



Course 40505 • Microsoft Azure

Microsoft Cloud Workshop: Internet of Things

Length

- 1 day

Prerequisites

- Workshop content presumes 300-level of architectural expertise of infrastructure and solutions design.
- Microsoft Azure Essentials course, available at <https://www.microsoft.com/en-US/azureessentials>

Audience

- Cloud Architects and IT Professionals who have architectural expertise of infrastructure and solutions design in cloud technologies

What You'll Learn

- Implement a simulator sending telemetry from smart meters
- Capture and process both hot and cold data using Stream Analytics and HDInsight with Spark
- Visualize hot data with Power BI

This instructor-led workshop details how to implement an end-to-end solution simulating high velocity data emitted from smart meters and analyzed in Azure. Create a lambda architecture, filtering a subset of the telemetry data for real-time visualization on the hot path, and storing the data in long-term storage for the cold path.

Workshop Outline

Module 1: Whiteboard Design – Internet of Things

- Review the customer case study
- Call to action: Design a proof of concept solution
- Call to action: Present the solution

Module 2: Hackathon – Internet of Things

- Before the hackathon
- Environment setup
- IoT Hub provisioning
- Completing the Smart Meter Simulator
- Hot path data processing with Stream Analytics
- Cold path data processing with HDInsight Spark
- Reporting device outages with IoT Hub Operations Monitoring
- Cleanup