

# **TEST REPORT SEAPATH DEBIAN**

Receiver: SEAPATH

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# **Test reports**

#### 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	PASS
SEAPATH-00197	Only wanted apt repositories configured: do not add other repositories	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://security.debian.org/debian-security trixie-security main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie-backports main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: https://artifacts.elastic.co/packages/8.x/apt stable main	PASS
SEAPATH-00198	No unrecognized packages installed	FAIL
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

Test ID	Tests	Results
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-00095	shadow encrypts passwords with YESCRYPT by default	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

Test ID	Tests	Results
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
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

Test ID	Tests	Results
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: 1

#### 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	PASS
SEAPATH-00197	Only wanted apt repositories configured: do not add other repositories	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://security.debian.org/debian-security trixie-security main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie-backports main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: https://artifacts.elastic.co/packages/8.x/apt stable main	PASS
SEAPATH-00198	No unrecognized packages installed	FAIL
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

Test ID	Tests	Results
SEAPATH-00093	sshd forbids setting environment variables	PASS
SEAPATH-00094	sshd server time-out is set to 300s of client inactivity	PASS
SEAPATH-00095	shadow encrypts passwords with YESCRYPT by default	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

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/00-security - /etc/sudoers.d/00-security 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/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
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

Test ID	Tests	Results
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: 1

## 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-00031	iommu is loaded	PASS
SEAPATH-00032	iommu is populated	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: 7

• 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 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	PASS

Test ID	Tests	Results
SEAPATH-00197	Only wanted apt repositories configured: do not add other repositories	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://security.debian.org/debian-security trixie-security main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie-backports main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: https://artifacts.elastic.co/packages/8.x/apt stable main	PASS
SEAPATH-00198	No unrecognized packages installed	FAIL
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-00095	shadow encrypts passwords with YESCRYPT by default	PASS

Test ID	Tests	Results
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
SEAPATH-00148	sudoers files include directive requiretty	PASS

Test ID	Tests	Results
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/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

Test ID	Tests	Results
SEAPATH-00199	No systemd service failed	PASS
SEAPATH-00200	No unrecognized service enabled	PASS

number of tests: 118number of failures: 1

### 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-00031	iommu is loaded	PASS
SEAPATH-00032	iommu is populated	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: 7

• 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

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	PASS
SEAPATH-00197	Only wanted apt repositories configured: do not add other repositories	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie main contrib non-free non-free-firmware	PASS

Test ID	Tests	Results
SEAPATH-00197	Only official apt repositories configured: http://security.debian.org/debian-security trixie-security main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie-backports main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: https://artifacts.elastic.co/packages/8.x/apt stable main	PASS
SEAPATH-00198	No unrecognized packages installed	FAIL
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-00095	shadow encrypts passwords with YESCRYPT by default	PASS
SEAPATH-00097	pam password authentication uses sha512 with 65536 rounds or yescrypt	PASS
SEAPATH-00098	password set to expire after 90 days	PASS

Test ID	Tests	Results
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
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

Test ID	Tests	Results
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/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: 1

## 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-00031	iommu is loaded	PASS
SEAPATH-00032	iommu is populated	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: 7

• 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

Test ID	Tests	Results
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 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	PASS
SEAPATH-00197	Only wanted apt repositories configured: do not add other repositories	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://security.debian.org/debian-security trixie-security main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: http://ftp.fr.debian.org/debian trixie-backports main contrib non-free non-free-firmware	PASS
SEAPATH-00197	Only official apt repositories configured: https://artifacts.elastic.co/packages/8.x/apt stable main	PASS

Test ID	Tests	Results
SEAPATH-00198	No unrecognized packages installed	FAIL
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-00095	shadow encrypts passwords with YESCRYPT by default	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

Test ID	Tests	Results
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
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	
SEAPATH-00149	sudo commands don't target privileged user	
SEAPATH-00150	all commands require authentication	
SEAPATH-00152	EXEC option is not used	PASS

	Tests	Results
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	
SEAPATH-00183	Check sysrq is set to 0	
SEAPATH-00184	Check unprivileged_bpf_disabled is set to 1	
SEAPATH-00185	Check panic_on_oops is set to 1	
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	
SEAPATH-00190	Check protected_symlinks is set to 1	
SEAPATH-00191	Check protected_hardlinks is set to 1	
SEAPATH-00082	/var/log is mounted on a separate partition	
SEAPATH-00085	syslog-ng can not acquire new privileges	
SEAPATH-00086	syslog-ng capabilities are bounded	
SEAPATH-00087	syslog-ng system calls are filtered	
SEAPATH-00199	No systemd service failed	PASS
SEAPATH-00200	No unrecognized service enabled	PASS

• number of failures: 1

# Tests cluster for ci1deb13

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-00130	ceph-mon system calls are filtered	PASS
SEAPATH-00131	ceph-mgr system calls are filtered	PASS
SEAPATH-00132	ceph-osd 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
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	
SEAPATH-00136	pacemaker-execd system calls are filtered	PASS
SEAPATH-00137	pacemaker-attrd system calls are filtered	PASS

Test ID	Tests	Results
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
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

Test ID	Tests	Results
SEAPATH-00136	TH-00136 pacemaker-execd system calls are filtered	
SEAPATH-00137	pacemaker-attrd system calls are filtered	
SEAPATH-00138	APATH-00138 pacemaker-schedulerd system calls are filtered	
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	FAIL
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-00095	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-00130	PASS
	SEAPATH-00131	PASS
	SEAPATH-00132	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

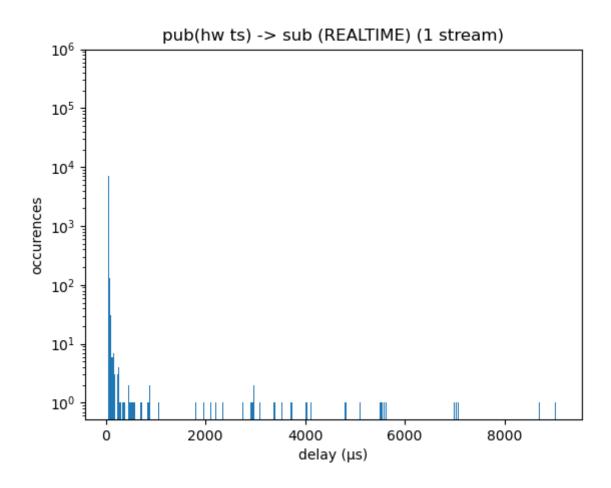
# Matrix include/ANSSI-BP28-Recommandations-MIR.csv

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

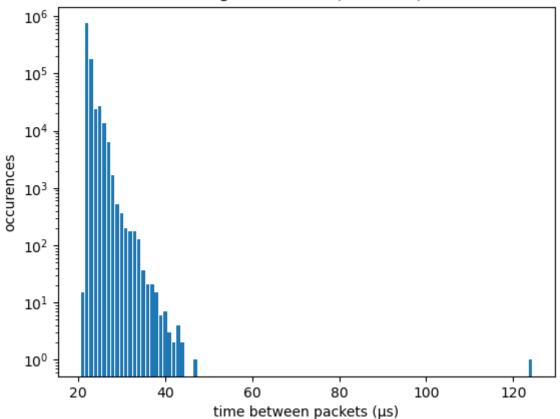
Requirement	Test id	Status
ANSSI-BP28-R45	SEAPATH-00226	PASS
	SEAPATH-00227	PASS
ANSSI-BP28-R64	SEAPATH-00085	PASS
	SEAPATH-00086	PASS
	SEAPATH-00120	PASS
	SEAPATH-00121	PASS
	SEAPATH-00123	PASS
	SEAPATH-00124	PASS
ANSSI-BP28-R65	SEAPATH-00087	PASS
	SEAPATH-00128	PASS
	SEAPATH-00129	PASS
	SEAPATH-00130	PASS
	SEAPATH-00131	PASS
	SEAPATH-00132	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

# Latency tests results

### node1



#### trafgen SEAPATH (1 stream)



Latency publication-reception (999862 frames)

missed sv: 0

std dev pub-sub time: 129845 ns

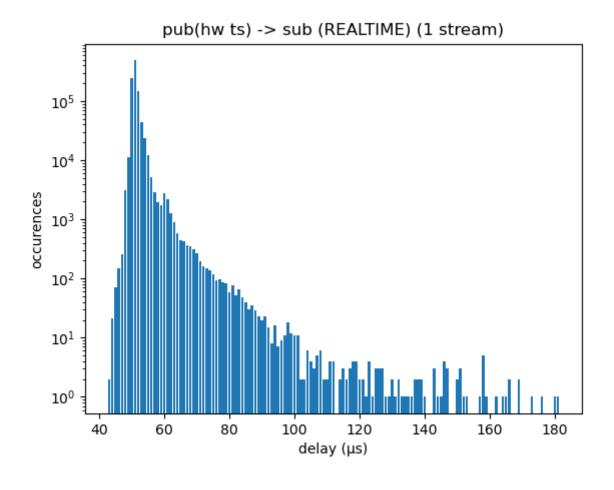
median: 51061.0 ns mean: 54785 ns min: 36887 ns max: 9098895 ns

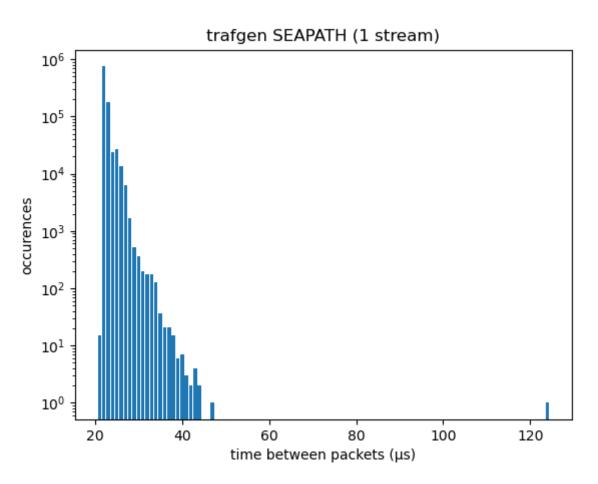
Interval between published frames (999999 frame pairs)

std dev of frame-to-frame time: 1  $\mu$ s

median: 22 μs mean: 22 μs min: 21 μs max: 124 μs

#### node2





Latency publication-reception (1000000 frames)

missed sv: 0

std dev pub-sub time: 2228 ns

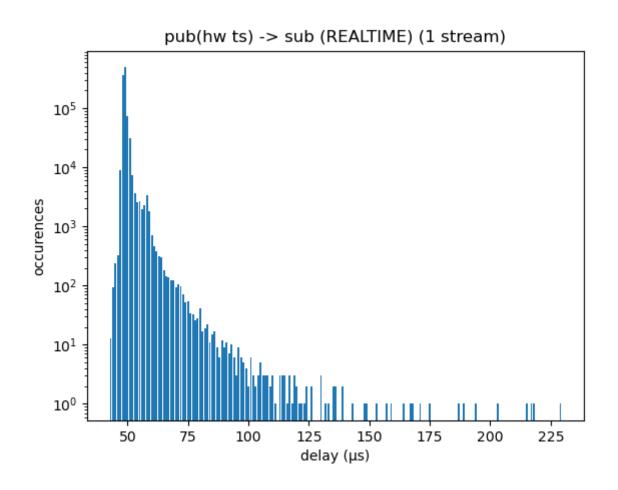
median: 50940.0 ns mean: 51318 ns min: 42551 ns max: 180919 ns

Interval between published frames (999999 frame pairs)

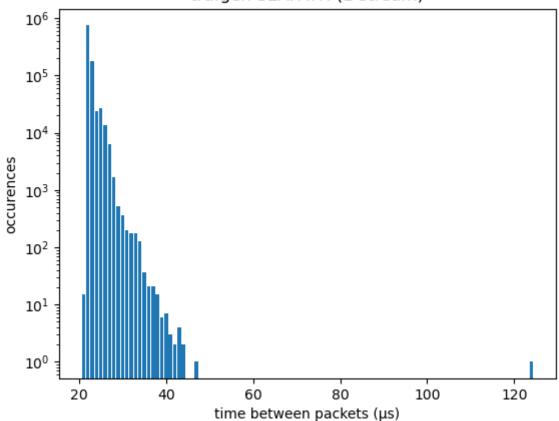
std dev of frame-to-frame time: 1  $\mu$ s

median: 22 μs mean: 22 μs min: 21 μs max: 124 μs

#### node3







Latency publication-reception (1000000 frames)

missed sv: 0

std dev pub-sub time: 1853 ns

median: 48695.0 ns mean: 48967 ns min: 42763 ns max: 228705 ns

Interval between published frames (999999 frame pairs)

std dev of frame-to-frame time: 1  $\mu$ s

median: 22 μs mean: 22 μs min: 21 μs max: 124 μs

#### 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.

If you prefer a PDF version of the documentation instead, use the following command (the dblatex package will need to be installed on your Linux distribution):

\$ asciidoctor-pdf test-report.adoc