Building an API with Node.js

Shawn Wildermuth Wilder Minds LLC @shawnwildermuth





Agenda

Building an API with Node.js

- □ What is an HTTP API?
- Comparing with ASP.NET ASMX
- Comparing with WCF
- Comparing with ASP.NET MVC
- Comparing with ASP.NET Web API
- API Controllers
- GET Actions
- POST Actions

What is an HTTP API?*

Operations
Over http(s)



Whether SOAP or REST Full Message Description



Body, Headers, Methods all matter **Built on Standards**

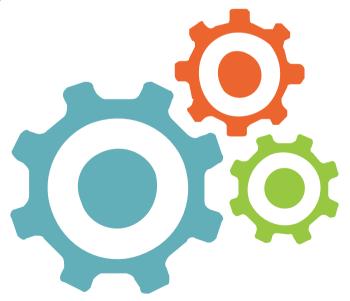


Don't Reinvent

COMPARING WITH ASMX SERVICES

Node.js doesn't support SOAP, and neither should you

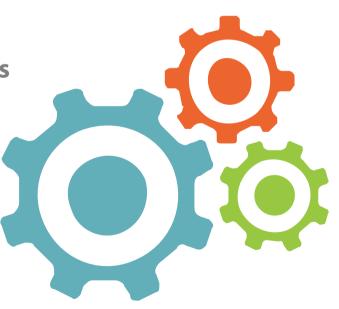
- ASMX attempts to separate you from how services work
- Node.js/Express give you front-line view of the service
 - JavaScript -> JSON Conversion is built in
 - Must understand verbs, headers and bodies
 - Security is layered on top, not magical



COMPARING WITH WCF

WCF is Configuration over Convention

- WCF tries to separate transport and interface
- Node.js/Express is about http(s) transport
 - Some middleware can help expose other transports
 - Little or no configuration
 - You're ultimately responsible for much of the stack
- WCF attempts to support REST via attributes
 - It's just lipstick on a pig



COMPARING WITH MVC

MVC lets you create APIs by changing return types

- MVC uses attributes for non-GET verbs
- Node.js/Express assumes you will use lots of verbs
 - MVC was built as a layout engine (e.g. like Vash)
 - Implementing an API possible, but wrong tool
- MVC's route tables are a distraction
 - Discovery over simplicity



COMPARING WITH WEB API

Web API is closest to Node.js/Express

- Verbs are obvious in controllers in both cases
- Node.js/Express gives you freedom to structure code
 - E.g. Controller base class not required
- Routing in Web API 1.x: controller discovery
- Routing in Web API 2+: you decide route location
- Node.js/Express simply marries route + handler













Summary

Building an API with Node.js

- When we talk about APIs, we're talking about APIs over the web...or HTTP APIs
- ASP.NET ASMX's SOAP APIs are quite different from how Node.js allows you to build APIs
- Being free of WCF's configuration over convention is a relief
- ASP.NET MVC brings the protocol (e.g. http) closer, but still requires a bit of ceremony
- ASP.NET Web API and simple Node.js/Express APIs are fairly similar
- We can call the containers that describe actions as controllers...or routes...or whatever
- Creating actions means mapping the verb to the action that is handling that action...simple