Web Services Applications For RFID

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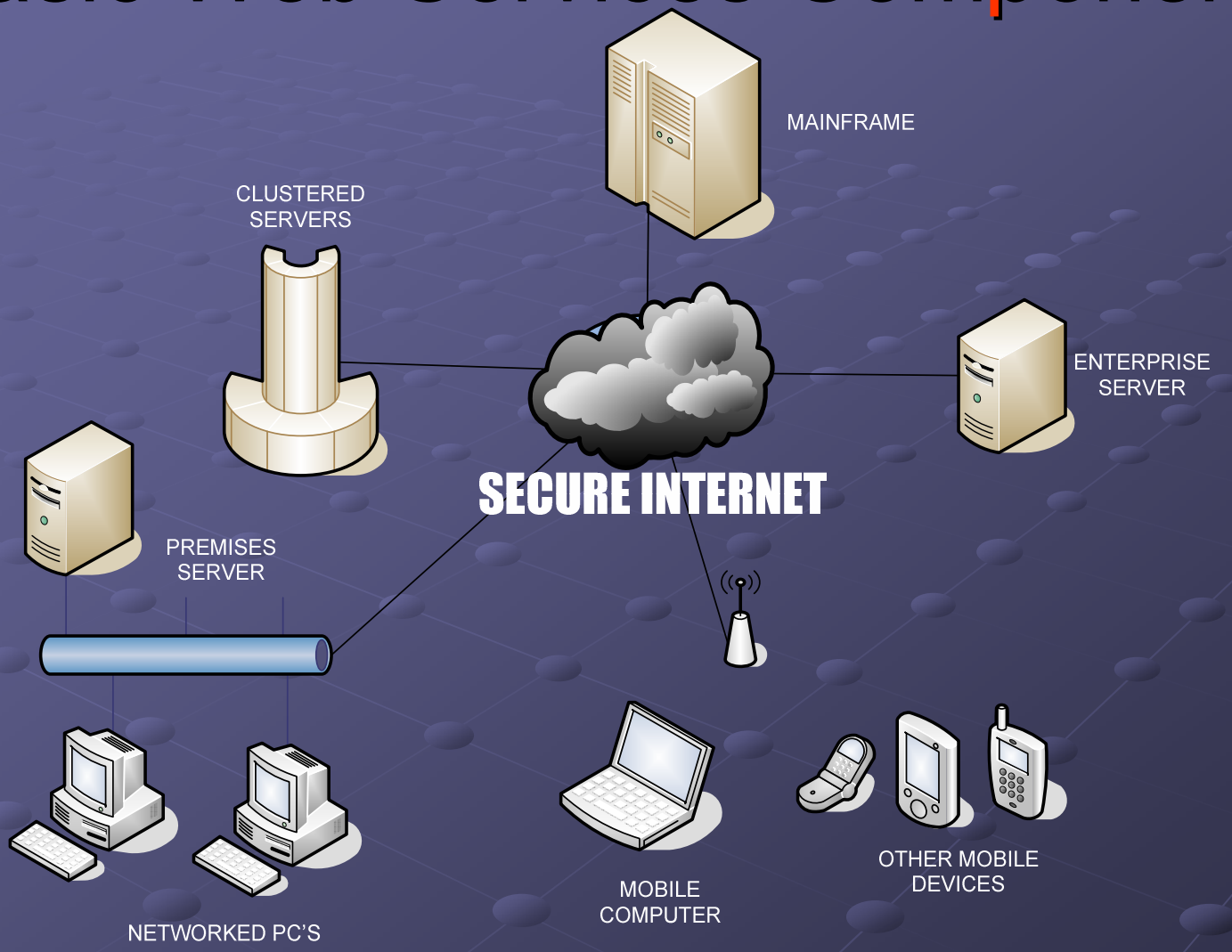
IT Evolution

- WWII – Korean War Introduction of the Main-Frame & Back-Office Automated. Batch Processing. “Sneakernet”
- Vietnam War – Introduction of Front Office Automation & Standalone PC’s. Mini-Computers & CRT Terminals; 300 Baud Xfer
- Gulf War I – Introduction of Networked PC’s & the Internet and Work Group Automation. Client-Server; 56K Xfer
- Gulf War II – Proliferation of the Internet, Automate the Individual w/Wireless Devices and Real-Time Information. Web Services; 1-3 Mbytes Broadband Xfer.

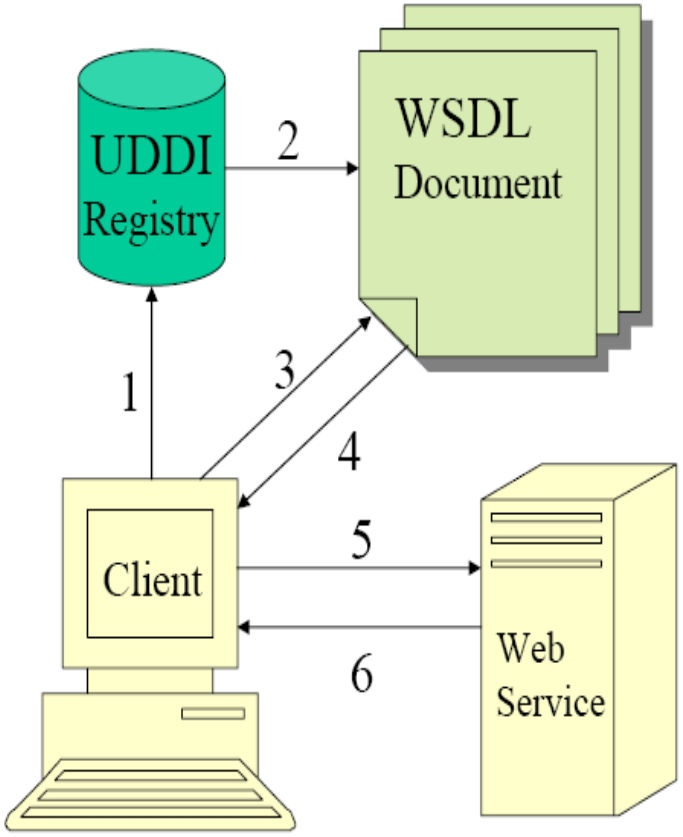
Key Elements of a Web Services RFID Solution

- Internet/Intranet Accessible Servers
  - Hosted Solutions – Secure Triple Firewalled
  - Integrated Solution for Legacy Systems; XML I/F
  - Multiple Auto ID Technologies Supported: Bar-Code inc. UID (Data Matrix), RFID
  - RFID DataWarehouse™ Event Tracker
- Thin Client Appliances
  - Workstations
  - PDA
  - Cell Phones

Basic Web Services Components



Web Services: How It Works

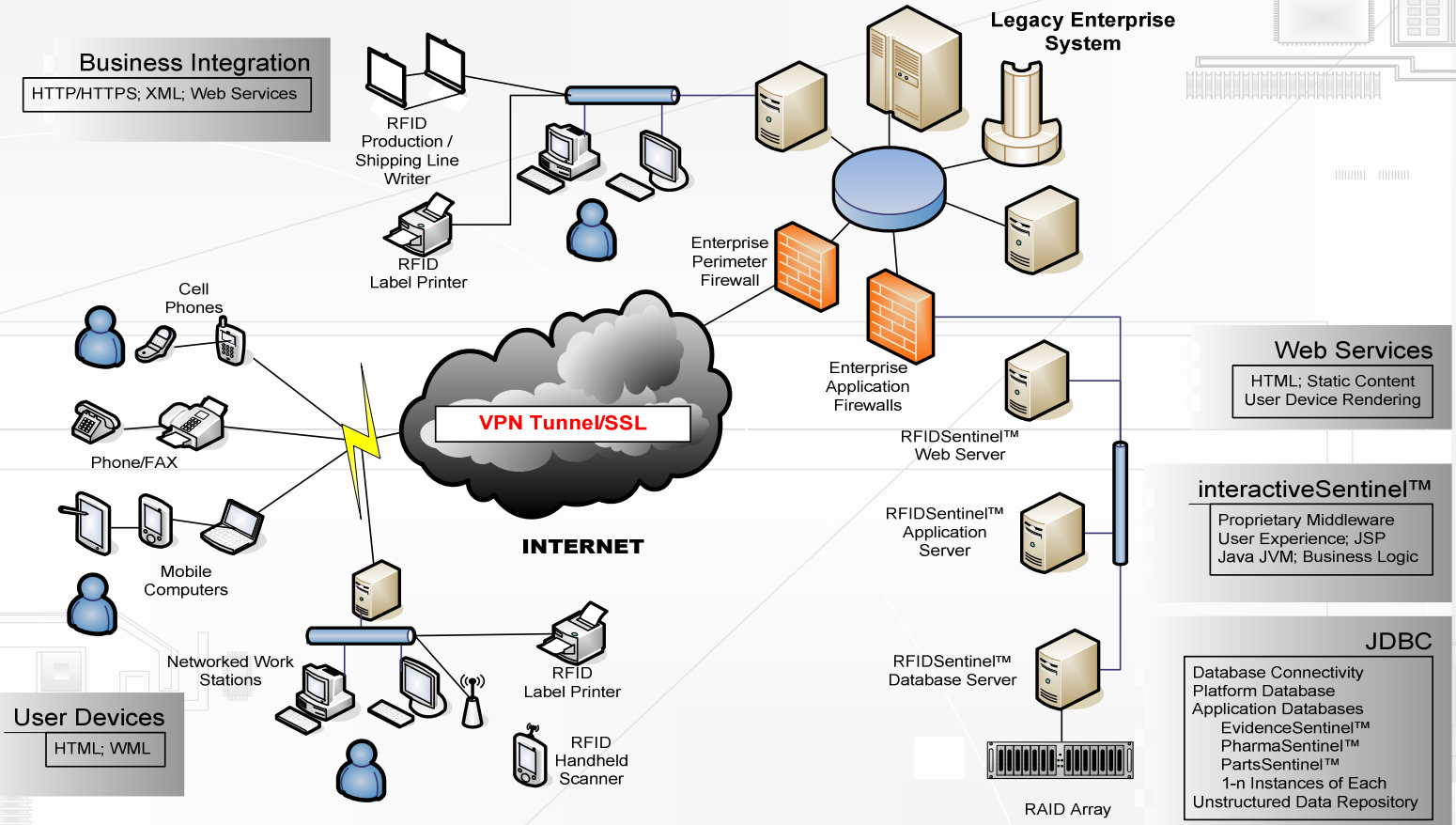


- 1. Client queries registry to locate service.
- 2. Registry refers client to WSDL document.
- 3. Client accesses WSDL document.
- 4. WSDL provides data to interact with Web service.
- 5. Client sends SOAP-message request.
- 6. Web service returns SOAP-message response.

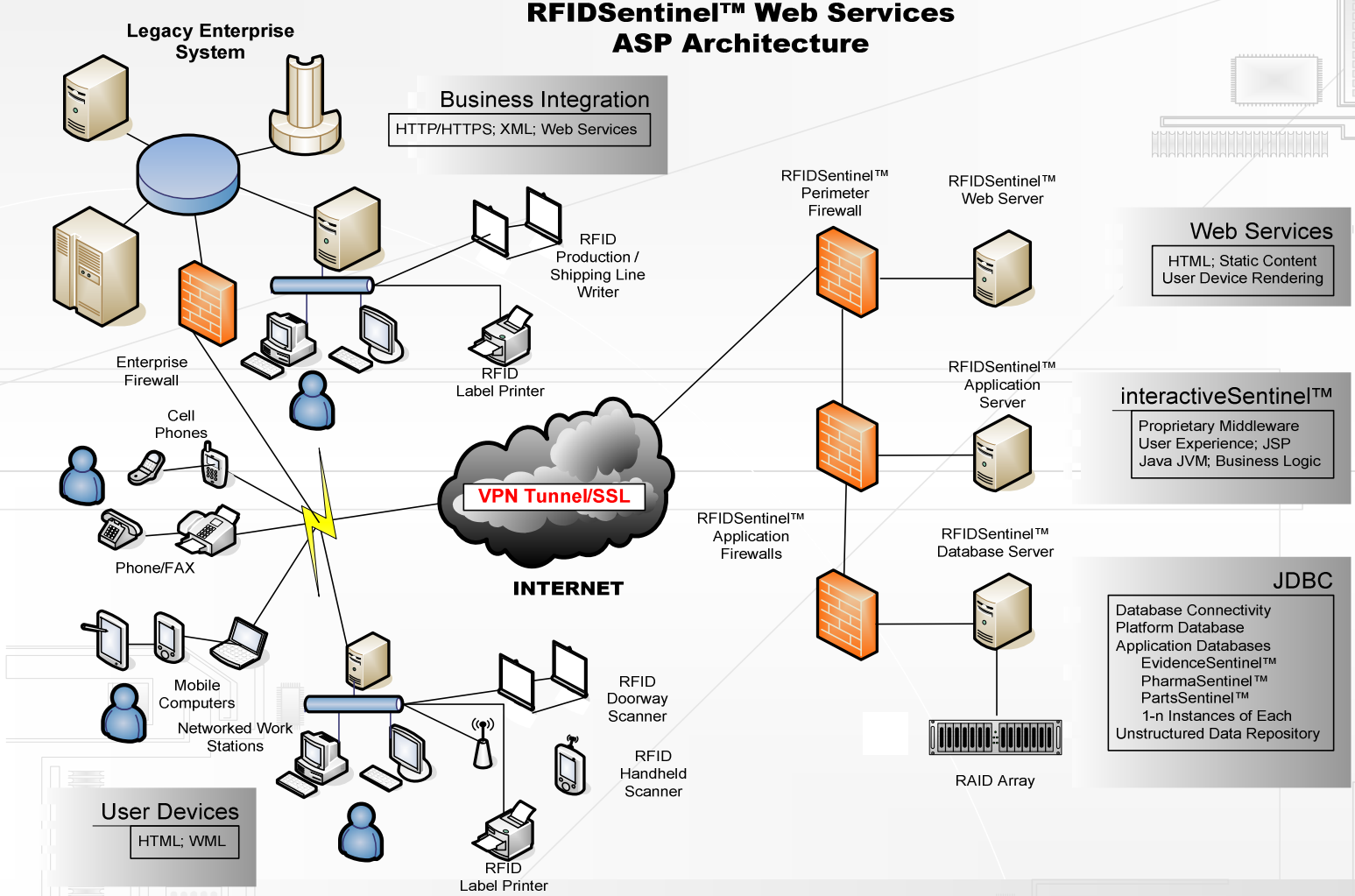
XML – Extensible Markup Language

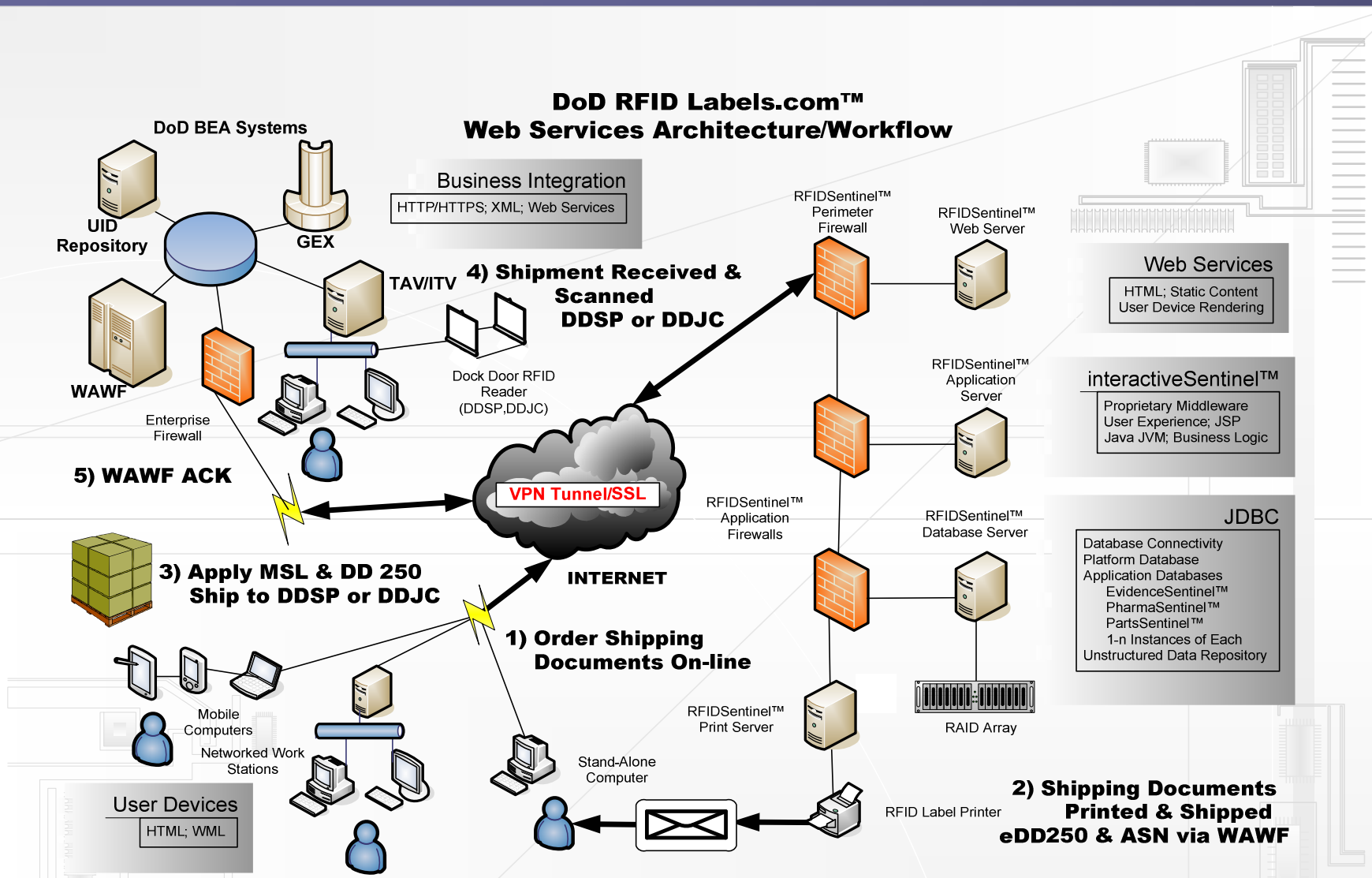
- Cross Platform, Text-Based Standard for Representing Data
- Key Technology for Development of Web Services
- DoD Heavily Involved in XML
- Moving from Expensive EDI Transactions to Internet Based XML Equivalents
- Common Intersystem Communication
- RFID Peripherals use XML

RFIDSentinel™ Web Services
Legacy Integration Architecture



RFIDSentinel™ Web Services ASP Architecture





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