

TURNING A DREADED CMMS UPGRADE INTO A MAINTENANCE PROCESS IMPROVEMENT

Shelley Whitener & Sabine Boruff, Sandia National Labs

Tom Arcuri, IBM

Agenda

- About SNL
- Sandia Facilities Facts
- Where We Were In 2005
- Scope of the Upgrade
- Our Approach
- Where We Are Now
- Where We Are Going
- Key Accomplishments
- Lessons Learned

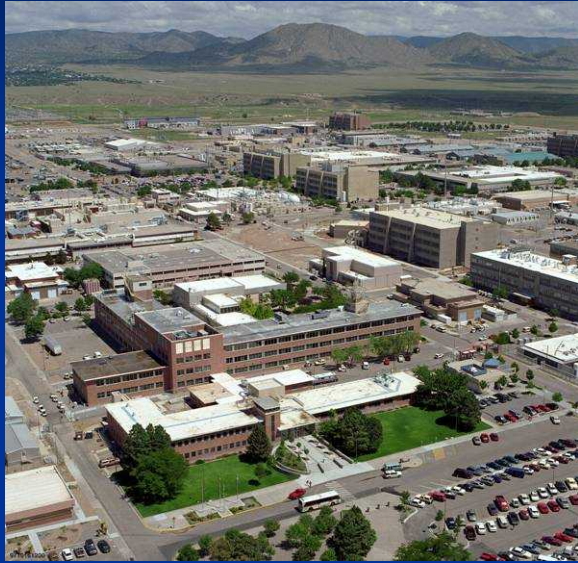
Mission-Driven Laboratory

We serve many agencies of the US Government with:

- Design and development: nonnuclear portions of US nuclear weapons
- Production: advanced components
- Safety, security, use control
- Treaty verification, nonproliferation, counterproliferation
- Advanced military technologies
- Energy and environment
- Homeland security, countering weapons of mass destruction



Distributed Facilities to Meet National Needs



Albuquerque,
New Mexico



Kauai Test Facility,
Hawaii



Tonopah Test Range,
Nevada



Yucca Mountain,
Nevada



WIPP, New Mexico



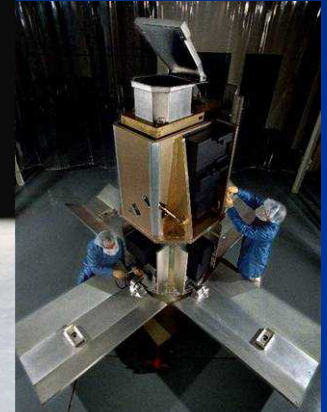
Pantex, Texas



Livermore, California

Four Mission Areas

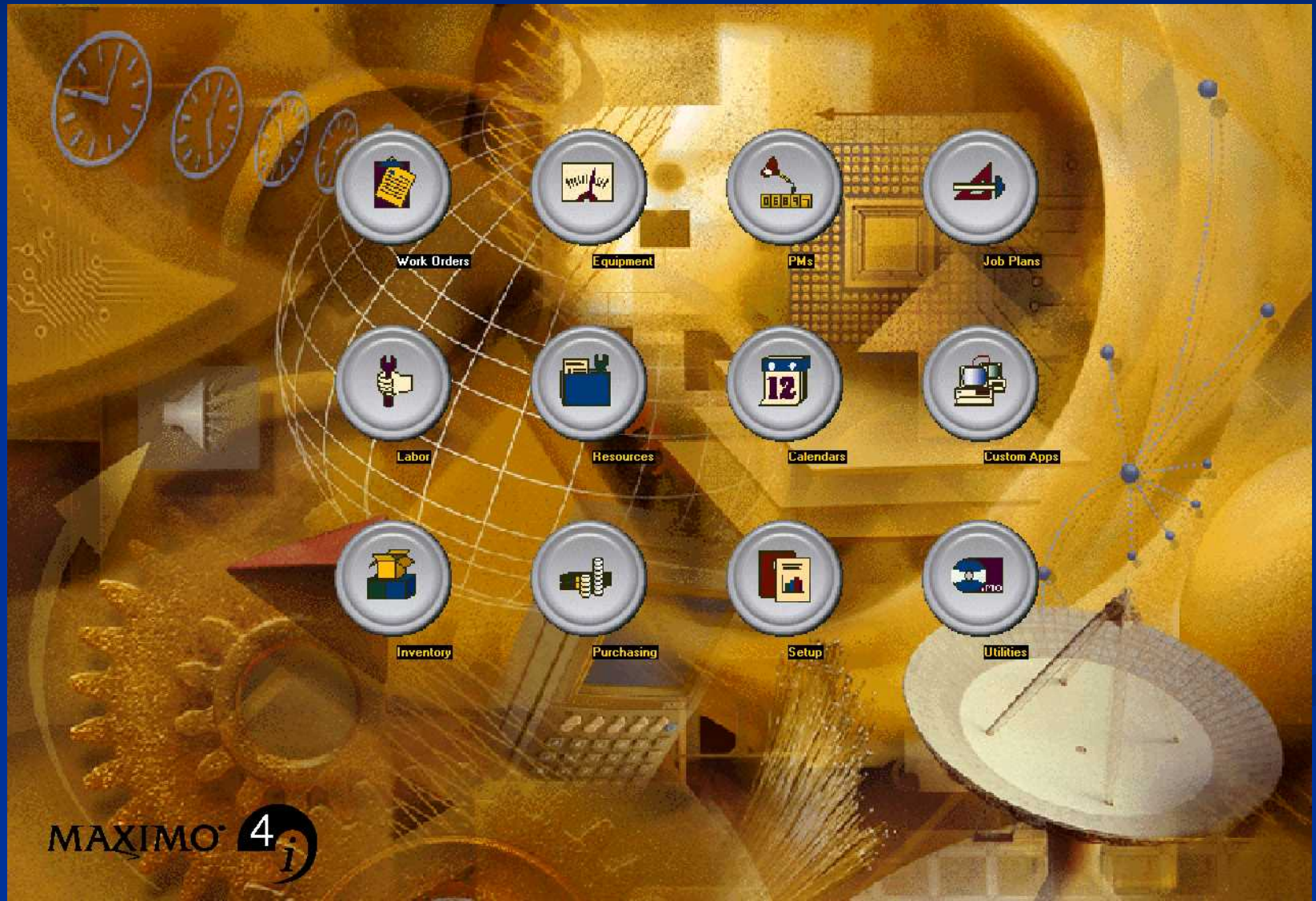
- Nuclear Weapons
- Defense Systems and Assessments
- Energy, Resources, and Nonproliferation
- Homeland Security and Defense



Sandia Facilities Facts (Albuquerque Site)

- 952 Buildings housing nearly 12,000 people
- 6.2 Million gross square feet
- 46,000 Facilities maintenance work orders per year
- 25,000 additional service requests
- 37,000 Assets managed through Maximo
- 30,000 Items in inventory
- 520 Facilities employees

Maximo 4.1.1



Scope of the Upgrade

- Web-based technology
- Report conversion from SQR to Actuate
- Integration of help desk functions
- Integration of mobile application
- Screen Configurations
- Implementation of Workflows

Maximo 6.2.1 Start Center

Welcome, Shelley Whitener

Go To Reports Start Center Profile Sign Out ? Help

Facilities Service Desk

True Planner

Update Start Center

Quick Insert

New Service Request

GOTO Service Desk

Service Requests

Helpful Links

Change Password

Bulletin Board (0)

There are currently no bulletin board messages to view.

Inbox / Assignments (0)

Refresh

DescriptionSTARTDATERoute

No Assignments found for Shelley Whitener

NEW SERVICE REQUESTS

Filter

Service RequestSummaryReported DateStatus

...No rows to display...

Closed SRs to be Workflowed

Filter

Service RequestStatusStatus Date

000000000031591	CLOSED	2/10/99 8:44 AM
000000000061127	CLOSED	10/15/99 1:51 AM
000000000061848	CLOSED	10/25/99 11:05 AM
000000000062263	CLOSED	11/12/99 12:35 AM
000000000062284	CLOSED	11/22/99 4:24 AM
000000000063279	CLOSED	11/30/99 10:39 AM
000000000063388	CLOSED	12/3/99 12:00 AM
000000000064607	CLOSED	12/6/99 4:39 AM
000000000063159	CLOSED	12/7/99 12:00 AM
000000000064368	CLOSED	12/7/99 12:20 PM

Set Graph Options1 to 10 of 77423Next Page >>

Canceled SRs to be Workflowed

Filter

Service RequestStatusStatus Date

000000000061038	CANCELED	10/6/99 5:40 AM
000000000061459	CANCELED	10/15/99 12:27 PM
000000000061385	CANCELED	10/19/99 11:40 PM
000000000062342	CANCELED	11/2/99 12:14 PM
000000000060951	CANCELED	11/2/99 1:57 PM
000000000061476	CANCELED	11/2/99 5:38 PM
000000000061058	CANCELED	11/3/99 11:20 AM
000000000061133	CANCELED	11/4/99 12:40 AM
000000000062621	CANCELED	11/8/99 5:26 PM
000000000062031	CANCELED	11/8/99 5:32 PM

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KPI Graph

Last Run: 8/30/07 9:55 AM

Update

Status	KPI	Actual	Target	Variance
New Service Requests		0	5	-5

New Service Requests

New SRs 1 day old

Last Run: 8/30/07 9:56 AM

Update

Status	KPI	Actual	Target	Variance
New Service Requests 24hrs old		0	0	0

New Service Requests 24hrs old

New SRs > 48hrs old

Last Run: 8/27/07 11:26 AM

Update

Status	KPI	Actual	Target	Variance
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Our Approach to the Upgrade

- **Create cross-functional Project Team**
- **Integrate process improvements with upgrade**
- Utilize Lean Six Sigma tools
- Incorporate stand-alone databases
- Add new applications (Service Desk, Self Service)
- Partner with vendor for consulting, support, and training
- Minimize customizations
- Use Maximo terminology instead of our own
- **Create framework for future expansion/
incorporation**

Project Team

- Functional Lead – Maintenance Engineer
- Technical Lead – Maximo Developer/SME
- Key Maximo Users – 2 Maintenance Planners
- Technical Support Team – 4 Maximo Developers
- Key Stakeholders:
 - Warehouse Supervisor
 - Maintenance Manager
 - Planning Supervisor
- Ad-hoc Consulting Support (IBM)

Project Plan

- Wrote project plan with 8 objectives
- Developed budget for project
- Divided team into 8 sub teams aligned with the objectives
- Involved additional users on sub teams
- Held monthly project team meetings
- Established and tracked schedule in Microsoft Project
- Reported progress to management steering team

Project Plan Objectives

1. Mobile Maximo Conversion
2. Full Mobile Maximo Evaluation Plan
3. Sites Project Request System (SPRS) to Maximo
4. Workflow
5. Maximo-driven Process Upgrades
6. Maximo-facilitated Process Improvements
7. Training
8. Continuous Improvement/Sustainment

Process Improvements

- Standardization of workflow
- Clarification of roles & responsibilities
- Improvement of communication
- Process consolidation (Maximo Service Desk)
- Implementation of weekly scheduling
- Enhancement of feedback/improve cycle
- Expansion of mobile technology

Technology Improvements

- Maximo Service Desk replaced two in-house systems (SPRS and e-Services)
- Maximo Enterprise Adaptor provides greater integration opportunities
- Workflow allows easier path to standardization without sacrificing flexibility
- Web-based applications
- Start Centers = personalized and user friendly

Vendor Partnership

- Emphasized “partnership” instead of typical vendor/customer relationship
- Detailed scope for consulting support with guidance and concurrence from vendor
- Vendor-led formal training for IT team and key users
- Demo database
- Vendor demonstrations of new applications and processes

***ESTABLISHED EARLY IN PROJECT AND
MAINTAINED THROUGHOUT THE
PROJECT!***

Where We Are Now

- Behind schedule but still moving
- Why?
 - Delays and problems with upgrade scripts
 - Delays in consulting due to contract/procurement negotiations
 - Upgrade errors / beta test syndrome
 - Functional & performance deficiencies in mobile inventory application
- Go-live scheduled for October 2007
- Process improvement rollout to coincide with upgrade

Where We Are Going

- Continuous Improvement Plans
 - Incorporate additional stand-alone databases
 - Interface with other systems (VFACility)
 - Upgrade and incorporate California site
 - Further develop personalized Start Centers
 - Develop role-based KPIs for Start Centers
 - Create additional reports
 - Implement Qualifications module
 - Implement Mobile Work Manager
 - Implement Failure Classifications / Failure Codes

Key Accomplishments

- Project Charter & Plan
- Cross-functional Project Team
- Partnership with Vendor
- Process Improvements
- Development Database (= well prepared users)
- User-lead training: “Embracing the Change”
- Management Support from Start to Finish

Lessons Learned

- Understand impacts of software changes on work **processes...listen to the users & process owners.**
- Make sure your vendor knows your **goals and schedule.**
- **Reassess** goals against schedule & **adjust** when appropriate.
- Realize that **organizational change and technology change** from your vendor can impact your project.
 - Have a single point of contact at the vendor.
 - Manage the change appropriately – be realistic.

Lessons Learned

- When implementing new technologies/applications, build **extra time** into the schedule...you **WILL** need it!
- Request additional support from your vendor and make them part of your strategy and planning
- **Communicate** up, down, and across.
- **Plan** thoroughly, but stay **flexible**.
- **Train** early and often.