



# TEST REPORT SEAPATH DEBIAN

Receiver: SEAPATH

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# Test reports

## Tests common for vmtest13

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00078 | no paging error                                | PASS    |
| SEAPATH-00079 | no rcu stall                                   | PASS    |
| SEAPATH-00080 | no backtraces                                  | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT                           | PASS    |
| SEAPATH-00076 | kernel is realtime                             | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106                          | PASS    |
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

## Tests common security for vmtest13

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmod call is logged  | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmmod call is logged  | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescrypt  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/securetty is empty  | PASS    |
| SEAPATH-00101 | PAM securetty module is active in 'login' policy                       | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                      | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                              | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg                  | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                                 | PASS    |
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group                | PASS    |
| SEAPATH-00225 | Umask is set correctly set   | PASS    |
| SEAPATH-00227 | AppArmor processes are confined in enforce mode                        | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline                      | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on  | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback   | PASS    |
| SEAPATH-00201 | LSM Yama is enabled  | PASS    |
| SEAPATH-00210 | MCE is disabled  | PASS    |
| SEAPATH-00211 | rng_core.default_quality is set to 500                                 | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled   | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface                                  | PASS    |
| SEAPATH-00224 | IPv6 is disabled   | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)                   | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)             | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)             | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (adminincluster)        | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsys)                                     | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists  | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged   | PASS    |
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750  | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec  | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty  | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty   | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027  | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot  | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset   | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user  | PASS    |
| SEAPATH-00150 | all commands require authentication   | PASS    |
| SEAPATH-00152 | EXEC option is not used   | PASS    |
| SEAPATH-00153 | rules are not defined by negation   | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments  | PASS    |
| SEAPATH-00154 | no user can run all commands as root  | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument   | PASS    |
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |
| SEAPATH-00173 | Check binfmt_misc is disabled   | PASS    |
| SEAPATH-00176 | Check kptr_restrict is set to 2   | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1  | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304   | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1   | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1  | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2   | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2  | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0   | PASS    |
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1   | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1   | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2  | PASS    |
| SEAPATH-00187 | Check suid_dumpable is set to 0   | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2   | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2   | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1  | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1   | PASS    |

| Test ID       | Tests                                       | Results |
|---------------|---|---------|
| SEAPATH-00082 | /var/log is mounted on a separate partition | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges    | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded          | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered         | PASS    |
| SEAPATH-00199 | No systemd service failed                   | PASS    |
| SEAPATH-00200 | No unrecognized service enabled             | PASS    |

- number of tests: 105
- number of failures: 0

## Tests common for vmtest13s

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00078 | no paging error                                | PASS    |
| SEAPATH-00079 | no rcu stall                                   | PASS    |
| SEAPATH-00080 | no backtraces                                  | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT                           | PASS    |
| SEAPATH-00076 | kernel is realtime                             | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106                          | PASS    |
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

## Tests common security for vmtest13s

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmod call is logged  | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmmod call is logged  | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescrypt  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/securetty is empty  | PASS    |
| SEAPATH-00101 | PAM securetty module is active in 'login' policy                       | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                      | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                              | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg                  | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                                 | PASS    |
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group                | PASS    |
| SEAPATH-00225 | Umask is set correctly set   | PASS    |
| SEAPATH-00227 | AppArmor processes are confined in enforce mode                        | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline                      | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on  | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback   | PASS    |
| SEAPATH-00201 | LSM Yama is enabled  | PASS    |
| SEAPATH-00210 | MCE is disabled  | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00211 | rng_core.default_quality is set to 500  | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled  | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface   | PASS    |
| SEAPATH-00224 | IPv6 is disabled  | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)  | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)  | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)  | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (adminincluster)                                     | PASS    |
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsyst)                                    | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists  | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged   | PASS    |
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750  | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec  | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty  | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty   | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027  | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot  | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset   | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user  | PASS    |
| SEAPATH-00150 | all commands require authentication   | PASS    |
| SEAPATH-00152 | EXEC option is not used   | PASS    |
| SEAPATH-00153 | rules are not defined by negation   | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments  | PASS    |
| SEAPATH-00154 | no user can run all commands as root  | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument   | PASS    |
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |
| SEAPATH-00173 | Check binfmt_misc is disabled   | PASS    |
| SEAPATH-00176 | Check kptr_restrict is set to 2   | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1  | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304   | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1   | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1  | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2   | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2  | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0   | PASS    |

| Test ID       | Tests                                       | Results |
|---------------|---|---------|
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1 | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1             | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2  | PASS    |
| SEAPATH-00187 | Check uid_dumpable is set to 0              | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2           | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2         | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1        | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1       | PASS    |
| SEAPATH-00082 | /var/log is mounted on a separate partition | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges    | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded          | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered         | PASS    |
| SEAPATH-00199 | No systemd service failed                   | PASS    |
| SEAPATH-00200 | No unrecognized service enabled             | PASS    |

- number of tests: 105
- number of failures: 0

## Tests common for vmtest13rt

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00078 | no paging error                                | PASS    |
| SEAPATH-00079 | no rcu stall                                   | PASS    |
| SEAPATH-00080 | no backtraces                                  | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT                           | PASS    |
| SEAPATH-00076 | kernel is realtime                             | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106                          | PASS    |
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

## Tests common security for vmtest13rt

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmod call is logged  | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmod call is logged   | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescrypt  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/security is empty   | PASS    |
| SEAPATH-00101 | PAM security module is active in 'login' policy                        | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                      | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                              | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg                  | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                                 | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group   | PASS    |
| SEAPATH-00225 | Umask is set correctly set  | PASS    |
| SEAPATH-00227 | AppArmor processes are confined in enforce mode   | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline   | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on   | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback  | PASS    |
| SEAPATH-00201 | LSM Yama is enabled   | PASS    |
| SEAPATH-00210 | MCE is disabled   | PASS    |
| SEAPATH-00211 | rng_core.default_quality is set to 500  | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled  | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface   | PASS    |
| SEAPATH-00224 | IPv6 is disabled  | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)  | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)  | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)  | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (adminincluster)                                     | PASS    |
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsyst)                                    | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists  | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged   | PASS    |
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750  | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec  | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty  | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty   | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027  | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot  | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset   | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user  | PASS    |
| SEAPATH-00150 | all commands require authentication   | PASS    |
| SEAPATH-00152 | EXEC option is not used   | PASS    |
| SEAPATH-00153 | rules are not defined by negation   | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments  | PASS    |
| SEAPATH-00154 | no user can run all commands as root  | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument   | PASS    |
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |
| SEAPATH-00173 | Check binfmt_misc is disabled   | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00176 | Check kptr_restrict is set to 2              | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1             | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304              | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1  | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1 | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2        | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2         | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0                      | PASS    |
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1  | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1              | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2   | PASS    |
| SEAPATH-00187 | Check suid_dumpable is set to 0              | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2            | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2          | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1         | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1        | PASS    |
| SEAPATH-00082 | /var/log is mounted on a separate partition  | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges     | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded           | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered          | PASS    |
| SEAPATH-00199 | No systemd service failed                    | PASS    |
| SEAPATH-00200 | No unrecognized service enabled              | PASS    |

- number of tests: 105
- number of failures: 0

## Tests common for standalone

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00078 | no paging error                                | PASS    |
| SEAPATH-00079 | no rcu stall                                   | PASS    |
| SEAPATH-00080 | no backtraces                                  | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT                           | PASS    |
| SEAPATH-00076 | kernel is realtime                             | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106                          | PASS    |
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

# Tests common security for standalone

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmod call is logged  | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmod call is logged   | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescript  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/security is empty   | PASS    |
| SEAPATH-00101 | PAM security module is active in 'login' policy                  | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                        | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg            | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                           | PASS    |
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group          | PASS    |
| SEAPATH-00225 | Umask is set correctly set                                       | PASS    |
| SEAPATH-00227 | AppArmor processes are confined in enforce mode                  | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline                | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on                                    | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback                                   | PASS    |
| SEAPATH-00201 | LSM Yama is enabled  | PASS    |
| SEAPATH-00210 | MCE is disabled  | PASS    |
| SEAPATH-00211 | rng_core.default_quality is set to 500                           | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled   | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface                            | PASS    |
| SEAPATH-00224 | IPv6 is disabled   | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)             | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)       | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)       | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (adminincluster)  | PASS    |
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsyst) | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists   | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged                        | PASS    |
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750                               | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec                           | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty                       | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty                          | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027                       | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot                       | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset                        | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user                       | PASS    |
| SEAPATH-00150 | all commands require authentication                              | PASS    |
| SEAPATH-00152 | EXEC option is not used  | PASS    |
| SEAPATH-00153 | rules are not defined by negation                                | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments                           | PASS    |
| SEAPATH-00154 | no user can run all commands as root                             | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument                      | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |
| SEAPATH-00173 | Check binfmt_misc is disabled   | PASS    |
| SEAPATH-00176 | Check kptr_restrict is set to 2   | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1  | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304   | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1   | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1  | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2   | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2  | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0   | PASS    |
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1   | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1   | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2  | PASS    |
| SEAPATH-00187 | Check suid_dumpable is set to 0   | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2   | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2   | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1  | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1   | PASS    |
| SEAPATH-00082 | /var/log is mounted on a separate partition   | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges  | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded  | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered   | PASS    |
| SEAPATH-00199 | No systemd service failed   | PASS    |
| SEAPATH-00200 | No unrecognized service enabled   | PASS    |

- number of tests: 105
- number of failures: 0

## Tests hypervisor for standalone

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00044 | Check /etc/syslog-ng/cert.d/clientcert.pem permissions | PASS    |
| SEAPATH-00045 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions  | PASS    |
| SEAPATH-00035 | ovs-vswitchd service is running                        | PASS    |
| SEAPATH-00035 | ovsdb-server service is running                        | PASS    |

| Test ID       | Tests                       | Results |
|---------------|-----------------------------|---------|
| SEAPATH-00038 | lspci 3.6.2+ is available   | PASS    |
| SEAPATH-00018 | KVM device available        | PASS    |
| SEAPATH-00019 | Qemu for x86-64 available   | PASS    |
| SEAPATH-00020 | Libvirtd service is running | PASS    |
| SEAPATH-00021 | IPv4 NAT is available       | PASS    |

- number of tests: 9
- number of failures: 0

## Tests hypervisor iommu for standalone

| Test ID       | Tests                             | Results |
|---------------|-----------------------------------|---------|
| SEAPATH-00030 | iommu enabled in passthrough mode | PASS    |

- number of tests: 1
- number of failures: 0

## Tests hypervisor security for standalone

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00033 | /etc/group is consistent                                 | PASS    |
| SEAPATH-00033 | /etc/gshadow is consistent                               | PASS    |
| SEAPATH-00034 | /etc/group does not include extra group                  | PASS    |
| SEAPATH-00034 | /etc/gshadow does not include extra group                | PASS    |
| SEAPATH-00008 | Slab merging is disabled on cmdline                      | PASS    |
| SEAPATH-00009 | Kernel Page Table Isolation is always enabled on cmdline | PASS    |
| SEAPATH-00010 | SLUB redzoning and sanity checking enabled on cmdline    | PASS    |
| SEAPATH-00207 | CPU has no known vulnerabilities                         | PASS    |
| SEAPATH-00047 | /etc/passwd is consistent                                | PASS    |
| SEAPATH-00048 | /etc/passwd does not include extra user                  | PASS    |
| SEAPATH-00046 | /etc/shadow is consistent                                | PASS    |
| SEAPATH-00015 | Vulnerabilities sysfs entry exist                        | PASS    |
| SEAPATH-00017 | System is not vulnerable to : meltdown                   | PASS    |
| SEAPATH-00017 | System is not vulnerable to : l1tf                       | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v1                 | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v2                 | PASS    |

- number of tests: 16
- number of failures: 0

## Tests common for node3

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00078 | no paging error                                | PASS    |
| SEAPATH-00079 | no rcu stall                                   | PASS    |
| SEAPATH-00080 | no backtraces                                  | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT                           | PASS    |
| SEAPATH-00076 | kernel is realtime                             | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106                          | PASS    |
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

## Tests common security for node3

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmmod call is logged   | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmmod call is logged  | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescrypt  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/securetty is empty  | PASS    |
| SEAPATH-00101 | PAM securetty module is active in 'login' policy                       | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                      | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                              | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg                  | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                                 | PASS    |
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group                | PASS    |
| SEAPATH-00225 | Umask is set correctly set   | PASS    |
| SEAPATH-00227 | AppArmor processes are confined in enforce mode                        | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline                      | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on  | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback   | PASS    |
| SEAPATH-00201 | LSM Yama is enabled  | PASS    |
| SEAPATH-00210 | MCE is disabled  | PASS    |
| SEAPATH-00211 | rng_core.default_quality is set to 500                                 | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled   | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface                                  | PASS    |
| SEAPATH-00224 | IPv6 is disabled   | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)                   | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)             | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)             | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (adminincluster)        | PASS    |
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsyst)       | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists   | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged                              | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750  | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec  | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty  | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty   | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027  | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot  | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset   | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user  | PASS    |
| SEAPATH-00150 | all commands require authentication   | PASS    |
| SEAPATH-00152 | EXEC option is not used   | PASS    |
| SEAPATH-00153 | rules are not defined by negation   | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments  | PASS    |
| SEAPATH-00154 | no user can run all commands as root  | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument   | PASS    |
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                                 | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/cephadm - /etc/sudoers.d/cephadm is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions                 | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/ceph-smartctl - /etc/sudoers.d/ceph-smartctl is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions     | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |
| SEAPATH-00173 | Check binfmt_misc is disabled   | PASS    |
| SEAPATH-00176 | Check kptr_restrict is set to 2   | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1  | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304   | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1   | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1  | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2   | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2  | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0   | PASS    |
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1   | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1   | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2  | PASS    |
| SEAPATH-00187 | Check uid_dumpable is set to 0  | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2   | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2   | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1  | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1   | PASS    |

| Test ID       | Tests                                       | Results |
|---------------|---|---------|
| SEAPATH-00082 | /var/log is mounted on a separate partition | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges    | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded          | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered         | PASS    |
| SEAPATH-00199 | No systemd service failed                   | PASS    |
| SEAPATH-00200 | No unrecognized service enabled             | PASS    |

- number of tests: 107
- number of failures: 0

## Tests hypervisor for node3

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00044 | Check /etc/syslog-ng/cert.d/clientcert.pem permissions | PASS    |
| SEAPATH-00045 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions  | PASS    |
| SEAPATH-00035 | ovs-vswitchd service is running                        | PASS    |
| SEAPATH-00035 | ovsdb-server service is running                        | PASS    |
| SEAPATH-00038 | lspci 3.6.2+ is available                              | PASS    |
| SEAPATH-00018 | KVM device available                                   | PASS    |
| SEAPATH-00019 | Qemu for x86-64 available                              | PASS    |
| SEAPATH-00020 | Libvirtd service is running                            | PASS    |
| SEAPATH-00021 | IPv4 NAT is available                                  | PASS    |

- number of tests: 9
- number of failures: 0

## Tests hypervisor iommu for node3

| Test ID       | Tests                             | Results |
|---------------|-----------------------------------|---------|
| SEAPATH-00030 | iommu enabled in passthrough mode | PASS    |

- number of tests: 1
- number of failures: 0

## Tests hypervisor security for node3

| Test ID       | Tests                                     | Results |
|---------------|---|---------|
| SEAPATH-00033 | /etc/group is consistent                  | PASS    |
| SEAPATH-00033 | /etc/gshadow is consistent                | PASS    |
| SEAPATH-00034 | /etc/group does not include extra group   | PASS    |
| SEAPATH-00034 | /etc/gshadow does not include extra group | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00008 | Slab merging is disabled on cmdline                      | PASS    |
| SEAPATH-00009 | Kernel Page Table Isolation is always enabled on cmdline | PASS    |
| SEAPATH-00010 | SLUB redzoning and sanity checking enabled on cmdline    | PASS    |
| SEAPATH-00207 | CPU has no known vulnerabilities                         | PASS    |
| SEAPATH-00047 | /etc/passwd is consistent                                | PASS    |
| SEAPATH-00048 | /etc/passwd does not include extra user                  | PASS    |
| SEAPATH-00046 | /etc/shadow is consistent                                | PASS    |
| SEAPATH-00015 | Vulnerabilities sysfs entry exist                        | PASS    |
| SEAPATH-00017 | System is not vulnerable to : meltdown                   | PASS    |
| SEAPATH-00017 | System is not vulnerable to : l1tf                       | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v1                 | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v2                 | PASS    |

- number of tests: 16
- number of failures: 0

## Tests common for node2

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00078 | no paging error                                | PASS    |
| SEAPATH-00079 | no rcu stall                                   | PASS    |
| SEAPATH-00080 | no backtraces                                  | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT                           | PASS    |
| SEAPATH-00076 | kernel is realtime                             | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106                          | PASS    |
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

## Tests common security for node2

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmod call is logged  | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmod call is logged   | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescrypt  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/security is empty   | PASS    |
| SEAPATH-00101 | PAM security module is active in 'login' policy                        | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                      | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                              | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg                  | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                                 | PASS    |
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group                | PASS    |
| SEAPATH-00225 | Umask is set correctly set   | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00227 | AppArmor processes are confined in enforce mode   | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline   | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on   | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback  | PASS    |
| SEAPATH-00201 | LSM Yama is enabled   | PASS    |
| SEAPATH-00210 | MCE is disabled   | PASS    |
| SEAPATH-00211 | rng_core.default_quality is set to 500  | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled  | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface   | PASS    |
| SEAPATH-00224 | IPv6 is disabled  | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)  | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)  | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)  | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (admincluster)   | PASS    |
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsyst)  | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists  | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged   | PASS    |
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750  | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec  | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty  | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty   | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027  | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot  | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset   | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user  | PASS    |
| SEAPATH-00150 | all commands require authentication   | PASS    |
| SEAPATH-00152 | EXEC option is not used   | PASS    |
| SEAPATH-00153 | rules are not defined by negation   | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments  | PASS    |
| SEAPATH-00154 | no user can run all commands as root  | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument   | PASS    |
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                                 | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions                 | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/cephadm - /etc/sudoers.d/cephadm is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/ceph-smartctl - /etc/sudoers.d/ceph-smartctl is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions     | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00173 | Check binfmt_misc is disabled                | PASS    |
| SEAPATH-00176 | Check kptr_restrict is set to 2              | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1             | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304              | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1  | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1 | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2        | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2         | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0                      | PASS    |
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1  | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1              | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2   | PASS    |
| SEAPATH-00187 | Check suid_dumpable is set to 0              | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2            | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2          | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1         | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1        | PASS    |
| SEAPATH-00082 | /var/log is mounted on a separate partition  | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges     | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded           | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered          | PASS    |
| SEAPATH-00199 | No systemd service failed                    | PASS    |
| SEAPATH-00200 | No unrecognized service enabled              | PASS    |

- number of tests: 107

- number of failures: 0

## Tests hypervisor for node2

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00044 | Check /etc/syslog-ng/cert.d/clientcert.pem permissions | PASS    |
| SEAPATH-00045 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions  | PASS    |
| SEAPATH-00035 | ovs-vswitchd service is running                        | PASS    |
| SEAPATH-00035 | ovsdb-server service is running                        | PASS    |
| SEAPATH-00038 | lspci 3.6.2+ is available                              | PASS    |
| SEAPATH-00018 | KVM device available                                   | PASS    |
| SEAPATH-00019 | Qemu for x86-64 available                              | PASS    |
| SEAPATH-00020 | Libvirtd service is running                            | PASS    |
| SEAPATH-00021 | IPv4 NAT is available                                  | PASS    |

- number of tests: 9

- number of failures: 0

## Tests hypervisor iommu for node2

| Test ID       | Tests                             | Results |
|---------------|-----------------------------------|---------|
| SEAPATH-00030 | iommu enabled in passthrough mode | PASS    |

- number of tests: 1
- number of failures: 0

## Tests hypervisor security for node2

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00033 | /etc/group is consistent                                 | PASS    |
| SEAPATH-00033 | /etc/gshadow is consistent                               | PASS    |
| SEAPATH-00034 | /etc/group does not include extra group                  | PASS    |
| SEAPATH-00034 | /etc/gshadow does not include extra group                | PASS    |
| SEAPATH-00008 | Slab merging is disabled on cmdline                      | PASS    |
| SEAPATH-00009 | Kernel Page Table Isolation is always enabled on cmdline | PASS    |
| SEAPATH-00010 | SLUB redzoning and sanity checking enabled on cmdline    | PASS    |
| SEAPATH-00207 | CPU has no known vulnerabilities                         | PASS    |
| SEAPATH-00047 | /etc/passwd is consistent                                | PASS    |
| SEAPATH-00048 | /etc/passwd does not include extra user                  | PASS    |
| SEAPATH-00046 | /etc/shadow is consistent                                | PASS    |
| SEAPATH-00015 | Vulnerabilities sysfs entry exist                        | PASS    |
| SEAPATH-00017 | System is not vulnerable to : meltdown                   | PASS    |
| SEAPATH-00017 | System is not vulnerable to : l1tf                       | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v1                 | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v2                 | PASS    |

- number of tests: 16
- number of failures: 0

## Tests common for node1

| Test ID       | Tests                 | Results |
|---------------|-----------------------|---------|
| SEAPATH-00078 | no paging error       | PASS    |
| SEAPATH-00079 | no rcu stall          | PASS    |
| SEAPATH-00080 | no backtraces         | PASS    |
| SEAPATH-00075 | kernel is PREEMPT RT  | PASS    |
| SEAPATH-00076 | kernel is realtime    | PASS    |
| SEAPATH-00081 | kernel is >= 4.19.106 | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00083 | syslog-ng service is running                   | PASS    |
| SEAPATH-00084 | syslog-ng is configured to send log on network | PASS    |

- number of tests: 8
- number of failures: 0

## Tests common security for node1

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00197 | Only wanted apt repositories configured: only use sources.list.d       | PASS    |
| SEAPATH-00197 | Only wanted apt repositories configured: do not add other repositories | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian                      | PASS    |
| SEAPATH-00197 | Only official apt repositories configured: debian-security             | PASS    |
| SEAPATH-00198 | No unrecognized packages installed                                     | PASS    |
| SEAPATH-00215 | auditd service is active   | PASS    |
| SEAPATH-00216 | auditd is configured to output in syslog                               | PASS    |
| SEAPATH-00217 | insmod call is logged  | PASS    |
| SEAPATH-00217 | kmod call is logged  | PASS    |
| SEAPATH-00217 | modprobe call is logged  | PASS    |
| SEAPATH-00217 | rmmmod call is logged  | PASS    |
| SEAPATH-00218 | modification in /etc/ is logged  | PASS    |
| SEAPATH-00219 | mount/umount call is logged  | PASS    |
| SEAPATH-00220 | ioperm call is logged  | PASS    |
| SEAPATH-00220 | prctl call is logged   | PASS    |
| SEAPATH-00220 | ptrace call is logged  | PASS    |
| SEAPATH-00221 | file deletion is logged  | PASS    |
| SEAPATH-00222 | open monitoring is logged  | PASS    |
| SEAPATH-00222 | openat monitoring is logged  | PASS    |
| SEAPATH-00222 | unlink monitoring is logged  | PASS    |
| SEAPATH-00106 | Check /etc/shadow permissions  | PASS    |
| SEAPATH-00107 | Check /etc/passwd permissions  | PASS    |
| SEAPATH-00108 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions                  | PASS    |
| SEAPATH-00049 | Check /etc/ssh/ssh_host_ed25519_key permissions                        | PASS    |
| SEAPATH-00090 | Check /etc/ssh/ssh_host_rsa_key permissions                            | PASS    |
| SEAPATH-00192 | All files have a known owner and group                                 | PASS    |
| SEAPATH-00193 | All directories writable by all users have the sticky bit              | PASS    |
| SEAPATH-00194 | All directories writable by all users are owned by root                | PASS    |
| SEAPATH-00195 | Ceph OSD are owned by ceph   | PASS    |
| SEAPATH-00196 | No unexpected file has setuid/setgid enabled                           | PASS    |
| SEAPATH-00088 | root password was randomized at boot                                   | PASS    |
| SEAPATH-00089 | root password is randomized at each boot                               | PASS    |

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00091 | root password is encrypted with a crypto at least equivalent as sha512 | PASS    |
| SEAPATH-00092 | bash timeout is set read-only to 300s                                  | PASS    |
| SEAPATH-00093 | sshd forbids setting environment variables                             | PASS    |
| SEAPATH-00094 | sshd server time-out is set to 300s of client inactivity               | PASS    |
| SEAPATH-00097 | pam password authentication uses sha512 with 65536 rounds or yescrypt  | PASS    |
| SEAPATH-00098 | password set to expire after 90 days                                   | PASS    |
| SEAPATH-00099 | 'su' is denied   | PASS    |
| SEAPATH-00100 | /etc/securetty is empty  | PASS    |
| SEAPATH-00101 | PAM securetty module is active in 'login' policy                       | PASS    |
| SEAPATH-00202 | grub root superuser is set in /boot/grub/grub.cfg                      | PASS    |
| SEAPATH-00203 | grub root superuser is password protected                              | PASS    |
| SEAPATH-00204 | main menuentry is unrestricted in /boot/grub/grub.cfg                  | PASS    |
| SEAPATH-00205 | TMPDIR env var is defined and readonly                                 | PASS    |
| SEAPATH-00206 | TMPDIR is set with 700 mode and root as owner and group                | PASS    |
| SEAPATH-00225 | Umask is set correctly set   | PASS    |
| SEAPATH-00227 | AppArmor processes are confined in enforce mode                        | PASS    |
| SEAPATH-00170 | Wipe slab and page allocations enabled on cmdline                      | PASS    |
| SEAPATH-00174 | Randomize kstack offset in on  | PASS    |
| SEAPATH-00175 | Disable slab usercopy fallback   | PASS    |
| SEAPATH-00201 | LSM Yama is enabled  | PASS    |
| SEAPATH-00210 | MCE is disabled  | PASS    |
| SEAPATH-00211 | rng_core.default_quality is set to 500                                 | PASS    |
| SEAPATH-00226 | Test AppArmor is enabled   | PASS    |
| SEAPATH-00223 | All sockets are bound to an interface                                  | PASS    |
| SEAPATH-00224 | IPv6 is disabled   | PASS    |
| SEAPATH-00164 | sudo requires password for group operator (operator)                   | PASS    |
| SEAPATH-00165 | sudo requires password for group maintenance-N1 (maint-n1)             | PASS    |
| SEAPATH-00166 | sudo requires password for group maintenance-N3 (maint-n3)             | PASS    |
| SEAPATH-00167 | sudo requires password for group administrator (adminincluster)        | PASS    |
| SEAPATH-00168 | sudo requires password for group super-administrator (adminsyst)       | PASS    |
| SEAPATH-00103 | /usr/bin/sudo exists   | PASS    |
| SEAPATH-00104 | /usr/bin/sudo belongs to group privileged                              | PASS    |
| SEAPATH-00105 | /usr/bin/sudo has permissions 4750                                     | PASS    |
| SEAPATH-00148 | sudoers files include directive noexec                                 | PASS    |
| SEAPATH-00148 | sudoers files include directive requiretty                             | PASS    |
| SEAPATH-00148 | sudoers files include directive use_pty                                | PASS    |
| SEAPATH-00148 | sudoers files include directive umask=0027                             | PASS    |
| SEAPATH-00148 | sudoers files include directive ignore_dot                             | PASS    |
| SEAPATH-00148 | sudoers files include directive env_reset                              | PASS    |
| SEAPATH-00149 | sudo commands don't target privileged user                             | PASS    |

| Test ID       | Tests   | Results |
|---------------|---|---------|
| SEAPATH-00150 | all commands require authentication   | PASS    |
| SEAPATH-00152 | EXEC option is not used   | PASS    |
| SEAPATH-00153 | rules are not defined by negation   | PASS    |
| SEAPATH-00154 | sudo commands always specify arguments  | PASS    |
| SEAPATH-00154 | no user can run all commands as root  | PASS    |
| SEAPATH-00155 | sudo commands don't use wildcard * argument   | PASS    |
| SEAPATH-00156 | /etc/sudoers - /etc/sudoers is owned by root:root with 0440 permissions                                 | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/admin - /etc/sudoers.d/admin is owned by root:root with 0440 permissions                 | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/ceph-smartctl - /etc/sudoers.d/ceph-smartctl is owned by root:root with 0440 permissions | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/cephadm - /etc/sudoers.d/cephadm is owned by root:root with 0440 permissions             | PASS    |
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions     | PASS    |
| SEAPATH-00171 | Check core dumps are disabled   | PASS    |
| SEAPATH-00172 | Check kexec is disabled   | PASS    |
| SEAPATH-00173 | Check binfmt_misc is disabled   | PASS    |
| SEAPATH-00176 | Check kptr_restrict is set to 2   | PASS    |
| SEAPATH-00177 | Check dmesg_restrict is set to 1  | PASS    |
| SEAPATH-00178 | Check pid_max is set to 4194304   | PASS    |
| SEAPATH-00179 | Check perf_cpu_time_max_percent is set to 1   | PASS    |
| SEAPATH-00180 | Check perf_event_max_sample_rate is set to 1  | PASS    |
| SEAPATH-00181 | Check perf_event_paranoid is set to 2   | PASS    |
| SEAPATH-00182 | Check randomize_va_space is set to 2  | PASS    |
| SEAPATH-00183 | Check sysrq is set to 0   | PASS    |
| SEAPATH-00184 | Check unprivileged_bpf_disabled is set to 1   | PASS    |
| SEAPATH-00185 | Check panic_on_oops is set to 1   | PASS    |
| SEAPATH-00186 | Check kernel.yama.ptrace_scope is set to 2  | PASS    |
| SEAPATH-00187 | Check suid_dumpable is set to 0   | PASS    |
| SEAPATH-00188 | Check protected_fifos is set to 2   | PASS    |
| SEAPATH-00189 | Check protected_regular is set to 2   | PASS    |
| SEAPATH-00190 | Check protected_symlinks is set to 1  | PASS    |
| SEAPATH-00191 | Check protected_hardlinks is set to 1   | PASS    |
| SEAPATH-00082 | /var/log is mounted on a separate partition   | PASS    |
| SEAPATH-00085 | syslog-ng can not acquire new privileges  | PASS    |
| SEAPATH-00086 | syslog-ng capabilities are bounded  | PASS    |
| SEAPATH-00087 | syslog-ng system calls are filtered   | PASS    |
| SEAPATH-00199 | No systemd service failed   | PASS    |
| SEAPATH-00200 | No unrecognized service enabled   | PASS    |

- number of tests: 107

- number of failures: 0

## Tests hypervisor for node1

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00044 | Check /etc/syslog-ng/cert.d/clientcert.pem permissions | PASS    |
| SEAPATH-00045 | Check /etc/syslog-ng/cert.d/clientkey.pem permissions  | PASS    |
| SEAPATH-00035 | ovs-vswitchd service is running                        | PASS    |
| SEAPATH-00035 | ovsdb-server service is running                        | PASS    |
| SEAPATH-00038 | lspci 3.6.2+ is available                              | PASS    |
| SEAPATH-00018 | KVM device available                                   | PASS    |
| SEAPATH-00019 | Qemu for x86-64 available                              | PASS    |
| SEAPATH-00020 | Libvирtd service is running                            | PASS    |
| SEAPATH-00021 | IPv4 NAT is available                                  | PASS    |

- number of tests: 9

- number of failures: 0

## Tests hypervisor iommu for node1

| Test ID       | Tests                             | Results |
|---------------|-----------------------------------|---------|
| SEAPATH-00030 | iommu enabled in passthrough mode | PASS    |

- number of tests: 1

- number of failures: 0

## Tests hypervisor security for node1

| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00033 | /etc/group is consistent                                 | PASS    |
| SEAPATH-00033 | /etc/gshadow is consistent                               | PASS    |
| SEAPATH-00034 | /etc/group does not include extra group                  | PASS    |
| SEAPATH-00034 | /etc/gshadow does not include extra group                | PASS    |
| SEAPATH-00008 | Slab merging is disabled on cmdline                      | PASS    |
| SEAPATH-00009 | Kernel Page Table Isolation is always enabled on cmdline | PASS    |
| SEAPATH-00010 | SLUB redzoning and sanity checking enabled on cmdline    | PASS    |
| SEAPATH-00207 | CPU has no known vulnerabilities                         | PASS    |
| SEAPATH-00047 | /etc/passwd is consistent                                | PASS    |
| SEAPATH-00048 | /etc/passwd does not include extra user                  | PASS    |
| SEAPATH-00046 | /etc/shadow is consistent                                | PASS    |
| SEAPATH-00015 | Vulnerabilities sysfs entry exist                        | PASS    |
| SEAPATH-00017 | System is not vulnerable to : meltdown                   | PASS    |

| Test ID       | Tests                                    | Results |
|---------------|--|---------|
| SEAPATH-00017 | System is not vulnerable to : l1tf       | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v1 | PASS    |
| SEAPATH-00017 | System is not vulnerable to : spectre_v2 | PASS    |

- number of tests: 16

- number of failures: 0

## Tests cluster for ci131

| Test ID       | Tests                                     | Results |
|---------------|---|---------|
| SEAPATH-00051 | health is not error                       | PASS    |
| SEAPATH-00052 | 3 monitors are configured                 | PASS    |
| SEAPATH-00053 | 3 monitors are up                         | PASS    |
| SEAPATH-00054 | at least 2 osds are configured and up     | PASS    |
| SEAPATH-00055 | a manager is active                       | PASS    |
| SEAPATH-00119 | corosync service is running               | PASS    |
| SEAPATH-00122 | pacemaker service is running              | PASS    |
| SEAPATH-00063 | no OFFLINE node                           | PASS    |
| SEAPATH-00064 | 3 nodes are configured                    | PASS    |
| SEAPATH-00065 | list secrets                              | PASS    |
| SEAPATH-00066 | define VM from a valtest_id configuration | PASS    |
| SEAPATH-00067 | define VM from a valtest_id configuration | PASS    |
| SEAPATH-00068 | list VM                                   | PASS    |
| SEAPATH-00069 | export VM configuration                   | PASS    |
| SEAPATH-00070 | VM configuration has been export          | PASS    |
| SEAPATH-00071 | Test add VM                               | PASS    |
| SEAPATH-00072 | Test stop VM                              | PASS    |
| SEAPATH-00073 | Test start VM                             | PASS    |
| SEAPATH-00074 | Test remove VM                            | PASS    |
| SEAPATH-00306 | Test clone disk                           | PASS    |
| SEAPATH-00307 | Test groups                               | PASS    |
| SEAPATH-00308 | Test namespaces                           | PASS    |
| SEAPATH-00309 | Test metadata                             | PASS    |
| SEAPATH-00060 | Test snapshots                            | PASS    |
| SEAPATH-00061 | Test snapshots rollback                   | PASS    |
| SEAPATH-00062 | Test write rbd                            | PASS    |
| SEAPATH-00129 | ceph-crash system calls are filtered      | PASS    |
| SEAPATH-00131 | ceph-mgr system calls are filtered        | PASS    |
| SEAPATH-00120 | corosync can not acquire new privileges   | PASS    |
| SEAPATH-00121 | corosync capabilities are bounded         | PASS    |
| SEAPATH-00128 | corosync system calls are filtered        | PASS    |



| Test ID       | Tests  | Results |
|---------------|--|---------|
| SEAPATH-00136 | pacemaker-execd system calls are filtered      | PASS    |
| SEAPATH-00137 | pacemaker-attrd system calls are filtered      | PASS    |
| SEAPATH-00138 | pacemaker-schedulerd system calls are filtered | PASS    |
| SEAPATH-00139 | pacemaker-controld system calls are filtered   | PASS    |
| SEAPATH-00133 | pacemakerd system calls are filtered           | PASS    |
| SEAPATH-00134 | pacemaker-based system calls are filtered      | PASS    |
| SEAPATH-00135 | pacemaker-fenced system calls are filtered     | PASS    |
| SEAPATH-00136 | pacemaker-execd system calls are filtered      | PASS    |
| SEAPATH-00137 | pacemaker-attrd system calls are filtered      | PASS    |
| SEAPATH-00138 | pacemaker-schedulerd system calls are filtered | PASS    |
| SEAPATH-00139 | pacemaker-controld system calls are filtered   | PASS    |

- number of tests: 80
- number of failures: 0

# Compliance Matrix

## Matrix include/ANSSI-BP28-Recommandations-M.csv

| Requirement    | Test id       | Status |
|----------------|---------------|--------|
| ANSSI-BP28-R30 | SEAPATH-00048 | PASS   |
| ANSSI-BP28-R53 | SEAPATH-00192 | PASS   |
| ANSSI-BP28-R54 | SEAPATH-00193 | PASS   |
|                | SEAPATH-00194 | PASS   |
| ANSSI-BP28-R56 | SEAPATH-00196 | PASS   |
| ANSSI-BP28-R58 | SEAPATH-00198 | PASS   |
| ANSSI-BP28-R59 | SEAPATH-00197 | PASS   |
| ANSSI-BP28-R62 | SEAPATH-00200 | PASS   |
| ANSSI-BP28-R68 | SEAPATH-00088 | PASS   |
|                | SEAPATH-00089 | PASS   |
|                | SEAPATH-00091 | PASS   |
|                | SEAPATH-00097 | PASS   |
|                | SEAPATH-00098 | PASS   |
|                | SEAPATH-00203 | PASS   |
| ANSSI-BP28-R80 | SEAPATH-00223 | PASS   |

## Matrix include/ANSSI-BP28-Recommandations-MI.csv

| Requirement    | Test id       | Status |
|----------------|---------------|--------|
| ANSSI-BP28-R11 | SEAPATH-00186 | PASS   |
|                | SEAPATH-00201 | PASS   |
| ANSSI-BP28-R12 | SEAPATH-00173 | PASS   |
| ANSSI-BP28-R13 | SEAPATH-00224 | PASS   |
| ANSSI-BP28-R14 | SEAPATH-00187 | PASS   |
|                | SEAPATH-00188 | PASS   |
|                | SEAPATH-00189 | PASS   |
|                | SEAPATH-00190 | PASS   |
|                | SEAPATH-00191 | PASS   |
| ANSSI-BP28-R32 | SEAPATH-00092 | PASS   |
| ANSSI-BP28-R34 | SEAPATH-00046 | PASS   |
| ANSSI-BP28-R39 | SEAPATH-00148 | PASS   |
| ANSSI-BP28-R40 | SEAPATH-00149 | PASS   |
| ANSSI-BP28-R42 | SEAPATH-00153 | PASS   |
| ANSSI-BP28-R43 | SEAPATH-00154 | PASS   |
|                | SEAPATH-00155 | PASS   |
| ANSSI-BP28-R5  | SEAPATH-00203 | PASS   |

| Requirement    | Test id       | Status |
|----------------|---------------|--------|
| ANSSI-BP28-R55 | SEAPATH-00205 | PASS   |
|                | SEAPATH-00206 | PASS   |
| ANSSI-BP28-R79 | SEAPATH-00085 | PASS   |
|                | SEAPATH-00086 | PASS   |
|                | SEAPATH-00087 | PASS   |
|                | SEAPATH-00120 | PASS   |
|                | SEAPATH-00121 | PASS   |
|                | SEAPATH-00123 | PASS   |
|                | SEAPATH-00124 | PASS   |
|                | SEAPATH-00128 | PASS   |
|                | SEAPATH-00129 | PASS   |
|                | SEAPATH-00131 | PASS   |
|                | SEAPATH-00133 | PASS   |
|                | SEAPATH-00134 | PASS   |
|                | SEAPATH-00135 | PASS   |
|                | SEAPATH-00136 | PASS   |
|                | SEAPATH-00137 | PASS   |
|                | SEAPATH-00138 | PASS   |
| ANSSI-BP28-R8  | SEAPATH-00207 | PASS   |
| ANSSI-BP28-R9  | SEAPATH-00176 | PASS   |
|                | SEAPATH-00177 | PASS   |
|                | SEAPATH-00178 | PASS   |
|                | SEAPATH-00179 | PASS   |
|                | SEAPATH-00180 | PASS   |
|                | SEAPATH-00181 | PASS   |
|                | SEAPATH-00182 | PASS   |
|                | SEAPATH-00183 | PASS   |
|                | SEAPATH-00184 | PASS   |
|                | SEAPATH-00185 | PASS   |

## Matrix include/ANSSI-BP28-Recommandations-MIR.csv

| Requirement    | Test id       | Status |
|----------------|---------------|--------|
| ANSSI-BP28-R36 | SEAPATH-00148 | PASS   |
|                | SEAPATH-00225 | PASS   |
| ANSSI-BP28-R37 | SEAPATH-00226 | PASS   |
| ANSSI-BP28-R38 | SEAPATH-00104 | PASS   |
| ANSSI-BP28-R45 | SEAPATH-00226 | PASS   |
|                | SEAPATH-00227 | PASS   |

| Requirement    | Test id       | Status |
|----------------|---------------|--------|
| ANSSI-BP28-R64 | SEAPATH-00085 | PASS   |
|                | SEAPATH-00086 | PASS   |
|                | SEAPATH-00120 | PASS   |
|                | SEAPATH-00121 | PASS   |
|                | SEAPATH-00123 | PASS   |
|                | SEAPATH-00124 | PASS   |
| ANSSI-BP28-R65 | SEAPATH-00087 | PASS   |
|                | SEAPATH-00128 | PASS   |
|                | SEAPATH-00129 | PASS   |
|                | SEAPATH-00131 | PASS   |
|                | SEAPATH-00133 | PASS   |
|                | SEAPATH-00134 | PASS   |
|                | SEAPATH-00135 | PASS   |
|                | SEAPATH-00136 | PASS   |
|                | SEAPATH-00137 | PASS   |
|                | SEAPATH-00138 | PASS   |
| ANSSI-BP28-R71 | SEAPATH-00044 | PASS   |
|                | SEAPATH-00045 | PASS   |
|                | SEAPATH-00083 | PASS   |
|                | SEAPATH-00084 | PASS   |
|                | SEAPATH-00108 | PASS   |
| ANSSI-BP28-R72 | SEAPATH-00199 | PASS   |
| ANSSI-BP28-R73 | SEAPATH-00215 | PASS   |
|                | SEAPATH-00216 | PASS   |

# About this documentation

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In order to generate an HTML version of this documentation, use the following command (the asciidoc package will need to be installed in your Linux distribution):

```
$ asciidoc test-report.adoc
```

This will result in a README.html file being generated in the current directory.

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```
$ asciidoctor-pdf test-report.adoc
```