Understanding OWIN and Katana

What Is OWIN?

Chris Klug

@ZeroKoll | http://chris.59north.com/

What is OWIN?

Open Web Interface for .NET

OWIN defines a standard interface between .NET web servers and web applications.

www.owin.org

It is just a specification

http://www.owin.org/

.NET + Web = IIS

.NET + Web ≠ IIS

REMEMBER:
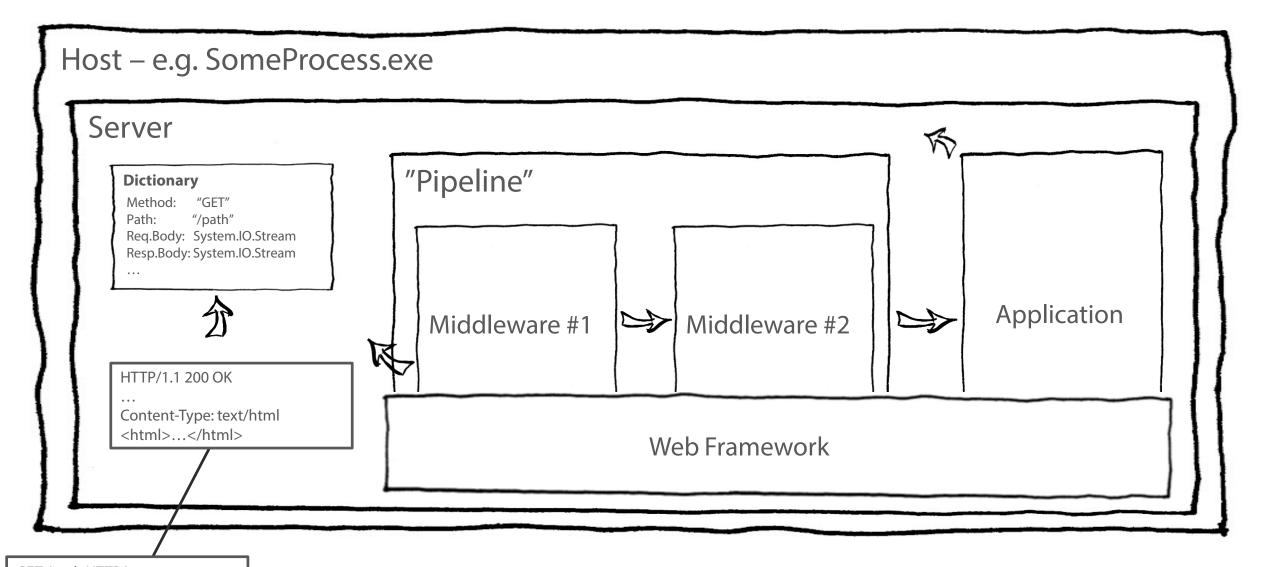# It is just a specification

How?

```
using AppFunc = Func<IDictionary<string, object>,Task>;

var f = new AppFunc(environment => {

    return Task.FromResult(null);
});
```

The application delegate or AppFunc

The simplest advanced abstraction you will see all day

The Parts

Host
Server
Middleware
Application

Host – e.g. SomeProcess.exe

Server

Dictionary

Method: "GET"
Path: "/path"
Req.Body: System.IO.Stream
Resp.Body: System.IO.Stream
…

HTTP/1.1 200 OK
…
Content-Type: text/html
<html>…</html>

"Pipeline"

Middleware #1

Middleware #2

Application

Web Framework

GET /path HTTP/1.1
User-Agent: SomeUserAgent
Host: www.pluralsight.com
Accept-Language: en-us
Connection: Keep-Alive

Environment Dictionary Keys

- owin.RequestPath (string)

- owin.RequestQueryString (string)

- owin.RequestHeaders (IDictionary<string, string[]>)

- owin.RequestBody (Stream)

- owin.ResponseHeaders (IDictionary<string, string[]>)

- owin.ResponseBody (Stream)

- owin.ResponseStatusCode (Int32)

- owin.Version (string)

- *[server.OnSendingHeaders (Action<Action<object>, object>)]*

- *...*

Katana

(Not the Japanese sword kind)

Introduction to OWIN and Project Katana

- What is OWIN?
  - Open Web Interface for .NET
  - Specification for webserver abstraction
- The parts involved
- The flow
- Environment dictionary keys
- Project Katana

Next Module

Building a Simple OWIN Pipeline