Virtualization Technologies on Linux

Course code: LXVIRT

This course is designated for administrators of LINUX servers who need to use and administrate the virtualization systems like XEN, Qemu, OpenVZ and KVM. Participants will learn to install and configure these virtualization systems for various purposes.

Who is the course for

This course is designated for administrators of LINUX servers who need to use and administrate the virtualization

systems like XEN, Qemu, OpenVZ, VMWare, etc.

What we teach you

Participants will learn basic principles and possibilities of virtualization technologies in the LINUX systems. The course

is focused on Qemu, KVM, OpenVZ and XEN sytems.

Required skills

Wider knowledge of LINUX

Course Outline

Motivation
- Load balancing technologies
- Cost reduction
- Renovation of the hardware infrastructure
- Fast reaction to the users demand
- Server consolidation

The virtualization principles and character of the virtualization technologies
- Paravirtualization
- Native virtualization
- Emulation

The basic terms
- Dom0
- DomU
- Hypervisor
- Virtual machine monitor

Requirements for hardware
- Requirements for virtualization hardware
- Benefits of the HVM
- Vanderpool and Pacifica architectures
- Storage area network

Virtualization environment
- Instalation and configuration
- Information resources
- XEN, KVM, OpenVZ and Qemu systems
- Preparing of the virtual hosts

Practical applications
- Cache domain (DNS and proxy server)
- Mail domain (SMTP and IMAP server)
- Directory services domain (LDAP server)
- Web domain (Apache + PHP, MySQL)

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