

Enterprise Building Management - nearly there -

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www.NewDaedalus.com

- 14 Million Square Feet and Growing
- Low Bid state construction
 - Small business friendly process dictates each sub is bid separately
- More aggressive TOD Power Pricing
- Unable to evaluate operating postures in real time
- More frequent demands for special needs
- Customers wanted access to more data



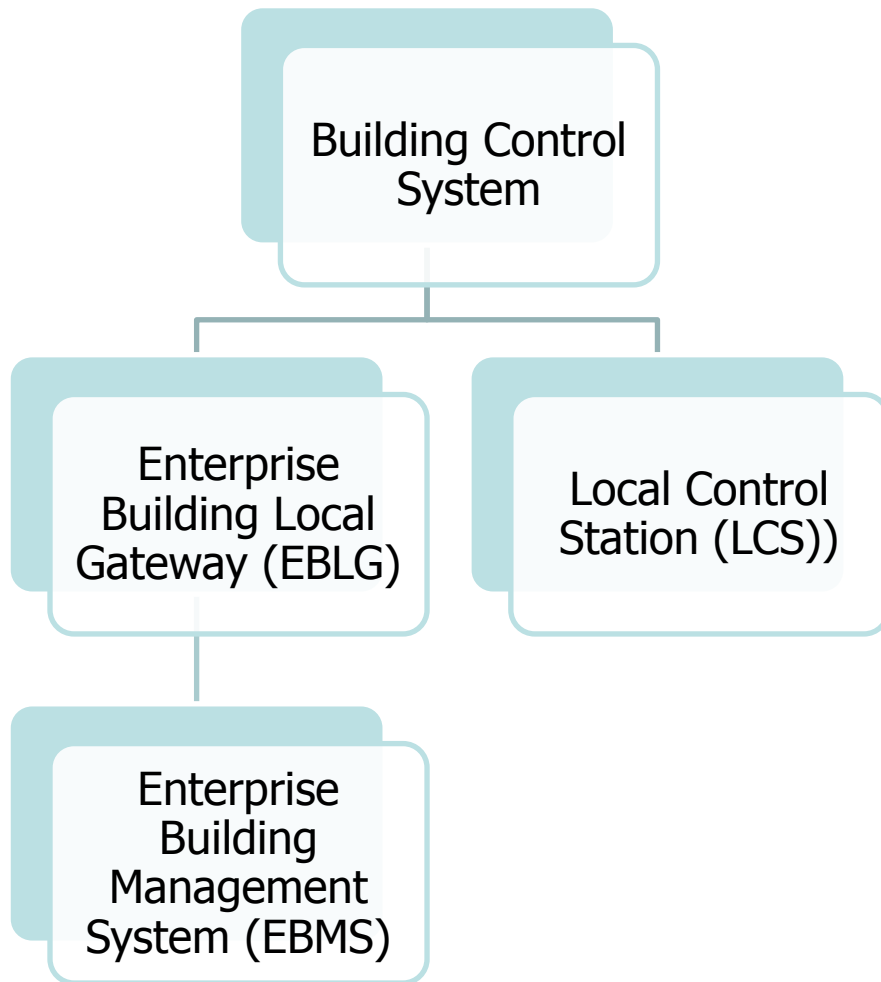
- We'd already done the easy stuff
- New state mandates imposed same reductions on all campuses
- Could we make buildings situation aware?
- Could we perform analytics across silos?
 - Central Chilled Water loop
 - Central Steam loop
 - On-Site Cogeneration
 - Building Operations

- Platform Agnostic Monitoring and Control
- Using the standards of e-Business
 - Eliminate special network needs of control systems
 - Occult Diversity
 - Abstract functions into services
- Scalable Directory Integrated security
- All systems must support Policy-based management



- 70 oBIX buildings with JACE R2 fronting a Robert Shaw DMS 3500, LON.
- 32 Gridlogix Buildings fronting JCI, BACnet, LON, Siemens, Modbus
- Adding TAC (Soap/XML Server)
- Adding Circon fronted by iLons.
- 12,896 data points in the database.
- over 60 million rows of collected data.

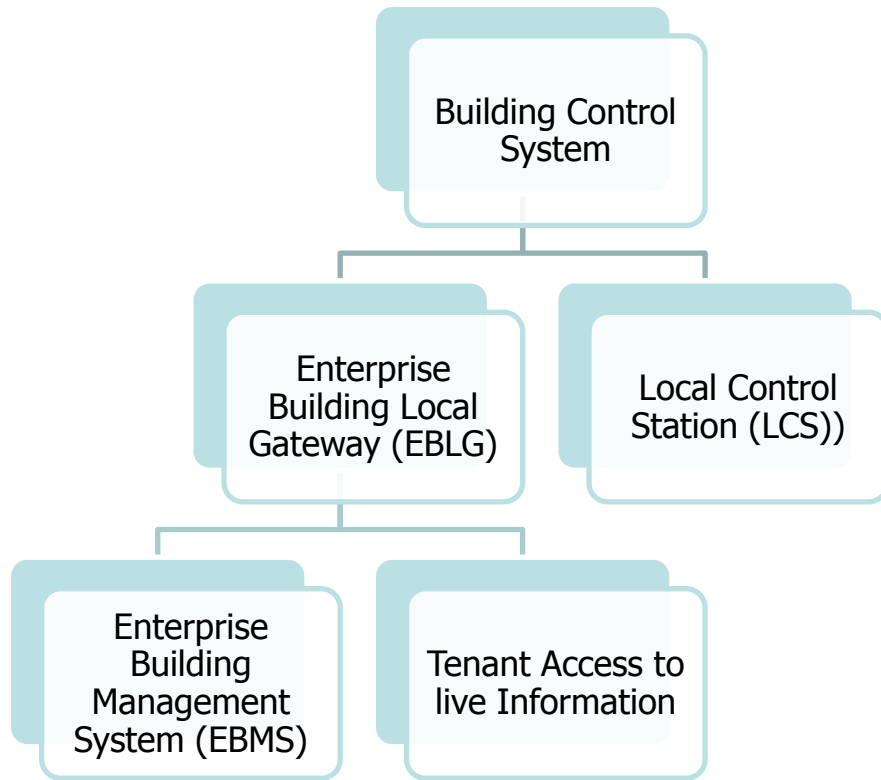
- Web Services Monitoring and control of 9 different controls system manufacturers.
- 33,000 data point values being collected.
- All data points normalized to standard data structures
- All data can be accessed by standard analytic tools
- Single interface for control room operator



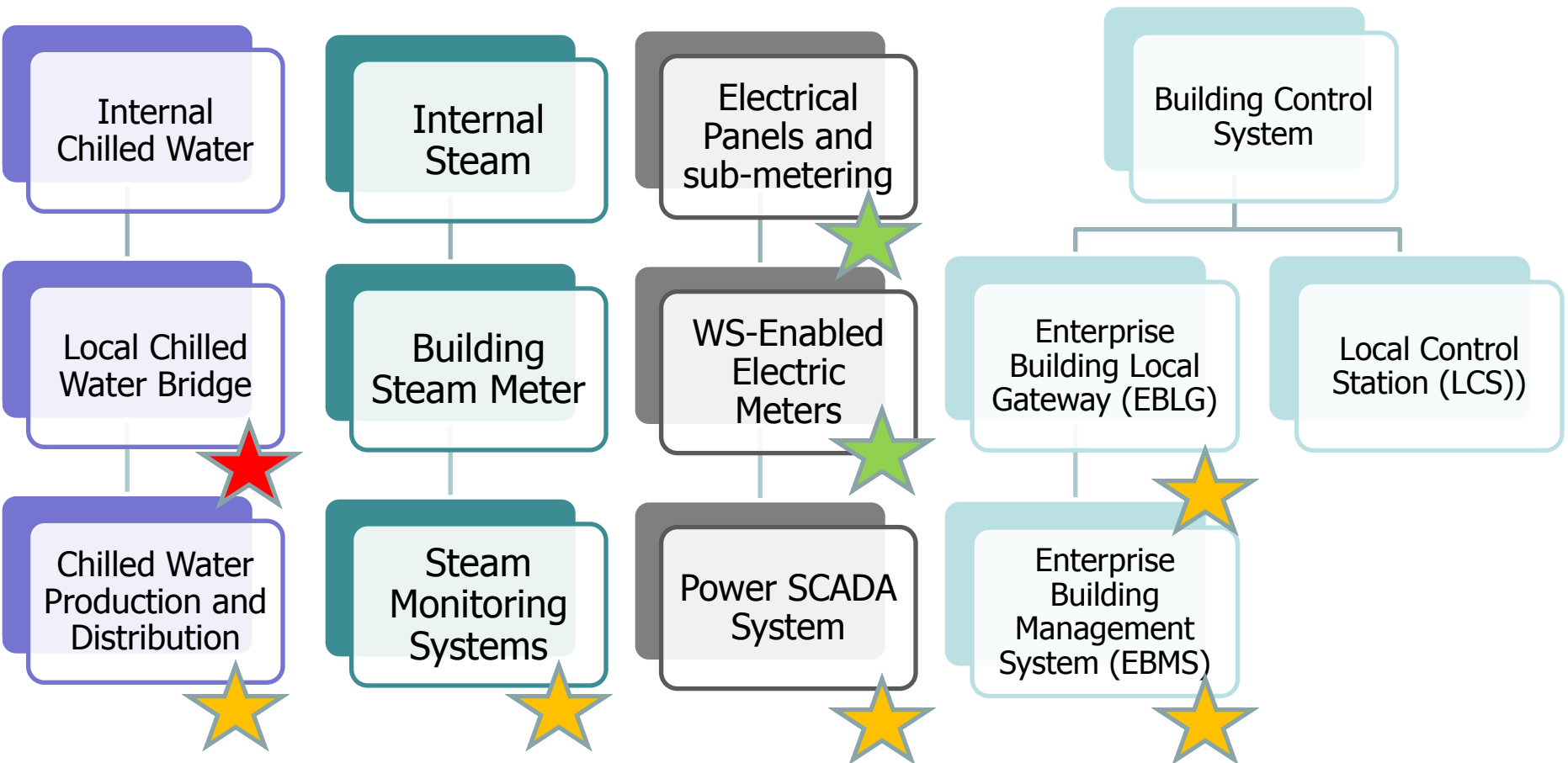
- HVAC Techs have remote access to LCS for all configuration and diagnostics
- EBLG provides local historian and communicates only by Web Services
- All Windows XP under managed network policy

- Control Room Operators able to discover, classify, and map points themselves.
- New HVAC personnel able to access LCS systems with their own account/password.
 - Systems are still secured – campus
- Call-back Technicians able to access systems directly from off campus
- Vendor support staff access building systems directly over VPN





- Tenants get read-only access to live data unmediated by EBMS
 - Data Center
 - Lab Animal Medicine
 - Historical Collections
- Only Tenant Protocol is Web Services
 - No need for customer to know three protocols are used in his four buildings



- Fire Alarm Maintenance and Operation
 - Not regulated communication
- Building Annunciators
 - Emergency Management Scenario
- Security Systems
- Audio Visual Management Systems
 - Classroom Technologies
- Service Oriented IP Telephony

- Enterprise Service Integration
- ICAL bindings for Systems

- Questions?