

Paths

OP-TEE project :	\$HOME/devel/optee
\$ROOT	
Makefiles	\$ROOT/build
GP conf Trusted Application	\$ROOT/gp_conf
--> ELF file	\$ROOT/out/gp_conf_ta/67707465-6563-6f6e-666c696e61726f15.elf
Hello World Trusted Application	\$ROOT/hello_world
--> ELF file	\$ROOT/hello_world/ta/8aaaf200-2450-11e4-abe20002a5d5c51b.elf
OP-TEE secure OS	\$ROOT/optee_os
--> ELF file	\$ROOT/optee_os/out/arm/core/tee.elf
OP-TEE Client API	\$ROOT/optee_client
Linux kernel	\$ROOT/linux

make targets (from the build folder)

make all	Builds the entire OP-TEE solution
make run	Prepare update ROOT FS and launch QEMU
make run-only	Only launches OP-TEE (ROOT FS not updated)
make helloworld	Build the Hello World TA
make gp_conf_ta	Build the GP conference TA
make optee-os	Build OP-TEE OS (secure side)

Typical OP-TEE session

1. cd \$ROOT/build	Go to the build folder
2. make all	Build the solution
3. make run	Create/update root fs and launch QEMU
4. (qemu) c	Start the emulator
5. tee-suppllicant &	In "Normal World" window, start tee-suppllicant
6a. xtest	Run the test suite (Normal World)
6b. hello_world	Run the Hello World TA (Normal World)
6c. gp_conf_client	Run the GP conference TA (Normal World)
7. (qemu) q	Quit QEMU

QEMU

(qemu) c	Start the emulator
(qemu) q	Stop the emulator

Normal World window - root@vExpress

tee-suppllicant &	Launches tee-suppllicant
xtest	Run OP-TEE's test suite
hello_world	Run Hello World Trusted Application
gp_conf_client	Run GP conference Trusted Application

GDB commands (in the debugger)

./gdb	Launch GDB (from build folder)
optee	Connects to target and load tee.elf
helloworld	Add-symbols for Hello World TA
gp_conf_ta	Add-symbols for GP conference TA
p <variable>	Print variable
x/4wx <address>	Show 4 words in hex at memory <address>
b <function>	Set a breakpoint for <function>
info b	List all breakpoints
d <breakpoint number>	Delete breakpoint
n	Jump to next line
s	Step into function
symbol-file <path>/name.elf	Loads symbols
add-symbol-file <path>/name.elf	Adds additional symbols
\$HOME/.gdbinit	Configuration file for GDB

VirtualBox Image

Login / Password	optee / optee
VirtualBox downloads	www.virtualbox.org/wiki/Downloads
Import image	File -> Import Alliance -> select <optee.ova>

