



MICROSOFT PKI SECURITY WORKSHOP (2 DAYS)

Syllabus

DAY 1

Session	Session Type	Course Topic
I. Welcome and Course Review		
II. Session 1 Trust in a Digital World <ul style="list-style-type: none"> • Security is about Trust • Trust and security concerns in a connected world • Why PKI is getting a more and more interest Basic Understanding of Cryptography: <ul style="list-style-type: none"> • Introduction • Approaches to cryptography • Key Usage 	Class	Introducing Trust and Cryptography in the Digital World
III. Session 2 Introduction to PKI <ul style="list-style-type: none"> • Concept of PKI • Concept of Certificate • PKI Fundamentals • PKI Components • PKI standards • PKI Usage X.509 v3 Certificate <ul style="list-style-type: none"> • Certificate Attributes • Subject • Key Usages Certificate Revocation List <ul style="list-style-type: none"> • Introduction • CRL Distribution Point • CRL Publication • CRL Management Certificate Validation <ul style="list-style-type: none"> • CRL and OCSP 	Class	Introduction to PKI

<p>IV. Session 3</p> <p>Organizational Process</p> <p>Law that rules PKI</p> <ul style="list-style-type: none"> • Certificate Policy • Certificate Practice Statement <p>Certificate Issuance</p> <ul style="list-style-type: none"> • Certificate Requirement • Key Generation and Distribution • Certificate Publishing <p>Certificate Lifecycle</p> <ul style="list-style-type: none"> • Validity Period • Expirations and Renewals • Revocation • Recovery 	<p>Class</p>	<p>PKI Ecosystem</p>
<p>DAY 2</p>		
<p>V. Session 4</p> <p>Trust Hierarchy</p> <ul style="list-style-type: none"> • How Certificate Trust Works • Types of CA • Trust the Hierarchy • Protecting the CA Keys • Establish the Trust <p>PKI Uses</p> <ul style="list-style-type: none"> • All Layers of IT • Email signing and encryption • PKI inside the enterprise • PKI outside of the enterprise 	<p>Class</p>	<p>Advanced Notions</p>
<p>VI. Session 5</p> <p>PKI Best Practices</p> <ul style="list-style-type: none"> • Best Practices for Keys • Best Practices for Certificates <p>Automate the Certificate Management Environment</p> <ul style="list-style-type: none"> • How the automation works <p>Focus on Digital Signatures</p> <ul style="list-style-type: none"> • Digital signatures: an e-revolution 	<p>Class</p>	<p>Digital Signatures and Importance of Time Source</p>

<p>Importance of Time</p> <ul style="list-style-type: none"> • Time Source • Time in long-term conservation 		
<p>VII. Session 6</p> <p>Card Management System</p> <ul style="list-style-type: none"> • Understand smartcards <p>Hardware Security Module</p> <ul style="list-style-type: none"> • HSM introduction 	Class	Smart Cards and HSMs
<p>Use Case Discussion</p>	Forum	Class Discussion