



## 0 to 60 on WebAPI

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- What is the WebAPI?
- How is this different from
  - Asp.Net MVC
  - WCF
- How do I?
  - Hosting Options
  - Actions
  - Routing
  - Model Binding
  - Dependency Injection

## What is the Web API?

It is Web Services done right!

Or better yet it is WCF done right!

Framework that makes building HTTP services easy and pain free

It just works

# Is Web Api a replacement for MVC

In a word.... NO!

Have different goals and usages.

MVC is a framework for building dynamic websites  
in a pattern based way

Web Api is for hosting data rich service endpoints

Can they co-exist in the same project?

YES

In a word.... Maybe!

Do you need to expose SOAP endpoints?

- Yes – Use WCF
- No – Use Web API

Do you need multiple transport protocols?

- Yes – Use WCF
- No – Use Web API

Do you enjoy xml based configuration?

Yes – Use WCF {may want to see a shrink as well}

No – Use Web API

Do you need RPC Style Requests?

Yes – Use WCF

No – Use Web API

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## Core Difference – MVC vs WebApi

Asp.Net MVC Controller

```
public class ToDoController: System.Web.Mvc.Controller
{
    // actions go here
}
```

Asp.Net Web Api Controller

```
public class ToDoController : System.Web.Http.ApiController
{
    // actions go here
}
```



## Difference 1

WCF – High Configuration

Web API – Low configuration

## Difference 2

WCF - Supports HTTP, TCP/IP, UDP, Custom

Web API – Supports HTTP transport only

## Difference 3

WCF - Supports Reliable Messaging, Message Security, Request-Replay

Web API – Does not support high level protocols such as Reliable Messaging or Request-Replay

## Difference 4

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Web API – Supports HTTP transport only

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## Why IIS Host?

- It's the default

- You get the built in scalability of IIS

## Special Instructions

- None – It pretty much just works

## Demo Time

## Why Self Host?

- Want to host inside a windows service

- What to host inside some standard exe

## Special Instructions

- Must setup/maintain the `HttpConfiguration`  
(aka routes)

- Must create your `HttpServer`

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## Actions

- Public Invokeable Methods  
Get, Post, Put, Delete, etc
- Convention or Attribute Based
- Can return data
- Can have filters
- Can be Named

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- Instructions to find a Controller Action
- Have 3 components
  - Matching URI to route
  - Selecting Controller
  - Selecting Action
  - `api/{controller}/{action}/{parameter}`
- Are selected in top-down order

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## Filters

- Act as a way to use AOP
- Can be applied to:
  - Globally
  - Controller
  - Action

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- Transforms to a underlying Type  
Useful for form submission
- Allows for validation on the Model
- Allows for Under-Posting/Over-Posting

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## Dependency Injection

- Extensible points for Dependency Resolution
- Can use any IoC container  
We will use ninject

Demo Time