



MOBILITY DATA SYSTEMS



Mobile Web Services

Colm Hayden

Technical Director, Mobility Data Systems
Co-Founder, MobileMonday Belfast

©2007 MOBILITY DATA SYSTEMS LTD



MOBILITY DATA SYSTEMS

WEB SERVICES

- **W3C Definition:**
'a software system designed to support interoperable Machine to Machine interaction over a network.'
- **Advantages:**
 - **Language agnostic** - can be implemented in Java, .NET, C++, PHP, etc
 - **Relatively simple** – based on web technologies
 - **Easy to configure** – works better with proxies and firewalls than previous remote execution technologies (e.g. CORBA, DCOM)
- **Web Examples:**
 - **Google, Amazon, eBay, PayPal**
- **Mobile Web Service Examples:**
 - **Messaging Gateways** - web service wrappers for SMPP, MM7
 - **SOA – based integration** e.g. SDP Alliance product & SOA-based SDP
 - **Parlay X** – secure exposure of core network capabilities
 - **MTOSI** – Multi-Technology Operations System Interface

©2007 MOBILITY DATA SYSTEMS LTD



WEB SERVICE TECHNOLOGIES

- **XML-RPC**
 - Remote procedure call protocol using XML over HTTP
 - First created in 1998 by Dave Winner of UserLand Software
 - Simple protocol that defines a handful of data types
- **SOAP**
 - Protocol for sending XML-based messages
 - Normally sent over HTTP/HTTPS, but other transport protocols possible e.g. SMTP, RSS
 - Originally designed by Dave Winner with backing from Microsoft, now maintained by the World Wide Web Consortium
- **REST - Representational State Transfer**
 - A collection of network architecture principles which outline how resources are defined and addressed
 - Defined in 2000 by Roy Fielding (one of the principle HTTP authors)
 - Uses HTTP Protocol (GET, POST, PUT, DELETE)
 - Every resource is addressable by a global identifier URI
 - e.g. getMember("colm") = <http://mobilemondaybelfast.org/members/colm>