

JR. NETWORK ADMINISTRATOR PROGRAM DETAILS

We have members complete the TestOut course content and simulated labs first alongside trainer lectures (Pre-recorded) and then have them use the real systems such as practice labs; this allows students to have some experience before configuring network devices. TestOut Network Pro does a great job preparing students for their CompTIA Network+ exam and the reports help the JSS trainers pinpoint areas where a member may be struggling.

Phase 1: TestOut Course Content with trainer lectures (Must be completed in three months)

Learning Tips:

- Communicate with course trainer: Use discord to ask questions
- Stay Focused on content videos or prerecorded lectures: Take notes, create self-interview questions
- Set Clear Goals: Make a calendar schedule to complete this course in three months.
- Practice Using Technology: Use the TestOut Labs multiple times and try to replicate demos from the prerecorded lectures.
- Avoid Fatigue and Burnout: Avoid long sittings, perform desk, and chair exercises
- Reward Yourself
- **Master Tip:** Technical training cannot be achieved from the one-time lab or by watching a video once. You will have to perform labs multiple times to build memory. Your patience will be tested. You will have to develop a strategy to train your mind to accept the technical learning challenges. You cannot think like an average user when it comes to technical learning; you are now becoming an engineer who requires patience to help others.

The total time for the LabSim for TestOut Network Pro course is approximately **95 hours and 45 minutes**. Time is calculated by adding the approximate time for each section which is calculated using the following elements:

- Video/demo times
- Text Lessons
- Simulations
- Questions
- Practice labs

The breakdown for this program is as follows:

JSS administrator will assign TestOut Network Pro license for 3 months

Module	Sections	Time	Videos	Labs	Text	Exams
1.0: Introduction						
	1.1: Network Pro Introduction	5	5	0	0	0
	1.2: Use the Simulator	39	15	24	0	0
	Total (hh:mm)	0:44	0:20	0:24	0:00	0:00
2.0: Networking Basics						
	2.1: Networking Overview	51	31	0	10	10
	2.2: OSI Model and Data Encapsulation	35	15	0	10	10
	2.3: Data Encapsulation	45	20	0	15	10
	2.4: Network Protocols	43	23	0	10	10
	Total (hh:mm)	2:54	1:29	0:00	0:45	0:40
3.0: Network Cabling and Hardware Devices						
	3.1: Copper Cables and Connectors	61	17	24	10	10
	3.2: Fiber Optic Cables and Connectors	38	11	12	5	10
	3.3: Wiring Implementation	64	20	24	10	10
	3.4: Troubleshoot Network Media	53	28	0	15	10
	3.5: Network Adapters	48	9	24	5	10
	3.6: Networking Devices	86	25	36	15	10
	Total (hh:mm)	5:50	1:50	2:00	1:00	1:00
Trainer Lectures associated with Modules 1,2,3						
JNAP: Trainer Intro 2 m						
<ul style="list-style-type: none"> • JNAP: OSI 7 Layers 32 m • JNAP: Encapsulation and De-Encapsulation 4 m • JNAP: TCP vs UDP 9 m • JNAP: Wireshark TCP vs UDP Demo 25 m • JNAP: How switch switches 7 m • JNAP: Cabling Straight vs Cross Over vs MDIX Media Dependent Interface Cross Over 7m • JNAP: Console Cable Lecture 6 m • JNAP: Ping Tool (Demo) 22 m • JNAP: Tracert Tool (Demo) 11 m • JNAP: Netstat Tool (Demo) 11 m • JNAP: Other CMD Tools (Demo) 13 m • JNAP: Troubleshooting Tasks 15 m 						

4.0: Network Addressing and Services

4.1: IP Addressing	100	46	24	20	10
4.2: APIPA and Alternate Addressing	35	8	12	5	10
4.3: DHCP	98	35	48	5	10
4.4: DHCP Relay	50	11	24	5	10
4.5: DNS	106	31	60	5	10
4.6: NTP	41	14	12	5	10
4.7: IP Version 6	70	33	12	15	10
4.8: Multicast	24	9	0	5	10
4.9: Troubleshoot IP Configuration Issues	84	21	48	5	10
4.10: Troubleshoot IP Communications	61	29	12	10	10
4.11: Troubleshoot DNS	53	26	12	5	10
Total (hh:mm)	12:02	4:23	4:24	1:25	1:50

5.0: Ethernet

5.1: Ethernet	47	15	12	10	10
5.2: Connect Network Devices	35	8	12	5	10
5.3: Troubleshoot Physical Connectivity	103	11	72	10	10
Total (hh:mm)	3:05	0:34	1:36	0:25	0:30

Trainer Lectures associated with Modules 4,5

- JNAP: IPv4 Header and Wireshark 19 m
- JNAP: Class Range Vs RFC 1918 Addresses Lecture 20 m
- JNAP: DHCP Process in Nutshell and Demo 38 m
- JNAP: DHCP Per NIC Assignment and APIPA 4 m
- JNAP: DHCP Relay IP Assignment 10 m

- JNAP: DHCP Client Identifier 6 m
- JNAP: DNS Lecture and DEMO 33 m
- JNAP: Multicast Addressing in a Nutshell 5 m
- JNAP: IPV6 in a Nutshell 14 m
- JNAP: IPv4 Addressing in Nutshell, IPv4 Header Info 33 m

6.0: Firewalls and Intrusion Detection

6.1: Firewalls	57	25	12	10	10
6.2: Firewall Design and Implementation	94	38	36	10	10
6.3: Screened Subnets (DMZ)	35	8	12	5	10
6.4: Intrusion Detection and Prevention	38	11	12	5	10
Total (hh:mm)	3:44	1:22	1:12	0:30	0:40

Trainer Lectures associated with Modules 6

- JNAP: What is Firewall and the Types 0 m
- JNAP: Network Security Systems 5 m
- JNAP: What Are Threats, Vulnerabilities, and Exploits 4 m
- JNAP: Windows Firewall Demo 15 m
- JNAP: Stateless Firewall Demo 24 m
- JNAP: Business Firewall and Modern Security Walkthrough (Demo) 20 m

7.0: Switching and Routing

7.1: Switching	54	27	12	5	10
7.2: Basic Switch Configuration	92	24	48	10	10
7.3: Switch Ports	114	34	60	10	10
7.4: Switch Security	101	33	48	10	10
7.5: Routing	91	49	12	20	10
7.6: Network Address Translation	47	20	12	5	10
7.7: Switching and Routing	35	21	0	5	9
Troubleshooting					
Total (hh:mm)	8:54	3:28	3:12	1:05	1:09

Trainer Lectures associated with Modules 7

- JNAP: Cisco Switches Lecture 24 m
- JNAP: Stackwise VS Chassis 16 m
- JNAP: Memory Components and Config files 0 m
- JNAP: Boot Process 24 m
- JNAP: Network Simulation Software 49 m
- JNAP: Basics of Cisco IOS 18 m
- JNAP: How Switch does switching and Populate CAM 10 m

- JNAP: Traditional ARP 9 m
- JNAP: Proxy and Gratuitous ARP 13 m
- JNAP: Spanning Tree Protocol (802.1d) 11 m
- JNAP: VLAN Concepts 17 m
- JNAP: Trunk 9 m
- JNAP: EtherChannel and POE 10 m
- JNAP: Cisco Routers 4 m
- JNAP: SOHO Small Office Home Office, Common Network Components, Network Architectures 24 m
- JNAP: MDF vs IDF and Evolution of Technology 7 m
- JNAP: Protocols, AD, and Metrics 16 m
- JNAP: NAT and PAT
- JNAP: Routing Lookup Process 29 m
- JNAP: VLAN, TRUNK, NAT ISP Connectivity Hands-on lab 87 m

8.0: Specialized Networks

8.1: Corporate and Datacenter Networks	70	26	24	10	10
8.2: Voice over IP (VoIP)	64	25	24	5	10
8.3: Virtualization	32	17	0	5	10
8.4: Virtual Networking	36	16	0	10	10
8.5: Cloud Concepts and Connectivity	44	19	0	15	10
8.6: Internet of Things (IoT)	69	30	24	5	10
Total (hh:mm)	5:15	2:13	1:12	0:50	1:00

9.0: Wireless Networking

9.1: Wireless Concepts and Standards	58	33	0	15	10
9.2: Wireless Configuration	74	23	36	5	10
9.3: Wireless Network Design	68	24	24	10	10
9.4: Wireless Network Implementation	42	15	12	5	10
9.5: Wireless Security	125	45	60	10	10
9.6: Wireless Troubleshooting	85	34	36	5	10
Total (hh:mm)	7:32	2:54	2:48	0:50	1:00

10.0: Wide Area Networks (WANs)

10.1: WAN Concepts	27	12	0	5	10
10.2: Internet Connectivity	53	26	12	5	10
10.3: Remote Access	23	8	0	5	10
10.4: Virtual Private Networks	65	21	24	10	10
Total (hh:mm)	2:48	1:07	0:36	0:25	0:40

11.0: Network Operations and Management

11.1: Performance Metrics	21	6	0	5	10
11.2: Network Management with SNMP	31	16	0	5	10
11.3: Log File Management	66	27	24	5	10
11.4: Monitoring	68	48	0	10	10

11.5: Organization Policies	44	19	0	15	10
11.6: Redundancy and High Availability	91	54	12	15	10
11.7: Data Backup and Storage	70	31	24	5	10
11.8: Remote Management	45	18	12	5	10
Total (hh:mm)	7:16	3:39	1:12	1:05	1:20
12.0: Network Security					
12.1: Security Concepts	69	44	0	15	10
12.2: Risk Management	53	23	0	20	10
12.3: Physical Security	36	9	12	5	10
12.4: Social Engineering	48	21	12	5	10
12.5: Network Threats and Attacks	81	43	12	15	11
12.6: Spoofing Attacks	107	44	48	5	10
Total (hh:mm)	6:34	3:04	1:24	1:05	1:01
13.0: Hardening and Update Management					
13.1: Network Hardening	57	18	24	5	10
13.2: Authentication	52	32	0	10	10
13.3: Hardening Authentication	85	34	36	5	10
13.4: Update Management	44	17	12	5	10
Total (hh:mm)	3:58	1:41	1:12	0:25	0:40
14.0: Network Optimization and Troubleshooting					
14.1: Optimization	35	20	0	5	10
14.2: General Network Issues	44	24	0	10	10
14.3: Troubleshooting Utilities	88	46	12	20	10
Total (hh:mm)	2:47	1:30	0:12	0:35	0:30
Total TestOut Time 72:45 (hh:mm)					
Practice Exams					
A.0: TestOut Network Pro - Practice Exams	Number of Questions		Time (hh:mm)		
A.2: TestOut Network Pro Domain Review Questions	107		21:24		
A.3: TestOut Network Pro Certification Practice Exam	20		1:20		
Total	127		22:44		
B.0: CompTIA Network+ N10-008 Practice Exams	Number of Questions		Time (hh:mm)		
B.2: CompTIA Network+ N10-008 Domain Review Questions	100		1:40		
B.3: CompTIA Network+ N10-008 Practice Exam Questions (All)	1,155		19:15		
B.4: CompTIA Network+ N10-008 Certification Practice Exam	90		1:30		
Total	1,345		22:25		
Total Practice Exam Time 45:09 (hh:mm)					

Phase 2: Network+ (N10-008) Practice Lab (One Year Access)

CompTIA Network+ (N10-008) Practice Lab. The CompTIA N10-008 certification is an intermediate-level networking qualification that will help provide an IT Professional with the necessary skills for entry into a networking career.

The Network+ Practice Lab's main focus is on the practical application of the CompTIA certification exam outcomes, and where required, some objectives are covered in theory.

After completing this Practice Lab, you will have gained further knowledge on managing and maintaining network infrastructure, basic troubleshooting techniques, and an introduction to cloud computing.

Lab Guides

- Introduction to the OSI Model
- Networking Topologies and Characteristics
- Internet Protocol Addressing Solutions
- Cable and Connector Types
- Cable Management Solutions
- Virtual Network Concepts
- Network Security Concept Fundamentals
- General Network Attacks
- Network Services and Protocols
- Network Command Line Tools
- Network Analysis Software
- Configuring and Maintaining DNS Servers
- DHCP Server Installation and Configuration
- Remote Access and Management
- Load Balancing and NIC Teaming
- NTP Server Management
- High Availability and Disaster Recovery Concepts
- Configuring Switching Features
- Routing Concepts and Protocols
- Troubleshooting Common Networking Issues
- Cloud Concepts
- Network Architecture
- Networking Device Monitoring
- Network Troubleshooting Techniques
- Networking Hardening Techniques and Best Practices
- Physical Networking Tools
- Defining Networking Devices
- Troubleshooting Cable Connectivity
- Wireless Configuration Techniques and Standards
- Troubleshooting and Securing Wireless Networks
- Physical Network Security Concepts

- Organizational Documentation and Procedures
- Organizational Networking Diagrams and Agreements