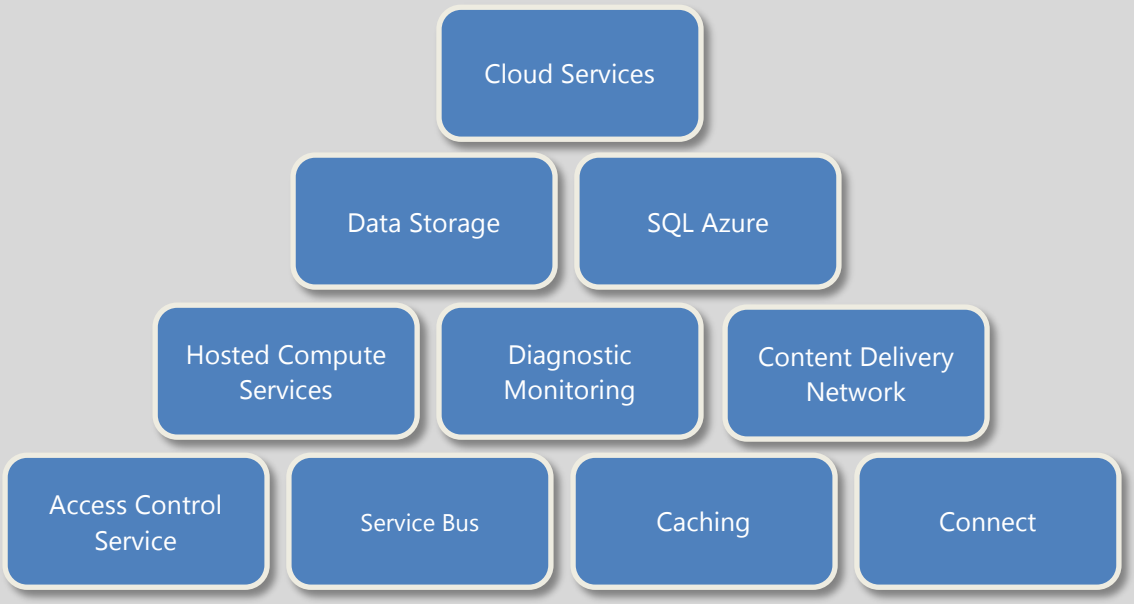
# Mastering Windows Azure Services With Jeffrey Richter

**Microsoft's Windows Azure Platform** offers a set of Internet services capable of hosting data and services in the cloud. In addition, developers can take advantage of Azure's AppFabric services to simplify connecting software with services.

**Mastering Windows Azure Services** provides developers with the knowledge and skills they need to understand the various internet services that make up the Windows Azure Platform. The class also shows how these services can be used individually or integrated together. With a solid understand of these fundamentals, developers can easily build applications that host their data in the cloud, host their services in the cloud, or leverage the AppFabric services.




### Course Number
W1038

### Duration
1 day

### Formats
Virtual

### Languages
C#

### Schedule
May 18th
11 am – 6 pm ET

### Pricing
$249.50

### Prerequisites
Persons who attend Mastering Windows Azure Services should have experience with C# and Visual Studio.

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## Introduction to Cloud Services

Microsoft's Windows Azure Platform Services offers a set of Internet services capable of hosting data and services in the cloud. In addition, developers can take advantage of additional Azure services to simplify connecting software with services. This section introduces the various services that make up the Windows Azure Platform and sets the stage for building full-cloud and hybrid on-premises/cloud solutions.

- Reason why cloud computing is compelling
- Microsoft's data centers
- Cloud implementations: Infrastructure as a Service versus Platform as a Service
- Designing your services to be highly-available and scalable
- How do all the Windows Azure Platform Services fit together
    - Windows Azure Data Storage
    - Windows Azure Compute services
    - Access Control Service
    - Service Bus
    - Caching
    - Content Delivery Network
    - Traffic Manager
    - Windows Azure Connect

## Windows Azure Storage Services

Windows Azure offers data hosting services allowing on-premise and hosted applications to keep their data housed in various data centers around the globe. Three copies of the data is maintained ensuring integrity and fault tolerance. This section explains how to access the storage services, the various ways that data can be stored, access patterns, and more.

- Data abstractions, storage accounts, and storage durability
- Developing & debugging with the storage emulator
- Simplifying data management using the .NET storage client library
- Storing files in the cloud with Blobs
    - Page/Block blobs
    - Continuation tokens
    - Snapshots
    - Leases
    - Shared access signatures
    - Simulating directory structures
    - Custom storage domain names
    - Content delivery network
    - Retry policies

- Storing tabular data in the cloud with Tables
  - A table's entities and their properties
  - How to partition data table entities for high scalability (guidelines & best practices)
  - Table operations (create, read, update, & delete)
  - Understanding entity ATOM feeds
  - Updating table entities (optimistic concurrency, entity group transactions)
  - Comparing tables with SQL Azure
- Orchestrating workflows using Queues
  - Motivating the needs for queues
  - Queue scenarios
  - How to handle queue messages (adding/peeking/deleting, poison messages, idempotency)
- Common Storage Concepts

## Windows Azure Compute Services

In addition to data, Windows Azure can your applications (code) in the cloud. Your applications can be anything from a web site, web services, or other computation-intensive applications. This section explains how to design and architect applications so that they can be deployed into Windows Azure's data centers.

- Developing & debugging your service via the compute emulator
- Creating your cloud service definition and configuration & tooling
  - OS Versions & VM Sizes
  - Certificates, endpoints, local storage resources, trust/security
- Deployment, scaling, monitoring, failure recovery
- How your service roles can interact with the Fabric controller & other roles
- Startup tasks & elevated privileges
- Working with cloud drives
- Troubleshooting services
- Management, service upgrades, fault domains, & reconfiguring your application while running