Scalability

Value of responsiveness

- e-business integration
  - Integrate web applications sites with existing solutions (commerce, CRM, ERP)
  - Integrate other processes within the organization
- e-business "Next Chapter"
  - Redefine processes
  - Dynamically adapt business processes
  - Form networked communities

Manageability

Total cost of ownership

- Scalability
- Manageability
- Self configuring, protecting
- Self healing
- Self diagnosing, optimizing

Findings:
- For Internet/Intranet/Extranet based workloads:
  - First year TCO for RISC/Unix systems were 1.8 times higher than Linux systems
  - Mean number of RISC/Unix systems to run comparable workloads was 12.5 vs. 2.9 for Linux
- For Collaborative workloads:
  - First year TCO for RISC/Unix systems were 8.5 times higher than Linux systems
  - Mean number of RISC/Unix systems to run comparable workloads was 11 vs. 4.1 for Linux

Source: IDC white paper: The role of Linux in Reducing the Cost of Enterprise Computing – 2002
Flexibility

Impacts costs and ability to generate revenue

- e-business Drivers
  - Broaden business reach
  - Improve constituent relationships
  - Convey/Product differentiation
  - Raise revenue for others
  - Increase margins

Transaction Volumes

- e-business Challenges
  - Security concerns/privacy issues
  - Inadequate skills
  - Technology for integration
  - Senior management leadership

Unpredictable Change

Workload Complexity

Security and Privacy

Concerns today...

Focus

Stage of Adoption

1. Pilot
2. Adoption
3. Process Investment
4. Cross Process Integration

A. Awareness
B. Presence

- Use the Internet Internally
- Establish a Website
- Allow Access to Core Systems (read only)
- Allow Transactions on Core Systems
- Improve Core Business Process(es)
- Redefine Core Process(es)

Business Value

Security and Privacy
Investment Protection

Dynamics in the marketplace stress the investment value of software.
Result: Pressure to exploit standards and middleware.

Reference: UPS

• Vision
  • End-to-end processes that serve UPS's customers and their customers

• Challenge
  • Track low-margin, high volume traffic economically

• Solution
  • Invest in IT infrastructure
  • Upgrade customer support environment
  • Use the Web for customer service

• Value
  • Better customer service
  • Savings of $450K/day
Reference: Østergaard

Vision
- Streamline the ordering process

Challenge
- Created a Web-based application that accesses a catalog of more than 120,000 auto parts

Solution
- RDBMS (DB2)
- Messaging (MQ Series)
- Transaction Monitoring
- Web Application Server

Value
- Substantially increased customer base
- Higher supplier satisfaction
- Immediate updates to product information

Design Criteria for an e-business Infrastructure

- **Flexibility**—integrate with a variety of existing systems as business models evolve
- **Scalability**—accommodate unpredictable demands
- **Reliability**—ensure secure, uninterrupted operation
- **Manageability**—manage resources across a heterogeneous extended environment
- **Security**—create customer confidence in transacting business online