

CABA Intelligent & Integrated Systems Council (IIBC)
Draft Meeting Minutes
Monday, January 31, 2011
4-6:10 P.M. PT
Las Vegas, NV

Present:

Roy Kolasa – Honeywell International (IIBC Chairman)
Jon Summers, Ingersoll Rand (Vice-Chair)
Mark Barry, CePort
Jim Beam, Ingersoll Rand / Trane
Daniel Burns, Boeing
Rochelle Burt, LIGHTFAIR International
Susan Burek, Ingersoll Rand
Steve Carney, Kele
Michael Carter, AMX Corporation
Brian Casey, Honeywell International
Toby Considine, New Daedalus
Drew Dawkins, ServiceU
Phil Dlatt, Siemens Industry, Inc.
David Dunnie, American Airlines
Gina Elliott, Smart Buildings
David Farnum, Legrand Ortronics
Ken Gallinger, CABA
Roberta Gamble, Frost & Sullivan
Andrew Giles, BSRIA
George Grimes, CABA
John Hall, CABA
Louis-Nicholas Harmer, SCL Elements, Inc.
Robert Helt, Helt Engineering
Ricky Henderson, Vaisala
Brad Hill, Honeywell International
Jacob Jackson, Assurity Design Group
George Karones, Contemporary Controls
Shaun Klann, Intelligent Buildings
Harry Kohal, Eagle Technology
Kent Hoskin, Robinson Solutions
David Lamarche, SCL Elements, Inc.
Michael Landrum, CSA International

Robert Lane, Robert H. Lane and Associates Inc.
Anthony Lui, CSA International
Sunil Maulik, People Power
Geoff Mulligan, iPSO
Rob Murchison, Intelligent Buildings
Maurice Okawaki, Frost & Sullivan
Robert Owen, Contemporary Controls
John Petze, SkyFoundry
Darlene Pope, Consolidated Green Services
Cameron Saunders, Realcomm
William Schafer, Assurity Design Group
Richard Theron, FieldServer Technologies
Jeremy Towler, BSRIA
Clint Undseth, Canem Systems Ltd.
Pete Veum, Tyco
Lisa Woods, Realcomm
Ron Zimmer, CABA

1. Welcome and Opening Comments

Chairman, Roy Kolasa and Ron Zimmer, President & CEO of CABA, welcomed the IIBC members and guests to the meeting. Roy indicated that this was a record turnout for a face-to-face meeting. Introductions were given by each participant. Roy asked for approval of the past IIBC meeting minutes. He indicated all IIBC minutes and details can be found at <http://www.caba.org/iibc/minutes>.

Motion: Moved by David Katz; Seconded by Bob Lane

“That the minutes from the Dec 03., 2010 IIBC meeting be approved.”

CARRIED

Motion: Moved by: Bob Lane; Seconded by David Katz

“That Jon Summers, from Ingersoll Rand, and Liz Jacobs, from Siemens Industry, Inc. be appointed as IIBC Vice-Chairs.”

CARRIED

2. Green and Sustainable Buildings Sub-Committee

2.1 STEP Program

Roy Kolosa reviewed the initiative by InfoComm International and they are looking for companies and organizations to join their new STEP Program. More details can be found at www.infocomm.org.

2.2 ASHRAE Standard 189.1 Report

Pornsak Songkakul, from Siemens Industry, Inc., has been CABA's representative to this ASHRAE group. Since he was not at the meeting, David Katz indicated that he attended the ASHRAE meeting just held. He gave an update on the continued good efforts by ASHRAE on SP 189.1. More details can be found at: www.ashrae.org/technology/page/1040.

2.3 Zero Energy Commercial Buildings Consortium Report

Christopher Larry and Tom Lohner, from Teng Solutions, and Tim Kensok, from AirAdvice, have been serving as CABA's official reps to this important Consortium. They were not at the meeting to give a report, but Ron Zimmer indicated that a number of working groups had been established and many CABA members are represented in these groups. CABA members are encouraged to get involved and more details can be found at: <http://zeroenergycbc.org>.

3. Building Intelligence Quotient (BiQ) Tool

David Katz, representing the BiQ Consortium, provided an update that negotiations continue with Jones Lang LaSalle (JLL) who would like to purchase the rights to the BiQ Tool from the BiQC. Once that is complete, CABA will negotiate a new Agreement with JLL so there can be the continued development of the BiQ Tool 2.0, awards program, etc. David indicated that in addition to Honeywell having a yearly license, approx 80 BiQ evaluations have completed. Also, CABA members can continue to utilize one complimentary BiQ Tool. For more info on the BiQ Tool, go to: www.caba.org/biq.

4. Task Force on Education and Training

Gina Elliott, from Smart Buildings and Task Force Vice-Chair, reported for Jim Sinopoli who has chaired the Task Force. She gave an update and indicated that a special meeting would be held on February 1, 2011 in the LVCC to discuss next steps. Roy Kolosa gave everyone some background in that more Education and Training for the IB sector was identified in the past CABA Intelligent Buildings

Roadmap. One of the key priorities for the IIBC was to help develop more education and training so the intelligent buildings sector could expand.

(Note – the February 1, 2011 Task Force meeting resulted in the identification of several good opportunities where CABA could assist in promoting and collaborating to increase more training and education in the “intelligent buildings” sector. The International Society of Automation and the Automation Federation were identified as two groups to discuss collaborative opportunities. Contacts have been made with these two groups and discussions continue.

5. Intelligent BMS and Cloud Computing

Mark Cosyn, from Colony Networks, had been pursuing potential activities in this area. Mark was not at the meeting, but it was agreed that “cloud computing” would be an important aspect of the growing “intelligent building” sector and should continue to be followed.

6. Intelligent Buildings Roadmap 2011 (IBRM)

John Hall, CABA Research Director, gave the background on the 17 organizations that funded the research, which was completed in Dec/2010. Frost & Sullivan provided the research and Jorge Moreno, from Frost & Sullivan gave a presentation covering material in the Executive Summary. This presentation can be viewed at: <http://www.caba.org/councils/index.html>. Ron thanked Frost & Sullivan and indicated that the Executive Summary will be placed in the CABA Research Library and the complete report will be available after the six month embargo period.

7. oBIX Enterprise

Toby Considine provided an update on a meeting planned for February 1, 2011. He indicated that CABA has long been a sponsor of more open access to building systems, including critical support for oBIX when it was first starting. The use of that standard is only now ramping up, seeing growing application in smart grids, and continuous commissioning, and in other national specifications.

The next challenge (shall it be called oBIX Enterprise?) is to deliver a common metadata framework for understanding building systems. Today, building systems can be integrated with anything, but it takes too long. Someone must understand the unstructured tags, and identify the underlying systems. To make full and effective use of cloud services for continuous M&V, Performance Auditing, and emerging Energy Markets, efforts must be reduced for that initial integration as well as subsequent ones. Points must become systems. Systems must be mapped to Spaces using BIM. Live M&V must become concerned with the occupants and business services (ie., space) rather than with merely machines and energy.

The planned meeting was to discuss how the industry might get metadata standards for building systems (aka the BSI) to enable:

- Low integration cloud connections
- Mapping system telemetry with space (BIM)
- Generic enterprise-aware apps to support smart energy
- Discoverability, based on WS-DD/DP
- Policy-based security for access to telemetry and control
- Energy analytics
- Potential new building commissioning standards, ie., requirements to support a new COBIE feed...

The meeting objectives are to map out ideas on candidate seed standards, likely participants, and all CABA members were invited to participate.

8. IIBC Landmark Research

John Hall explained that the CABA Board of Directors had established the new CABA Research Program. The goal was to have a minimum of one Landmark Study in the large building and one in the residential sector. A recent member survey identified two key areas that should be researched in the next major Landmark project. One was “Net Zero Energy and Intelligent Buildings” and the other was “Intelligent Buildings and Smart Grids”. CABA was fortunate to have two great research organizations present proposals (BSRIA and Frost & Sullivan). It was agreed that an IIBC Task Force would be established, led by Roy Kolasa, to make a decision on which research project would be the next CABA Landmark Study. The new project would be announced in March 2011.

9. LIGHTFAIR International

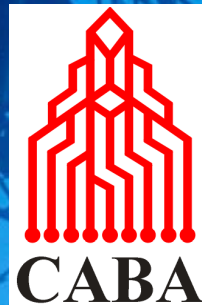
John Hall and Ron Zimmer explained that LIGHTFAIR International was a great CABA member and they are collaborating closely with CABA and the intelligent building sector. Rochelle Burt made a presentation on some of the new features for the upcoming show and encouraged delegates to look closely at the exhibiting, speaking, and attending opportunities. More details on the show can be found at: www.lightfair.com. Roy thanked Rochelle for the presentation and indicated that all IIBC meeting participants were encouraged to stay for the reception sponsored by LIGHTFAIR International. There was a prize draw provided by LIGHTFAIR International and then Roy adjourned the meeting.

10. Meeting adjourned at 6:10 PM PT.

North American Intelligent Buildings Roadmap 2011

Executive Overview Presentation

Presented to:
CABA Intelligent & Integrated Buildings Council (IIBC) Members



Continental Automated Buildings Association

January 2011

F R O S T & S U L L I V A N

Objectives and Outline of the IBRM 2011

Key Objectives

- Strengthen the existing industry knowledge base and perspectives on intelligent buildings
- Understand the collective influence of emerging trends in the industry
- Investigate the discrepancy among industry stake holders
- Understand the influence of current and emerging trends on smart technologies and solutions, market preference and acceptance, commercialization roadmap
- Evaluate the scope of regulatory mandates
- Investigate the current and future direction of the intelligent buildings market

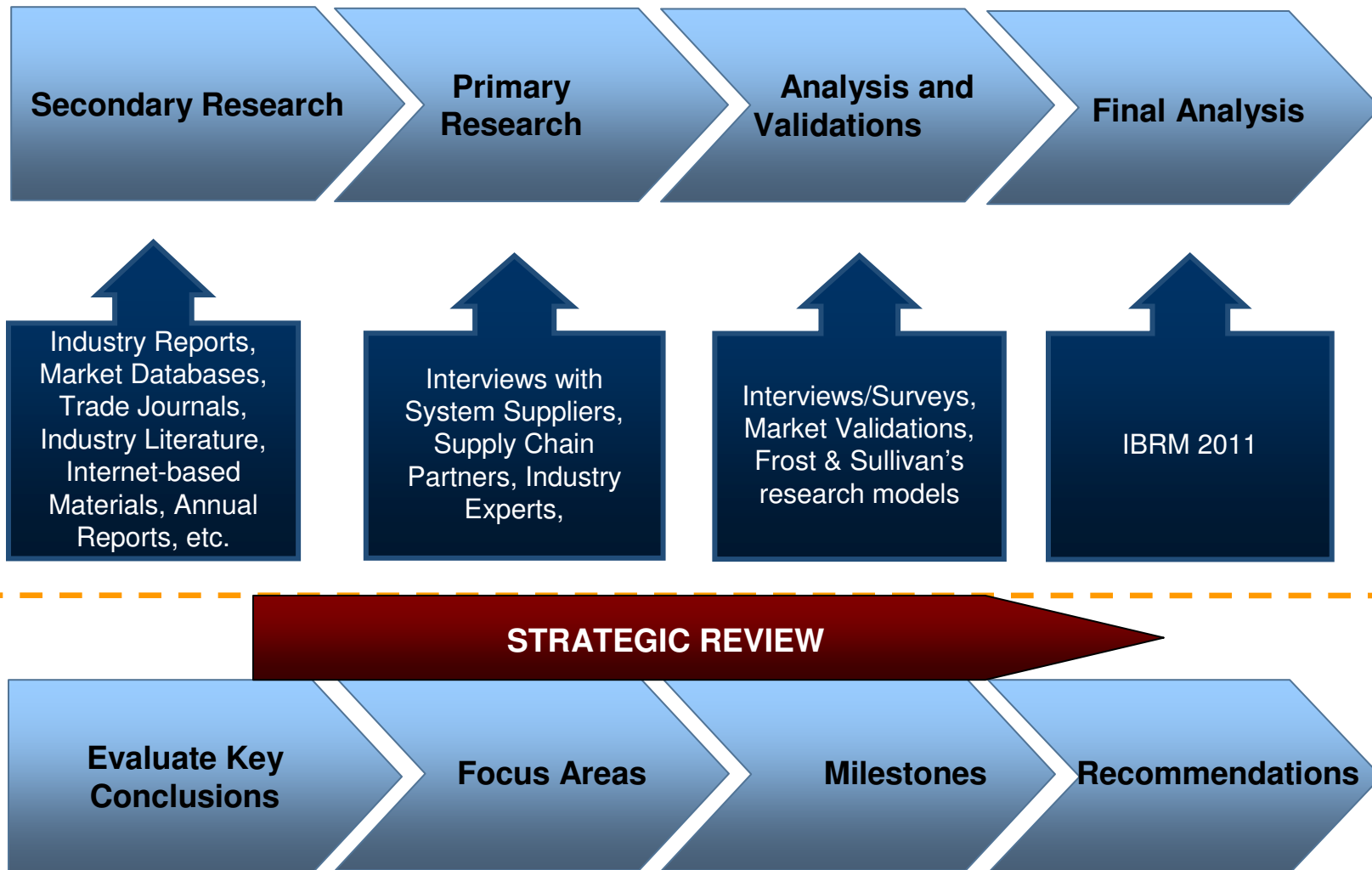
Objectives and Outline of the IBRM 2011

Report Structure

1. Executive Overview
2. Snapshot of the Intelligent Buildings Industry in North America
3. Evolving Trends in Integrated Buildings
4. Intelligent Buildings and the Smart Grid
5. Convergence of Technology & Competition
6. Collective Influence of Stakeholders
7. Intelligent Building Road Map –
Conclusion & Recommendations
8. Appendix

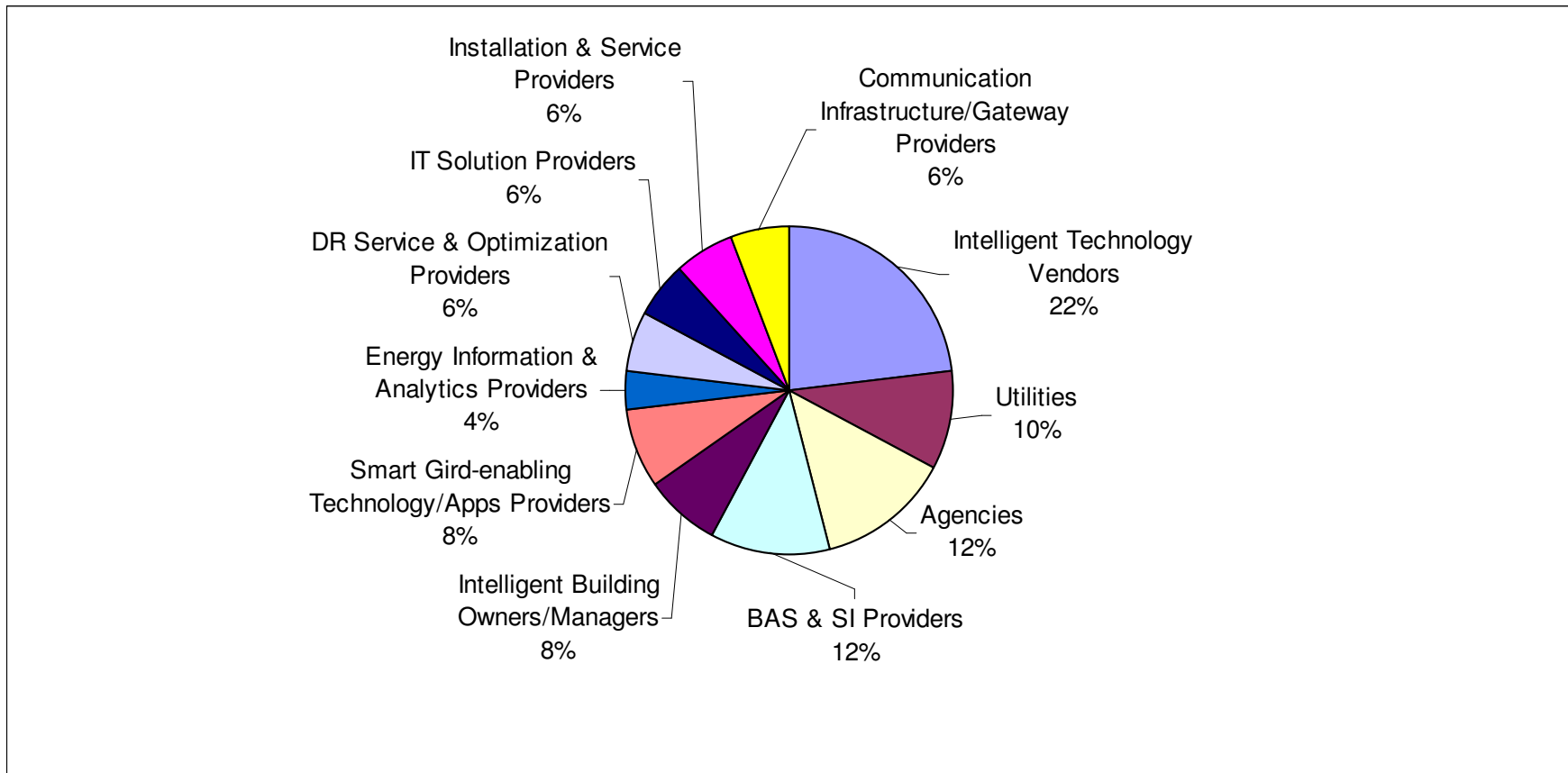


Research Methodology



Research Methodology

Composition of target respondent categories contacted for primary research



Overview of Key Research Findings

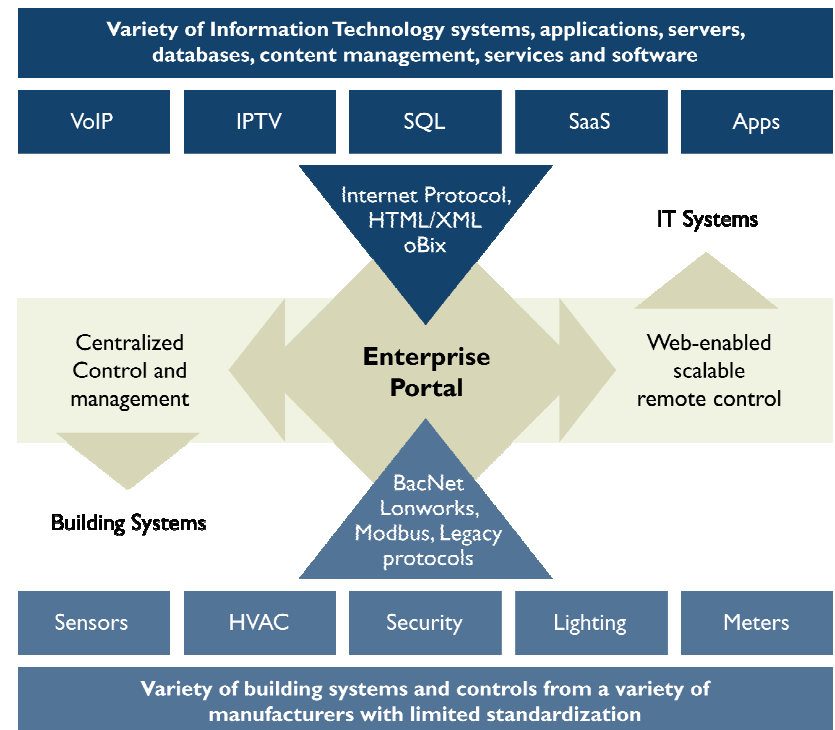
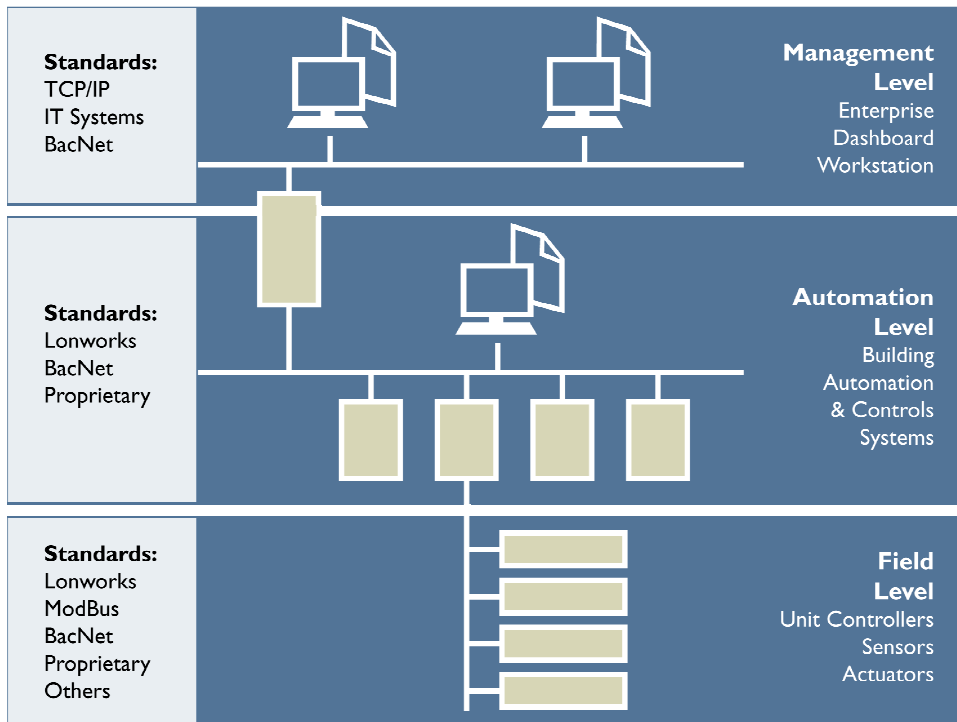
Intelligent Building Solutions - Integration Map

System integration, technology convergence, and industry consolidation plays a key role in the evolution of intelligent buildings.

	Building systems and controls	Information technology	Wireless technology	Utilities and infrastructure
Domain	Mechanical Electrical distribution HVAC&R Lighting Security Fire and life safety Controls/sensors Water	IP Networks Routers/ switches Digital Technology Network Security Software	Chips Networks Integration Software	Energy/power T&D Technology Renewable Energy AMI/Metering
Functions	Automation and management Control and monitoring Commissioning and re-commissioning System integration Electrical distribution	Communication Analytics Apps Convergence	Connectivity Radio frequency transmission	Rate structure Load management Distribution Demand response
Gateways	Field Bus	Power over Ethernet VoIP/IPTV	MESH WSN	Utility Network
	WAN / HAN / NAN			
Protocols	Proprietary LonWorks BACnet Modbus	TCP/IP HTML / XML / SOAP OBIX SQL	ZigBee EnOcean 6LowPan Wi-fi IEEE	Proprietary Open Protocols
Integrated Enterprise from Device to Meter to Plant				
Intelligent Building			Smart Grid	

Intelligent Building Solutions - Status of Technology

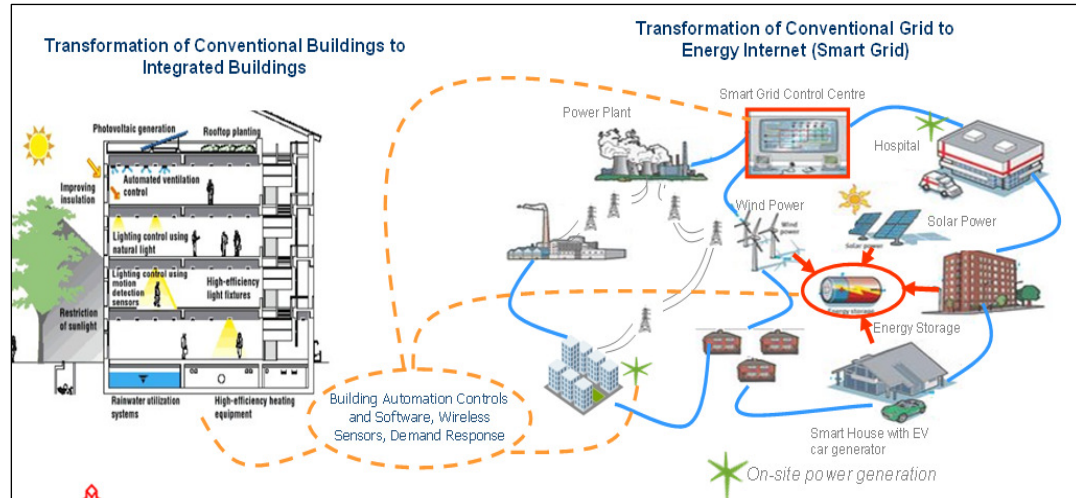
Enterprise convergence is the immediate market requirement. The integration of systems and services into one IP-based enterprise management platform is an approach that most service providers are adopting.



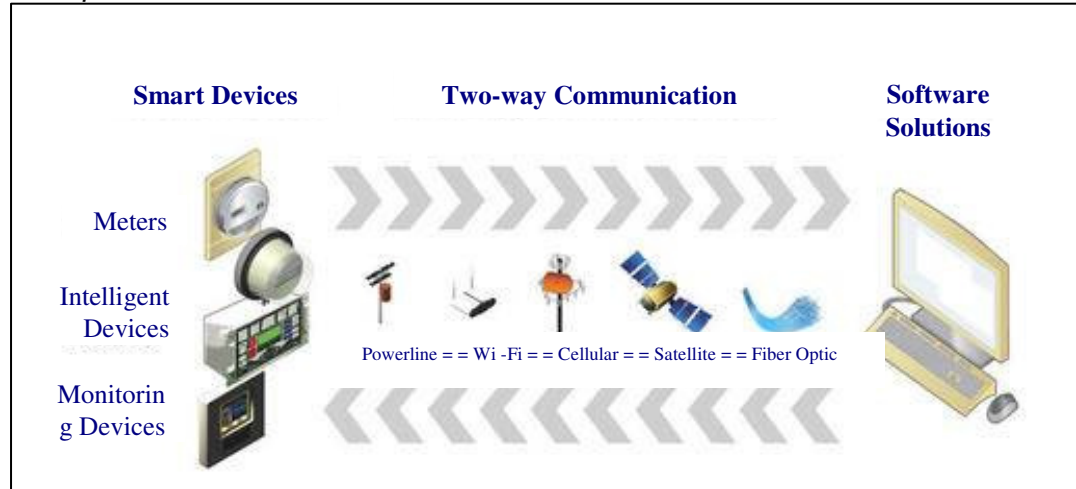
Intelligent Buildings and the Smart-grid

Continued development of an end-to-end communications layer is responsible for taking the utility grid to the next level. Applications such as demand response are perhaps the most visible component of the smart-grid right now.

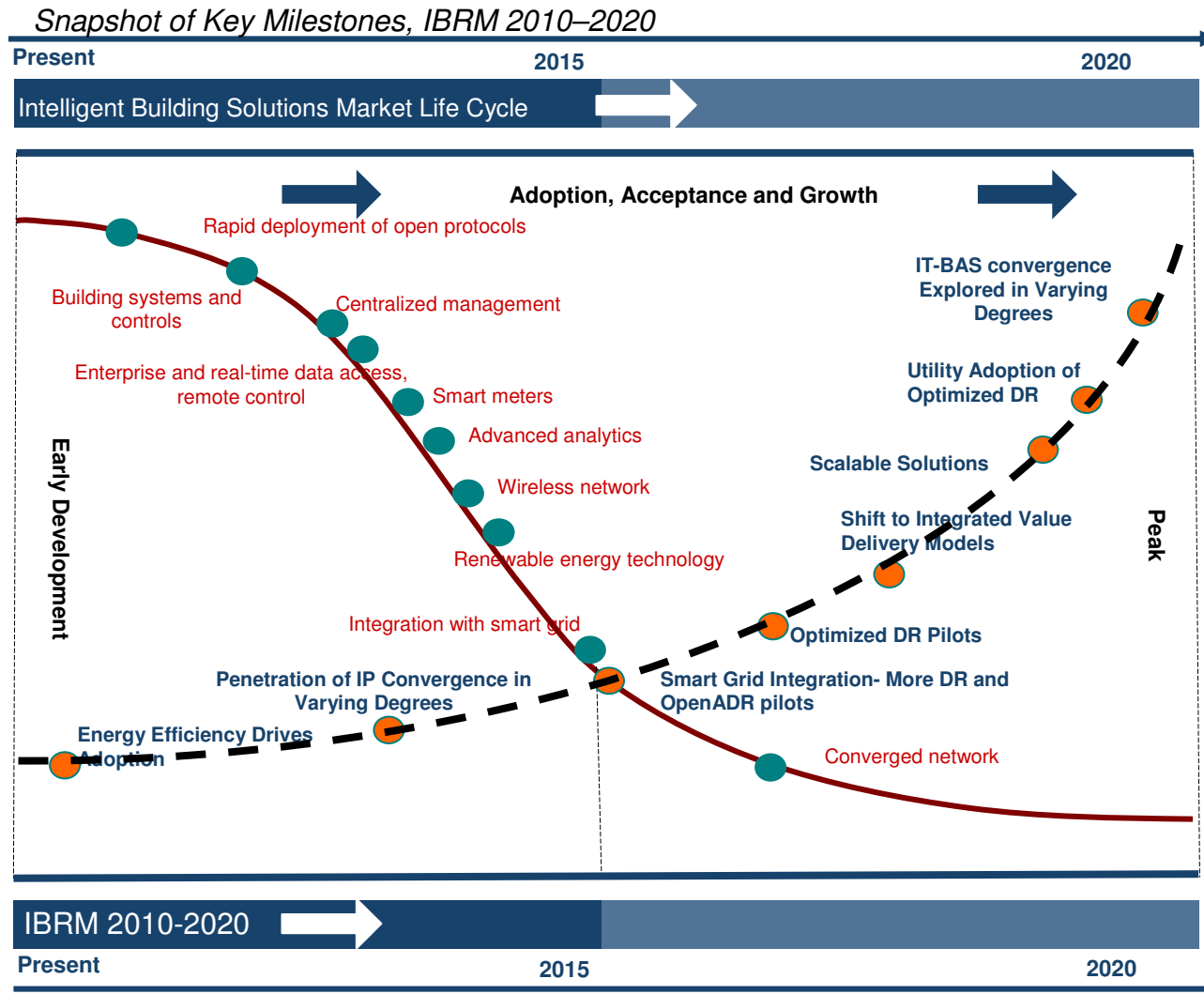
Layout of a Building's Connectivity to the Smart Grid



Components of the Smart Grid



IBRM Immediate and Long-term Milestones



Source: Frost & Sullivan

Convergence of Technology and Competition

Energy infrastructure, building automation providers and IT partners are emerging as the three major groups of players characterizing this convergence.

Areas of Competitive Collaboration



Source: Frost & Sullivan

Summary of Key Takeaways

- Intelligent Building solutions have a significant role to play in generating quantifiable efficiencies in building performance, however, their adoption is inadequate
- Limited customer engagement, lack of predictive and self sensing capability of solutions will continue to hinder value demonstrations.
- The industry horizon will continue to be dotted by both pure-play as well as turnkey players. Competitive advantages will depend upon scalability of solutions.
- The IP-influence will dominated the convergence in domain expertise
- The intelligent building's relationship with energy is likely to be further stressed with the smart grid
- Industry participants need to collaborate in a cohesive manner

Case Studies



Van Andel Institute Research Cancer Center, Grand Rapids, Michigan
Showcased by WattStopper
Key features
Advanced Lighting Controls, Daylight harvesting, Automated Demand Response



Bell Trinity Square, Toronto, Canada
Showcased by Natural Resources Canada
Key features:
Intelligent BMS
Optimized Control Strategies
Energy-Efficient HVAC
Automated Demand Response and 'Smart Grid Ready'



Johnson Controls, Inc. corporate headquarters, Glendale, Wisconsin
Showcased by Johnson Controls Inc.
Key features:
Intelligent building solutions, energy-efficient retrofits and upgrades, renewable energy integration



750 Seventh Avenue
Manhattan, NY
Showcased by Consolidated Edison
Key features:
Advanced Lighting Controls, Systems integration, Automated Demand Response



Westside Academy Milwaukee, Wisconsin
Showcased by – Sloan Monitored Systems(®)
Key features:
Water efficiency upgrades and monitoring systems

Contact Details

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Thank You.