

DNS AND BIND ADVANCED (DNSB-A)

COURSE OVERVIEW:

This 2-day course continues where DNS & BIND Fundamentals (DNSB-F) leaves off, focusing on critical topics that do not fit into DNSB-F. DNS has many exotic, outdated, and rarely implemented features. Those are not covered. Like DNSB-F, 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?

Any IT professional who would like to go beyond the fundamentals of Domain Name System (DNS) and BIND, and dive more deeply into security, optimization, and other advanced features. It is ideal for network administrators and engineers, systems administrators, security administrators, application developers and others who have already taken DNSB-F or have equivalent knowledge and skills.

PREREQUISITES:

It is strongly recommended to attend DNS & BIND Fundamentals (DNSB-F) before attending DNSB-A. Students wishing to attend DNSB-A without attending DNSB-F first can request a pre-course assessment test to ensure their readiness for this advanced course.

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...

- Explore advanced DNS deployment models
- Configure advanced DNS features
- Configure DNS to provide network security and secure DNS servers
- Optimize DNS server performance
- Use `dig` options for advanced querying, analysis and debugging
- Describe other network device considerations when deploying and securing DNS

COURSE OUTLINE:

- Views (Split-DNS)
- Empty Zones (Preventing Unanswerable Queries from Your Resolver)
- BIND's ACLs (Access Control Lists)
- Cryptography in DNS
- Transaction Signatures (TSIGs)
- NOTIFY and IXFR (Incremental Zone Transfer)
- Dynamic DNS (DDNS)
- BIND's DDNS Tool: `nsupdate`
- BIND's `rndc` commands for DDNS

- 'dig'ing Deeper
- Automatic Zone Provisioning in BIND (Catalog Zones)
- BIND Prefetch
- EDNS (Extended DNS) and the OPT Pseudo Record Type
- The Practical Uses of the Chaos Class
- Firewall Knowledge & Configuration for DNS
- Risks, Threats, Attacks, and Security in DNS
- The Fundamentals of DNSSEC (DNS SECurity)
- DNSSEC Key types, The Chain of Trust
- DNSSEC Resource Record Types (minimally the following are covered: RRSIG, DNSKEY, DS, NSEC)
- Implementing a DNSSEC Validating BIND Resolving Server
- BIND cryptography tools: rndc-confgen, ddns-confgen, dnssec-keygen

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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!

Premiere World Class Instruction Team

- All SLI instructors have a four-year technical degree, instructor level certifications and field consulting work experience.
- Sunset Learning has won numerous Instructor Excellence and Instructor Quality Distinction awards since 2012

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.

Convenient and Reliable Training Experience

- You have the option to attend classes at any of our established training facilities or from the convenience of your home or office with the use of our HD-ILT network (High Definition Instructor Led Training)
- All Sunset Learning Institute classes are guaranteed to run – you can count on us to deliver the training you need when you need it!

Outstanding Customer Service

- Dedicated account manager to suggest the optimal learning path for you and your team
- Enthusiastic Student Services team available to answer any questions and ensure a quality training experience