SELinux:How to add a new device node's secure context and its policy

Solution Number	00030433

Please Note:

If Qualcomm documentation is referenced in this solution, your access to it is based on your company's

Language Key Words	

Detail Information

Solution Title	SELinux:How to add a new device node's secure context and its policy

Solution Details	Question: How to add a new device node's secure context and its policy?
	Answer:
	  Android baseline sepolicy file is stored at external/sepolicy/
	  Qualcomm related sepolicy file is stored in devices/qcom/sepolicy/common/
	the two folder file will be merged together
	  To add a context for a device node,
	        devices/qcom/sepolicy/common/file_contexts
	e.g.
	  /dev/rtc0 u:object_r:rtc_device:s0
	
	 if it is a new device type, need to define in devices/qcom/sepolicy/common/device.te
	e.g.
	  type rtc_device, dev_type;
	
	then your own app that use this device need have a domain type and executable file context defined,
	e.g.
	in file_contexts
	/system/bin/time_daemon u:object_r:time_daemon_exec:s0
	
	define a new domain type and executable file in the related policy file:
	time_daemon.te:
	type time_daemon, domain;
	type time_daemon_exec, exec_type, file_type;
	allow time_daemon rtc_device:chr_file { open read ioctl };
	
	 after modify, need to rebuild boot.img, then the file will be updated to ramdisk /file_contexts
	if the file is in system image, then also need to rebuild system.img and download.
	Then the new file context can be seen by ls -Z
	
	for quickly recreate a system.img, use -S to specify file_contexts file with mkae_ext4fs command.
	e.g.:
	make_ext4fs -s -S out/target/product/msm8974/root/file_contexts -l 1073741824 -a system
	out/target/product/msm8974/obj/PACKAGING/systemimage_intermediates/system.img
	out/target/product/msm8974/system

Applicable Products	AMSS 8928, AMSS 8939, AMSS 8974, AMSS 8974AB, AMSS8610, AMSS8909, AMSS8916, AMSS8926, AMSS8994