Confined execution environment - Sandbox

A sandbox is tightly-controlled set of resources for untrusted programs to run in

➡ Sandboxing servers - virtual machines

➡ Sandboxing programs

- Chroot and AppArmor in Linux
- Sandbox in MacOS Lion
- Metro App Sandboxing in Windows 8

➡ Sandboxing applets - Java and Flash in web browsers

Intrusion Detection/Prevention Systems

- Host-based Intrusion Detection Systems (IDS)
- Host-based Intrusion Prevention systems (IPS)

✓ Based on signatures (well known programs)

✓ Based on behaviors (unknown programs)

➡ Example : Syslog and Systrace on Linux

◉ Vulnerable to malicious programs residing in the kernel called "rootkits"