



*Training Course:
Security and Privacy in Central Bank Digital
Currencies (CBDC)*

*29 August - 2 September 2027
Cairo (Egypt)*

Training Course: Security and Privacy in Central Bank Digital Currencies (CBDC)

Training Course code: SC234991 From: 29 August - 2 September 2027 Venue: Cairo (Egypt) - Training Course Fees: 4100 € Euro

Introduction

The Security and Privacy in Central Bank Digital Currencies CBDC training program is designed to equip employees with the knowledge and skills to effectively manage the security and privacy challenges specific to CBDCs. CBDCs represent a new frontier in digital currencies, and with their potential to revolutionize the financial system, there is a need to ensure that they are secure and private. This training program aims to provide a comprehensive overview of the security and privacy challenges in CBDCs and the best practices for managing them.

Objectives

The objectives of this training program are to:

- Provide an understanding of the security and privacy challenges specific to CBDCs.
- Equip employees with the knowledge and skills to manage security and privacy challenges in CBDCs effectively.
- Enhance the competencies of employees to handle security and privacy concerns in CBDCs.
- Ensure compliance with regulatory and legal requirements specific to CBDCs.

Target Audience

- Central Bank Employees: Professionals involved in the development, implementation, and management of Central Bank Digital Currencies CBDCs.
- Financial Institution Staff: Employees working in banks and financial organizations engaged in CBDC initiatives and digital transformation projects.
- IT Professionals: Technical experts responsible for the design, development, and integration of CBDC systems and digital infrastructure.
- Cybersecurity Professionals: Specialists focused on securing CBDC platforms, protecting digital assets, and ensuring system resilience.
- Legal & Compliance Officers: Professionals ensuring regulatory adherence, legal framework alignment, and risk mitigation in CBDC implementation.
- Policymakers & Regulators: Decision-makers shaping CBDC strategies, regulations, and financial system policies.
- Researchers & Academics: Individuals studying CBDCs and their impact on monetary systems, financial stability, and digital economies.
- Other CBDC Stakeholders: Professionals involved in planning, governance, communication, and management of CBDC-related initiatives.

Outlines

Day 1: Introduction to CBDC & Core Concepts

- Definition of Central Bank Digital Currency CBDC and its types
- Benefits and potential risks of CBDC adoption
- Overview of security challenges in CBDC ecosystems
- Introduction to key CBDC architecture concepts

Day 2: Key Management & Transaction Security

- Key management: private/public keys, generation, and secure storage
- Digital signatures and their role in CBDC security
- Transaction validation and confirmation processes
- Threats such as double-spending and 51% attacks
- Fundamentals of transaction integrity and security controls

Day 3: Network & Storage Security

- CBDC network security architecture and consensus mechanisms
- Role of network nodes, mining concepts, and forks
- Storage security: hot wallets vs. cold wallets
- Multi-signature wallets, hardware wallets, and paper-based storage
- Best practices for securing digital currency infrastructure

Day 4: Privacy & Encryption in CBDC Systems

- Pseudo-anonymity vs. anonymity in CBDC systems
- Blockchain analysis and de-anonymization risks
- Data privacy, GDPR compliance, and breach prevention
- Transaction confidentiality and privacy-enhancing features
- Cryptography fundamentals: symmetric/asymmetric encryption, hashing, salting
- Encryption protocols: SSL/TLS, PGP, AES, RSA
- Advanced techniques: homomorphic encryption and MPC

Day 5: Best Practices, Compliance & CBDC Governance

- Multifactor authentication and access control mechanisms
- Software updates, patch management, and system resilience
- Backup and disaster recovery procedures
- AML/KYC compliance requirements for CBDC systems
- User education and awareness in CBDC environments
- CBDC issuance and distribution models
- Integration with existing payment systems
- Role of central banks in CBDC management
- Regulatory and legal considerations in CBDC implementation

Registration form on the Training Course: Security and Privacy in Central Bank Digital Currencies (CBDC)

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Complete & Mail or fax to Global Horizon Training Center (GHTC) at the address given below

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- ☐ Please find enclosed a cheque made payable to Global Horizon
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