



## **SA-CMM in a Large Complex Program**

**SEI Conference**

**January 29, 2003**

**Washington, DC**



# Agenda

- Problem: How to modernize IRS Business Systems
- Approach
- SA-CMM Management Framework
- How SA-CMM was Implemented
- Capabilities
- Results
- Conclusion

## Scope of IRS Business System Modernization

- U.S. Tax system collects over two trillion dollars (\$2,000,000,000,000) each year
- The IRS network is composed of thousands of computers, almost 3000 vender-supplied software products, and over 50 million lines of IRS-maintained code
- Modernizing these systems is one of the most complex modernization efforts ever attempted in the federal government!

## Challenge: Modernize IRS business systems and processes to improve service to taxpayers

- Technology is badly in need of modernization
  - Systems have evolved over 35 years
  - Many applications have outdated and/or proprietary system code – modifications are costly and difficult
  - Tax code changes and unanticipated events (e.g., tax rebate of 2001) require continual system modifications, in addition to regular maintenance and enhancements
- IRS reorganized from a geographic structure into customer-facing business divisions – systems and processes need to be realigned
- The increasing demand for e-filing and internet-based taxpayer and third-party transactions requires new capabilities
- The IRS must continue to administer the tax code without modernization-related service interruption or decreased service quality

***It's like "rebuilding an airplane while it is flying." \****

\* Quote from Charles Rossotti's Keynote Address on 7 November 01 at the CERCA Luncheon

## Modernization Approach: Partnership

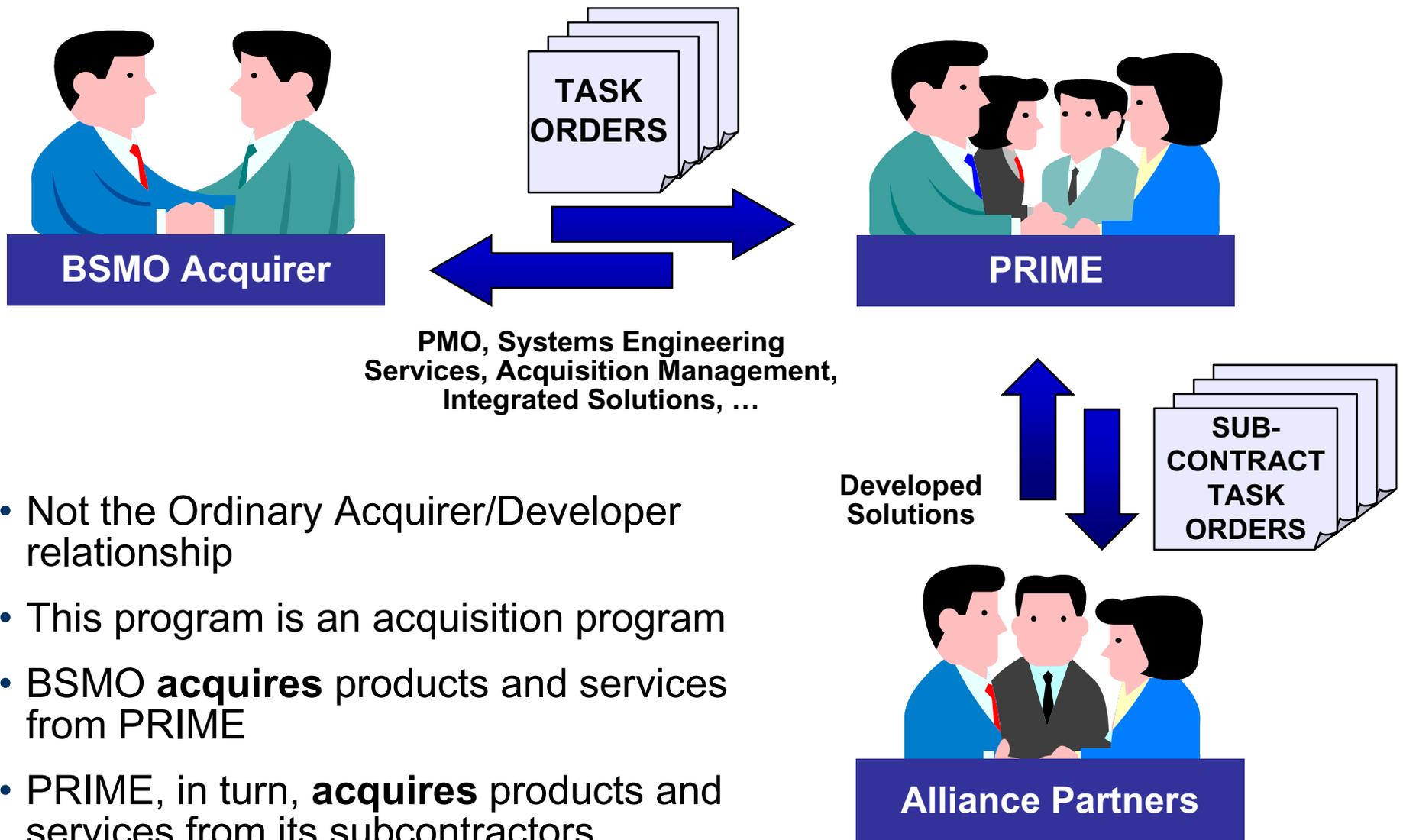
- IRS Business Systems Modernization Office (BSMO) was established to manage the modernization effort
  - Program size 12 – 15 Billion over 15 years
  - BSMO Staff currently at 165
  - IRS' role in Modernization emphasizes acquisition rather than development
- December 9, 1998, the IRS selected CSC as the strategic partner to modernize the IRS business systems
  - CSC PRIME Alliance includes IBM, SAIC, BearingPoint (formerly KPMG), Northrop Grumman IT, and UNISYS
  - Current Staffing – 1000 +
- *The success of this management partnership is paramount to the success of the Modernization Program*

## Modernization Approach: SA-CMM as a model to improve the program's chances for success

- Our objective is to be the best at what we do
  - **Committed to process improvement**
  - **Deliver timely solutions, with accountability and predictability**
  - **Uphold BSMO and PRIME responsibilities as solution and software acquiring organizations**
- The SA-CMM was selected as the Modernization Program's acquisition management model
  - **Based on best practices and recommended by oversight entities to enhance acquisition management accountability**
  - **Provides for incremental and achievable improvement**
  - **Enables efficient and effective project life cycle management, from pre-award to transition to operations and maintenance**

**Process Improvement meets oversight organizations' expectation that we improve and enhance our ability to effectively manage modernization**

# Modernization Program view of acquisition relationships



- Not the Ordinary Acquirer/Developer relationship
- This program is an acquisition program
- BSMO **acquires** products and services from PRIME
- PRIME, in turn, **acquires** products and services from its subcontractors

# BSMO uses SA-CMM to develop capabilities for acquiring business solutions

## BSMO Acquisition Process Baseline

### Acquisition Project Management

KPA = PM

### Task Order Monitoring

KPA = CTO, EVAL

Acquisition Project  
Planning  
and  
Requirements  
Development  
& Management

KPA = SAP, RDM

Task Order  
Development &  
Issuance

KPA = SOL

Issue  
Task  
Orders

PRIME Acquisition Process  
*(details on next slide)*

Systems  
Evaluation

KPA = EVAL

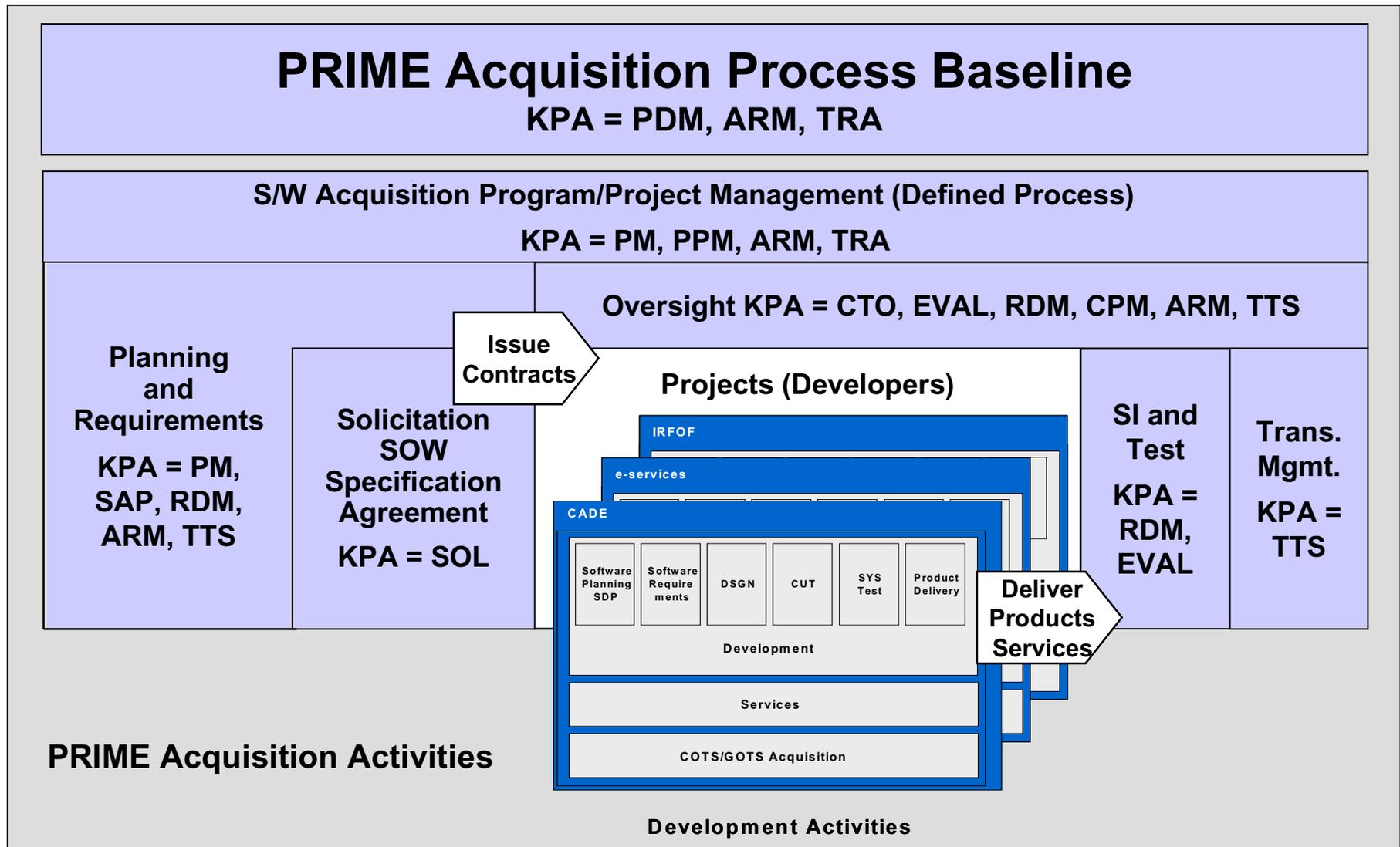
Transition  
to  
Support

KPA = TTS

Deliver  
Solutions

### BSMO Acquisition Activities

# The PRIME uses SA-CMM to develop capabilities to manage acquisition of individual products



## While establishing these capabilities, both partners had successful SA-CMM evaluations in the past year

- BSMO achieved SA-CMM Level 2 on December 6, 2002, on a group of five core modernization projects – the first Federal Civilian agency group evaluated at SA-CMM level 2
- CSC PRIME achieved SA-CMM Level 3 on August 23, 2002 – the first organization in the world evaluated at SA-CMM level 3
- First instance of coordinated SA-CMM accomplishment by a federal agency with associated contractor



# SA-CMM is the enabler used to address Modernization Program issues

Startup Issues	SA-CMM Enablers
<ul style="list-style-type: none"> <li>• Management alignment</li> <li>• Identification and management of risks and issues</li> <li>• Transition planning</li> <li>• Cultural resistance to change</li> <li>• Definition of roles and responsibilities</li> </ul>	<ul style="list-style-type: none"> <li>• Common framework and language</li> <li>• Improved management reporting structure</li> <li>• Emphasis on risk management for successful program execution</li> <li>• Emphasis on Transition Management for successful program execution</li> <li>• Executive commitment to change</li> <li>• Developed common processes with clearly-defined roles for both partners</li> </ul>
Ongoing Issues	SA-CMM Enablers
<ul style="list-style-type: none"> <li>• High Program complexity</li> <li>• Program duration               <ul style="list-style-type: none"> <li>– Inevitable staff turnover</li> <li>– Frequent ramp-ups</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Orderly, formal management framework</li> <li>• Common commitment to program integration</li> <li>• Required planning</li> <li>• Emphasis on standard training</li> <li>• Standard processes</li> </ul>

# BSMO overcame many organizational challenges to implement SA-CMM

## Challenges

- Culture resistant to change
- Lack of understanding of how framework improves acquisition activities
- Lack of Organizational Commitment
- Intense scrutiny by oversight organizations
- Organizational instability



## How Overcome

- Engaged proactive senior executive sponsorship
- Educated and trained all stakeholders
- Benefits of process improvement
- Dedicated group to implement the model
- Demonstrated continued progress
- Delivered BSMO process improvement strategy with executive commitment
- Continuously communicated clear goals
- Developed standard roles and responsibilities
- Maintained executive leadership commitment to process improvement

# Keys to successful SA-CMM implementation

- Establish Process Improvement Infrastructure
  - Management Steering Group (MSG) of senior leaders
  - Solution Acquisition Process Group (SAPG)
  - Process Improvement Strategic Plan – 3 years
  - Start with early adopter projects
- Align Process improvement program to organization
  - Seek, acquire and maintain executive sponsorship
  - Make a strong business case
  - Tie to organizational strategy
- **Get real** with expectations... **get real** with your schedule
  - Make your documented processes real to the project teams... only use the model to fill in the blanks
  - Use the process to address issues that are important to the practitioners
  - Engage experts to help you ... and listen to them



## Benefits

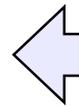
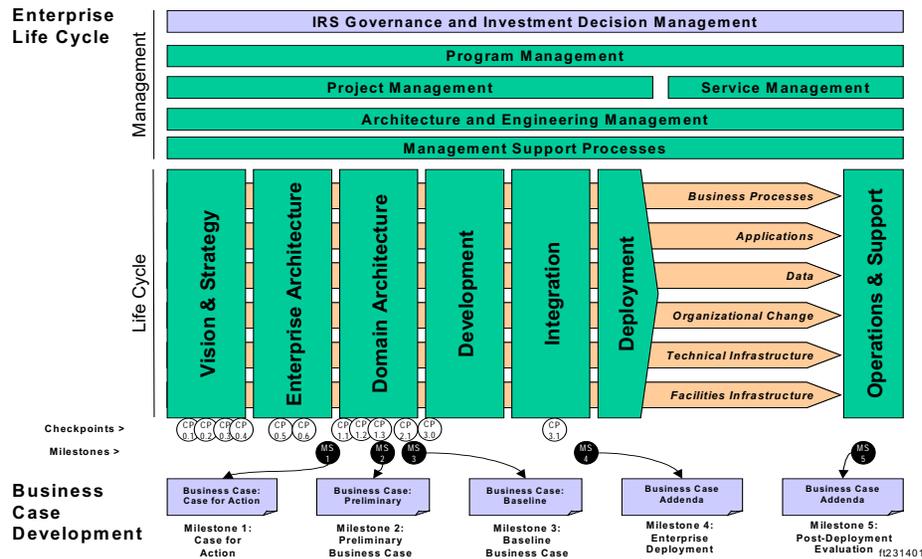
- SA-CMM as a common management model supports the IRS/PRIME partnership
  - Generates confidence from senior leadership and oversight organizations
  - Promotes alignment between BSMO/PRIME Management
  - Facilitates better understanding among all stakeholders
  - Enables better risk management from better and earlier planning
  - Increases morale
- SA-CMM helps identify opportunities for joint capability development



## Program capabilities we now share

- Enterprise Lifecycle Methodology
- Process Asset Library
- Program Management Review Structure
- Risk Management Procedures
- Integrated Master Schedule
- Transition to Support Process

# Enterprise Lifecycle and Shared Process Asset Library

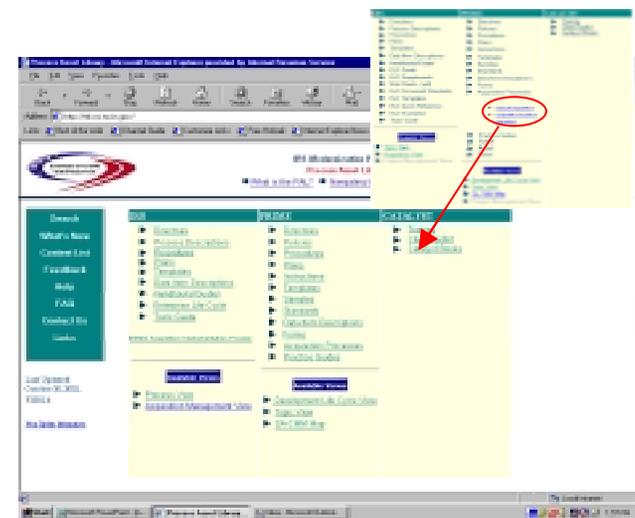


## Shared Development Life Cycle

- Standard development phases, techniques and methods
- Shared definition of governance and oversight requirements, checkpoints and milestones for Investment Review

## Shared Process Asset Library

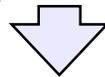
- Key repository for Modernization Standard Processes
- Includes both IRS and PRIME Policies and Procedures used on IRS Modernization Program
- Assets available electronically to IRS and PRIME personnel via Lotus Notes and Web interface



# Joint Program Management Review Structure and Risk Management

## Joint Program Management Meetings

- Regularly scheduled Program and project reviews provide oversight and communication mechanisms
- Provide insight into management and technical progress



**EXAMPLES**

### *Project Status Reviews*

Monthly meeting to review progress, identify risks and issues, refine plans and identify corrective actions

### *Program Management Reviews*

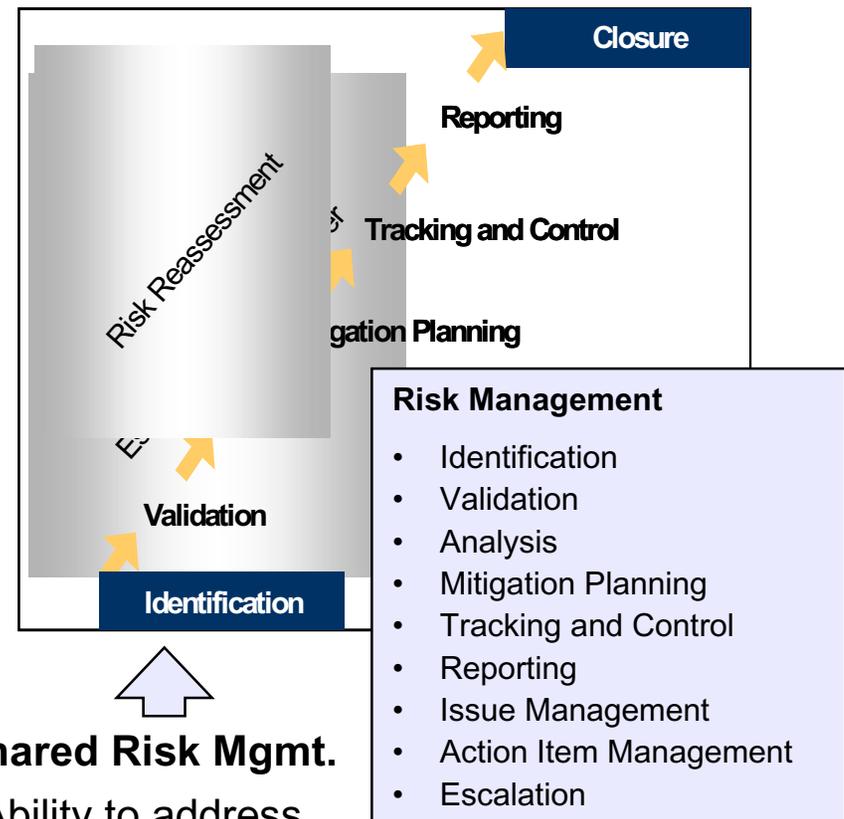
Quarterly briefing to Program Stakeholders to review status, risks/issues, and to initiate improvements/actions

### *Program Integration Reviews*

Monthly reviews focused on integration dependencies, risks and issues

### *Modernization Executive Team Mtg.*

Weekly meeting to focus management's attention on critical issues & action items



## Shared Risk Mgmt.

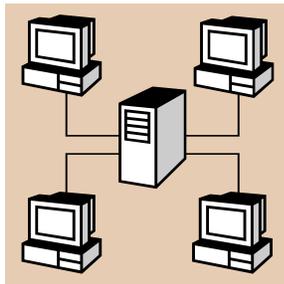
- Ability to address issues and risks early in project lifecycle
- Risks identified and tracked at both the Program and project level
- Shared Item Tracking, Reporting and Control System (ITRAC) repository



# Business Results: We have fielded six major functional capabilities in less than 4 years ...

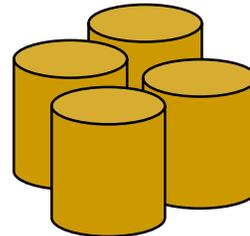


**4,000 Revenue Agents**  
using new application to  
compute complex business tax  
returns



**Modernized help desk;**  
asset, network and systems  
management

**1040 EZ Tele-filers** accounts  
posted to modernized data store



**First truly secure internet**  
infrastructure within the IRS



**Taxpayer refund status**  
over the Internet



**Modernized telephony**  
architecture supports world's largest  
call center

***... while the IRS was in full operation!***

## Conclusion: SA-CMM as a management model is necessary for IRS Modernization success, *but it is not a silver bullet*

- Commitment to SA-CMM provides:
  - Opportunity to share Processes, Techniques, Information
  - Framework to improve chances of success in a large, complex program
  - Formality of terms for alignment and communication
  - Program Management and Planning best practices
- Other requirements for Program success:
  - Executive commitment to the process and process improvement is *essential*
  - Both organizations need to remain flexible and evolve together

*Organizational performance cannot be improved without a structured improvement process*