Data Analytics Occupant Engagement and the Road to Self-Managing Buildings

2016 AHR EXPO ORLANDO JAN 25-27

Tuesday Jan. 26; 9:00 am

The industry has made strides in improved building controls, automation and even deployment of IT, but we're still not close to the potential of advanced automation in our buildings.

Eventually we'll have almost self-managing buildings, where the systems can optimize themself, self-heal; and not only identify faults or failures, but can compensate and re-configure the systems to minimize any impact of the system.

Jim Sinopoli, Brad White and Ken Sinclair discuss trends and directions

The Day IT Operates the Building

Building operations to a new level for the benefit of occupants and building owners. Eventually we'll have almost self-managing buildings, where the systems can optimize them self, self-heal; and not only identify faults or failures, but can compensate and re-configure the systems to minimize any impact of the system.

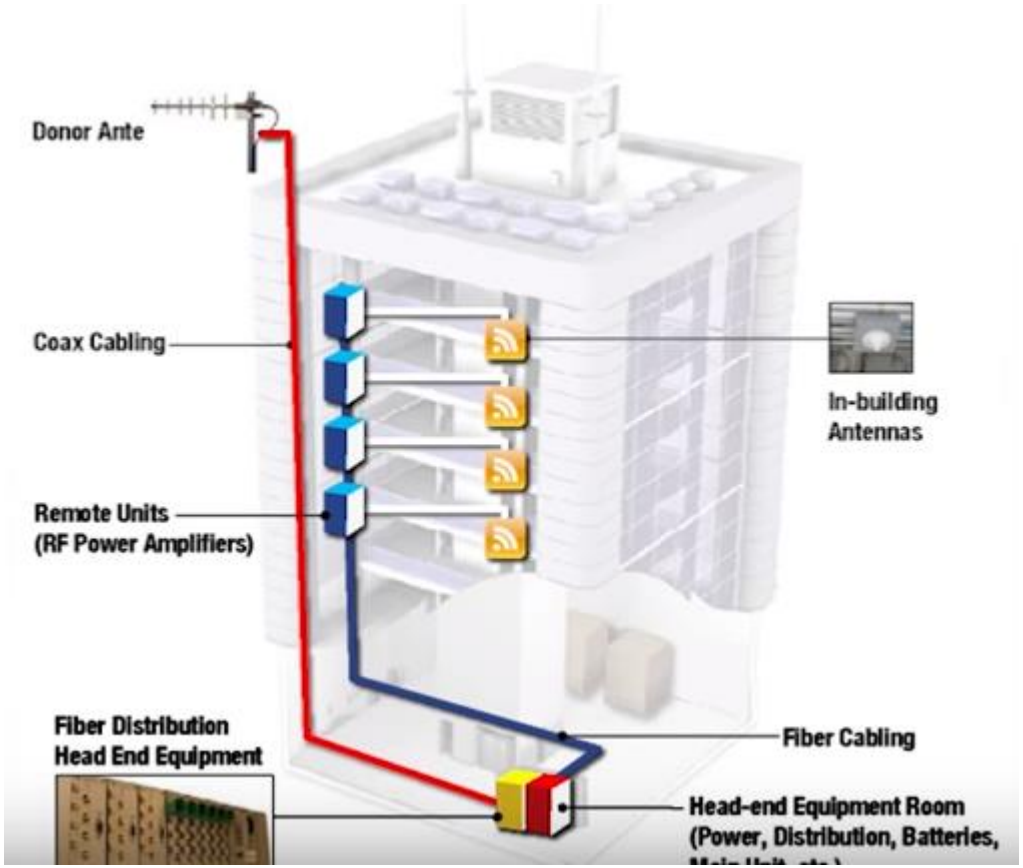
Self Managing Systems

- Current Building Automation
- Half Full

- Future Building Automation
- Full Glass

Examples Of Self Managing Systems

Navitron Autopilot Type NT921MKII



AUTONOMIC COMPUTING

- Growing interest in systems and networks that practically run themselves.

- Autonomic computing refers to the self-managing characteristics of distributed computing resources.
- Adapting to unpredictable changes while hiding intrinsic complexity to operators and users.

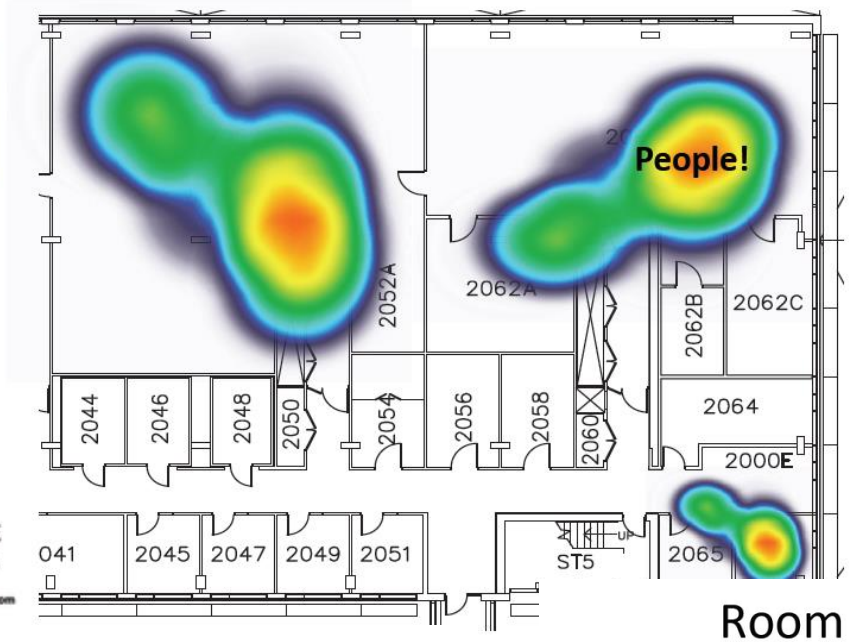
Self Managing System Levels and Elements

- Self-configuring-Hardware subsystems
- Self-healing-detecting hardware and other faults instantly
- Self-optimizing-By measuring resource usage and performance
- Self-protecting

In Search of a Brain for Buildings

...it's only a matter of time before someone creates the self-learning software brain that the self-driving building requires.

IT Based Occupancy Pilot Project



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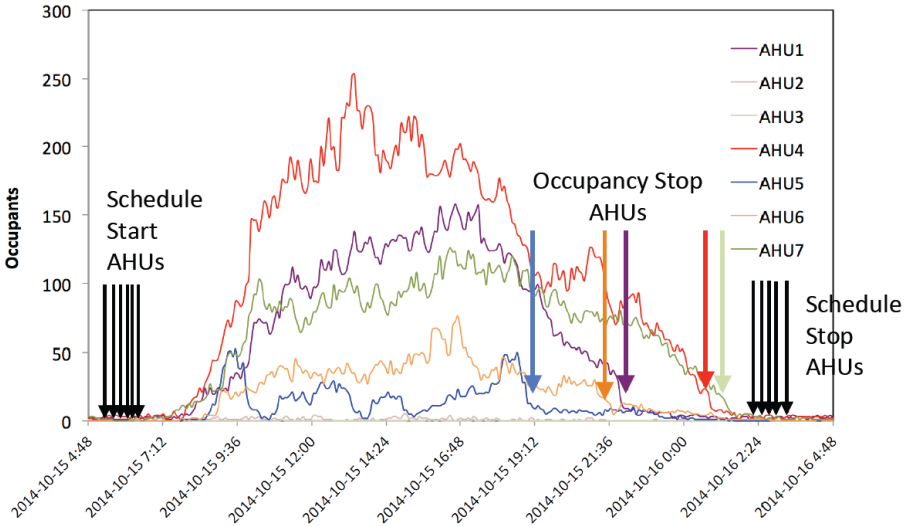
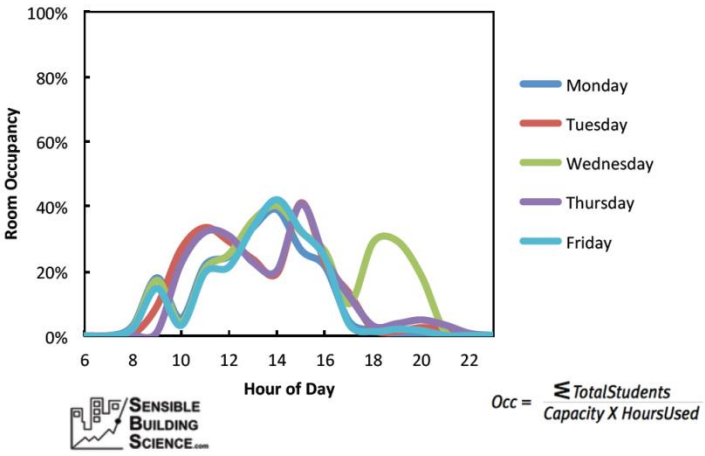


Room Occupancy



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$$Occ = \frac{\sum TotalStudents}{Capacity \; X \; HoursUsed}$$

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TWEETS	FOLLOWING	FOLLOWERS	FAVORITES	LISTS
225K	12.4K	80.6K	1,109	11

Tweets | Tweets & replies | Photos & videos

TransLink BC
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Greater Vancouver's transportation agency, we tweet all things public transport, including service updates, tips and info!

HQ - New Westminster, BC
translink.ca
Joined July 2009

374 Photos and videos

TransLink BC @TransLink · 2m
@SamanthaLWilson What is the stop ID number that you are at^jd
View conversation

TransLink BC @TransLink · 6m
@mwrcook I checked and there are no problems with the buses due at 9:16 & 9:25, could be a issue with the GPS, will forward info.6jd
View conversation

TransLink BC @TransLink · 9m
@pbucci You're welcome.^jd
View conversation

TransLink BC @TransLink · 14m
#TransitAlert 5 Robson/5 Downtown N6 Downtown detour tonight 6pm until end of service. Details here: ow.ly/TDFSP ^RR

TransLink BC @TransLink · 18m
@claricekwok Sorry that happened, here is a link to file details ow.ly/TJ1dT , was the bus full?^jd
View conversation

TransLink BC @TransLink · 26m
@chrstnne_dvc Sorry that you were late for class, here is a link to file details ow.ly/TIZzW ^jd
View conversation

TransLink BC @TransLink · 27m
@shaffickj Sorry that you are going to be late for work. Best is to let Customer Relations know details ow.ly/TIZqA ^jd
View conversation

“The more contact I have with humans, the more I learn”

- The Terminator

Our Education sessions

- *Data Analytics / Occupant Engagement and the Road to Self-Managing Buildings Tuesday Jan. 26; 9:00 am*

- *Fourth annual Connection Community Collaboratory, Orlando,* Tuesday Jan. 26; 1:30 pm

  An education session and discussion led by industry experts about how we need to approach creating and selling connection to the world.

  An open fun Collaboratory atmosphere; come learn and share your opinions.