Choosing an Architecture for Your Application

Lance Speelmon
Indiana University
Introductions

• Lance Speelmon
  – [php.indiana.edu/~lance/](http://php.indiana.edu/~lance/)
  – lance@indiana.edu

• Indiana University
  – [www.indiana.edu](http://www.indiana.edu)

• Time Keeping Project
  – [www.indiana.edu/~hrsis/TK/TK_Main.html](http://www.indiana.edu/~hrsis/TK/TK_Main.html)
Outline

- Context
- Choosing an Architecture
- Q & A
 IU History

• Legacy Mainframe Applications
• Transition to Client/Server
  – Financial Information System (FIS)
    • Transaction Processing
      – Uniface v5.x / Sybase
    – Decision Support
      – Web / Perl / Sybase
• PeopleSoft / Uniface Server Pages
Current Hardware/Software

• IBM SP Complex (13 Nodes, 5TB)
  – Oracle 8.1.x
  – Uniface 7.2.05
  – IBM WebSphere (Apache)
  – PL/SQL, Perl (batch)
  – Tivoli TSM (backup/recovery)
  – CA TNG (scheduling)

• Terminal Server/Metaframe
Time Keeping Goals

- 24x7 availability *
- System-wide application
- Completely web-based (kiosks)
- Use standard and supported technologies
- Minimize complexity and support costs
- April 2001 production
Getting From Here to There

• Identify Priorities
• Involve Partners
• Develop and Document Solutions
• Assess Effectiveness
• Reach Consensus
Identify Priorities

- Fault Tolerance
- Timeline
- User Interface Consistency
- Authentication
- Cost
Involve Partners

- System Administrators
- Database Administrators
- Middleware Administrators
- Developers
- Data Stewards
Develop Solutions

• *Be Creative!*
• Minimalist / Elaborate
• Simple / Complex
• Inside / Outside the Box
• Existing / New Technologies
Document Solutions

- Architecture Worksheet
- Document Pros / Cons
- Score Priorities
- Topology Diagrams
Assess Effectiveness

- Review Pros / Cons
- Review Priority Scores
- Develop Recommendations
  - Goals and Requirements
  - Solutions’ Description and Cost
  - Solutions’ Diagrams
    - Topology and Data Flow
Reach Consensus

• Review Recommendations
• Assess Resource Availability
  – People
  – Hardware / Software
  – Funding
• Determine Feasibility
• Strategic Direction Comparison
Make a Decision!

- Avoid Analysis Paralysis©
- Expect the Unexpected
  - Contingency Plan
  - Versatile Interfaces
- Communicate the Decision
- Stay Committed
Attachments

Architecture
Worksheet
Microsoft Word Document

Architecture
Recommendations
Microsoft Word Document
Q & A
THE UNIFACE
USER FORUM
2000