ACHIEVING OPERATIONAL EXCELLENCE

Warfighter or Office Worker
Converting Operating Dollars to Mission Funding
by Leveraging Emerging Technologies
for Real Property Asset Management

National Academies of Sciences – Federal Facilities Council
June 24, 2009

Presentations by:
Andy Fuhrman, Chief Executive Officer - OSCRE Americas, Inc.
Lt Col Mark Madaus, HQ USAF/A7CA
Today’s Business Environment

MORE PEOPLE WANT MORE INFORMATION
FROM A MORE DIVERSE NUMBER OF SOURCES
WITH GREATER EFFICIENCY, CONSISTENCY AND TRANSPARENCY
AT LOWER OPERATING COSTS
TO MAKE FASTER, BETTER INFORMED BUSINESS DECISIONS
NECESSARY TO MEET THEIR MISSION OBJECTIVES,
BUT OFTEN TIMES FAIL TO ADDRESS THE ‘UNSEXY’ BEHIND THE SCENES WORK NECESSARY TO EVOLVE THE REAL PROPERTY INDUSTRY TO THE NEXT LEVEL OF OPERATING EXCELLENCE.
What Do You Need to Accomplish Your Mission?

- Manage the size of your portfolio?
- Property Appraisal, Acquisition, Financing, Disposal?
- Build/Retrofit Buildings?
- Sustainable Programming, Design, Build, Operations?
- Contract & Share Data with Vendors & Suppliers?
- Maintain Facilities Infrastructure?
- Internal & External Performance Benchmarking?
- Contingency Planning/Emergency Response?
- Interagency Data Sharing?
What’s In Your Technology Roadmap?

INTELLIGENT BUILDING

INTEGRATED SYSTEMS

MULTI FUNCTION SYSTEMS

SINGLE FUNCTION SYSTEMS

IP CONVERGENCE

BUILDING AUTOMATION SYSTEMS

INTEGRATED COMMUNICATION SYSTEMS

INTEGRATED WORKPLACE MANAGEMENT SYSTEMS

WEB CONFERENCING AND VoIP

DATA

FIRE

ACCESS CONTROL

HVAC CONTROL

ELECTRICAL LIGHTING WATER CONVEYANCE CONTROLS

VOICE COMM.

VIDEO AND IMAGES

BUILDING SYSTEMS

USER SYSTEMS

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What’s In Your Technology Roadmap?

ORGANIZATION-WIDE DEPARTMENTS

CORPORATE REAL ESTATE

SPACE PLANNING/MOVE MANAGEMENT
ADVANCED PLANNING & FORECASTING
REAL ESTATE & LEASE MANAGEMENT
MAINTENANCE OPERATIONS
EMPLOYEE SELF SERVICE
PROJECT MANAGEMENT
SUSTAINABILITY & ENERGY MANAGEMENT
ENVIRONMENTAL HEALTH & SAFETY
CONTINGENCY PLAN./EMERG. RESPONSE

DATA WAREHOUSE

END USER/OCCUPIER TECHNOLOGY APPLICATIONS
Real Property Ecosystem

BIM CREATORS
- General & Subcontractors
- Architects & Engineers
- Materials Supplier

OTHER PERMITTING AGENCIES

UTILITIES

BIM REVIEWERS
- Local Permitting Agencies
- Other Permitting Agencies
- Utilities

BUILDING INFORMATION MODELS (BIM)

CORPORATE REAL ESTATE
- Space Planning/Move Management
- Advanced Planning & Forecasting
- Real Estate & Lease Management
- Maintenance Operations
- Employee Self Service
- Project Management
- Sustainability & Energy Management
- Environmental Health & Safety
- Contingency Plan/Emerg. Response

ORGANIZATION-WIDE DEPARTMENTS
- Finance
- HR
- Security
- Info Tech

DATA WAREHOUSE

EXTERNAL STAKEHOLDERS & PROVIDERS
- Real Estate Brokers
- Financial Institutions
- Investors
- Valuation
- Legal
- GIS
- IFMA
- BOMA
- Green Building Alliance

END USER/OCCUPIER TECHNOLOGY APPLICATIONS

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The Real Property industry is highly fragmented with many sectors and stakeholders.
Real Property Information Sharing

Open Standards
Open Standards Consortium
For Real Estate
OSCRE
About OSCRE

What we do
We are a consortium of real estate industry leaders driving the development and adoption of real estate information and transactions standards.

Our goal
Our goal is to enable increased productivity and profitability through industry-wide operational efficiency.
About OSCRE

What it is
OSCRE publishes interoperable data exchange standards that allow industry stakeholders to share information regardless of software application, platform or hardware.

How it works
OSCRE members collaborate in workgroups, identifying defining and agreeing on data elements in specific real estate business processes.
About OSCRE

Strategic Benefits

» Automated movement of property data between systems - expedited acquisitions, improved data reliability

» Improved analytical capability - improved decision making ability

» Lower data governance costs - improved productivity, lower staff costs

» Standards definitions used for governance - lower staff costs
OSCRE has been formed to help address today’s business and economic drivers:

- The need for higher productivity with lower operating costs.
- The need to automate the movement of information.
- The real estate industry is fragmented.
- There are minimal open standards… and systems can’t talk to each other
- We need digital standards to improve business processes to reduce capital investment and optimize costs of services and products
- The need easier governance of information
- Looks at the whole industry as an interconnected ecosystem
- Achieves end-to-end (B2B) transactions
Who Develops Industry Standards

- Non-Members & Members recommend business processes to automate.
- Only members participate in Work Groups.
- All participating member organizations have only one vote per Work Group.
- Ideal Work Group members are subject matter professionals who know what information they need for a specific process, where the data comes from, what to do with when they get it and who else needs it in the supply chain.
- Technical expertise is not required to participate in OSCRE Work Groups.
Current OSCRE Standards

 váží: Commercial Information Exchange Standard
Reducing Friction in Commercial Real Estate Transactions [+800 hrs, ~$240,000]**

➤ Commercial Property Information Exchange Standard
Concise, Bulk Exchange of Property and Tenant Details  [~1,000 hrs, $300,000]

➤ Lease Abstract Exchange Standard
Concise Abstracts That Enable the Lease & PM Ecosystem[~500 hrs. $125,000]

➤ Real Property Unique Identifier Standard
A Persistent, Unique Identifier For Use Throughout the Life of a Real Property Asset [~650 hrs, $130,000]

➤ Work Request Work Order Fulfillment Standard
Linking All Parties In Corporate Facilities Services Management [ ~800 hrs, $200,000]

➤ Appraisal Reporting Standard for Commercial Property
Fast, Accurate Appraisal Data Exchange and Re-use  [+3,000 hrs, ~$900,000]

➤ Space Classification Standard
Consistent Space Naming – Coordinated with Space Measurement [~600 hrs, $120,000]

** [Approximate Labor Hours and Labor Hour Cost Invested by OSCRE Members]
AF Space Optimization Update to Federal Facilities Council

Lt Col Mark Madaus
HQ USAF/A7CA
24 June 09
Air Force Installations: 3-D Weapons Systems

- 166 AF Installations world-wide with over 500,000 personnel

- Installations integral to all major mission systems / operations:
  - Global Strike
  - Nuclear Deterrence
  - Missile Warning
  - Global Mobility
  - Homeland Defense
  - Spacelift
  - Unmanned Aerial Vehicle ops
  - Information Superiority

*Installations like carriers are inseparable from the mission*
Air Force Physical Plant Profile

Just Numbers?

80,300 Homes
10M Acres of Land
187M Sq Yds of Airfield Pavements
700M Sq Ft of Facilities
65,000 Dorm Rooms

I n t e g r i t y - S e r v i c e - E x c e l l e n c e
Air Force Physical Plant Profile

Arlington/Alexandria Combined

Twice the Area of New Jersey

Nearly 500 Miles of Runway

Over 88 Microsoft Corporations

$243 Billion in Plant Replacement Value

1 1/2 Times Doubletree Hotels
Air Force Leadership Priorities

“At the headquarters, our responsibility is to optimize the effectiveness of the limited resources available, across all Air Force missions. This includes determining how to modernize and recapitalize an aging inventory - one of the Air Force's most critical challenges.”

~ Michael B. Donley, Secretary of the Air Force

- Reinvigorate the Air Force Nuclear Enterprise
- Partner with the Joint and Coalition team to win today’s fight
- Develop and Care for Airmen and their families
- Modernize our aging air and space inventories
- Acquisition Excellence

“Sustain risk in infrastructure and facilities…” = 20% Funding Reduction
Goal 1:
Provide more effective Civil Engineering warfighter capabilities ready to meet current and emerging Air Force and combatant commander requirements.

Goal 2:
Cultivate and support a trained and capable Total Force Civil Engineering team, military and civilian, ready to meet mission requirements.

Goal 3:
“20/20 x 2020” Offset the reduction in funds available for installation support activities by achieving efficiencies & reducing by 20% the AF physical plant that requires funds, by 2020.

Must "Shrink from Within" and improve business processes at all levels!
Integrated CE Transformation with CE Strategic Plan: Each commissioned initiative supports a CE goal

**Goal 3: “20/20 x 2020” Offset the reduction in funds available for installation support activities by achieving efficiencies & reducing by 20% the AF physical plant that requires funds, by 2020**

**Obj 3.3: Reduce by 20% the amount of AF physical plant that requires funds, by 2020**

**Sub Obj 3.3D: Research and review standards, processes, techniques, and tools to optimize Air Force facility space use by October 2008 (Project M-6)**

**Implementation Plan: Objective Champion to develop plan/build team to implement sub-objective 3.3D**

"Optimizing space is a critical part of achieving 20/20 by 2020"
Conducted "Corps of Discovery" with Industry leaders to benchmark Space and Occupancy best practices

- Adopted OSCRE space standards, BOMA methodology, and General Services Agency Key Performance Indicators (KPIs)
- Established standardized process and online playbook
- Created interim IT solution pending AF-wide IT replacement
"Soda Straw" perspective limits space optimization opportunities
Adopted industry-standard OSCRE standards & BOMA methods
Provides a framework to more completely describe our space
Simplifies our long-term transition to new COTS IT system
Space Optimization: Adopting Industry Standards

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<th>BOMA Area</th>
<th>CODE</th>
<th>OSCRE Level 1</th>
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<td>Exterior Wall</td>
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<td>Interior Gross</td>
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<td>Interior Parking</td>
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<tr>
<td></td>
<td>1400</td>
<td>Vertical Penetration</td>
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<td>2100</td>
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<td></td>
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</table>

**Level 2**

- Restroom
- Classroom

**Level 3**

- Men's
- Women's
- Small Classroom
- Medium Classroom
- Large Classroom

*NOTE: Not all OSCRE codes are shown here.*

**OSCRE Provided Common Level 1 and Level 2 Framework**

**USAF Developed 50+ Customized USAF-Specific Level 3 Definitions**
Playbook standardizes process, defines data requirements and roles & responsibilities, enables sharing of best practices, and consolidates guidance & procedures.
Created S-File as interim solution pending COTS acquisition
  - Uses existing IGI&S geospatial applications/hardware

Stores data in industry standard format
  - Visually displays space utilization, organizational allocation, and facility energy footprint data for easy access

Generates reports to aid in optimizing space and occupancy
  - Nine reports focus on topics like space allocation, vacancies, facility utilization rate, and EnergyStar rating
Space Optimization: Practical Application

Current State

ACES-RP Data:
- Organization
- Primary Category Code
- Secondary Category Code

CATCODE or Organization ≠ Space Use

Future State

S-File Data:
- Organization
- Primary Category Code
- Embedded Space Type
- Job Function
- Energy Health
- Reports

CATCODE = Space by Mission   OSCRE = Space by Use
OSCRE Americas Board of Directors

Supporting member organizations of OSCRE Americas represent in excess of $2.1 Trillion in Real Estate Assets, 12.3 Billion Square Feet of Floor Space and 1,352,500 association members.

Bruce Kellogg, Chair
Argus Software
+8,000 clients worldwide, NPI, J-REIT

Peter Linkletter, Vice-Chair,
PWGSC
$7B holdings - own/manage 370 MSF

Dave Clute – Past Chair
Cisco Connected Real Estate

David Brady, CEO/President, IFMA
19,000 members in 60 Countries who own/manage +37 BSF

Diane Herdt, CIO – PBS, U.S. GSA
342 MSF

Andrew Millar, VP Technology
Brookfield LaPage Johnson Controls

Zhen Tao, Intuit Real Estate Solutions
4,500 installations on five continents and in 41 countries

Mark Lesswing, VP – National Assoc. Realtors
1.3 Million Members

Robert Toothaker, Past President – IREM
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+16,500 members, own/manage +9 BSF

Ed Lubieniecki, Principal – RealFoundations
A full-service international management consultancy

Brad Setser, VP Marketing, Yardi Business Solutions
15,000 customers, +5 BSF commercial & 5 million residential units globally

Maria Sicola, Senior Managing Researcher,
Cushman & Wakefield
+11,000 employees 57 Countries, R/E Services

John Hall, Principal
Prudential Mortgage Capital Co.
$638B Assets under management for 50M customers

John Urubek, Appraisal Institute
21,000 members North America

Ray Wong, Director, Americas Research Operations
CB Richard Ellis
$4.4B Revenue, 22,000 employees

Jim Young, CEO/Founder - Realcomm
Gathering of leading Corporate RE CIO’s
Conclusion

- Business entities are demanding more from a leaner workforce, while improving data access speed, quality and transparency …..
  ….. OSCRE is delivering on this critical demand

- It’s all about improving productivity

- We’ll be conducting business very differently

- OSCRE is already in offices and business near you

- Just as Green is here to stay…
  … OSCRE is becoming “business as usual”

*Your investment in OSCRE is minimal in exchange for the value you’ll receive in operational efficiencies, economies of scale, networking and social responsibility.*
Call To Action

Meets previous and current administration strategy:

- The American Recovery and Reinvestment Act
- Executive Order 13327 – Portfolio Management
- OMB Circular A-119 – Adopting Private Sector Standards/Best Practices Prior to Creating of New Standards
- Smart Grid

Makes good business sense

- Requesting agencies support OSCRE effort via membership, sponsorship and fee based projects

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Call To Action

TRANSFORMING FEDERAL BUILDINGS INTO HIGH-PERFORMANCE GREEN BUILDINGS

Border Stations/ Land Ports of Entry $300 M

Federal Buildings/ U.S. Courthouses $733.7 M

Building Operations $127 M

Space Rental $108 M

Office of High Performance Green Buildings $4.0 M

Apprenticeship Program $3.0 M

High Performance Green Building $4,274 M

Full & Partial Building Modernizations - $3,168 M

Limited Scope (Including Energy Projects) - $806.9 M

Total Distribution: $5.55 B

Small Projects - $298.5 M

Source: U.S. General Services Administration
Call To Action

SMART GRID
A vision for the future — a network of integrated microgrids that can monitor and heal itself.

- Solar panels
- Offices
- Smart appliances
  Can shut off in response to frequency fluctuations.
- Demand management
  Use can be shifted to off-peak times to save money.
- Processors
  Execute special protection schemes in microseconds.
- Sensors
  Detect fluctuations and disturbances, and can signal for areas to be isolated.
- Storage
  Energy generated at off-peak times could be stored in batteries for later use.
- Generators
  Energy from small generators and solar panels can reduce overall demand on the grid.
- Integrated plant
- Disturbance in the grid
- Central power plant
- Isolated microgrid
- Wind farm
Connecting the Real Estate Industry Now!!!

OSCRE Doesn’t Develop Data Standards, Our Members Do.

If You Want the Benefits, You Need to Get Involved and Make it Happen Because it’s Going to Happen by You or to You!

For Additional Information Contact
Andy Fuhrman
Chief Executive Officer
Tel. 831.458.3346
Email: andy.fuhrman@oscre.org
Web: http://www.oscre.org
QUESTIONS

OPEN DISCUSSION