MINNESOTA Department of Revenue

Agenda

- Background
- Architecture for the Future
- Demo
- Lessons Learned
- Questions

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ITR Background

- Taxpayer Service
  - System was inflexible and unresponsive.
- Tax and Budget Policy Implementation
  - Our systems could not respond efficiently to changes in tax law.
  - Delays and errors in capturing return and payment information affect quality of state revenue forecast.
- Compliance
  - Problems with late and inadequate data limited our ability to achieve compliance.
- Risk and Cost Management
  - 30 year old systems
  - Risks of system failure grew each year

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Five Processes

Identification
- establish relationship with taxpayers
- register and ID taxpayers
- data storage/maintenance/retrieval
- maintain profile of the taxpayer; update
- Discovery - contact them when necessary

File/Pay
- makes remitted funds available to the state
- receives taxpayer information, categorizes, edits, "processes" it and makes available to the rest of the department
- verifies the accuracy of filing information by comparison to the taxpayer profile and filing history

Compliance
- interpretation of rules/legislation
- develop materials for citizen/taxpayer education
- operationalize/implement new laws for tax system
- develop forms and instructions
- answer questions
- ID nonfilers and contact them
- ID differences of law interpretation or liability between the department and taxpayer, and resolve them (=audit, criminal investigations, appeals)

Policy
- analyze inconsistencies/inefficiencies in tax system
- develop law changes, proposals for legislature
- assist Gov/Leg. To develop their proposals
- provide advice/analysis on proposed law changes
- rule-making and administrative interpretation of statutes
- includes IRS policy issues, also penalty policy

Collect
- analyze non-remitters' intent
- inform/educate non-remitter
- collections case work—up through seizure
- establish payment plans

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New Expectations

- No longer just a tax system
  - Needed to know a bit about everyone
- The Web
  - Taxpayers and their representatives expectations were changing
- Flexibility
  - Audit, education, filing, paying, reporting, etc, etc, etc,
- Jobs
  - Difficulty finding, paying, training and keeping people
- Costs
  - Keep rising but our budget doesn't keep pace

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Targets

- We will evaluate all filers and non-filers to identify the most appropriate and effective compliance activities.
- We will provide feedback to those taxpayers who require it before the next filing.
- All return information will be available within 14 days of receipt.
- We will have minimally sufficient information to uniquely identify everyone who may need to interact with the Income Tax system.
- Information will be available to authorized employees, taxpayers, and agents when needed.
- Critical information to identify a taxpayer will be correct when entered into the system.
- An option to eliminate at least one state or federal filing will be available to 50 % of taxpayers by Tax Year 2002.
- Seventy percent of returns will be electronically filed by the Tax Year 2002.
- Employer withholding and taxpayer estimated payment information will be reconciled to the income tax return during processing.
- All return information will be captured 100% accurately and mathematical computations validated during processing.
- Ninety eight percent of tax receipts will be deposited and funded within 24 hours of receipt.
- Computer systems developed will be available 99% of the time during required working hours, with a recovery time of 30 minutes or less.
- The operating costs of the new Income Tax processes and systems will cost no more than its current annual costs.
- We will evaluate all filers and non-filers to identify the most appropriate and effective compliance activities.
- We will provide feedback to those taxpayers who require it before the next filing.

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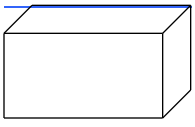
A Holistic Approach



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Direction

- We needed to find the appropriate technologies, architecture and infrastructure to support our requirements
- We spent (about) a year getting ready
- We had to determine how to make the “new” work with the “old”
- We needed to do best of class research, RFP’s, Laboratory work, and etc.
- Partnership and Collaboration
  - CSC
  - Technical Staff Augmentation -- other contract vendors

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Supporting Architecture

- Technical Architectural Design Phase
- Evaluate alternatives
  - Continue with Client/Server
    - PowerBuilder Windows Clients
    - Sybase Databases
  - Move to Distributed N-Tier Components
    - Web based Clients
    - Distributed Components

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Risks

- Staying with Existing Client/Server Architecture:
  - Sybase a Financially Challenged Company
  - IS Moving Away From PowerBuilder Towards JAVA
  - Difficult to Modify Large PowerBuilder Components
  - No Transaction Monitoring
  - Not Scaleable for Increased Volumes
  - Difficulty Distributing Software to Clients

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Risks

- Going To a Distributed Architecture:
  - Less Mature and More Complex Technology
  - New Security Access Issues
  - New Skills Needed For IS Staff
  - New Software to Learn and Manage
  - New Hardware to Support Increased Volumes
  - New Vendors and Licensing Issues
  - Difficulty Integrating New and Old Technologies

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Benefits Weighed

- Time to Obsolescence
- Flexibility
- Ease of Software Distribution
- Transaction Monitoring
- Load Balancing
- Remote Access to Data and Applications
- Rapid Turnaround

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Conclusions

- Absorb risk now
- Distributed JAVA Components
- Object Transaction Monitors/Servers (BEA WLS)
- N-Tier
  - Web
  - Transaction
  - Application
  - Security
  - Database
- Asynchronous Messaging - IBM's MQSeries
- IBM's DB2 Universal Database for AIX

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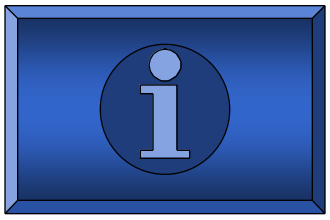
File Folder Demo



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Lessons Learned - The Good

- Joint Application Development (JAD) with Facilitated Sessions Promotes Understanding and Acceptance:
  - "A" Sessions - Business Requirements -- Followed by...
  - "B" Sessions - Technical Translation -- Followed by...
  - "C" Sessions - Finalize Combined Technical/Business
- Fully Assigned Business Stakeholders Focused on the Project.
- Laboratory and Technical Architecture Phase Minimized Technical Issues Before Actual Development.
- Strong Project Management Including Business, IS and CSC (Contract Vendor Technical Partner) Ensured Schedules, Managed Risk, and Handled Change.

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Lessons Learned - The Good

- Mixed Teams of State and Contractor Staff Developed Internal Skills to Ensure Long Term Support
- Technology Specific Technical Teams Focused on The Unique Areas of The Distributed Architecture.
- Production Deployment Staggered to Allow for Smooth Ramp-up.
- Targeted Users Working With Technical Developers During Deployment to Ensure Correct Roll-out and Handle Problems
- Early Integration Testing With Dedicated Resources Helped Manage Defects.

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Lessons Learned - The Bad

- **Pay Closer Attention to Legacy Interfaces and Processes During Requirements and Technical Design Sessions**
- **Address Reporting and Warehousing Requirements Early.**
- **Keep Tabs on Software Vendor Direction Changes -- (e.g. BEA's architectural change)**
- **Early Phases of Business Requirements Definition Must Consider Costs.**
- **Thankfully, on this project, there were no "Ugly" lessons learned.**

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