

Ubuntu v10.x Essentials

AUDIENCE: This course is for system administrators, who need to deploy Ubuntu in an Office

environment. The course content has been designed for junior to intermediate level system administrators working in organisations that are about to deploy, or have already deployed Ubuntu desktops and servers in their office. It is most appropriate for system administrators with experience in other Linux operating systems who wish to add

Ubuntu systems administration to their current skills set.

PREREQUISITES: An overall understanding of computer systems and networking concepts is expected

and at least six months relevant work experience. The course covers key Linux fundamentals and is suitable for those with a Microsoft systems administration

background.

DURATION: 5 Days Lecture based with demonstrations.

OBJECTIVES: The purpose of this course is to provide essential knowledge required to use and

maintain an Ubuntu system. From the basics of installation, configuring the desktop and implementing wireless networking through to tasks such as configuring firewalls, setting

up a web server, adding disk drives and swap space, configuring KVM based virtualization and providing remote desktop access via an SSH tunnel, Ubuntu

Essentials takes a step by step approach to installing, using and administering Ubuntu.

COURSE CONTENT:

General Linux and Ubuntu Introduction

Lesson 1: Ubuntu Background & Linux

- The History of Ubuntu
- What exactly is Linux
- Who Created Linux
- How to Download and Try Ubuntu

Lesson 2: Ubuntu Desktop, Download & Installation Options

- Ubuntu Download Options
- Installing Ubuntu on a Disk Drive Containing Microsoft Windows
- Installing Ubuntu Inside a Windows Installation
- Running Ubuntu in a Virtual Machine
- Performing a Clean Ubuntu Installation
- Installing Ubuntu on a Windows System (Dual booting)
- Accessing the Windows Partition from Ubuntu
- Installing Ubuntu on a Windows Disk with Wubi
- What is Wubi?
- Allocating a Windows Partition to Ubuntu

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- Formatting the Unallocated Disk Partition
- Updating the Boot Menu
- Mounting the New Partition
- Guided Tour of the Ubuntu GNOME Desktop
- Advanced Desktop Effects Settings
- Configuring Ubuntu Wireless Networking
- Installing the Wireless Card
- Configuring an Ubuntu Wireless Connection
- Configuring Wireless Network Access using Network Manager
- Connecting to a Hidden Network
- Disabling a Wireless Connection
- Troubleshooting an Ubuntu Wireless Connection
- Browsing My Computer, Files and Folders on the Ubuntu Desktop
- Accessing Nautilus
- Changing File and Folder Permissions

Lesson Three: Configuring Printers, Modems, Firewalls

- Configuring Ubuntu Printers
- Connecting an Ubuntu System to a DSL Modem
- Ubuntu Firewall Basics

Lesson Four: Managing Ubuntu Users and Groups

Adding a User to an Ubuntu System Adding a New User from the Command-line Modifying User Account Settings

Lesson Five: Configuring Ubuntu Remote Access

- Remote Access to the Ubuntu Desktop
- Activating Remote Desktop Access
- Secure and Insecure Remote Desktop Access
- Accessing a Remote Ubuntu Desktop using Vinagre
- Attaching to a Remote Desktop using vncviewer
- Accessing a Remote Ubuntu Desktop from a Windows System
- Displaying Ubuntu Applications Remotely (X11 Forwarding)

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Lesson Six: Configuring an Ubuntu Based Web Server

- Requirements for Configuring a Web Server
- Installing the Apache Web Server on Ubuntu
- Testing the Web Server
- Configuring the Apache Web Server for Your Domain
- Web Server and Firewall Issues

Lesson Seven: Sharing Ubuntu Folders with Remote Linux and UNIX Systems

Installing NFS Services on Ubuntu
Sharing Folders
Configuring the Firewall
Mounting a Remote NFS Folder
Mounting an NFS File System on System Startup
Unmounting an NFS Mount Point
Sharing Ubuntu Folders with Remote Windows Systems
Samba and Samba Client
Installing Samba Server on an Ubuntu System
Sharing Ubuntu Folders
Accessing Windows Shares from Ubuntu

Lesson Eight: Configuring an Ubuntu Mail Client (Evolution)
An Overview
Configuring Evolution to Receive Mail from a Local Postfix Server
Configuring Evolution to Receive Mail from a Remote Server
Configuring Evolution to Send Mail

Lesson Nine: Adding a New Disk Drive to an Ubuntu System

- Getting Started
- Creating Linux Partitions
- Creating a Filesystem on an Ubuntu Disk Partition
- Mounting a File System
- Configuring Ubuntu to Automatically Mount a Filesystem
- Adding and Managing Ubuntu Swap Space
- What is Swap Space?

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Lesson Ten: Installing and Configuring Ubuntu KVM Virtualization

- Full Virtualization vs. Para-Virtualization
- Preparing Ubuntu for KVM Virtualization
- Building an Ubuntu KVM Virtual System
- Configuring the KVM Virtual System
- Creating an Ubuntu KVM Networked Bridge Interface
- Ubuntu Virtual Networks and Network Bridges
- Installing the Network Bridge Package Requirements
- Configuring Network Administration Capabilities
- Configuring the Network Bridge
- Configuring the Ubuntu Firewall for a Network Bridge
- Configuring a Virtual Machine to use the Network Bridge
- Installing an Ubuntu KVM Guest OS from the Command-line (virt-install and virsh)
- Running virt-install to build the KVM Guest System
- Creating a Virtual Machine from a Configuration File
- Managing and Monitoring Ubuntu based KVM Guest Systems
- Changing KVM Virtual Guest System Settings
- Monitoring Virtual Machine Performance