Masterclass Public Key Infrastructure Management

Duration: 5 Days   Course Code: PKI

Overview:

This 5 day course is considered essential for anyone who would like to expand knowledge about Public Key Infrastructure (PKI) in Microsoft technologies. During the course PKI is covered in depth, starting from the best practices for implementing PKI, ending up with advanced issues that happen during the implementation.

Target Audience:

Network administrators, infrastructure architects, security professionals, systems engineers, network administrators, IT professionals, security consultants and other people responsible for implementing network and perimeter security, Chief Security Officers.

Objectives:

- At the end of the course you will be able to:

- Understand the core essence of PKI and cryptography.

- Evaluate and select appropriate PKI technologies.

- Install and configure PKI environments according to the best practices taken from practical experience.

- Secure existing PKI infrastructure.

- Choose appropriate types and manage the certificate lifecycle.

- Understand the benefits of certificates used in the infrastructure.

- Adjust PKI to your business needs.

- Become familiar with enterprise solutions that uses PKI and certificates for security.

- Configure and use certificates in: IIS, VPN, Wi-Fi, file encryption, e-mail security and many more.

Prerequisites:

Enterprise administrators, infrastructure architects, security professionals, systems engineers, network administrators, IT professionals, security consultants and other people responsible for implementing network and perimeter security.

To attend this training, you should have a good hands-on experience in administering Windows infrastructure. At least 8 years in the field is recommended.

Testing and Certification

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Content:

Module 1: Essence of PKI

- Cryptography basics
- Fundamentals of PKI
- Certificate types (?X.509)?
- Certification authorities
- Certificate Revocation Lists

Module 2: Designing and Implement CA Heirachy

- Planning
- Preparing AD Environment
- Securing CA Heirarchy
- Role Separation
- Security Policy

Module 3: PKI in Windows domain

- Managing PKI
- Configure Certificate Templates
- Configure Certificate Enrollment
- Configuring Key Archival and Recovery
- Configuring Trust Between Organizations

Module 4: Upgrading PKI Infrastructure

- Supported Scenarios
- Upgrading Certificate Templates
- Migration Scenarios

Module 5: PKI Security

- Deploying certificates to Domain Controllers
- Certificate Revocation
- Certificate Validation
- CDP, AIA and OSCP
- Planning and implementing disaster recovery
- Deploying smart cards
- TPM Virtual Smartcard
- Private Key security with HSM

Module 6: Securing Applications with PKI

- Secure IIS Traffic with SSL
- IIS certificate store security
- IIS User authentication
- Windows logon with Smart Cards
- Email security
- Encrypting file system
- EDocument and code signing
- VPN
- Wireless Networking
- 802.1X and NPS
- Radius Server
- Ipsec
- Mobile devices certificates with MDM, SCEP and NDE

Module 7: PKI for Network Security

- Secure IIS Traffic with SSL
- IIS certificate store security
- IIS User authentication
- Windows logon with Smart Cards
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All exercises are based on Windows Server 2016 and 2019, Windows 10 and Kali Linux. This course is based on practical knowledge from tons of successful projects, many years of real-world experience and no mercy for misconfigurations or insecure solutions! Remember that the labs will stay online for an extra three weeks so you may practice even more after the training is completed!

Further Information:

For More information, or to book your course, please call us on Head Office 01189 123456 / Northern Office 0113 242 5931

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