



AHR EXPO®

January 28-30, 2013
Dallas Convention Center
Dallas, TX

Co-sponsors:



Honorary sponsor:



The Our Changing Industry and Connection Communities for BAS

Monday, Jan. 28, 9:00 – 10:00 am

Jim Sinopoli PE, RCDD, LEED AP
Managing Principal,
[Smart Buildings LLC](http://SmartBuildingsLLC.com)

- Ken Sinclair Publisher/Owner

www.AutomatedBuildings.com



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About

Welcome to Dallas AHRExpo 2013 Trends and Direction of Smart Green Building Automation

This unique venue/arena supplied by International Exhibition allows us to take our online service/magazine off line and Face 2 Face with you.

4 Free Sessions on

Our Changing Industry and Connection Communities for BAS

Speakers - Jim Sinopoli & Ken Sinclair

Monday, Jan. 28, 9:00 – 10:00 am

Market Trends for Integrated and Intelligent Building Systems

Speakers - William Rhodes, Market Analyst, & Ken Sinclair

Monday January 28, 1:30 – 2:30 pm

Community, Convergence, & Collaboration from Cloud Data for BAS.

Speakers - Jim Sinopoli & Ken Sinclair

Tuesday Jan. 29, 9:00 am

Why we need to be part of several Connection Communities

Ken Sinclair, Moderator with Various Industry Leaders

January 29th, from 2:00 - 3:30 pm.

Open Connection Communities

My overall takeaway from AHR Expo 2012 Chicago was the growing importance of being part of several strong Open Connection Communities. Who we are connected to and the value they bring to our products and services defines who we are and likely who we are to become. Open Connection Communities will shape building automation's future.



Connecting Connection Communities

- * We started our first education session at Dallas AHR Expo in 2000, and in this [summary of our first year](#) I stated, *"The Automated Buildings Industry is a small tightly controlled community and is generally extremely fragmented and difficult to reach."*
- * *Our involvement in The State of the Art Building Automation session at the AHREXPO 2000 helped us both inform and be informed about the rapid web growth as well as the exciting topics of evolving communication standards."*



The Wireless Way



The present impact and future impact of wireless on our industry is huge. If you have not already become unwired this issue is a great opportunity to see where the industry is today. Wireless certainly provides an ideal solution for the last few hundred yards or meters, no matter how you measure it. The softness of wireless makes it a great solution for the mushiness of that part of the building that is always under renovation, the tenant space.

Interacting With Energy

Cloud computing to replace the personal computer as the 'device' of choice by 2014



Convergence and Collaboration from Cloud Data



It has never been clearer that the true convergence and anywhere collaboration that we all seek will be found in a cloud. The marriage of social media as data and its embedded human opinion will seamlessly mesh with real time data, shoulder to shoulder in large databases in a concept now being billed as Big Data or Data as a Service “DaaS”.

Opening Open



Absolutely Brilliant! Now they can share apps, have specialized open standards drivers, have several competing visualization/analytic services for all to use while growing faster as a community than they could as individuals.

Whoops, we just discovered the true power of open.

Cloud Control and the evolving Cloud Control Languages "CCL"

Building to Cloud to Building "B2C2B" will revolutionize Building Control as the control languages of DDC did in the early 1980's. It will allow new relationships and interactions to be created with internet's anywhere-ness and everybuddyness



The name “Connection Communities” has been attached to the purpose and function these organizations provide. I invite you to join us to learn about existing connection communities, and educate yourself to the advantage of being part of various communities.



Automation Turns Green



Happy New "Era"

Our industry is rapidly being drawn into this new Era where the what and how of our industry is being exposed and questioned.

The connection communities that we are part of, new feature rich products with new methods of providing their information to these connections, and daily evolving web services presented on several flavours of displays, with interaction with Bring Your Own Devices (BYOD) are all creating this new Era.

Future Building



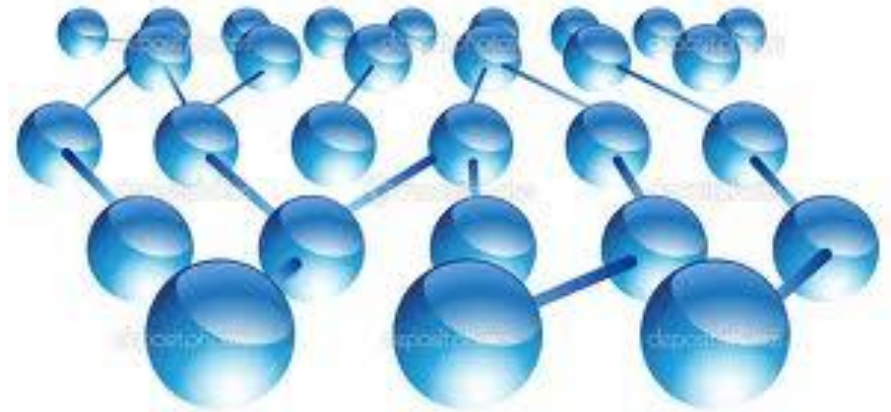
As we transition to more complex, higher performing, and energy efficient buildings, it is apparent that traditional building management systems are not up to the task of monitoring and managing today's building operations.

What are the shortcomings of the legacy BMS?

The list is quite long but the major items include limited integration capabilities, inadequate and elementary analytic tools, proprietary programming languages, a dearth of software applications and legacy user interfaces.

Connected Communities

- * **Inclusion**
- * **Participation**
- * **Common purpose**
- * **Networking**
- * **Communications**
- * **Many Connection Points**



IT Infrastructure Community



Energy Management Community



Controls Community



Design Community



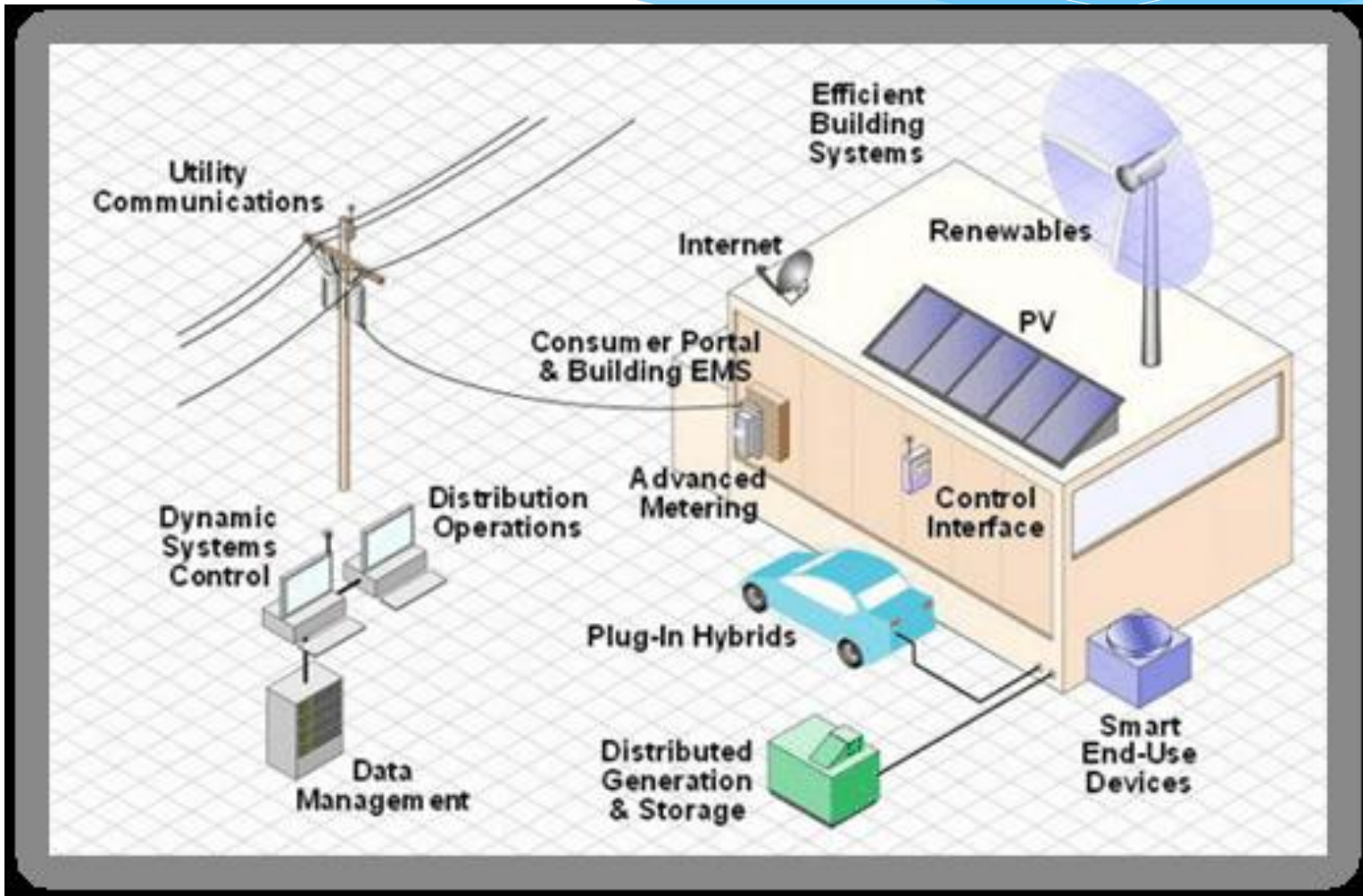
Construction Community



Home Automation Community



Smart Grid Community



Data Analytics Community



Business and Financial Analysis Community

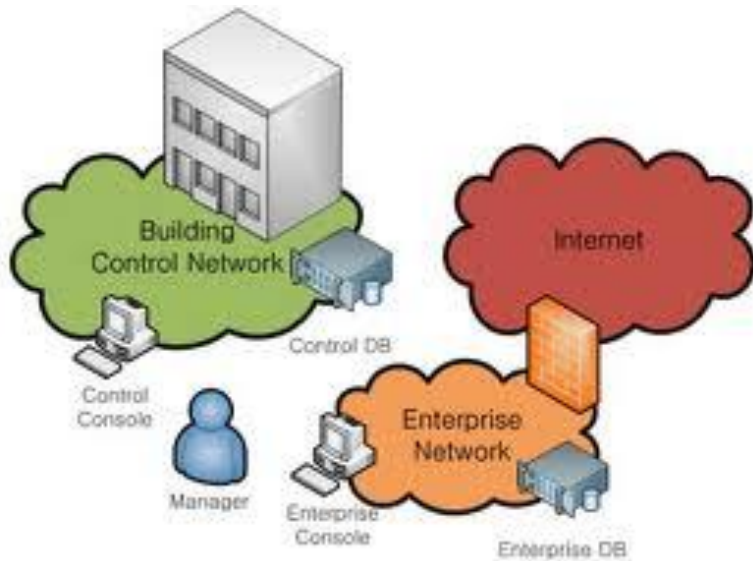


Industry Organization Community

- * ASHRAE
- * BOMA
- * Corenet
- * CSI
- * ISA

- * AEE
- * BOMI
- * USGBC
- * CABA
- * IFMA

Security Community



Training & Education Community

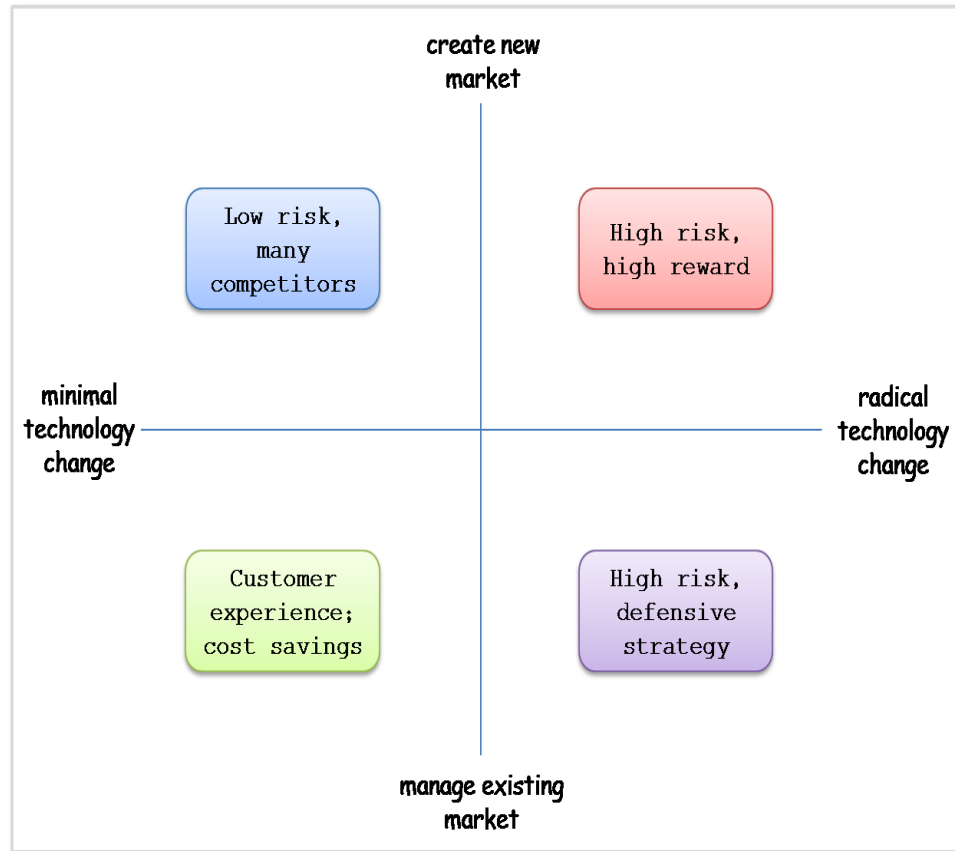
New Systems

- * Solar panels
- * Geothermal sources
- * Wind turbines
- * Vehicle recharge stations
- * Electrical switchable glass
- * Exterior shading systems
- * Wireless building systems
- * Demand response planning
- * Energy Dashboards
- * Sun tracking systems
- * Personnel RFID systems
- * Structural anti-corrosion monitoring systems
- * Oxygen depletion monitoring systems
- * Personal rapid transit systems



Innovation Community

Incremental vs Disruptive Innovations: Picking Your Spot



Predictions for Smart Buildings in 2013

Jim Sinopoli, PE, LEED AP, RCDD
Smart Buildings LLC

Indoor Positioning Systems (IPS)



Smart Building Certification

What Are these?

- * SERF
- * Earth Advantage
- * Earthcraft
- * Class-C



Eye-Tracking

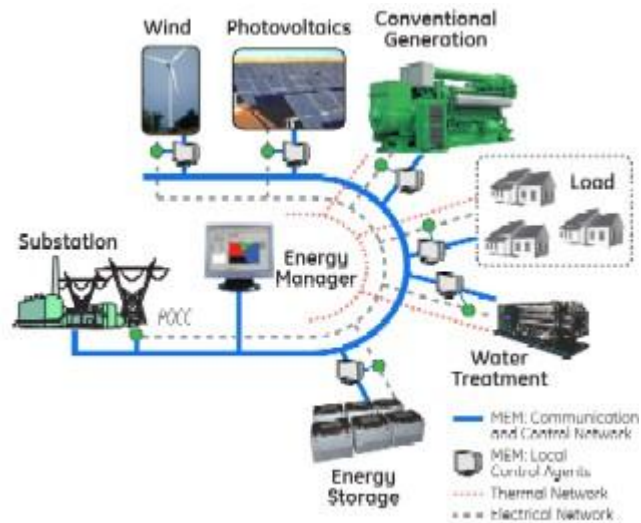


Figure 22: The gaze plot of a Brazilian woman after 5 seconds of viewing



Figure 23: The gaze plot of a Brazilian man after 5 seconds of viewing

Community Microgrids



Cross Training for IT and FM



CROSS
training



Direct Current Infrastructure in Buildings

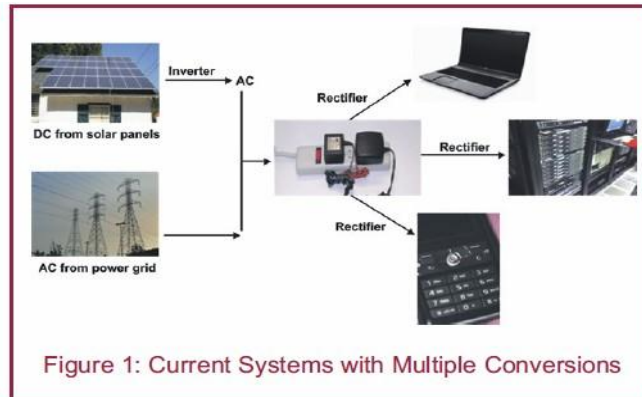
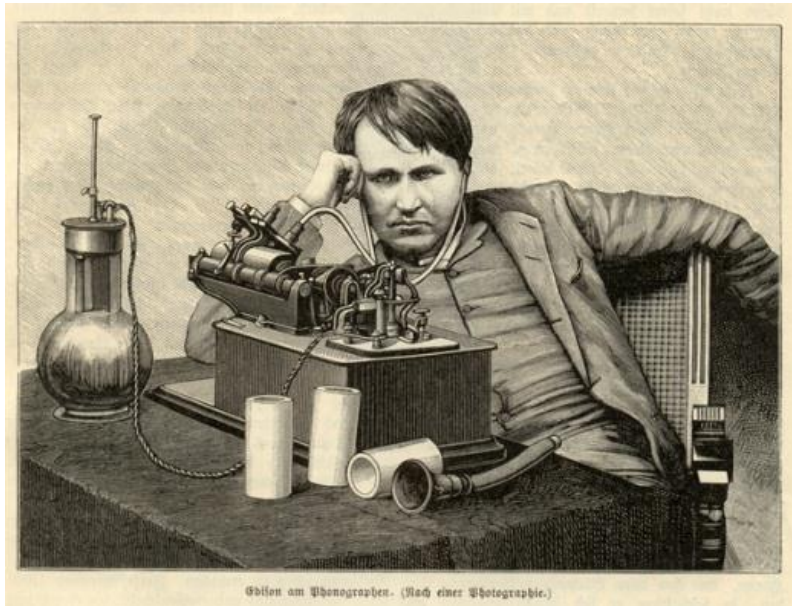


Figure 1: Current Systems with Multiple Conversions

Contact Information

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Additional Resources

“SMART BUILDING SYSTEMS FOR ARCHITECTS, OWNERS, AND BUILDERS”

ISBN 978-1-85617-653-8

Gridwise Education Sessions

Smart Buildings Meet Smart Grid Meet Smart Money

Monday, January 28, 10:30am - 12:30pm Room D174, Dallas Convention Center

Next Generation BAS and Integration with the SmartGrid

Tuesday, January 29, 10:30am - 12:30pm Room D174 Dallas Convention Center

GridWise™ Architecture Council (GWAC)