

# Architect API integration in Azure

Learn how to architect API integration in Azure, and provide secure, scalable API access for your applications. Azure Integration Services is a collection of services for integrating applications and data. This architecture uses two of those services: Logic Apps to orchestrate workflows, and API Management to create catalogs of APIs. This architecture is sufficient for basic integration scenarios where the workflow is triggered by synchronous calls to backend services. A more sophisticated architecture using queues and events builds on this basic architecture.

## Prerequisites

- Familiarity with REST-based APIs
- Familiarity with C#

## Module 1:- Publish and manage your API's with Azure API Management

Use API management to control who uses your APIs, to enforce usage policies, and to present a professional front-end to developers using the API

Lessons

- Introduction
- Create an API gateway Exercise: Create an API gateway
- Import and publish with an API
- Exercise: Import and publish with an API
- Call an API with a subscription key
- Summary

## Module 2:- Improve the performance of an API by adding a caching policy in Azure API Management

API Management policies are configurable modules that you can add to APIs to change their behaviors. Policies can do things like cache responses, transform documents and values, call web hooks for notification or audit purposes, and retry requests after transient failures. This module will use policies to enable caching in order to improve API performance under load.

Overview:

- Introduction
- Choose the right API Management policy
- Knowledge check
- Configure a caching policy

- Exercise:- Configure a caching policy
- Summary

## **Module 3:- Protect your APIs on Azure API Management**

Protect your back-end APIs from information exposure and implement throttling to prevent resource exhaustion with policies in Azure API Management.

### Overview

- Introduction
- Remove technical information from API responses
- Exercise:- remove header information
- Mask URL's with a transformation Policy
- Exercise - Mask URLs with a transformation policy
- Throttle API request
- Exercise: Throttle API request

## **Module 4:- Control authentication for your APIs with Azure API Management**

Discover how to protect your APIs from unauthorized use with API keys and client certificate authentication.

### Overview:

- Introduction
- What is API Management?
- Create subscription in Azure API Management
- Exercise: Create subscription in Azure API Management
- Use client certificate to secure access to an API
- Exercise: Use client certificate to secure access to an API
- Summary

## **Module 5:- Expose multiple Azure Function apps as a consistent API by using Azure API Management**

Combine multiple Azure Functions apps into a unified interface by importing them into a single Azure API Management instance.

### Overview

- Introduction
- Create a New API in API Management from a function app
- Exercise: Create a New API in API Management from a function app
- The benefit of using Azure API Management to compose your API
- Exercise: Add another Azure Functions app to an existing API
- Summary