

Project difficulties

Our initial goal was to try finding a security breach in the Intel SGX system. We tried to do that by using a rootkit to attack the linux kernel and change the syscall table, and then using system calls to show vulnerability in the SGX architecture.

We managed to penetrate older kernel versions and change the syscall tables but couldn't manage to do the same with the newer versions.

After learning that only newer kernel versions support the SGX drivers, we decided to change the aim of the project.

Another difficulty we ran into is that the whole SGX technology is relatively new (especially in linux) and hence finding assistance and resources online is tough.

This difficulty made writing code utilizing the SGX enclave api and using the SGX simulation mode much harder than we initially expected.