SAND2013-1505C
SAND Number: 2013-1505 C

Leveraging Maximo-Tririga Integration and Aligning with the Product Roadmap

- Sandia National Laboratories Facilities capitalizes on the strengths of both Maximo and Tririga to support facilities management, site and space planning, and asset and work management.
- Sandia also uses Maximo to support multiple hosted solutions whose customers have unique asset and work management requirements from diverse research and development missions.
- This presentation will describe Sandia's approach in integrating its Maximo and Tririga systems in preparation for the eventual product consolidation.
- We will also review key areas of concern and risk mitigation strategies

Sandia National Laboratories

Sabine Boruff

Enterprise Maximo Project Manager
Sandia National Laboratories

Kay M. Murphy

Associate Partner, Leader, EAM Growth Initiative – US Public Sector Smarter Planet Solutions IBM Global Asset Management Solutions

Sandia National Laboratories

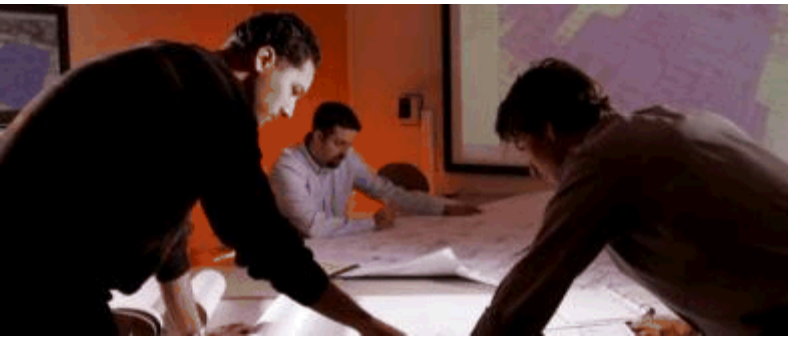
David M. Skousen

Manager, Work Place & Asset Management
Sandia National Laboratories

- Overview of Sandia National Laboratories
- Maximo & Tririga at Sandia
- Maximo & Tririga Strengths
- Product Integration Road Map
- Key decision points for users of both systems
- Redundant capabilities
- Key points of consideration for capabilities selections
- What Sandia is doing (Capabilities selected, Interfaces, etc.)
- Areas of concern

Exceptional service in the national interest

Sandia National Laboratories



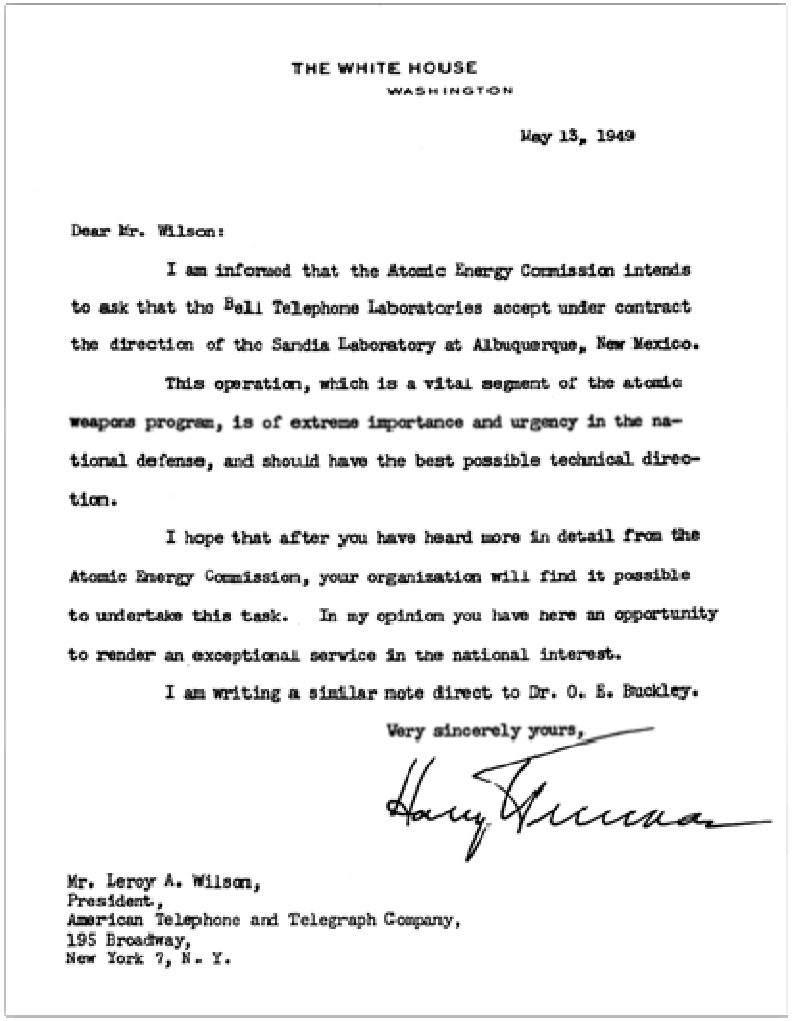
Sandia National Laboratories

An Overview

U.S. DEPARTMENT OF ENERGY | NNSA

Sandia National Laboratories is a multi-program laboratory managed and operated by Sandia Corporation, a wholly owned subsidiary of Lockheed Martin Corporation, for the U.S. Department of Energy's National Nuclear Security Administration under contract DE-AC04-94AL85000. SAND No. 2012-5130P

Sandia's History



THE WHITE HOUSE
WASHINGTON

May 13, 1949

Dear Mr. Wilson:

I am informed that the Atomic Energy Commission intends to ask that the Bell Telephone Laboratories accept under contract the direction of the Sandia Laboratory at Albuquerque, New Mexico.

This operation, which is a vital segment of the atomic weapons program, is of extreme importance and urgency in the national defense, and should have the best possible technical direction.

I hope that after you have heard more in detail from the Atomic Energy Commission, your organization will find it possible to undertake this task. In my opinion you have here an opportunity to render an exceptional service in the national interest.

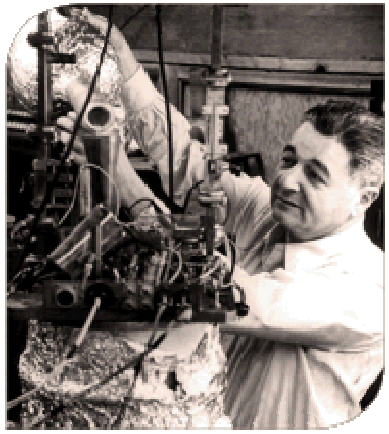
I am writing a similar note direct to Dr. O. E. Buckley.

Very sincerely yours,

Harry Truman

Mr. Leroy A. Wilson,
President,
American Telephone and Telegraph Company,
195 Broadway,
New York 7, N. Y.

Sandia National Laboratories



Sandia's Governance Structure

Sandia Corporation

- AT&T: 1949–1993
- Martin Marietta: 1993–1995
- Lockheed Martin: 1995–present
- Existing contract expires: Sept. 30, 2012
- One-year contract extension: Sept. 30, 2013

Government-owned contractor-operated

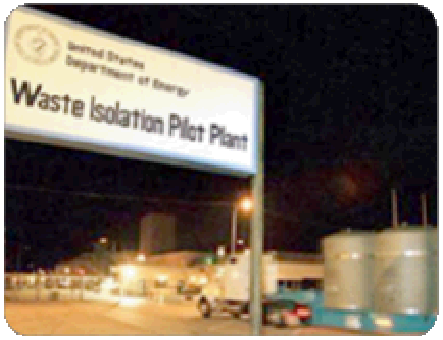
Federally funded research and development center

Sandia's Sites

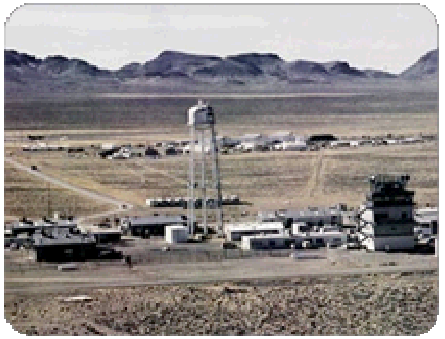
Sandia National Laboratories

Albuquerque, New Mexico

Carlsbad, New Mexico



Tonopah, Nevada



Livermore, California

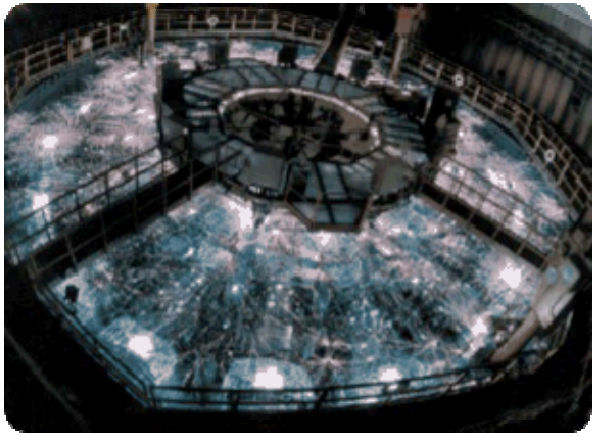
Amarillo, Texas

Kauai, Hawaii

Nuclear Weapons

Sandia National Laboratories

Pulsed power and radiation effects sciences



Design agency for nonnuclear components

- Neutron generators
- Arming, fuzing and firing systems
- Safety systems
- Gas transfer systems

Warhead systems engineering and integration

Production agency

Defense Systems and Assessments

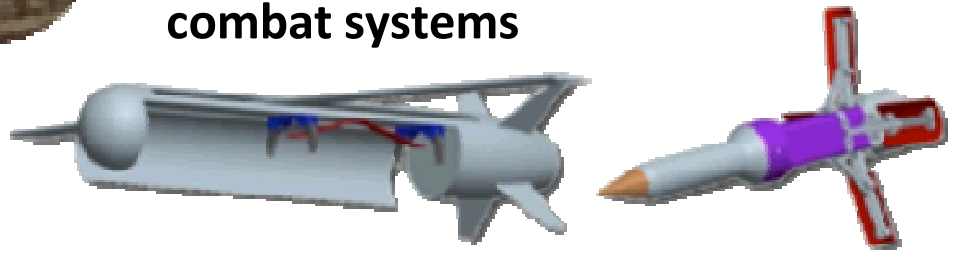
Sandia National Laboratories

Synthetic aperture radar

Support for NASA

Support for ballistic missile defense

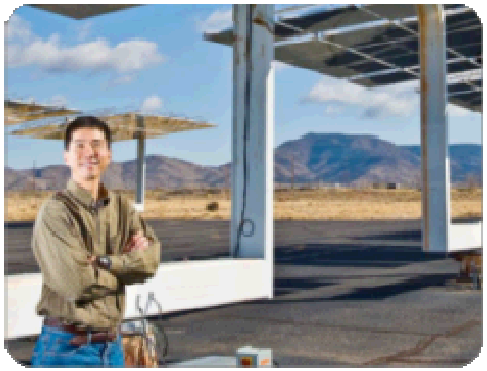
Ground sensors for future combat systems



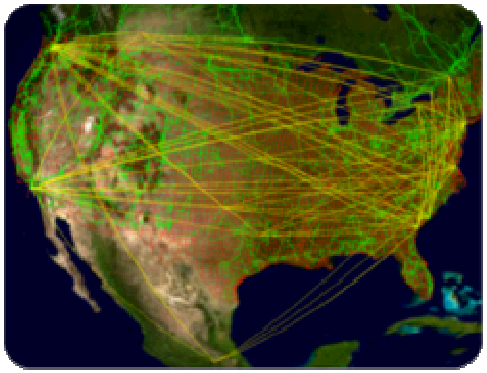
Energy, Climate, and Infrastructure Security

Sandia National Laboratories

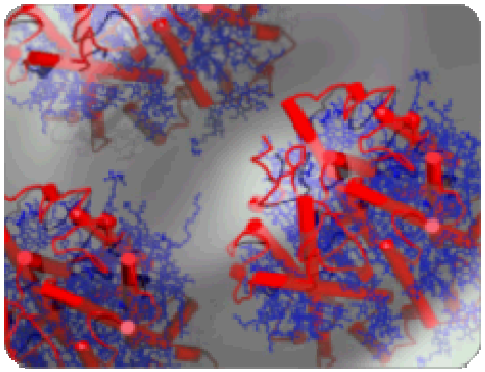
Energy



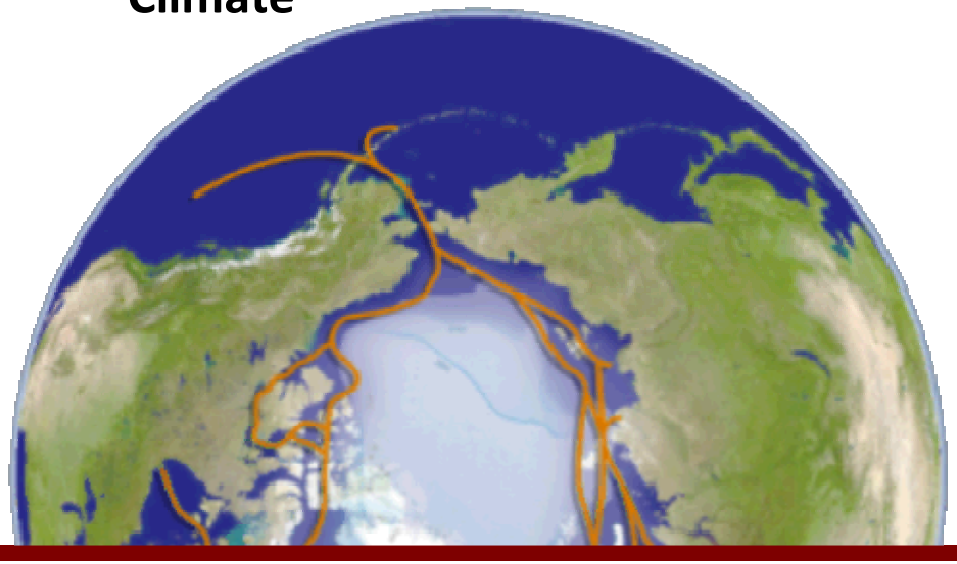
Infrastructure



Crosscuts and enablers



Climate



jbei
Joint BioEnergy Institute

International, Homeland, and Nuclear Security

Sandia National Laboratories

Critical asset protection

Homeland defense and force protection

Homeland security programs

Global security

Science and Engineering Foundations

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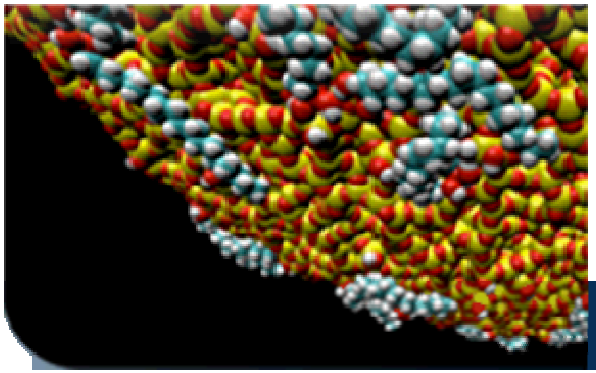
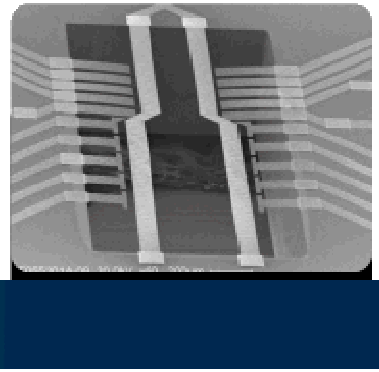
Computing and information science

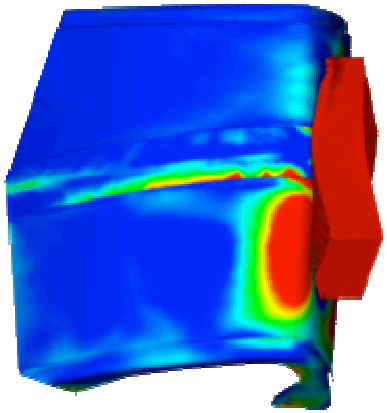
Materials science



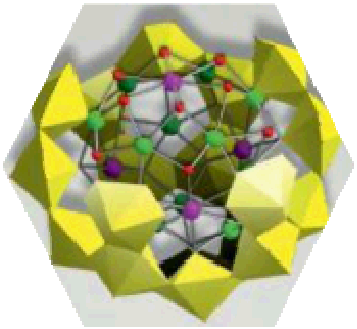
Nanodevices and microsystems



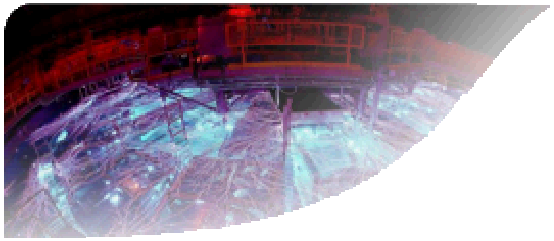
Engineering sciences



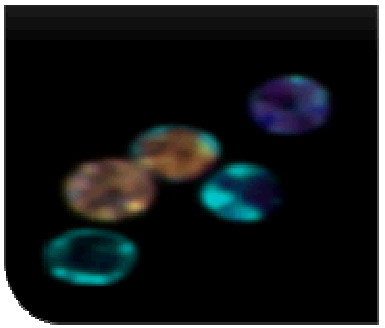
Geoscience



Radiation effects and high-energy density science



Bioscience



Z Machine creates an electrical current so strong that it equals more than *six times* the total amount of energy released by all of the power plants in the entire world.

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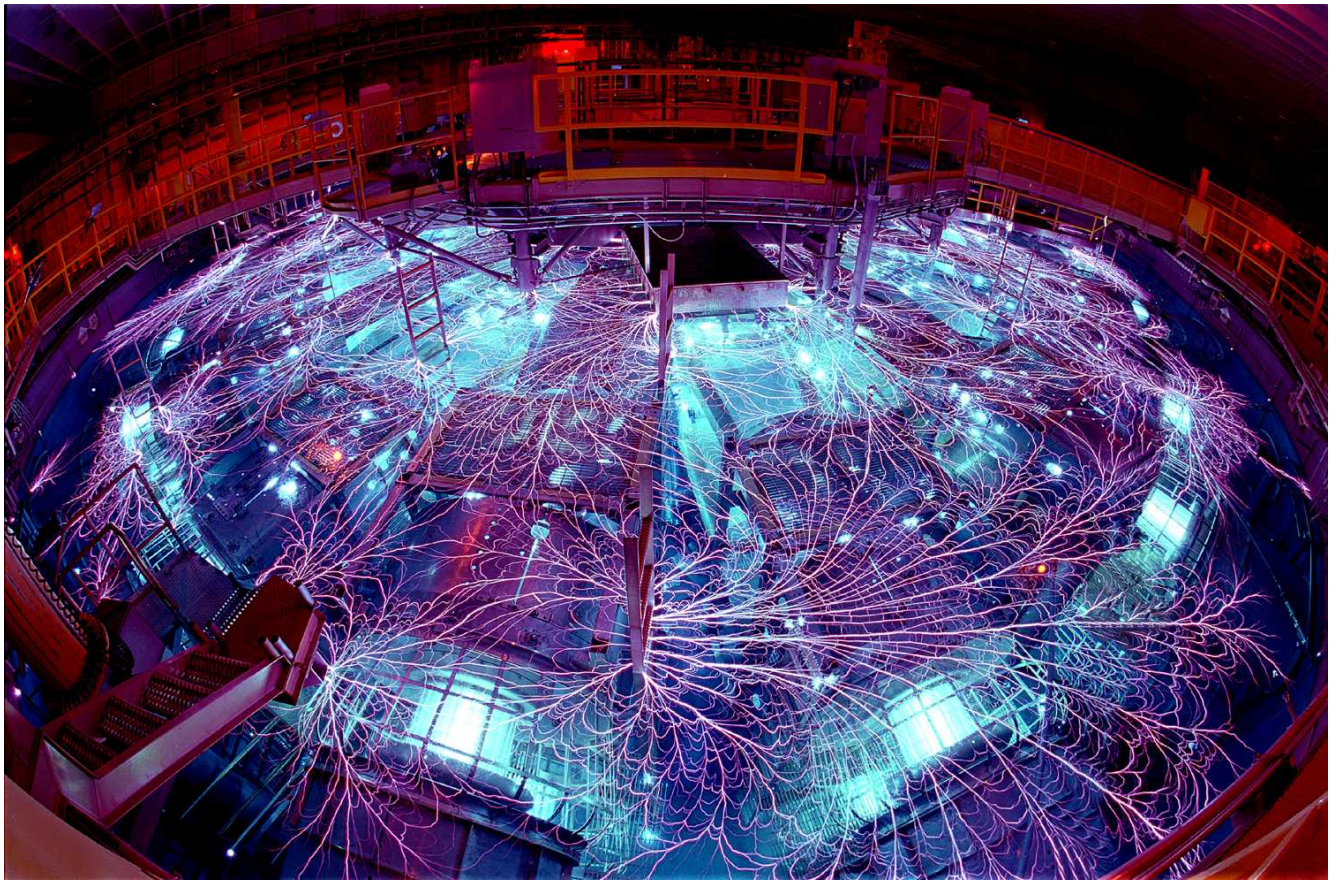

As the magnetic field "pinches" the plasma for an incredibly brief moment, the result is the formation of a tiny piece of white dwarf star, which is 10,000 times more dense than the surface of our sun

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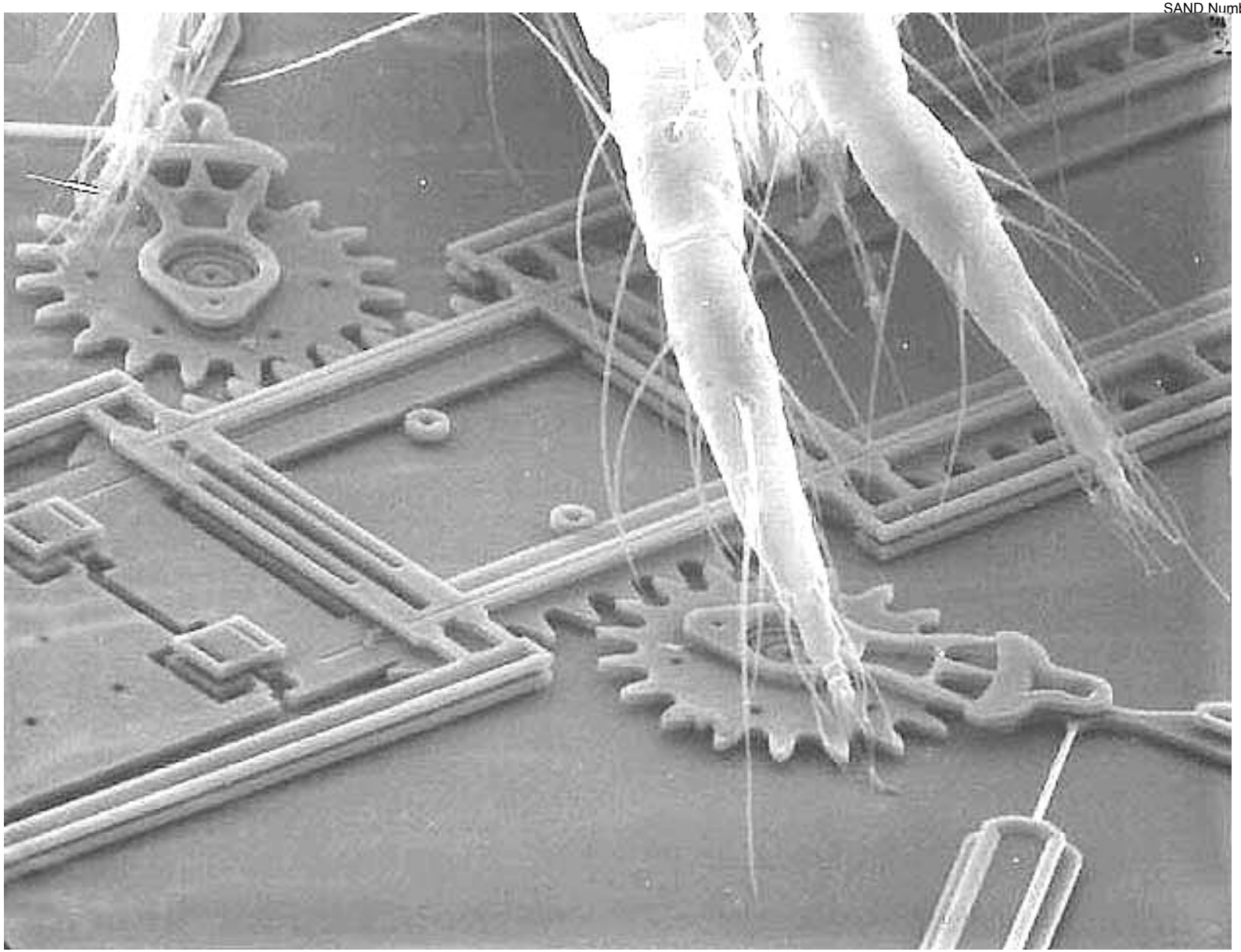

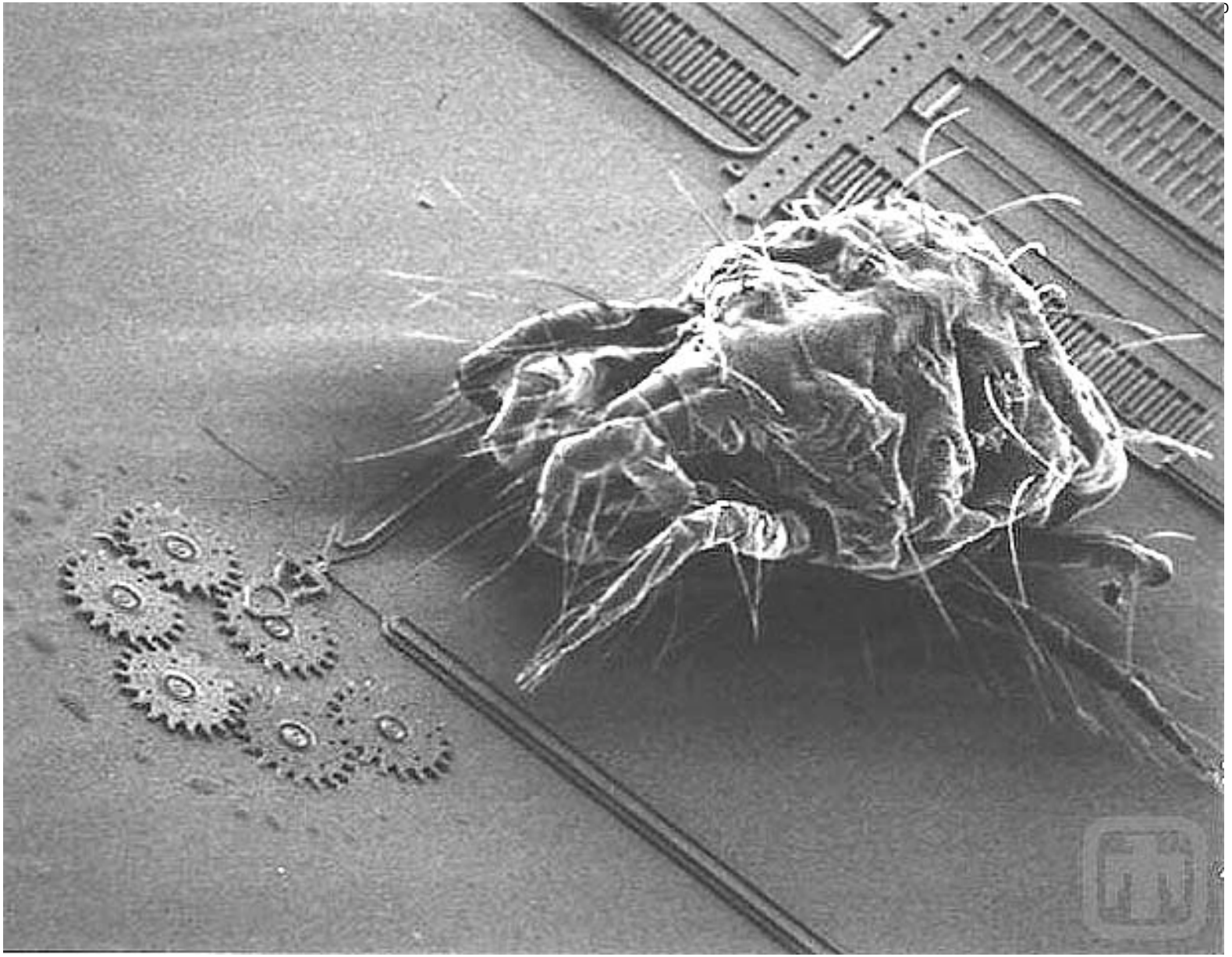

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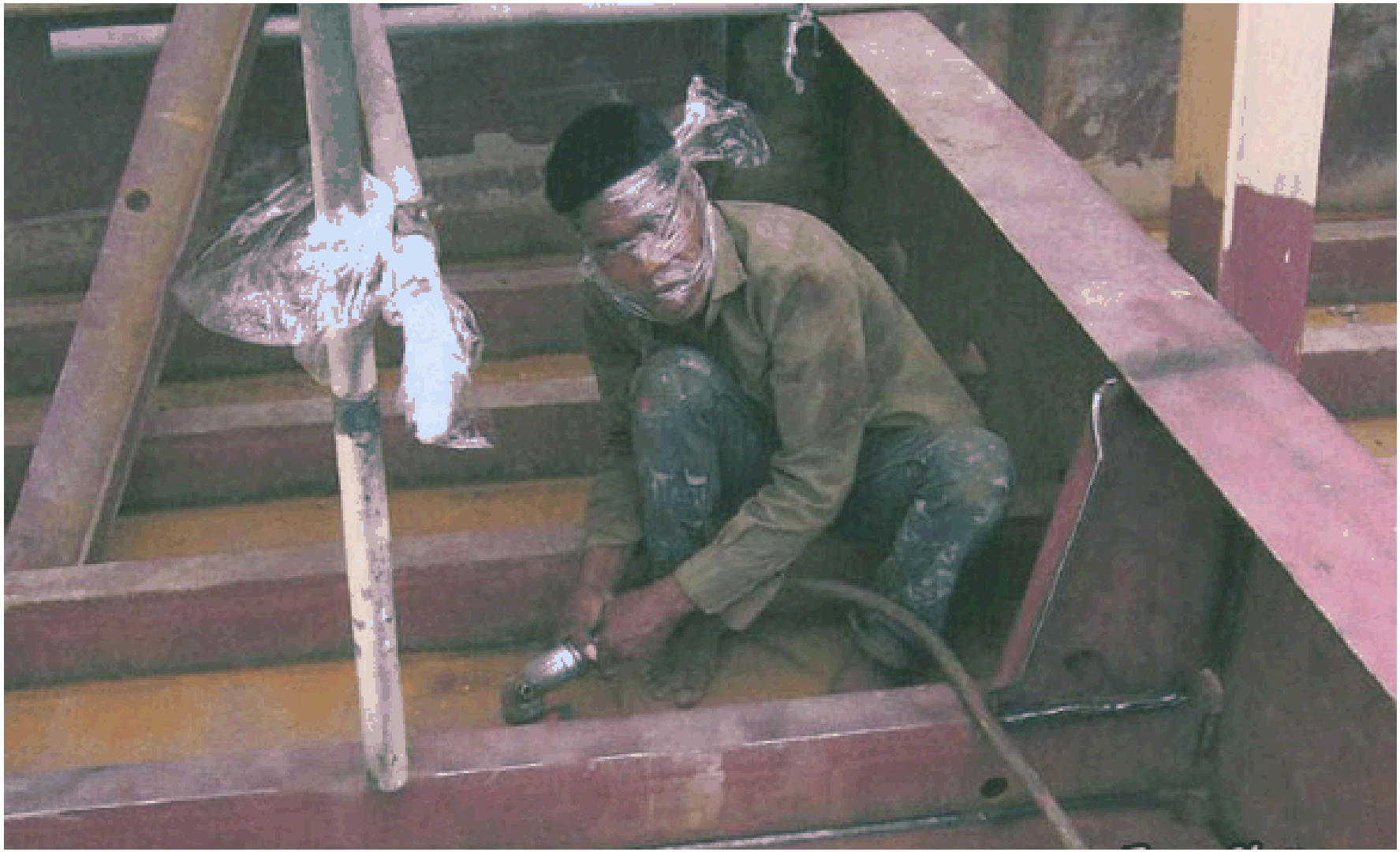
Sandia is all about Safety

Safety is in the eye of the beholder…..


TOYOTA
KOMATSU



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Maximo & Tririga at Sandia

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MAXIMO

Used at Sandia for over 18 years

Currently on version 7.1
Upgrading to 7.5 this year

Sandia's configuration includes:

Transportation
Calibration
Mobile
Asset Configuration Manager

We have two production instances

Enterprise Maximo

Facilities, Safeguards & Security (Technical Security Systems & Lock & Key accountability), and Complex Equipment Systems

Maximo Calibration

Supports multiple calibration labs including the Primary Standards Laboratory

Maximo & Tririga at Sandia

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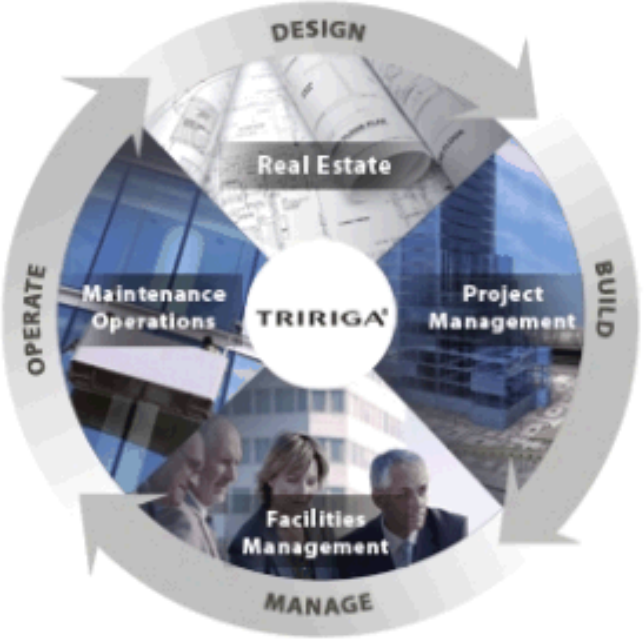
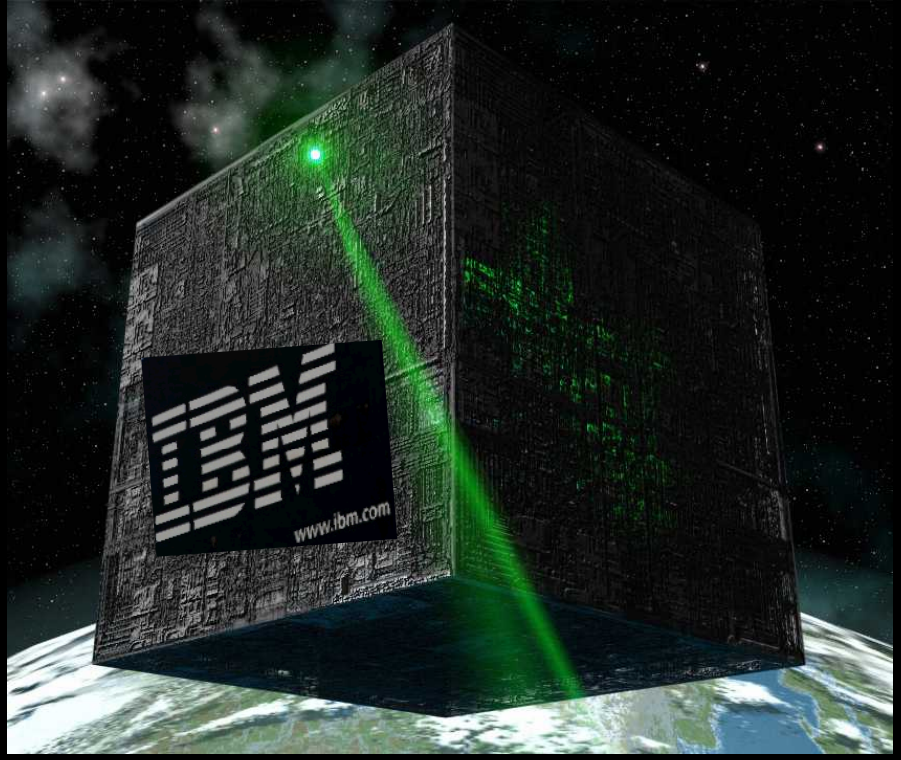
Tririga

- Began implementation four years ago
- Core, Space, Condition assessments, and Trees in production
- Implementing Projects and Moves this year.
- Currently on version 10



Sandia implemented MAXIMO when it was owned PSDI which became MRO, then MRO was purchased by IBM

Sandia began implementation of Tririga when it was owned by Tririga, then Tririga was purchased by IBM



Resistance is Futile...

You will be assimilated...

Maximo vs. Tririga

Maximo Strengths

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Maximo was born as an Asset Management Solution

Breadth and depth in Asset and Work Management:

- Service requests
- Work order management
- Multi-use job plans
- Preventive maintenance
- Asset information
- Inventory management
- Labor reporting
- Configuration management

Tririga Strengths

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Tririga was born as facilities/real-estate Management System

Breadth and depth in Facilities and Real-Estate Management

- Space management
- Real-Estate management
- Condition assessments
- Projects
- Moves
- Trees

TRI-MAXIMO?

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SAND Number: 2013-1505 C

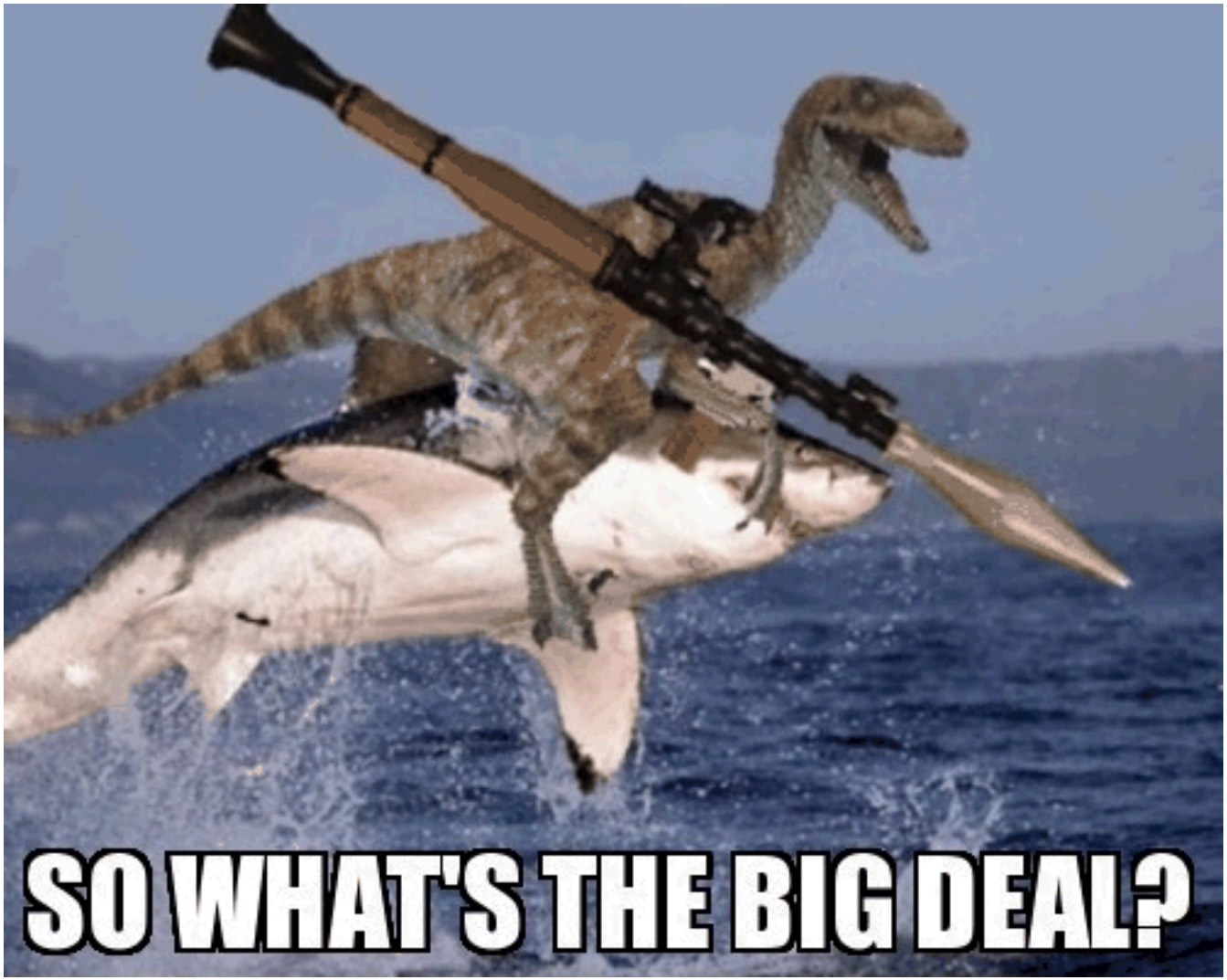
High-level Review of IBM's Roadmap for Maximo and Tririga Integration

Kay M. Murphy

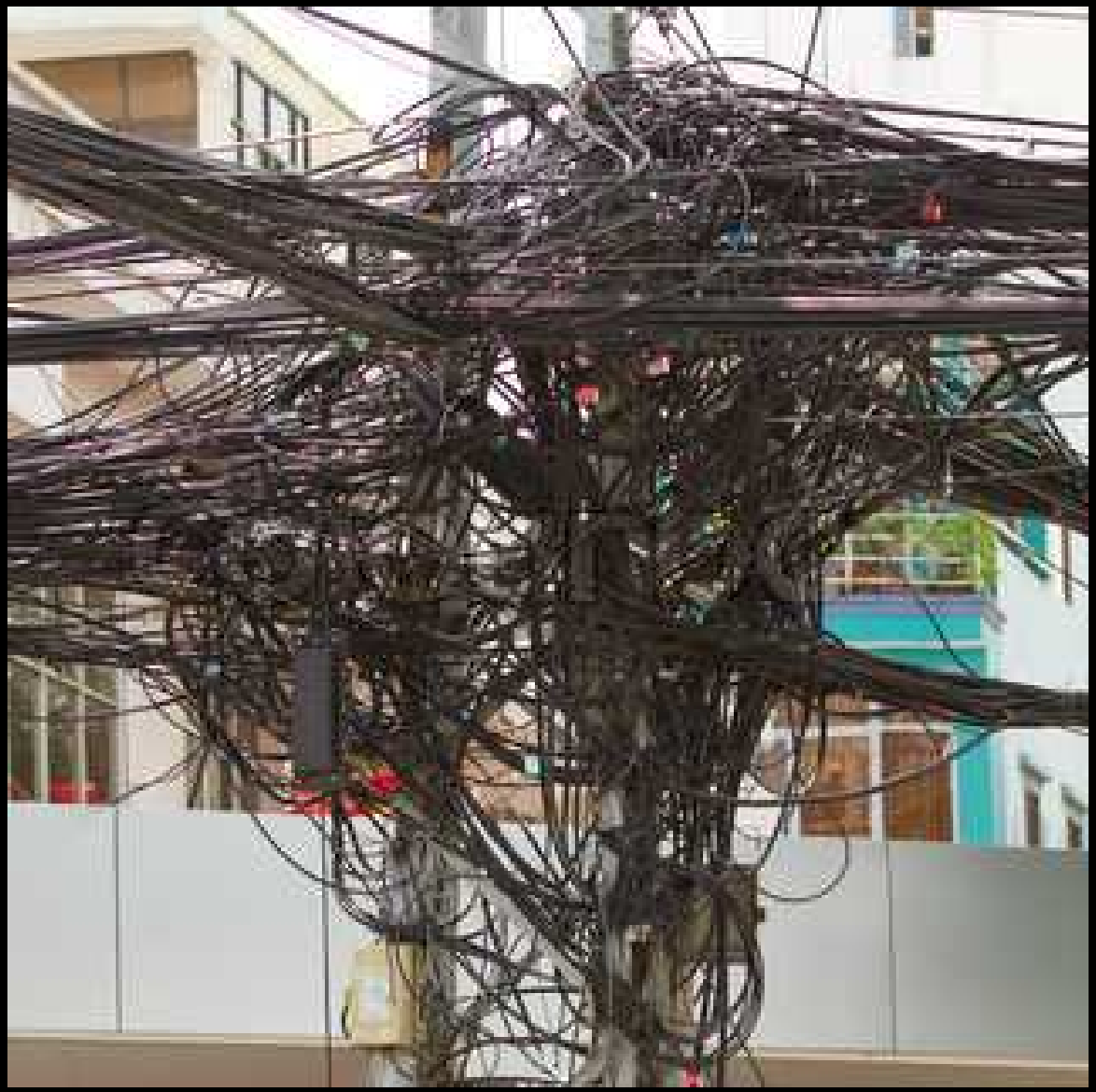
Associate Partner, US Public Sector Leader, EAM Growth Initiative – Smarter Planet Solutions IBM Global Asset Management Solutions

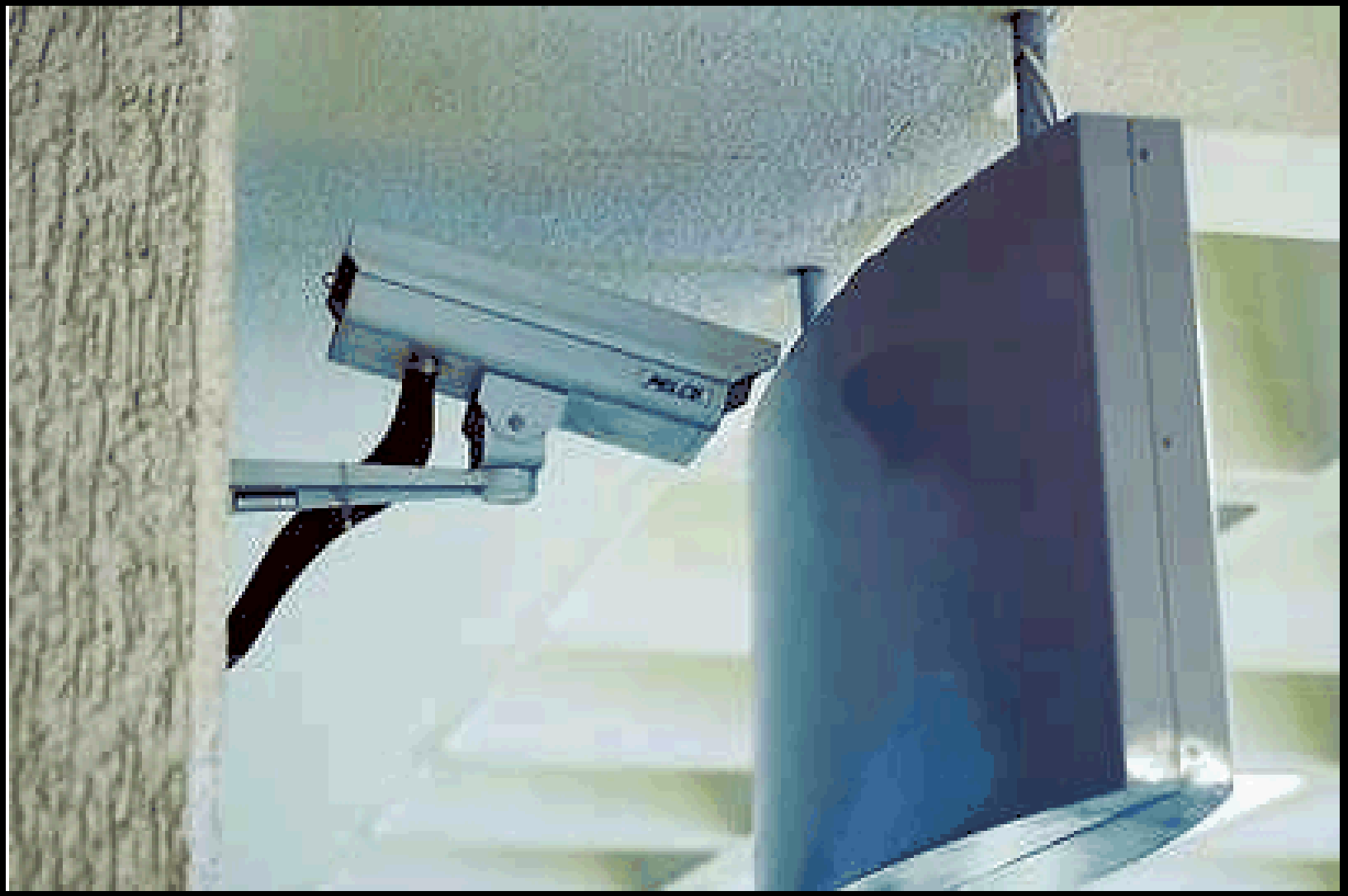
Sandia National Laboratories

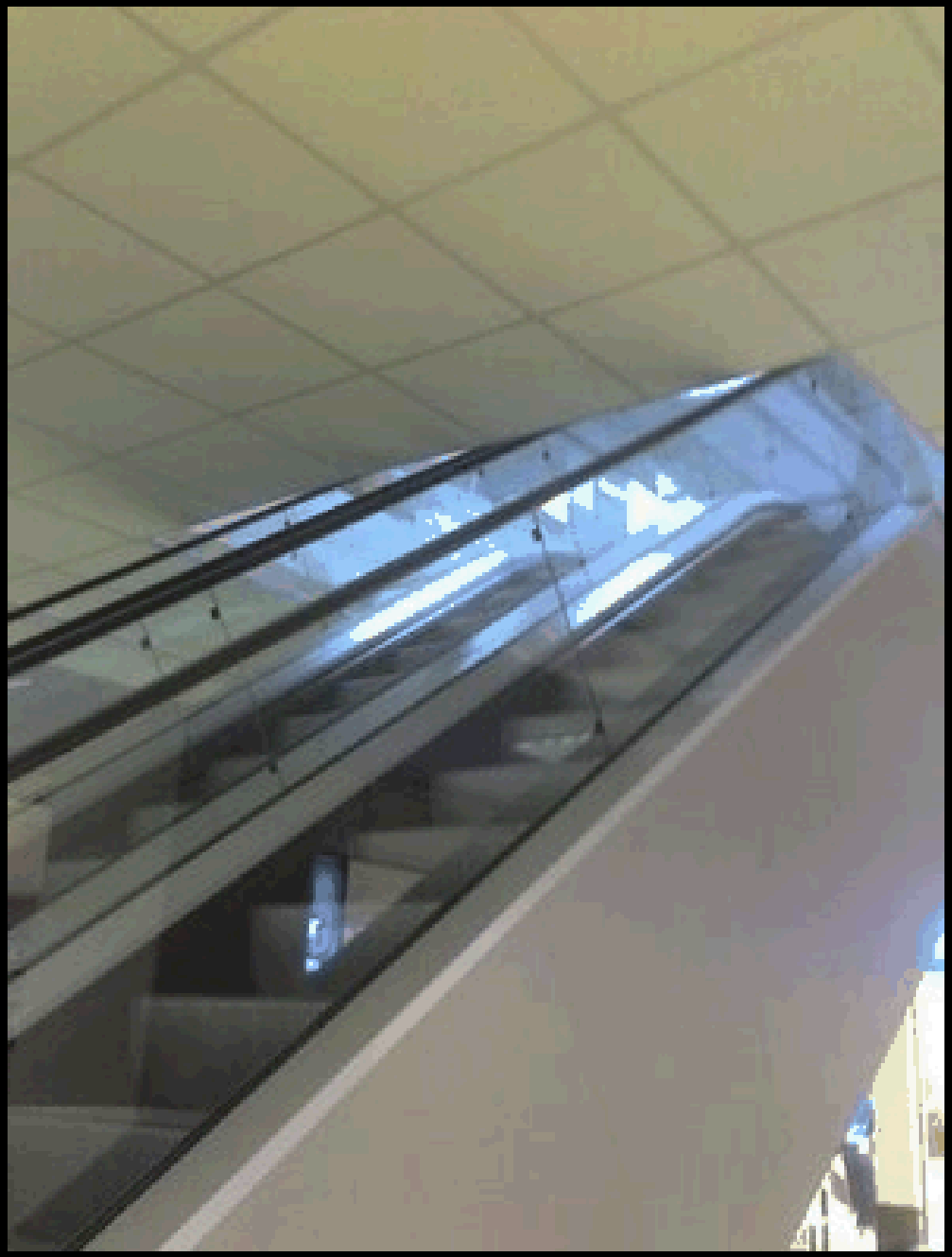
IBM to present their slide deck



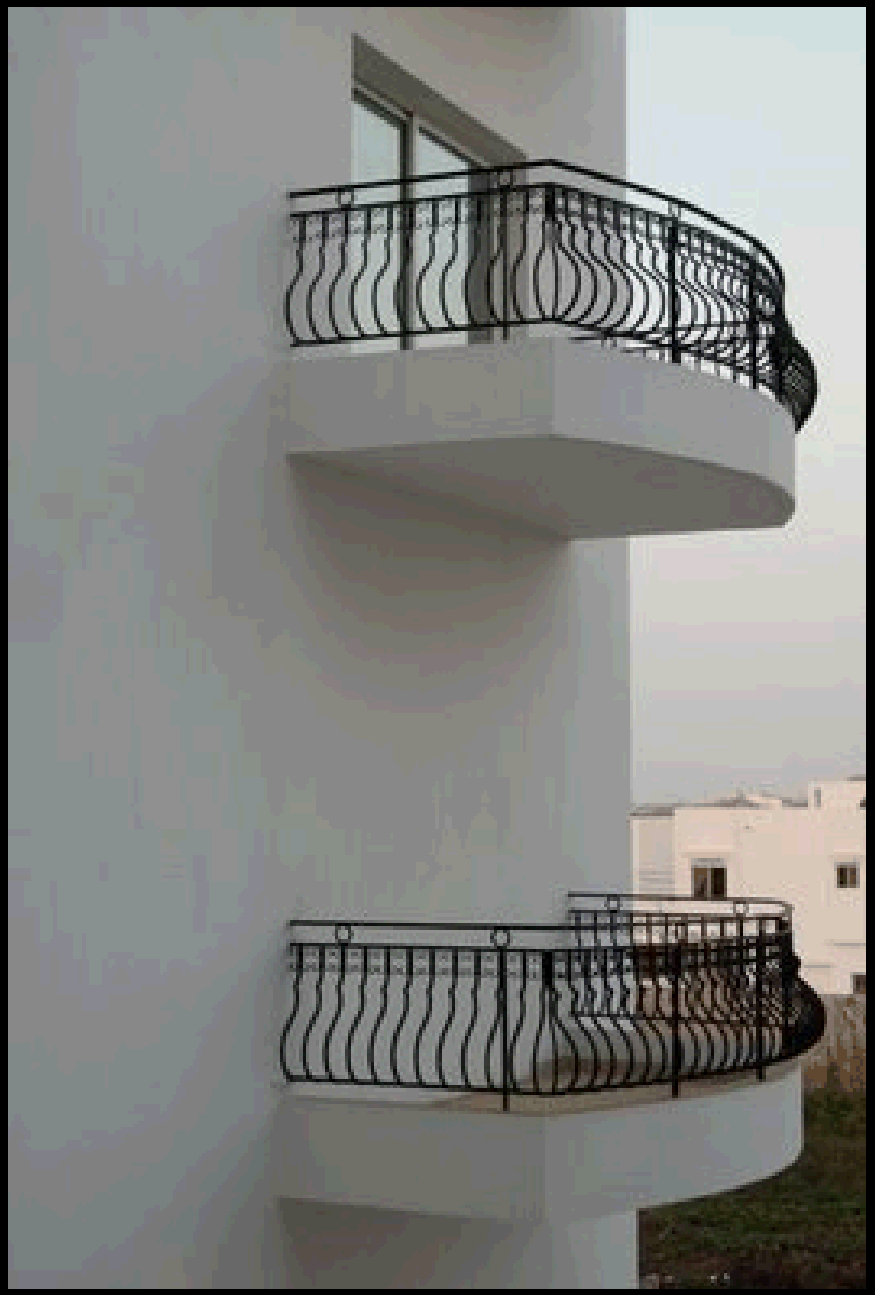
Why do we care?







Sandia National Laboratories



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Tririga/Maximo Roadmap

Key Points

- Both systems will continue to exist, and will continue to be supported and upgraded
- Overlapping capabilities between the two systems **will** remain
- Integrations will be built by IBM to enable customers to use the redundant capabilities from either system
- To fully utilize the latest integrations you need Maximo 7.5.0.3 and Tririga 3.3.3

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For users of both systems, the key decision that needs to be made is:

Which system you will choose to use for each of the overlapping capabilities?

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What are the Major Overlapping Capabilities?

Points to Consider

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- The overlapping capabilities you are currently using
  - The maturity of the existing processes
  - The depth of your current implementation
- Your long term vision - Which system's capabilities best meet the current and future needs of your vision?
- The predominant capabilities need for your corporation - Asset Management or Facilities/Real-estate management
- Integrations with other systems
  - Existing integrations
  - Desired future integrations
- Current user base - size, skills, training, etc.
- Current technical team – knowledge, capabilities, training, etc.

Overlapping Capabilities – Sandia's Decision

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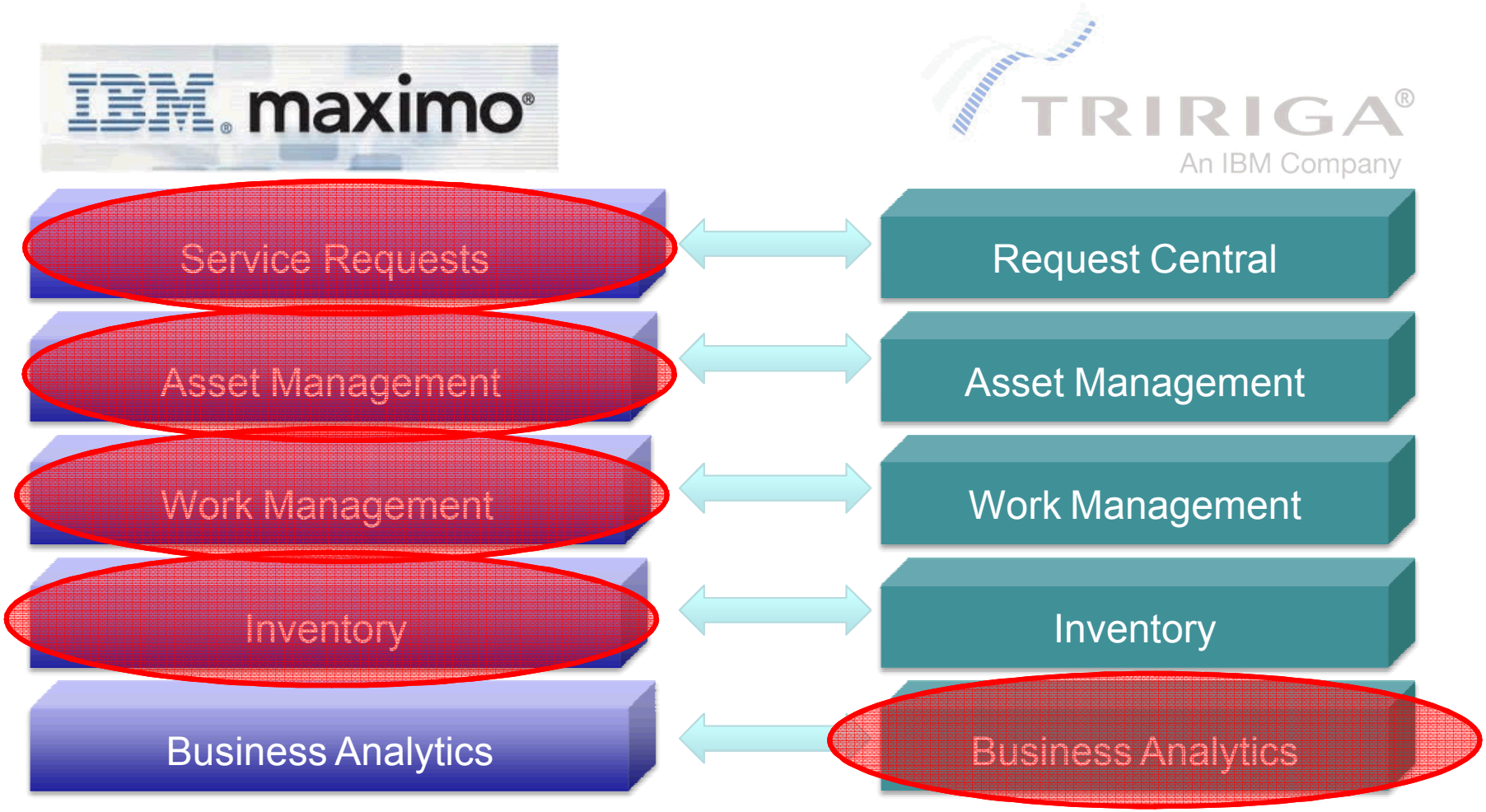
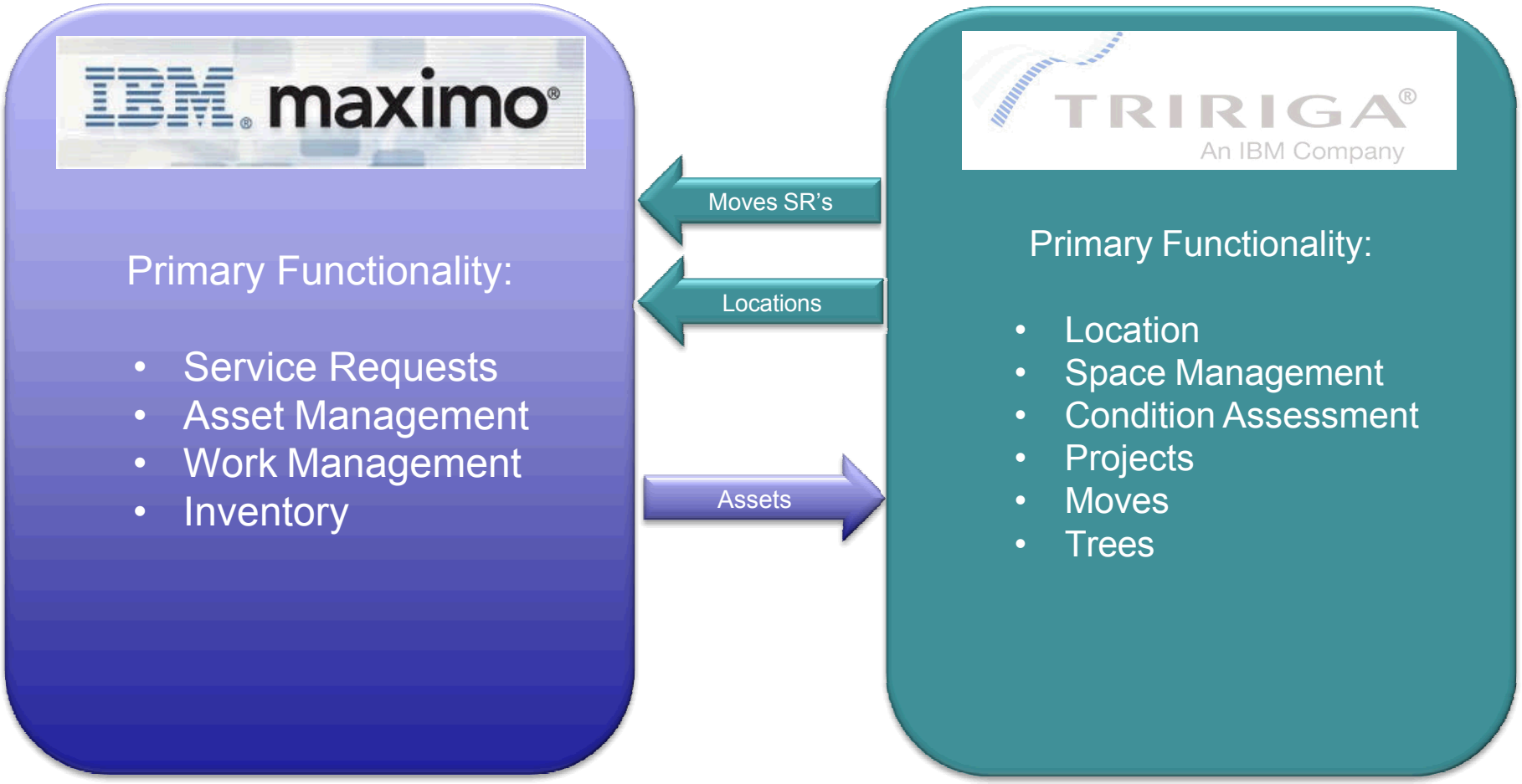


SNL Interface Decisions



Major Areas of Concern

- Assets
- Locations
- Service Requests

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Our Thought Processes

Options, Risks, and Decisions

Established Ground Rules:

- Work orders will be executed in Maximo
- Asset data must be in both systems
- Location data must be in both systems
- Condition assessments will be recorded in Tririga
- Moves will be processed in Tririga

Area of Concern – Assets

(Asset data must be in both systems)

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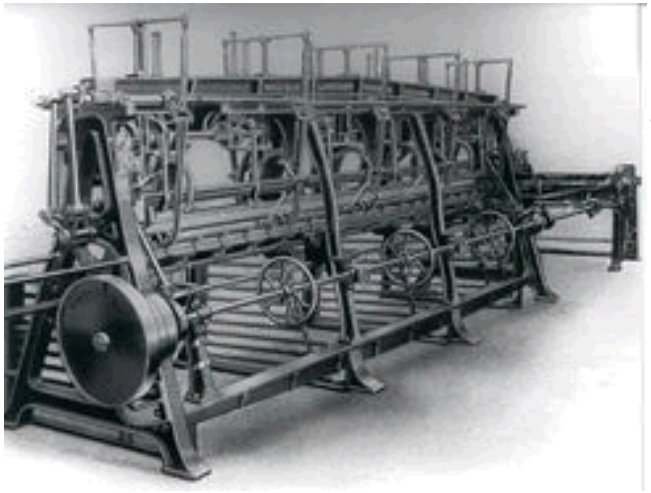
Existing Configuration

- All Assets managed in Maximo
- Work against those assets is executed in Maximo
- Mature, well-established work flows and business processes exist
- Existing large user base well versed in using Maximo
- High volume of work orders processed daily

Area of Concern – Assets

(Asset data must be in both systems)



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Integration Options and Risks

Option 1: Maintain assets in Maximo as the record source of data

Risks/Issues:

- Would require an Asset interface with Tririga to transfer updates on assets to Tririga (needed in Tririga for condition assessments)
- Potential for inconsistent data between the two systems

Option 2: Maintain Assets in Tririga as the record source of data

Risks/Issues:

- Would require integration with Maximo to send Asset information to Maximo
- User confusion resulting from the need to process Asset transactions in both systems
- High potential costs due to need to redevelop existing business and work processes
- Potential for inconsistent data between the two systems

Area of Concern – Assets

(Asset data must be in both systems)

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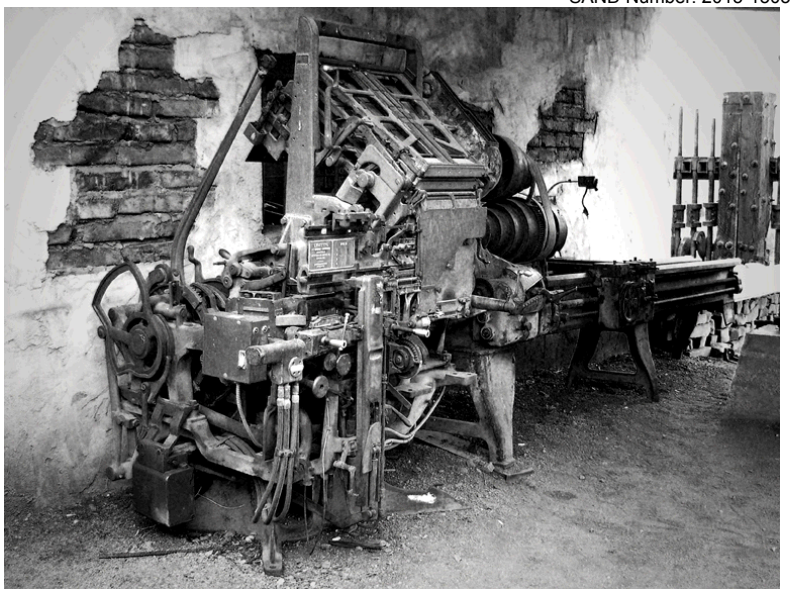

Decision

- Maintain assets in Maximo as the record source of data (Since asset related work is executed in Maximo there will no need to pass high volume of transaction data between the two systems, and current established business and work process will not impacted)

- Build simple one-way integration from Maximo to Tririga to provide Asset information for executing condition assessments in Tririga

Area of Concern – Locations

(Location data in both systems)

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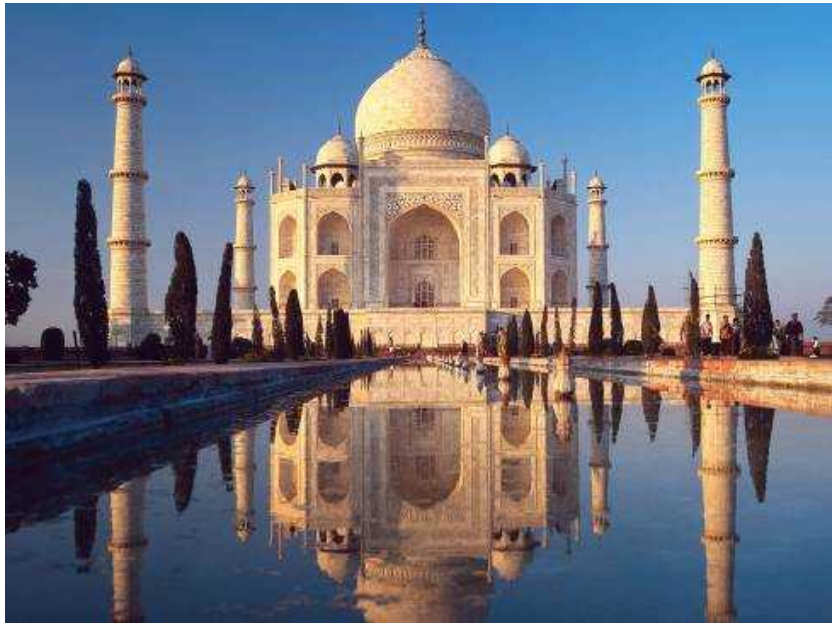

Existing Configuration

- Sandia has a custom built, corporate location application designed to be a one size fits all application
- Many corporate systems use the location application as the record source of location
- Very complex data schema and system to pull-in and manage all location data

Area of Concern – Locations

(Location data in both systems)

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Integration Options and Risks

Option 1: Retire legacy system and maintain Locations in Maximo as the record source of data

Risks/Issues:

- Would require a location interface with Tririga to transfer large volume of transactions between systems
- Space management is performed in Tririga, thus any issues in data consistency could have major impacts to accuracy of required reporting to DOE, and other stake holders
- May have significant negative impact to corporate systems dependent on location information

Option 2: Retire legacy system and maintain Locations in Tririga as the record source of data

Risks/Issues:

- Would require integration with Maximo to send Location information to Maximo
- Possibility of data inconsistencies between the two systems
- May have significant negative impact to corporate systems dependent on location information

Area of Concern – Locations

(Location data in both systems)

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Decision

- Retire legacy system and maintain locations in Tririga as the record source of data
- Build simple one-way Location integration from Tririga to Maximo
- Minimize impact to dependent corporate systems by generating Location views/web services that mimic the views/services currently being consumed by those systems

Area of Concern – Service Requests

(Only need to be in one system)

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Existing Configuration

- All service requests are entered in Maximo
- Well established business and configured work processes using Maximo as SR system
- Work process including generating work orders, PM work orders, team scheduling, etc. tightly integrated with service request functions.

Area of Concern – Service Requests
(Only need to be in one system)

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SAND Number: 2013-1505 C

Integration Options and Risks

Option 1: Continue to use Maximo for all service requests

Risks/Issues:

- Would require integration with Tririga to receive SR's/Work orders needed for moves, and condition assessments (very low volume)

Option 2: Use Tririga Request Central for all Service requests

Risks/Issues:

- Would require integration with Maximo to exchange data and a large volume of transactions (98% of all SR's would need to be sent to Maximo)
- Efficiencies may be lost due to need to redevelop and redesign business and work processes

Area of Concern – Service Requests
(Only need to be in one system)

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Decision

- Continue to use Maximo for all service requests
- Build two-way interface with Tririga to pass Moves and Condition Assessment SR's/Work Orders to Maximo (Low volume of transactions)

Summary

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SAND Number: 2013-1505 C

ROAD MAP

- Both systems will continue to exist, and will continue to be supported and upgraded
- Redundant capabilities between the two systems **will** remain
- Integrations will be built by IBM to enable customers to use the redundant capabilities from either system
- To fully utilize the latest integrations you need Maximo 7.5.1 and Tririga 3.3.3

KEY DECISION POINT

Which system you will choose to use for each of the Overlapping capabilities

POINTS TO CONSIDER

- Your long term vision
- The predominant capabilities need for your Company
- The redundant capability(s) you are currently using
- Integrations with other systems
- Current user base
- Current technical team