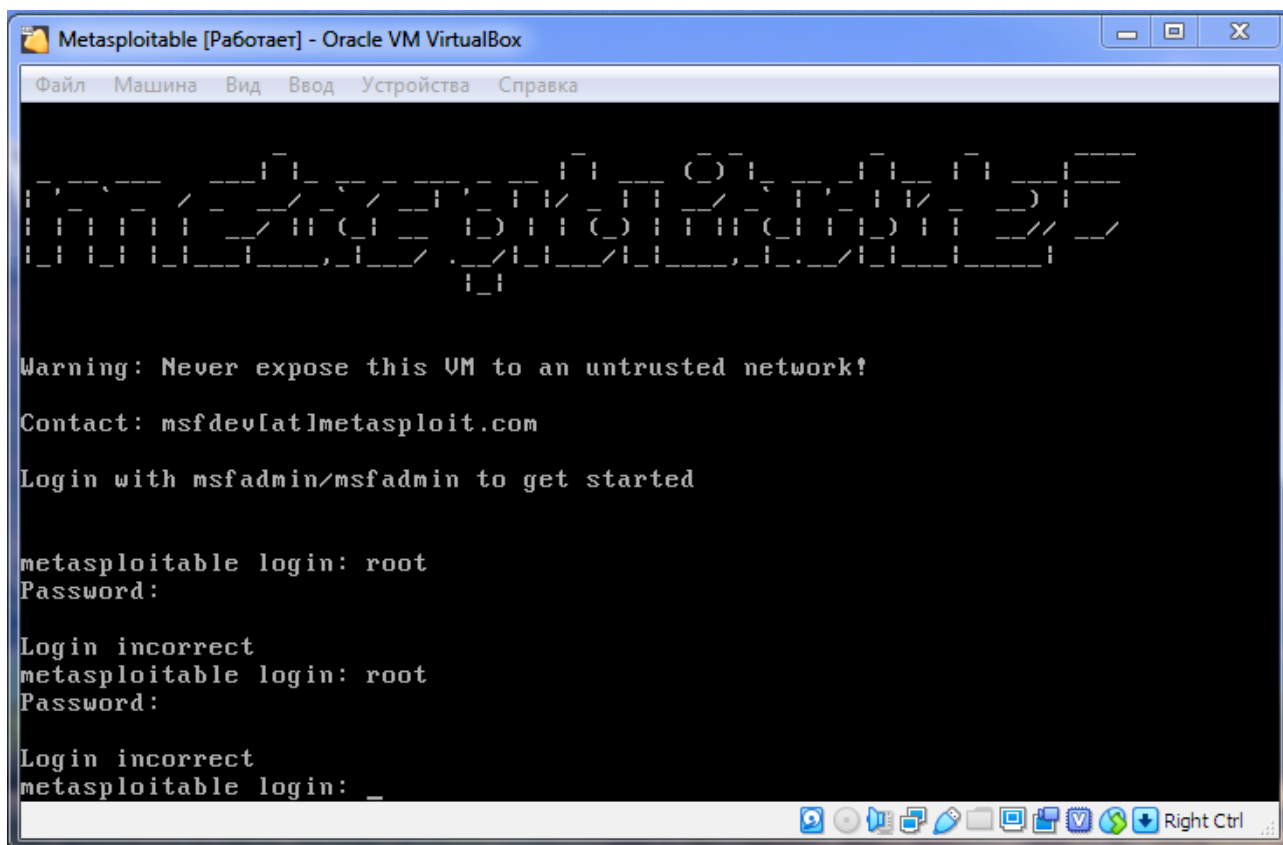
На данном этапе мной было принято решение о использовании ОС ParrotOS.

а) Скачиваем образ Parrot-security-4.7_x64.iso и разворачиваем виртуальную среду, необходимую для корректной работы OpenVAS.

NB! Важно: для корректной установки ParrotOS необходимо выделить виртуальный HDD достаточного объёма для установки. В моём случае ОС развернулась не с первой попытки, и успешный исход был при выделении динамического HDD около 50 ГБ.

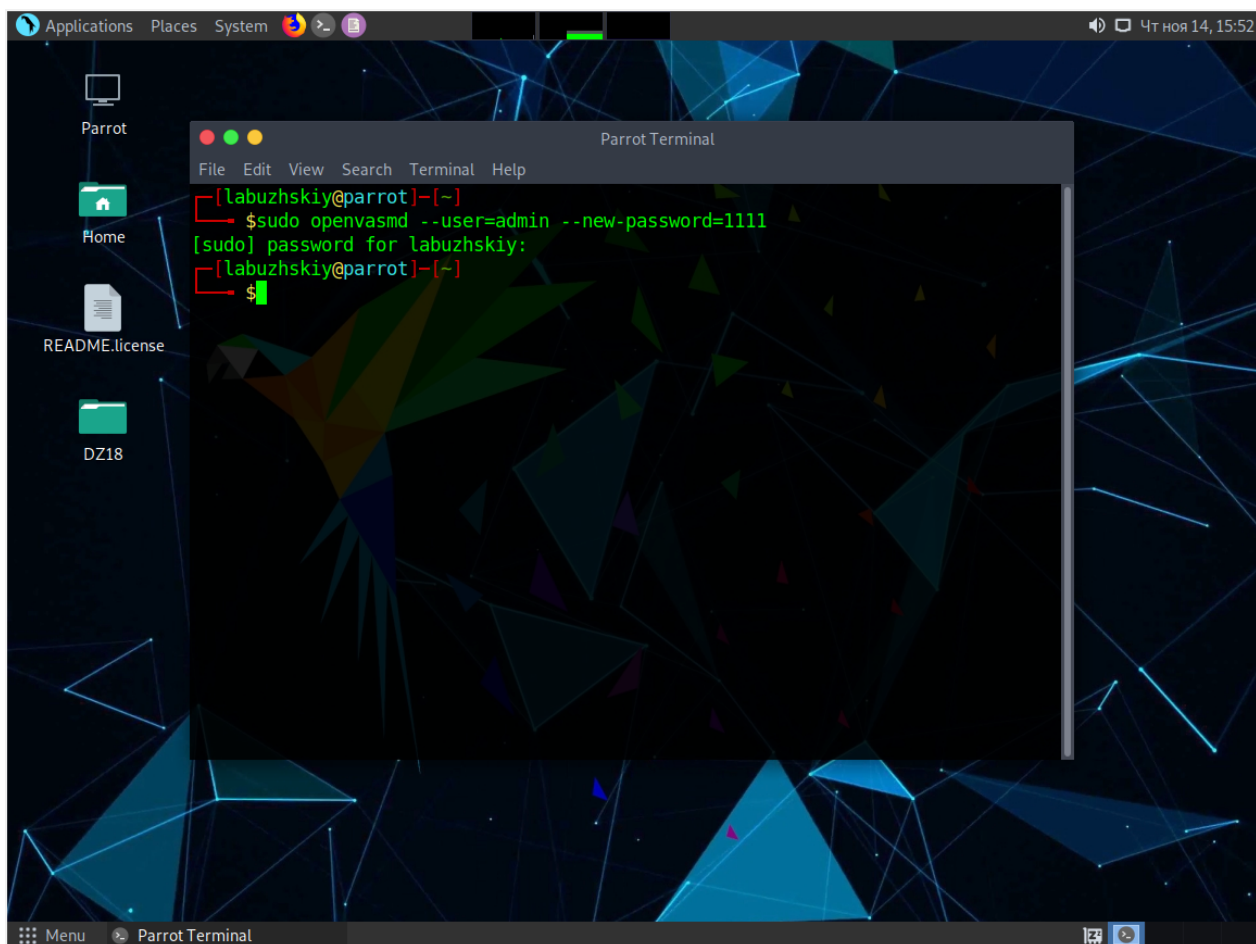


б) скачиваем и разворачиваем стенд для изучения уязвимостей metasploitable-linux-2.0.0.zip
<https://xakep.ru/2012/06/15/58852/>
<https://sourceforge.net/projects/metasploitable/files/Metasploitable2/>



в) обновляем OpenVAS (при первом запуске все необходимые обновления будут скачены и установлены в материалах это лог-файл с именем: 1-62105-2a226f.txt)

г) изменяем пароль встроенной учётной записи **admin**, на любой известный нам для осуществления процедуры аутентификации через веб-браузер.



<https://itsecforu.ru/2018/07/16/как-сбросить-пароль-admin-в-openvas/>

д) настраиваем ЛВС на тестовом стенде:

The screenshot shows a Parrot OS terminal window with the following commands and output:

```
[root@parrot]~# ifconfig
eth0: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
    inet 192.168.56.5 netmask 255.255.0.0 broadcast 192.168.255.255
    inet6 fe80::3bc1:9a16:51f0:5554 prefixlen 64 scopeid 0x20<link>
    ether 08:00:27:0c:c3:1e txqueuelen 1000 (Ethernet)
    RX packets 10395 bytes 8319508 (7.9 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 6676 bytes 3187710 (3.0 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
    inet 127.0.0.1 netmask 255.0.0.0
    inet6 ::1 prefixlen 128 scopeid 0x10<host>
    loop txqueuelen 1000 (Local Loopback)
    RX packets 2228 bytes 3774790 (3.5 MiB)
    RX errors 0 dropped 0 overruns 0 frame 0
    TX packets 2228 bytes 3774790 (3.5 MiB)
    TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0

[root@parrot]~# ping 192.168.56.15
PING 192.168.56.15 (192.168.56.15) 56(84) bytes of data:
64 bytes from 192.168.56.15: icmp_seq=1 ttl=64 time=0.210 ms
64 bytes from 192.168.56.15: icmp_seq=2 ttl=64 time=0.188 ms
^C
--- 192.168.56.15 ping statistics ---
2 packets transmitted, 2 received, 0% packet loss, time 1032ms
rtt min/avg/max/mdev = 0.188/0.199/0.210/0.011 ms
[root@parrot]~#
```

The Metasploitable VM window shows the following configuration:

```
user@metasploitable:~$ ifconfig
eth0
    Link encap:Ethernet HWaddr 08:00:27:f7:91:c6
    inet addr:192.168.56.15 Bcast:192.168.255.255 Mask:255.255.0.0
    inet6 addr: fe80::a00:27ff:fef7:91c6/64 Scope:Link
    UP BROADCAST RUNNING MULTICAST MTU:1500 Metric:1
    RX packets:17 errors:0 dropped:0 overruns:0 frame:0
    TX packets:155 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:1000
    RX bytes:1354 (1.3 KB) TX bytes:11101 (10.9 KB)
    Base address:0xd020 Memory:f1200000-f1220000

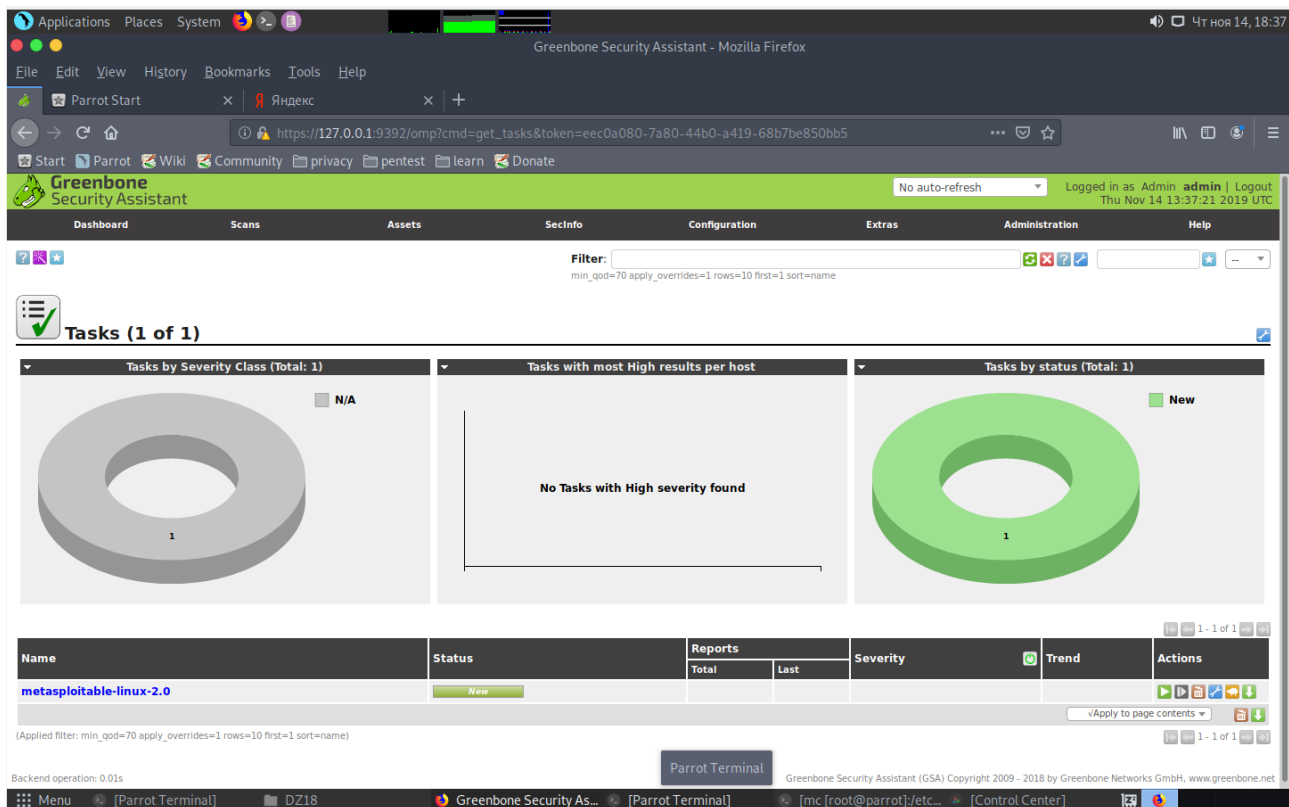
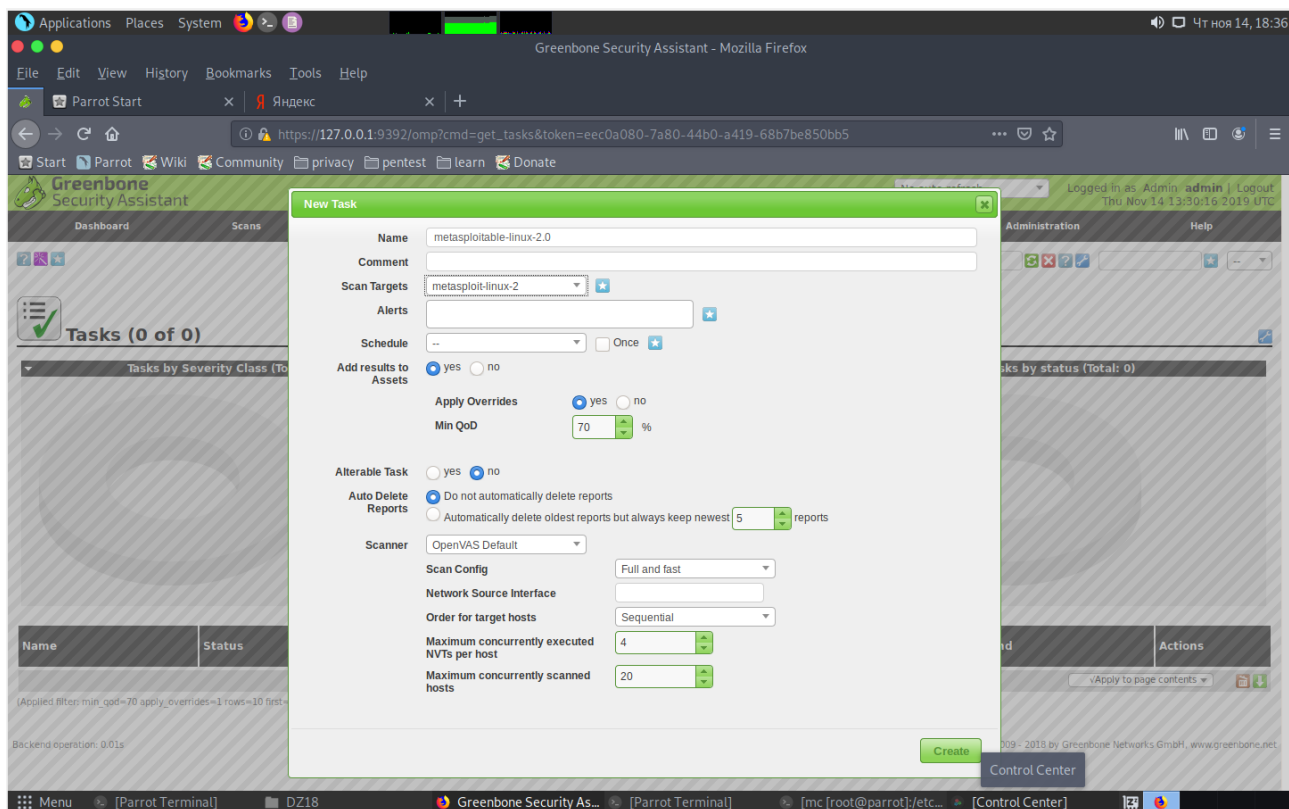
lo
    Link encap:Local Loopback
    inet addr:127.0.0.1 Mask:255.0.0.0
    inet6 addr: ::1/128 Scope:Host
    UP LOOPBACK RUNNING MTU:16436 Metric:1
    RX packets:131 errors:0 dropped:0 overruns:0 frame:0
    TX packets:131 errors:0 dropped:0 overruns:0 carrier:0
    collisions:0 txqueuelen:0
    RX bytes:29730 (29.0 KB) TX bytes:29730 (29.0 KB)

user@metasploitable:~$ _
```

е) непосредственное знакомство со сканером и выполнение сканирования:

The screenshot shows the Greenbone Security Assistant web interface in a Mozilla Firefox browser. The URL is <https://127.0.0.1:9392/omp?r=1&token=c696402e-2012-48ab-8532-caa71b27d70>. The interface includes a navigation bar with tabs: Dashboard, Scans, Assets, SecInfo, Configuration, Extras, Administration, and Help. The main content area shows the Dashboard with the following sections:

- Tasks by Severity Class (Total: 0)**: A donut chart showing no data.
- Tasks by status (Total: 0)**: A donut chart showing no data.
- CVEs by creation time (Total: 132937)**: A line graph showing the number of CVEs created over time.
- Hosts topology**: A section stating "No hosts with topology selected".
- NVTs by Severity Class (Total: 53344)**: A donut chart showing the distribution of NVTs by severity class: High (24204), Medium (23469), Low (1983), and Log (3688).



Applications Places System Greenbone Security Assistant - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Parrot Start x Яндекc x +

https://127.0.0.1:9392/omp?cmd=get_tasks&filter=min_qod%3D70 apply_overrides%3D1 rows%3D10 first%3D1

Start Parrot Wiki Community privacy pentest learn Donate

Greenbone Security Assistant No auto-refresh Logged in as Admin admin | Logout Thu Nov 14 13:39:31 2019 UTC

Dashboard Scans Assets SecInfo Configuration Extras Administration Help

Filter: min_qod=70 apply_overrides=1 rows=10 first=1 sort=name

Tasks (1 of 1)

Tasks by Severity Class (Total: 1)

1

Tasks with most High results per host
No Tasks with High severity found

Tasks by status (Total: 1)

Running

Name	Status	Reports	Severity	Trend	Actions
		Total	Last		
metasploitable-linux-2.0	1 %	0 (1)			

(Applied filter: min_qod=70 apply_overrides=1 rows=10 first=1 sort=name)

Backend operation: 0.01s Greenbone Security Assistant (GSA) Copyright 2009 - 2018 by Greenbone Networks GmbH, www.greenbone.net

Menu [Parrot Terminal] DZ18 Greenbone Security Assist... Parrot Terminal [mc [root@parrot]:/etc/net...

Applications Places System Greenbone Security Assistant - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Parrot Start x Яндекc x +

https://127.0.0.1:9392/omp?cmd=get_task&task_id=86e23400-2fa5-40ea-9338-8f7389d105a9&overrides=1&mi...

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Greenbone Security Assistant No auto-refresh Logged in as Admin admin | Logout Thu Nov 14 13:53:18 2019 UTC

Dashboard Scans Assets SecInfo Configuration Extras Administration Help

Task: metasploitable-linux-2.0

ID: 86e23400-2fa5-40ea-9338-8f7389d105a9
Created: Thu Nov 14 13:37:21 2019
Modified: Thu Nov 14 13:38:50 2019
Owner: admin

Name: metasploitable-linux-2.0

Comment:

Target: metasploit-linux-2

Alerts:

Schedule: (Next due: over)

Add to Assets: yes

Apply Overrides: yes

Min QoD: 70%

Alterable Task: no

Auto Delete Reports: Do not automatically delete reports

Scanner: OpenVAS Default (Type: OpenVAS Scanner)
Scan Config: Full and fast
Order for target hosts: Sequential
Network Source Interface:
Maximum concurrently executed NVTs per host: 4
Maximum concurrently scanned hosts: 20

Status: 12 %

Duration of last scan:

Average scan duration:

Reports: 1. Current: Nov 14 2019 (Finished: 0)

Results: 36

Notes: 0

Overrides: 0

User Tags (none)

Applications Places System ЧТ НОЯ 14, 18:55

Greenbone Security Assistant - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Parrot Start x Яндекc x +

https://127.0.0.1:9392/omp?cmd=get_reports&replace_task_id=1&filt_id=-2&filter=task_id=86e23400-2fa5-40e... ☆

Start Parrot Wiki Community privacy pentest learn Donate

Security Assistant Thu Nov 14 13:54:56 2019 UTC

Dashboard Scans Assets SecInfo Configuration Extras Administration Help

Filter:

task_id=86e23400-2fa5-40e9-9338-8f7389d105a9 apply_overrides=1 min_qod=70 sort-reverse=date first=1 rows=10

Reports (1 of 1)

Reports by Severity Class (Total: 1)

Reports: High results timeline

Reports by CVSS (Total: 1)

Date	Status	Task	Severity	Scan Results	Actions
Thu Nov 14 13:38:40 2019	16 %	metasploitable-linux-2.0	5.0 (Medium)	0 3 0 Log False Pos. 35	

(Applied filter: task_id=86e23400-2fa5-40e9-9338-8f7389d105a9 apply_overrides=1 min_qod=70 sort-reverse=date first=1 rows=10)

Backend operation: 0.09s

Parrot Terminal Greenbone Security Assistant (GSA) Copyright 2009 - 2018 by Greenbone Networks GmbH, www.greenbone.net

Menu [Parrot Terminal] DZ18 Greenbone Security Assist... Parrot Terminal [mc [root@parrot]:/etc/net...

Applications Places System ЧТ НОЯ 14, 18:56

Greenbone Security Assistant - Mozilla Firefox

File Edit View History Bookmarks Tools Help

Parrot Start x Яндекc x +

https://127.0.0.1:9392/omp?cmd=get_report&report_id=1ee7e699-35dd-4e1d-9b59-34b139a4af81¬es=1&ove... ☆

Start Parrot Wiki Community privacy pentest learn Donate

Greenbone Security Assistant Logged in as Admin admin | Logout Thu Nov 14 13:55:55 2019 UTC

Dashboard Scans Assets SecInfo Configuration Extras Administration Help

Anonymous XML 20 %

Filter:

autofp=0 apply_overrides=1 notes=1 overrides=1 result_hosts_only=1 first=1 rows=100 sort-reverse=severity levels=hml min_qod=70

Report: Results (3 of 62)

ID: 1ee7e699-35dd-4e1d-9b59-34b139a4af81
Modified:
Created: Thu Nov 14 13:38:49 2019
Owner: admin

Vulnerability	Severity	QoD	Host	Location	Actions
SSL/TLS: Certificate Expired	5.0 (Medium)	99%	192.168.56.15	5432/tcp	
SSL/TLS: Certificate Signed Using A Weak Signature Algorithm	4.0 (Medium)	80%	192.168.56.15	5432/tcp	
SSL/TLS: Diffie-Hellman Key Exchange Insufficient DH Group Strength Vulnerability	4.0 (Medium)	80%	192.168.56.15	5432/tcp	

(Applied filter: autofp=0 apply_overrides=1 notes=1 overrides=1 result_hosts_only=1 first=1 rows=100 sort-reverse=severity levels=hml min_qod=70)

Backend operation: 0.30s

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Greenbone Security Assistant - Mozilla Firefox

FileEditViewHistoryBookmarksToolsHelp

Parrot StartЯндекс

https://127.0.0.1:9392/omp?cmd=get_asset&type=host&asset_id=98ee6e43-0f01-4bb2-a842-dd0505f817be

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Greenbone Security Assistant

Logged in as Admin admin | Logout
Thu Nov 14 14:38:18 2019 UTC

DashboardScansAssetsSecinfoConfigurationExtrasAdministrationHelp

Host: 192.168.56.15

ID: 98ee6e43-0f01-4bb2-a842-dd0505f817be
Created: Thu Nov 14 14:31:58 2019
Modified: Thu Nov 14 14:31:58 2019
Owner: admin

Comment:
Hostname:
IP: 192.168.56.15
OS: Canonical Ubuntu Linux (cpe:/o:canonical:ubuntu_linux:8.04)
Route: 192.168.56.5 → 192.168.56.15
Severity: 10.0 (High)
[Show scan results for this host](#)

Latest Identifiers

Name	Value	Created	Source	Actions
OS	cpe:/o:canonical:ubuntu_linux	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.111067)	✖
ip	192.168.56.15	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (Target host)	✖
ssh-key	22 ssh-rsa AAAAAB3NzaC1yc2EAAAABIwAAQEAstqnuFMBOZvO3WTEjP4TUdjgWkVNdTq6kboEDteOf... /Slnfb78e3anbRHpmkjCvGtJ5WhKObUNf1AKZW++4Xic63M4KI5cjvMMIPEVOyR3AKml7... /L1vZ3qSjJ5GVu8kRPIkMv/cN5vki4j+qDYzZ2E5497W87+Ed46/8P42LNGoOV8OcX /ro6pAcBEPuDEfjrQ2YXbhvWjJ0gFMb6wfe5cnQew==	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.100259)	✖
OS	cpe:/o:canonical:ubuntu_linux:8.04	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.105586)	✖
OS	cpe:/o:debian:debian_linux	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.102011)	✖
	22 ssh-dss			

Menu [Parrot Terminal] [DZ18] Greenbone Securit... [Parrot Terminal] [mc [root@parrot]... [Downloads] [Downloads]

ApplicationsPlacesSystem

Greenbone Security Assistant - Mozilla Firefox

FileEditViewHistoryBookmarksToolsHelp

Parrot StartЯндекс

https://127.0.0.1:9392/omp?cmd=get_asset&type=host&asset_id=98ee6e43-0f01-4bb2-a842-dd0505f817be

StartParrotWikiCommunityprivacypentestlearnDonate

Greenbone Security Assistant

Logged in as Admin admin | Logout
Thu Nov 14 14:38:18 2019 UTC

DashboardScansAssetsSecinfoConfigurationExtrasAdministrationHelp

Host: 192.168.56.15

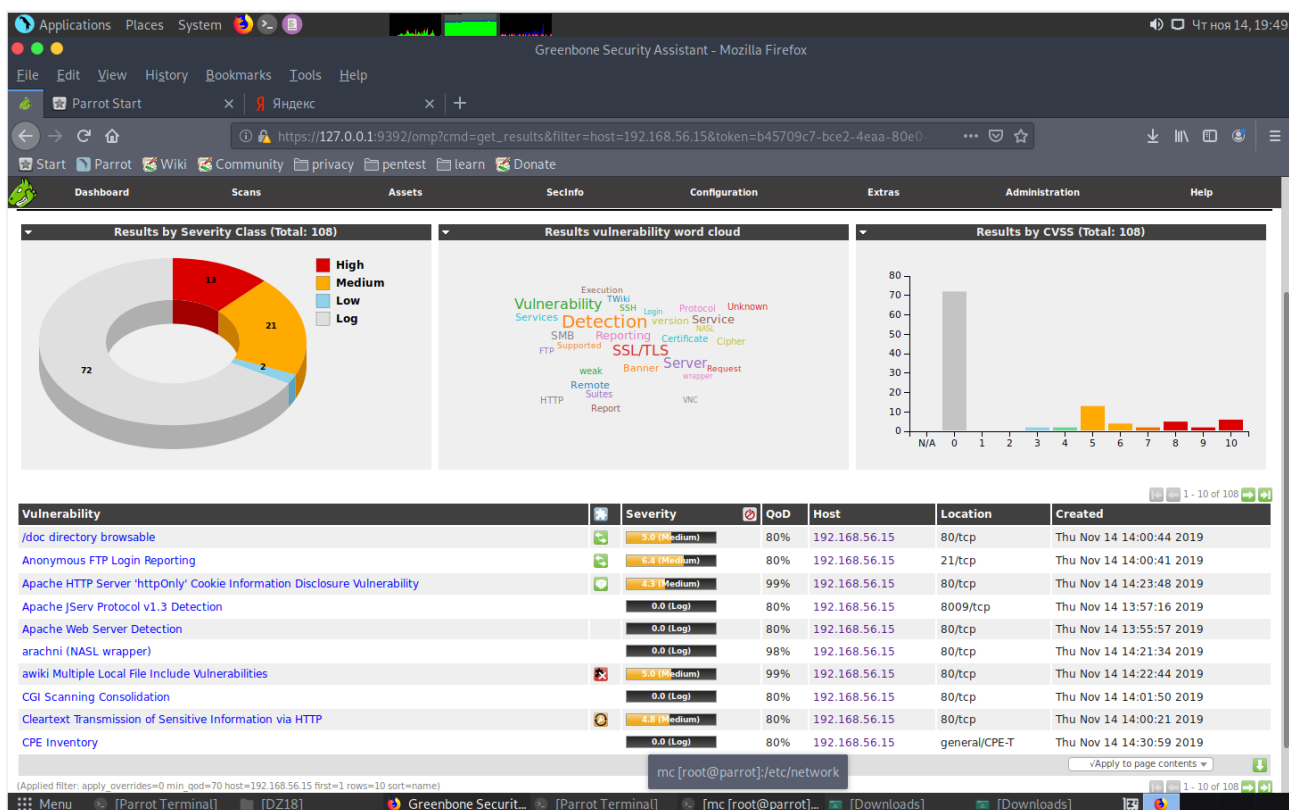
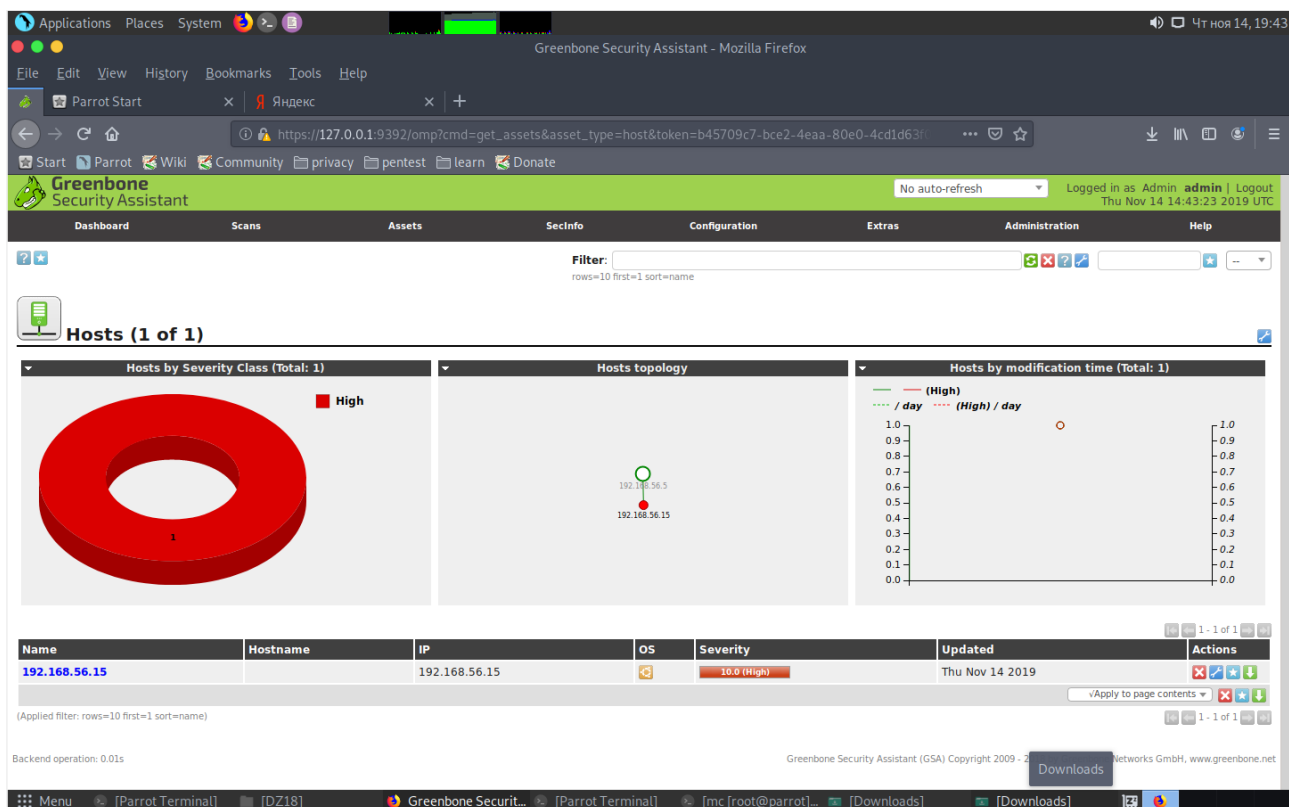
ID: 98ee6e43-0f01-4bb2-a842-dd0505f817be
Created: Thu Nov 14 14:31:58 2019
Modified: Thu Nov 14 14:31:58 2019
Owner: admin

Comment:
Hostname:
IP: 192.168.56.15
OS: Canonical Ubuntu Linux (cpe:/o:canonical:ubuntu_linux:8.04)
Route: 192.168.56.5 → 192.168.56.15
Severity: 10.0 (High)
[Show scan results for this host](#)

Latest Identifiers

Name	Value	Created	Source	Actions
OS	cpe:/o:canonical:ubuntu_linux	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.111067)	✖
ip	192.168.56.15	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (Target host)	✖
ssh-key	22 ssh-rsa AAAAAB3NzaC1yc2EAAAABIwAAQEAstqnuFMBOZvO3WTEjP4TUdjgWkVNdTq6kboEDteOf... /Slnfb78e3anbRHpmkjCvGtJ5WhKObUNf1AKZW++4Xic63M4KI5cjvMMIPEVOyR3AKml7... /L1vZ3qSjJ5GVu8kRPIkMv/cN5vki4j+qDYzZ2E5497W87+Ed46/8P42LNGoOV8OcX /ro6pAcBEPuDEfjrQ2YXbhvWjJ0gFMb6wfe5cnQew==	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.100259)	✖
OS	cpe:/o:canonical:ubuntu_linux:8.04	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.105586)	✖
OS	cpe:/o:debian:debian_linux	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.102011)	✖
ssh-key	22 ssh-dss AAAAAB3NzaC1kc3MAAACBALZ4hsc8a25rq4nIW960qV8xwBG0JC+jl7fWxm5METJH4tKr/x... /E96Ai+pqYMP2WD5KaOjwSIXSUAjnU5oWmY5x855Bw+XDAAAFAQDFkMpmDFQTF+oRqa... /ARtXrzpB0j /d0HtJXCeYsKqcdwdtyIn8OUCOyrIjgNuA2QW217oQ6wXpbFh+5AQm8HI3b6C6o8IX3PL... /zHfuaDQaok7u1f9711EazqLqfWwAzokIqSWyDQJAAIAA1IAD3xWYkeleHv /R3P9i+Xaol7imFKMuYVCDTq843YU6Td+0mWmIcQAWUV /CQamGgQLTy5S0ueoks01MokdOMMhKVwqdr08nVCBdNKjEd3gH6oBk /YRnjzIEAYBsvCmM4a0jmh2o0nIRWlC/F+bkUeFKRbX/Df2dfZmhrGg==	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.100259)	✖
MAC	08:00:27:F7:91:C6	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.103585)	✖
OS	cpe:/o:linux:kernel	Thu Nov 14 2019	Report 1ee7e699-35dd-4e1d-9b59-34b139a4af81 (NVT 1.3.6.1.4.1.25623.1.0.105355)	✖

Menu [Parrot Terminal] [DZ18] Greenbone Securit... [Parrot Terminal] [mc [root@parrot]... [Downloads] [Downloads]



Вроде бы всё. Результаты пралагаю в виде results*.xml