

Master Class: Workshop Microsoft PowerShell Advanced Security

ID MSPSAS Price 4,390.— €(excl. tax) Duration 3 days

Who should attend

Administratoren, IT-Entscheider

Prerequisites

[Workshop Microsoft PowerShell Fundamentals & Advanced Bundle \(MSPSFA\)](#) oder äquivalentes Wissen

Course Content

IT-Sicherheit – ganzheitliche Analyse potenzieller Sicherheitsrisiken

- IT-Sicherheit ist kein Selbstzweck
- Klassifizierung der möglichen Bedrohungen
- Risiko-Management, Cost-Benefit-Analysen und ROI-Bewertung von Sicherheitsmaßnahmen
- Umsetzung des „Defense in depth“-Konzepts
- Das Pareto-Prinzip in der IT-Sicherheit
- Security als Prozess
- Angriffstaktiken und Privilege Escalation
- Security by obscurity vs. KISS

Die Architektur der Powershell und ihre mögliche Vulnerabilität

- Die Rolle und Entwicklung der Kommandozeilen-Werkzeuge im Microsoft-Kontext
- Vergleich des Management-Ansatzes bei MS-Windows und der MS-Exchange-Management-Shell
- Modularer Ansatz der Powershell und Objektorientierung
- Risikobewertung im Vergleich zu .cmd und .exe
- Authentifizierung

Clean Code vs. Obfuscation

- Clean-Code Prinzipien
- Techniken der Code-Verschleierung
- Aliases – Obfuscation mit Bordmitteln
- Das Tool Invoke-Obfuscation
- Obfuscation mit statistischen Mitteln erkennen
- Code Encoding

Code-Injection und Execution in Memory

- Invoke-Expression
- Ausführen von Code aus der Bordhilfe
- Functions mit ungeprüften Parametern
- In-Memory-Execution durch Remote-Code

Credentials

- Handling von Secure Strings und PSCredential-Objekten
- Credentials mit Zertifikaten sichern
 - Grundlagen der Public Key Infrastructure
 - Credentials verschlüsselt speichern (Zertifikat)
 - Verschlüsselte Credentials für Remote Sessions einsetzen
- Credentials für Remote Scripts
- Credentials für Scheduled Jobs

Elevation

- Running Script-Code im LocalSystem-Kontext
- Self-Elevator

Codesignatur

- Management der Powershell Codesignatur
- Anforderungen an die PKI
- Signieren von Code

Applocker

- Das Design von Applocker-Ausführungsrichtlinien
- Applocker Script-Regeln umgehen
- Managing Applocker durch Powershell

Powershell Logging

- Arten und Einsatzszenarien des Logging
- Transcript
- Over-the-shoulder-Transcription via GPO
- Powershell Output-Streams
- Deep Scriptblock Logging im Eventlog

Just-Enough-Administration

- Das Prinzip der geringsten Privilegien
- PowerShell Constrained Language Mode

- Was ist JEA?
- PS Session Config und Role Capabilities
- Einrichten und Testen der JEA-Konfiguration

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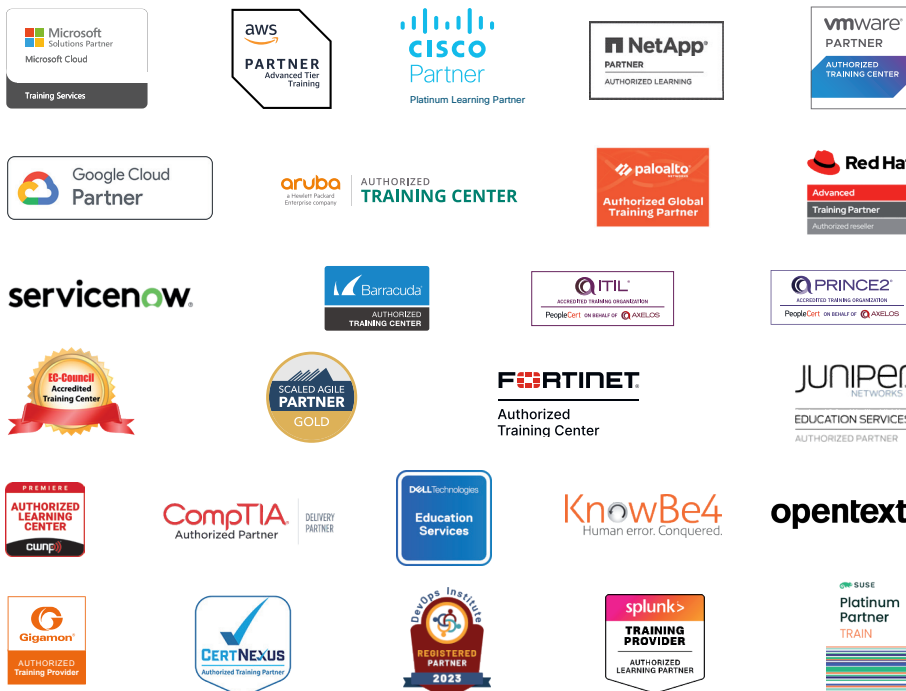
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