

## **Ubuntu 20.04 LTS Server administration**

### **Section 1: Introduction**

What is Ubuntu

CLI Environment

### **Section 2: Basic Linux concepts**

Linux filesystem hierarchy

Storage

Identity

System initialization

### **Section 3: Networking**

Basic Networking

### **Section 4: Administration basics**

Process management

Software management

Installation of Ubuntu

Troubleshooting basics

### **Section 5: OpenSSH**

What is SSH?

What is the Kernel?

SSH Keys

SSH Tools

### **Section 6: Virtualization lab setup**

What is Virtualization?

What is KVM?

QEMU-img

Advanced Ubuntu server administration

## **Section 7: System Initialization**

What is Grub2?

Advanced systemd Usage

On-Demand Processes

HWE

## **Section 8: Advanced**

Filesystem Concepts

The setuid and setgid Bits

Sticky Bits

Filesystem Basics

- Inodes

- Superblock

XFS

## **Section 9: Storage**

RAID

Managing a Software RAID

Software RAID Drive Failures

Device Mapper Multipathing

## **Section 10: ZFS**

ZFS Overview

ZFS Architecture

ZFS Pools

Configuring and Tuning ZFS

ZFS Snapshots

## **Section 11: Advanced**

Networking Concepts

Linux Bridges

Bridge Configuration

Network Interface Bonding Bond Configuration

VLANs

Trunking

## **Section 12: Security**

Pluggable Authentication Modules (PAM)

- PAM Configuration

- PAM Architecture

- PAM Modules

Access Control Lists (ACLs)

- ACL Entries

- Adding and Removing a User

AppArmor

- AppArmor Parser

- AppArmor Profiles

## **Section 13: Snappy**

Snaps

Ubuntu Core

## **Section 14: LXD**

Containerization What is

LXD?

- LXD Setup

- Creating and Using a Container