

**Azure Integration Services**

**Course Number:** AZR-142
**Duration:** 5 days

**Overview**

This Azure Integration Services training course teaches attendees how to build cloud-hosted integration solutions using Microsoft Azure. Attendees learn how to create enterprise-grade integration solutions using Logic Apps, the Azure App Service, the Enterprise Integration Pack, the Azure Service Bus, and custom API Apps. This Azure course includes a full-day workshop where attendees build a complete end-to-end integration.

**Prerequisites**

Attendees must be proficient with C# and have familiarity with ASP.NET, .NET MVC or Core, and Web API.

**Materials**

All Azure training attendees receive comprehensive courseware.

**Software Needed on Each Student PC**

We host the labs on our private cloud so there are no labs or images to install on the students/your hardware.

* Hardware: 2 GB RAM, 2 GHz CPU or greater, and 2 GB free disk space
* Software: Internet Explorer 6.0 or better, Firefox 2.0 or better (JavaScript and Java enabled), Safari 3.0 or better, Windows XP or better (including Server versions), and OS X 10.5 or better.
* Connectivity: Internet access, 1 Mbps Downstream / 512 Kbps Upstream minimum
* If you have firewall problems, please *talk to your IT Department as soon as possible* and reference the following connectivity guide: <http://www.gotoassist.com/iprange> and email: email support@quicklearn.com.

We also highly recommend that each student have two monitors.

Each student will need to set up a Microsoft Azure account and a Twilio account – both free. We provide instructions on how to do this a few days before the start of class.

**Objectives**

* Manage the Application Lifecycle using Azure Resource Groups
* Create Azure resources using the Azure Resource Manager and Azure Portal
* Connect to on-premises systems using the on-premises data gateway
* Create schemas for Azure API Apps
* Build maps for the BizTalk Transform Service API App
* Manage Enterprise Integration Pack assets using an Integration Account
* Interact with Azure Service Bus topics, subscriptions, and queues manually and programmatically
* Build complex workflows using Logic Apps to perform forking, merging, loops, parallel execution, and exception handling
* Build custom API Apps including triggers and actions

**Outline**

* Introduction to Logic Apps and Cloud-Based Integration
	+ Microsoft Integration Platform Vision
	+ Logic App Technology Primer
	+ Building a Simple Logic App
* Setting Up an Azure App Service Development Environment
	+ Components of Hybrid Integrations
	+ Setting Up a Development Environment
* Introduction to Logic Apps
	+ Logic App Fundamentals
	+ Anatomy of a Logic App
	+ Intro to Logic Apps Expressions
	+ Manual Testing and Troubleshooting
* Using Azure Resource Groups as an Application Lifecycle Container
	+ Resource Groups Fundamentals
	+ Working with Resource Groups
	+ Managing Resource Deployments Using Team Foundation Server
* Advanced Logic Apps
	+ Conditional Execution
	+ Calling External Logic
	+ Exception Handling
	+ Looping Through Data
	+ Tracking
* Building Enterprise Application Integration (EAI) Apps Using Azure App Service
	+ EAI Concepts
	+ Implement VETERO Using Logic Apps
	+ Enabling Hybrid Integrations
	+ Introducing the Enterprise Integration Pack
* Creating Schemas
	+ Introduction to Schemas
	+ Creating XML Schemas
	+ Schemas for Non-XML Messages
	+ Introduction to Logic Apps and Cloud-Based Integration
	+ Microsoft Integration Platform Vision
	+ Logic App Technology Primer
	+ Building a Simple Logic Apps
* Mapping Data Using Transforms
	+ Introduction to Maps
	+ Manipulating Data Using Functoids
	+ Getting the Most out of the Mapper
* Introduction to Microsoft Azure Service Bus
	+ What Is Service Bus?
	+ Working with Queues
	+ How Service Bus Handles Failures
* Implementing a Publish/Subscribe Model Using Service Bus
	+ Theory of Topics and Subscriptions
	+ Interacting with Topics and Subscriptions Programmatically
* Architecting Cloud Integration Solutions
	+ Reviewing Core Technologies
	+ Full-Day Workshop
		- Building EAI Apps Using Azure App Service
		- Advanced Apps with Azure App Service
		- Building Request/Response Logic Apps
* Building Custom API Apps
	+ Anatomy of an API App
	+ Fundamentals of Web API
	+ Hello API App World
	+ Debugging API Apps
	+ Creating Deployment Templates for Custom APIs
* Building Custom Triggers
	+ Concepts of Triggers
	+ Creating Polling Triggers
* Conclusion