

# DNS Fundamentals

## Course



### TRAINING SUMMARY

#### Overview:

This course provides an overview of Domain Name System (DNS) principles and protocol.

#### Objectives:

By the end of the course, the students will be able to:

- Describe the principles of the DNS
- Describe how the DNS data are handled and organized
- Identify the various types of name servers
- Describe the key DNS operations
- Describe the BIND engine

- **Course type:** eLearning
- **Duration:** 60 min
- **Audience:** System and network administrators
- **Prerequisites:** none
- **Teaching Methodology:** video, quiz
- **Certification:** no (knowledge assessment test proposed at the end of the video)

## COURSE STRUCTURE: 4 chapters

- Chapter 1: DNS Principles
- Chapter 2: The Name Server
- Chapter 3: DNS Operations
- Chapter 4: BIND Engine Description

## COURSE ABSTRACT

**How is the DNS organized?**

DNS is based on a naming system called the **domain namespace**

- It is a *hierarchical, infinite (highly extensible) and logical tree structure*

A **domain** is a node of the domain tree

company.com. is a domain

host12 is a host of the domain eng.company.com.

eng.company.com. is a domain. It is also a sub-domain of company.com.

**The DNS is also...**

The DNS also designates:

- The servers aka **DNS servers**, which hold the DNS information
- The protocol aka **DNS protocol** used:
  - By the clients to query the DNS servers
  - Between the DNS servers to communicate (query, transfer data)



REV: C-190219

As one of the world's fastest growing DDI vendors, EfficientIP helps organizations drive business efficiency through agile, secure and reliable network infrastructures. Our unified management framework for DNS-DHCP-IPAM (DDI) and network configurations ensures end-to-end visibility, consistency control and advanced automation. Additionally, our unique 360° DNS security solution protects data confidentiality and application access from anywhere at any time. Companies rely on us to help control the risks and reduce the complexity of challenges they face with modern key IT initiatives such as cloud applications, virtualization, and mobility. Institutions across a variety of industries and government sectors worldwide rely on our offerings to assure business continuity, reduce operating costs and increase the management efficiency of their network and security teams.

Copyright © 2020 EfficientIP, SAS. All rights reserved. EfficientIP and SOLIDserver logo are trademarks or registered trademarks of EfficientIP SAS. All registered trademarks are property of their respective owners. EfficientIP assumes no responsibility for any inaccuracies in this document or for any obligation to update information in this document.