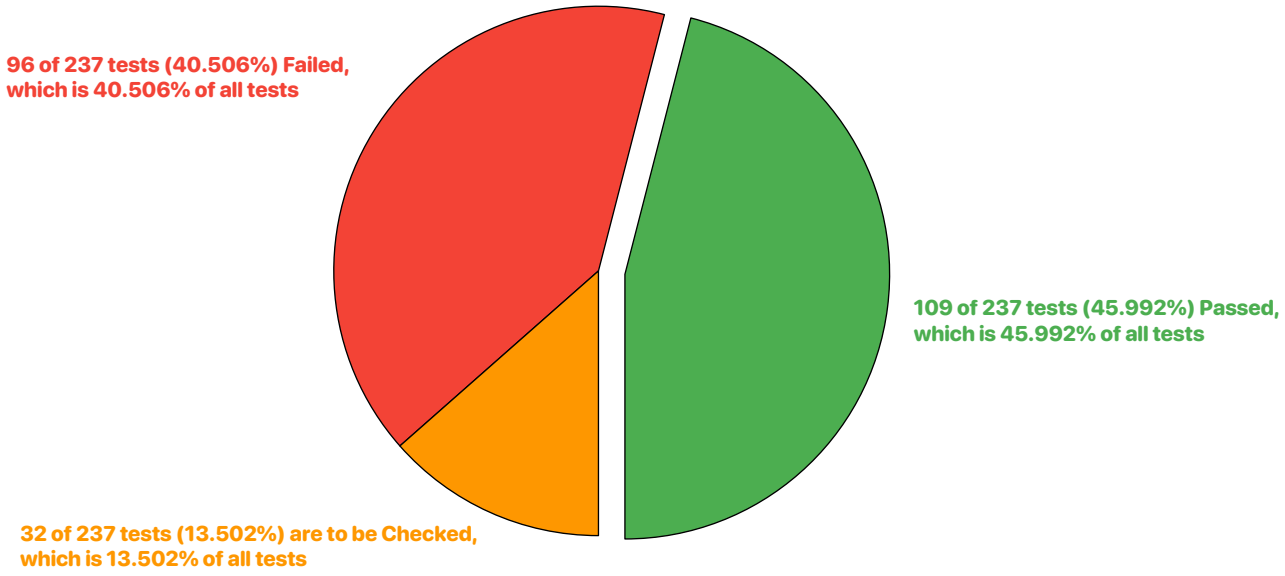
Result of CIS Distribution Independent Linux Benchmark v2.0.0

109 tests passed, where 104 were Scored.

This system's Score is 44%



Start Time (UTC): 2021-8-3 1:10:17

Start Time (Local): 2021-8-3 11:10:17

Finish Time (UTC): 2021-8-3 1:11:12

Finish Time (Local): 2021-8-3 11:11:12

Performed 237 tests in 54.727 seconds

Auditor Description

Included Controls

Excluded Controls

Scoring Level	**Both Level 1 and 2**
Score	**Both Scored and Not Scored**
Platform	
Verbosity	**False**

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6.1.5	/etc/gshadow permissions configured	PASS
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6.1.7	/etc/shadow- permissions configured	PASS
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6.2.20 users not assigned to shadow group PASS

1.1.1.1
Ensure mounting of cramfs filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	cramfs cannot be mounted
Time Taken	0.04065418243408203 seconds

Explanation:

```
install /bin/true
```

1.1.1.2
Ensure mounting of freevxfs filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	freevxfs cannot be mounted
Time Taken	0.04505133628845215 seconds

Explanation:

```
install /bin/true
```

1.1.1.3
Ensure mounting of jffs2 filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	jffs2 cannot be mounted
Time Taken	0.047681570053100586 seconds

Explanation:

```
install /bin/true
```

1.1.1.4
Ensure mounting of hfs filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	hfs cannot be mounted
Time Taken	0.04796957969665527 seconds

Explanation:

```
install /bin/true
```

1.1.1.5
Ensure mounting of hfsplus filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	hfsplus cannot be mounted
Time Taken	0.045670509338378906 seconds

Explanation:

```
install /bin/true
```

1.1.1.6
Ensure mounting of squashfs filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	squashfs mount status undetermined
Time Taken	0.06179022789001465 seconds

Explanation:

1.1.1.7
Ensure mounting of udf filesystems is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	udf mount status undetermined
Time Taken	0.06647038459777832 seconds

Explanation:

```
udf                   118784  0
crc_itu_t              16384  1 udf
```

1.1.1.8
Ensure mounting of FAT filesystems is limited

Not Scored
Level 2 Server
Level 2 Workstation

Result	CHEK
Message	vfat is mounted
Time Taken	0.018438816070556640 seconds

Explanation:

```
UUID=C4E4-E7F8      /boot/efi       vfat      umask=0077      0 1
```

1.1.2
Ensure /tmp is configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/tmp is configured
Time Taken	0.021533489227294922 seconds

Explanation:

```
/usr/tmpDSK on /tmp type tmpfs (rw,nosuid,relatime,loop)
```

1.1.3
Ensure nodev option set on /tmp partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	nodev is not set on /tmp
Time Taken	0.053270578384399414 seconds

Explanation:

`mount | grep -E '\s/tmp\s' returned the following`

`/usr/tmpDSK on /tmp type tmpfs (rw,nosuid,relatime,loop)`

1.1.4
Ensure nosuid option set on /tmp partition

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	nosuid is set on /tmp
Time Taken	0.048667192459106445 seconds

Explanation:

```
mount | grep -E '\s/tmp\s' | grep -v nosuid did not return anything
```

1.1.5
Ensure noexec option set on /tmp partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	noexec is not set on /tmp
Time Taken	0.07025885581970215 seconds

Explanation:

```
mount | grep -E '\s/tmp\s' | grep -v noexec returned the followin
g

/usr/tmpDSK on /tmp type tmpfs (rw,nosuid,relatime,loop)
```

1.1.6
Ensure separate partition exists for /var

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	/var is not configured
Time Taken	0.023504018783569336 seconds

Explanation:

`mount | grep -E '\s/var\s' did not return any result`

1.1.7
Ensure separate partition exists for /var/tmp

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	/var/tmp is not configured
Time Taken	0.03310108184814453 seconds

Explanation:

`mount | grep /var/tmp did not return any result`

1.1.8
Ensure nodev option set on /var/tmp partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	nodev is not set on /var/tmp
Time Taken	0.021709680557250977 seconds

Explanation:

`/var/tmp does not exist. nodev cannot be set on a partition that does not exist`

1.1.9
Ensure nosuid option set on /var/tmp partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	nodev is not set on /var/tmp
Time Taken	0.0272824764251709 seconds

Explanation:

```
/var/tmp does not exist. nosuid cannot be set on a partition that
 does not exist
```

1.1.10
Ensure noexec option set on /var/tmp partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	noexec is not set on /var/tmp
Time Taken	0.03530406951904297 seconds

Explanation:

```
/var/tmp does not exist. noexec cannot be set on a partition that
 does not exist
```

1.1.11
Ensure separate partition exists for /var/log

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	/var/log is not configured
Time Taken	0.03448033332824707 seconds

Explanation:

`mount | grep /var/log did not return any result`

1.1.12
Ensure separate partition exists for /var/log/audit

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	/var/log/audit is not configured
Time Taken	0.025023460388183594 seconds

Explanation:

`mount | grep /var/log/audit did not return any result`

1.1.13
Ensure separate partition exists for /home

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	/home is not configured
Time Taken	0.032262086868286 13 seconds

Explanation:

`mount | grep /home did not return any result`

1.1.14
Ensure nodev option set on /home partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	nodev is not set on /home
Time Taken	0.022730588912963867 seconds

Explanation:

```
/home does not exist. nodev cannot be set on a partition that doe
s not exist
```

1.1.15
Ensure nodev option set on /dev/shm partition

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	nodev is set on /dev/shm
Time Taken	0.07151436805725098 seconds

Explanation:

`mount | grep -E '\s/dev/shm\s' | grep -v nodev did not return any thing`

1.1.16
Ensure nosuid option set on /dev/shm partition

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	nosuid is set on /dev/shm
Time Taken	0.05958271026611328 seconds

Explanation:

```
mount | grep -E '\s/dev/shm\s' | grep -v nosuid did not return anything
```

1.1.17
Ensure noexec option set on /dev/shm partition

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	noexec is not set on /dev/shm
Time Taken	0.06423616409301758 seconds

Explanation:

```
tmpfs on /dev/shm type tmpfs (rw,nosuid,nodev)
```

1.1.18
Ensure nodev option set on removable media partitions

Not Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	No mounted media found
Time Taken	0.02415323257446289 seconds

Explanation:

`mount | grep -e '/media/' returned no result`

1.1.19
Ensure nosuid option set on removable media partitions

Not Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	No mounted media found
Time Taken	0.034327983856201117 seconds

Explanation:

`mount | grep -e '/media/' returned no result`

1.1.20
Ensure noexec option set on removable media partitions

Not Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	No mounted media found
Time Taken	0.021283864974975586 seconds

Explanation:

`mount | grep -e '/media/' returned no result`

1.1.21
Ensure sticky bit is set on all world-writable directories

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	sticky bit set on w-w directories
Time Taken	53.17956614494324 seconds

Explanation:

```
running df --local -P | awk '{if (NR!=1) print $6}' | xargs -I '{
}' find '{}' -xdev -type d \( -perm -0002 -a ! -perm -1000 \) 2>/
dev/null confirms that all world writable directories have the st
icky variable set
```

1.1.22
Disable Automounting

Scored
Level 1 Server
Level 2 Workstation

Result	PASS
Message	automounting could not be checked
Time Taken	0.036063194274902344 seconds

Explanation:

```
Failed to get unit file state for autofs.service: No such file or
 directory
```

1.1.23
Disable USB Storage

Scored
Level 1 Server
Level 2 Workstation

Result	PASS
Message	usb-storage cannot be mounted
Time Taken	0.03332829475402832 seconds

Explanation:

```
modprobe: FATAL: Module usb-storage not found in directory /lib/modules/5.4.0-1055-azure
```

1.2.1

Ensure package manager repositories are configured (distro specific)

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	package configuration not checked (ind distro)
Time Taken	8.344650268554688e-05 seconds

Explanation:

```
Distribution was not specified
```

1.2.2
Ensure GPG keys are configured (distro specific)

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	GPG keys source not checked (ind distro)
Time Taken	1.621246337890625e-05 seconds

Explanation:

```
Distribution was not specified
```

1.3.1
Ensure AIDE is installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	AIDE not checked (ind distro)
Time Taken	1.239776611328125e-05 seconds

Explanation:

```
Distribution was not specified
```

1.3.2
Ensure filesystem integrity is regularly checked

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	No AIDE cron jobs scheduled
Time Taken	0.0404820442199707 seconds

Explanation:

`grep -r aide /etc/cron.* /etc/crontab returned the following`

1.4.1

Ensure permissions on bootloader config are configured (bootloader specific)

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	bootloader permits group and others
Time Taken	0.053177833557128906 seconds

Explanation:

```
Access: (0444/-r--r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 10:58:51.397284081 +1000
```

1.4.2
Ensure bootloader password is set (bootloader specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	bootloader password not checked
Time Taken	0.04527640342712402 seconds

Explanation:

1.4.3
Ensure authentication required for single user mode

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	auth not required for single user mode
Time Taken	0.004517793655395508 seconds

Explanation:

`grep ^root:[*\!]: /etc/shadow returned the following`

1.4.4

Ensure interactive boot is not enabled (bootloader specific)

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	interactive boot not checked
Time Taken	0.012973308563232422 seconds

Explanation:

grep "^PROMPT_FOR_CONFIRM=" /etc/sysconfig/boot returned the following

grep: /etc/sysconfig/boot: No such file or directory

1.5.1
Ensure core dumps are restricted

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	core dumps not restricted
Time Taken	0.0630342960357666 seconds

Explanation:

```
Following are configured properly

/etc/security/limits.d/core_dump.conf:* hard core 0


fs.suid_dumpable = 2


/etc/sysctl.conf:fs.suid_dumpable=0

/etc/sysctl.d/99-sysctl.conf:fs.suid_dumpable=0




Following are configured improperly
```

1.5.2
Ensure XD/NX support is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	XD/NX support is enabled
Time Taken	0.0936117172241211 seconds

Explanation:

```
Aug 03 10:49:21 ubuntu kernel: NX (Execute Disable) protection: a
ctive

Aug 03 11:03:42 pkrvme7e5btgg7z kernel: NX (Execute Disable) prot
ection: active
```

1.5.3
Ensure address space layout randomization (ASLR) is enabled

Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message ASLR not enabled

Time Taken 0.04284167289733887 seconds

Explanation:

Following are configured properly

```
kernel.randomize_va_space = 2
```

Following are configured improperly

1.5.4
Ensure prelink is disabled (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	prelink not checked (ind distro)
Time Taken	4.863739013671875e-05 seconds

Explanation:

```
Distribution was not specified
```

1.6.1.1
Ensure SELinux or AppArmor are installed (distro specific)

Scored
Level 2 Server
Level 2 Workstation

Result	CHEK
Message	SELinux or AppArmor not checked (ind distro)
Time Taken	3.266334533691406e-05 seconds

Explanation:

```
Distribution was not specified
```

1.6.2.1
Ensure SELinux is not disabled in bootloader configuration

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	SELinux not disabled boot-config
Time Taken	0.007580757141113281 seconds

Explanation:

```
kernel          /boot/vmlinuz-4.15.0-151-generic root=LABEL=cloudimg-rootfs ro console=hvc0

kernel          /boot/vmlinuz-4.15.0-151-generic root=LABEL=cloudimg-rootfs ro  single
```

1.6.2.2
Ensure the SELinux state is enforcing

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	SELinux state is not enforcing
Time Taken	0.011666059494018555 seconds

Explanation:

Following are configured properly

Following are configured improperly

grep: /etc/selinux/config: No such file or directory

/bin/bash: sestatus: command not found

1.6.2.3
Ensure SELinux policy is configured

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	SELinux policy is not configured
Time Taken	0.0255761146545410 16 seconds

Explanation:

```
Following are configured properly



Following are configured improperly



grep: /etc/selinux/config: No such file or directory




/bin/bash: sestatus: command not found
```

1.6.2.4
Ensure SETroubleshoot is not installed (distro specific)

Scored
Level 2 Server
N/A

Result	CHEK
Message	SETroubleshoot not checked (ind distro)
Time Taken	4.38690185546875e-05 seconds

Explanation:

```
Distribution was not specified
```

1.6.2.5

Ensure the MCS Translation Service (mcstrans) is not installed (distro specific)

Scored
Level 2 Server
Level 2 Workstation

Result	CHEK
Message	mcstrans not checked (ind distro)
Time Taken	9.226799011230469e-05 seconds

Explanation:

```
Distribution was not specified
```

1.6.2.6
Ensure no unconfined daemons exist

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	no unconfined daemons exist
Time Taken	0.09079289436340332 seconds

Explanation:

```
ps -eZ | grep -E "initrc" | grep -E -v -w "tr|ps|grep|bash|awk" |
 tr ':' ' ' | awk '{ print $NF }' returned nothing
```

1.6.3.1
Ensure AppArmor is not disabled in bootloader configuration

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	AppArmor not disabled boot-config
Time Taken	0.016745567321777344 seconds

Explanation:

```
kernel          /boot/vmlinuz-4.15.0-151-generic root=LABEL=cloud
img-rootfs ro console=hvc0

kernel          /boot/vmlinuz-4.15.0-151-generic root=LABEL=cloud
img-rootfs ro  single
```

1.6.3.2
Ensure all AppArmor Profiles are enforcing

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	all AppArmor Profiles are enforcing
Time Taken	0.3918154239654541 seconds

Explanation:

```
apparmor module is loaded.

16 profiles are loaded.

16 profiles are in enforce mode.

   /sbin/dhclient

   /usr/bin/freshclam

   /usr/bin/lxc-start

   /usr/bin/man

   /usr/lib/NetworkManager/nm-dhcp-client.action

   /usr/lib/NetworkManager/nm-dhcp-helper

   /usr/lib/connman/scripts/dhclient-script

   /usr/lib/snapd/snap-confine

   /usr/lib/snapd/snap-confine//mount-namespace-capture-helper
```

```
   /usr/sbin/tcpdump

   lxc-container-default

   lxc-container-default-cgns

   lxc-container-default-with-mounting

   lxc-container-default-with-nesting

   man_filter

   man_groff

0 profiles are in complain mode.

1 processes have profiles defined.

1 processes are in enforce mode.

   /usr/bin/freshclam (1097)

0 processes are in complain mode.

0 processes are unconfined but have a profile defined.
```

1.7.1.1
Ensure message of the day is configured properly

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	no message of the day
Time Taken	0.007664918899536133 seconds

Explanation:

```
cat: /etc/motd: No such file or directory
```

1.7.1.2
Ensure local login warning banner is configured properly

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	login banner contains sensitive info
Time Taken	0.028741836547851562 seconds

Explanation:

```
Following OS [or] patch level information were found in the local
 login banner

Ubuntu 18.04.5 LTS \n \l
```

1.7.1.3
Ensure remote login warning banner is configured properly

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	remote banner contains sensitive info
Time Taken	0.03984332084655762 seconds

Explanation:

```
Following OS [or] patch level information were found in the remot
e login banner

##################################################################
##############

#This system is the property of Accenture, and is to be used in a
ccordance    #

#with applicable Accenture Policies.  Unauthorized access or acti
vity is a    #

#violation of Accenture Policies and may be a violation of law.
Use of this  #

#system constitutes consent to monitoring or unauthorized use, in
 accordance  #

#with Accenture Policies, local laws, and regulations.  Unauthori
zed use may  #

#result in penalties including, but not limited to, reprimand, di
smissal,     #

#financial penalties, and legal action.
```

#

##
###############

1.7.1.4
Ensure permissions on /etc/motd are configured

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	/etc/motd not found
Time Taken	0.013759851455688477 seconds

Explanation:

```
stat /etc/motd | grep Access did not return anything

stat: cannot stat '/etc/motd': No such file or directory
```

1.7.1.5
Ensure permissions on /etc/issue are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/issue permissions configured
Time Taken	0.025325298309326172 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 10:55:14.815652500 +1000
```

1.7.1.6
Ensure permissions on /etc/issue.net are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/issue.net permissions configured
Time Taken	0.023055076599121094 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:06:04.098254499 +1000
```

1.7.2
Ensure GDM login banner is configured

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	GDM not found
Time Taken	0.016935348510742188 seconds

Explanation:

```
cat /etc/gdm3/greeter.dconf-defaults did not return anything

cat: /etc/gdm3/greeter.dconf-defaults: No such file or directory
```

1.8

Ensure updates, patches, and additional security software are installed (distro specific)

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	software not checked (ind distro)
Time Taken	9.131431579589844e-05 seconds

Explanation:

```
Distribution was not specified
```

2.1.1
Ensure chargen services are not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	chargen is not present
Time Taken	0.02567577362060547 seconds

Explanation:

```
grep -R "^chargen" /etc/inetd.* returned the following

grep: /etc/inetd.*: No such file or directory
```

2.1.2
Ensure daytime services are not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	daytime is not present
Time Taken	0.019580364227294922 seconds

Explanation:

```
grep -R "^daytime" /etc/inetd.* returned the following

grep: /etc/inetd.*: No such file or directory
```

2.1.3
Ensure discard services are not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	discard is not present
Time Taken	0.020251750946044922 seconds

Explanation:

```
grep -R "^discard" /etc/inetd.* returned the following

grep: /etc/inetd.*: No such file or directory
```

2.1.4
Ensure echo services are not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	echo is not present
Time Taken	0.18439030647277832 seconds

Explanation:

grep -R "^echo" /etc/inetd.* returned the following

2.1.5
Ensure time services are not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	time is not present
Time Taken	0.014095783233642578 seconds

Explanation:

```
grep -R "^time" /etc/inetd.* returned the following

grep: /etc/inetd.*: No such file or directory
```

2.1.6
Ensure rsh server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	rsh services not present
Time Taken	0.039543151855468 75 seconds

Explanation:

```
grep: /etc/inetd.*: No such file or directory
```

```
grep: /etc/inetd.*: No such file or directory
```

```
grep: /etc/inetd.*: No such file or directory
```

2.1.7
Ensure talk server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	talk server not present
Time Taken	0.026314258575439453 seconds

Explanation:

```
grep: /etc/inetd.*: No such file or directory
```

```
grep: /etc/inetd.*: No such file or directory
```

2.1.8
Ensure telnet server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	telnet server not present
Time Taken	0.012919425964355469 seconds

Explanation:

```
grep -R "^telnet" /etc/inetd.* returned the following

grep: /etc/inetd.*: No such file or directory
```

2.1.9
Ensure tftp server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	tftp server not present
Time Taken	0.011948585510253906 seconds

Explanation:

```
grep -R "^tftp" /etc/inetd.* returned the following

grep: /etc/inetd.*: No such file or directory
```

2.1.10
Ensure xinetd is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	xinetd not found
Time Taken	0.016953468322753906 seconds

Explanation:

```
systemctl is-enabled xinetd returned the following

Failed to get unit file state for xinetd.service: No such file or
 directory
```

2.2.1.1
Ensure time synchronization is in use (distro specific)

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	time sync not checked (ind distro)
Time Taken	8.654594421386719e-05 seconds

Explanation:

```
Distribution was not specified
```

2.2.1.2
Ensure ntp is configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	ntp not configured
Time Taken	0.020167112350463867 seconds

Explanation:

```
grep: /etc/ntp.conf: No such file or directory
```

2.2.1.3
Ensure chrony is configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	remote server not configured
Time Taken	0.024719715118408203 seconds

Explanation:

```
grep -E "^(server|pool)" /etc/chrony.conf returned the following

grep: /etc/chrony.conf: No such file or directory
```

2.2.1.4
Ensure systemd-timesyncd is configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	system clock not synchronized
Time Taken	25.09021806716919 seconds

Explanation:

enabled

```
Ensure that the NTP servers, NTP FallbackNTP servers, and RootDis
tanceMaxSec listed are in accordance with local policy

#  This file is part of systemd.

#

#  systemd is free software; you can redistribute it and/or modif
y it

#  under the terms of the GNU Lesser General Public License as pu
blished by

#  the Free Software Foundation; either version 2.1 of the Licens
e, or

#  (at your option) any later version.

#
```

```
# Entries in this file show the compile time defaults.

# You can change settings by editing this file.

# Defaults can be restored by simply deleting this file.

#

# See timesyncd.conf(5) for details.



[Time]

#NTP=

#FallbackNTP=ntp.ubuntu.com

#RootDistanceMaxSec=5

#PollIntervalMinSec=32

#PollIntervalMaxSec=2048



Failed to query server: Failed to activate service 'org.freedeskt
op.timedate1': timed out (service_start_timeout=25000ms)
```

2.2.2
Ensure X Window System is not installed (distro specific)

Scored
Level 1 Server
N/A

Result	CHEK
Message	X Window System not checked (ind distro)
Time Taken	4.363059997558594e-05 seconds

Explanation:

```
Distribution was not specified
```

2.2.3
Ensure Avahi Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	avahi-daemon not found
Time Taken	0.024816989898681 64 seconds

Explanation:

```
systemctl is-enabled avahi-daemon returned the following

Failed to get unit file state for avahi-daemon.service: No such f
ile or directory
```

2.2.4
Ensure CUPS is not enabled

Scored
Level 1 Server
Level 2 Workstation

Result	PASS
Message	cups not found
Time Taken	0.031352519989013 67 seconds

Explanation:

```
systemctl is-enabled cups returned the following

Failed to get unit file state for cups.service: No such file or d
irectory
```

2.2.5
Ensure DHCP Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	dhcpd not found
Time Taken	0.03662276268005371 seconds

Explanation:

```
systemctl is-enabled dhcpd returned the following

Failed to get unit file state for dhcpd.service: No such file or
directory
```

2.2.6
Ensure LDAP server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	slapd not found
Time Taken	0.018284320831298828 seconds

Explanation:

```
systemctl is-enabled slapd returned the following

Failed to get unit file state for slapd.service: No such file or
directory
```

2.2.7
Ensure NFS and RPC are not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	npc and rpcbind are disabled
Time Taken	0.03156685829162598 seconds

Explanation:

```
systemctl is-enabled nfs returned the following

Failed to get unit file state for nfs.service: No such file or di
rectory



systemctl is-enabled rpcbind returned the following

Failed to get unit file state for rpcbind.service: No such file o
r directory
```

2.2.8
Ensure DNS Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	named not found
Time Taken	0.016134500503540004 seconds

Explanation:

```
systemctl is-enabled named returned the following

Failed to get unit file state for named.service: No such file or
directory
```

2.2.9
Ensure FTP Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	vsftpd not found
Time Taken	0.021380186080932617 seconds

Explanation:

```
systemctl is-enabled vsftpd returned the following

Failed to get unit file state for vsftpd.service: No such file or
 directory
```

2.2.10
Ensure HTTP server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	httpd not found
Time Taken	0.030212879180908203 seconds

Explanation:

```
systemctl is-enabled httpd returned the following

Failed to get unit file state for httpd.service: No such file or
directory
```

2.2.11
Ensure IMAP and POP3 server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	dovecot not found
Time Taken	0.026780843734741 21 seconds

Explanation:

```
systemctl is-enabled dovecot returned the following

Failed to get unit file state for dovecot.service: No such file o
r directory
```

2.2.12
Ensure Samba is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	smb not found
Time Taken	0.0166401863098144 53 seconds

Explanation:

```
systemctl is-enabled smb returned the following

Failed to get unit file state for smb.service: No such file or di
rectory
```

2.2.13
Ensure HTTP Proxy Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	squid not found
Time Taken	0.01850605010986328 seconds

Explanation:

```
systemctl is-enabled squid returned the following

Failed to get unit file state for squid.service: No such file or
directory
```

2.2.14
Ensure SNMP Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	snmpd not found
Time Taken	0.019196748733520508 seconds

Explanation:

```
systemctl is-enabled snmpd returned the following

Failed to get unit file state for snmpd.service: No such file or
directory
```

2.2.15

Ensure mail transfer agent is configured for local-only mode

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	mta is local only
Time Taken	0.07698202133178711 seconds

Explanation:

`ss -lntu | grep -E ':25\s' | grep -E -v '\s(127.0.0.1|::1):25\s'` returned the following

2.2.16
Ensure rsync service is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	rsyncd not found
Time Taken	0.01915884017944336 seconds

Explanation:

```
systemctl is-enabled rsyncd returned the following

Failed to get unit file state for rsyncd.service: No such file or
 directory
```

2.2.17
Ensure NIS Server is not enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	ypserv not found
Time Taken	0.01772332191467285 seconds

Explanation:

```
systemctl is-enabled ypserv returned the following

Failed to get unit file state for ypserv.service: No such file or
 directory
```

2.3.1
Ensure NIS Client is not installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	NIS Client not checked (ind distro)
Time Taken	4.553794860839844e-05 seconds

Explanation:

```
Distribution was not specified
```

2.3.2
Ensure rsh client is not installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	rsh Client not checked (ind distro)
Time Taken	1.5497207641601562e-05 seconds

Explanation:

```
Distribution was not specified
```

2.3.3
Ensure talk client is not installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	talk Client not checked (ind distro)
Time Taken	1.2159347534179688e-05 seconds

Explanation:

```
Distribution was not specified
```

2.3.4
Ensure telnet client is not installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	telnet Client not checked (ind distro)
Time Taken	1.1682510375976562e-05 seconds

Explanation:

```
Distribution was not specified
```

2.3.5
Ensure LDAP client is not installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	LDAP Client not checked (ind distro)
Time Taken	1.2397766113281 25e-05 seconds

Explanation:

```
Distribution was not specified
```

3.1.1
Ensure IP forwarding is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	IP forwarding disabled
Time Taken	0.032678842544555664 seconds

Explanation:

```
net.ipv6.conf.all.forwarding = 0
```

```
/etc/sysctl.conf:#net.ipv6.conf.all.forwarding=1
```

```
/etc/sysctl.d/99-sysctl.conf:#net.ipv6.conf.all.forwarding=1
```

3.1.2
Ensure packet redirect sending is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	packet redirect sending is disabled
Time Taken	0.036309480667114 26 seconds

Explanation:

```
net.ipv4.conf.default.send_redirects = 0
```

```
/etc/sysctl.conf:net.ipv4.conf.default.send_redirects=0

/etc/sysctl.d/99-sysctl.conf:net.ipv4.conf.default.send_redirects
=0
```

3.2.1
Ensure source routed packets are not accepted

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	source routed packets are not accepted
Time Taken	0.08060479164123535 seconds

Explanation:

```
net.ipv6.conf.all.accept_source_route = 0



/etc/sysctl.conf:#net.ipv6.conf.all.accept_source_route = 0

/etc/sysctl.conf:net.ipv6.conf.all.accept_source_route=0

/etc/sysctl.d/99-sysctl.conf:#net.ipv6.conf.all.accept_source_rou
te = 0

/etc/sysctl.d/99-sysctl.conf:net.ipv6.conf.all.accept_source_rout
e=0



net.ipv6.conf.default.accept_source_route = 0



/etc/sysctl.conf:net.ipv6.conf.default.accept_source_route=0

/etc/sysctl.d/99-sysctl.conf:net.ipv6.conf.default.accept_source_
route=0
```

3.2.2
Ensure ICMP redirects are not accepted

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	ICMP redirects not accepted
Time Taken	0.07794427871704102 seconds

Explanation:

```
net.ipv6.conf.all.accept_redirects = 0
```

```
/etc/sysctl.conf:#net.ipv6.conf.all.accept_redirects = 0

/etc/sysctl.conf:net.ipv6.conf.all.accept_redirects=0

/etc/sysctl.d/99-sysctl.conf:#net.ipv6.conf.all.accept_redirects
= 0

/etc/sysctl.d/99-sysctl.conf:net.ipv6.conf.all.accept_redirects=0
```

```
net.ipv6.conf.default.accept_redirects = 0
```

```
/etc/sysctl.conf:net.ipv6.conf.default.accept_redirects=0

/etc/sysctl.d/99-sysctl.conf:net.ipv6.conf.default.accept_redirec
ts=0
```

3.2.3
Ensure secure ICMP redirects are not accepted

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	secure ICMP redirects not accepted
Time Taken	0.04273223876953125 seconds

Explanation:

```
net.ipv4.conf.default.secure_redirects = 0
```

```
/etc/sysctl.conf:net.ipv4.conf.default.secure_redirects=0

/etc/sysctl.d/99-sysctl.conf:net.ipv4.conf.default.secure_redirects=0
```

3.2.4
Ensure suspicious packets are logged

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	suspicious packets are logged
Time Taken	0.04226183891296387 seconds

Explanation:

```
net.ipv4.conf.default.log_martians = 1
```

```
/etc/sysctl.conf:net.ipv4.conf.default.log_martians=1
```

```
/etc/sysctl.d/99-sysctl.conf:net.ipv4.conf.default.log_martians=1
```

3.2.5
Ensure broadcast ICMP requests are ignored

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	ipv4 broadcasts not ignored
Time Taken	0.008484601974487305 seconds

Explanation:

`net.ipv4.icmp_echo_ignore_broadcasts = 0`

3.2.6
Ensure bogus ICMP responses are ignored

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	bogus ICMP responses ignored
Time Taken	0.020933866500854492 seconds

Explanation:

```
net.ipv4.icmp_ignore_bogus_error_responses = 1
```

```
/etc/sysctl.conf:net.ipv4.icmp_ignore_bogus_error_responses=1
```

```
/etc/sysctl.d/99-sysctl.conf:net.ipv4.icmp_ignore_bogus_error_responses=1
```

3.2.7
Ensure Reverse Path Filtering is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	Reverse Path Filtering enabled
Time Taken	0.04150867462158203 seconds

Explanation:

```
net.ipv4.conf.default.rp_filter = 1
```

```
/etc/sysctl.conf:#net.ipv4.conf.default.rp_filter=1

/etc/sysctl.conf:net.ipv4.conf.default.rp_filter=1

/etc/sysctl.d/10-network-security.conf:net.ipv4.conf.default.rp_filter=1

/etc/sysctl.d/99-sysctl.conf:#net.ipv4.conf.default.rp_filter=1

/etc/sysctl.d/99-sysctl.conf:net.ipv4.conf.default.rp_filter=1
```

3.2.8
Ensure TCP SYN Cookies is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	TCP SYN Cookies enabled
Time Taken	0.020643949508666992 seconds

Explanation:

```
net.ipv4.tcp_syncookies = 1
```

```
/etc/sysctl.conf:#net.ipv4.tcp_syncookies=1

/etc/sysctl.conf:net.ipv4.tcp_syncookies=1

/etc/sysctl.d/10-network-security.conf:net.ipv4.tcp_syncookies=1

/etc/sysctl.d/99-sysctl.conf:#net.ipv4.tcp_syncookies=1

/etc/sysctl.d/99-sysctl.conf:net.ipv4.tcp_syncookies=1
```

3.2.9
Ensure IPv6 router advertisements are not accepted

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	ipv6 all ra accepted
Time Taken	0.009904146194458008 seconds

Explanation:

`net.ipv6.conf.all.accept_ra = 1`

3.3.1
Ensure TCP Wrappers is installed (distro specific)

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	TCP Wrappers not checked (ind distro)
Time Taken	5.888938903808594e-05 seconds

Explanation:

```
Distribution was not specified
```

3.3.2
Ensure /etc/hosts.allow is configured

Not Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	/etc/hosts.allow not configured
Time Taken	0.009877443313598633 seconds

Explanation:

```
# /etc/hosts.allow: list of hosts that are allowed to access the
system.

#                  See the manual pages hosts_access(5) and host
s_options(5).

#

# Example:    ALL: LOCAL @some_netgroup

#             ALL: .foobar.edu EXCEPT terminalserver.foobar.edu

#

# If you're going to protect the portmapper use the name "rpcbind
" for the

# daemon name. See rpcbind(8) and rpc.mountd(8) for further infor
mation.

#
```

3.3.3
Ensure /etc/hosts.deny is configured

Not Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message /etc/hosts.deny not configured

Time Taken 0.009809255599975586 seconds

Explanation:

```
# /etc/hosts.deny: list of hosts that are _not_ allowed to access
 the system.

#                 See the manual pages hosts_access(5) and hosts
_options(5).

#

# Example:    ALL: some.host.name, .some.domain

#             ALL EXCEPT in.fingerd: other.host.name, .other.doma
in

#

# If you're going to protect the portmapper use the name "rpcbind
" for the

# daemon name. See rpcbind(8) and rpc.mountd(8) for further infor
mation.

#

# The PARANOID wildcard matches any host whose name does not matc
h its
```

```
# address.

#

# You may wish to enable this to ensure any programs that don't

# validate looked up hostnames still leave understandable logs. I
n past

# versions of Debian this has been the default.

# ALL: PARANOID
```

3.3.4
Ensure permissions on /etc/hosts.allow are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/hosts.allow permissions configured
Time Taken	0.014442443847656 25 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 10:55:12.051652500 +1000
```

3.3.5
Ensure permissions on /etc/hosts.deny are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/hosts.deny permissions configured
Time Taken	0.0155293941497802 73 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 10:55:12.051652500 +1000
```

3.4.1
Ensure DCCP is disabled

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	dccp cannot be mounted
Time Taken	0.027573585510253906 seconds

Explanation:

```
install /bin/true
```

3.4.2
Ensure SCTP is disabled

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	sctp cannot be mounted
Time Taken	0.033080339431762695 seconds

Explanation:

```
install /bin/true
```

3.4.3
Ensure RDS is disabled

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	rds cannot be mounted
Time Taken	0.025315999984741 21 seconds

Explanation:

```
install /bin/true
```

3.4.4
Ensure TIPC is disabled

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	tipc cannot be mounted
Time Taken	0.032742977142333984 seconds

Explanation:

```
install /bin/true
```

3.5.1.1
Ensure IPv6 default deny firewall policy

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	IPv6 default no deny policy
Time Taken	0.06874632835388184 seconds

Explanation:

```
Chain INPUT (policy ACCEPT)

Chain FORWARD (policy ACCEPT)

Chain OUTPUT (policy ACCEPT)



Following uses ipv6

        linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f89a10
d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0 earl
yprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0
 earlyprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro recovery nomodeset dis_uco
de_ldr console=tty1 console=ttyS0 earlyprintk=ttyS0
```

3.5.1.2
Ensure IPv6 loopback traffic is configured

Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message IPv6 input loopback no config

Time Taken 1.0252420902252197 seconds

Explanation:

```
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination



Following uses ipv6

        linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f89a10
d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0 earl
yprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0
 earlyprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro recovery nomodeset dis_uco
de_ldr console=tty1 console=ttyS0 earlyprintk=ttyS0
```

3.5.1.3

Ensure IPv6 outbound and established connections are configured

Not Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message IPv6 Table contains no config

Time Taken 1.0131502151489258 seconds

Explanation:

```
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination



Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination



Chain OUTPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination



Following uses ipv6

        linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f89a10
```

```
d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0 earl
yprintk=ttyS0

            linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0
 earlyprintk=ttyS0

            linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro recovery nomodeset dis_uco
de_ldr console=tty1 console=ttyS0 earlyprintk=ttyS0
```

3.5.1.4
Ensure IPv6 firewall rules exist for all open ports

Not Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message open ports no firewall rule

Time Taken 0.011592864990234375 seconds

Explanation:

```
Following open ports were found

Netid  State    Recv-Q   Send-Q      Local Address:Port     Peer
Address:Port

tcp    LISTEN   0        128                 [::]:22
   [::]:*



IPv6 input table configuration

Chain INPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination
```

3.5.2.1
Ensure default deny firewall policy

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	no default deny firewall
Time Taken	0.02657794952392578 seconds

Explanation:

```
Chain INPUT (policy ACCEPT)

Chain FORWARD (policy ACCEPT)

Chain OUTPUT (policy ACCEPT)
```

3.5.2.2
Ensure loopback traffic is configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	fw input loopback no config
Time Taken	0.003635406494140625 seconds

Explanation:

```
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination
```

3.5.2.3
Ensure outbound and established connections are configured

Not Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	iptables contains no config
Time Taken	0.0032162666320800 78 seconds

Explanation:

```
Chain INPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination



Chain FORWARD (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination



Chain OUTPUT (policy ACCEPT 2 packets, 440 bytes)

 pkts bytes target     prot opt in     out     source
   destination
```

3.5.2.4
Ensure firewall rules exist for all open ports

Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message open ports no firewall rule

Time Taken 0.0064067840576171875 seconds

Explanation:

```
Following open ports were found

Netid  State    Recv-Q   Send-Q      Local Address:Port     Peer
Address:Port

udp    UNCONN   0        0           127.0.0.53%lo:53
0.0.0.0:*

udp    UNCONN   0        0           10.1.0.4%eth0:68
0.0.0.0:*

tcp    LISTEN   0        128         127.0.0.53%lo:53
0.0.0.0:*

tcp    LISTEN   0        128               0.0.0.0:22
0.0.0.0:*



iptables input configuration

Chain INPUT (policy ACCEPT 0 packets, 0 bytes)

 pkts bytes target     prot opt in     out     source
   destination
```

3.5.3
Ensure iptables is installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	iptables not checked (ind distro)
Time Taken	3.504753112792969e-05 seconds

Explanation:

```
Distribution was not specified
```

3.6
Ensure wireless interfaces are disabled

Not Scored
Level 1 Server
Level 2 Workstation

Result	PASS
Message	wireless interfaces disabled
Time Taken	0.0022764205932617188 seconds

Explanation:

```
/bin/bash: iwconfig: command not found
```

3.7
Disable IPv6

Not Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	IPv6 enabled
Time Taken	0.004798173904418945 seconds

Explanation:

The following use IPv6

```
        linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f89a10
d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0 earl
yprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0
 earlyprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro recovery nomodeset dis_uco
de_ldr console=tty1 console=ttyS0 earlyprintk=ttyS0
```

4.1.1.1
Ensure audit log storage size is configured

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	audit log storage size is configured
Time Taken	0.003080606460571289 seconds

Explanation:

```
Ensure output is in compliance with site policy

max_log_file = 8

max_log_file_action = ROTATE
```

4.1.1.2
Ensure system is disabled when audit logs are full

Scored
Level 2 Server
Level 2 Workstation

Result	PASS
Message	system disabled when audit logs full
Time Taken	0.009238481521606445 seconds

Explanation:

```
action_mail_acct = root


admin_space_left_action = SUSPEND
```

4.1.1.3
Ensure audit logs are not automatically deleted

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	audit logs automatically deleted
Time Taken	0.003101348876953125 seconds

Explanation:

```
max_log_file_action = ROTATE
```

4.1.2
Ensure auditd is installed (distro specific)

Scored
Level 2 Server
Level 2 Workstation

Result	CHEK
Message	autitd not checked (ind distro)
Time Taken	3.981590270996094e-05 seconds

Explanation:

```
Distribution was not specified
```

4.1.3
Ensure auditd service is enabled

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	auditd runlevel S02 not found
Time Taken	0.011985063552856445 seconds

Explanation:

enabled

ls /etc/rc*.d | grep auditd returned the following

K01auditd

K01auditd

S01auditd

S01auditd

S01auditd

S01auditd

K01auditd

4.1.4

Ensure auditing for processes that start prior to auditd is enabled (bootloader specific)

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	processes prior to auditd not audited
Time Taken	0.003163576126098633 seconds

Explanation:

```
        linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f89a10
d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0 earl
yprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro console=tty1 console=ttyS0
 earlyprintk=ttyS0

             linux     /boot/vmlinuz-5.4.0-1055-azure root=UUID=f
89a10d0-2ae6-4411-9086-8ccd221055fd ro recovery nomodeset dis_uco
de_ldr console=tty1 console=ttyS0 earlyprintk=ttyS0
```

4.1.5

Ensure events that modify date and time information are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	events modifying date and time not coll
Time Taken	0.007295370101928711 seconds

Explanation:

4.1.6

Ensure events that modify user/group information are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	events modifying u/g info not coll
Time Taken	0.007165670394897461 seconds

Explanation:

4.1.7

Ensure events that modify the system's network environment are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	events modifying system's n/w env not coll
Time Taken	0.006534099578857422 seconds

Explanation:

```
/bin/bash: grepsystem-locale: command not found
```

4.1.8

Ensure events that modify the system's Mandatory Access Controls are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	events modifying system's MAC not coll
Time Taken	0.0071086883544921875 seconds

Explanation:

4.1.9
Ensure login and logout events are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	login and logout events not collected
Time Taken	0.007053375244140625 seconds

Explanation:

4.1.10
Ensure session initiation information is collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	session initiation info not collected
Time Taken	0.007218837738037109 seconds

Explanation:

4.1.11

Ensure discretionary access control permission modification events are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	access control mod events not coll
Time Taken	0.00836634635925293 seconds

Explanation:

4.1.12

Ensure unsuccessful unauthorized file access attempts are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	unauthorized file access not coll
Time Taken	0.0072019100189208984 seconds

Explanation:

4.1.13
Ensure use of privileged commands is collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	privileged commands not collected
Time Taken	0.02046036720275879 seconds

Explanation:

```
Following partitions were found

/dev/sda1 on / type ext4 (rw,relatime,discard)

/dev/sda15 on /boot/efi type vfat (rw,relatime,fmask=0077,dmask=0
077,codepage=437,iocharset=iso8859-1,shortname=mixed,errors=remou
nt-ro)

/dev/sdb1 on /mnt type ext4 (rw,relatime,x-systemd.requires=cloud
-init.service)



ABOVE was found on /dev/sda1



ABOVE was found on /dev/sda15



ABOVE was found on /dev/sdb1
```

4.1.14
Ensure successful file system mounts are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	successful fs mounts not collected
Time Taken	0.007235527038574219 seconds

Explanation:

4.1.15
Ensure file deletion events by users are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	unlink, rename *.rules events not coll
Time Taken	0.007157802581787109 seconds

Explanation:

```
## First rule - delete all
```

4.1.16

Ensure changes to system administration scope (sudoers) is collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	changes to sudoers not collected
Time Taken	0.007710456848144531 seconds

Explanation:

4.1.17
Ensure system administrator actions (sudolog) are collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	sudolog not collected
Time Taken	0.0071451663970947266 seconds

Explanation:

4.1.18
Ensure kernel module loading and unloading is collected

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	kernel module not monitored
Time Taken	0.0070803165435791016 seconds

Explanation:

4.1.19
Ensure the audit configuration is immutable

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	audit configuration is mutable
Time Taken	0.02266979217529297 seconds

Explanation:

```
-f 1
```

4.2.1.1
Ensure rsyslog is installed (distro specific)

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	rsyslog not checked (ind distro)
Time Taken	5.364418029785156e-05 seconds

Explanation:

`Distribution was not specified`

4.2.1.2
Ensure rsyslog Service is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	rsyslog runlevel S02 not found
Time Taken	0.014267444610595703 seconds

Explanation:

enabled

ls /etc/rc*.d | grep rsyslog returned the following

K01rsyslog

K01rsyslog

S01rsyslog

S01rsyslog

S01rsyslog

S01rsyslog

K01rsyslog

4.2.1.3
Ensure logging is configured

Not Scored
Level 1 Server
Level 1 Workstation

Result CHEK

Message logging is configured

Time Taken 0.009770870208740234 seconds

Explanation:

```
Review the contents of rsyslog.conf

#  /etc/rsyslog.conf     Configuration file for rsyslog.

#

#               For more information see

#               /usr/share/doc/rsyslog-doc/html/rsyslog_conf.html


#

#  Default logging rules can be found in /etc/rsyslog.d/50-defaul
t.conf




#################

#### MODULES ####
```

```
#################


module(load="imuxsock") # provides support for local system loggi
ng

#module(load="immark")  # provides --MARK-- message capability



# provides UDP syslog reception

#module(load="imudp")

#input(type="imudp" port="514")



# provides TCP syslog reception

#module(load="imtcp")

#input(type="imtcp" port="514")



# provides kernel logging support and enable non-kernel klog mess
ages

module(load="imklog" permitnonkernelfacility="on")



############################

#### GLOBAL DIRECTIVES ####

############################
```

```
#
# Use traditional timestamp format.
# To enable high precision timestamps, comment out the following
line.
#
$ActionFileDefaultTemplate RSYSLOG_TraditionalFileFormat



# Filter duplicated messages
$RepeatedMsgReduction on



#
# Set the default permissions for all log files.
#
$FileOwner syslog
$FileGroup adm
$FileCreateMode 0640
$DirCreateMode 0755
$Umask 0022
$PrivDropToUser syslog
```

```
$PrivDropToGroup syslog



#

# Where to place spool and state files

#

$WorkDirectory /var/spool/rsyslog



#

# Include all config files in /etc/rsyslog.d/

#

$IncludeConfig /etc/rsyslog.d/*.conf

Review the contents of rsyslog.d/*.conf

# Log cloudinit generated log messages to file

:syslogtag, isequal, "[CLOUDINIT]" /var/log/cloud-init.log



# comment out the following line to allow CLOUDINIT messages thro
ugh.

# Doing so means you'll also get CLOUDINIT messages in /var/log/s
yslog

& stop

#  Default rules for rsyslog.
```

```
#

#               For more information see rsyslog.conf(5) and /etc
/rsyslog.conf



#

# First some standard log files.  Log by facility.

#

auth,authpriv.*                 /var/log/auth.log

*.*;auth,authpriv.none          -/var/log/syslog

#cron.*                         /var/log/cron.log

#daemon.*                       -/var/log/daemon.log

kern.*                          -/var/log/kern.log

#lpr.*                          -/var/log/lpr.log

mail.*                          -/var/log/mail.log

#user.*                         -/var/log/user.log



#

# Logging for the mail system.  Split it up so that

# it is easy to write scripts to parse these files.

#
```

```
#mail.info                -/var/log/mail.info

#mail.warn                -/var/log/mail.warn

mail.err                 /var/log/mail.err


#

# Some "catch-all" log files.

#

#*.=debug;\

#     auth,authpriv.none;\

#     news.none;mail.none     -/var/log/debug

#*.=info;*.=notice;*.=warn;\

#     auth,authpriv.none;\

#     cron,daemon.none;\

#     mail,news.none          -/var/log/messages


#

# Emergencies are sent to everybody logged in.

#

*.emerg                     :omusrmsg:*
```

```
#

# I like to have messages displayed on the console, but only on a
 virtual

# console I usually leave idle.

#

#daemon,mail.*;\

#     news.=crit;news.=err;news.=notice;\

#     *.=debug;*.=info;\

#     *.=notice;*.=warn     /dev/tty8

verify that the log files are logging information

total 1036

-rw-r--r--  1 root      root              1545 Aug  3 10:58 alter
natives.log

drwxr-xr-x  2 root      root              4096 Sep 28  2018 appar
mor

drwxr-xr-x  2 root      root              4096 Aug  3 10:59 apt

drwxr-x---  2 root      adm               4096 Aug  3 10:58 audit


-rw-r-----  1 syslog    adm              81852 Aug  3 11:10 auth.
log

drwxr-xr-x  3 root      root              4096 Aug  3 11:07 azure


-rw-rw----  1 root      utmp              4224 Aug  3 11:08 btmp
```

```
drwxr-xr-x  2 clamav    clamav            4096 Aug  3 10:58 clama
v

-rw-r-----  1 root      adm               9832 Aug  3 11:03 cloud
-init-output.log

-rw-r--r--  1 syslog    adm             304258 Aug  3 11:03 cloud
-init.log

drwxr-xr-x  2 root      root              4096 Apr 21 07:36 dist-
upgrade

-rw-r--r--  1 root      root            108562 Aug  3 10:59 dpkg.
log

drwxr-sr-x+ 3 root      systemd-journal   4096 Aug  3 10:49 journ
al

-rw-r-----  1 syslog    adm             114606 Aug  3 11:04 kern.
log

drwxr-xr-x  2 landscape landscape         4096 Aug  3 10:55 lands
cape

-rw-rw-r--  1 root      utmp            292876 Aug  3 11:09 lastl
og

drwxr-xr-x  2 root      root              4096 Nov 24  2018 lxd

drwxr-x---  2 root      adm               4096 Apr 14 22:52 samba


-rw-r-----  1 syslog    adm             299352 Aug  3 11:10 syslo
g

-rw-------  1 root      root             64192 Aug  3 11:07 tally
log

-rw-------  1 root      root               664 Aug  3 10:55 ubunt
u-advantage.log
```

```
drwxr-x---  2 root      adm              4096 Aug  3 10:55 unatt
ended-upgrades

-rw-r--r--  1 root      root            28648 Aug  3 11:08 waage
nt.log

-rw-rw-r--  1 root      utmp             6144 Aug  3 11:09 wtmp
```

4.2.1.4
Ensure rsyslog default file permissions configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	rsyslog file permissions configured
Time Taken	0.003168821334838867 seconds

Explanation:

`/etc/rsyslog.conf:$FileCreateMode 0640`

4.2.1.5

Ensure rsyslog is configured to send logs to a remote log host

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	rsyslog does not sends logs
Time Taken	0.0031566619873046875 seconds

Explanation:

4.2.1.6

Ensure remote rsyslog messages are only accepted on designated log hosts

Not Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	rsyslog messages not config
Time Taken	0.006201982498168945 seconds

Explanation:

4.2.2.1
Ensure journald is configured to send logs to rsyslog

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	journald does not send logs to rsyslog
Time Taken	0.0032608509063720703 seconds

Explanation:

#ForwardToSyslog=yes

4.2.2.2
Ensure journald is configured to compress large log files

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	journald not compress large log files
Time Taken	0.0030813217163085938 seconds

Explanation:

```
#Compress=yes
```

4.2.2.3

Ensure journald is configured to write logfiles to persistent disk

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	journald does not write logfiles
Time Taken	0.0030972957611083984 seconds

Explanation:

#Storage=auto

4.2.3
Ensure permissions on all logfiles are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	logfiles permissions not configured
Time Taken	0.027485132217407227 seconds

Explanation:

```
   274082      4 -rw-r-----   1 clamav   clamav        2829 Aug  3
 11:03 /var/log/clamav/freshclam.log

   274124      0 -rw-r--r--   1 root     root             0 Aug  3
 10:58 /var/log/clamav/clamscan.log

   274209      4 -rw-r--r--   1 root     root          3070 Aug  3
 11:07 /var/log/azure/Microsoft.OSTCExtensions.VMAccessForLinux/e
xtension.log

    85991      4 -rw-r--r--   1 root     root          1545 Aug  3
 10:58 /var/log/alternatives.log

    85860    296 -rw-r-----   1 syslog   adm         299352 Aug  3
 11:10 /var/log/syslog

    63368    112 -rw-r--r--   1 root     root        108562 Aug  3
 10:59 /var/log/dpkg.log

    85866     28 -rw-r--r--   1 root     root         28648 Aug  3
 11:08 /var/log/waagent.log

    63357      8 -rw-rw-r--   1 root     utmp          6144 Aug  3
 11:09 /var/log/wtmp
```

```
   85864      4 -rw-r--r--   1 root     root          112 Aug  3
 10:59 /var/log/unattended-upgrades/unattended-upgrades-shutdown.
log

  274023     64 -rw-r-----   1 root     adm         58271 Aug  3
 11:10 /var/log/audit/audit.log

   85863      4 -rw-------   1 root     root          664 Aug  3
 10:55 /var/log/ubuntu-advantage.log

   85997   8192 -rw-r-----   1 root     systemd-journal  8388608
 Aug  3 10:59 /var/log/journal/ef09bc837f2b4d4ca52d1acb2d456715/u
ser-1000.journal

   10253   8196 -rw-r-----   1 root     systemd-journal  8388608
 Aug  3 11:10 /var/log/journal/ef09bc837f2b4d4ca52d1acb2d456715/s
ystem.journal

   10689   8192 -rw-r-----   1 root     systemd-journal  8388608
 Aug  3 11:09 /var/log/journal/ef09bc837f2b4d4ca52d1acb2d456715/u
ser-1002.journal

   86005      0 -rw-r--r--   1 root     root                0
 Aug  3 10:55 /var/log/landscape/sysinfo.log

   63359     12 -rw-rw-r--   1 root     utmp           292876
 Aug  3 11:09 /var/log/lastlog

   10271    304 -rw-r--r--   1 syslog   adm            304258
 Aug  3 11:03 /var/log/cloud-init.log

   85862     84 -rw-r-----   1 syslog   adm             81852
 Aug  3 11:10 /var/log/auth.log

   85861    112 -rw-r-----   1 syslog   adm            114606
 Aug  3 11:04 /var/log/kern.log

     250     24 -rw-r--r--   1 root     root            24328
 Aug  3 10:59 /var/log/apt/eipp.log.xz

   63362     12 -rw-r--r--   1 root     root            10462
```

```
Aug  3 10:59 /var/log/apt/history.log

   63361     32 -rw-r-----   1 root     adm                27698
Aug  3 10:59 /var/log/apt/term.log

     310      8 -rw-------   1 root     root               64192
Aug  3 11:07 /var/log/tallylog

   10270     12 -rw-r-----   1 root     adm                 9832
Aug  3 11:03 /var/log/cloud-init-output.log

   63358      8 -rw-rw----   1 root     utmp                4224
Aug  3 11:08 /var/log/btmp
```

4.3
Ensure logrotate is configured

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	lograte is configured
Time Taken	0.006582736968994141 seconds

Explanation:

```
verify logs in logrotate.conf are rotated according to site polic
y

# see "man logrotate" for details

# rotate log files weekly

weekly



# use the syslog group by default, since this is the owning group


# of /var/log/syslog.

su root syslog



# keep 4 weeks worth of backlogs

rotate 4
```

```
# create new (empty) log files after rotating old ones
create

# uncomment this if you want your log files compressed
#compress

# packages drop log rotation information into this directory
include /etc/logrotate.d

# no packages own wtmp, or btmp -- we'll rotate them here
/var/log/wtmp {
    missingok
    monthly
    create 0664 root utmp
    rotate 1
}

/var/log/btmp {
    missingok
```

```
    monthly

    create 0660 root utmp

    rotate 1

}



# system-specific logs may be configured here

verify logs in logrotate directory are rotated according to site
policy

/var/log/alternatives.log {

     monthly

     rotate 12

     compress

     delaycompress

     missingok

     notifempty

     create 644 root root

}

/var/log/apport.log {

       daily

       rotate 7
```

```
        delaycompress
        compress
        notifempty
        missingok
}

/var/log/apt/term.log {
  rotate 12
  monthly
  compress
  missingok
  notifempty
}

/var/log/apt/history.log {
  rotate 12
  monthly
  compress
  missingok
  notifempty
```

```
}


/var/log/clamav/freshclam.log {
	rotate 12
	weekly
	compress
	delaycompress
	missingok
	create 640  clamav adm
	postrotate
	if [ -d /run/systemd/system ]; then
		systemctl -q is-active clamav-freshclam && systemctl kil
l --signal=SIGHUP clamav-freshclam || true
	else
		invoke-rc.d clamav-freshclam reload-log > /dev/null || t
rue
	fi
	endscript
	}
/var/log/dpkg.log {
	monthly
```

```
        rotate 12
        compress
        delaycompress
        missingok
        notifempty
        create 644 root root
}
/var/log/lxd/lxd.log {
        copytruncate
        daily
        rotate 7
        delaycompress
        compress
        notifempty
        missingok
}
/var/log/syslog
{
        rotate 7
        daily
```

```
        missingok
        notifempty
        delaycompress
        compress
        postrotate
                /usr/lib/rsyslog/rsyslog-rotate
        endscript
}


/var/log/mail.info
/var/log/mail.warn
/var/log/mail.err
/var/log/mail.log
/var/log/daemon.log
/var/log/kern.log
/var/log/auth.log
/var/log/user.log
/var/log/lpr.log
/var/log/cron.log
/var/log/debug
```

```
/var/log/messages
{
     rotate 4
     weekly
     missingok
     notifempty
     compress
     delaycompress
     sharedscripts
     postrotate
          /usr/lib/rsyslog/rsyslog-rotate
     endscript
}
/var/log/ubuntu-advantage.log {
    rotate 6
    monthly
    compress
    delaycompress
    missingok
    notifempty
```

```
}

/var/log/unattended-upgrades/unattended-upgrades.log

/var/log/unattended-upgrades/unattended-upgrades-dpkg.log

/var/log/unattended-upgrades/unattended-upgrades-shutdown.log

{

  rotate 6

  monthly

  compress

  missingok

  notifempty

}

/var/log/waagent.log {

    compress

    monthly

    rotate 6

    notifempty

    missingok

}
```

5.1.1
Ensure cron daemon is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	cron daemon not found
Time Taken	0.00683283805847168 seconds

Explanation:

```
systemctl is-enabled crond returned the following

Failed to get unit file state for crond.service: No such file or
directory
```

5.1.2
Ensure permissions on /etc/crontab are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on /etc/crontab not configured
Time Taken	0.0038738250732421875 seconds

Explanation:

```
  File: /etc/crontab

  Size: 722             Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d      Inode: 847         Links: 1

Access: (0600/-rw-------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 10:59:01.661547172 +1000

Modify: 2021-08-03 10:58:17.473149531 +1000

Change: 2021-08-03 10:58:17.473149531 +1000

 Birth: -
```

5.1.3
Ensure permissions on /etc/cron.hourly are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on /etc/cron.hourly not configured
Time Taken	0.003528594970703125 seconds

Explanation:

```
  File: /etc/cron.hourly

  Size: 4096            Blocks: 8          IO Block: 4096   direct
ory

Device: 801h/2049d      Inode: 1338        Links: 2

Access: (0700/drwx------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:10:18.317069875 +1000

Modify: 2021-08-03 10:58:17.629149579 +1000

Change: 2021-08-03 10:58:17.629149579 +1000

 Birth: -
```

5.1.4
Ensure permissions on /etc/cron.daily are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on /etc/cron.daily not configured
Time Taken	0.003513813018798828 seconds

Explanation:

```
  File: /etc/cron.daily

  Size: 4096            Blocks: 8          IO Block: 4096   direct
ory

Device: 801h/2049d      Inode: 413         Links: 2

Access: (0700/drwx------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:10:18.249069345 +1000

Modify: 2021-08-03 10:58:17.753149618 +1000

Change: 2021-08-03 10:58:17.753149618 +1000

 Birth: -
```

5.1.5
Ensure permissions on /etc/cron.weekly are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on /etc/cron.weekly not configured
Time Taken	0.0035314559936523438 seconds

Explanation:

```
  File: /etc/cron.weekly

  Size: 4096            Blocks: 8          IO Block: 4096   direct
ory

Device: 801h/2049d      Inode: 1342        Links: 2

Access: (0700/drwx------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:10:18.313069843 +1000

Modify: 2021-08-03 10:58:17.877149656 +1000

Change: 2021-08-03 10:58:17.877149656 +1000

 Birth: -
```

5.1.6
Ensure permissions on /etc/cron.monthly are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on /etc/cron.monthly not configured
Time Taken	0.0035226345062255 86 seconds

Explanation:

```
  File: /etc/cron.monthly

  Size: 4096            Blocks: 8          IO Block: 4096   direct
ory

Device: 801h/2049d      Inode: 1340        Links: 2

Access: (0700/drwx------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:10:18.249069345 +1000

Modify: 2021-08-03 10:58:17.997149694 +1000

Change: 2021-08-03 10:58:17.997149694 +1000

 Birth: -
```

5.1.7
Ensure permissions on /etc/cron.d are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on /etc/cron.d not configured
Time Taken	0.0034942626953125 seconds

Explanation:

```
  File: /etc/cron.d

  Size: 4096            Blocks: 8          IO Block: 4096   direct
ory

Device: 801h/2049d      Inode: 1334        Links: 2

Access: (0700/drwx------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 10:59:01.661547172 +1000

Modify: 2021-08-03 10:58:18.121149732 +1000

Change: 2021-08-03 10:58:18.121149732 +1000

 Birth: -
```

5.1.8
Ensure at/cron is restricted to authorized users

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	/etc/at.deny exists
Time Taken	0.007970571517944336 seconds

Explanation:

```
stat: cannot stat '/etc/cron.deny': No such file or directory


stat /etc/at.deny returned the following
```

5.2.1
Ensure permissions on /etc/ssh/sshd_config are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	perms on sshd_config not configured
Time Taken	0.003559589385986328 seconds

Explanation:

```
  File: /etc/ssh/sshd_config

  Size: 3435            Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d      Inode: 1028        Links: 1

Access: (0600/-rw-------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:07:40.143095157 +1000

Modify: 2021-08-03 11:07:40.111094429 +1000

Change: 2021-08-03 11:07:40.111094429 +1000

 Birth: -
```

5.2.2

Ensure permissions on SSH private host key files are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH private host keys perms config
Time Taken	0.019246816635131836 seconds

Explanation:

```
  File: /etc/ssh/ssh_host_rsa_key

  Size: 1823            Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d      Inode: 309         Links: 1

Access: (0600/-rw-------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.943666700 +1000

Modify: 2021-08-03 11:03:51.155666700 +1000

Change: 2021-08-03 11:03:51.155666700 +1000

 Birth: -

  File: /etc/ssh/ssh_host_dsa_key

  Size: 1369            Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d      Inode: 752         Links: 1
```

```
Access: (0600/-rw-------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.427666700 +1000

Modify: 2021-08-03 11:03:51.427666700 +1000

Change: 2021-08-03 11:03:51.427666700 +1000

 Birth: -

  File: /etc/ssh/ssh_host_ed25519_key

  Size: 399           Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d     Inode: 919         Links: 1

Access: (0600/-rw-------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.947666700 +1000

Modify: 2021-08-03 11:03:51.435666700 +1000

Change: 2021-08-03 11:03:51.435666700 +1000

 Birth: -

  File: /etc/ssh/ssh_host_ecdsa_key

  Size: 505           Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d     Inode: 917         Links: 1

Access: (0600/-rw-------)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.943666700 +1000
```

```
Modify: 2021-08-03 11:03:51.431666700 +1000

Change: 2021-08-03 11:03:51.431666700 +1000

 Birth: -
```

5.2.3

Ensure permissions on SSH public host key files are configured

Scored
Level 1 Server
Level 1 Workstation

Result PASS

Message SSH public host keys perms config

Time Taken 0.0194644927978515 62 seconds

Explanation:

```
  File: /etc/ssh/ssh_host_ed25519_key.pub

  Size: 92              Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d      Inode: 1563        Links: 1

Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.439666700 +1000

Modify: 2021-08-03 11:03:51.435666700 +1000

Change: 2021-08-03 11:03:51.435666700 +1000

 Birth: -

  File: /etc/ssh/ssh_host_dsa_key.pub

  Size: 600             Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d      Inode: 773         Links: 1
```

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:59.655666700 +1000

Modify: 2021-08-03 11:03:51.427666700 +1000

Change: 2021-08-03 11:03:51.427666700 +1000

 Birth: -

  File: /etc/ssh/ssh_host_rsa_key.pub

  Size: 392           Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d     Inode: 726         Links: 1

Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.439666700 +1000

Modify: 2021-08-03 11:03:51.155666700 +1000

Change: 2021-08-03 11:03:51.155666700 +1000

 Birth: -

  File: /etc/ssh/ssh_host_ecdsa_key.pub

  Size: 172           Blocks: 8          IO Block: 4096   regula
r file

Device: 801h/2049d     Inode: 918         Links: 1

Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.439666700 +1000
```

```
Modify: 2021-08-03 11:03:51.431666700 +1000

Change: 2021-08-03 11:03:51.431666700 +1000

 Birth: -
```

5.2.4
Ensure SSH Protocol is set to 2

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH Protocol not 2
Time Taken	0.0034558773040771484 seconds

Explanation:

grep ^Protocol /etc/ssh/sshd_config returned the following

5.2.5
Ensure SSH LogLevel is appropriate

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH LogLevel is appropriate
Time Taken	0.00838613510131836 seconds

Explanation:

```
loglevel INFO
```

5.2.6
Ensure SSH X11 forwarding is disabled

Scored
Level 2 Server
Level 1 Workstation

Result	FAIL
Message	SSH X11 forwarding not disabled
Time Taken	0.006991863250732422 seconds

Explanation:

sshd -T | grep x11forwarding returned the following

x11forwarding no

5.2.7
Ensure SSH MaxAuthTries is set to 4 or less

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH MaxAuthTries is more than 4
Time Taken	0.006816148757934 57 seconds

Explanation:

```
maxauthtries 6
```

5.2.8
Ensure SSH IgnoreRhosts is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH IgnoreRhosts is disabled
Time Taken	0.006619691848754883 seconds

Explanation:

sshd -T | grep ignorerhosts returned the following

ignorerhosts yes

5.2.9
Ensure SSH HostbasedAuthentication is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH HBA is enabled
Time Taken	0.006774187088012695 seconds

Explanation:

sshd -T | grep hostbasedauthentication returned the following

```
hostbasedauthentication no
```

5.2.10
Ensure SSH root login is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH root login is enabled
Time Taken	0.006684064865112305 seconds

Explanation:

sshd -T | grep permitrootlogin returned the following

permitrootlogin no

5.2.11
Ensure SSH PermitEmptyPasswords is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH PermitEmptyPasswords is enabled
Time Taken	0.0065648555755615234 seconds

Explanation:

sshd -T | grep permitemptypasswords returned the following

permitemptypasswords no

5.2.12
Ensure SSH PermitUserEnvironment is disabled

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH PermitUserEnvironment is enabled
Time Taken	0.007963180541992188 seconds

Explanation:

sshd -T | grep permituserenvironment returned the following

permituserenvironment no

5.2.13
Ensure only strong Ciphers are used

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH only strong Ciphers are used
Time Taken	0.006688833236694336 seconds

Explanation:

```
ciphers chacha20-poly1305@openssh.com,aes128-ctr,aes192-ctr,aes256-ctr,aes128-gcm@openssh.com,aes256-gcm@openssh.com
```

5.2.14
Ensure only strong MAC algorithms are used

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH only strong MAC algorithms are used
Time Taken	0.0067980289459228516 seconds

Explanation:

```
macs hmac-sha2-256,hmac-sha2-512,hmac-sha1
```

5.2.15
Ensure only strong Key Exchange algorithms are used

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH only strong Key Exchange algorithms are used
Time Taken	0.006661891937255859 seconds

Explanation:

```
kexalgorithms curve25519-sha256,curve25519-sha256@libssh.org,ecdh-sha2-nistp256,ecdh-sha2-nistp384,ecdh-sha2-nistp521,diffie-hellman-group-exchange-sha256,diffie-hellman-group16-sha512,diffie-hellman-group18-sha512,diffie-hellman-group14-sha256,diffie-hellman-group14-sha1
```

5.2.16
Ensure SSH Idle Timeout Interval is configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH ClientAliveInterval more than 300
Time Taken	0.006764411926269531 seconds

Explanation:

```
clientaliveinterval 600
```

5.2.17
Ensure SSH LoginGraceTime is set to one minute or less

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH LoginGraceTime is 60
Time Taken	0.006712198257446289 seconds

Explanation:

```
logingracetime 60
```

5.2.18
Ensure SSH access is limited

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH access is not limited
Time Taken	0.0278933048248291 seconds

Explanation:

5.2.19
Ensure SSH warning banner is configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SSH warning banner is not configured
Time Taken	0.0067462921142578125 seconds

Explanation:

sshd -T | grep banner returned the following

banner /etc/issue.net

5.2.20
Ensure SSH PAM is enabled

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	SSH PAM is enabled
Time Taken	0.006654977798461914 seconds

Explanation:

```
usepam yes
```

5.2.21
Ensure SSH AllowTcpForwarding is disabled

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	SSH AllowTcpForwarding is enabled
Time Taken	0.006740570068359375 seconds

Explanation:

sshd -T | grep -i allowtcpforwarding returned the following

allowtcpforwarding no

5.2.22
Ensure SSH MaxStartups is configured

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	SSH MaxStartups is configured
Time Taken	0.006803035736083984 seconds

Explanation:

```
verify that output of MaxStartups matches site policy

maxstartups 10:30:100
```

5.2.23
Ensure SSH MaxSessions is set to 4 or less

Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	SSH MaxSessions is set to 10
Time Taken	0.006649494171142578 seconds

Explanation:

```
verify that output of MaxSessions matches site policy

maxsessions 10
```

5.3.1
Ensure password creation requirements are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	password creation req not found
Time Taken	0.020473480224609375 seconds

Explanation:

```
cat: /etc/pam.d/system-auth: No such file or directory

cat: /etc/pam.d/system-auth: No such file or directory

cat: /etc/security/pwquality.conf: No such file or directory
```

5.3.2
Ensure lockout for failed password attempts is configured

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	failed password lockout configured
Time Taken	0.008734703063964844 seconds

Explanation:

```
Verify password lockouts are configured and pam_faillock.so lines
 should surround a pam_unix.so

#

# /etc/pam.d/common-auth - authentication settings common to all
services

#

# This file is included from other service-specific PAM config fi
les,

# and should contain a list of the authentication modules that de
fine

# the central authentication scheme for use on the system

# (e.g., /etc/shadow, LDAP, Kerberos, etc.).  The default is to u
se the

# traditional Unix authentication mechanisms.

#
```

```
# As of pam 1.0.1-6, this file is managed by pam-auth-update by d
efault.

# To take advantage of this, it is recommended that you configure
 any

# local modules either before or after the default block, and use


# pam-auth-update to manage selection of other modules.  See

# pam-auth-update(8) for details.



# here are the per-package modules (the "Primary" block)

auth     [success=1 default=ignore]     pam_unix.so nullok_secure


# here's the fallback if no module succeeds

auth     requisite                      pam_deny.so

# prime the stack with a positive return value if there isn't one
 already;

# this avoids us returning an error just because nothing sets a s
uccess code

# since the modules above will each just jump around

auth     required                       pam_permit.so

# and here are more per-package modules (the "Additional" block)

auth     optional                       pam_cap.so

# end of pam-auth-update config
```

```
cat: /etc/pam.d/system-auth: No such file or directory

cat: /etc/pam.d/password-auth: No such file or directory
```

5.3.3
Ensure password reuse is limited

Not Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	password reuse not limited
Time Taken	0.008120536804199219 seconds

Explanation:

```
cat: /etc/pam.d/system-auth: No such file or directory
```

5.3.4
Ensure password hashing algorithm is SHA-512

Not Scored
Level 1 Server
Level 1 Workstation

Result	CHEK
Message	password hashing algorithm is SHA-512
Time Taken	0.012272357940673828 seconds

Explanation:

```
ensure the sha512 option is included in all results

# The "sha512" option enables salted SHA512 passwords.  Without t
his option,

password     [success=1 default=ignore]     pam_unix.so obscure s
ha512



cat: /etc/pam.d/system-auth: No such file or directory

cat: /etc/pam.d/password-auth: No such file or directory
```

5.4.1.1
Ensure password expiration is 365 days or less

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	password expiration not 365 days or less
Time Taken	0.0031416416168212 89 seconds

Explanation:

```
#     PASS_MAX_DAYS     Maximum number of days a password may be
used.

PASS_MAX_DAYS     99999
```

5.4.1.2
Ensure minimum days between password changes is 7 or more

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	password changes not 7 days or more
Time Taken	0.003179311752319336 seconds

Explanation:

```
#     PASS_MIN_DAYS     Minimum number of days allowed between pa
ssword changes.

PASS_MIN_DAYS     0
```

5.4.1.3
Ensure password expiration warning days is 7 or more

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	password change warning gt 7 days
Time Taken	0.007353305816650391 seconds

Explanation:

```
verify PASS_WARN_AGE conforms to site policy

#     PASS_WARN_AGE     Number of days warning given before a pas
sword expires.

PASS_WARN_AGE     7



Users PASS_WARN_AGE

azureuser:7

adminuser:7
```

5.4.1.4
Ensure inactive password lock is 30 days or less

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	inactive password lock more than 30 days
Time Taken	0.004931926727294922 seconds

Explanation:

```
INACTIVE=-1
```

5.4.1.5
Ensure all users last password change date is in the past

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	last password change date in past
Time Taken	0.24812912940979004 seconds

Explanation:

```
for usr in $(cut -d: -f1 /etc/shadow); do [[ $(chage --list $usr
| grep '^Last password change' | cut -d: -f2) > $(date) ]] && ech
o "$usr :$(chage --list $usr | grep '^Last password change' | cut
 -d: -f2)"; done
```

returned the following

5.4.2
Ensure system accounts are secured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	system accounts are secured
Time Taken	0.38025522232055664 seconds

Explanation:

```
/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'
```

```
/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'

/etc/host.conf: line 7: bad command `nospoof on'
```

5.4.3
Ensure default group for the root account is GID 0

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	root account GID is 0
Time Taken	0.0127644538879394 53 seconds

Explanation:

```
grep "^root:" /etc/passwd | cut -f4 -d: returned

0
```

5.4.4
Ensure default user umask is 027 or more restrictive

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	umask not found in bashrc
Time Taken	0.013510227203369 14 seconds

Explanation:

```
grep: /etc/bashrc: No such file or directory
```

5.4.5
Ensure default user shell timeout is 900 seconds or less

Scored
Level 2 Server
Level 2 Workstation

Result	FAIL
Message	shell timeout not in bashrc
Time Taken	0.0117542743682861 33 seconds

Explanation:

```
grep "^TMOUT" /etc/bashrc returned the following

grep: /etc/bashrc: No such file or directory
```

5.5
Ensure root login is restricted to system console

Not Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	root login is restricted to system
Time Taken	0.008905649185180664 seconds

Explanation:

```
check if following are valid terminals that may be logged in dire
ctly as root

# /etc/securetty: list of terminals on which root is allowed to l
ogin.

# See securetty(5) and login(1).

#

console

#

# Local X displays (allows empty passwords with pam_unix's nullok
_secure)

#:0

#:0.0

#:0.1

#:1
```

```
#:1.0

#:1.1

#:2

#:2.0

#:2.1

#:3

#:3.0

#:3.1

#...

#

#

# ============================================================

#

# TTYs sorted by major number according to Documentation/devices.
txt

#

# ============================================================

#

# Virtual consoles

#tty1
```

```
#tty2

#tty3

#tty4

#tty5

#tty6

#tty7

#tty8

#tty9

#tty10

#tty11

#tty12

#tty13

#tty14

#tty15

#tty16

#tty17

#tty18

#tty19

#tty20

#tty21
```

#tty22

#tty23

#tty24

#tty25

#tty26

#tty27

#tty28

#tty29

#tty30

#tty31

#tty32

#tty33

#tty34

#tty35

#tty36

#tty37

#tty38

#tty39

#tty40

#tty41

#tty42

#tty43

#tty44

#tty45

#tty46

#tty47

#tty48

#tty49

#tty50

#tty51

#tty52

#tty53

#tty54

#tty55

#tty56

#tty57

#tty58

#tty59

#tty60

#tty61

```
#tty62
#tty63
#
# UART serial ports
#ttyS0
#ttyS1
#ttyS2
#ttyS3
#ttyS4
#ttyS5
#...ttyS191
#
# Serial Mux devices     (Linux/PA-RISC only)
#ttyB0
#ttyB1
#...
#
# Chase serial card
#ttyH0
#ttyH1
```

```
#...
#
# Cyclades serial cards
#ttyC0
#ttyC1
#...ttyC31
#
# Digiboard serial cards
#ttyD0
#ttyD1
#...
#
# Stallion serial cards
#ttyE0
#ttyE1
#...ttyE255
#
# Specialix serial cards
#ttyX0
#ttyX1
```

```
#...
#
# Comtrol Rocketport serial cards
#ttyR0
#ttyR1
#...
#
# SDL RISCom serial cards
#ttyL0
#ttyL1
#...
#
# Hayes ESP serial card
#ttyP0
#ttyP1
#...
#
# Computone IntelliPort II serial card
#ttyF0
#ttyF1
```

```
#...ttyF255
#
# Specialix IO8+ serial card
#ttyW0
#ttyW1
#...
#
# Comtrol VS-1000 serial controller
#ttyV0
#ttyV1
#...
#
# ISI serial card
#ttyM0
#ttyM1
#...
#
# Technology Concepts serial card
#ttyT0
#ttyT1
```

```
#...
#
# Specialix RIO serial card
#ttySR0
#ttySR1
#...ttySR511
#
# Chase Research AT/PCI-Fast serial card
#ttyCH0
#ttyCH1
#...ttyCH63
#
# Moxa Intellio serial card
#ttyMX0
#ttyMX1
#...ttyMX127
#
# SmartIO serial card
#ttySI0
#ttySI1
```

```
#...
#
# USB dongles
#ttyUSB0
#ttyUSB1
#ttyUSB2
#...
#
# LinkUp Systems L72xx UARTs
#ttyLU0
#ttyLU1
#ttyLU2
#ttyLU3
#
# StrongARM builtin serial ports
#ttySA0
#ttySA1
#ttySA2
#
# SCI serial port (SuperH) ports and SC26xx serial ports
```

```
#ttySC0

#ttySC1

#ttySC2

#ttySC3

#ttySC4

#ttySC5

#ttySC6

#ttySC7

#ttySC8

#ttySC9

#

# ARM "AMBA" serial ports

#ttyAM0

#ttyAM1

#ttyAM2

#ttyAM3

#ttyAM4

#ttyAM5

#ttyAM6

#ttyAM7
```

```
#ttyAM8

#ttyAM9

#ttyAM10

#ttyAM11

#ttyAM12

#ttyAM13

#ttyAM14

#ttyAM15

#

# Embedded ARM AMBA PL011 ports (e.g. emulated by QEMU)

#ttyAMA0

#ttyAMA1

#ttyAMA2

#ttyAMA3

#

# DataBooster serial ports

#ttyDB0

#ttyDB1

#ttyDB2

#ttyDB3
```

```
#ttyDB4

#ttyDB5

#ttyDB6

#ttyDB7

#

# SGI Altix console ports

#ttySG0

#

# Motorola i.MX ports

#ttySMX0

#ttySMX1

#ttySMX2

#

# Marvell MPSC ports

#ttyMM0

#ttyMM1

#

# PPC CPM (SCC or SMC) ports

#ttyCPM0

#ttyCPM1
```

```
#ttyCPM2

#ttyCPM3

#ttyCPM4

#ttyCPM5

#

# Altix serial cards

#ttyIOC0

#ttyIOC1

#...ttyIOC31

#

# NEC VR4100 series SIU

#ttyVR0

#

# NEC VR4100 series SSIU

#ttyVR1

#

# Altix ioc4 serial cards

#ttyIOC84

#ttyIOC85

#...ttyIOC115
```

```
#
# Altix ioc3 serial cards
#ttySIOC0
#ttySIOC1
#...ttySIOC31
#
# PPC PSC ports
#ttyPSC0
#ttyPSC1
#ttyPSC2
#ttyPSC3
#ttyPSC4
#ttyPSC5
#
# ATMEL serial ports
#ttyAT0
#ttyAT1
#...ttyAT15
#
# Hilscher netX serial port
```

```
#ttyNX0

#ttyNX1

#...ttyNX15

#

# Xilinx uartlite - port

#ttyUL0

#ttyUL1

#ttyUL2

#ttyUL3

#

# Xen virtual console - port 0

#xvc0

#

# pmac_zilog - port

#ttyPZ0

#ttyPZ1

#ttyPZ2

#ttyPZ3

#

# TX39/49 serial port
```

```
#ttyTX0

#ttyTX1

#ttyTX2

#ttyTX3

#ttyTX4

#ttyTX5

#ttyTX6

#ttyTX7

#

# SC26xx serial ports (see SCI serial ports (SuperH))

#

# MAX3100 serial ports

#ttyMAX0

#ttyMAX1

#ttyMAX2

#ttyMAX3

#

# OMAP serial ports

#ttyO0

#ttyO1
```

```
#ttyO2

#ttyO3

#

# User space serial ports

#ttyU0

#ttyU1

#

# A2232 serial card

#ttyY0

#ttyY1

#

# IBM 3270 terminal Unix tty access

#3270/tty1

#3270/tty2

#...

#

# IBM iSeries/pSeries virtual console

#hvc0

#hvc1

#...
```

```
#IBM pSeries console ports
#hvsi0
#hvsi1
#hvsi2
#
# Equinox SST multi-port serial boards
#ttyEQ0
#ttyEQ1
#...ttyEQ1027
#
# ================================================================
#
# Not in Documentation/Devices.txt
#
# ================================================================
#
# Embedded Freescale i.MX ports
#ttymxc0
#ttymxc1
#ttymxc2
```

```
#ttymxc3

#ttymxc4

#ttymxc5

#

# LXC (Linux Containers)

#lxc/console

#lxc/tty1

#lxc/tty2

#lxc/tty3

#lxc/tty4

#

# Serial Console for MIPS Swarm

#duart0

#duart1

#

# s390 and s390x ports in LPAR mode

#ttysclp0

#

# ODROID XU4 serial console

#ttySAC0
```

```
#ttySAC1

#ttySAC2

#ttySAC3
```

5.6
Ensure access to the su command is restricted

Scored
Level 1 Server
Level 1 Workstation

Result FAIL

Message access to su command not restricted

Time Taken 0.010680675506591797 seconds

Explanation:

```
# auth        required    pam_wheel.so

# auth        sufficient pam_wheel.so trust

# auth        required    pam_wheel.so deny group=nosu
```

6.1.1
Audit system file permissions (distro specific)

Not Scored
Level 2 Server
Level 2 Workstation

Result	CHEK
Message	system file perms not checked (ind distro)
Time Taken	4.38690185546875e-05 seconds

Explanation:

```
Distribution was not specified
```

6.1.2
Ensure permissions on /etc/passwd are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/passwd permissions configured
Time Taken	0.0130267143249511 72 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:07:40.147095248 +1000
```

6.1.3
Ensure permissions on /etc/shadow are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/shadow permissions configured
Time Taken	0.013502597808837 89 seconds

Explanation:

```
Access: (0640/-rw-r-----)  Uid: (    0/    root)   Gid: (   42/
shadow)

Access: 2021-08-03 11:07:40.523103808 +1000
```

6.1.4
Ensure permissions on /etc/group are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/group permissions configured
Time Taken	0.014556646347045898 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:07:40.523103808 +1000
```

6.1.5
Ensure permissions on /etc/gshadow are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/gshadow permissions configured
Time Taken	0.013590097427368164 seconds

Explanation:

```
Access: (0640/-rw-r-----)  Uid: (    0/    root)   Gid: (   42/
shadow)

Access: 2021-08-03 11:07:40.007092061 +1000
```

6.1.6
Ensure permissions on /etc/passwd- are configured

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	/etc/passwd- permits group and others
Time Taken	0.012445926666259766 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:07:40.000000000 +1000
```

6.1.7
Ensure permissions on /etc/shadow- are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/shadow- permissions configured
Time Taken	0.015473604202270508 seconds

Explanation:

```
Access: (0640/-rw-r-----)  Uid: (    0/    root)   Gid: (   42/
shadow)

Access: 2021-08-03 11:07:40.000000000 +1000
```

6.1.8
Ensure permissions on /etc/group- are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/group- permissions configured
Time Taken	0.014743328094482422 seconds

Explanation:

```
Access: (0644/-rw-r--r--)  Uid: (    0/    root)   Gid: (    0/
  root)

Access: 2021-08-03 11:03:51.000000000 +1000
```

6.1.9
Ensure permissions on /etc/gshadow- are configured

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	/etc/gshadow- permissions configured
Time Taken	0.013281106948852539 seconds

Explanation:

```
Access: (0640/-rw-r-----)  Uid: (    0/    root)   Gid: (   42/
shadow)

Access: 2021-08-03 11:07:39.000000000 +1000
```

6.1.10
Ensure no world writable files exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	world writable files does not exist
Time Taken	51.402180671691895 seconds

Explanation:

```
running df --local -P | awk '{if (NR!=1) print $6}' | xargs -I '{
}' find '{}' -xdev -type f -perm -0002 confirms that all world wr
itable directories have the sticky variable set
```

6.1.11
Ensure no unowned files or directories exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no unowned files or directories exist
Time Taken	51.4169487953186 seconds

Explanation:

running df --local -P | awk {'if (NR!=1) print $6'} | xargs -I '{}' find '{}' -xdev -nouser confirms that no unowned files or directories exist

6.1.12
Ensure no ungrouped files or directories exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no ungrouped files or directories exist
Time Taken	51.22075080871582 seconds

Explanation:

```
running df --local -P | awk '{if (NR!=1) print $6}' | xargs -I '{
}' find '{}' -xdev -nogroup confirms that no ungrouped files or d
irectories exist
```

6.1.13
Audit SUID executables

Not Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SUID executables found
Time Taken	27.766192197799683 seconds

Explanation:

```
The following SUID executables exist

/sbin/mount.cifs

/bin/mount

/bin/fusermount

/bin/umount

/bin/ping

/bin/su

/usr/bin/newgrp

/usr/bin/chsh

/usr/bin/chfn

/usr/bin/newgidmap

/usr/bin/sudo
```

```
/usr/bin/gpasswd

/usr/bin/pkexec

/usr/bin/at

/usr/bin/traceroute6.iputils

/usr/bin/newuidmap

/usr/bin/passwd

/usr/lib/dbus-1.0/dbus-daemon-launch-helper

/usr/lib/eject/dmcrypt-get-device

/usr/lib/openssh/ssh-keysign

/usr/lib/x86_64-linux-gnu/lxc/lxc-user-nic

/usr/lib/policykit-1/polkit-agent-helper-1

/usr/lib/snapd/snap-confine

/usr/libexec/ssh-keysign
```

6.1.14
Audit SGID executables

Not Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	SGID executables found
Time Taken	0.9236314296722412 seconds

Explanation:

The following SGID executables exist

/sbin/pam_extrausers_chkpwd

/sbin/unix_chkpwd

/usr/bin/crontab

/usr/bin/mlocate

/usr/bin/bsd-write

/usr/bin/at

/usr/bin/expiry

/usr/bin/chage

/usr/bin/wall

/usr/lib/x86_64-linux-gnu/utempter/utempter

6.2.1
Ensure password fields are not empty

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	password fields are not empty
Time Taken	0.025900602340698242 seconds

Explanation:

```
awk -F: '($2 == "" ) { print $1 " does not have a password "}' /etc/shadow returned the following
```

6.2.2
Ensure no legacy "+" entries exist in /etc/passwd

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no legacy "+" entries exist in /etc/passwd
Time Taken	0.022373437881469727 seconds

Explanation:

`grep '^\+:' /etc/passwd returned the following`

6.2.3
Ensure no legacy "+" entries exist in /etc/shadow

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no legacy "+" entries exist in /etc/shadow
Time Taken	0.015165805816650390 seconds

Explanation:

`grep '^\+:' /etc/shadow returned the following`

6.2.4
Ensure no legacy "+" entries exist in /etc/group

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no legacy "+" entries exist in /etc/group
Time Taken	0.02088308334350586 seconds

Explanation:

grep '^\+:' /etc/group returned the following

6.2.5
Ensure root is the only UID 0 account

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	root is the only UID 0 account
Time Taken	0.022780656814575195 seconds

Explanation:

```
awk -F: '($3 == 0) { print $1 }' /etc/passwd returned the followi
ng

root
```

6.2.6
Ensure root PATH Integrity

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	writable dir in root's executable path
Time Taken	0.4609665870666504 seconds

Explanation:

```
The following writable directories were found in root's executabl
e path

/snap/bin is not a directory
```

6.2.7
Ensure all users' home directories exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	all users' home directories exist
Time Taken	0.09704136848449707 seconds

Explanation:

```
executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_7.sh returned the following
```

6.2.8

Ensure users' home directories permissions are 750 or more restrictive

Scored
Level 1 Server
Level 1 Workstation

Result	FAIL
Message	Group or world-writable home directories
Time Taken	0.33661746978759766 seconds

Explanation:

```
The following users have Group or world-writable home directories


Other Read permission set on the home directory (/home/packer) of
 user packer

Other Execute permission set on the home directory (/home/packer)
 of user packer

Other Read permission set on the home directory (/home/azureuser)
 of user azureuser

Other Execute permission set on the home directory (/home/azureus
er) of user azureuser

Other Read permission set on the home directory (/home/adminuser)
 of user adminuser

Other Execute permission set on the home directory (/home/adminus
er) of user adminuser
```

6.2.9
Ensure users own their home directories

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	users own their home directories
Time Taken	0.14584827423095703 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_9.sh returned the following

6.2.10
Ensure users' dot files are not group or world writable

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	users' . files not group or world-writable
Time Taken	0.5764832496643066 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_10.sh returned the following

6.2.11
Ensure no users have .forward files

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no users have .forward files
Time Taken	0.0799407958984375 seconds

Explanation:

```
executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_11.sh returned the following
```

6.2.12
Ensure no users have .netrc files

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no users have .netrc files
Time Taken	0.0800788402557373 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_12.sh returned the following

6.2.13

Ensure users' .netrc Files are not group or world accessible

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	users' .netrc not group or world accessible
Time Taken	0.08986878395080566 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_13.sh returned the following

6.2.14
Ensure no users have .rhosts files

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no users have .rhosts files
Time Taken	0.09248590469360352 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_14.sh returned the following

6.2.15
Ensure all groups in /etc/passwd exist in /etc/group

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	all groups in passwd exist in group
Time Taken	0.29454612731933594 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_15.sh returned the following

6.2.16
Ensure no duplicate UIDs exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no duplicate UIDs exist
Time Taken	0.11565351486206055 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_16.sh returned the following

6.2.17
Ensure no duplicate GIDs exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no duplicate GIDs exist
Time Taken	0.10408949851989746 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_17.sh returned the following

6.2.18
Ensure no duplicate user names exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no duplicate user names exist
Time Taken	0.08886337280273438 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_18.sh returned the following

6.2.19
Ensure no duplicate group names exist

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	no duplicate group names exist
Time Taken	0.08905649185180664 seconds

Explanation:

executing https://github.com/Deepak710/SeBAz/blob/master/linux/scripts/ind/6_2_19.sh returned the following

6.2.20
Ensure shadow group is empty

Scored
Level 1 Server
Level 1 Workstation

Result	PASS
Message	users not assigned to shadow group
Time Taken	0.012111186981201172 seconds

Explanation:

grep ^shadow:[^:]*:[^:]*:[^:]+ /etc/group returned the following