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
Topic C: Protect Data at Rest
Topic D: Protect Data in Use

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
Topic D: Manage Risks Related to IoT Device Operating Systems and Firmware

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