

DNS AND BIND FUNDAMENTALS (DNSB-F)

COURSE OVERVIEW:

This 3-day course provides the student with foundational knowledge and skills necessary to deploy, manage and troubleshoot DNS and BIND. In-depth lectures cover DNS concepts in detail, including how DNS is implemented, while real-world experience is gained through practice with hands-on labs. BIND is used as the platform for DNS in this class, however the DNS principles learned are transferrable across any DNS server platform. This course mixes in-depth lectures and practical hands-on labs, which each student runs on his or her own server, which we provide.

WHO WILL BENEFIT FROM THIS COURSE?

This course is for any IT professional who would like a deeper understanding of the Domain Name System (DNS) and BIND. It is ideal for network administrators and engineers, systems administrators, security administrators, application developers and others who need DNS knowledge and skills.

PREREQUISITES:

The student should have working experience working within a Linux shell from the command line, with familiarity with cd, ls, cp, cat commands. The student should also have experience using a text editor. While shell experience is required, advanced command-line skills are not needed. For the text editor, working with vi or emacs is not required, as a simple editor, nano, is also available. An understanding of IP addressing is helpful.

COURSE OBJECTIVES:

After completion of this course, students will be able to...

- Describe current DNS use and architecture
- Explain domain name registration procedures
- Describe DNS resolution, DNS components, terminology and concepts
- Interpret DNS message types and format
- Demonstrate DNS message flows
- Build, install, configure, manage and troubleshoot BIND servers

COURSE OUTLINE:

- The DNS Namespace
- Domain Names, Labels and Nodes
- The root, TLDs, and Lower Level Domains
- Zones and Zone Types
- Delegation
- Name Resolution and Referrals
- The DNS Message (DNS Data)
- Name Servers (Authoritative Masters, Authoritative Slaves, Resolvers)
- Stub Resolvers

- Forwarding, Forward Zones, and Stub Zones
- Master File Format including Shortcuts
- Registrants, Registrars, Registries, Registry Operators
- Classes, Resource Record Types, and Resource Records (minimally the following are covered in detail: SOA, NS, A, AAAA, MX, SRV, TXT & PTR)
- Pseudo Resource Records (e.g. ANY, AXFR, IXFR, OPT, etc)
- Caching
- Negative-Caching
- Setting Up and Accessing Remote Name Servers
- Downloading, Compiling and Installing BIND
- BIND Configuration Files
- BIND Management Tools: named-checkconf, named-checkzone, rndc
- Generating and Reading BIND Logs
- dig and its Output
- Fundamentals of DNS Debugging and of BIND Debugging
- Common DNS Misunderstandings
- BIND Configuration for All Course Topics

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Sunset Learning Institute (SLI) has been an innovative leader in developing and delivering authorized technical training since 1996. Our goal is to help our customers optimize their cloud technology investments by providing convenient, high quality technical training that our customers can rely on. We empower students to master their desired technologies for their unique environments.

What sets SLI apart is not only our immense selection of trainings options, but our convenient and consistent delivery system. No matter how complex your environment is or where you are located, SLI is sure to have a training solution that you can count on!

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Enhanced Learning Experience

- The goal of our instructors during class is ensure students understand the material, guide them through our labs and encourage questions and interactive discussions.

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- Enthusiastic Student Services team available to answer any questions and ensure a quality training experience