

COURSE OUTLINE

DDIP: DDI Professional

The Infoblox official DDI Professional Training Course is the key to success in obtaining your DDI Professional certification.

Intensive and Interactive - Led by an Infoblox DDIP authorized instructor, this training course provides a basic overview of vendor agnostic DDI concepts and industry best practices, covering the three domains of the DDI: DNS, DHCP, and IPAM. Several types of activities are used in the course to reinforce topics and increase knowledge retention, including questions from the instructor, demos, group discussions, and case studies.

Course Description	Understand the fundamental concepts of today's DDI environment that is the bedrock on which modern network operations and security rely on. Establish the baseline knowledge necessary to prepare for understanding, deploying, operating, and maintaining a DDI environment. Learn the relevant DNS and DHCP protocol details and related tools.	
Target Audience	This training course is intended for professionals working or intending to work in at least one of the three domains of the DDI and are pursuing certification to acquire the credibility and mobility to advance their careers.	
	The training is ideal for those working in or aspiring to Network Director/Manager, Network Engineer and Operator, and system integrators	
Duration	2 days	
Learning Style	Lecture, demo, and group discussions and activities	
Available Modalities	Instructor-led, Virtual Instructor-led, On-Demand	
Prerequisites	Attendees should have a fundamental understanding of TCP/IP networking.	
Certification	 DDI Professional Certification exam. Number of questions: 100 Format: Multiple choice Duration: 210 minutes 	Delivery: On-linePassing mark: 80%Included Attempts: 2
Training Credits	20	
Course Topics	 DNS Overview Resource Records Authoritative Data Zones and Delegation Query and Caching Forwarding & Query Path DHCP Overview DHCP Objects States and Leases DHCP Options 	 Dynamic DNS Client Behavior Troubleshooting Tips Redundancy & Reliability Security Considerations IPAM Overview Protocol Data & Discovery Meta Data & Reporting Automation & Security Best Practices



Infoblox is the leader in modern, cloud-first networking and security services. Through extensive integrations, its solutions empower organizations to realize the full advantages of cloud networking today, while maximizing their existing infrastructure investments. Infoblox has over 12,000 customers, including 70 percent of the Fortune 500.

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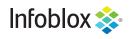
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Topics in Detail

- Introduction to DDI
 - Definition of DDI
 - Importance of DDI
- 2. DNS Overview
 - Brief History of DNS
 - Importance of DNS
 - DNS Terminologies and **Definitions**
 - DNS server and client
 - **DNS Lookup Tools**
- Resource Records
 - **DNS Message Format**
 - Common Resource Record Types
 - Less Common Record Types
 - Resource Record Set (RRset)
- **Authoritative Data**
 - Registering Domain Names
 - **Authoritative Server Roles**
 - Name Server Records
 - Zone Transfer
- Zone and Delegation
 - Forward-Mapping Zones
 - Reverse-Mapping Zones
 - Delegation and Subzones
 - Lame Delegation
 - Reverse-Mapping Delegation
- Query and Caching
 - **DNS** Header
 - Queries and Responses
 - Name Resolution Process
 - Caching and TTL
- 7. Forwarding & Query Path
 - Forwarding
 - Conditional Forwarding
 - Delegation vs Forwarding
 - Query Path
 - **DNS Views**

- 8. DHCP Overview
 - Brief History of DHCP
 - DHCPv4 Overview
 - **DHCPv4 Message Details**
 - **DHCPv6** Overview
- 9. **DHCP** Objects
 - **DHCP Network**
 - **DHCP Range**
 - Exclusion
 - **DHCP Manual Allocation**
 - **DHCP Policy**
 - **Deployment Recommendations**
- 10. States and leases
 - **DHCP** Lease
 - **DHCP Timers**
 - Address Binding States
- **DHCP Options**
 - **DHCP Options**
 - **Undefined Options**
 - **Vendor-Specific Options** (Option 43)
- 12. Dynamic DNS
 - **DDNS** Overview
 - **DDNS Update Process**
 - **DHCP Option 81**
 - **DDNS** Considerations
- 13. Client Behavior
 - **DHCP and DNS Client Behavior**
 - DNS Last Mile and Encrypted DNS
 - Local DNS
- 14. Troubleshooting Tips
 - **DHCP and DNS Troubleshooting Tips**
 - Network Considerations for DNS
 - **DNS Split Authority**

- 15. Redundancy and Reliability
 - **Fault Tolerance**
 - Load Balancing
 - **DHCP** Failover
 - **DNS Anycast**
- 16. Security Considerations
 - **DHCP Security Considerations**
 - **DNS Security Considerations**
- 17. IPAM Overview
 - **Brief History of IPAM**
 - **IPAM Components**
- 18. Protocol Data & Discovery
 - Protocol Data
 - Data Discovery
- 19. Metadata & Reporting
 - Metadata
 - Searching and Reporting
 - Historical Data
- 20. Automation & Security
 - **Data Import and Export**
 - **API** and Automation
 - **IPAM** and Security
- 21. Best Practices
 - **DNS Best Practices**
 - **DHCP Best Practices**
 - **IPAM Best Practices**



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