

# Lawrence Livermore National Laboratory NLIT Site Report



**NLIT 2009**  
**Mike Payne**  
**Deputy CIO**

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This work performed under the auspices of the U.S. Department of Energy by Lawrence Livermore National Laboratory under Contract DE-AC52-07NA27344.

# LLNL is an applied science laboratory operated for the NNSA/DOE by Lawrence Livermore National Security, LLC



**One Mile Square Site  
Budget ~\$1.5 Billion  
Estimated ~6000 employees**



# LLNL's missions: applying world class science, technology, and engineering to important national problems



Stockpile Stewardship



Global Security



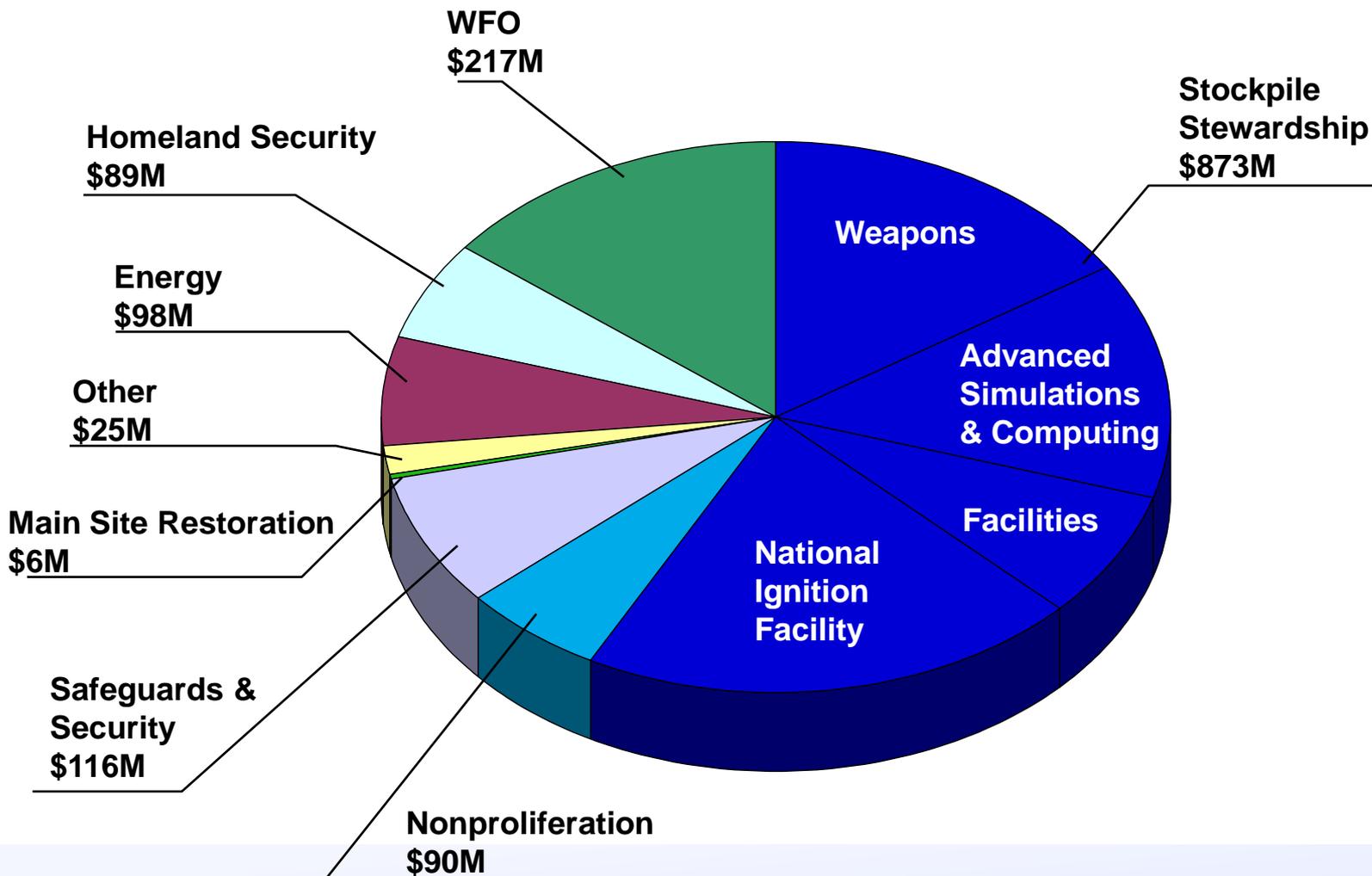
Energy & Environment



Basic Science



# National security activities dominate the LLNL FY 2008 budget of \$1.5 Billion



# “New” CIO



## ➤ “New” Program Goals

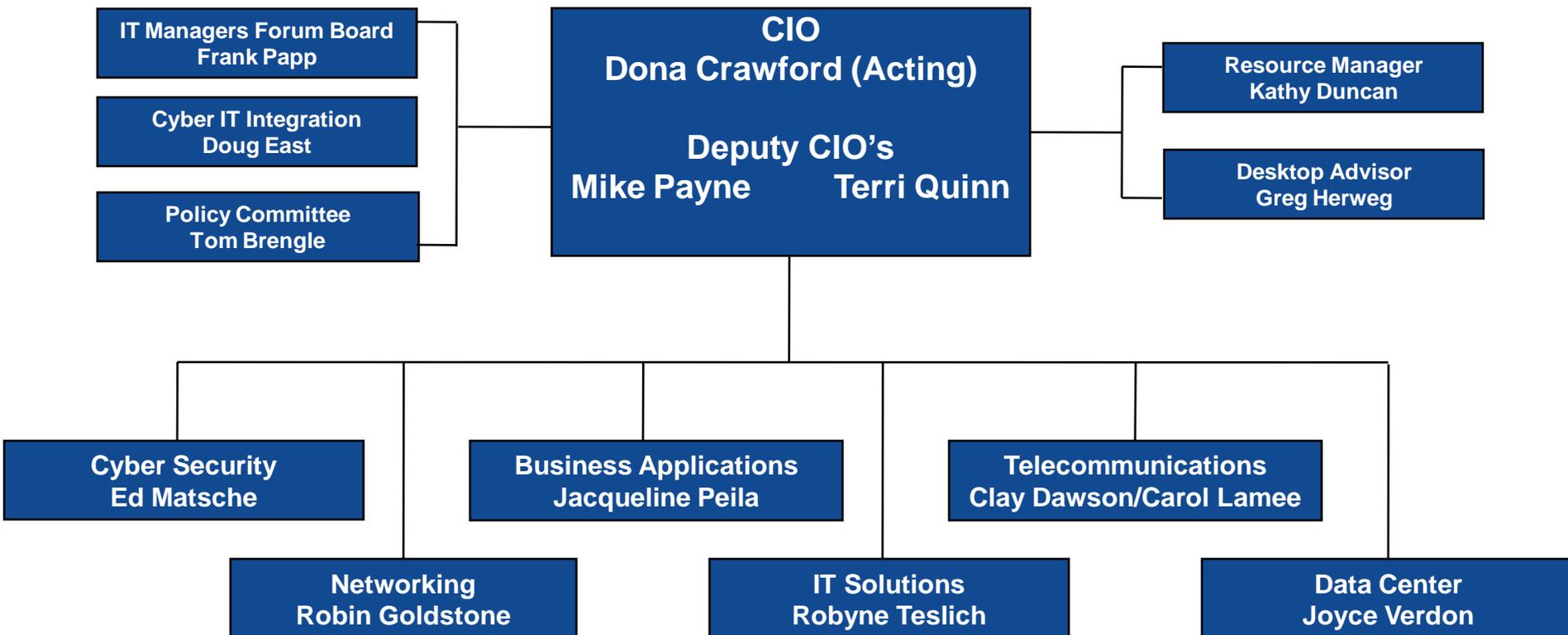
- Anticipate and align IT with customer needs
- Enable efficient management and security of IT
- Improve user productivity through IT
- Meet regulatory requirements while minimizing cost and impact on productivity

## ➤ “New” Governance Board

- Lab-wide representation
- Set priorities
- Approve strategies
- Approve policies



# CIO Program



# Recent Accomplishments



# “A data center on life support”

- **Significant cooling and power limitations**
  - Limited 8' ceiling height and 10" subfloor
  - Miles of network/power cables in subfloor
  - Chilled water, Halon and CO2 pipes
  - Limited electrical capacity
- **Added temporary fixes**
  - 2 portable A/C units and portable substation



# Best-in-class Tier 3 Data Center Facility



- Upgraded raised floor from 18" to 30" (16,500 sq feet total) reserved for cooling plenum
- Electrical upgrades to support 150 watts per sq feet
- Redundant power distribution (dual power feeds, substations, UPS, PDUs and power strips to each enclosure and device) throughout
- N+1 air conditioning redundancy (chillers, pumps, CRACs in raised floor area and UPS rooms)
- State-of-the-art smoke detection, fire monitoring and fire suppression systems
- Seismically braced, individually locked 42U equipment enclosures
- Remote Console/KVM capability
- Multi-layered physical security (Cameras, motion detectors and two form factor locks on all doors)
- Metered PDUs and power strips
- Structured network cabling and management



# Major Oracle Applications Upgrade – PCI



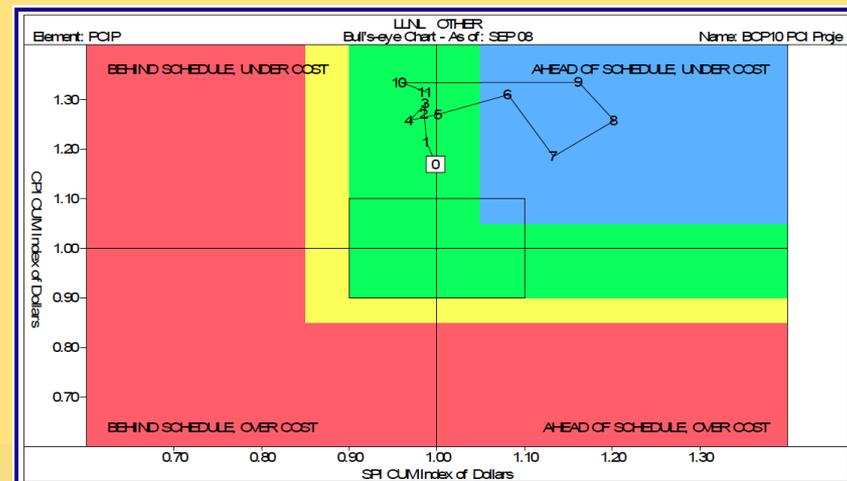
PCI Objectives were to implement project accounting at LLNL to:

- Reduce costs by integrating systems and using commercially available software that incorporates industry best practices.
- Support project management tools with the ability to track financial data in multi-level work break down structures.
- Provide enhanced project reporting capabilities with more detail and ability to track project costs across fiscal year boundaries.
- Positions Lab for institutional EVMS implementation

Technical Scope was challenging due to schedule

- Implemented in 12 months engaging all LLNL organizations
- Converted 30 service center systems to use project and task based WBS
- Updated Data Warehouse to new WBS and additional Service Center meta-data
- A comprehensive test suite and data conversion to reduce risk of implementation cutover

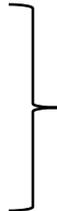
Project performance was excellent throughout project





# LLNL – Recent Accomplishments

- Office 2007/2008 – Site-wide weekend deployment
- Centralized Desktop Model implemented in three Principle Directorates
- ITIL - Service Catalog and Implementing Service Level Management
- Network Support Consolidation
- Server Consolidation
- Applications Portfolio Management
- Site wide fiber ring
- Blue Network implementation segregates sensitive unclassified information and provides separate logical network for foreign nationals
- Activities in progress
  - FrontRange project
  - Exchange implementation
  - Blackberry implementation



**Scheduled for FY10 Deployment**



# Planned Activities

- Continue server consolidation
  - Stand up enterprise virtualization environment
  
- Replace service desk product to improve customer service
  - Complete FrontRange implementation
  - Incident, Problem, Change and Configuration Management
  
- Continue the ITIL journey
  
- Improve collaboration and productivity environment for the enterprise
  - Complete Exchange and Blackberry implementation
  
- Vista Deployment
  
- Laptops on Foreign Travel
  - Centralizing the management of devices traveling to other countries

# ***Planned Activities – continued***

- Applications Rationalization
  - Major opportunity for cost savings and improved information deliverability
  
- Communications convergence
  
- Become an efficient and comprehensive IT service provider for LLNL
  - Consolidate and centralize desktop and server support personnel
  - Centralize desktop configuration and network management
  - Centralize all support requests to the help desk
  - Server and data center consolidation
  - Application consolidation / rationalization

# LLNL Presentations at NLIT 2009



- LLNL Information Technology Service Management (ITSM) Implementation
  - Jeff Westcott
  
- CDM – Centralized Desktop Management at LLNL
  - David Frye and Neal Mackanic
  
- The Move to a Virtual World
  - Don Mendonza
  
- Enterprise Office 2007 Migration Lessons Learned
  - Mark Dietrich and Neal Mackanic
  
- Centralized IT Support Model
  - Amanda Woolverton



# LLNL Presentations at NLIT 2009



- SLAM: An effective password management systems for local accounts at LLNL
  - David Frye
  
- iPhone vs. Blackberry
  - Lee Neely
  
- LLNL's Integrated approach to NAPS implementation
  - Mark Dietrich



# *Thank you for your time*



- Questions?

