



IT Security & Networking Management
Training



IT Security & Networking Management Training

Introduction:

IT security and networking provide comprehensive knowledge and practical skills essential for today's IT security and network technicians. The curriculum covers various topics needed to understand, implement, and maintain secure network infrastructures.

Participants will delve deep into cybersecurity, network protocols, encryption techniques, and the best practices necessary to safeguard critical data and protect against cyber threats, emphasizing the importance of IT network security management.

This IT security and networking course also addresses network design, administration, and troubleshooting fundamentals, equipping attendees with the skills needed for IT networking and security roles.

Targeted Groups:

- IT professionals are seeking to enhance their knowledge in IT security and networking.
- Network administrators aiming to bolster network and IT security.
- Security analysts focused on elevating their skill set within IT networking security.
- This IT security and networking course is for anyone interested in a comprehensive understanding of computer networking and IT security.

Course Objectives:

By the conclusion of this IT security and networking course, participants will:

- Proficient in the fundamentals of IT security and networking.
- Equipped to implement robust security measures that protect networks and sensitive data.
- Capable of identifying and mitigating common cybersecurity threats.
- Well-versed in the principles of secure network design and administration.
- Ready to monitor and manage security incidents effectively.

Targeted Competencies:

Participants competencies in this IT security and networking training will:

- Introduction to IT Security.
- Network Fundamentals.
- Network Security.
- Cybersecurity Measures.
- Network Administration and Monitoring.

Course Content:

Unit 1: Introduction to IT Security:

- Understand why IT network security is critical in the contemporary digital domain.
- A comprehensive overview of various cyber threats malware, phishing, and DDoS.
- An introduction to cybersecurity frameworks and standards NIST and ISO 27001.
- Approaches to risk assessment and threat modeling.
- Fundamentals of cryptography and encryption.

Unit 2: Network Fundamentals:

- Exploration of computer network architectures LAN, WAN, and WLAN.
- The significance of the OSI and TCP/IP models in IT networking and security.
- Delving into IP addressing and subnetting.
- Basics of routing, switching, and the role of an IT security and network technician.
- Steps for configuring and securing network devices routers, switches, firewalls.

Unit 3: Network Security:

- Identify common network security threats and exploitation techniques.
- Deploy network security protocols SSL/TLS, IPsec, and VPN.
- Understand firewall technologies and strategic configuration.
- Utilize Intrusion Detection and Prevention Systems IDS/IPS.
- Network access control and robust authentication practices.

Unit 4: Cybersecurity Measures:

- Principles of secure system architecture.
- Application security and secure coding methodologies.
- Security measures within cloud computing environments.
- Addressing web application security leveraging the OWASP Top 10.
- Data protection policies and privacy compliance considerations.

Unit 5: Network Administration and Monitoring:

- Key network administration responsibilities and toolsets.
- Strategies for network performance monitoring and optimizing.
- Incident response framework and disaster recovery planning essentials.
- Security auditing, compliance, and the importance of IT network security training.
- Introduction to ethical hacking and penetration testing basics.