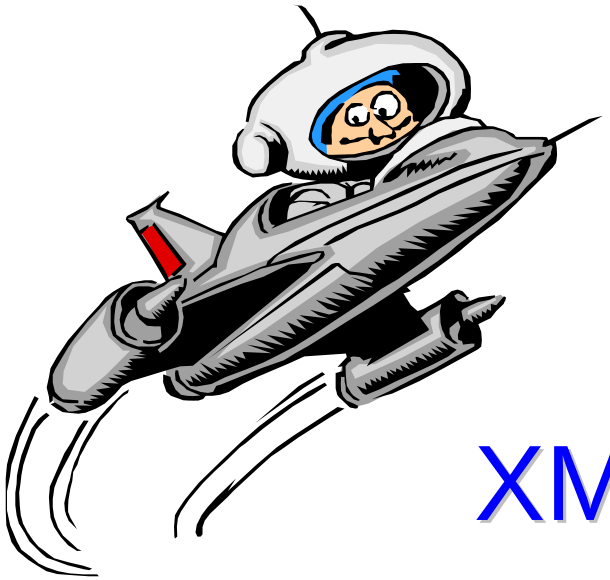


XML Hype or Glory?

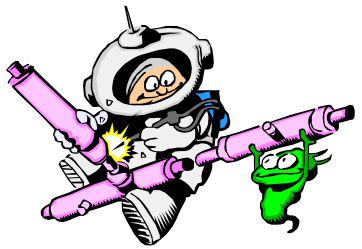
Business to Business Information Flow Using XML

Betty J. Hailey
bjhailey@us.ibm.com
817-457-0717

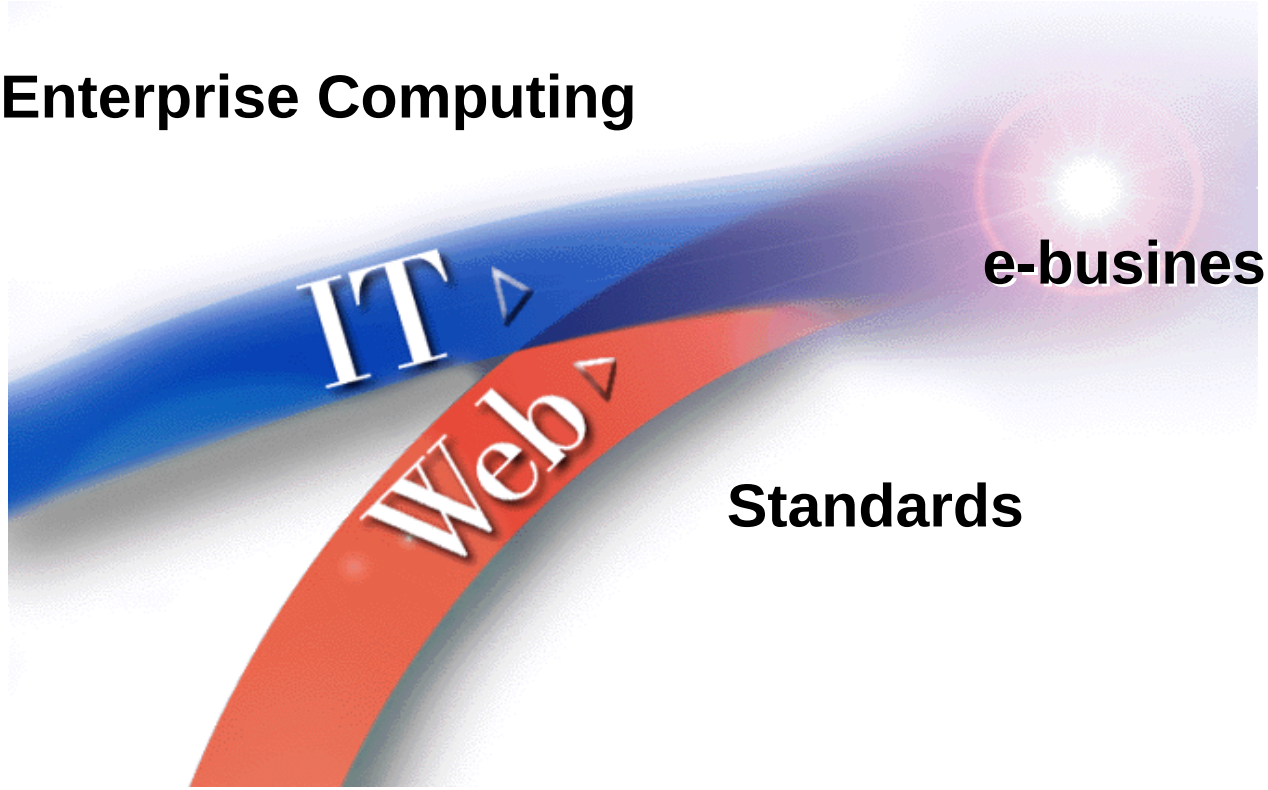
eXtensible Markup Language (XML)

- XML (eXtensible Markup Language) is a markup language that provides a format for describing structured data
  - Subset of SGML (ISO standard 8879)
  - Developed & maintained by a working group of W3C (www.w3.org)
  - HTML is display; XML is content

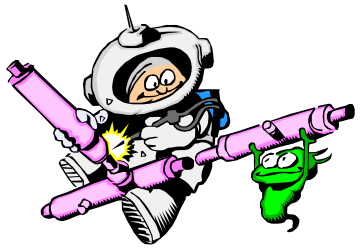
Java is the means to produce portable code;
XML is the means to produce portable data



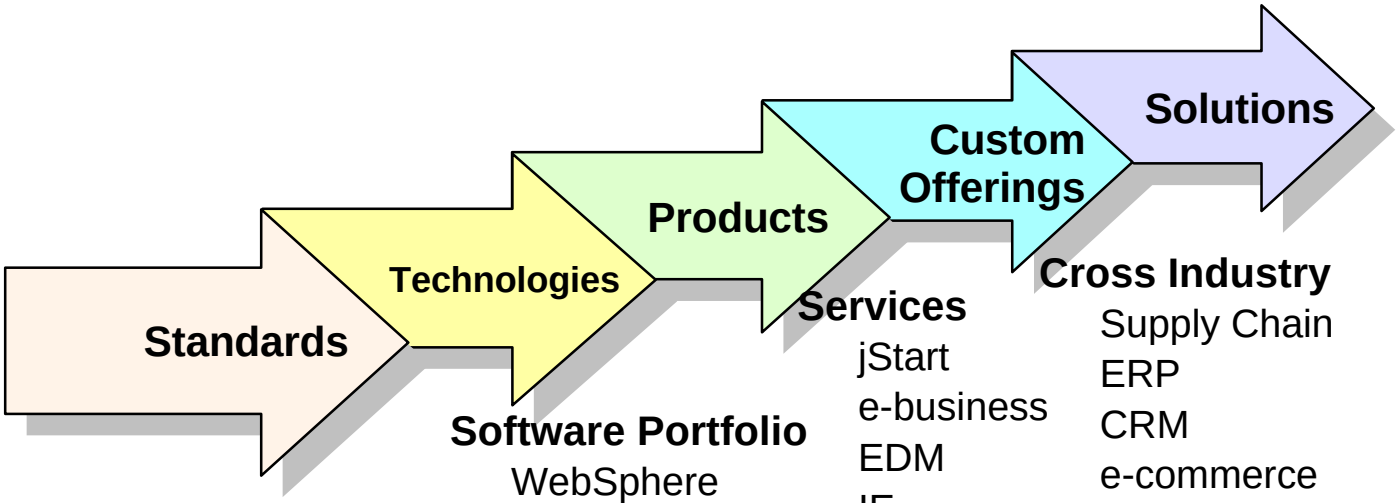
Solutions Convergence



- The paradigm shift does not require junking the old world
- The new world of e-business coexists with the old platform-centric world



IBM XML Roadmap



Standards

XML Standards
XML, DOM, Namespaces

Industry Vocabularies
RosettaNet, HL7, Open Travel Alliance

Technologies

Parsers
XML4J, 4C

Processors
LotusXSL

Products

Software Portfolio
WebSphere
Domino
DB2
MQ
Visual Age
DataInterchange

Server Platforms

Custom Offerings

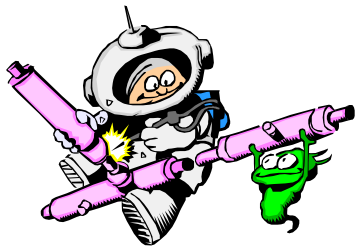
Services
jStart
e-business
EDM
IE

Education

Solutions

Cross Industry
Supply Chain
ERP
CRM
e-commerce
Knowledge Management

Industry Verticals
Finance
Retail & Distrib
Manufacturing
Travel
Healthcare
Government
Insurance
Automotive



The XML Landscape

XML.ORG

Industry Solutions					
XMLife	**SI2**	**OTA**	**FpML**	**HL7**	**. . .**

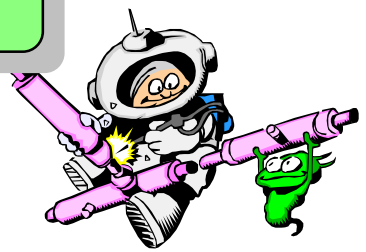
Cross-industry Solutions				
OBI, OTP, ...	**OAG**	**TBD**	**TBD**	**XML/EDI, RosettaNet**

OMG, IETF, etc.

Software Products Build Run Manage			
HTML, JSP, EJB, SVG, ...	**SMTP, POP3, MIME, ...**	**SQL, JDBC, ...**	**WebDAV, XMI, ...**

W3C

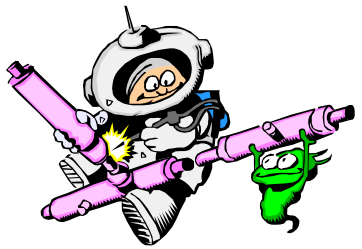
Core Technology
TCP/IP, HTTP, Java, XML,...



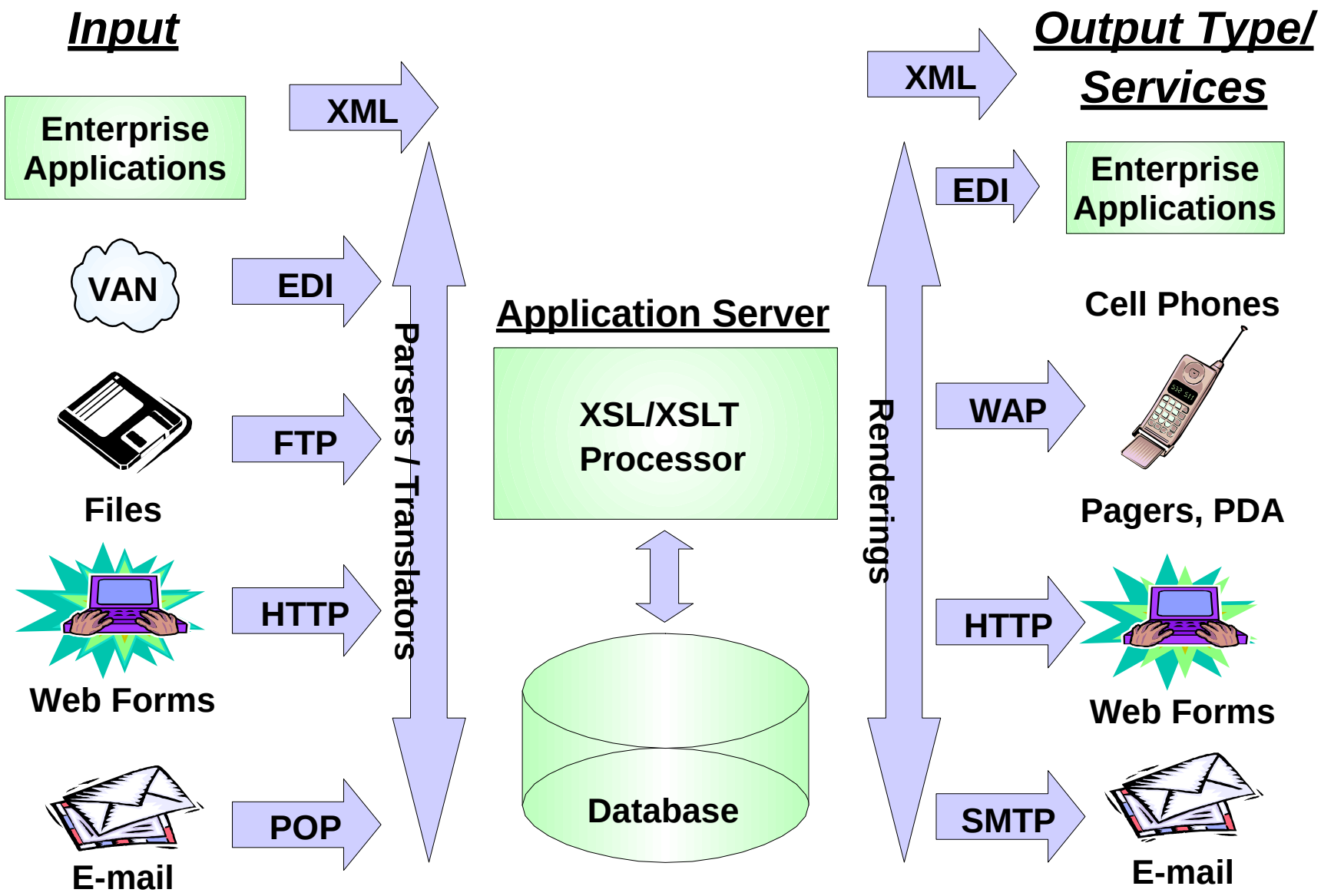
eXtensible Markup Language (XML)

- XML (eXtensible Markup Language) is a markup language that provides a format for describing structured data

- Benefits
  - Allows for repurposing of data
  - Allows for sharing of data between applications



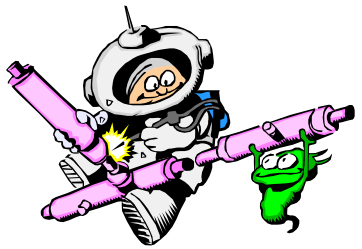
e-business Platform



eXtensible Markup Language (XML)

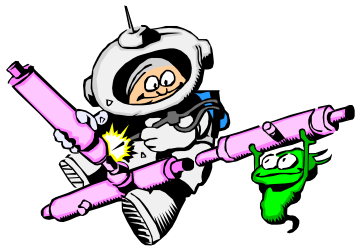
- XML (eXtensible Markup Language) is a markup language that provides a format for describing structured data

- Uses
  - Content Management
  - Application Integration
  - Data Aggregation/Portals
  - Pervasive Computing
  - XML for DataInterchange (EDI)



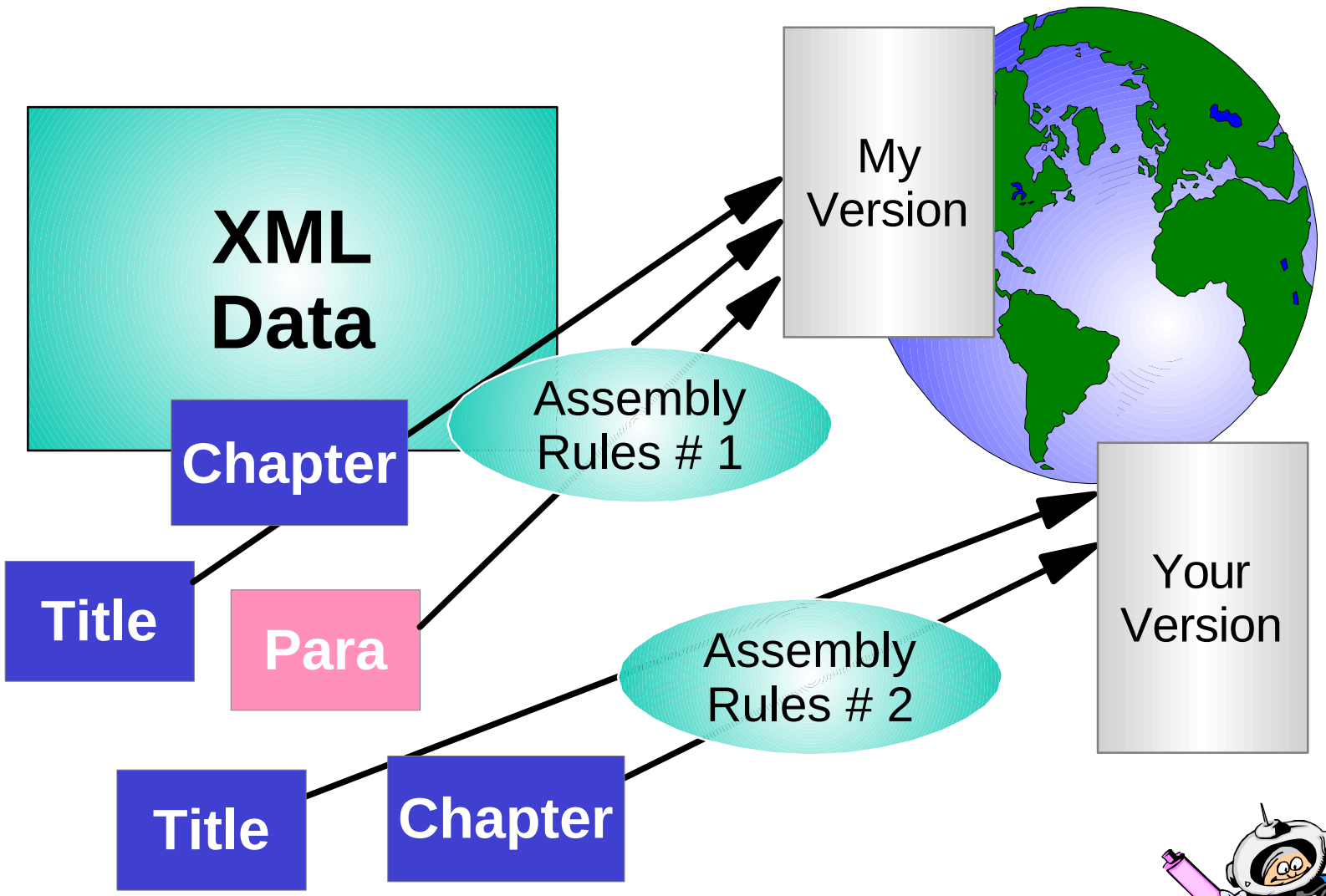
Content Management

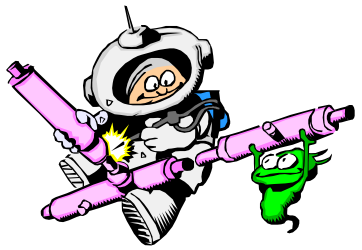
- Business Problem
  - Manage complex sets of information objects that must be dynamically assembled & delivered in multiple forms
- Non-XML Solution
  - Electronic Publishing Software or website management products
- XML Benefit
  - Allows information to be rendered in multiple forms from one, neutral source format
  - e.g. catalogs on the web as well as in paper from the same data source



XML and Content Management

Personalized Delivery from a Single Source



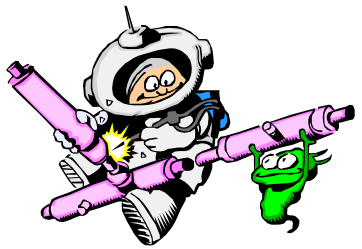


XML and Content Management

- Data is repurposed….

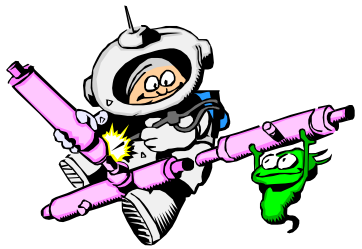
- Examples
- Catalogs
  - Available on web, paper, & to call center applications

- Medical Devices are dynamically configured for each patient
  - Enclosed documentation must also be customized to match the device
  - XML allows all the documentation “building blocks” to be separately managed and parameters to be dynamically inserted

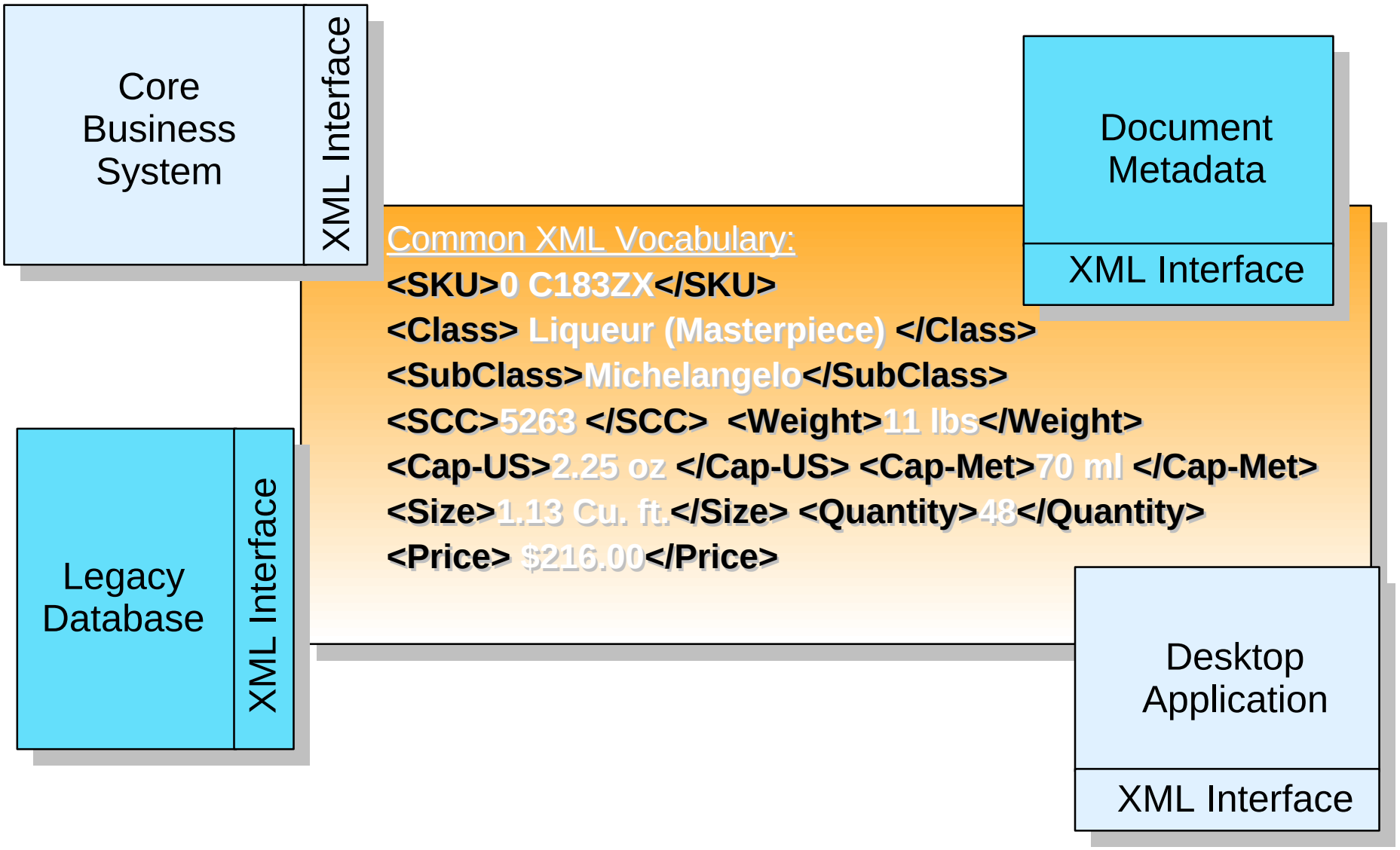


Application Integration

- Business Problem
  - Sharing of data between applications
- Non-XML Solution
  - Creation of interfaces between each application
- XML Benefit
  - Allows for integration between legacy applications and makes legacy information available to new and emerging applications

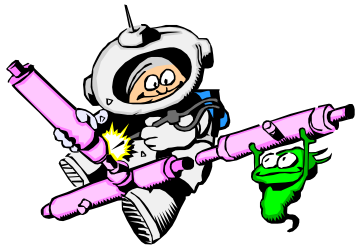


XML and Application Integration
A Common Language to Connect Systems



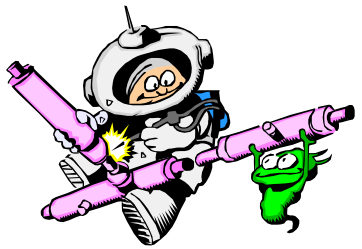
XML and Application Integration

- Data is shared...
- Examples - response to loan or credit card applications
  - Ability to link web based data to credit scoring software to back end processes

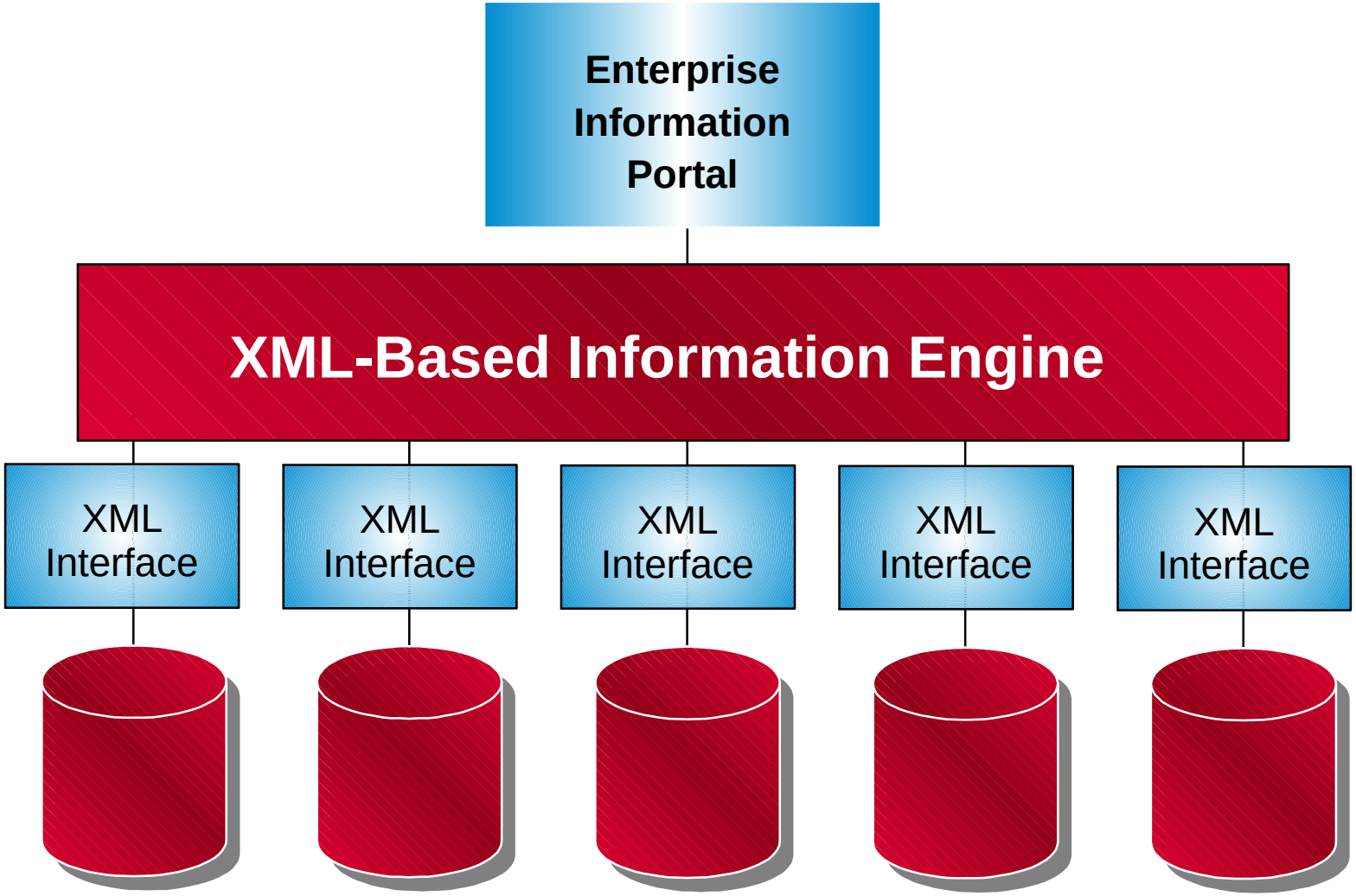


Data Aggregation/Portals

- Business Problem
  - Provide a single, web-based, personalized interface into relevant information across the enterprise for both employees and customers
- Non-XML Solution
  - Develop “custom” connectors to integrate content into a coherent solution
- XML Benefit
  - Common data format to aggregate both structured and unstructured information for presentation and retrieval. e.g. enterprise access to all data about a customer from correspondence to billing records



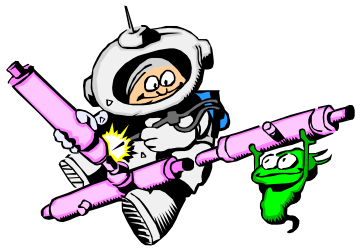
XML and Portals
Allowing Aggregation Across Repositoriesf



XML and Portals

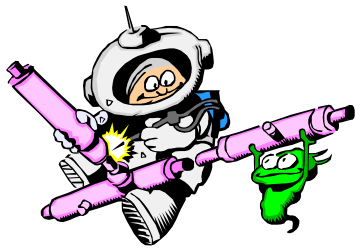
- Data is shared...

- Examples - Customer Self-service
  - Single screen to view diverse accounts
  - Delivery of product information, FAQs, and technical support information to both customers and to call center operators



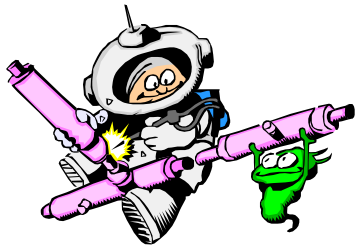
Pervasive Computing

- Business Problem
  - Sharing data between traditional computer systems and hand held devices such as PDA's, cell phones, bar code devices, etc.
- Non-XML Solution
  - Proprietary formats for each device
- XML Benefit
  - Allows information such as flight changes/delays to be delivered via cell phones



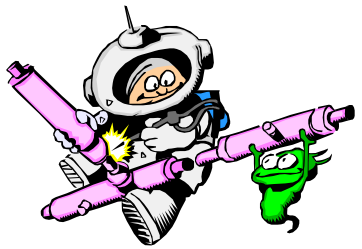
XML and Pervasive Computing

- Data is repurposed...
- Examples -
  - Wireless trading
  - Funds transfer
  - Bill payment



XML for Data Interchange (EDI)

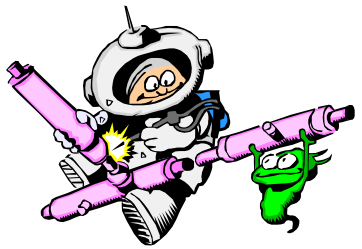
- Business Problem
  - Secure/reliable transmission of data between all trading partners
- Non-XML Solution
  - Point-to-point file transfer or VAN based EDI with a high degree of custom programming. On-line, interactive capability is very difficult
- XML Benefit
  - Allows for easier utilization of web technologies (e.g. web forms) and a common data structure. Allows for web forms for Small to Medium Enterprises (SME's) to coexist with EDI



XML for Data Interchange (EDI) (cont.)

- Data is repurposed...

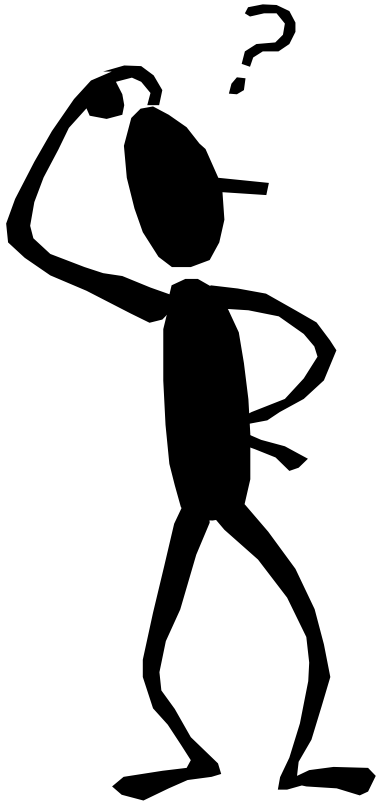
- Examples -
- Ability to continue to use traditional EDI with existing EDI capable companies (e.g. 820 Remittance Advice)
- Ability to use web forms with small to medium enterprises (e.g. remittance advice delivered via web)

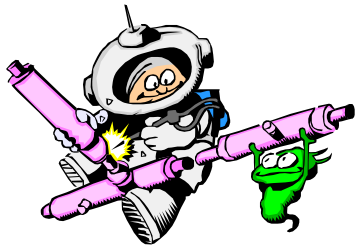


XML and EDI

- Electronic Data Interchange (EDI) is the system to system exchange of unambiguous business information in a standard format

- XML is portable data

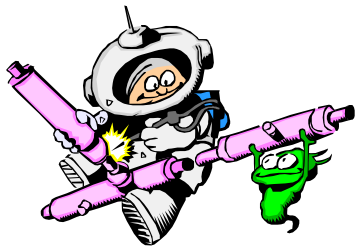




XML and EDI

- ANSI ASC X12 developed the “X12 - XML Technical Report” in October 1999 to detail the transformation of X12 EDI documents into XML

- For example….



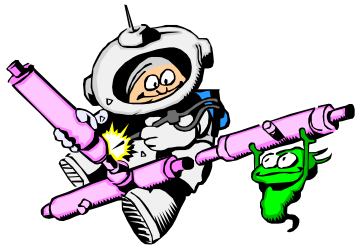
XML and EDI (cont.)

- ASC X12 EDI syntax:

N4*Dallas*TX*75201 N/L

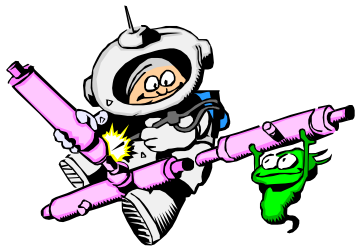
- Corresponding XML syntax:

<N4_GeographicInfo>
<City>
Dallas
</City>
<StateOrProvince>
TX
</StateOrProvince>
<PostalCode>
75201
</PostalCode>
</N4_GeographicInfo>

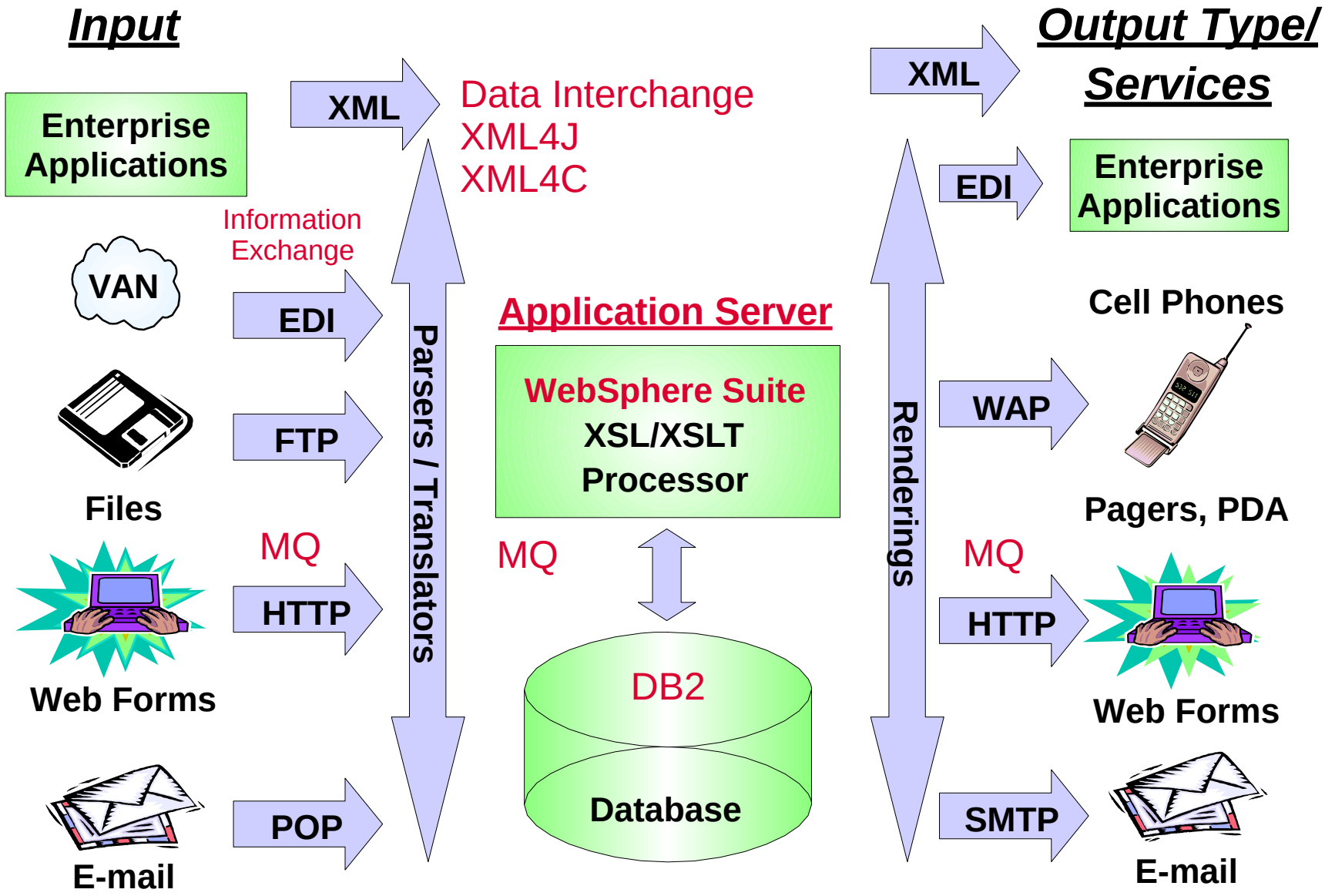


XML and EDI (cont.)

- EDI ain't broke….it isn't dead….it isn't going away in the near term….
- Corporations have large investments in EDI and EDI serves the 20% of the trading partners that comprise 80% of the business
- It's the other 80% of the trading partners - *the small to medium enterprises* - where XML has potential



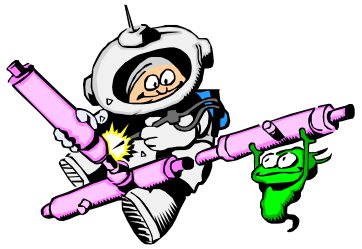
e-business Platform with IBM Products & Services



Enterprise Tools: IBM San Francisco / Visual Age Java

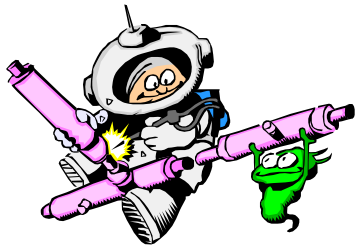
XML Initiatives - ebXML

- ebXML (e-business XML @ www.ebxml.org)
  - Announced on 09/20/99 a joint work effort with OASIS & UN/CEFACT to develop a technical framework to enable XML to be used in a consistent manner for exchanging all electronic business data
  - 18 month project
  - Working groups for
    - Business Processes
    - Core Components
    - Technical Architecture
    - Transport/Routing & Packaging
    - Registry & Repository
    - Technical Coordination & Support
    - Marketing Awareness & Education
    - Proof of Concept
    - Trading Partners
  - Results to be posted to XML.org and uncefact.org
  - Co-chaired by:
    - Klaus-Dieter Naujok - UN/CEFACT & NextERA Interactive
    - Bob Sutor - OASIS & the IBM Corporation



XML Resources

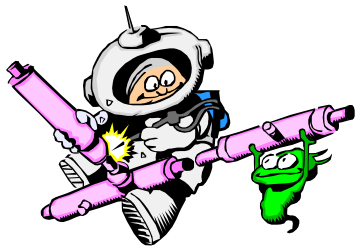
- IBM XML Web Site -
  - http://www.ibm.com/developer/xml/
- XML Industry Portal -
  - http://www.xml.org/
- OASIS -
  - http://oasis-open.org/
- ebXML -
  - http://ebxml.org/

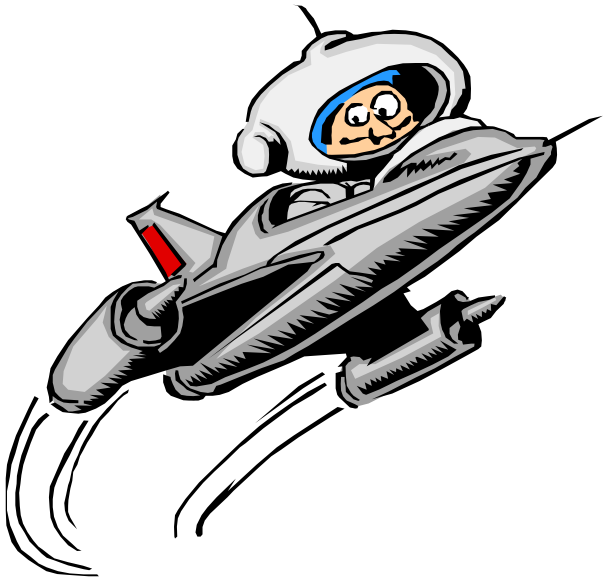


Conclusion

- XML is a very simple idea with very powerful implications being adopted across many products and applications

- XML is <u>not</u> a magic bullet!





Questions?