

The Telecommunications Network Specialist (TNS) Training Course

15 – 26 November 2027
Vienna

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Ref: 36250_79670 **Date:** 15 – 26 November 2027 **Location:** Vienna **Fees:** 10000 Euro

Course Overview:

The Course is a comprehensive program designed to provide participants with an in-depth understanding of the telecommunications industry. This course covers a wide range of topics, including Broadband Converged IP Telecom, Wireless Telecommunications, and Mobile Network Fundamentals. It is specifically tailored for non-engineers, ensuring that all participants can grasp complex concepts such as Telecom Network Core and Edge, VoIP, and MPLS and Carrier Networks. The course also delves into advanced topics like 4G LTE, 5G Spectrum and Applications, Wi-Fi Security, and Satellite Communications. Participants will gain practical knowledge in OSI Layers and Protocol Stacks, LAN Fundamentals, VLANs and Ethernet, Optical Ethernet, and IP Networks and Routing. This course is ideal for those looking to enhance their expertise in Network Address Translation NAT, IPv6, and Service Level Agreements SLA in Telecom. With a focus on real-world applications and best practices, this course equips Telecommunications Specialists with the skills needed to excel in their roles.

Target Audience:

- Telecom Engineers
- Network Administrators
- IT Managers
- Technical Support Specialists
- Telecom Project Managers
- Network Analysts
- Business Development Managers

Targeted Organizational Departments:

- Information Technology IT
- Network Operations
- Technical Support
- Engineering
- Project Management Office

Targeted Industries:

- Telecommunications
- IT Services
- Networking and Infrastructure
- Mobile Communications
- Internet Service Providers ISPs
- Government and Public Sector
- Enterprise IT

Course Offerings:

By the end of this course, participants will be able to:

- Understand the fundamentals of Broadband Converged IP Telecom
- Grasp the basics of Wireless Telecommunications and Mobile Network Fundamentals
- Explain the principles of 4G LTE, 5G Spectrum, and Applications
- Ensure Wi-Fi Security and manage Satellite Communications
- Implement Voice over IP VoIP solutions and SIP Trunking
- Navigate the PSTN, LECs, CLECs, and IXCs
- Apply knowledge of OSI Layers and Protocol Stacks
- Design and manage LANs, VLANs, and Ethernet networks
- Utilize Optical Ethernet technologies
- Configure and troubleshoot IP Networks and Routing
- Perform Network Address Translation NAT and implement IPv6
- Manage MPLS and Carrier Networks
- Establish Service Level Agreements SLA in Telecom

Training Methodology:

The Telecommunications Network Specialist TNS Training Course employs a variety of training methodologies to ensure a comprehensive learning experience. These include interactive lectures, hands-on lab sessions, case studies, and group discussions. Participants will engage in real-world scenarios to apply their knowledge of Broadband Converged IP Telecom, Wireless Telecommunications, and Mobile Network Fundamentals. The course also includes role-playing exercises and simulations to enhance understanding of 4G LTE, 5G Spectrum, and Applications. Feedback sessions and assessments will be conducted regularly to gauge participants' progress and provide personalized guidance.

Course Toolbox:

- Comprehensive workbooks and manuals
- Online resources and reading materials
- Checklists and templates for telecom network design and management
- Interactive learning modules and simulations

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Course Agenda:

Day 1: Introduction to Telecom Networks

- **Topic 1:** Overview of Telecommunications Network Specialist
- **Topic 2:** Fundamentals of Broadband Converged IP Telecom
- **Topic 3:** Telecom for Non-Engineers
- **Topic 4:** Understanding Telecom Network Core and Edge
- **Topic 5:** Basics of Wireless Telecommunications
- **Reflection & Review:** Recap of key concepts and interactive Q&A

Day 2: Mobile and Wireless Communications

- **Topic 1:** Mobile Network Fundamentals
- **Topic 2:** Deep Dive into 4G LTE
- **Topic 3:** Exploring 5G Spectrum and Applications
- **Topic 4:** Wi-Fi Security Essentials
- **Topic 5:** Satellite Communications Overview
- **Reflection & Review:** Group discussion and feedback session

Day 3: Voice and Protocols in Telecom

- **Topic 1:** Fundamentals of Voice over IP VoIP
- **Topic 2:** VoIP: Soft Switches and SIP Servers
- **Topic 3:** SIP Trunking Explained
- **Topic 4:** The PSTN and Analog Voiceband
- **Topic 5:** LECs, CLECs, and IXCs in Telecom
- **Reflection & Review:** Case study analysis and review

Day 4: Network Structures and Protocols

- **Topic 1:** OSI Layers and Protocol Stacks
- **Topic 2:** LAN Fundamentals
- **Topic 3:** VLANs and Ethernet Technologies
- **Topic 4:** Optical Ethernet in Practice
- **Topic 5:** IP Networks and Routing Fundamentals
- **Reflection & Review:** Practical exercises and Q&A

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Day 5: Advanced Networking and Carrier Services

- **Topic 1:** Network Address Translation NAT Techniques
- **Topic 2:** Implementing IPv6
- **Topic 3:** MPLS and Carrier Networks
- **Topic 4:** Service Level Agreements SLA in Telecom
- **Topic 5:** Carrier Network Basics
- **Reflection & Review:** Knowledge check and discussion

Day 6: Telecom Equipment and Services

- **Topic 1:** Overview of Telecom Equipment
- **Topic 2:** Telecom Services for Residential and Business
- **Topic 3:** Wholesale Telecom Services
- **Topic 4:** Carrier Connections and Interoperability
- **Topic 5:** Trends in Telecom Equipment
- **Reflection & Review:** Group activity and discussion

Day 7: Telecom Convergence and Broadband

- **Topic 1:** Understanding Telecom Convergence
- **Topic 2:** Broadband Technologies and Applications
- **Topic 3:** Impact of Convergence on Telecom Services
- **Topic 4:** Future Trends in Broadband
- **Topic 5:** Case Studies in Telecom Convergence
- **Reflection & Review:** Interactive session and feedback

Day 8: Real-World Applications and Best Practices

- **Topic 1:** Best Practices in Telecom Network Management
- **Topic 2:** Case Studies in Telecom Implementations
- **Topic 3:** Practical Applications of Telecom Technologies
- **Topic 4:** Troubleshooting Common Telecom Issues
- **Topic 5:** Future-Proofing Telecom Networks
- **Reflection & Review:** Problem-solving session and review

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Day 9: Regulatory and Compliance Issues in Telecom

- **Topic 1:** Overview of Telecom Regulations
- **Topic 2:** Compliance Requirements for Telecom Providers
- **Topic 3:** Impact of Regulations on Telecom Operations
- **Topic 4:** Case Studies in Regulatory Compliance
- **Topic 5:** Preparing for Regulatory Changes
- **Reflection & Review:** Regulatory review and discussion

Day 10: Developing Business Attitudes in Telecom

- **Topic 1:** Attitude and Mindset for Telecom Professionals
- **Topic 2:** Effective Communication and Leadership in Telecom
- **Topic 3:** Strategic Thinking and Problem Solving
- **Topic 4:** Adapting to Technological Changes
- **Topic 5:** Building a Customer-Centric Approach
- **Reflection & Review:** Final review and course completion

How This Course is Different from Other Telecommunications Network Specialist TNS Training Courses:

The Telecommunications Network Specialist TNS Training Course stands out from other similar courses by offering a holistic approach that combines foundational knowledge with advanced practical skills. It is specifically designed for non-engineers, making it accessible to a broader audience. The course covers the latest technologies and trends, including 4G LTE, 5G Spectrum, and Wi-Fi Security, ensuring that participants are well-versed in current industry standards. With a focus on real-world applications, the course includes hands-on lab sessions, interactive case studies, and role-playing exercises. Additionally, participants will benefit from personalized feedback and guidance, ensuring they can confidently apply their new skills in their professional roles. This comprehensive and engaging training program equips telecommunications specialists with the expertise needed to excel in today's fast-paced telecom industry.