

# INTRODUCTION TO **CERTIFICATES AND KEYS**

Discover Certificates, Keys and How to Use Them



# **COMPREHENSIVE**

Public Key Infrastructure (PKI), certificates, and keys are fundamental to internal and external network security. This course is designed for individuals who have limited or no knowledge of PKI but need to incorporate certificates and keys into their responsibilities. This course starts by describing PKI in an easy to understand manner and then does a deep-dive into certificate concepts and practical functionality. There is a strong emphasis on security, best practices, and hands-on skills labs.

This course focuses on building foundational knowledge and skills that can be applied to IT System Administrators, IT & Software Architects, Developers, and DevOps Engineers. The platform specific examples and labs cover Linux and Windows platforms. Linux specific content will also be useful to UNIX and MacOS platforms.

## **HANDS-ON**

Throughout the online training, students will learn new skills and techniques, and put them to use during the course. The hands-on labs are designed to reinforce the material and keep you engaged through this training journey.



# **COURSE SCOPE**

- Certificate Fundamentals
- Cryptographic Keys
- Real-World Examples
- Hands-On Labs
- Best Practices
- Tools



#### WHO SHOULD ATTEND

**IT System Administrators** 

IT Engineers

**IT Architects** 

**IT Security Engineers** 

Developers

**DevOps Engineers** 

Support Staff

#### **PREREQUISITES**

Familiarity with Windows Server or Ubuntu/RHEL Linux

#### **STANDARDS**

X.509 v3 PKCS#7 PKCS#10 PKCS#12 PEM/DER OCSP (RFC2560) TSP (RFC3161) **RFC 3647** 

- PKI Explained
- **Certificate Core Concepts**
- Digital Signatures
- **Digital Certificates**
- Digital Certificate Anatomy
- Digital Certificate Extensions
- Digital Certificate Subject **Alternative Names**
- Digital Certificate Standard File Formats
- PKI Ecosystem
- Certificate Authorities (CAs)
- PKI Processes
- The Last Mile Challenge
- Certificate Renewal
- Certificate Revocation
- Time Stamping
- **Best Practices**
- Wrap Up

### **COURSE AVAILABILITY**

This course is offered with a range of different options to meet your needs:

- Online Self-Paced Training for Individuals
- •12-Month Online Training Subscriptions for organizations to access trainings, fully transferable to employees.

Our online courses are delivered electronically in a self-paced environment. You receive access to download the student materials, lab manual and supporting materials. The courses feature video, audio and slide based content.

# CERTIFICATE OF COMPLETION

Every student that attends and completes the full training will receive a certificate of course completion. Perfect for framing or providing as proof progression towards advancement professional goals. addition, the course qualifies for ISC2 Continuing Education Credit for annual CPE commitments.

