Certified Internet of Things Security Practitioner (CIoTSP™): Exam ITS-110

This document includes instructor led class overview and objectives, identifies target student and prerequisites, course outline, and course specific software and hardware requirements.

Course Length:
3 Days

Overview:
This course is designed for practitioners who are seeking to demonstrate a vendor-neutral, cross-industry skill set that will enable them to design, implement, operate, and/or manage a secure IoT ecosystem.

Target Student:
This course is designed for IoT practitioners who are looking to improve their skills and knowledge of IoT security and privacy. This course is also designed for students who are seeking the CertNexus Certified Internet of Things Security Practitioner (CIoTSP) certification and who want to prepare for Exam ITS-110.

Prerequisites:
To ensure your success in this course you should have a fundamental understanding of IoT ecosystems, which you can obtain by taking the following CertNexus course:
Certified Internet of Things (IoT) Practitioner (Exam ITP-110)

Course Content
Lesson 1: Managing IoT Risks
   Topic A: Map the IoT Attack Surface
   Topic B: Build in Security by Design
Lesson 2: Securing Web and Cloud Interfaces
   Topic A: Identify Threats to IoT Web and Cloud Interfaces
   Topic B: Prevent Injection Flaws
   Topic C: Prevent Session Management Flaws
   Topic D: Prevent Cross-Site Scripting Flaws
   Topic E: Prevent Cross-Site Request Forgery Flaws
   Topic F: Prevent Unvalidated Redirects and Forwards
Lesson 3: Securing Data
   Topic A: Use Cryptography Appropriately
   Topic B: Protect Data in Motion
Lesson 4: Controlling Access to IoT Resources
   - Topic A: Identify the Need to Protect IoT Resources
   - Topic B: Implement Secure Authentication
   - Topic C: Implement Secure Authorization
   - Topic D: Implement Security Monitoring on IoT Systems

Lesson 5: Securing IoT Networks
   - Topic A: Ensure the Security of IP Networks
   - Topic B: Ensure the Security of Wireless Networks
   - Topic C: Ensure the Security of Mobile Networks
   - Topic D: Ensure the Security of IoT Edge Networks

Lesson 6: Ensuring Privacy
   - Topic A: Improve Data Collection to Reduce Privacy Concerns
   - Topic B: Protect Sensitive Data
   - Topic C: Dispose of Sensitive Data

Lesson 7: Managing Software and Firmware Risks
   - Topic A: Manage General Software Risks
   - Topic B: Manage Risks Related to Software Installation and Configuration
   - Topic C: Manage Risks Related to Software Patches and Updates

Lesson 8: Promoting Physical Security
   - Topic A: Protect Local Memory and Storage
   - Topic B: Prevent Physical Port Access