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Data Communication Training: The Fundamentals
2 days (14 hours)

Overview

Our Data Communication (DAC) training course provides a solid introduction to data communication, using the OSI reference model to present and evaluate the various best-known technologies and architectures. During this course, you will learn about the basic concepts of DAC, data communication terminology, the various transmission media, and the OSI reference model with its different layers. After completing this training, you will know everything there is to know about the different features and architecture. From digital data communication to physical and logical transmission, different networks, and TCP/IP. Like all our training courses, this one will introduce you to the latest resources and new developments.

Objectives

- Evaluate communication solutions
- Identify sources of problems
- Understand the role of data communication
- Learn about the classification of data communication

Target audience

- Network administrator
- Network engineer
- Technical solutions architect
- Deployment engineer

Prerequisites

Knowledge of basic computer structure.

Our training program Data Communication: The Fundamentals

Introduction

- What is data communication?
- Basic concepts
- Numbering systems
- The different mechanisms
- Transmission procedures and types of networks

DAC fundamentals

- Introduction to DAC fundamentals
- The objectives and importance of DAC in data management
- Risks associated with data management
- DAC standards and regulations

Architecture and transmission media

- Transmission media
  - Copper
  - Optical fiber
  - Wireless transmission media
- Physical transmission
- Logical transmission
- Data communication architectures
  - Local area networks (LANs)
  - IEEE 802 project
    - Ethernet
    - WLAN
- Wide area networks (WAN)
  - xDSL
  - PSTN
  - ISDN
  - PDH
  - SDH

Reference model

- Principles of layered models

- The 7 layers of the OSI reference model
  - Application
  - Overview
  - Session
  - Transport
  - Network
  - Data link
  - Physical
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Data communication base (TCP/IP)

- VPN
- Cloud
- [PRACTICAL] Configuring an FTP server (IIS)

To go further

Companies concerned

This training is intended for both individuals and companies, large or small, wishing to train their teams in new advanced IT technologies or to acquire specific professional knowledge or modern methods.

Placement at the start of training

The positioning at the start of the training complies with Qualiopi quality criteria. Upon final registration, the learner receives a self-assessment questionnaire that allows us to assess their estimated level of proficiency in different types of technologies, as well as their expectations and personal objectives for the upcoming training, within the limits imposed by the selected format. This questionnaire also allows us to anticipate certain connection or internal security issues within the company (intra-company or virtual classroom) that could be problematic for the monitoring and smooth running of the training session.

Teaching methods

Practical training: 60% practical, 40% theory. Training materials distributed in digital format to all participants.

Organization

The course alternates between theoretical input from the trainer, supported by examples and discussion sessions, and group work.

Assessment

At the end of the session, a multiple-choice questionnaire is used to verify that the skills have been correctly acquired

of skills.

Certification

A certificate will be issued to each trainee who has completed the entire training course.