# Leveraging Blockchain for Enhanced Telecom and Network Security Training Course



14 - 18 Dec 2026

Cairo

3700 € (Per Person)

Ref: #TEL2294_266685

## Course Introduction / Overview:

This training course is designed to equip network professionals, cybersecurity experts, and IT leaders with the strategic insights and technical knowledge needed to leverage blockchain technology for enhanced telecom and network security. The convergence of telecommunications and distributed ledger technology is creating new paradigms for securing data, managing network identities, and ensuring the integrity of critical infrastructure. This program, offered by BIG BEN Training Center, provides a framework for understanding the core principles of blockchain, from its cryptographic foundations to its practical applications in securing network infrastructure. We will explore how blockchain can be used to combat cybersecurity threats, authenticate devices, and create immutable audit trails. The curriculum is informed by the academic work of authors like Andreas Antonopoulos, whose book, Mastering Bitcoin, offers a foundational understanding of the underlying principles of distributed ledgers and their potential applications far beyond finance. This course goes beyond a simple overview of blockchain to provide a deep understanding of how to implement real-world solutions that address some of the most pressing network security challenges. We prepare participants to be leaders who can build more resilient and secure telecom networks.

## Target Audience / This training course is suitable for:

- Network engineers.
- Cybersecurity specialists.
- IT and telecommunications managers.
- System architects.
- Compliance and risk management professionals.
- Data privacy officers.
- Researchers and academics.
- Government agencies and equivalents.

## Target Sectors and Industries:

- Telecommunications.
- Technology and IT.
- Financial services.
- Government and public administration agencies.
- Healthcare.
- Energy and utilities.
- Defense and security.
- Consulting.

## Target Organizations Departments:

- IT and Network Operations.
- Cybersecurity.
- Research and Development (R&D).
- Strategic Planning.
- Risk Management.
- Compliance and Legal.
- Product Development.
- Technical Services.

## Course Offerings:

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

- Understand the foundational principles of blockchain technology.
- Identify cybersecurity challenges in telecom networks.
- Apply blockchain for secure device authentication.
- Design a decentralized identity management system.
- Implement smart contracts for automated network governance.
- Create immutable audit trails for network activity.
- Mitigate risks of data breaches and manipulation.
- Develop a strategic plan for blockchain integration.

## Course Methodology:

This training course uses a project-based and case-study driven methodology. The program is built on real-world examples of how blockchain is being applied to solve specific network security challenges. Participants will work in teams to design a blockchain-based solution for a specific telecom security problem, applying the concepts and tools learned in the course. We will use interactive workshops to practice skills like cryptographic hashing and smart contract logic. The curriculum is designed to be a collaborative experience where participants can share their unique challenges and innovative solutions. Our trainers, with extensive experience in the field, will provide direct feedback and guidance throughout the course. BIG BEN Training Center is committed to providing a dynamic and practical learning environment, ensuring that participants leave with the skills and confidence to lead effective blockchain-for-security initiatives.

## Course Agenda (Course Units):

### Unit One: Foundations of Blockchain and Network Security

- Introduction to blockchain technology.
- Core concepts: consensus, decentralization, immutability.
- Current state of telecom network security.
- Common cybersecurity threats and vulnerabilities.
- The role of cryptography in blockchain.
- Blockchain vs. traditional databases.
- Case studies of blockchain security.

### Unit Two: Blockchain for Identity and Access Management

- Decentralized identity management.
- Secure authentication protocols.
- Managing access control with blockchain.
- Single sign-on using blockchain.
- Revocation of access and identity.
- Case studies in telecom identity management.
- Practical exercises in identity design.

### Unit Three: Securing Network Operations

- Immutable network audit trails.
- Verifying data integrity.
- Securing IoT devices with blockchain.
- Smart contracts for automated governance.
- Securing supply chains for network hardware.
- Vulnerability management with DLT.
- Decentralized network management.

## Unit Four: Data Privacy and Threat Mitigation

- Blockchain for secure data sharing.
- Protecting data privacy.
- Mitigating DDoS attacks with DLT.
- Preventing data manipulation.
- Responding to cybersecurity incidents.
- Threat intelligence sharing.
- Security token concepts.

## Unit Five: Strategic Implementation and the Future

- Strategic planning for blockchain integration.
- Regulatory and compliance considerations.
- Cost-benefit analysis.
- Emerging trends and future technologies.
- Building a business case for blockchain security.
- Leadership in technology innovation.
- Career pathways in blockchain and telecom security.

# FAQ:

### Qualifications required for registering to this course?

There are no requirements.

### How long is each daily session, and what is the total number of training hours for the course?

This training course spans five days, with daily sessions ranging between 4 to 5 hours, including breaks and interactive activities, bringing the total duration to 20 - 25 training hours.

## Something to think about:

How can blockchain's immutable and decentralized nature fundamentally change the way we approach network security, moving from reactive defense to proactive, built-in resilience?

## What unique qualities does this course offer compared to other courses?

This training course is unique because it provides a dedicated, strategic focus on the practical application of blockchain for telecom and network security. While other programs may cover blockchain in general, our curriculum is designed to empower professionals with the specific skills needed to address the most pressing security challenges in modern networks. The program is a hands-on experience, with exercises that directly simulate the challenges and decisions involved in a real-world blockchain security project. We go beyond theoretical concepts to provide a clear, actionable roadmap for using this transformative technology to build more resilient, secure, and transparent networks. This course is for professionals who want to lead their organizations toward a more secure digital future.