



Multitenancy, Maximo, and Hosting - Cromwell Offers It All!

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Cromwell Introduction

For over 130 years, Cromwell has been providing *seamless integration and collaboration* of building services disciplines, offering a *unique set of skills* that allow them to be *your partner* throughout the *entire life cycle* of your facility.



Introducing Cromwell Facility Services

NEW FACILITY PROGRAM
DEVELOPMENT

FACILITY CONSULTING
SERVICES

FULL TURNKEY OPERATION

FACILITY CONDITION
ASSESSMENT



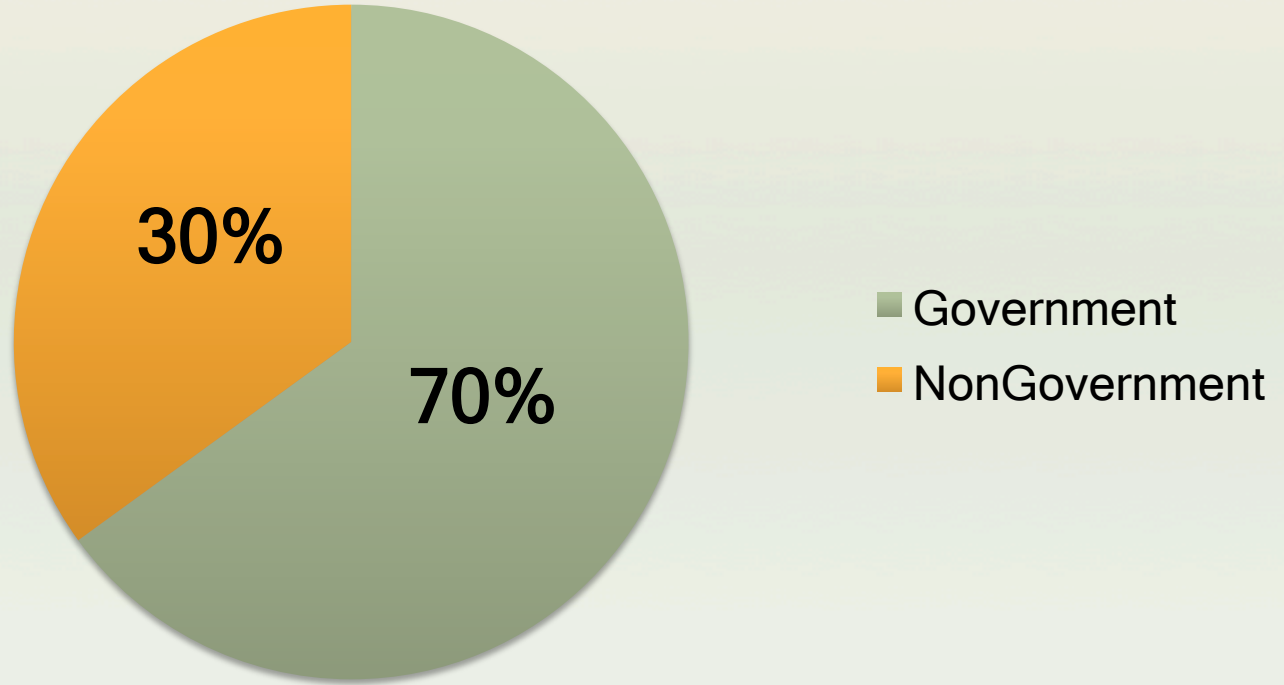


Supporting Customers of all Types & Sizes



- High Tech Buildings
- Turf / Field Maintenance
- Large Facilities with Multiple Buildings
- Land Activity
- Manage Leases
- Work Orders, Events, Preventative Maintenance

Customers

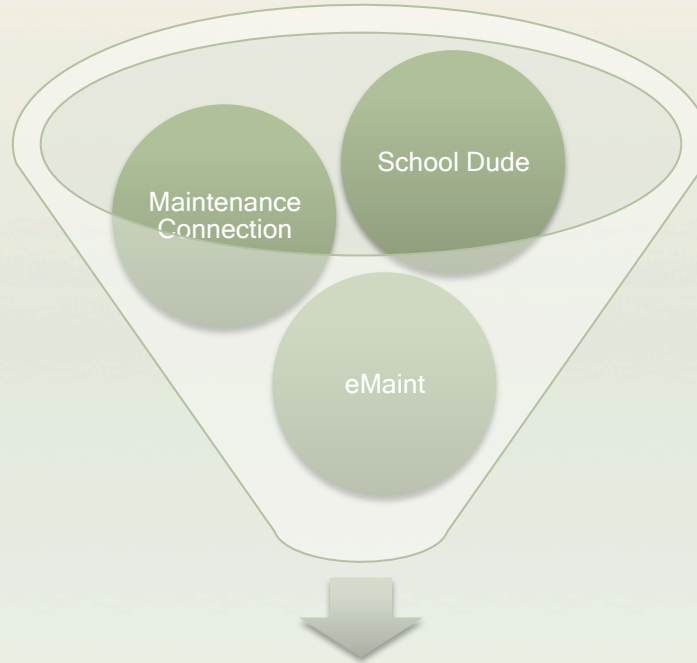




Cromwell Facilities Services Division

The Facilities Services Division focuses on *proper preventative maintenance and operational strategies* that are critical for *reliability* and preservation of assets, as well as *reduced operating costs*.

But First a Step Back...



Haphazard Maintenance



IBM Maximo Asset Management – 7.6 to the Rescue

Improve visibility, increase resource utilization and reduce costs



Focus on User Experience – new look and feel, improved navigation and data access

Analytical insights through Reporting, KPI's and Dashboards improved performance, increased user access and better tools to monitor the health of your business

Functional Enhancements improved crew management and service addresses to support maps

Technology Improvements – expanded install and platform support, Multitenant architecture, serviceability

Expanded capabilities to support business intelligence

Intuitive navigation for users

Increased Serviceability

Why IBM & Maximo?

- Cromwell was already an IBM customer
 - IBM Lotus Notes
 - IBM Server Platforms
- Demo provided by IBM & Interloc
- Interloc was driven to make project success
- IBM was driven to provide support

Cromwell was Client #1

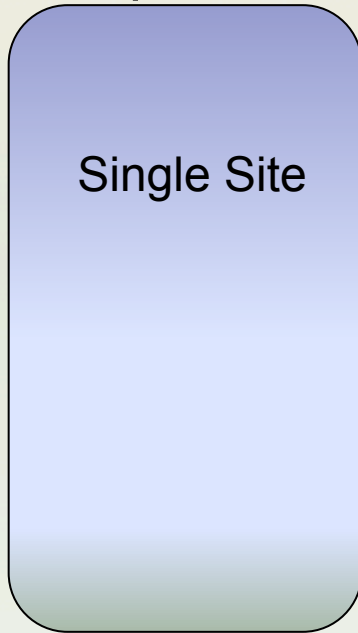


- Strong partnership with Interloc Solutions leading the effort
 - From education through implementation to go-live and support
 - Continued support for Cromwell and Cromwell customers
- Support provided by IBM
 - Ensured good experience

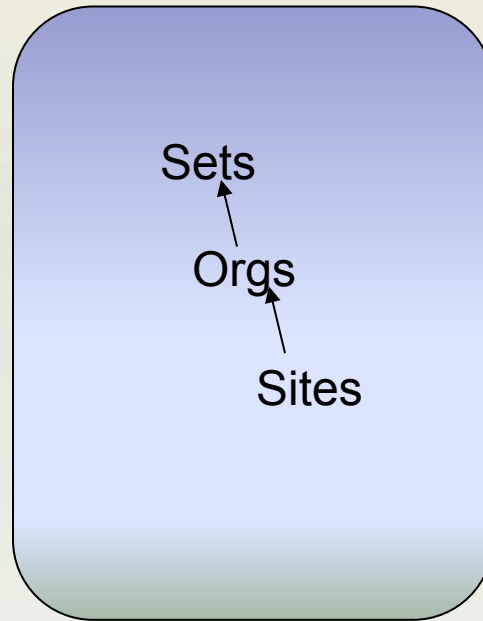
Implement Maximo 7.6 for Cromwell maintenance

Evolution of Maximo from single instance to multitenant...

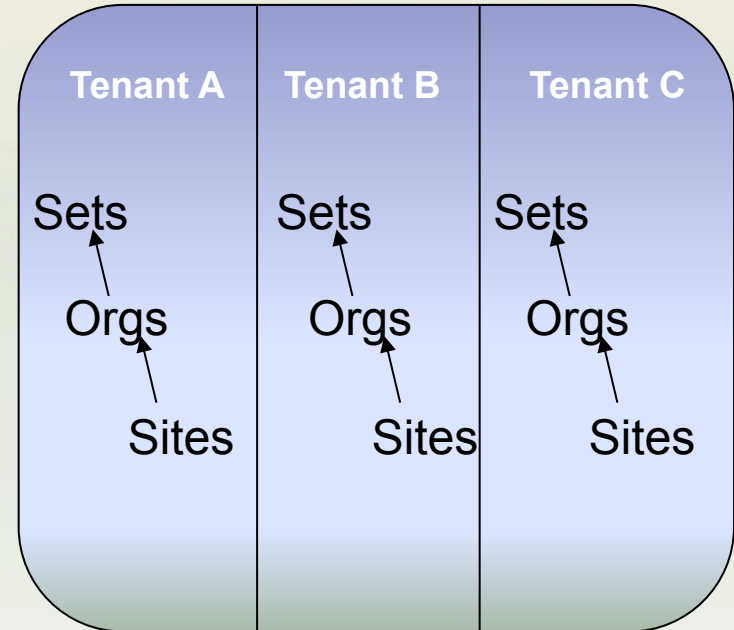
Corporation



Enterprise



Multitenant



... the opportunity to form a new business unit

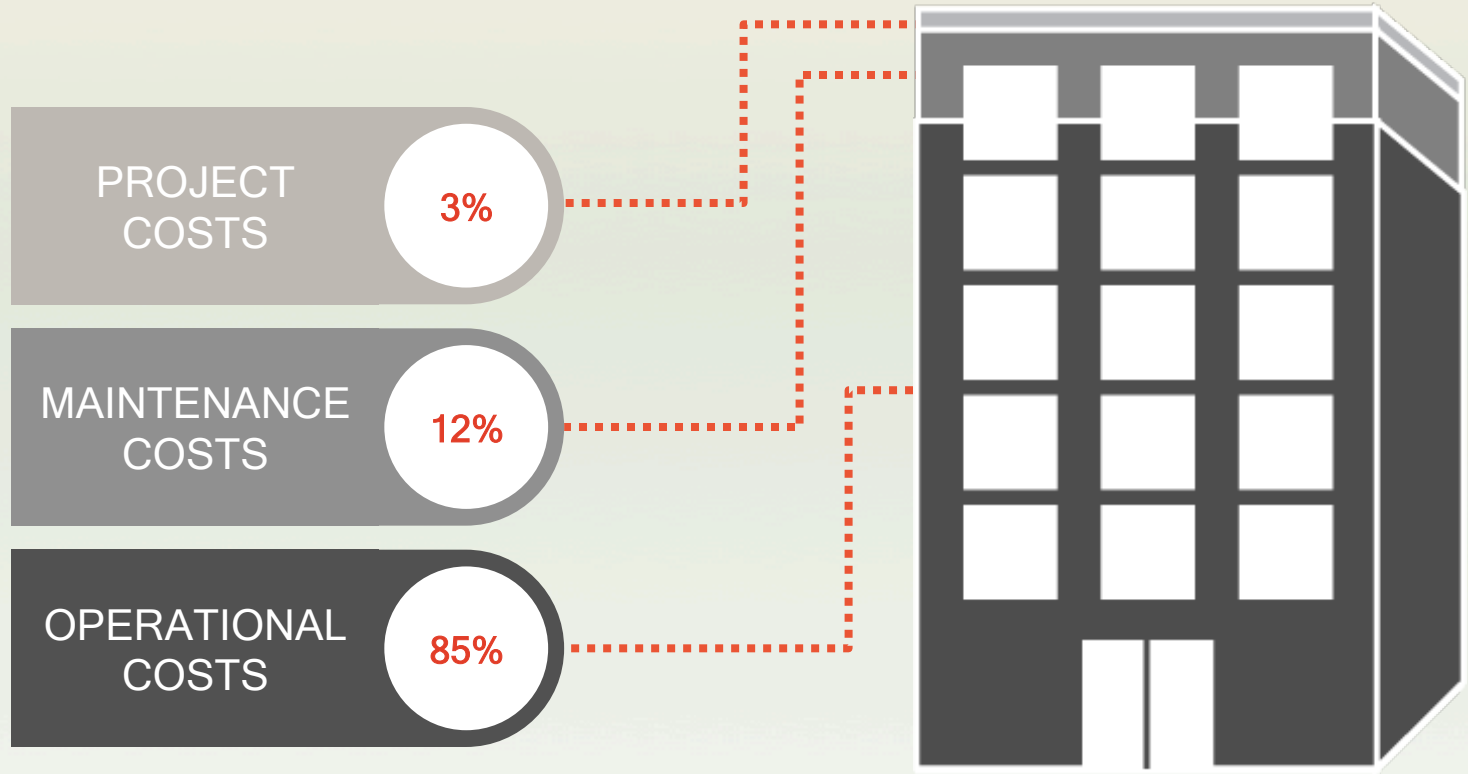
High Tech Buildings Have Common Needs

- Proactive facilities maintenance
- Business continuity assurance
- Maximize facility life expectancy
- Maintain energy-efficient aspects of building for maximum ROI



FACILITY COSTS

20% of operating costs can be reduced by proper preventative management measures and proper long range planning.



Service Offerings

- PM Programming
- Operational Budget Planning
- Contract Management & Negotiations
- Head-hunting
- Facilities Condition Assessments
- O & M Creations
- Systems Plan Development
- Owner's Rep
- Construction Management
- Roof Evaluations
- Forensic Investigation - Leak Detection
- Thermal Imaging
- Turn-key Operation

Goal: Predictive Maintenance

Proper Preventative Maintenance will Predict the Life of Equipment

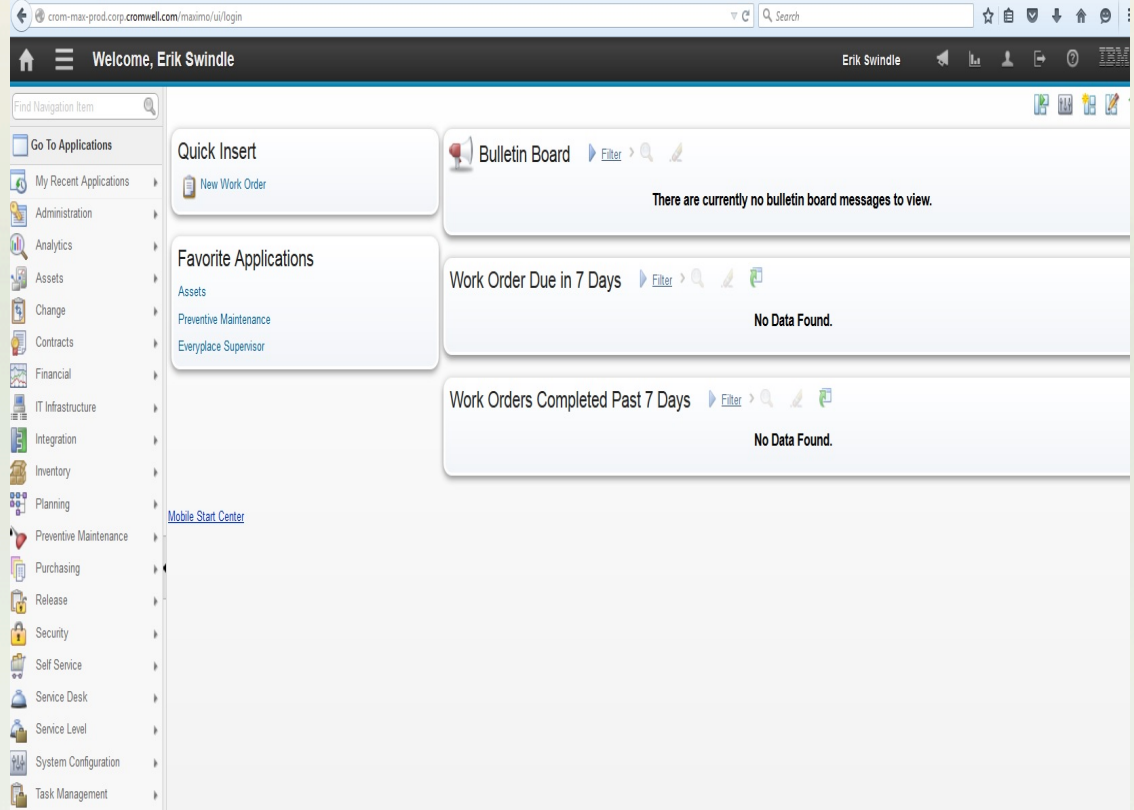
CROMWELL	
PM Task List: Outdoor DX HVAC Units	
Includes Rooftop Packaged Units, Condensing Units and Air Cooled Condensers. Tasks apply only to units that have the applicable components	
Caution: ONLY qualified personnel should perform this work.	
Daily (units over 25 tons)	
<input type="checkbox"/>	Check general operating conditions, including:
	_Damper position
	_Vibration/noise level
	_Supply air temperature
Quarterly Inspections (recorded as OPM)	
To be conducted on all units one ton and above	
<input type="checkbox"/>	Check and adjust the following, as necessary:
	_Belt tension
	_Damper controls/linkages
	_Bearings
	_Time clock
	_Pulleys
	_Filter conditions
	_Vanes
	_Tighten bolts/nuts
<input type="checkbox"/>	Check condensate drains
<input type="checkbox"/>	Inspect evaporator and condenser coils
<input type="checkbox"/>	Check refrigeration lines (insulation, oil leaks)
Semiannual Inspections (recorded as S/A PM)	
To be conducted on all units, subject to service conditions and manufacturer's recommendations.	
<input type="checkbox"/>	Lubrication of following items:
	_Blower bearings
	_Damper linkages (not sealed bearings)
	_Condenser fan
	_Shaft
	_Blower motor
	Check fan blades (e.g. cracks, setscrews)

- Extensive PM Checklist
- Utilize Current Staff or allocate
- Proper allocation of staff time
- Associate with Maximo Work Order System



Facility Management System

- Asset Management
- CAP EX Forecasting
- Work Order System
- Bar Coding
- Labor Audit
- Contract Management
- Cloud Data Management

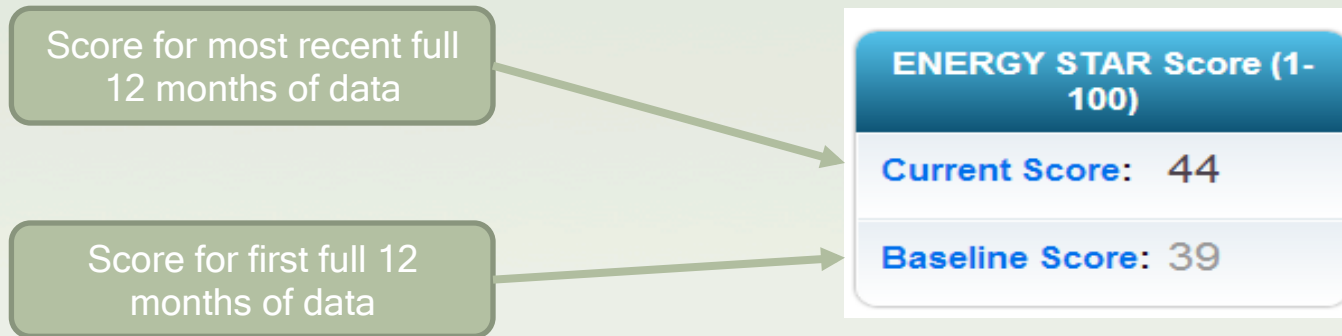


Level 1 Audits

Benchmarking

Energy Star uses data, collected every four years, from the Commercial Building Energy Consumption Survey (CBECS) for comparisons to your building.

Based on this comparison, your property will receive an Energy Star score from 1 - 100. A score of 50 represents median performance, while a score of 75 indicates a top performer.

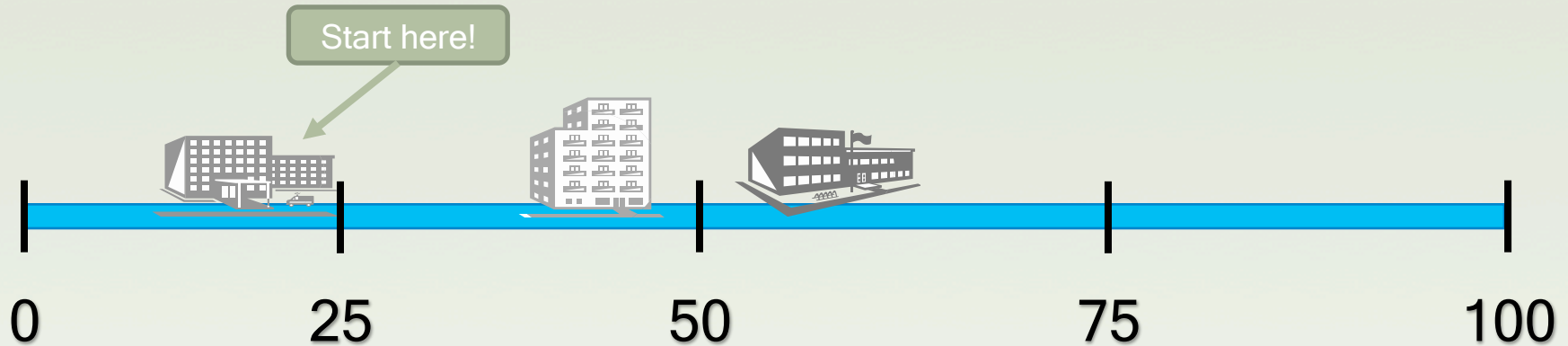


Level 1 Audits

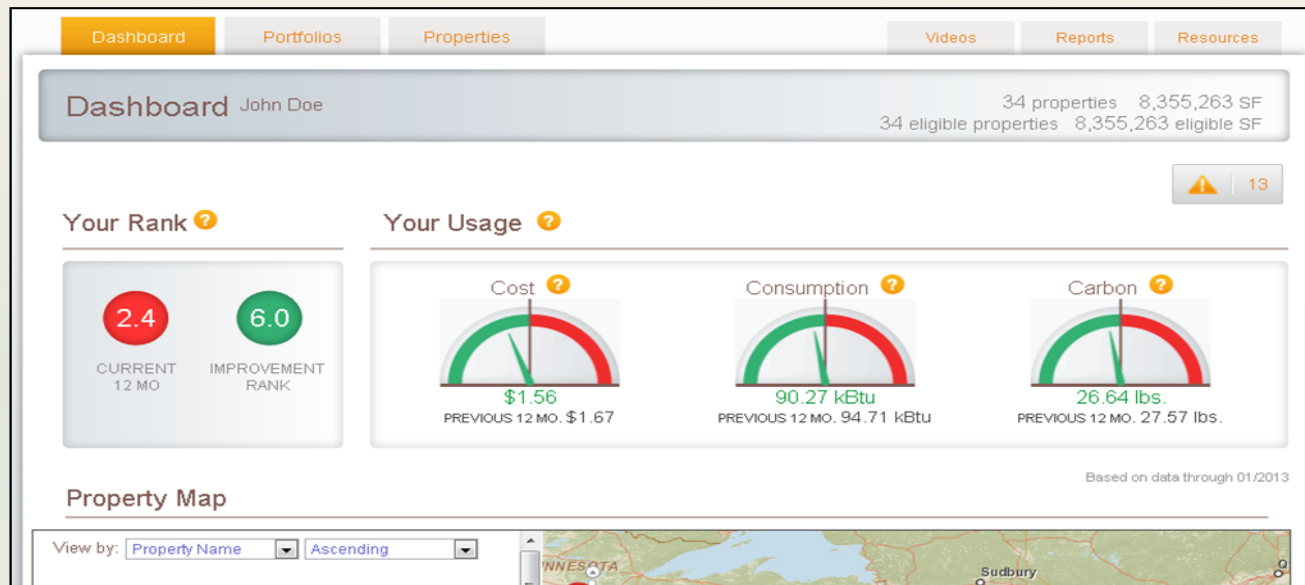
Portfolio Analysis

Comparing buildings within a portfolio becomes simple using the Energy Star score.

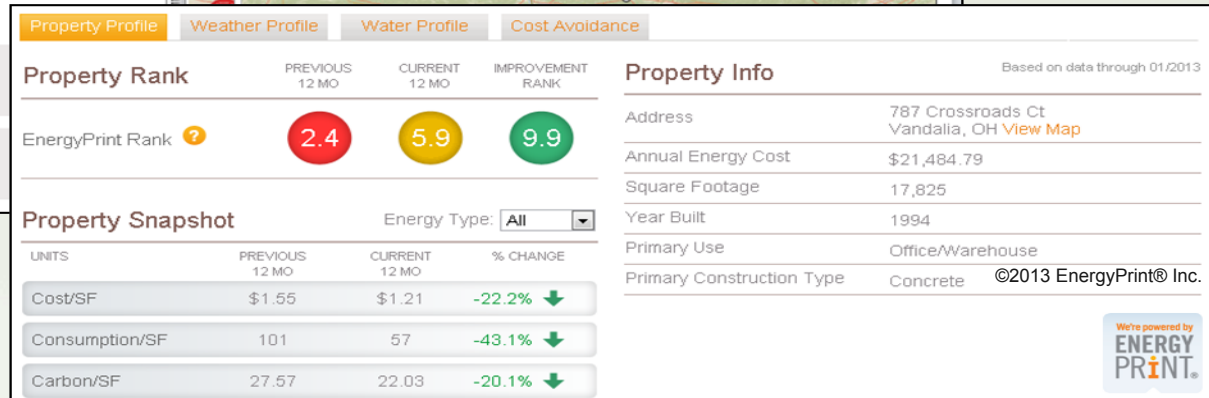
The lowest rated performer should be the first target for an energy audit.



How Are Your Buildings Doing?



Property	
0.2	Data Center U 135 Highland Drive Lebanon, VA 24266
8.9	Education C 388 Rue De Gabriel Natchitoches, LA 71457





What Is The Cromwell Energy Dashboard?

- ❖ A simple way to Find, Track & Validate energy savings
- ❖ Translates complex utility information into usable knowledge that compliments solutions
- ❖ Delivers insights that enable an energy services conversation and actionable plans
- ❖ Helps justify improvements and investments, and ultimately prove ROI



To Summarize?

Maximo 7.6 Helps Answer 4 Key Business Questions:for You

**How are your
buildings
doing?**

Understand

**Are your
buildings getting
better or worse?**

Prioritize

**Where are the best
opportunities for
savings?**

Implement

**Have past
improvements
paid off?**

Measure



Continuous energy tracking & benchmarking

Success Metrics

- Reduction of Operation Expenses
- Reduction of Capital Spend with proper asset tracking
- Seeing a ROI of less than 2 years once investing

Next Steps

- Joining with other business partners to increase exposure
- Focus for 2016 - K-12 & Higher Education - Areas where budgets are the most constraint
- Focus for 2016 - Partner with Government Entities to provide Maximo to multi-site installments

Questions? Thanks!!

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