Web Services

{ Patricia "Happy" Hale

What is a Web Service?

- According to Wikipedia: "a service offered by an electronic device to another electronic device, communicating with each other via the World Wide Web"

Web Service Specifications

- 3 Types
  - SOAP – Simple Object Access Protocol
  - REST – Representational State Transfer
  - JSON – JavaScript Object Notation
- Types specify what is transferred in the messages sent between the provider and consumer

REST

- Characterized by:
  - State and Functionality are divided into distributed Resources
  - Every resource is uniquely addressable using a uniform or minimal set of commands
    - Typically GET, POST, PUT, etc
  - The protocol is client/server, stateless, layered, and supports caching

REST

Microservices

- Segment functionality into separate applications that are loosely coupled by RESTful APIs
  - Think of it as breaking a larger application into smaller functions that can work together
- Challenges
  - Interdependencies can cause issues
  - Logging & Monitoring