```
/tmp/vagrant-shell
/tmp/str.sh
enp0s3: PACKET SNIFFER(/sbin/dhclient[1014])
user jane deleted or never logged from lastlog!
 The tty of the following user process(es) were not found
 in /var/run/utmp !
 RUID
                PID TTY
 gdm
               1876 tty1
                           /usr/bin/Xwayland :1024 -rootless -terminate -accessx -core -listen 4 -listen 5 -displayfd 6
                           /usr/lib/gdm3/gdm-wayland-session gnome-session --autostart /usr/share/gdm/greeter/autostart
  gdm
               1833 tty1
  gdm
                           /usr/lib/gnome-session/gnome-session-binary --autostart /usr/share/gdm/greeter/autostart
               1838 ttv1
 gdm
               1845 tty1
                           /usr/bin/gnome-shell
               1977 tty1
  gdm
                           /usr/lib/gnome-settings-daemon/gsd-a11y-settings
  qdm
               1979 ttv1
                           /usr/lib/gnome-settings-daemon/gsd-clipboard
  gdm
               1980 tty1
                           /usr/lib/gnome-settings-daemon/gsd-color
  gdm
               1986 tty1
                           /usr/lib/gnome-settings-daemon/gsd-datetime
  gdm
               1991 tty1
                           /usr/lib/gnome-settings-daemon/gsd-housekeeping
  qdm
               1993 tty1
                           /usr/lib/gnome-settings-daemon/gsd-keyboard
               1995 tty1
                           /usr/lib/gnome-settings-daemon/gsd-media-keys
  gdm
  gdm
               2002 tty1
                           /usr/lib/gnome-settings-daemon/gsd-mouse
  qdm
               2010 tty1
                           /usr/lib/gnome-settings-daemon/gsd-power
  gdn
               2013 tty1
                           /usr/lib/gnome-settings-daemon/gsd-print-notifications
               2021 tty1
                           /usr/lib/gnome-settings-daemon/gsd-rfkill
  gdm
  qdm
               2023 tty1
                           /usr/lib/gnome-settings-daemon/gsd-screensaver-proxy
  gdm
                           /usr/lib/gnome-settings-daemon/gsd-sharing
               2033 ttv1
  gdm
               2037 tty1
                           /usr/lib/gnome-settings-daemon/gsd-smartcard
  gdm
               2038 tty1
                           /usr/lib/gnome-settings-daemon/gsd-sound
  gdm
               2044 tty1
                           /usr/lib/gnome-settings-daemon/gsd-wacom
  gdn
               1971 ttv1
                           /usr/lib/gnome-settings-daemon/gsd-xsettings
  gdm
               1932 tty1
                           ibus-daemon --xim --panel disable
               1935 tty1
  gdm
                           /usr/lib/ibus/ibus-dconf
  qdm
               2121 tty1
                           /usr/lib/ibus/ibus-engine-simple
  gdm
               1938 tty1
                           /usr/lib/ibus/ibus-x11 --kill-daemon
               2257 tty2
                           /usr/lib/xorg/Xorg vt2 -displayfd 3 -auth /run/user/1000/gdm/Xauthority -background none -noreset -keeptty -verbose 3
  sysadmin
                           /usr/lib/qdm3/qdm-x-session --run-script env GNOME SHELL SESSION MODE=ubuntu gnome-session --session=ubuntu
  sysadmin
               2255 tty2
  sysadmin
               2275 tty2
                           /usr/lib/gnome-session/gnome-session-binary --session=ubuntu
  sysadmin
               2458 tty2
                           /usr/bin/gnome-shell
                           /usr/bin/gnome-software --gapplication-service
  sysadmin
               2934 tty2
  sysadmin
               2605 tty2
                           /usr/lib/gnome-settings-daemon/gsd-ally-settings
               2606 tty2
                           /usr/lib/gnome-settings-daemon/gsd-clipboard
  sysadmin
               2603 tty2
                           /usr/lib/gnome-settings-daemon/gsd-color
  sysadmin
  sysadmin
               2610 tty2
                           /usr/lib/gnome-settings-daemon/gsd-datetime
  sysadmin
               2690 tty2
                           /usr/lib/gnome-disk-utility/gsd-disk-utility-notify
  sysadmin
               2612 tty2
                           /usr/lib/gnome-settings-daemon/gsd-housekeeping
  sysadmin
               2617 tty2
                           /usr/lib/gnome-settings-daemon/gsd-keyboard
  sysadmin
               2618 tty2
                           /usr/lib/gnome-settings-daemon/gsd-media-keys
  sysadmin
               2566 tty2
                           /usr/lib/gnome-settings-daemon/gsd-mouse
               2568 tty2
                           /usr/lib/gnome-settings-daemon/gsd-power
  sysadmin
  sysadmin
               2571 tty2
                           /usr/lib/gnome-settings-daemon/gsd-print-notifications
  sysadmin
               2658 tty2
                           /usr/lib/gnome-settings-daemon/gsd-printer
  sysadmin
               2572 tty2
                           /usr/lib/gnome-settings-daemon/gsd-rfkill
               2575 tty2
                           /usr/lib/gnome-settings-daemon/gsd-screensaver-proxy
  sysadmin
               2579 tty2
  sysadmin
                           /usr/lib/gnome-settings-daemon/gsd-sharing
               2583 tty2
                           /usr/lib/gnome-settings-daemon/gsd-smartcard
  sysadmin
               2589 ttv2
                           /usr/lib/gnome-settings-daemon/gsd-sound
  sysadmin
  sysadmin
               2594 tty2
                           /usr/lib/gnome-settings-daemon/gsd-wacom
  sysadmin
               2596 tty2
                           /usr/lib/gnome-settings-daemon/gsd-xsettings
               2479 tty2
                           ibus-daemon --xim --panel disable
  sysadmin
               2483 tty2
                           /usr/lib/ibus/ibus-dconf
  sysadmin
                           /usr/lib/ibus/ibus-engine-simple
  sysadmin
               2774 tty2
                           /usr/lib/ibus/ibus-x11 --kill-daemon
  sysadmin
               2486 tty2
               2687 tty2
 sysadmin
                          nautilus-desktop
  root
              17844 pts/0 /bin/sh /usr/sbin/chkrootkit -q
              18442 pts/0 ./chkutmp
  root
  root
              18444 pts/θ ps axk tty,ruser,args -o tty,pid,ruser,args
              18443 pts/0 sh -c ps axk "tty,ruser,args" -o "tty,pid,ruser,args"
  root
  root
              17843 pts/0 sudo chkrootkit -q
 sysadmin
               2926 pts/0 bash
not tested
sysadmin@UbuntuDesktop:/etc$
```

Warnings (6): Version of Lynis is very old and should be updated [LYNIS] https://cisofy.com/controls/LYNIS/ Multiple users with UID 0 found in passwd file [AUTH-9204] https://cisofy.com/controls/AUTH-9204/ Multiple accounts found with same UID [AUTH-9208] https://cisofy.com/controls/AUTH-9208/ No password set for single mode [AUTH-9308] https://cisofy.com/controls/AUTH-9308/ Found one or more vulnerable packages. [PKGS-7392] https://cisofy.com/controls/PKGS-7392/ Found some information disclosure in SMTP banner (OS or software name) [MAIL-8818] https://cisofy.com/controls/MAIL-8818/ Suggestions (52): Install libpam-tmpdir to set \$TMP and \$TMPDIR for PAM sessions [CUST-0280] https://your-domain.example.org/controls/CUST-0280/ Install libpam-usb to enable multi-factor authentication for PAM sessions [CUST-0285] https://your-domain.example.org/controls/CUST-0285/ Install apt-listbugs to display a list of critical bugs prior to each APT installation. [CUST-0810] https://your-domain.example.org/controls/CUST-0810/ Install apt-listchanges to display any significant changes prior to any upgrade via APT. [CUST-0811] https://your-domain.example.org/controls/CUST-0811/ Install debian-goodies so that you can run checkrestart after upgrades to determine which services are using old versions of libraries and need restarting. [CUST-0830] https://your-domain.example.org/controls/CUST-0830/ * Install needrestart, alternatively to debian-goodies, so that you can run needrestart after upgrades to determine which daemons are using old versions of libraries and need restarting. [CUST-0831] https://your-domain.example.org/controls/CUST-0831/ Install debsecan to generate lists of vulnerabilities which affect this installation. [CUST-0870] https://your-domain.example.org/controls/CUST-0870/ Install debsums for the verification of installed package files against MD5 checksums. [CUST-0875] https://your-domain.example.org/controls/CUST-0875/ Install fail2ban to automatically ban hosts that commit multiple authentication errors. [DEB-0880] https://cisofy.com/controls/DEB-0880/ Set a password on GRUB bootloader to prevent altering boot configuration (e.g. boot in single user mode without password) [BOOT-5122] https://cisofy.com/controls/BOOT-5122/ * Run pwck manually and correct any errors in the password file [AUTH-9228] https://cisofy.com/controls/AUTH-9228/ Install a PAM module for password strength testing like pam_cracklib or pam_passwdqc [AUTH-9262] https://cisofy.com/controls/AUTH-9262/ Configure minimum password age in /etc/login.defs [AUTH-9286] https://cisofy.com/controls/AUTH-9286/ Configure maximum password age in /etc/login.defs [AUTH-9286] https://cisofv.com/controls/AUTH-9286/ Set password for single user mode to minimize physical access attack surface [AUTH-9308] https://cisofy.com/controls/AUTH-9308/ Default umask in /etc/login.defs could be more strict like 027 [AUTH-9328] https://cisofy.com/controls/AUTH-9328/

```
To decrease the impact of a full /home file system, place /home on a separated partition [FILE-6310]
   https://cisofy.com/controls/FILE-6310/
To decrease the impact of a full /tmp file system, place /tmp on a separated partition [FILE-6310]
   https://cisofy.com/controls/FILE-6310/
To decrease the impact of a full /var file system, place /var on a separated partition [FILE-6310]
   https://cisofy.com/controls/FILE-6310/
Disable drivers like USB storage when not used, to prevent unauthorized storage or data theft [STRG-1840]
   https://cisofy.com/controls/STRG-1840/
Check DNS configuration for the dns domain name [NAME-4028]
   https://cisofy.com/controls/NAME-4028/
Purge old/removed packages (1 found) with aptitude purge or dpkg --purge command. This will cleanup old configuration files, cron jobs and startup scripts. [PKGS-7346]
   https://cisofy.com/controls/PKGS-7346/

    Install debsums utility for the verification of packages with known good database. [PKGS-7370]

   https://cisofy.com/controls/PKGS-7370/
* Update your system with apt-get update, apt-get upgrade, apt-get dist-upgrade and/or unattended-upgrades [PKGS-7392]
   https://cisofy.com/controls/PKGS-7392/

    Install package apt-show-versions for patch management purposes [PKGS-7394]

   https://cisofy.com/controls/PKGS-7394/

    Consider running ARP monitoring software (arpwatch,arpon) [NETW-3032]

   https://cisofy.com/controls/NETW-3032/

    Access to CUPS configuration could be more strict. [PRNT-2307]

   https://cisofy.com/controls/PRNT-2307/
* You are advised to hide the mail_name (option: smtpd_banner) from your postfix configuration. Use postconf -e or change your main.cf file (/etc/postfix/main.cf) [MAIL-8818]
   https://cisofy.com/controls/MAIL-8818/
Disable the 'VRFY' command [MAIL-8820:disable_vrfy_command]
 - Details : disable vrfy command=no
 - Solution : run postconf -e disable_vrfy_command=yes to change the value
   https://cisofy.com/controls/MAIL-8820/
Check iptables rules to see which rules are currently not used [FIRE-4513]
   https://cisofy.com/controls/FIRE-4513/

    Install Apache mod evasive to guard webserver against DoS/brute force attempts [HTTP-6640]

   https://cisofy.com/controls/HTTP-6640/

    Install Apache modsecurity to guard webserver against web application attacks [HTTP-6643]

   https://cisofy.com/controls/HTTP-6643/

    Consider hardening SSH configuration [SSH-7408]

 - Details : AllowTcpForwarding (YES --> NO)
   https://cisofy.com/controls/SSH-7408/

    Consider hardening SSH configuration [SSH-7408]
```

https://cisofy.com/controls/SSH-7408/

* Consider hardening SSH configuration [SSH-7408]

- Details : LogLevel (INFO --> VERBOSE)
https://cisofy.com/controls/SSH-7408/

 Details : ClientAliveCountMax (3 --> 2) https://cisofy.com/controls/SSH-7408/
 Consider hardening SSH configuration [SSH-7408] - Details : Compression (YES --> (DELAYEDINO))

Consider hardening SSH configuration [SSH-7408]
 Details : MaxAuthTries (6 --> 2)
 https://cisofy.com/controls/SSH-7408/

```
One or more sysctl values differ from the scan profile and could be tweaked [KRNL-6000]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Change sysctl value or disable test (skip-test=KRNL-6000:<sysctl-key>)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Add legal banner to /etc/issue.net, to warn unauthorized users [BANN-7130]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       [CONT-8184]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Add a legal banner to /etc/issue, to warn unauthorized users [BANN-7126]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              to root user only [HRDN-7222]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Check what deleted files are still in use and why. [LOGG-2190]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     see warnings applicable to Docker daemon
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Enable sysstat to collect accounting (no results) [ACCT-9626]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Enable auditd to collect audit information [ACCT-9628]
Consider hardening SSH configuration [SSH-7408]
                                                                                                                                                     Consider hardening SSH configuration [SSH-7408]
                                                                                                                                                                                                                                                                                                        Consider hardening SSH configuration [SSH-7408]
                                                                                                                                                                                                                                                                                                                                                                                                                                                           Consider hardening SSH configuration [SSH-7408]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Consider hardening SSH configuration [SSH-7408]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Consider hardening SSH configuration [SSH-7408]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Harden compilers like restricting access
https://cisofy.com/controls/HRDN-7222/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    https://cisofy.com/controls/LOGG-2198/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    https://cisofy.com/controls/BANN-7126/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  https://cisofy.com/controls/ACCT-9626/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         https://cisofy.com/controls/ACCT-9628/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         https://cisofy.com/controls/CONT-8104/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 https://cisofy.com/controls/BANN-7130/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   https://cisofy.com/controls/ACCT-9622/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  https://cisofy.com/controls/KRNL-6000/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     https://cisofy.com/controls/SSH-7408/
                                                                         https://cisofy.com/controls/SSH-7408/
                                                                                                                                                                                                                        https://cisofy.com/controls/55H-7408/
                                                                                                                                                                                                                                                                                                                                                                             https://cisofy.com/controls/SSH-7408/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 https://cisofy.com/controls/SSH-7408/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  https://cisofy.com/controls/SSH-7408/
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Enable process accounting [ACCT-9622]
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Run 'docker info' to
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Solution :
                                     Details
                                                                                                                                                                                             Details
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Details
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Details
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  ٠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ٠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ٠
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          ٠
```

(Lynis Enterprise users)

Show details of a test (lynis show details TEST-ID) Check the logfile for all details (less /var/log/lynis.log)

security controls texts (https://cisofy.com)

..upload to upload data to central system

es e

```
Lynis security scan details:
Hardening index : 56 [#########
Tests performed: 232
Plugins enabled : 1
Components:
- Firewall
                         [V]
                         TVI
- Malware scanner
Lynis Modules:
- Compliance Status
                         [?]
                         IVI
- Security Audit
- Vulnerability Scan
                         TVI
Files:
                                  : /var/log/lynis.log
- Test and debug information
                                  : /var/log/lynis-report.dat
- Report data
Notice: Lynis update available
Current version : 262
                         Latest version: 303
Lynis 2.6.2
Auditing, system hardening, and compliance for UNIX-based systems
(Linux, macOS, BSD, and others)
2007-2018, CISOfy - https://cisofy.com/lynis/
Enterprise support available (compliance, plugins, interface and tools)
```

[TIP]: Enhance Lynis audits by adding your settings to custom.prf (see /etc/lynis/default.prf for all settings)