ProTech Professional Technical Services, Inc.

Linux Kernel Internals

Course Summary

Description

Linux Kernel Internals teaches students all the fundamental requirements necessary to understand and start developing for the Linux kernel. Attendees will go deep into the internals of the Linux operating system and begin to develop kernel modules for the latest popular distributions. From kernel module implementation to memory and process management, including I/O, debugging, file systems, and kernel security mechanisms, this course is all-encompassing.

Topics

- Set up a development environment for Linux.
- Describe in detail how the Linux kernel functions.
- Develop Linux kernel modules that interact with I/O, memory, processes and threads, file systems, and networking.
- Detect and analyze obfuscation methods used by attackers to evade detection.

Audience

This course is designed for students who want to learn the fundamental requirements necessary to understand and start developing for the Linux kernel.

Prerequisites

- Experience in C programming
- Knowledge of systems programming in a UNIX-based environment.
- Familiarity with standard UNIX tools such as vi, Emacs, and gcc

Duration

Five days
30 CPE/CEU credits