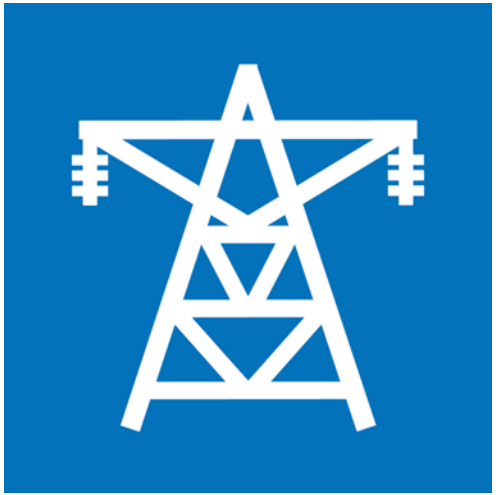

How TEP Recovered from the Loss of their Primary PI Server

Presented by **Carlos Arocho**

TEP
Tucson Electric Power

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PI Server will not complete a reboot

- July 4, 2015
- A call from our IT systems group
- I couldn’t believe what I was hearing

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Windows Patching

- IT was applying patches when . . .
- They rebooted the Primary PI server
- The server got stuck in an infinite reboot cycle
- It never came back

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Call for help!

- Remote into my system to confirm
- Collective manager confirmed the worst
- Call OSIsoft tech support
- They provide some guidance but tell me that it's an OS issue

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Don’t worry we have backups

- IT attempted to restore a backup
- They attempted restoring backup after backup
- Nothing worked
- Our primary PI server was gone

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Secondary is scheduled for patching

- IT informed me that the Secondary PI server was due to have patches applied the next day
  - Do not to touch the secondary
- We have current data is on the secondary PI server
  - We should be good until the next Monday
- I confirm this with OSIsoft tech support

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Call it a day

- I communicate this to our IT
- We call it a day and agree to resume on Monday
- My family and I resume our trip out of town for the holiday

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Restoration

- Promote the surviving PI server to be the new Primary
- IT rebuilds me a server
- Install and configure the PI server software
- Add it to my collective, initialize

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Grid Advisor

- Line mounted devices on each phase
- Provides visibility to lower voltage system
- Enables outages to be identified sooner
- Strengthens our system reliability

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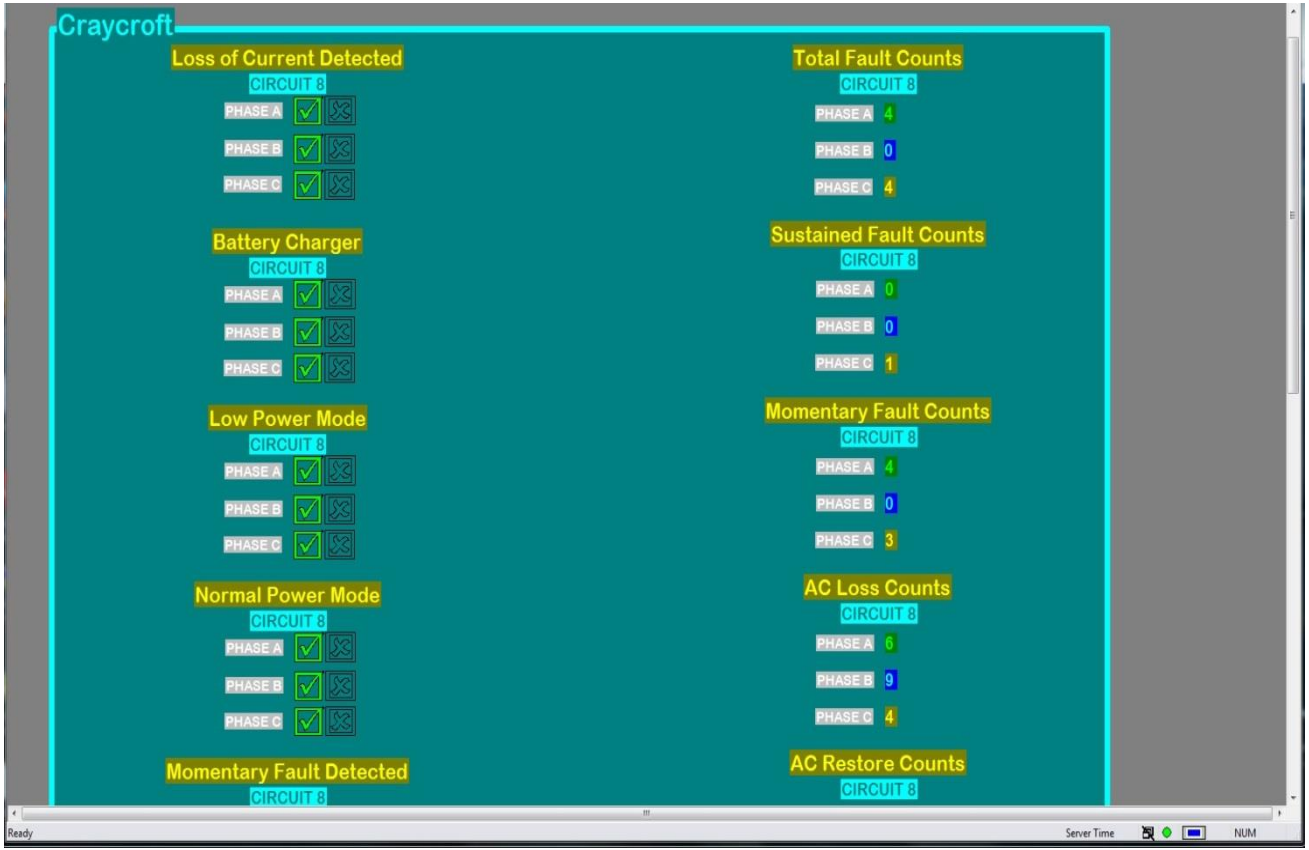

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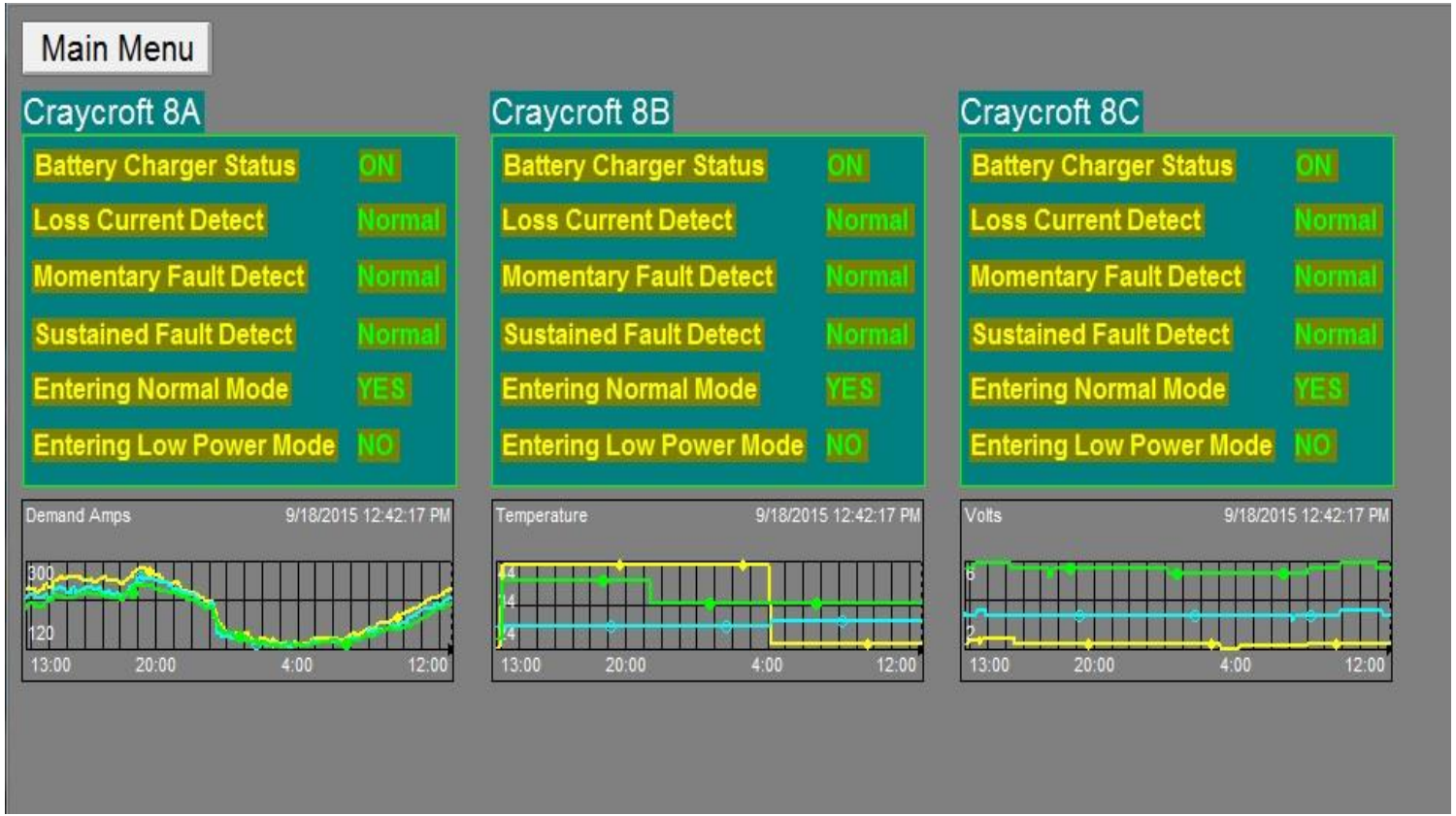

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Volt Var Intelicap

- Volt Var optimization
- Efficiently control VAR flow
- Save fuel costs
- PI Trend Displays
- Weekly automated reporting to their vendor who monitors the effectiveness of the system

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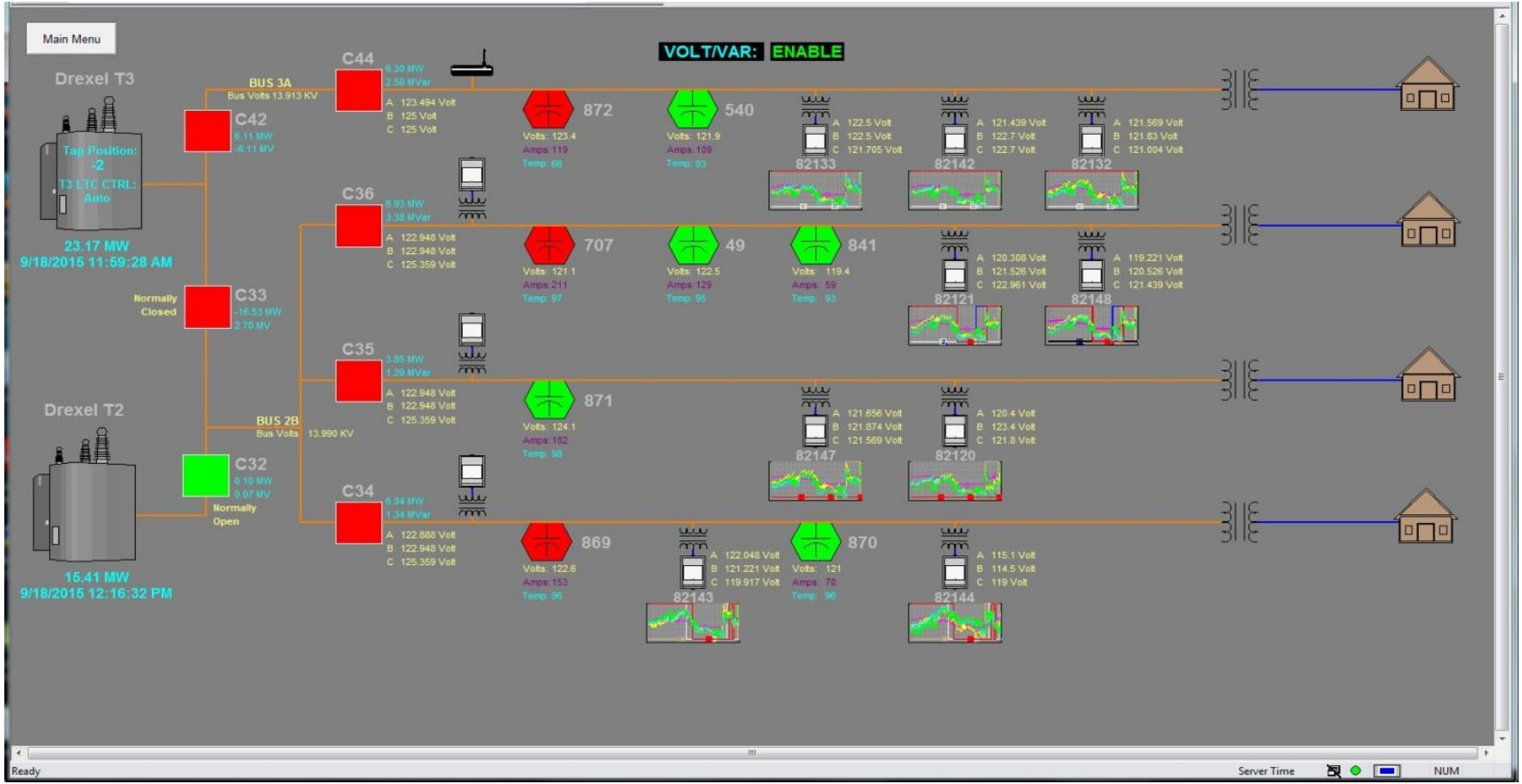

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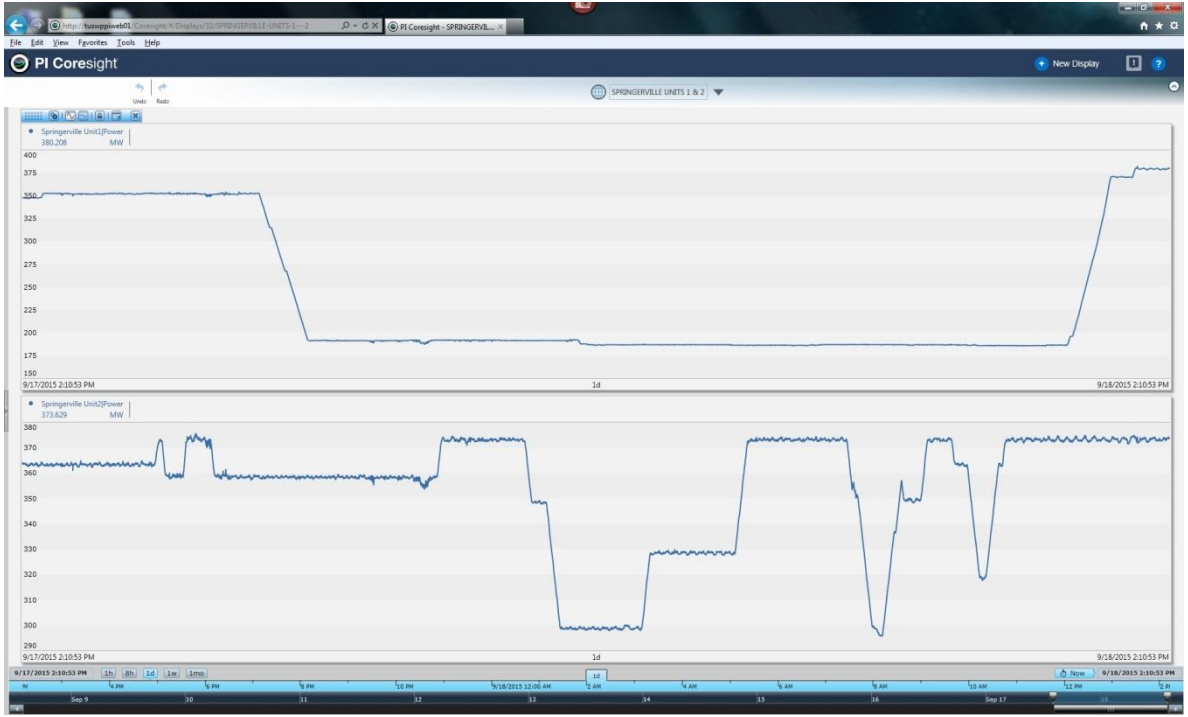
PI Coresight



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UA REN Partnership

- Renewable forecast
  - Wind
  - Solar irradiance sensors
- Monsoon forecast

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Local PI Users Group

- Why…
- Young group of PI users across the corporation
- Most new to PI client tools and applications
- Use to provide training and create our own PI subject matter experts
- Share, encourage and inspire

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THANK YOU

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