



IBM Software Group

Choosing Your Aircraft - Communication Paths

Maura T. Grady
EdgeWise, Inc.
edgewise@tampabay.rr.com
www.edgewiseinc.com
800.304.EDGE (3343)

WebSphere. software



 **e-business software**



The Times They Are A-Changin'

Bob Dylan, January 1964

- Inter-enterprise communications landscape has changed radically
- Corporate strategies have changed to address a bewildering array of business demands
- Companies have a plethora of options for transporting their mission critical data
- How are companies addressing broad-based inter-enterprise exchange of data?
- What are the many communications options available?
- What are the industry trends?

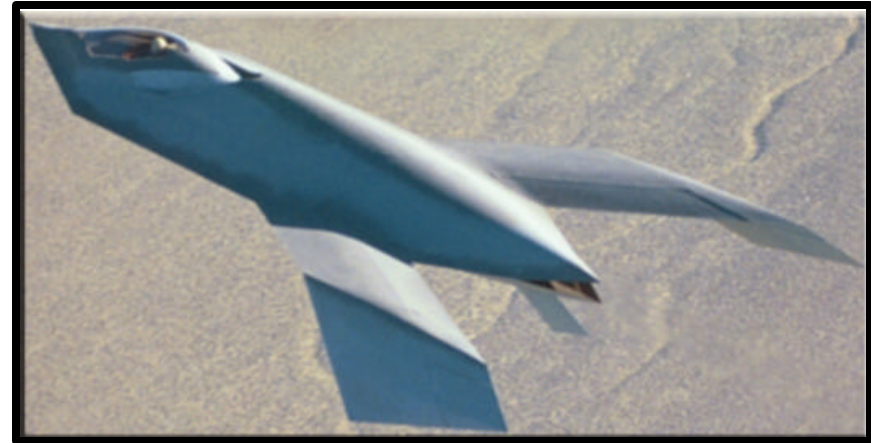




The Evolution of Transport



December 17, 1903
"Bird of Prey"



October 18, 2002
"Bird of Prey"

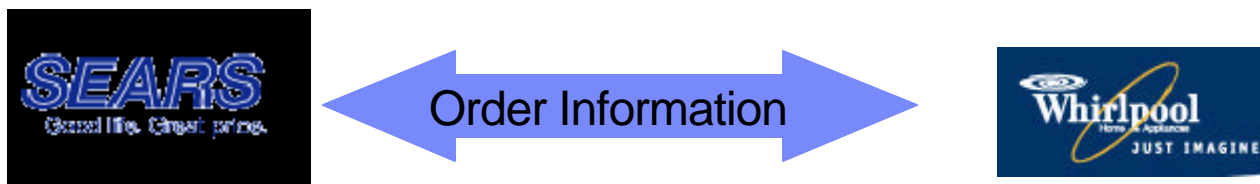




Early Inter-enterprise communications

- Business requirements that cross the enterprise have existed for over half a century
 - ▶ "The Berlin Airlift" legend ~ 1948
 - ▶ Guilbert's BUSAP (Business System Applications)
- In the 1960's corporations began to exchange order and production information in electronic formats
 - ▶ One of the first computer to computer exchanges
 - ▶ Almost EDI
- Communication was point-to-point and data was proprietary

B2B Visionaries?





Early Progress In Inter-enterprise EDI communications

- TDCC established 20 years later ~ 1968
 - ▶ First standard published in 1975
- ANSI X12 established 10 years later ~ 1978
 - ▶ Chartered to develop a standard between trading partners based on the TDCC structure
- UN/EDIFACT established 8 years later ~ 1986
 - ▶ Need for a common international standard for the electronic transmission of commercial data
- UN/CEFACT established 10 years later ~ 1996
 - ▶ Improve the ability of business, trade and administrative organizations to exchange products and relevant services effectively
- Communication was mostly point-to-point, private networks, VANs
 - ▶ Dial, leased, Asynch, Bisync, SNA





EDI Business Landscape 1970's - 1990's

- Streamline & improve business processes
 - ▶ Automate supply/demand chain
- Implement "application-to-application" solutions
- Obtain cost & productivity improvements with largest partners
- Support dominant inter-enterprise standards
- Provide for secure transmissions
- Reduce manual intervention
- Reduce the business cycle time
- Gain an edge on competitors



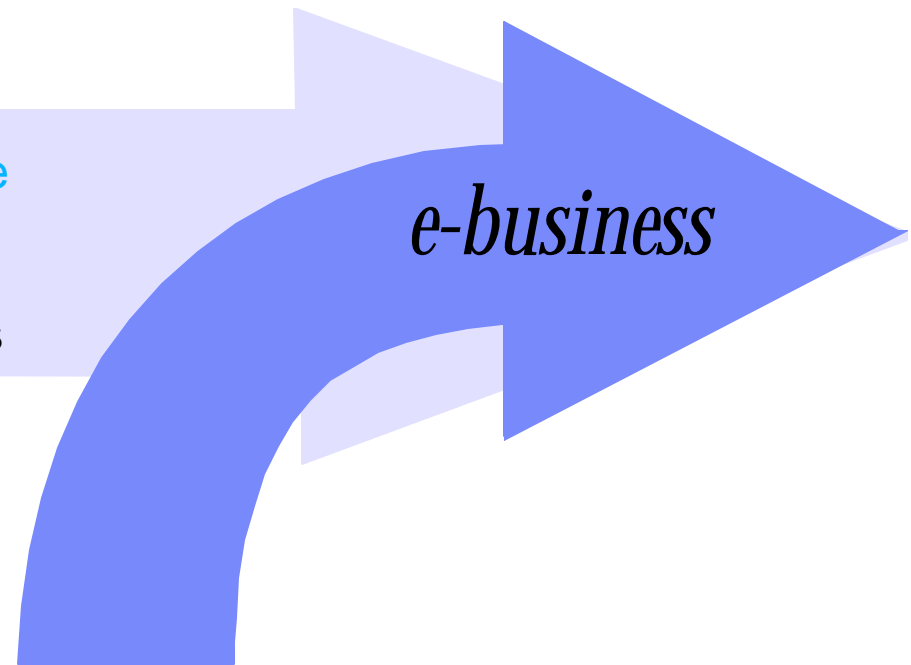
EDI

external



EDI Business Landscape Now ~ What Has Changed?

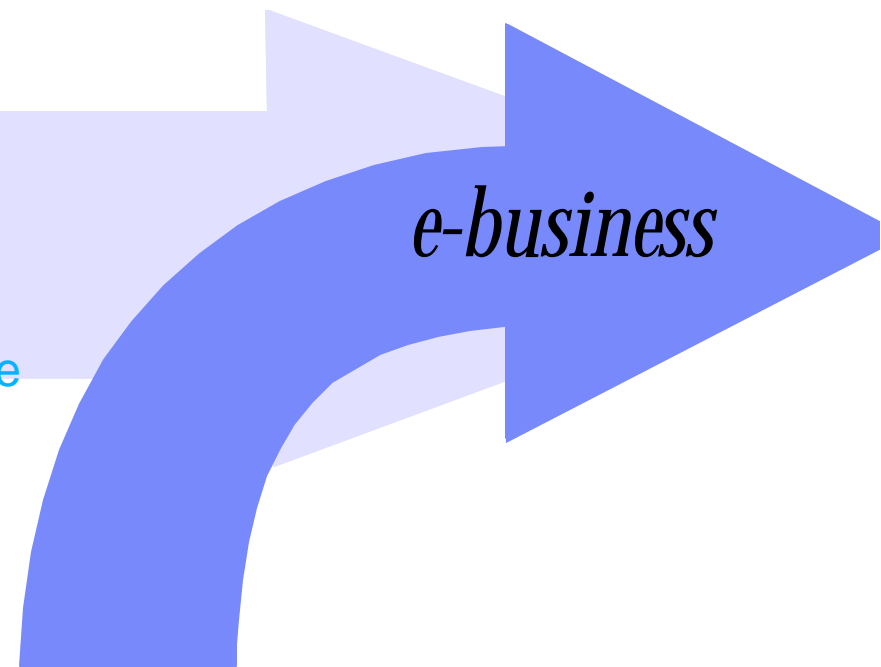
- Streamline & improve business processes
 - ▶ Automate supply/demand chain
 - ▶ Integrate across and beyond the enterprise
 - ▶ Deploy new processes and services
- Implement "application-to-application" solutions
 - ▶ Bridge EDI, EAI, B2B, and B2C infrastructures seamlessly
 - ▶ Build an end-to-end integration strategy
 - ▶ Less batch, more real time
- Obtain cost & productivity improvements with largest external partners
 - ▶ Connect external partners regardless of size
 - ▶ Procure scalable offerings that support complex business processes and simple Web Services . . .





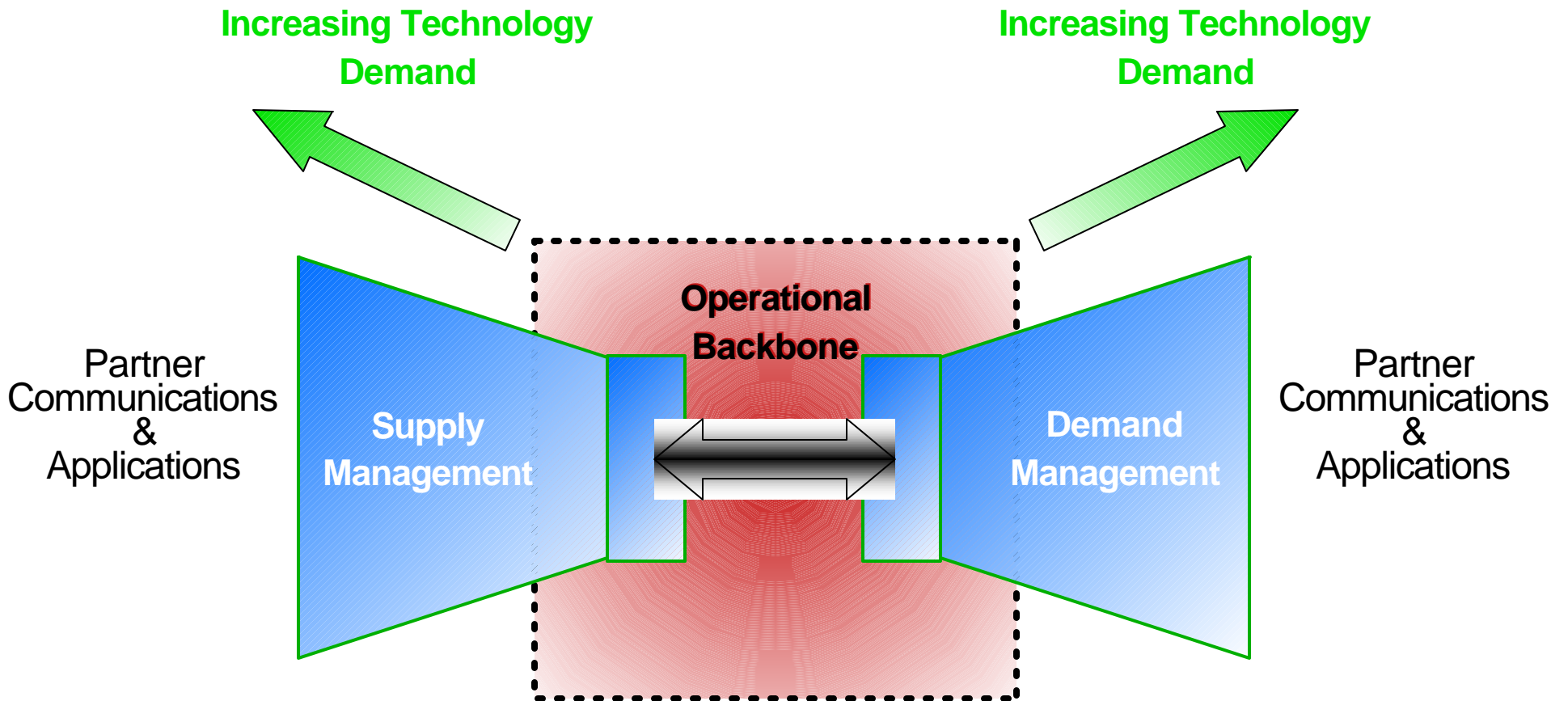
EDI Business Landscape Now ~ What Has Changed?

- Support dominant inter-enterprise standards
 - ▶ Leverage existing investment in EDI
 - ▶ Embrace open internet standards
 - For both data & transport
- Provide for secure transmissions
 - ▶ Security is #1 most important Network Initiative in the next 12-18 months ~ Gartner 3/2003
 - ▶ Implement a standard security architecture to underpin all corporate applications and processes
- Reduce manual intervention
- Reduce the business cycle time
- Gain an edge on competitors





Technology Demand Shifts From The Core To The Edge Of The Enterprise

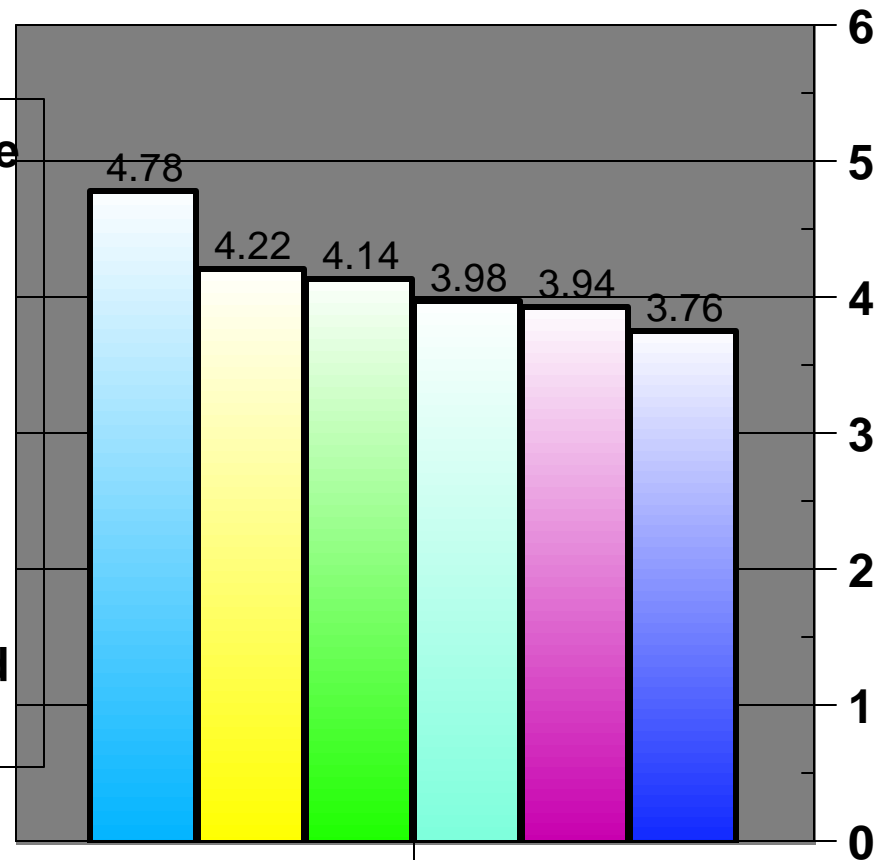


The Yankee Group, June 2003



Electronic Supply-Chain Technology Drivers

- Securely and Reliably Send and Receive Auditable Transactions over the Internet
- Flexibly Manage Partner Profile Information
- Support XML Industry Standards
- Automate Transaction Workflow
- Move from Batch to Real Time
- Define, Invoke, and Manage Human and System Events



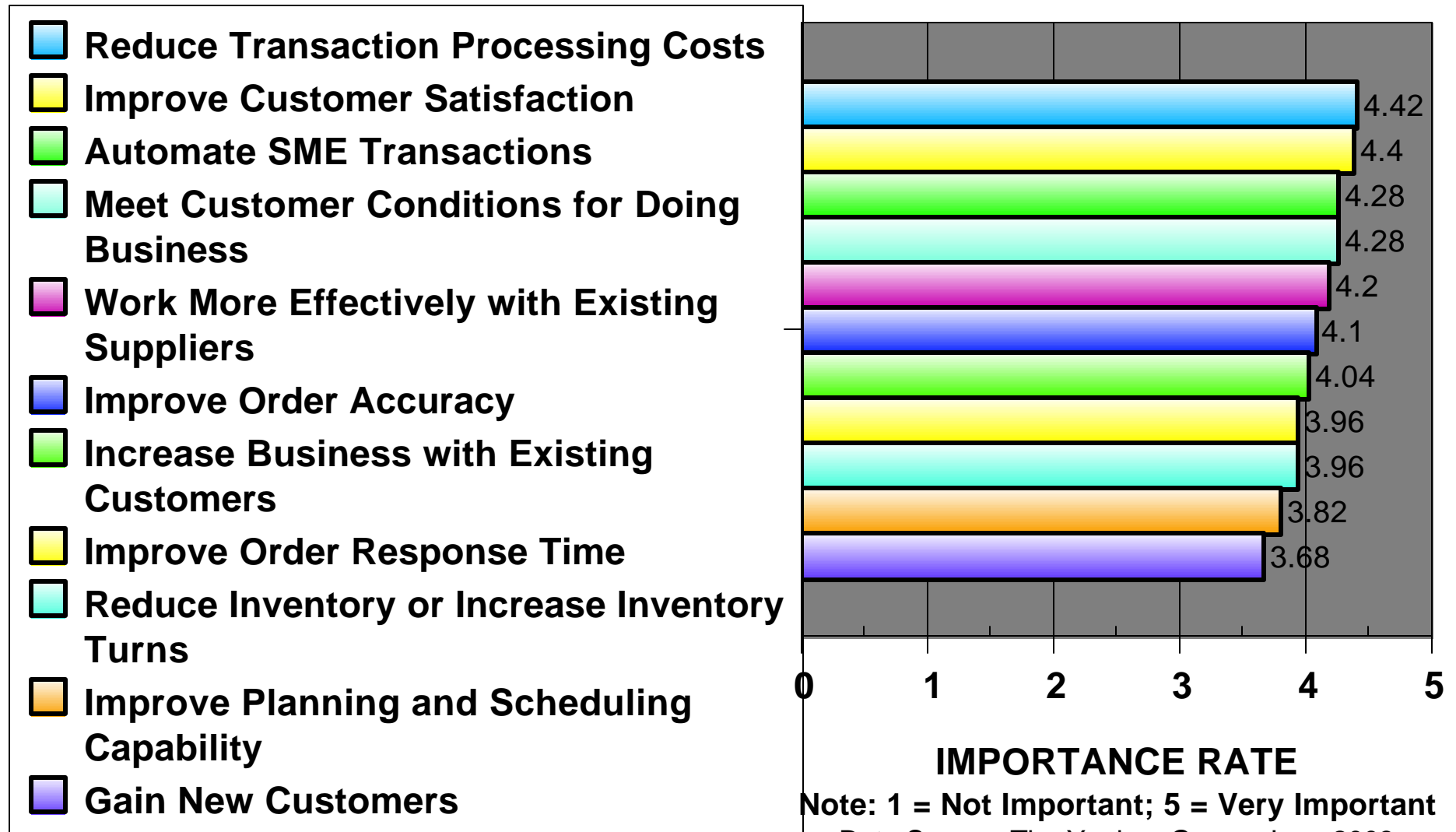
IMPORTANCE RATE

Note: 1 = Not Important; 5 = Very Important

Data Source: The Yankee Group, June 2003

Electronic Supply-Chain Business Drivers

Rate the Importance the Following Value-Chain Integration Capabilities Will Have on Your Business



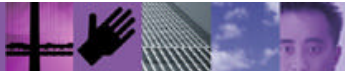
Note: 1 = Not Important; 5 = Very Important

Data Source: The Yankee Group, June 2003



2003 Inter-enterprise Communication Status

- Electronic communications with partners is a high corporate priority
- Executives classify the need to improve electronic communications with partners as "urgent"
- Companies want to utilize the Internet more to:
 - ▶ Assist in controlling costs
 - ▶ Extend reach
 - ▶ Deploy new products and services
- Leveraging existing investments in EDI and other edge related technology is critical



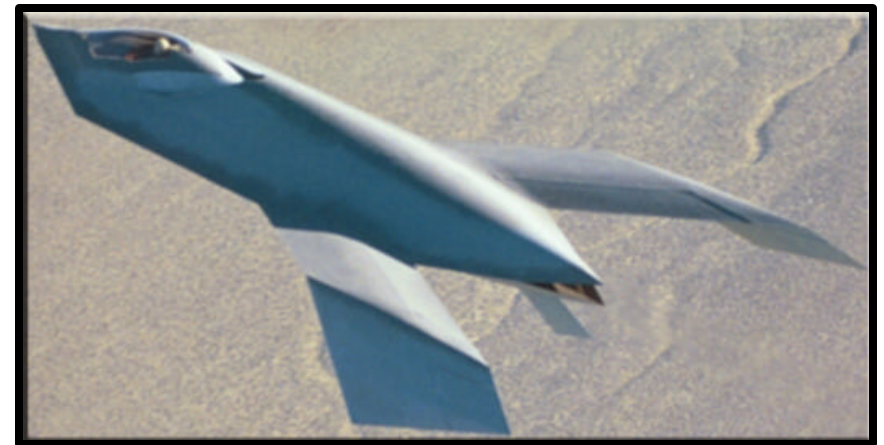


Now What?

EDI



e-business



Fundamental progress has to do with the **reinterpretation** of basic ideas.

--Alfred North Whitehead (1861-1947)

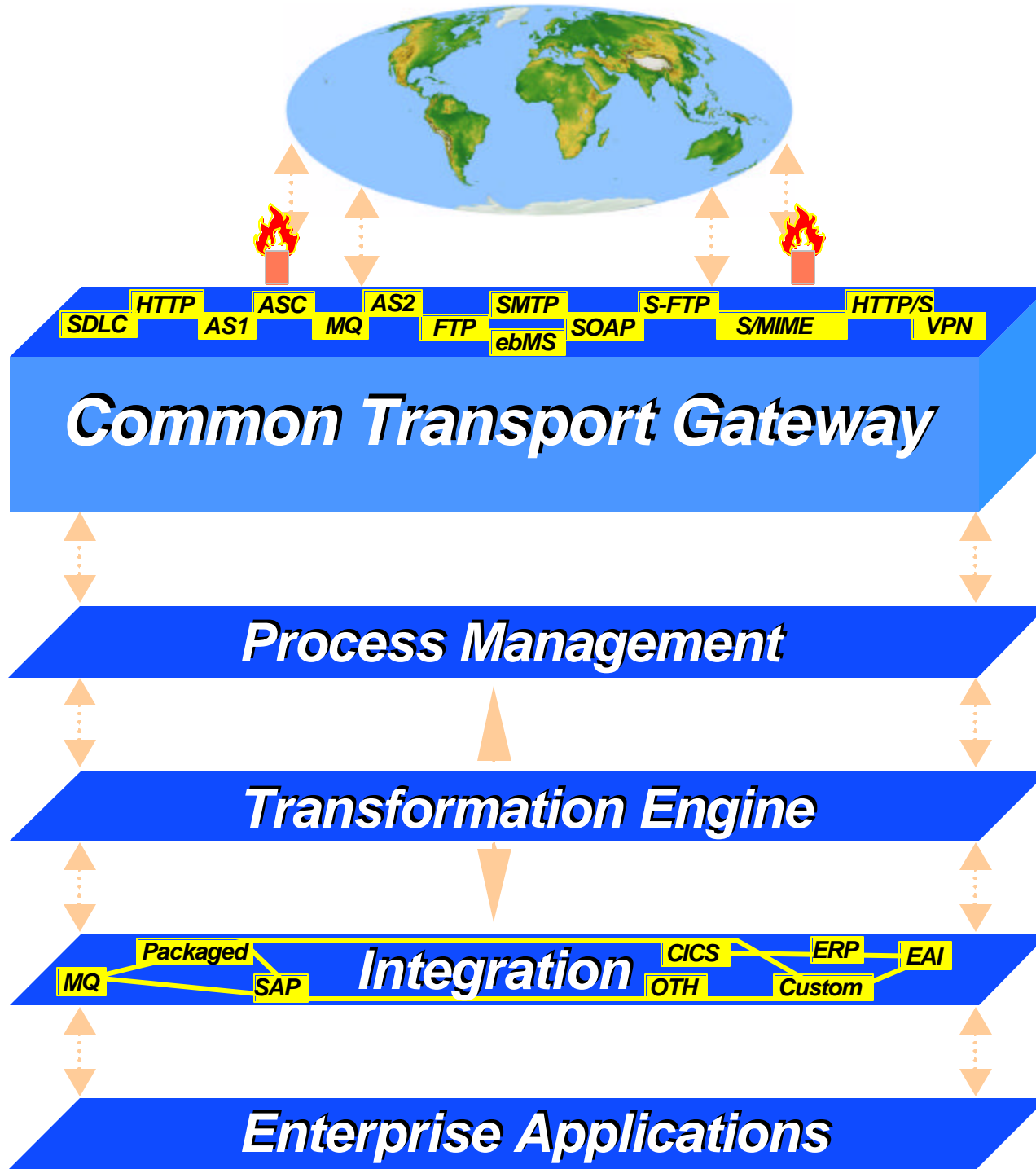




The Optimal Transport Technology Strategy

- The "Blended Model" ~ a hybrid
- A blended model:
 - ▶ Facilitates growth to meet dynamic requirements
 - ▶ Leverages existing technology
- Alternatives:
 - ▶ Direct Connections
 - ▶ VANs
 - ▶ Managed Services
 - ▶ e-outsourcing







Where Does Transport Stand Today?

- Standards are in the state of disarray
 - ▶ Transport vehicle is based on business need
 - ▶ Data standard greatly impacts transport mode
- VANs still play a significant role
 - ▶ Moving entire TP community off the VAN is not recommended
- Internet based EDI transport on the rise
- Companies are supporting an array of transport methods
 - ▶ Corporate directive
 - ▶ Trading Partner mandate
 - ▶ Industry endorsement





Global Transport Technology Analysis

- White paper prepared by the ebXML Joint Marketing Team
 - ▶ Group consisting of OASIS and UN/CEFACT representatives
 - ▶ http://www.ebxml.org/ebxml_jmt/documents/wp_messaging_req_052303.pdf
- Analyzes various transport methods based on business needs
 - ▶ Verification of receipt for order or invoice
 - ▶ Capability to understand with whom I am trading
 - ▶ Confidence that message received was what TP sent
 - ▶ Lower maintenance costs due to adequate error handling
 - ▶ More control over deployment costs using certified interoperable software
- Evaluated nine different technologies used to move business messages from one party to another
 - ▶ Horizontal solutions that span industry sectors
 - ▶ Did not include industry specific specifications
 - ▶ Applied a weighted score from 1 to 10





Global Transport Technology Analysis Highlights

- Technology Features and Properties
 1. ebMS
 2. VAN
 3. EDIINT AS2
 4. Web Pages

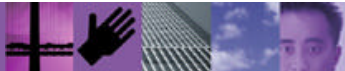
- Availability and Suitability Factors
 1. ebMS
 2. VAN
 3. Web Pages
 4. EDIINT AS2





Global Transport Technology Analysis Highlights

- Combined value for both business capabilities with technology soundness
- Relative Value and Suitability to Task
 1. ebMS
 2. VAN
 3. EDIINT AS2
 4. Web Pages
 5. e-mail
 6. SOAP
 7. Dial modem
 8. Voice Response System
 9. FAX

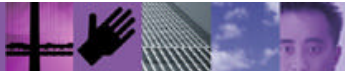


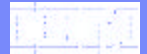


Japan's Use Of ebXML

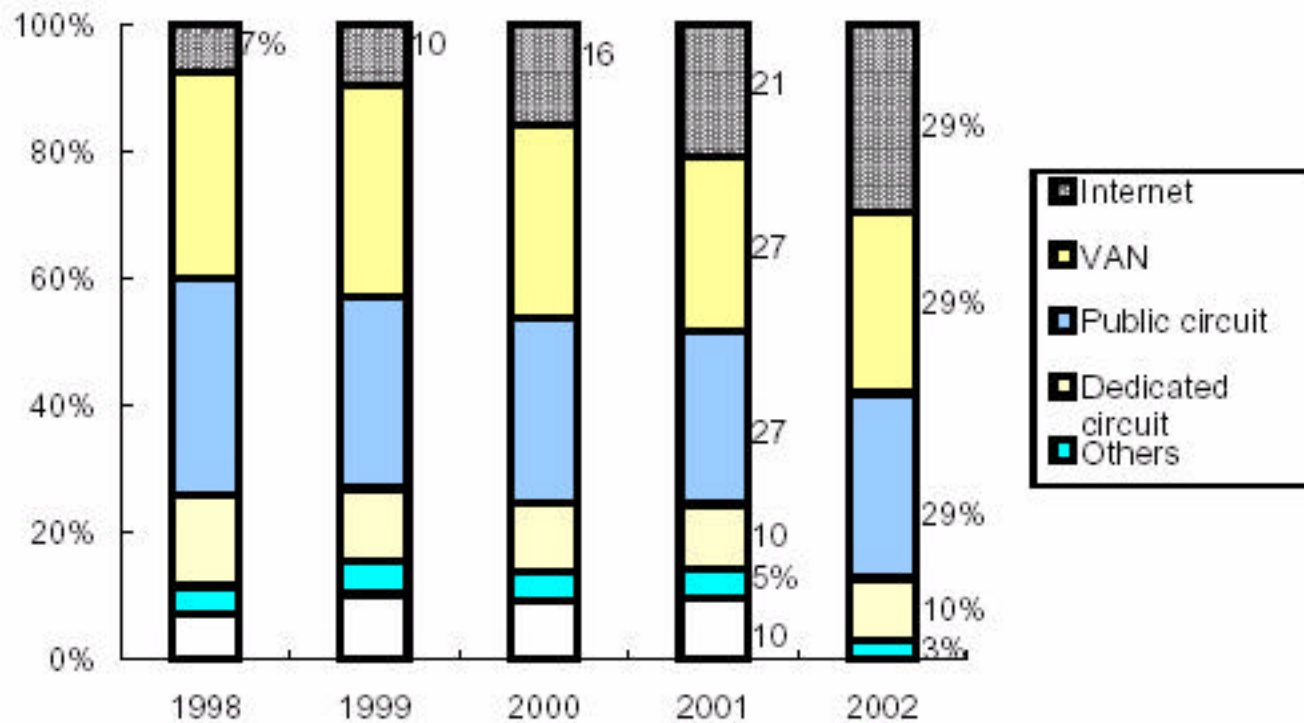
- Electronic Commerce Promotion Council of Japan (ECOM)
 - ▶ ebXML has taken root in several industries
 - ▶ Japan's pronounced e-business architecture
 - ▶ Found ebXML Messaging Service (ebMS) specification superior to:
 - SOAP
 - RosettaNet's RNIF
 - others

- Developed an "Internet EDI (XML/EDI) Introduction Guidebook"
 - ▶ Includes advantages & disadvantages of various transport methods
 - ▶ http://www.ecom.jp/ecom_e/press/20030529/InternetEDIGuidebook.pdf





Electronic Commerce Promotion Council of Japan



Source:
 (1) Data based on "Survey
 (Questionnaire forms distributed and collected in December 2001; questionnaire survey canvassing 3,009 business enterprises belonging to 63 JEDIC members and industry organizations.)
 (2) Valid responses in 2002 numbered 492 enterprises.
 (3) Percentage of cumulative total responses, with each company giving multiple responses. Cumulative total number of responses in 2002 is 1,146.





Internet

- "The Internet is not the answer but rather **part** of the solution"
- Alternative transport mechanism
 - ▶ Expand TP community
 - ▶ Offer new products & services
- Effectively becoming your own VAN
 - ▶ Configuring firewalls to make sure only the right traffic passes
 - ▶ Connectivity testing
 - ▶ Monitoring transaction status
 - ▶ Help desk / Problem resolution
 - ▶ Security
 - ▶ Audit Trail
 - ▶ Customer Service
 - ▶ Protocol management
 - ▶ New direct connect software



Wal-Mart project boon for software makers

By [Alorie Gilbert](#)

CNET News.com

August 15, 2003, 5:38 AM PT

URL: <http://zdnet.com.com/2100-1104-5064245.html>

A fast-approaching deadline that requires thousands of suppliers to update their communication channels to megaretailer Wal-Mart Stores has become a boon to some software companies.

[Black & Decker](#) and drugmaker [Pfizer](#) are among the companies that this week said they would be helping to help meet new requirements of the largest retail chain, with more than 4,000 stores.

The software is designed to streamline the processing of invoices and shipping notices, and is expected to be more than private networks.

Getting in on the act are companies including so-called application providers such as [Tibco](#), as well as e-commerce

companies such as [e-commerce.com](#), [e-commerce.com](#), [Exchange Services](#). Hewlett-Packard and IBM also are selling products and services around the concept.

Date: Tue, 19 Aug 2003 10:23:42 -0400

I don't know if I will ever want all of my TPs moved from the VAN to AS2 or not, because of the increased number of connections to have to monitor (sort of like back to the pre-VAN days of dialing each individual trading partner, which is what brought about the rise of the VANs to begin with), but for one of the leading providers, the cost of their product to support all of my Trading Partners would have exceeded \$200,000.00 (remember, this is software only; you still need a web server or two).

From: An EDI-L Subscriber

Although Wal-Mart declined to specify the dollar value of the various projects, one analyst estimated Wal-Mart suppliers are collectively spending tens of millions, if not hundreds of millions, of dollars on software to comply.



How to Proceed

- Select transport method based on business need
 - ▶ Inter and Intra industry
- Do your homework
 - ▶ Research
 - ▶ Network
- Conduct a rigorous assessment
 - ▶ Business capabilities
 - ▶ Technological soundness
- Watch for hidden costs
- One solution will not accommodate all trading partners

