

Azure Event Hubs for .NET Developers: Fundamentals

LOOKING AT THE SCENARIO



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Module Outline



What are Azure Event Hubs?

The wired brain coffee machine scenario

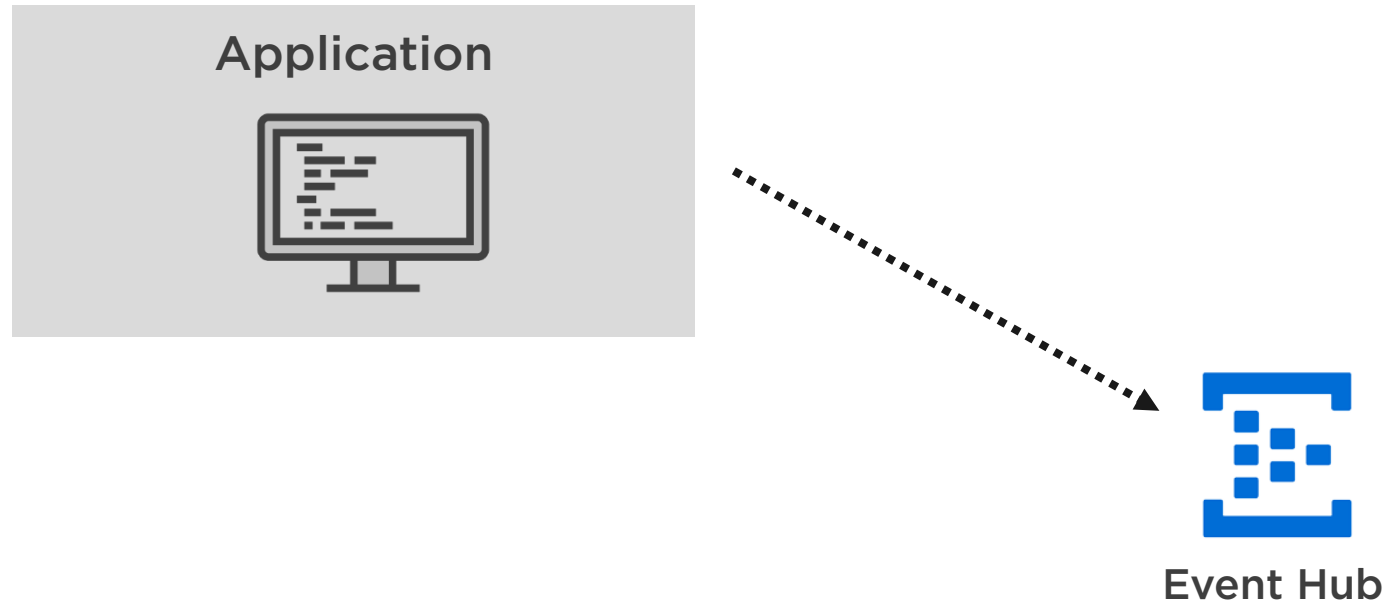
What you will build in this course

- WPF coffee machine simulator
- .NET Core app that consumes events
- Real-time dashboard in Power BI

Course outline



What Are Azure Event Hubs?

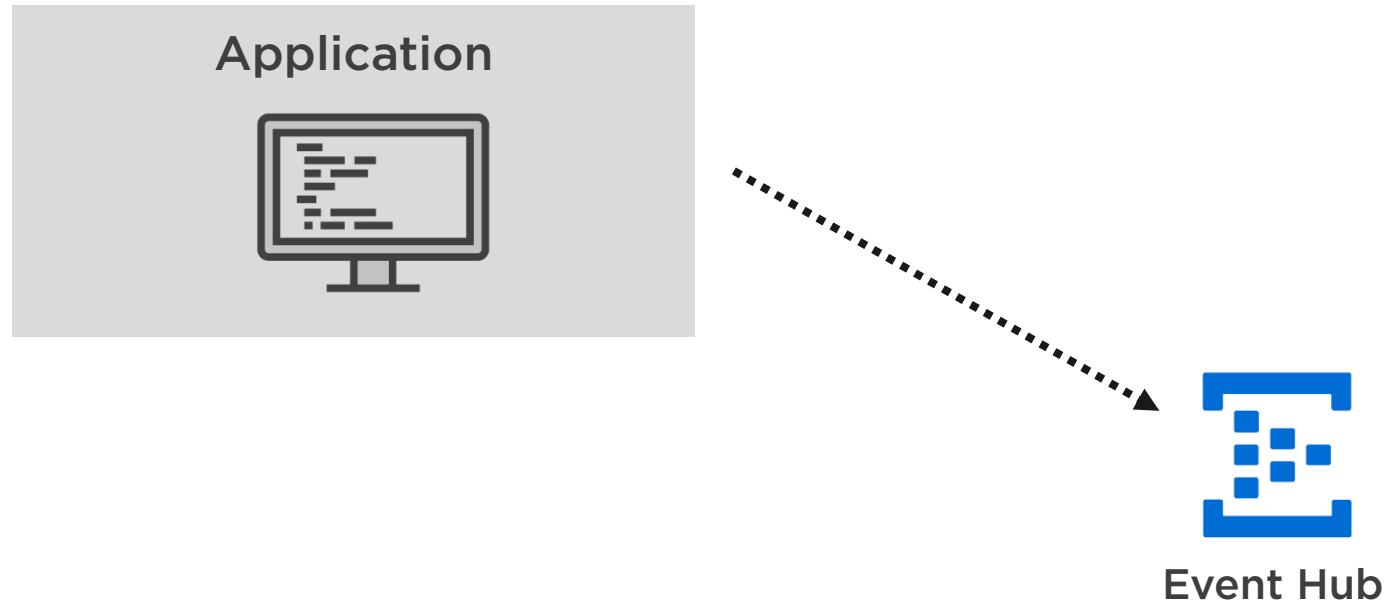


Telemetry

Remote metering



What Are Azure Event Hubs?



You don't have to write any
code to set up an
Azure Event Hub



Azure Event Hubs
can be used to collect
more than one million
events per second

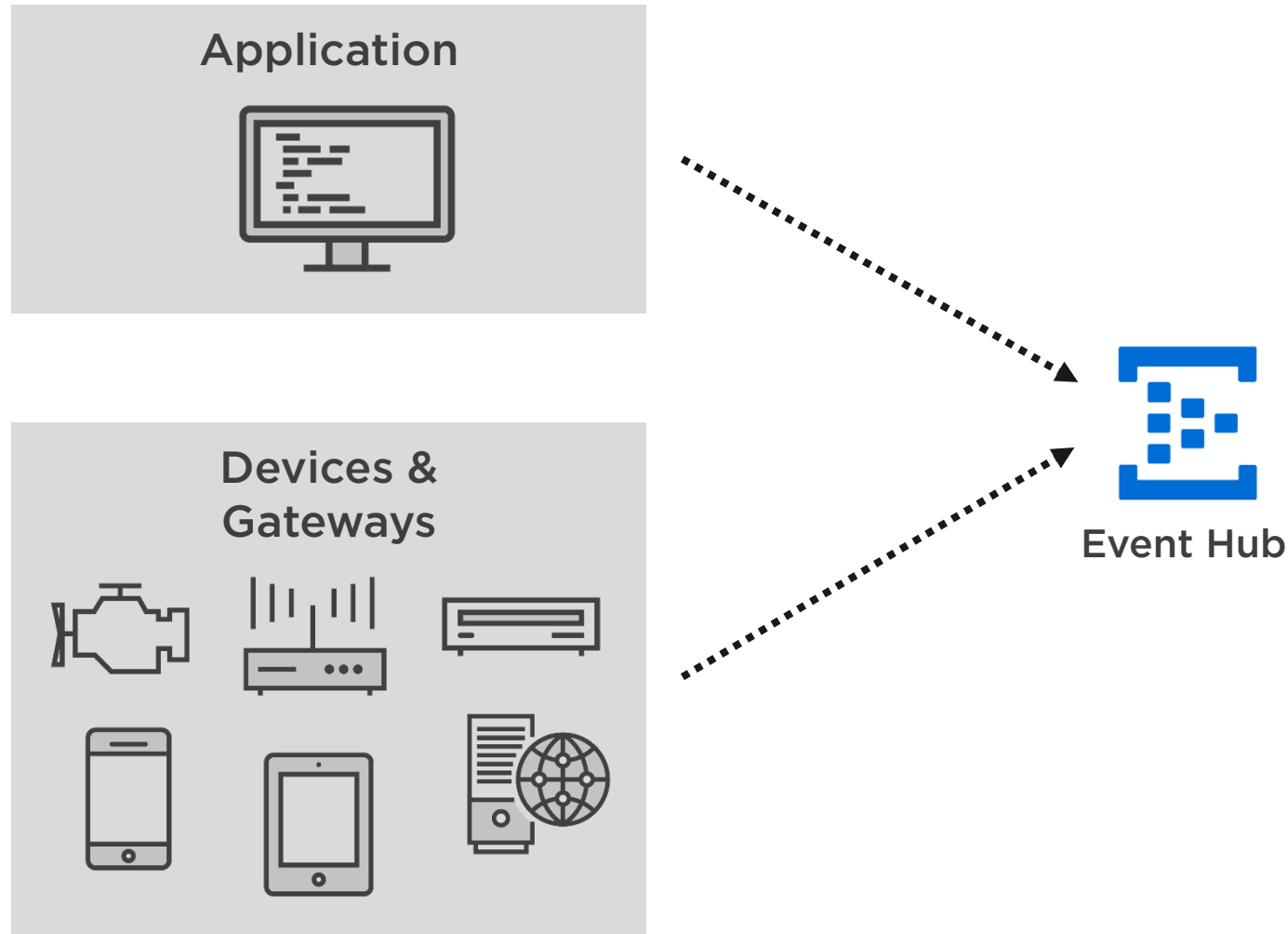


~\$11.00 per month
for your Event Hub

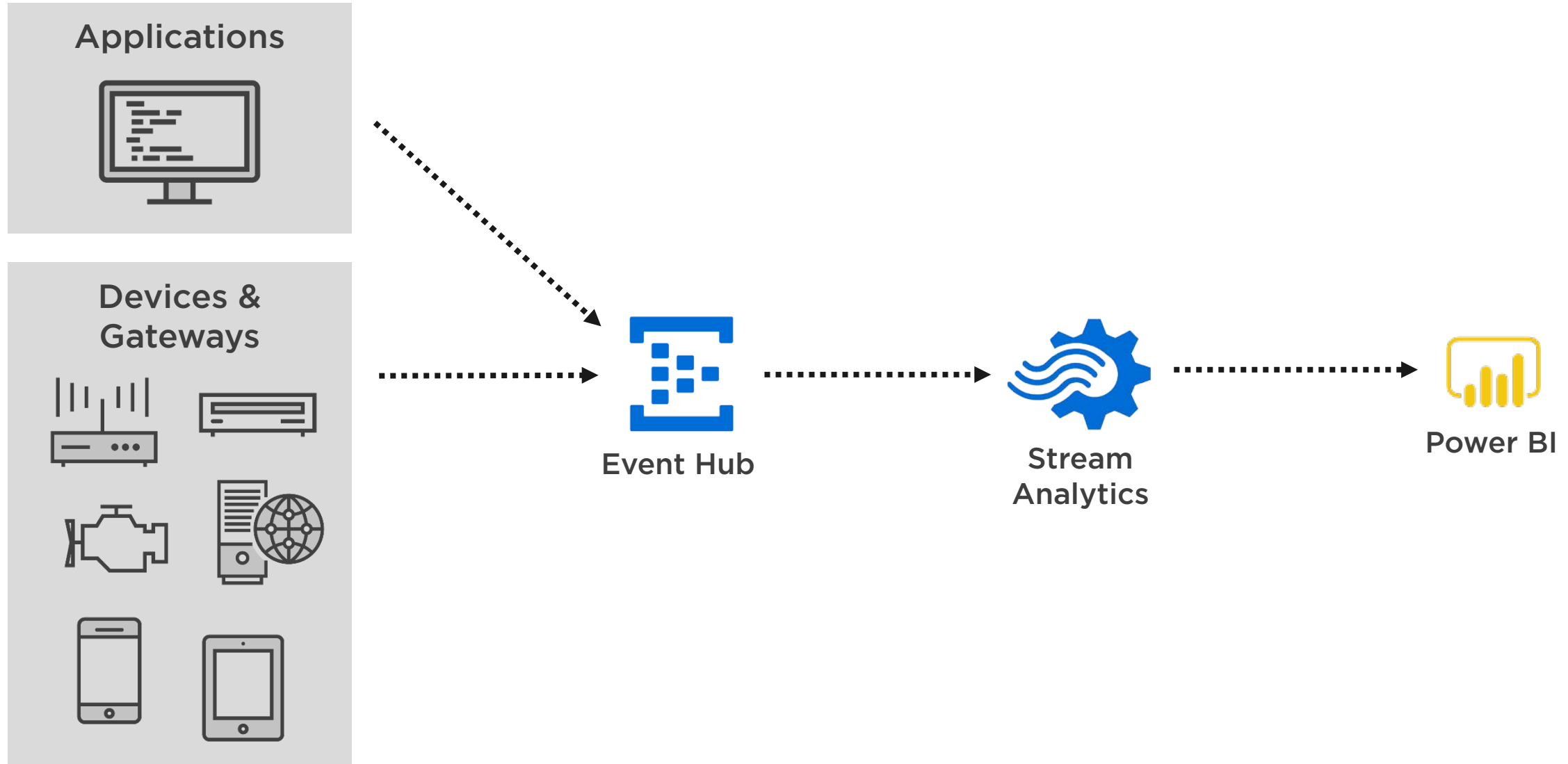
\$0.028 per million of
incoming events



What Are Azure Event Hubs?



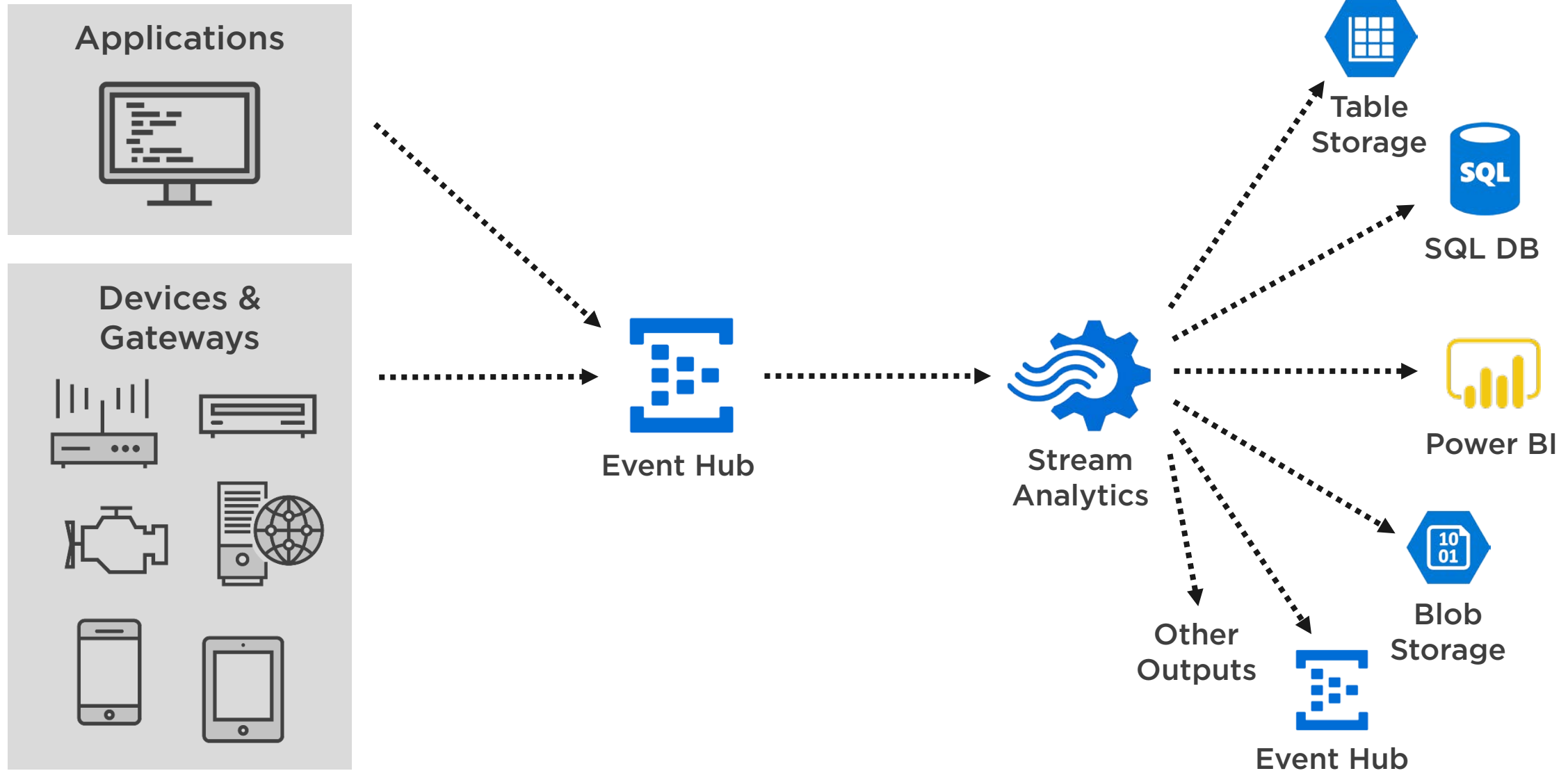
Consume and Analyze Events



Azure Event Hubs have a
very low latency



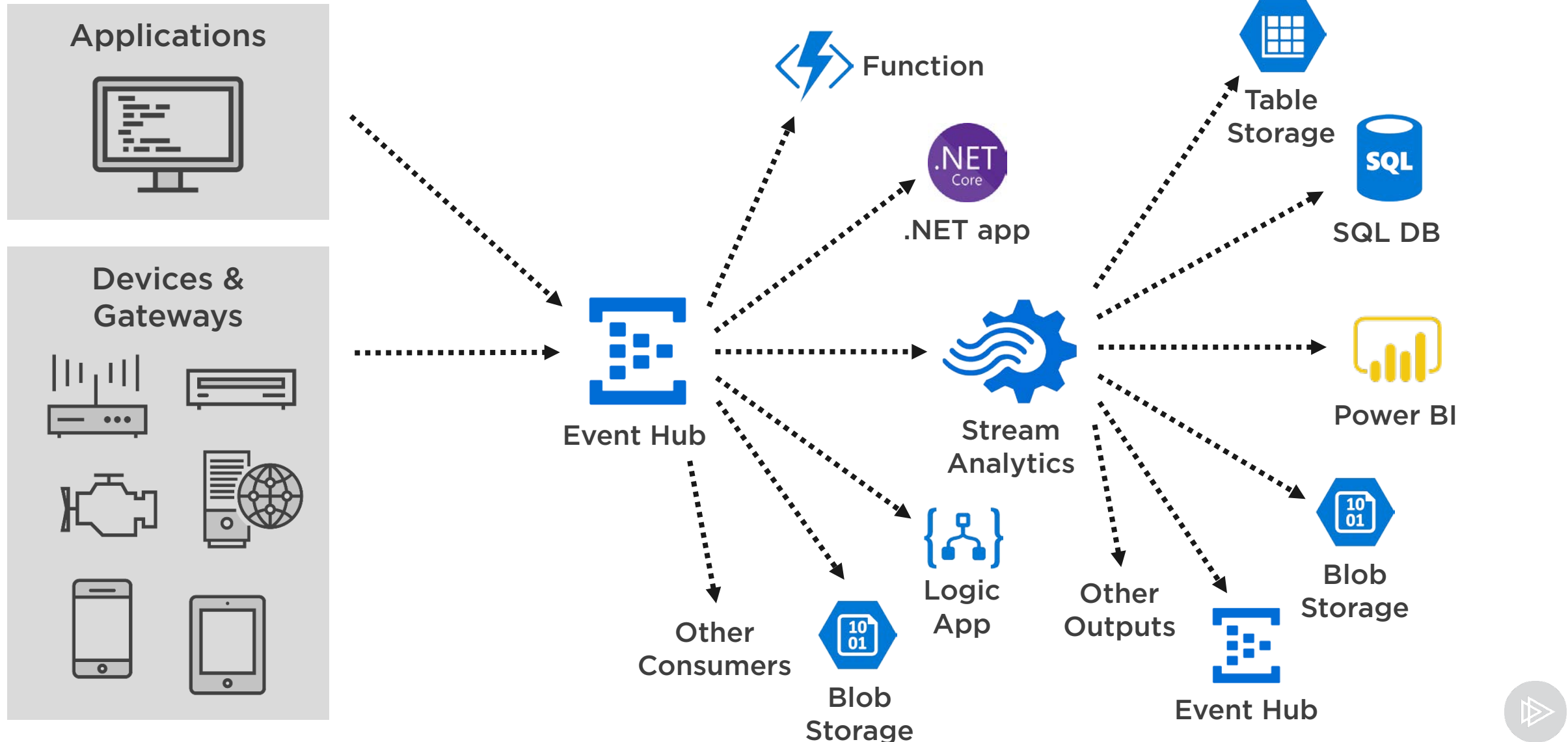
Consume and Analyze Events



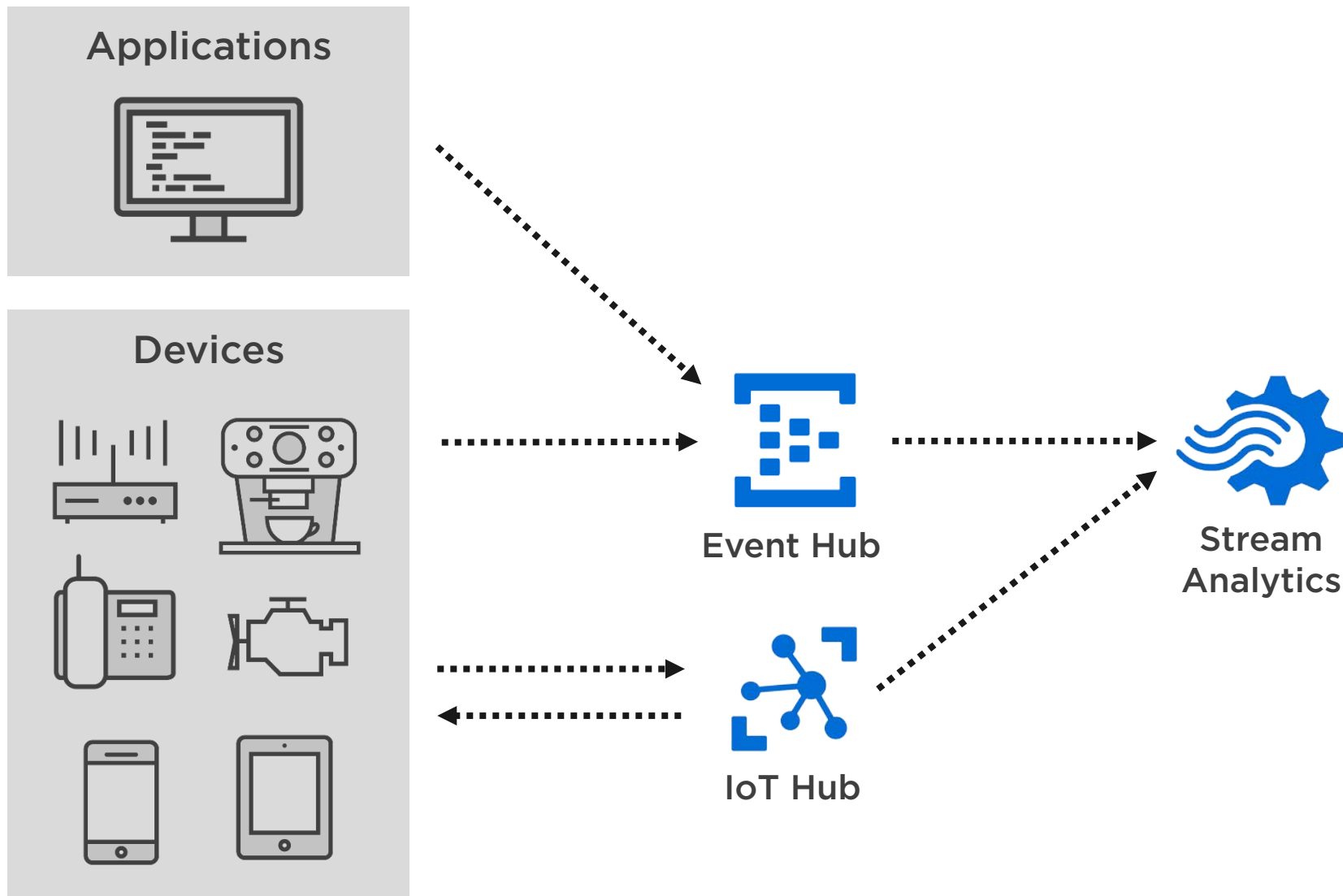
By default events are stored
in the Event Hub
for one day



Consume and Analyze Events



Event Hub vs. IoT Hub

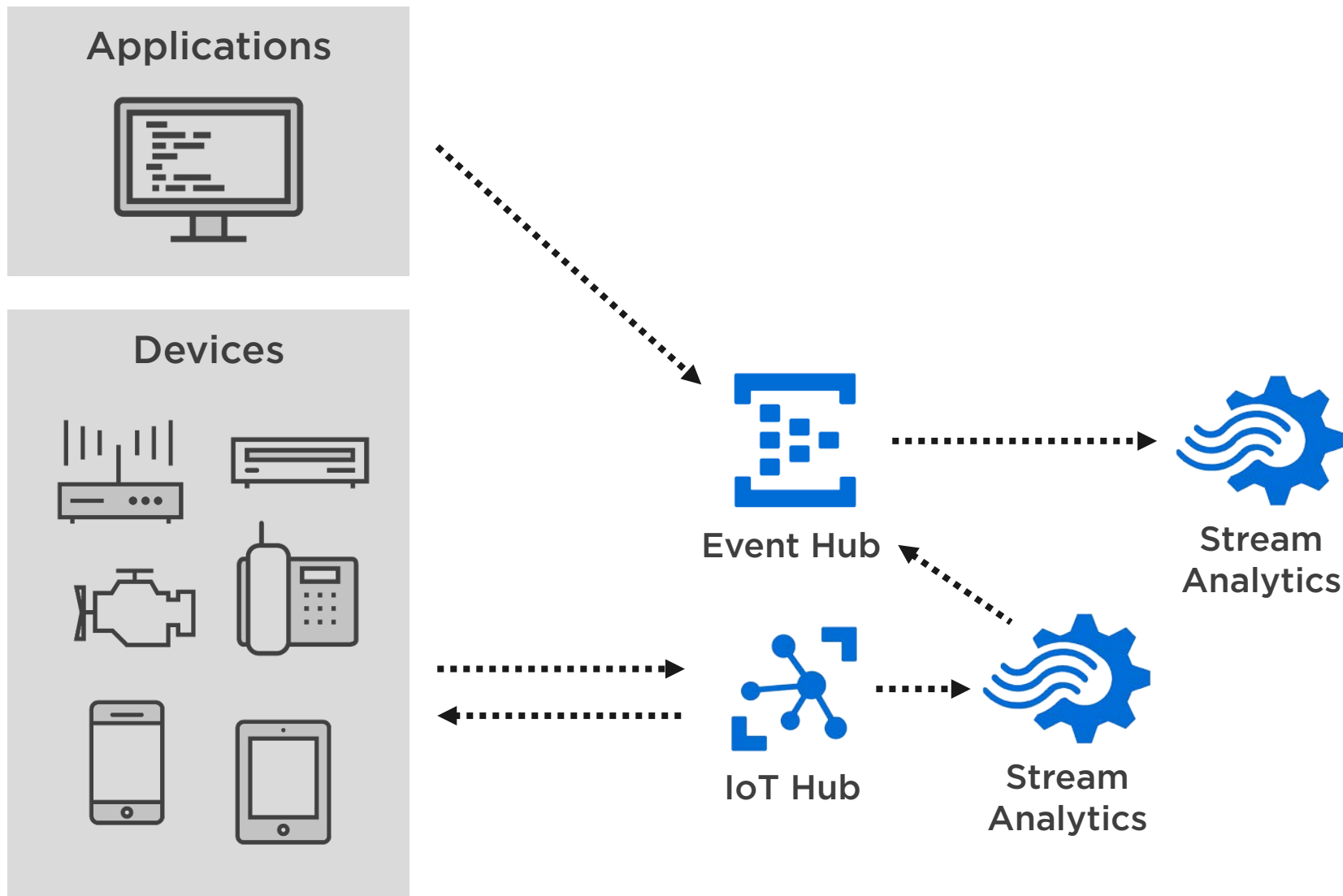


Event Hub vs. IoT Hub

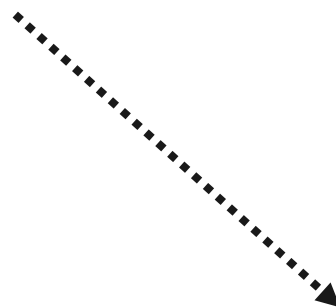
Event Hub	IoT Hub
Communication Device to cloud	Device to cloud & cloud to device
Protocols HTTPS, AMQP	HTTPS, AMQP, MQTT
Concurrent AMQP Connections 5000	Optimized for millions of simultaneously connected devices
Device Management None	Integrated
Authentication Shared access key	Individual per device



Event Hub vs. IoT Hub



Event Hub vs. IoT Hub



Event Hub



Stream
Analytics





WIRED BRAIN
— COFFEE —

The Wired Brain Coffee Machine Scenario

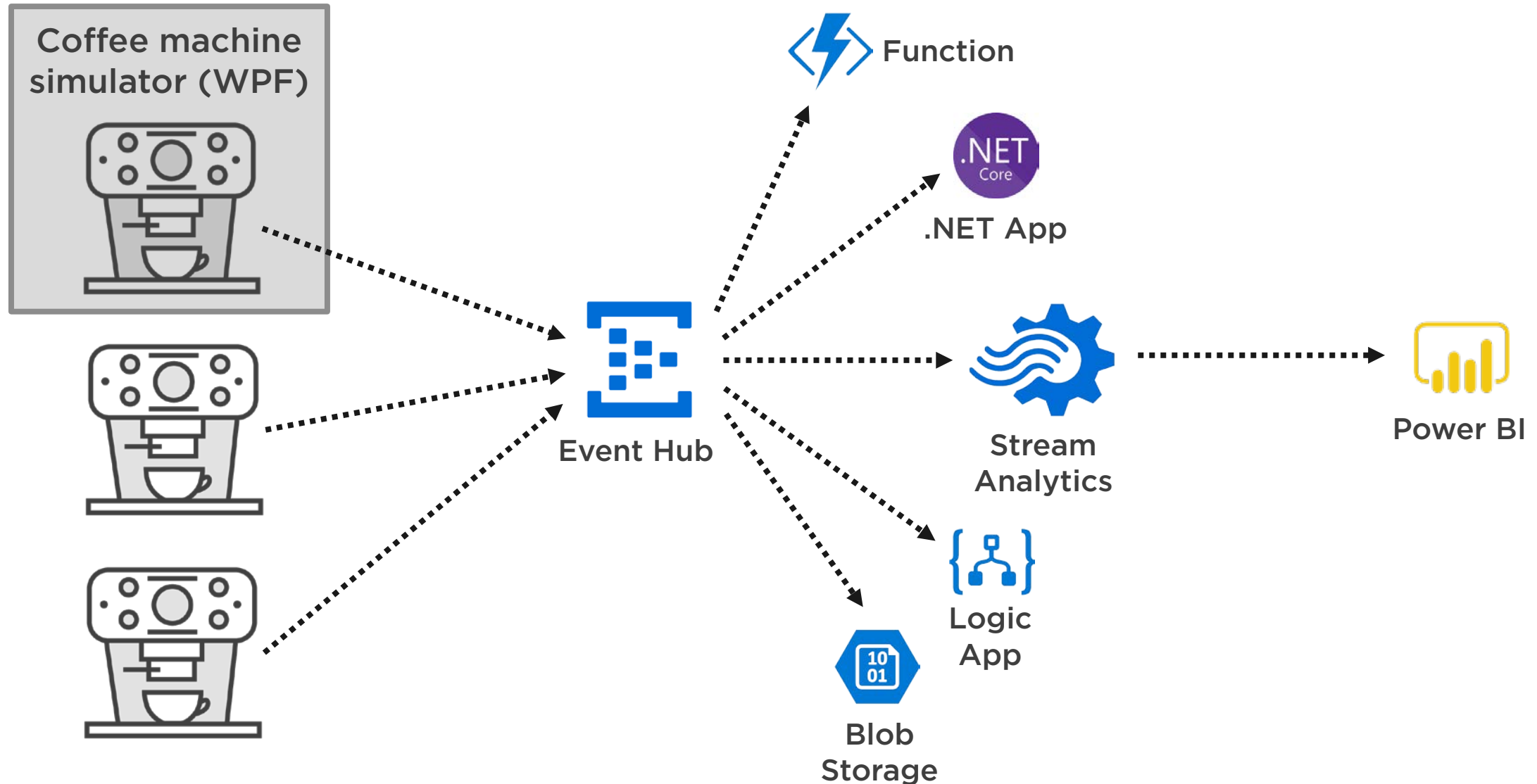
A company that
runs several
coffee shops
in different cities

In every
coffee shop
they have a great
coffee machine

They want to
collect data
from their
coffee machines



The Wired Brain Coffee Machine Scenario



Sensor values are just data





You are a developer



Demo



What you build in this course:

- Coffee machine simulator (WPF)
- .NET Core consumer app
- Real-time dashboard in Power BI



Course Outline

Looking at the Scenario

Setting up an Event Hub in Azure

Building a WPF Simulator App to Send Events

Consuming Events in a .NET Core Application

Analyzing Real-time Data with Stream Analytics and Power BI

Archiving Events with Event Hub Capture

Triggering Other Azure Services with Event Hubs

