

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 | 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 |

| 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 cryto 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-00050 | Linux kernel 'hardening' : SECURITY_YAMA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : DEBUG_WX is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SECURITY_DMESG_RESTRICT is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 (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 coredumps 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 cryto 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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-00050 | Linux kernel 'hardening' : SECURITY_YAMA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : DEBUG_WX is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SECURITY_DMESG_RESTRICT is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 (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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 coredumps 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 failures: 0

Tests common for vmtest13rt

| Test ID | Tests | Results |
|---------------|-----------------|---------|
| SEAPATH-00078 | no paging error | PASS |

| Test ID | Tests | Results |
|---------------|--|---------|
| 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 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 |
| 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 |
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| 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 cryto 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 |
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| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 (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/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 coredumps 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 cryto 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-00050 | Linux kernel 'hardening' : SECURITY_YAMA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : DEBUG_WX is enabled | PASS |

| Test ID | Tests | Results |
|---------------|---|---------|
| SEAPATH-00050 | Linux kernel 'hardening' : SECURITY_DMESG_RESTRICT is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 (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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| SEAPATH-00156 | /etc/sudoers.d/00-security - /etc/sudoers.d/00-security is owned by root:root with 0440 permissions | PASS |
| SEAPATH-00171 | Check coredumps 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 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 |
| SEAPATH-00038 | lspci 3.6.2+ is available | PASS |
| SEAPATH-00018 | KVM device available | PASS |
| SEAPATH-00019 | Qemu for x86-64 available | PASS |

| Test ID | Tests | Results |
|---------------|-----------------------------|---------|
| SEAPATH-00020 | Libvirtd service is running | PASS |
| SEAPATH-00021 | IPv4 NAT is available | PASS |

• number of failures: 0

Tests hypervisor iommu for standalone

| Test ID | Tests | Results |
|---------------|---|---------|
| SEAPATH-00030 | iommu enabled in passthrough mode | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : INTEL_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : AMD_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : IOMMU_IOVA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : DMAR_TABLE is enabled | PASS |

• number of tests: 5

• 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 | 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 |

| 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 cryto 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-00050 | Linux kernel 'hardening' : SECURITY_YAMA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : DEBUG_WX is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SECURITY_DMESG_RESTRICT is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 (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/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/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 coredumps 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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 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 |
| SEAPATH-00050 | Linux kernel 'iommu' : INTEL_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : AMD_IOMMU is enabled | PASS |

| Test ID | Tests | Results |
|---------------|--|---------|
| SEAPATH-00050 | Linux kernel 'iommu' : IOMMU_IOVA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : DMAR_TABLE is enabled | PASS |

• 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 |
| 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 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 |
| 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 cryto 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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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-00050 | Linux kernel 'hardening' : SECURITY_YAMA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : DEBUG_WX is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SECURITY_DMESG_RESTRICT is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 (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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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/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-00156 | /etc/sudoers.d/cephadm - /etc/sudoers.d/cephadm is owned by root:root with 0440 permissions | PASS |
| SEAPATH-00171 | Check coredumps 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 |

| Test ID | Tests | Results |
|---------------|-------------------------------------|---------|
| 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: 116number 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 |
| SEAPATH-00050 | Linux kernel 'iommu' : INTEL_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : AMD_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : IOMMU_IOVA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : DMAR_TABLE is enabled | PASS |

• number of tests: 5

• 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 |

| Test ID | Tests | Results |
|---------------|--|---------|
| 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 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 |
| 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 |

| 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 cryto 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 |

| 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-00050 | Linux kernel 'hardening' : SECURITY_YAMA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : DEBUG_WX is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SECURITY_DMESG_RESTRICT is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : LEGACY_VSYSCALL_NONE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_RANDOM is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : SLAB_FREELIST_HARDENED is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : HARDENED_USERCOPY is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : FORTIFY_SOURCE is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'hardening' : PAGE_POISONING is enabled | 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 (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 |

| Test ID | Tests | Results |
|---------------|---|---------|
| 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/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-00156 | /etc/sudoers.d/ceph-smartctl - /etc/sudoers.d/ceph-smartctl is owned by root:root with 0440 permissions | PASS |
| SEAPATH-00171 | Check coredumps 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 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 | Libvirtd 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 |
| SEAPATH-00050 | Linux kernel 'iommu' : INTEL_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : AMD_IOMMU is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : IOMMU_IOVA is enabled | PASS |
| SEAPATH-00050 | Linux kernel 'iommu' : DMAR_TABLE is enabled | PASS |

• number of tests: 5

• 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 |

| Test ID | Tests | Results |
|---------------|--|---------|
| 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 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 valid configuration | PASS |
| SEAPATH-00067 | define VM from a valid 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 |

| Test ID | Tests | Results |
|---------------|--|---------|
| SEAPATH-00121 | corosync capabilities are bounded | PASS |
| SEAPATH-00128 | corosync system calls are filtered | PASS |
| SEAPATH-00123 | pacemaker can not acquire new privileges | PASS |
| SEAPATH-00124 | pacemaker capabilities are bounded | 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 |
| 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 |
| 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 |
| 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 |
| 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 |
| SEAPATH-00133 | pacemakerd system calls are filtered | PASS |

| Test ID | Tests | Results |
|---------------|--|---------|
| 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 |
| 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 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 |
| | SEAPATH-00139 | 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):

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

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\$ asciidoctor-pdf test-report.adoc