MAWA EVENTS

Address: No. 857, Block A2. Leisure Commerce Square - No 9., 46150 Petaling Jaya, Selangor, Malaysia

Phone: +601116373203 | **Email:** info@mawaevents.net

SECURITY & PRIVACY FOR BIG DATA

"Secure, Govern, and Protect Big Data to Unlock Its True Value"

Schedule

Venue	Fees
In-House	ASK FOR THE QUOTATION

► **Available delivery methods:** In-House Training

Introduction

As organizations increasingly rely on massive volumes of structured and unstructured data, ensuring the confidentiality, integrity, and availability of this data has become critical. This course equips IT professionals, data engineers, and security managers with the knowledge and tools needed to identify vulnerabilities, implement data protection controls, and ensure regulatory compliance in big data ecosystems. Participants will explore real-world use cases, emerging threats, and best practices in securing modern data platforms.

Objectives

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

- Understand security challenges unique to big data environments
- Identify privacy risks across distributed data systems
- Apply encryption, masking, and anonymization techniques
- Implement access control and identity management for big data platforms
- Ensure compliance with GDPR, HIPAA, and other data protection frameworks
- Monitor and audit big data systems to detect anomalies and breaches

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Why Attend

With the explosive growth of big data comes greater responsibility to safeguard it. This course provides the foundational knowledge and practical techniques to protect sensitive data assets and uphold user privacy in high-scale environments.

Target Audience

- IT Security Managers and Officers
- Data Engineers and Architects
- Compliance and Risk Management Professionals
- System and Network Administrators
- Professionals managing Hadoop, Spark, NoSQL, and cloud-based data platforms

Individual Benefits

- Build expertise in big data cybersecurity frameworks
- Learn hands-on mitigation techniques and governance strategies
- Position yourself as a key asset in digital transformation initiatives
- Improve your readiness for security certifications (e.g., CISSP, CISM, CISA)

Organizational Benefits

- Reduce risk of data breaches and cyber-attacks
- Enhance compliance with international privacy regulations
- Build secure data pipelines for analytics and business intelligence
- Foster trust with customers, regulators, and stakeholders

Instructional Methodology

- Case studies of data breaches and defense mechanisms
- Lab-based exercises on securing Hadoop, Spark, and cloud storage
- Group discussions and data privacy simulations
- Risk assessment tools, audit checklists, and policy templates

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Course Outline

DETAILED 5-DAY COURSE OUTLINE (CUSTOMIZABLE)

Training Hours: 7:30 AM – 3:30 PM

Daily Format: 3–4 Learning Modules | Coffee Breaks: 09:30 & 11:15 | Lunch Buffet: 01:00 – 02:00

Day 1: Big Data Ecosystems and Threat Landscape

Module 1: Overview of Big Data Technologies (Hadoop, Spark, NoSQL, Cloud) (07:30 – 09:30)

Module 2: Security Architecture for Distributed Data Systems (09:45 – 11:15)

Module 3: Key Vulnerabilities in Big Data Platforms (11:30 – 01:00)

Module 4: Case Study: Anatomy of a Big Data Breach (02:00 – 03:30)

Day 2: Data Privacy and Protection Fundamentals

Module 1: Data Classification and Sensitivity Levels (07:30 – 09:30)

Module 2: Encryption at Rest, In Transit, and In Use (09:45 – 11:15)

Module 3: Data Masking, Tokenization, and Anonymization Techniques (11:30 – 01:00)

Module 4: Workshop: Designing a Data Protection Plan (02:00 – 03:30)

Day 3: Access Management and Identity Control

Module 1: Role-Based and Attribute-Based Access Controls (RBAC, ABAC) (07:30 – 09:30)

Module 2: Integrating IAM Tools (Kerberos, LDAP, OAuth) with Big Data (09:45 – 11:15)

Module 3: Securing APIs and Data Ingestion Pipelines (11:30 – 01:00)

Module 4: Hands-On Lab: Implementing Access Controls in Hadoop/Spark (02:00 – 03:30)

Day 4: Governance, Compliance & Legal Requirements

Module 1: GDPR, HIPAA, CCPA & International Privacy Laws (07:30 – 09:30)

Module 2: Building Privacy-By-Design into Big Data Architectures (09:45 – 11:15)

Module 3: Data Lifecycle Management and Retention Policies (11:30 – 01:00)

Module 4: Group Activity: Compliance Gap Assessment Simulation (02:00 – 03:30)

Day 5: Monitoring, Response, and Strategic Planning

Module 1: Security Monitoring, Anomaly Detection & SIEM Integration (07:30 – 09:30)

Module 2: Incident Response Planning and Forensic Readiness (09:45 – 11:15)

Module 3: Risk Management Frameworks and Maturity Models (11:30 – 01:00)

Module 4: Final Capstone: Secure Big Data Architecture Design & Presentation (02:00 – 03:30)

Certification

Participants who complete the training and final group project will receive a **Certificate in Security & Privacy for Big Data**, recognizing their capabilities in implementing and managing secure, compliant data ecosystems across complex environments.

Why Choose MAWA Events

- **Global Expertise:** More than 17 years of experience in professional training and consulting.
- **Industry-Leading Faculty:** Courses delivered by seasoned professionals with hands-on experience.
- **Practical Insights:** Learn to turn theory into actionable strategies for real-world business impact.
- **Client-Focused Solutions:** Customized programs designed to achieve your organisation’s unique goals.

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