Отчет по лабораторной работе №7

Отчет о мониторинге и настройке системных журналов

Чилеше . Л

27 января 2003

Российский университет дружбы народов, Москва, Россия

Объединённый институт ядерных исследований, Дубна, Россия

Информация

Докладчик

- Лупупа Чилеше
- Студент
- Студент Группы НПИбд-03-23
- Российский университет дружбы народов

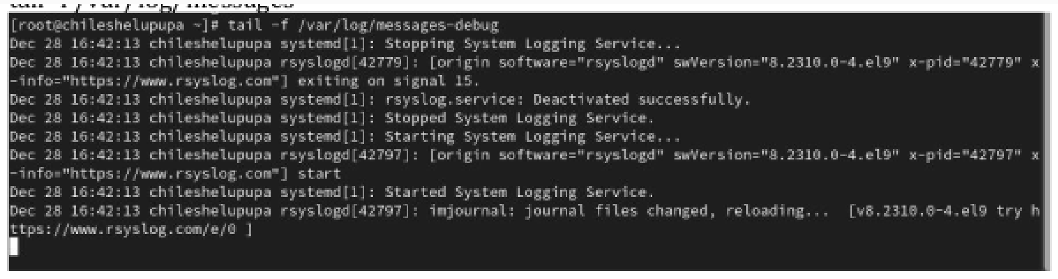
Вводная часть

Цель работ

Основными задачами этой лаборатории были: Отслеживайте журналы системных событий в режиме реального времени. Настройте rsyslog для регистрации ошибок веб-сервера. Используйте журналctl для эффективного мониторинга журналов. Включите постоянное хранилище для журналов Journald.

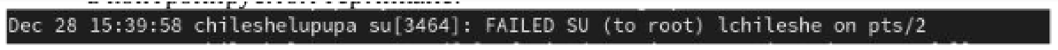
Мониторинг системных журналов в режиме реального времени

tail -f /var/log/messages



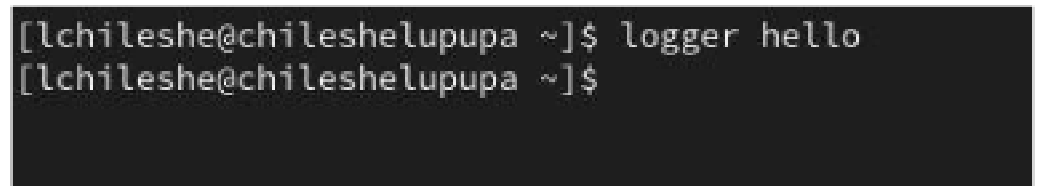
```
[root@chileshelupupa ~]# tail -f /var/log/messages-debug
Dec 28 16:42:13 chileshelupupa systemd[1]: Stopping System Logging Service...
Dec 28 16:42:13 chileshelupupa rsyslogd[42779]: [origin software="rsyslogd" swVersion="8.2310.0-4.el9" x-pid="42779" x
-info="https://www.rsyslog.com"] exiting on signal 15.
Dec 28 16:42:13 chileshelupupa systemd[1]: rsyslog.service: Deactivated successfully.
Dec 28 16:42:13 chileshelupupa systemd[1]: Stopped System Logging Service.
Dec 28 16:42:13 chileshelupupa systemd[1]: Starting System Logging Service...
Dec 28 16:42:13 chileshelupupa rsyslogd[42797]: [origin software="rsyslogd" swVersion="8.2310.0-4.el9" x-pid="42797" x
-info="https://www.rsyslog.com"] start
Dec 28 16:42:13 chileshelupupa systemd[1]: Started System Logging Service.
Dec 28 16:42:13 chileshelupupa rsyslogd[42797]: imjournal: journal files changed, reloading...  [v8.2310.0-4.el9 try h
ttps://www.rsyslog.com/e/0 ]
```

FAILED SU (to root)



```
Dec 28 15:39:58 chileshelupupa su[3464]: FAILED SU (to root) lchileshe on pts/2
```

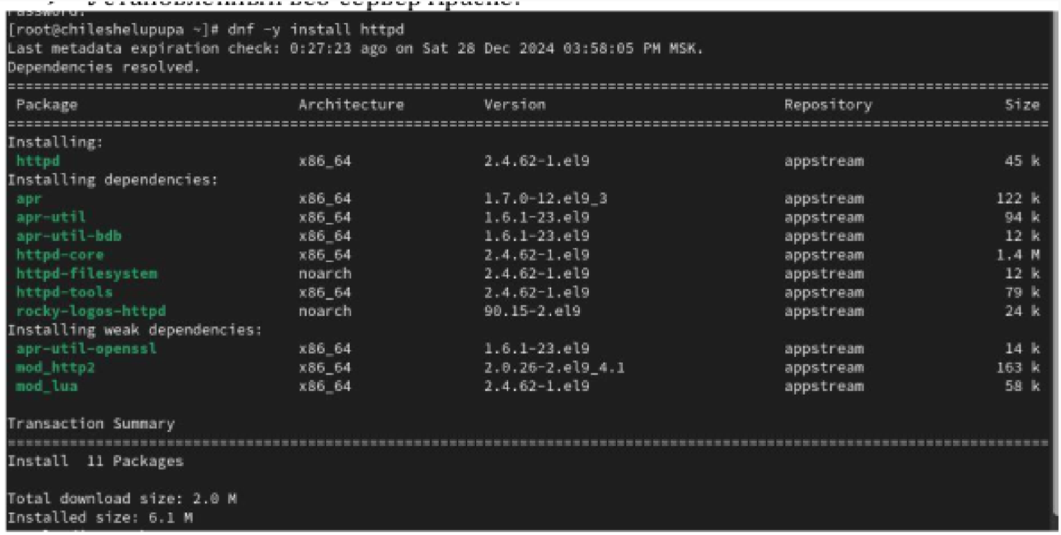
logger hello



```
[lchileshe@chileshelupupa ~]$ logger hello
[lchileshe@chileshelupupa ~]$
```

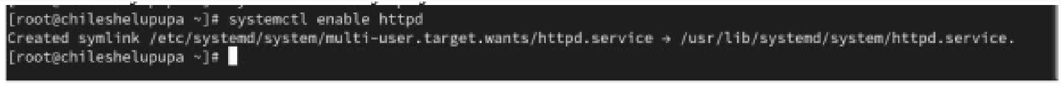
Настройка rsyslog для ведения журнала веб-сервера

веб-сервер Apache:



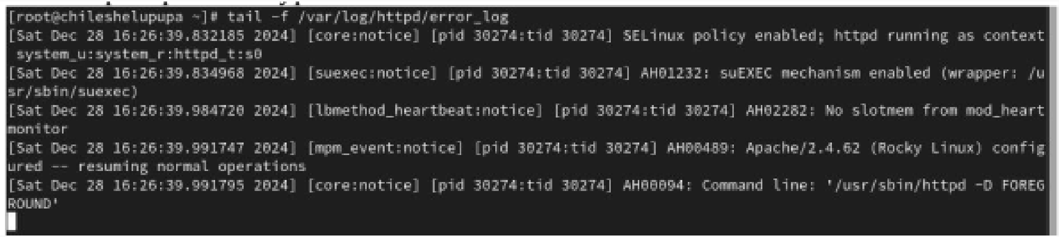
```
[root@chileshelupupa ~]# dnf -y install httpd
Last metadata expiration check: 0:27:23 ago on Sat 28 Dec 2024 03:58:05 PM MSK.
Dependencies resolved.
================================================================================================
 Package                Architecture       Version                      Repository         Size
================================================================================================
Installing:
 httpd                  x86_64             2.4.62-1.el9                 appstream          45 k
Installing dependencies:
 apr                    x86_64             1.7.0-12.el9_3               appstream         122 k
 apr-util               x86_64             1.6.1-23.el9                 appstream          94 k
 apr-util-bdb           x86_64             1.6.1-23.el9                 appstream          12 k
 httpd-core             x86_64             2.4.62-1.el9                 appstream         1.4 M
 httpd-filesystem       noarch             2.4.62-1.el9                 appstream          12 k
 httpd-tools            x86_64             2.4.62-1.el9                 appstream          79 k
 rocky-logos-httpd      noarch             90.15-2.el9                  appstream          24 k
Installing weak dependencies:
 apr-util-openssl       x86_64             1.6.1-23.el9                 appstream          14 k
 mod_http2              x86_64             2.0.26-2.el9_4.1             appstream         163 k
 mod_lua                x86_64             2.4.62-1.el9                 appstream          58 k

Transaction Summary
================================================================================================
Install  11 Packages

Total download size: 2.0 M
Installed size: 6.1 M
```

Запустил и включил службу:



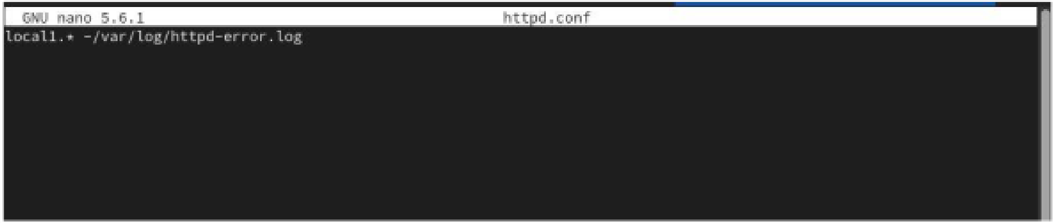
```
[root@chileshelupupa ~]# systemctl enable httpd
Created symlink /etc/systemd/system/multi-user.target.wants/httpd.service → /usr/lib/systemd/system/httpd.service.
[root@chileshelupupa ~]# 
```

Проверенные журналы ошибок с:



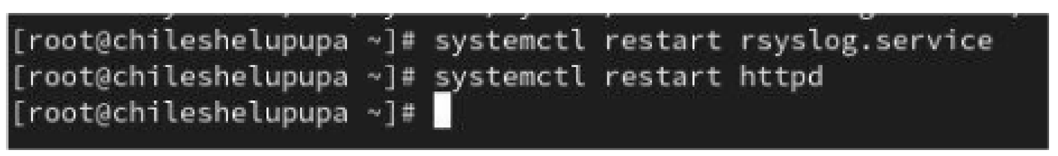
```
[root@chileshelupupa ~]# tail -f /var/log/httpd/error_log
[Sat Dec 28 16:26:39.832185 2024] [core:notice] [pid 30274:tid 30274] SELinux policy enabled; httpd running as context
 system_u:system_r:httpd_t:s0
[Sat Dec 28 16:26:39.834968 2024] [suexec:notice] [pid 30274:tid 30274] AH01232: suEXEC mechanism enabled (wrapper: /u
sr/sbin/suexec)
[Sat Dec 28 16:26:39.984720 2024] [lbmethod_heartbeat:notice] [pid 30274:tid 30274] AH02282: No slotmem from mod_heart
monitor
[Sat Dec 28 16:26:39.991747 2024] [mpm_event:notice] [pid 30274:tid 30274] AH00489: Apache/2.4.62 (Rocky Linux) config
ured -- resuming normal operations
[Sat Dec 28 16:26:39.991795 2024] [core:notice] [pid 30274:tid 30274] AH00094: Command line: '/usr/sbin/httpd -D FOREG
ROUND'
```

local1.* -/var/log/httpd-error.log



```
  GNU nano 5.6.1                                  httpd.conf
local1.* -/var/log/httpd-error.log
```

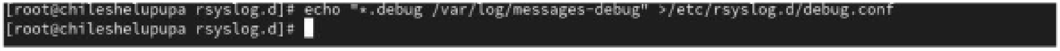
Перезапустил rsyslog и Apache:



```
[root@chileshelupupa ~]# systemctl restart rsyslog.service
[root@chileshelupupa ~]# systemctl restart httpd
[root@chileshelupupa ~]# 
```

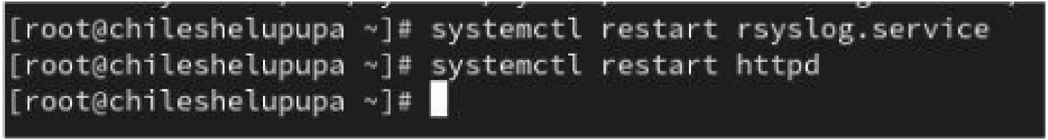
#Ведение журнала отладки

/etc/rsyslog.d/debug.conf



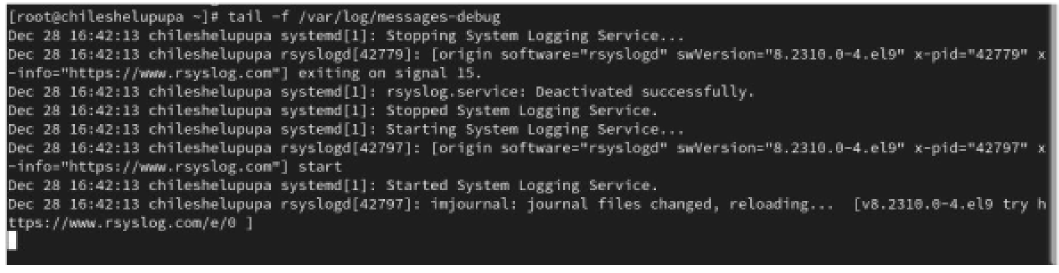
```
[root@chileshelupupa rsyslog.d]# echo "*.debug /var/log/messages-debug" >/etc/rsyslog.d/debug.conf
[root@chileshelupupa rsyslog.d]# 
```

systemctl restart rsyslog.service



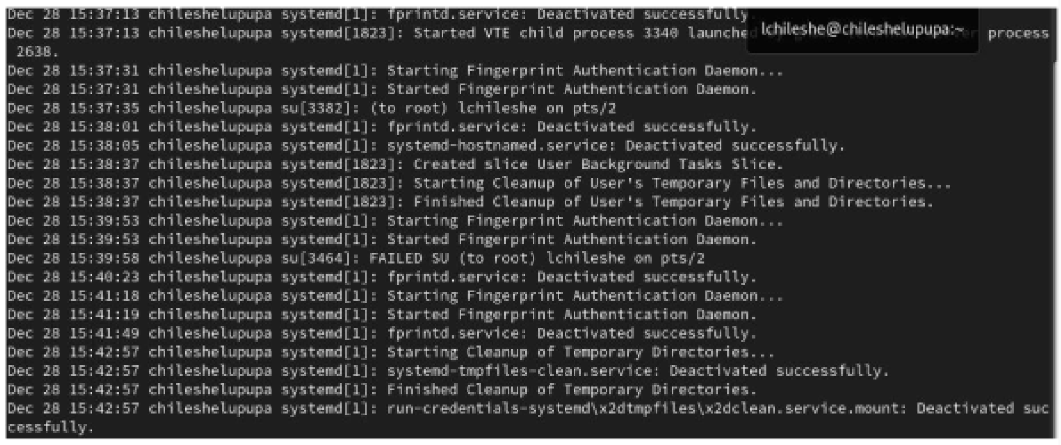
```
[root@chileshelupupa ~]# systemctl restart rsyslog.service
[root@chileshelupupa ~]# systemctl restart httpd
[root@chileshelupupa ~]# 
```

tail -f /var/log/messages-debug



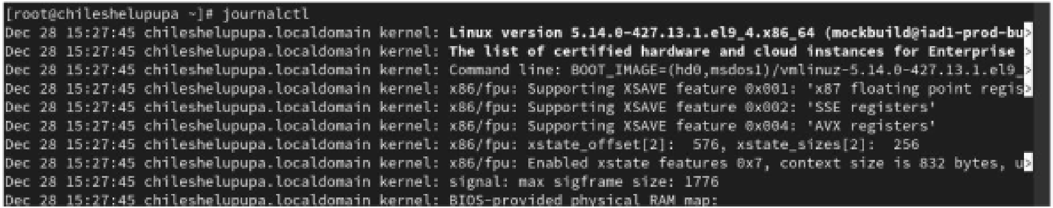
```
[root@chileshelupupa ~]# tail -f /var/log/messages-debug
Dec 28 16:42:13 chileshelupupa systemd[1]: Stopping System Logging Service...
Dec 28 16:42:13 chileshelupupa rsyslogd[42779]: [origin software="rsyslogd" swVersion="8.2310.0-4.el9" x-pid="42779" x
-info="https://www.rsyslog.com"] exiting on signal 15.
Dec 28 16:42:13 chileshelupupa systemd[1]: rsyslog.service: Deactivated successfully.
Dec 28 16:42:13 chileshelupupa systemd[1]: Stopped System Logging Service.
Dec 28 16:42:13 chileshelupupa systemd[1]: Starting System Logging Service...
Dec 28 16:42:13 chileshelupupa rsyslogd[42797]: [origin software="rsyslogd" swVersion="8.2310.0-4.el9" x-pid="42797" x
-info="https://www.rsyslog.com"] start
Dec 28 16:42:13 chileshelupupa systemd[1]: Started System Logging Service.
Dec 28 16:42:13 chileshelupupa rsyslogd[42797]: imjournal: journal files changed, reloading...  [v8.2310.0-4.el9 try h
ttps://www.rsyslog.com/e/0 ]
```

logger -p daemon.debug “Daemon Debug Message”



```
Dec 28 15:37:13 chileshelupupa systemd[1]: fprintd.service: Deactivated successfully.
Dec 28 15:37:13 chileshelupupa systemd[1823]: Started VTE child process 3340 launche                          process
 2638.
Dec 28 15:37:31 chileshelupupa systemd[1]: Starting Fingerprint Authentication Daemon...
Dec 28 15:37:31 chileshelupupa systemd[1]: Started Fingerprint Authentication Daemon.
Dec 28 15:37:35 chileshelupupa su[3382]: (to root) lchileshe on pts/2
Dec 28 15:38:01 chileshelupupa systemd[1]: fprintd.service: Deactivated successfully.
Dec 28 15:38:05 chileshelupupa systemd[1]: systemd-hostnamed.service: Deactivated successfully.
Dec 28 15:38:37 chileshelupupa systemd[1823]: Created slice User Background Tasks Slice.
Dec 28 15:38:37 chileshelupupa systemd[1823]: Starting Cleanup of User's Temporary Files and Directories...
Dec 28 15:38:37 chileshelupupa systemd[1823]: Finished Cleanup of User's Temporary Files and Directories.
Dec 28 15:39:53 chileshelupupa systemd[1]: Starting Fingerprint Authentication Daemon...
Dec 28 15:39:53 chileshelupupa systemd[1]: Started Fingerprint Authentication Daemon.
Dec 28 15:39:58 chileshelupupa su[3464]: FAILED SU (to root) lchileshe on pts/2
Dec 28 15:40:23 chileshelupupa systemd[1]: fprintd.service: Deactivated successfully.
Dec 28 15:41:18 chileshelupupa systemd[1]: Starting Fingerprint Authentication Daemon...
Dec 28 15:41:19 chileshelupupa systemd[1]: Started Fingerprint Authentication Daemon.
Dec 28 15:41:49 chileshelupupa systemd[1]: fprintd.service: Deactivated successfully.
Dec 28 15:42:57 chileshelupupa systemd[1]: Starting Cleanup of Temporary Directories...
Dec 28 15:42:57 chileshelupupa systemd[1]: systemd-tmpfiles-clean.service: Deactivated successfully.
Dec 28 15:42:57 chileshelupupa systemd[1]: Finished Cleanup of Temporary Directories.
Dec 28 15:42:57 chileshelupupa systemd[1]: run-credentials-systemd\x2dtmpfiles\x2dclean.service.mount: Deactivated suc
cessfully.
```

Journalctl



```
[root@chileshelupupa ~]# journalctl
Dec 28 15:27:45 chileshelupupa.localdomain kernel: Linux version 5.14.0-427.13.1.el9_4.x86_64 (mockbuild@iad1-prod-bu>
Dec 28 15:27:45 chileshelupupa.localdomain kernel: The list of certified hardware and cloud instances for Enterprise >
Dec 28 15:27:45 chileshelupupa.localdomain kernel: Command line: BOOT_IMAGE=(hd0,msdos1)/vmlinuz-5.14.0-427.13.1.el9_>
Dec 28 15:27:45 chileshelupupa.localdomain kernel: x86/fpu: Supporting XSAVE feature 0x001: 'x87 floating point regis>
Dec 28 15:27:45 chileshelupupa.localdomain kernel: x86/fpu: Supporting XSAVE feature 0x002: 'SSE registers'
Dec 28 15:27:45 chileshelupupa.localdomain kernel: x86/fpu: Supporting XSAVE feature 0x004: 'AVX registers'
Dec 28 15:27:45 chileshelupupa.localdomain kernel: x86/fpu: xstate_offset[2]:  576, xstate_sizes[2]:  256
Dec 28 15:27:45 chileshelupupa.localdomain kernel: x86/fpu: Enabled xstate features 0x7, context size is 832 bytes, u>
Dec 28 15:27:45 chileshelupupa.localdomain kernel: signal: max sigframe size: 1776
Dec 28 15:27:45 chileshelupupa.localdomain kernel: BIOS-provided physical RAM map:
```

Результаты и наблюдения

Результаты и наблюдения

Успешно отслеживал системные события и входы пользователей в режиме реального времени. Настроен rsyslog для регистрации ошибок веб-сервера Apache. Проверено правильность хранения отладочных и пользовательских сообщений журнала. Включено и протестировано постоянное ведение журналов.

Заключение

В ходе этой лабораторной работы был предоставлен практический опыт мониторинга системных журналов, настройки пользовательских правил ведения журналов и эффективного управления системными журналами с помощью Journald и rsyslog. Овладение этими методами необходимо для эффективного системного администрирования и устранения неполадок.