

# Sandia National Laboratories

## IT Status & Update

### 2008 NLIT Summit

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# Sandia Corporate IT Services

- 2 NM Organizational Centers + 1 CA Center: Applications; Computing Services and Support
- 7 Geographically-based Computer Support Units + CA + Special Projects CSU (3 Contracting Companies)
- 1 Central Computing Help Desk (Remedy ARS)
- 3 (primary\*) network environments (Open, Restricted, Secure)
- 34,000 Networked devices tracked in 1 Network Information System (NWIS) Database
- 11,500 Highly creative users - each entitled to support for 1 corporate desktop & 1 laptop



# IT “Highlights” from 2008

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- **Deployments**
  - **Credant (Mobile Encryption)**: Laptop and removable media encryption
  - **KBOX**: Deployment, Patching, Inventory
  - **Vista / IE7 / Office 2007**
  - **SAMS**
  - **Exchange 2007 & Live Communicator 07**
  - **Sharepoint 3.0**
  - **Portal move from Oracle to JBoss**



# More IT “Highlights” from 2008

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- **Mobility**
  - Remote Access: “Sandia Anywhere” upgraded using Juniper appliance (improved security and functionality)
  - Blackberry expansion
  - Hardening efforts: Credant, LOFT, 2-Factor / Cryptocards
  - Business Need Justification Requirement for all mobile devices.



# Yet More IT “Highlights” from 2008

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- **Security**
  - **2-Factor Authentication:** Required for all Remote Access (E-mail, Sandia Anywhere, Remote Desktop, Reverse Proxy, VPN)
  - **LOFT Evolution**
  - **Bluecoat:** Web Content Filtering
  - **Classified Diskless Initiative Endgame**



# Even More IT “Highlights” from 2008

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- **High Performance Computing**
  - Expect total on-site HPC to exceed 0.5 Petaflops by the end of the year.
  - Collaboration with other DOE Sites
  - Parallel Apps on Clusters: MatLab, other Engineering Apps
- **Operational Excellence**
  - ITIL, CMMI, ISO9000, Lean Six Sigma, RUP
  - Enterprise Configuration Management



# Still More IT "Highlights" from 2008

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- **Networks**

- **VOIP for Offsite Worksite (800 people)**
- **Orange Network:** Below SRD Classified with connections to SIPRnet
- **Remote Access:** Juniper Appliance
- **DRBC:** Using SNL/CA site, Asynchronous Mirroring, Virtualization - Fast/Flexible Recovery
- **ESN (Enterprise Secure Network):**
- **YMP & Offsite Buildings:** YMP, IPOC, CSRI, CINT



# Issues in 2008

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- New Facility Support
  - MESA, CINT, CSRL, IPOC
- Pressure on Corporate Indirect Support for Services (including IT).
- External Benchmarks
- Electricity Cost Increases (Green Computing Initiative)
- Cyber Security Threats: Zero-Day Exploits
- SW Vendor Audits



# On the Horizon ...

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- Vista & Office 2007 deployments - Labwide in FY'09
- FDCC and Granularity of admin rights on desktops
- Corporate Servers
  - Server Virtualization (VMware)
  - 64-bit servers
  - Linux servers playing a larger corporate role
- SAMS - Software Acquisition & Management System
- Thin Desktops, Virtualization, and Application Streaming
- Enterprise Information Management: FileNet, OmniFind, Sharepoint/Email Connectors, Content Management
- MS Roundtable Videoconferencing