

Secure Operating System Design and Implementation

Boot

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Part I

Booting overview



Overview

- After Xen is installed on your system, when you boot your system
 - Xen is started and then
 - Dom0 (Linux) is started.
- Note that Linux is the environment in which the Ethos kernel is compiled
- It is now possible to
- start Ethos by executing the command `ethosStart`
- stop Ethos by executing the command `ethosStop`
- before Ethos is started, the shadow daemon on Linux should be started in another Dom0 window by typing `sudo shadowdaemon`



Ethos layout

- `ethosStart`, `ethosStop`, and `shadowdaemon` are stored in `/usr/bin`
- `ethos/boot` contains the kernel (`ethos.elf`) and the initstore (`initstor.tar`)
- `ethos/etc` contains the domain configuration used by `ethosStart` to start up Ethos
- `ethos/rootfs` contains the root file system for Ethos which is opened by the shadow daemon.



```
# Kernel image file.  
kernel = "/ethos/boot/ethos.elf"  
ramdisk = "/ethos/boot/initstor.tar"  
  
memory = 32 # Initial memory in megabytes  
  
name = "ethos" # unique domain name.  
  
vif = ['mac=00:16:3E:5B:55:3D'] # ethernet MAC  
  
file = open("/sys/devices/virtual/net/eth0/address"  
extra = file.readline()  
  
on_crash = 'destroy'
```