Digital NOTAM Submission Web Service

Federal Aviation Administration

By: Alex Yoon

Aeronautical Information Management

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What is a Web Service?

- **A software system designed to support interoperable system to system interaction over a network.**

- **A standardized way of integrating Web-based applications using the XML, SOAP, WSDL, and UDDI open standards over an Internet protocol backbone.**

Characteristics of a Web Service

- **Performs a single, well-defined task**
  - Independent, self-contained, stateless service
  - Fine-Grained vs. Coarse-Grained
- **Defines interface of operation**
  - Inputs and outputs
- **Designed for interaction with other system**
  - System platform independent
  - No need to know details of other system

Common Technology Used for Web Services

- **XML and HTTP Protocols**

- **WSDL (Web Service Description Language)**
  - Definition (Data Type, Message)
  - Operation
  - Service Binding (Port, Network Address)

- **SOAP (Simple Object Access Protocol)**

- **UDDI (Universal Description, Discovery and Integration)**

Digital NOTAM Submission Web Service Security

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Web Service Security

- **Concerns**
  - Message Integrity
  - Message Confidentiality
- **Security Mechanisms**
  - User ID/Password
  - HTTP vs. HTTPS
  - Client Certificate (X.509)
  - Other WS-Security