

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	<p>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.</p> <p>The training is ideal for those working in or aspiring to Network Director/Manager, Network Engineer and Operator, and system integrators</p>	
Duration	3 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	<p>DDI Professional Certification exam.</p> <ul style="list-style-type: none"> • Number of questions: 100 • Format: Multiple choice • Duration: 210 minutes • Delivery: On-line • Passing mark: 80% • Included Attempts: 2 	
Training Credits	30	
Course Topics	<ul style="list-style-type: none"> • 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 	

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Topics in Detail

1. 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
3. Resource Records
 - DNS Message Format
 - Common Resource Record Types
 - Less Common Record Types
 - Resource Record Set (RRset)
4. Authoritative Data
 - Registering Domain Names
 - Authoritative Server Roles
 - Name Server Records
 - Zone Transfer
5. Zone and Delegation
 - Forward-Mapping Zones
 - Reverse-Mapping Zones
 - Delegation and Subzones
 - Lame Delegation
 - Reverse-Mapping Delegation
6. 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
11. 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