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Intranet Apps: a new model for Enterprise Client/Server

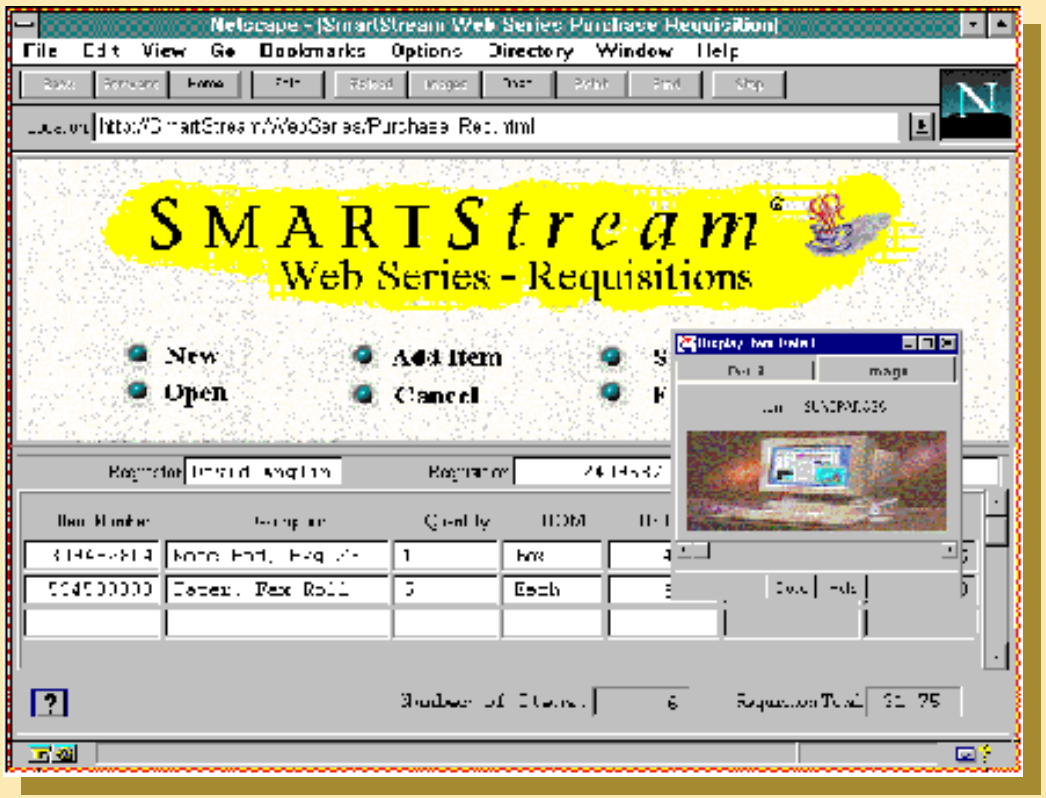
Jeff Scherb
Chief Technology Officer,
Dun & Bradstreet Software

Dun & Bradstreet Software

- $370 Million provider of Enterprise Applications Systems:
  - Financials, Manufacturing, HR, DSS
  - Over 4000 customers
- SMART*Stream* Client/Server
  - First with embedded workflow (1991)
  - First with intelligent agents (1992)
  - First support for distributed enterprise (1995)
  - First with Java Intranet clients (1996)

The SMART*Stream* Web Series

- Java-based clients for SMARTStream
- First app: Purchase Requisitions



- Beta shipping this week

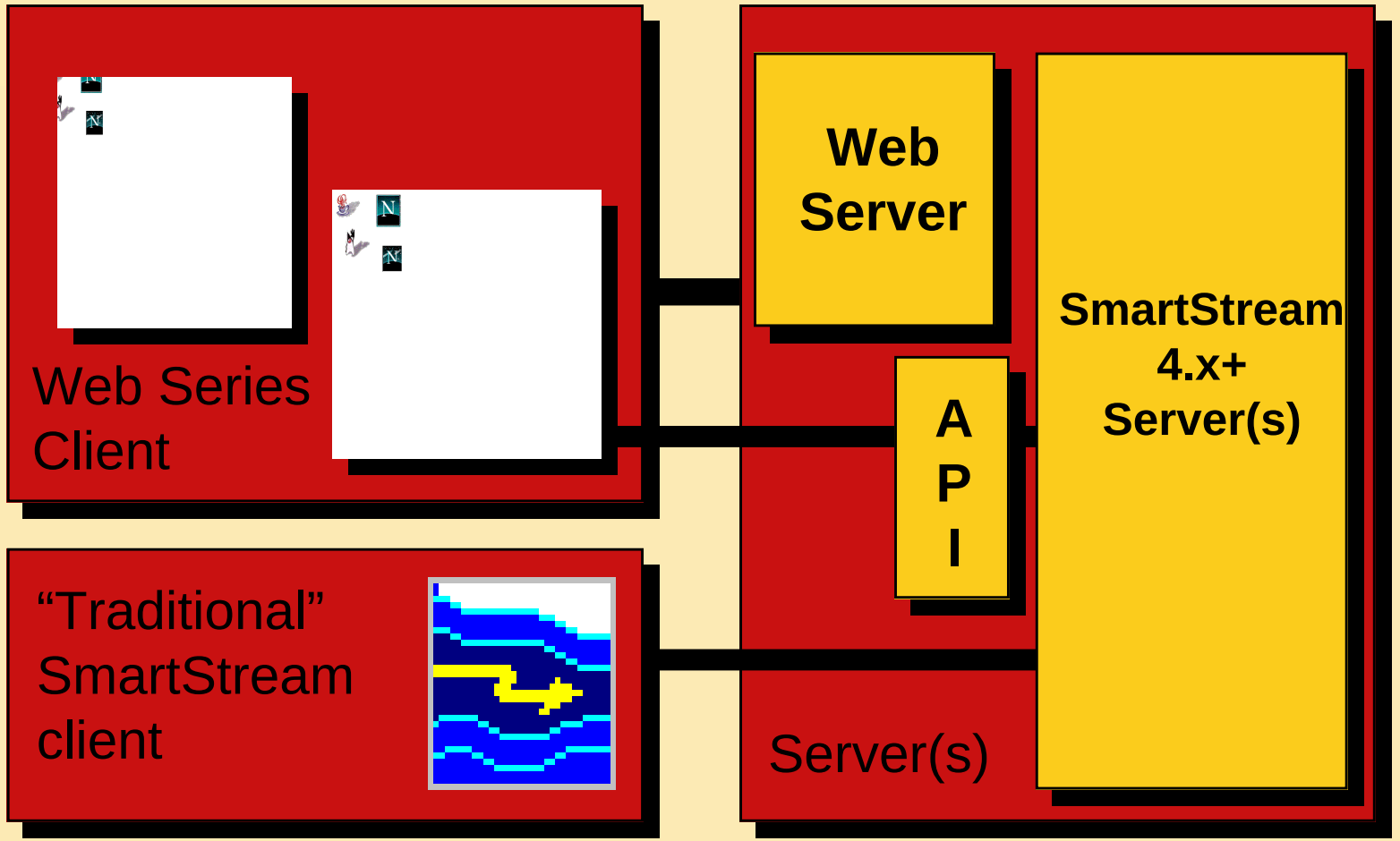
SMART*Stream* Web Series: Reinventing Client/Server

- Breaking the cost model:
  - *Zero-administration clients* (browser only) simplify deployment, maintenance
- Breaking the usability model:
  - *Zero-training clients* use the rich UI capabilities of HTML to provide a "Web Experience" for enterprise app users

Breaking the Cost Model of “legacy” Client/Server

- Commodity client software (browser)
- Client is simple to maintain
  - Nothing to install
  - Eliminates upgrade and maintenance of gazillions of clients
- Can leverage commodity servers hardware, operating systems and connectivity

SMART*Stream* Web Series Architecture



Thoughts On Architecture

- Worry about applet download time
  - Modularize application
  - Process on the server as much as possible
- Don’t recreate the sins of bad first-generation client/server
  - Don’t put all the business logic on the client

Breaking the Usability Model: Thoughts On UI Design

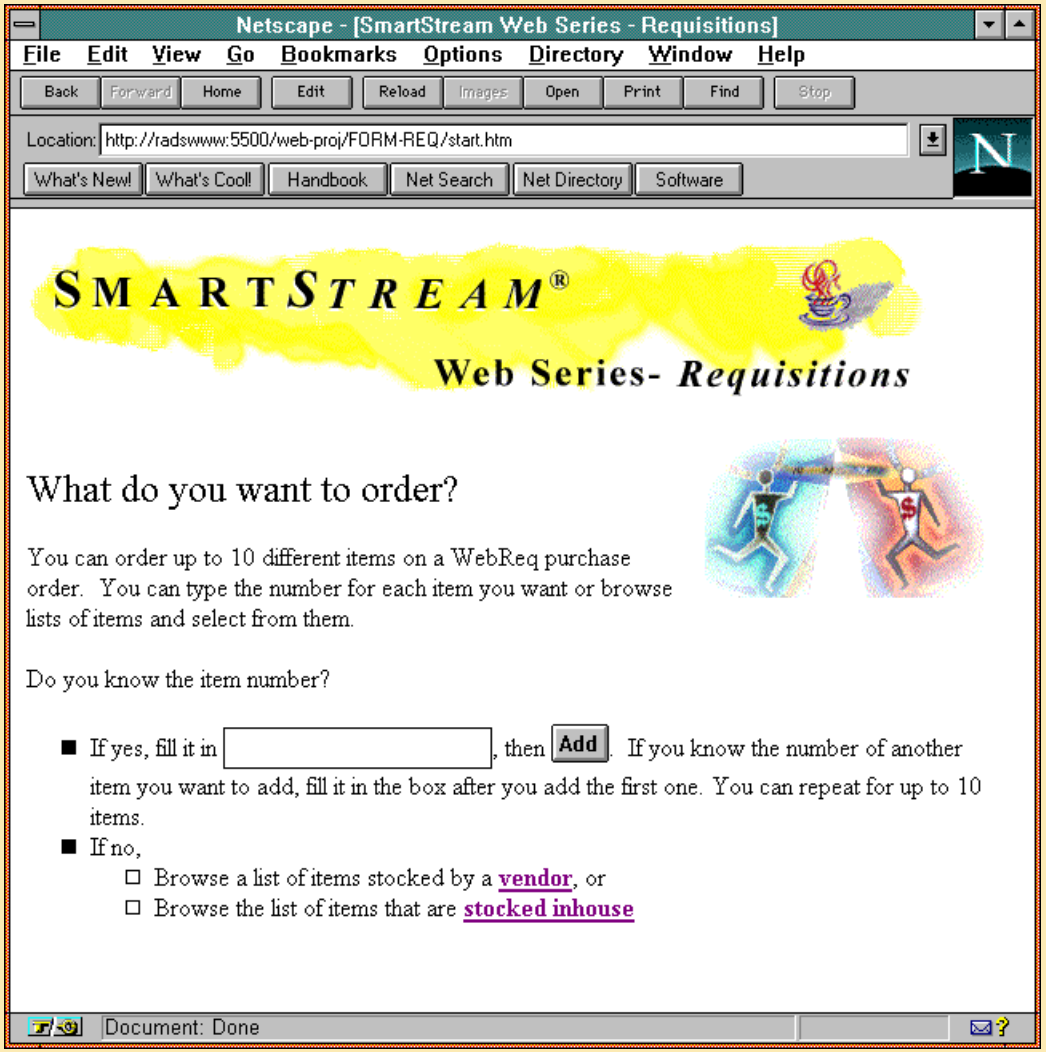
- Think of the audience and purpose of the application
  - Replacement for existing application?
  - Application for new audience?
- Plan to compromise something
- Be aware of multiple browsers

SMART*Stream* Web Series: UI Design Approach

- Designed for a “Web experience”
  - You know how to use it when you get there
  - Don’t cram the page full of controls
    - Have a “conversation” with the user instead
  - Avoid gratuitous graphics
    - Every element should add to the user’s understanding of the function of the page

SMART*Stream* Web Series "Web Experience" UI (beta 2)

- "Conversation" with the user
- An early prototype:



SMART*Stream* Web Series: Lessons Learned

- Customers are enthusiastically accepting this new cost and usability model
- Don’t apply conventional UI rules
- Think about application architecture and worry about applet download time
- This is a release 1.0 world

Java In The Enterprise: Building Information Capital

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Four Estates Revisited

Clergy	Hollywood	Convergence
Nobility	Wall Street	E-transaction
Commoners	Telco	Deregulation
Journalists	Publishers	Self-publishing

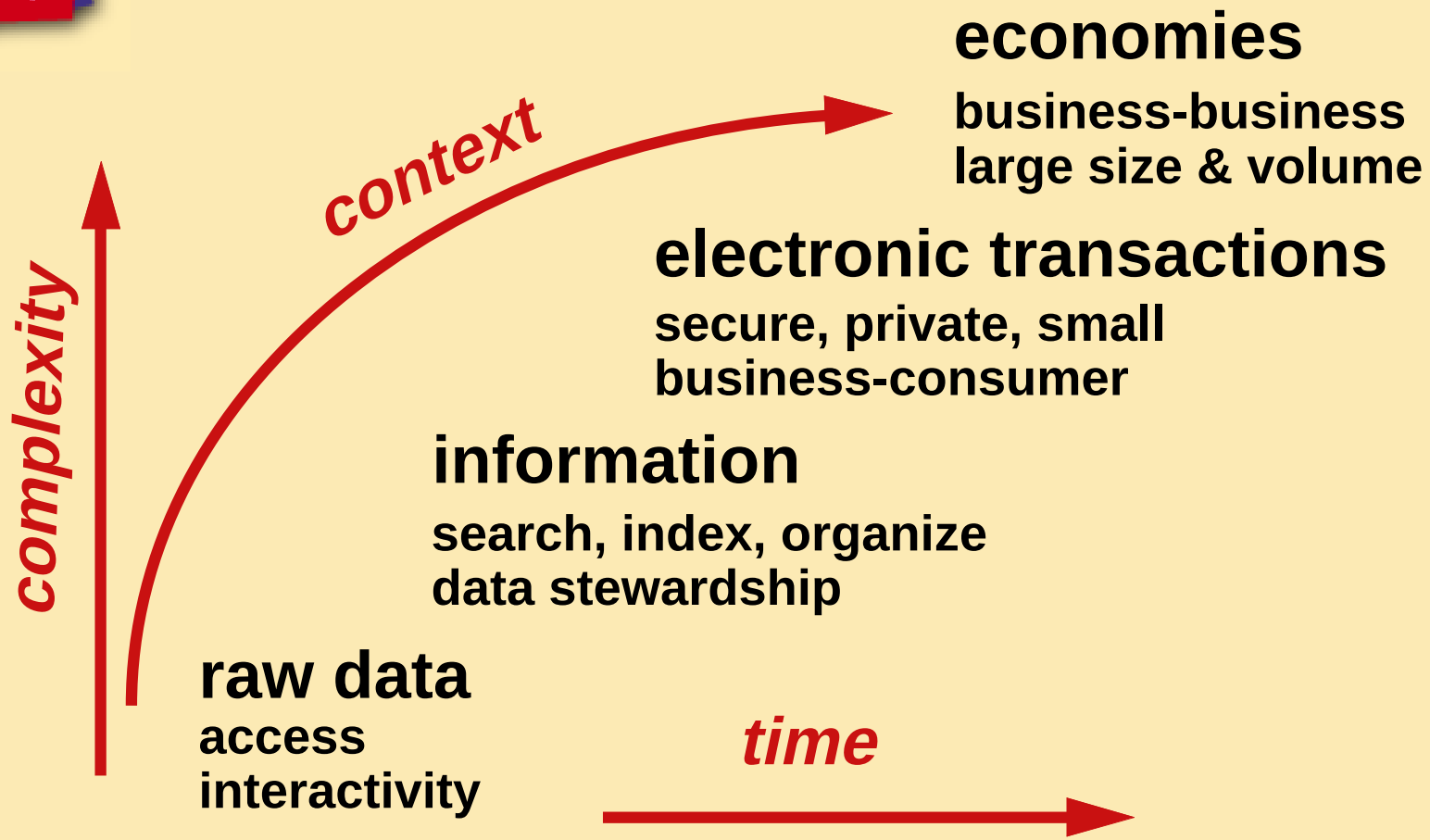
- Marriages force sharing of IT practices
- Hollywood's win: effects & animation

Information Delivery

- Content
  - What is the data? “Just bits?”
- Context
  - How is it presented to user?
- Infrastructure
  - Physical delivery mechanism

Source: Harvard Business Review, Nov/Dec 94

Network Services



Cost Structure Challenges

- Access to broader/secondary markets
- Infrastructure no longer captive or a barrier to entry
- Specialized services, markets of one, aggregations (baskets)
- Branding = education, entertainment and research

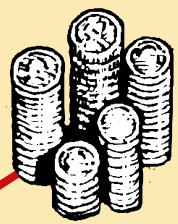
Upside & Downside

- Upside
  - Time to market for product & practice
  - Serving non-traditional customers
- Downside
  - Time, quality and agility pressures
  - Non-standard competitors
  - Email as an exception handler *only*

Network Services View

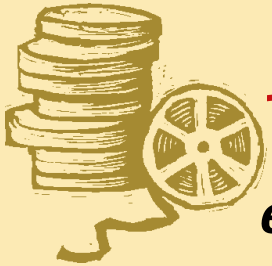
libraries

private currency



vertical market data

match index secure pay



entertainment

news media

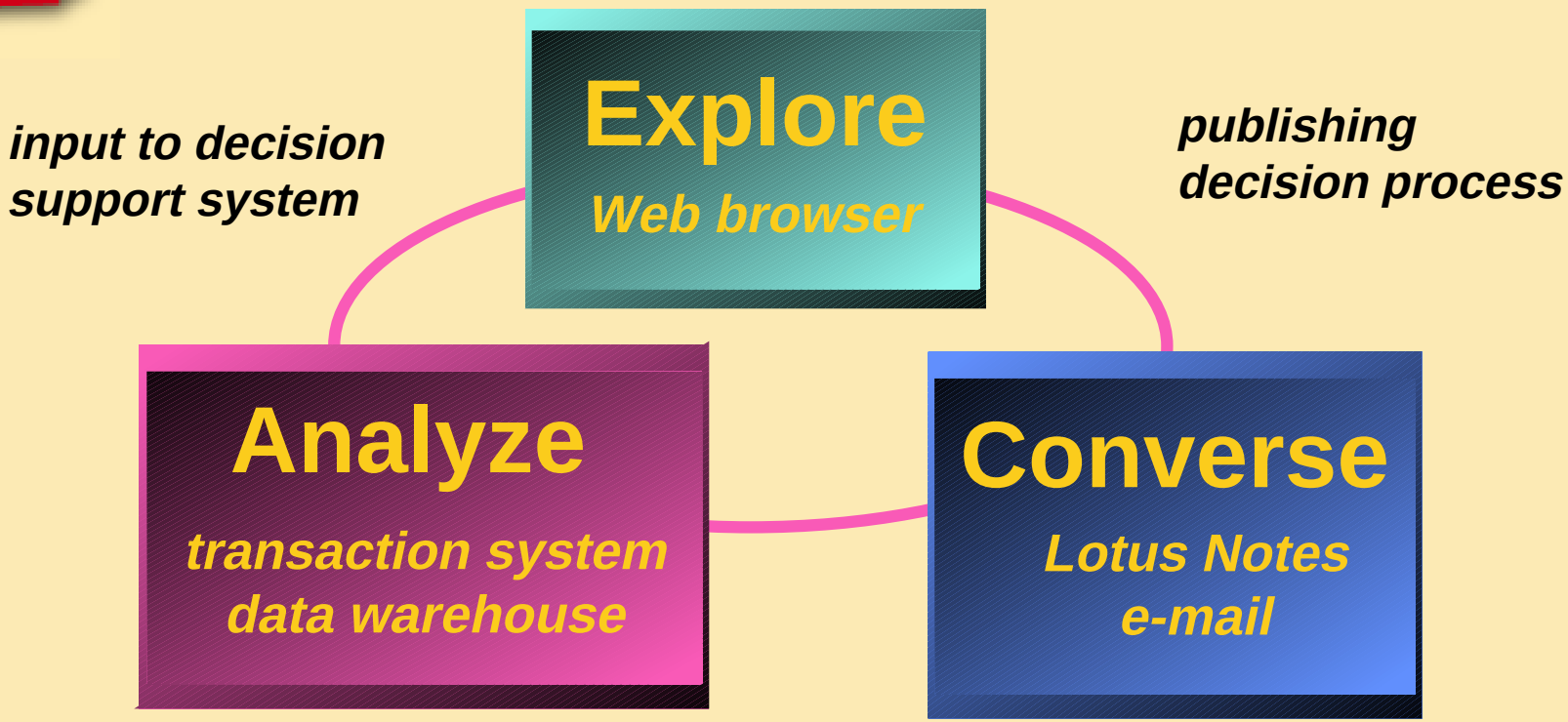
Java Usage Framework

	Intranet	Internet
Inform	Richer Contexts	Animation
Transact	IT Encapsulation	Commerce Protocols

Java Applications

- Networked business protocols
  - Distribution: no CD-ROM or diskettes
  - Versioning: no synchronization
  - Reliability and competence
- Interactive applications
  - Animation, video and audio replace social fabric

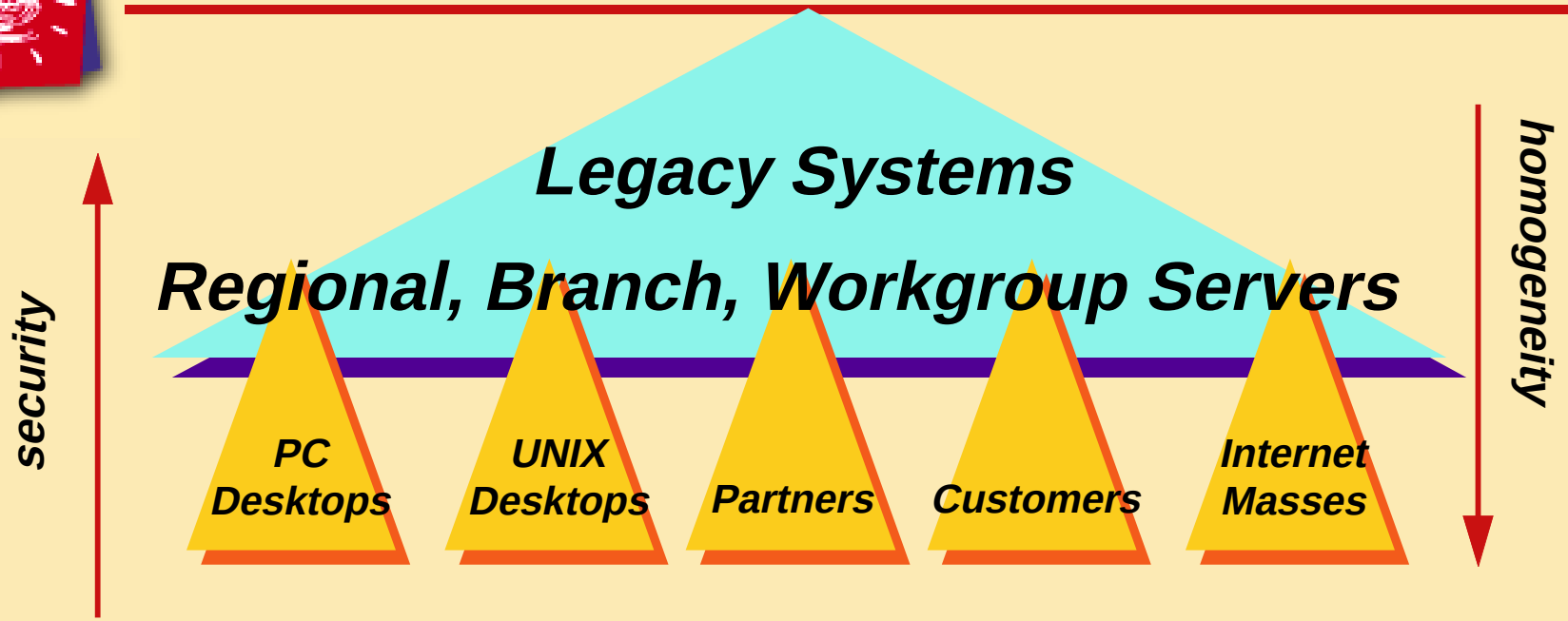
Information Cycle



Enabling Rapid Change

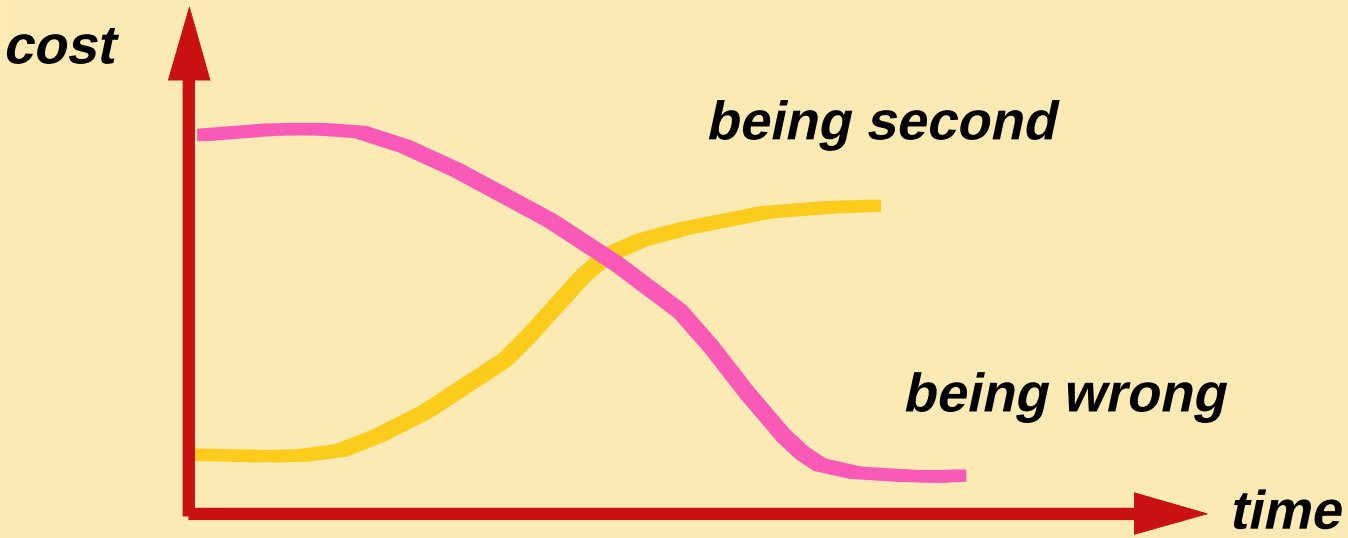
- Contact points will become networked
- What is context for exchange of data?

Three-Tier Flexibility



- Who defines services of mid-tier?
- Java in the middle: next Powerbuilder?

Deployment Cost Shift



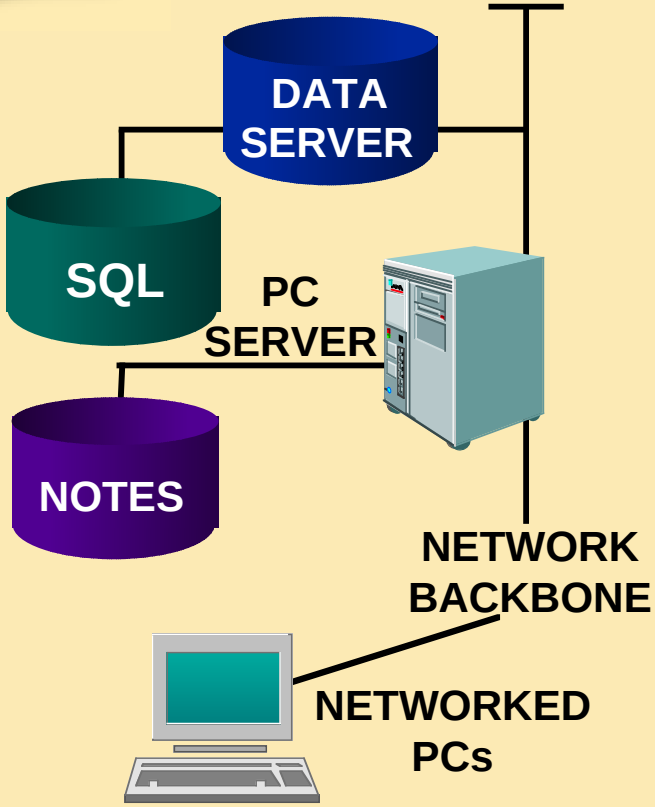
- Reduce cost of *safe entry*
- Competent, rapidly evolving software

Markets – Intranet/ Enterprise

Gabriel Vissard,
IBM
Solution Provider
Marketing
Organization

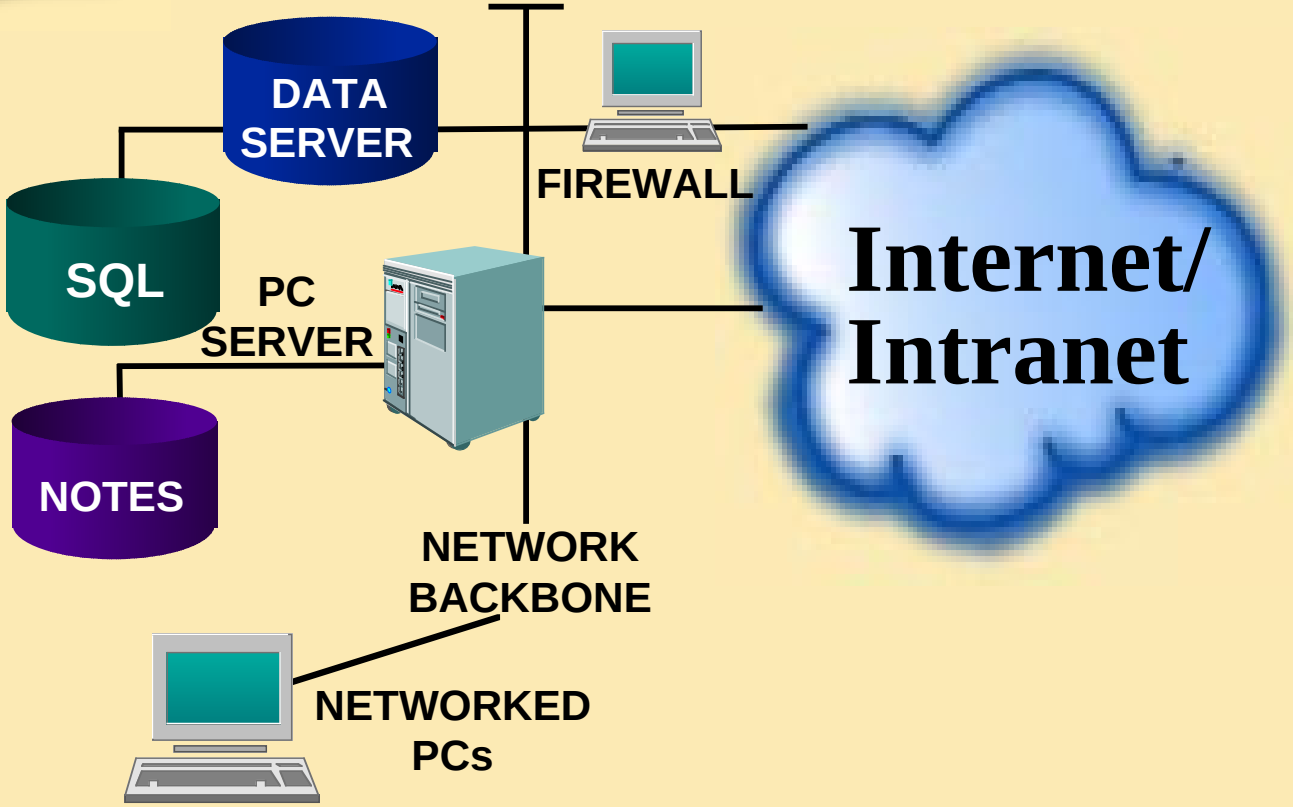
Java™ Enabling The “Enterprise”

Traditional Enterprise

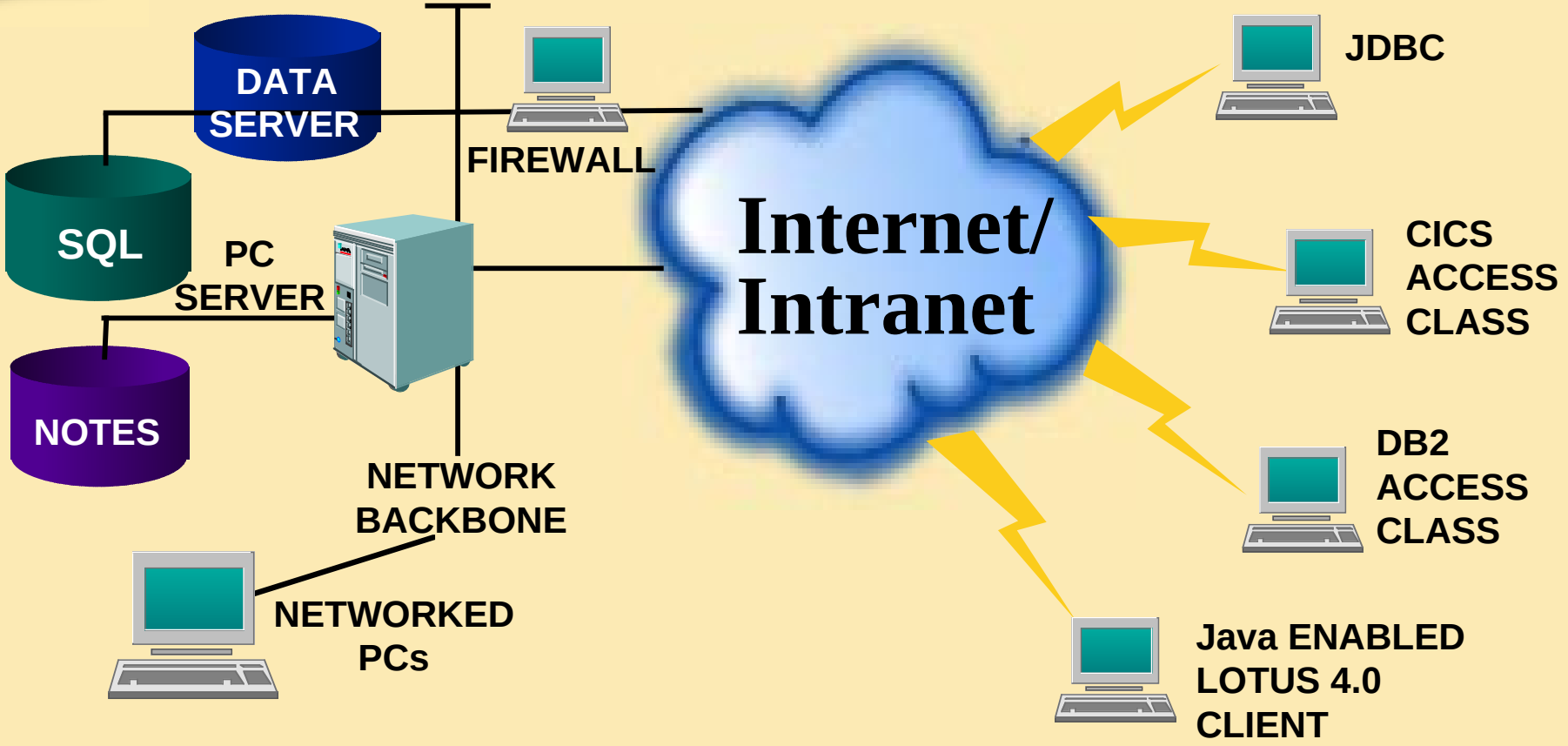


Java™ Enabling The “Enterprise”

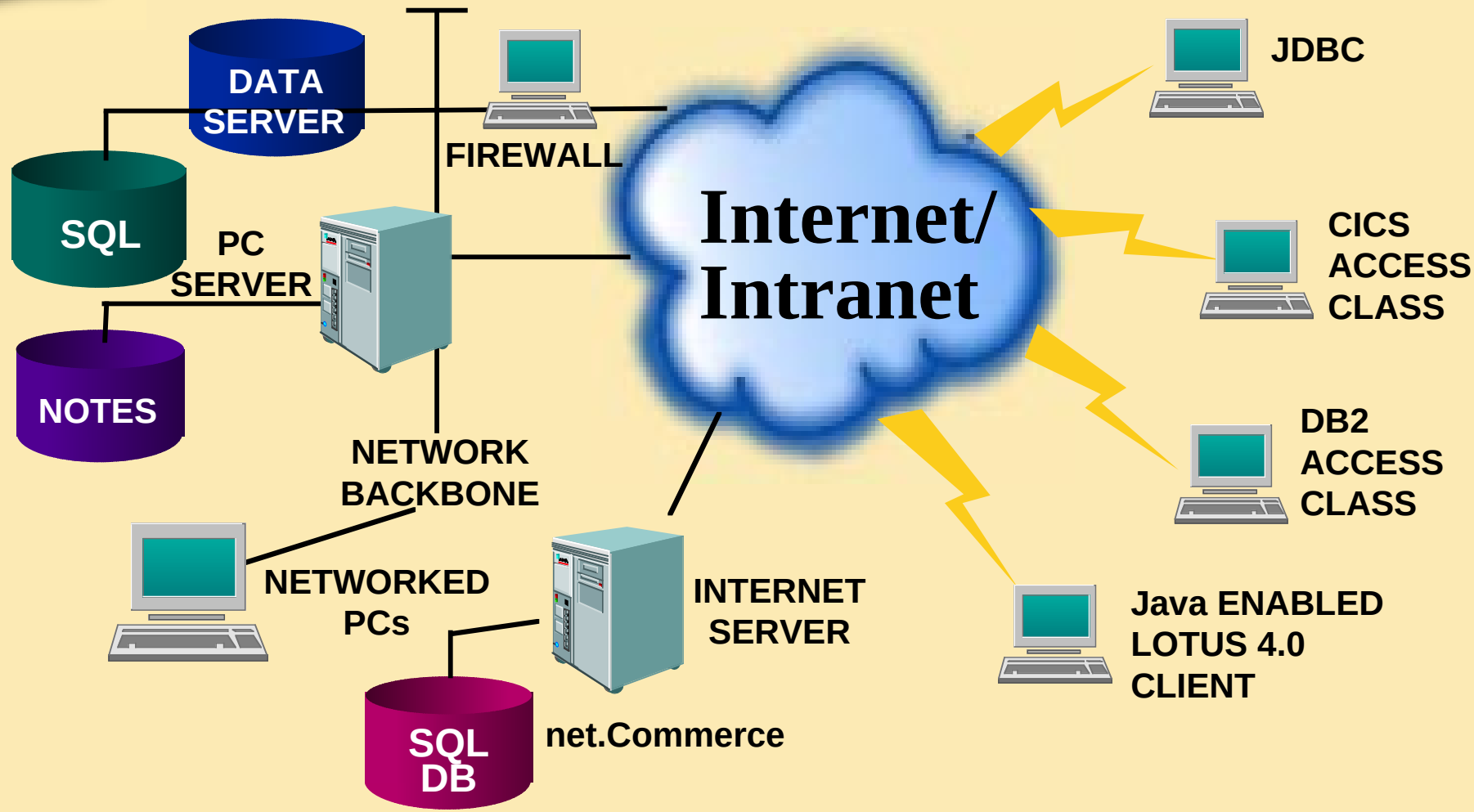
Traditional Enterprise



Java™ Enabling The "Enterprise"

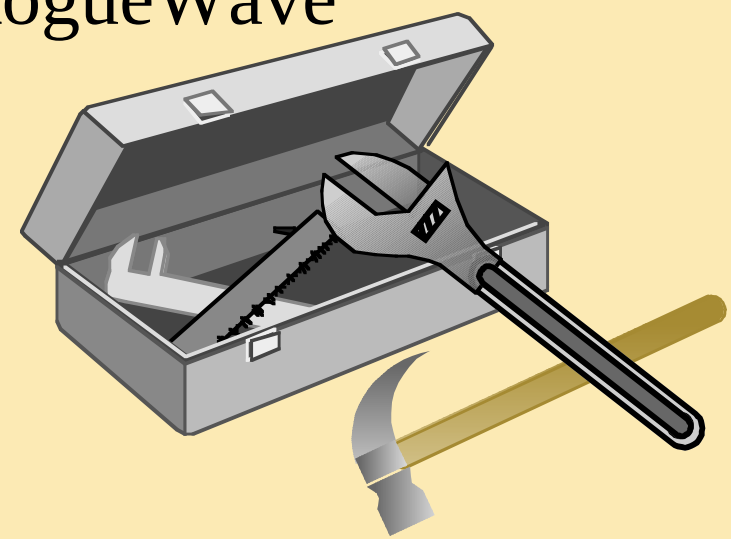


Java Enabling The "Enterprise"



Java™ Tools

- Visual Age for the Java™ Platform
- Java™based Application Frameworks
- Vendor Tools
  - JFactory for OS2, RogueWave
  - Jamba, Aimtech



IBM Supports Commercial Developers

- Solution Developer Programs
- http://www.developer.ibm.com