

Course Name:	Essential of Database Security Workshop
Duration:	2 Day
Medium of Instruction:	Cantonese (with handout in English)
Award of Certificate:	Certificate of Attendance

Nature and Objectives:

This course is intended to provide participants with an overview of general database security system requirements and practices, different technologies to protect database and an understanding of the impact brought by deploying security protection to database. Through this workshop, you will understand the risks of your database system and the key steps to manage and protect information assets. You will also learn how the current information technologies can be used to protect your database system.

Who Should Attend:

IT Manager, Database Administrator, Database designer, Data Security Officers, Information Security Analysts / Managers, IT Auditors and Managers, Technical Manager, Security Consultants, and System Integrators.

Course Outline:

Part 1 : Introduction to Database System Concepts and Architecture

- Basic Database Objects
- Types of Database
- Database Models and Categories
- SQL-99: Schema Definition, Constraints, Queries and Views

Part 2 : Information Security Basics

- Cryptographic Basics
- Symmetric Encryption
- Asymmetric Encryption
- Message Digest / Hash

Part 3 : Building Database Security System Architecture Network Layer Protection

- Database Authentication and Authorization
- Concept of Separation of Duty
- Data Level Protection
- Data Integrity Checking
- Data Encryption at Link and Storage Level
- Data Access Control Policy
- Internal Threat Production

- Database Auditing and Reporting

Part 4 : Impact on Database Security System Implementation

- Database Application Development Consideration
- Database Operation Consideration
- Database Performance Consideration
- Discretionary Access Control Based on Granting Revoking Privileges

Part 5 : SQL Database Attacks

- Database Vulnerabilities Attack
- Buffer over flow
- SQL injection
- Statistical Database Attacks
- Aggregation and Inference Direct Attacks
- Indirect and Tracker Attacks
- SQL Injection through web application

Part 6 : Risks and Threats in Today Database System Threats of Database System Need for Database Security in e-Business

- Internal Database Protection
- Web Application and Database Protection