

# Linux Secure Computing (Seccomp)

Course code: M7D-SECCOMP01

This course provides a thorough introduction to the Linux secure computing (Secomp) facility, a mechanism that can used to sand-box applications by limiting the set of system calls that they may perform.



### Audience and prerequisites

The primary audience comprises designers, programmers, and systems administrators who are building, administering, or troubleshooting applications that employ seccomp as a sandboxing facility.

Participants should know how to log in to a Linux or UNIX system and be familiar with common shell commands. No particular programming experience is required.

#### **Course materials**

- A course book (written by the trainer) that includes all course slides and exercises
- A source code tarball containing example programs written by the trainer to accompany the presentation

### Course duration and format

One day, with around 30-40% of the course time devoted to practical sessions.

#### Course inquiries and bookings

For inquiries about courses and consulting, you can contact us in the following ways:

- Email: training@man7.org
- Phone: +49 (89) 2488 6180 (German landline)

#### Prices, dates, and further details

For course prices, upcoming course dates, and further information about the course, please visit the course web page, http://man7.org/training/cgroups/.

## About the trainer

♥ training@man7.org

Michael Kerrisk has a unique set of qualifications and experience that ensure that course participants receive training of a very high standard:

- He has been programming on UNIX systems since 1987 and began teaching UNIX system programming courses in 1989.
- He is the author of *The Linux Programming Interface*, a 1550-page book acclaimed as the definitive work on Linux system programming.
- He has been actively involved in Linux development, working with kernel developers on testing, review, and design of new Linux kernel-user-space APIs.
- Since 2000, he has been the involved in the Linux *man-pages* project, which provides the manual pages documenting Linux system calls and C library APIs, and was the project maintainer from 2004 to 2021.

# Linux Secure Computing (Seccomp): course contents in detail

Topics marked with an asterisk (\*) may be covered, if time permits.

# 1. Course Introduction

## 2. Seccomp

- Seccomp filtering and BPF
- The BPF virtual machine and BPF instructions
- BPF filter return values
- BPF programs
- Checking the architecture
- Productivity aids (*libseccomp* and other tools)
- Applications and further information
- Other filter return actions

# 3. Seccomp: Further Details

- Caveats
- Discovering the system calls made by a program
- Further details on seccomp filters
- Extended BPF (eBPF)
- Other filter return actions
- Further details on BPF programs
- Recent seccomp features
- Audit logging of filter actions