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SCC Controls

Presented by Michael Ferguson

Alynn Montoya-Wiuff

June 19th 2014

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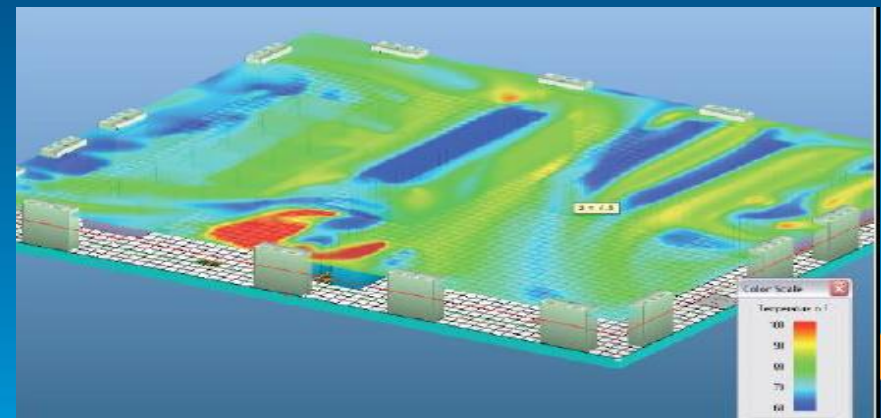
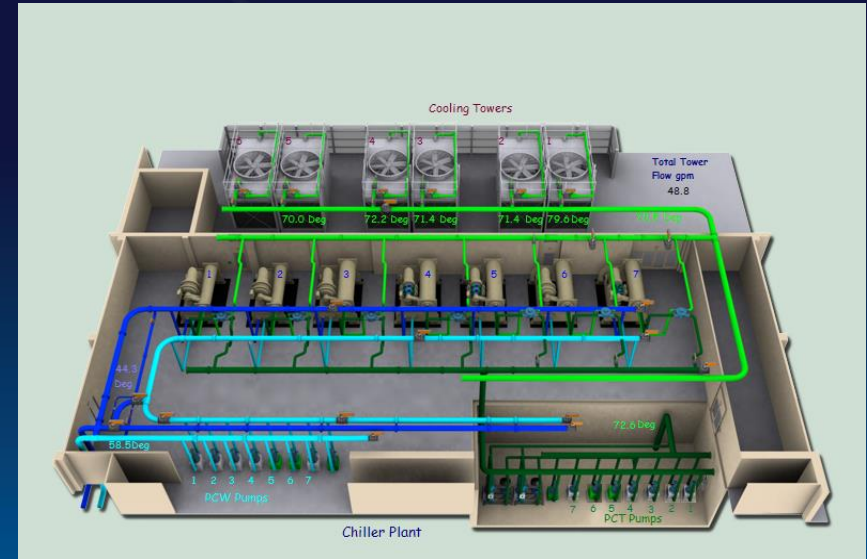
SCC Controls

- Current chiller and air side controls.(Trane Tracer Summit.)
 - Future warm water controls.(Trane SC,UC controls)
 - Power and wireless temperature monitoring.(Environet)
 - Future integration.

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SCC Controls

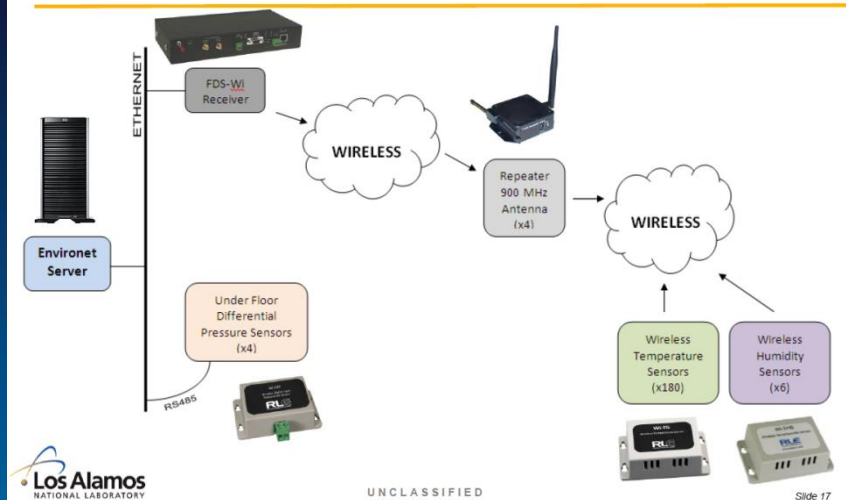
- Trane Tracer Summit was installed with the building when first constructed to support chillers and AHUs operation.
- All equipment in the building was manufactured by Trane.



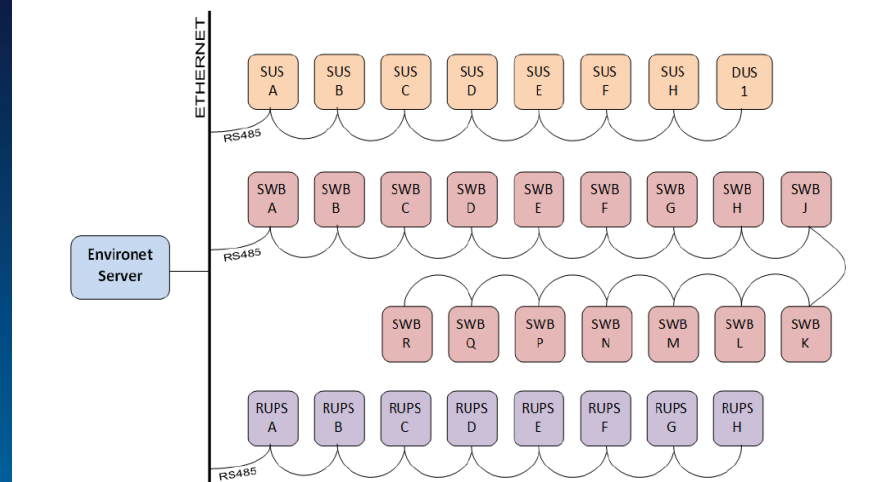
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Power Network and Wireless Temperature Monitoring

WIRELESS Network Topology – Thermal Monitoring

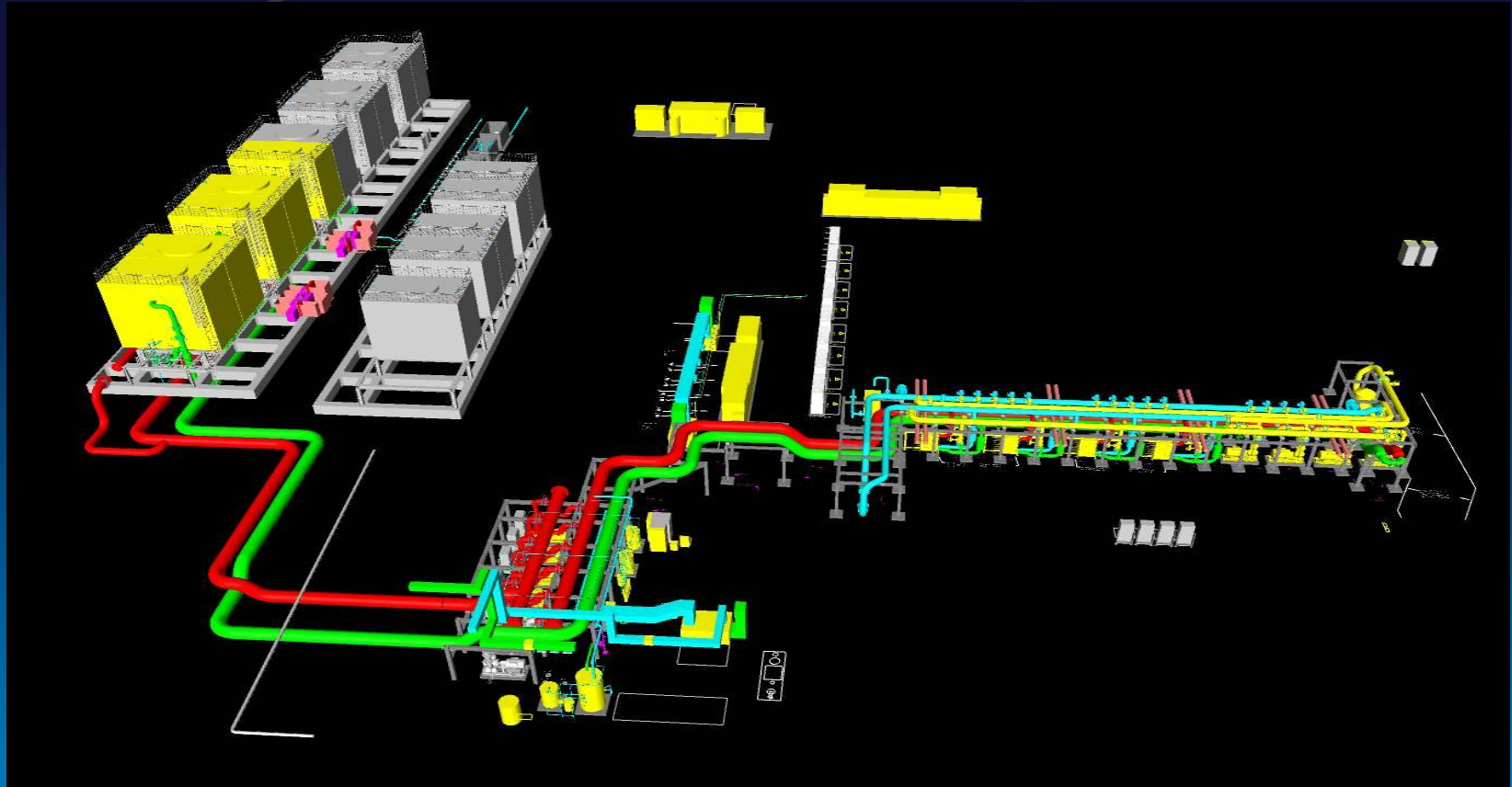


Network Topology – Power Monitoring



By adding power monitoring and Wireless Thermal monitoring we gained a tool to better manage our Data center.

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New Independent Warm Water Cooling System

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Warm Water Pumping Plant

- Cooling Towers
- Cooling Tower Pumps
- Heat Exchangers
- Process Pumps
- VFDs
- Trane UC controllers



Currently under construction

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Lessons Learned

- Installed additional DP & Temp sensors.
LLNL advice
- Installed additional filtration on closed loop side.
- Additional bypass on process loop for multiple applications.
Faster water delivery/
Consistent water temp.



SCC was designed to be an air cooled computing center and is now moving towards warm water cooling.

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Future Path Forward

- Integrate all systems into one Dashboard
- Establish communication between BAS and computing platforms.
- Compare multiple data points in one convenient view and time period

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SCC Controls

- Questions?

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