Introduction to RESTful Web Services David Neal

# **REST Easy**

#### What is REST?

- Representational State Transfer
- Not a Standard
- Architectural Style
- Set of Principles or Design Pattern

# Why REST?

- Everybody's Doing It!
- WDNNSA
  - We Don't Need No Stinkin' Abstractions
- Simplicity
- jQuery
- Bacon for the Web

## **Evolved RESTful Web Principles**

- URL / URI
  - Subjective
  - Simplicity
  - Nouns over verbs
  - "Hackable"
- HTTP Verbs
  - GET, POST, PUT, DELETE, HEAD, OPTIONS

#### REST Examples

- GET /orders
- GET /orders/45
- GET /customers/32/orders
- GET /customers/32/orders/15
- POST /orders
- PUT /orders/45
- DELETE /orders/45

### **Evolved RESTful Web Principles**

- Status
  - 200 OK
  - 201 Created
  - 202 Accepted
  - 401 Unauthorized
  - 404 Not Found
- Metadata
- Representations
- Hypertext/Hypermedia
  - Contextual Links

# Consuming REST in .NET

- System.Net.WebRequest
- Hammock
- RestSharp

# **Awesome REST Client Demos**

# Creating RESTful APIs

- MVC
- WCF Web API (currently Preview 4)
- OpenRasta
- Node.js

# Even More Awesomer REST Server Demo

#### Resources

- O'Reilly "RESTful Web Services" and "RESTful Web Services Cookbook"
- http://restpatterns.org
- "Build Truly RESTful API and website using same ASP.NET MVC code" on
  - http://codeproject.com
- https://dev.twitter.com/docs
- http://wcf.codeplex.com/
- Roy Fielding's Dissertation

#### Thank You!

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(coming soon... er... someday)

Source Code

https://github.com/reverentgeek/RestSamples