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Dallas Water: Modernization of water pumping and distribution infrastructure

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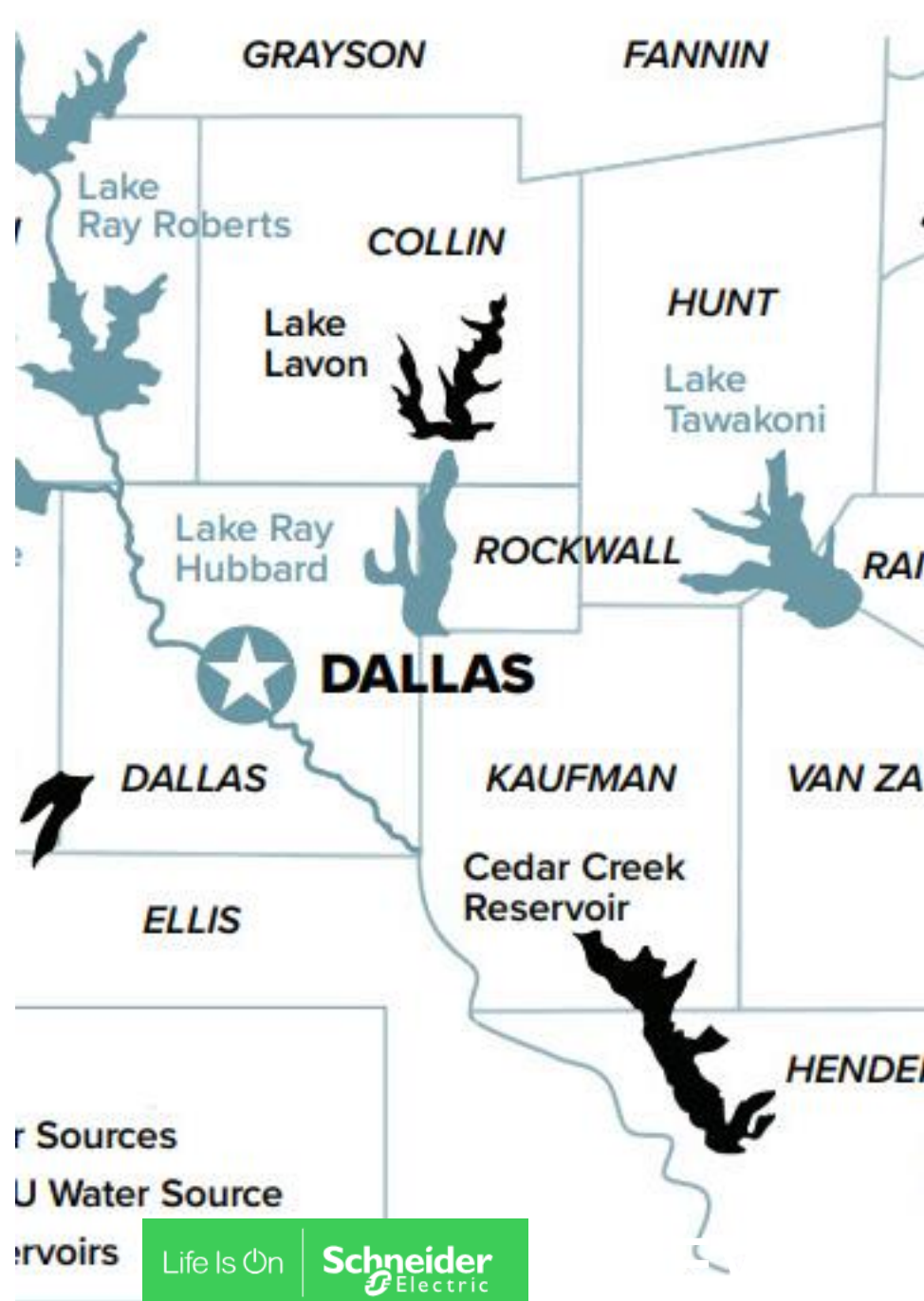
- Provides Water and Wastewater services to the City of Dallas and 31 nearby customer cities
- Approximately 1450 employees
- Rates based on the cost of providing the services



Dallas Water Utilities meets water distribution challenges with the latest from AVEVA

Business Challenges

- Meeting growing customer needs
- Environmental
- Technical



Business challenges

- **Growth:** 2021 / 2022 - Highest population growth of any U.S. metro - 170,396 new residents
- **Higher population:** Stress on water supply and existing infrastructure = system expansion
- **Climate Change:** Projected temperature increases = additional supply challenges via increased in evaporation
- **Cybersecurity threats:** Threat to service availability
- **Delivery System:** Network / pumping optimization
- **Resiliency:** Aging infrastructure & Aging workforce

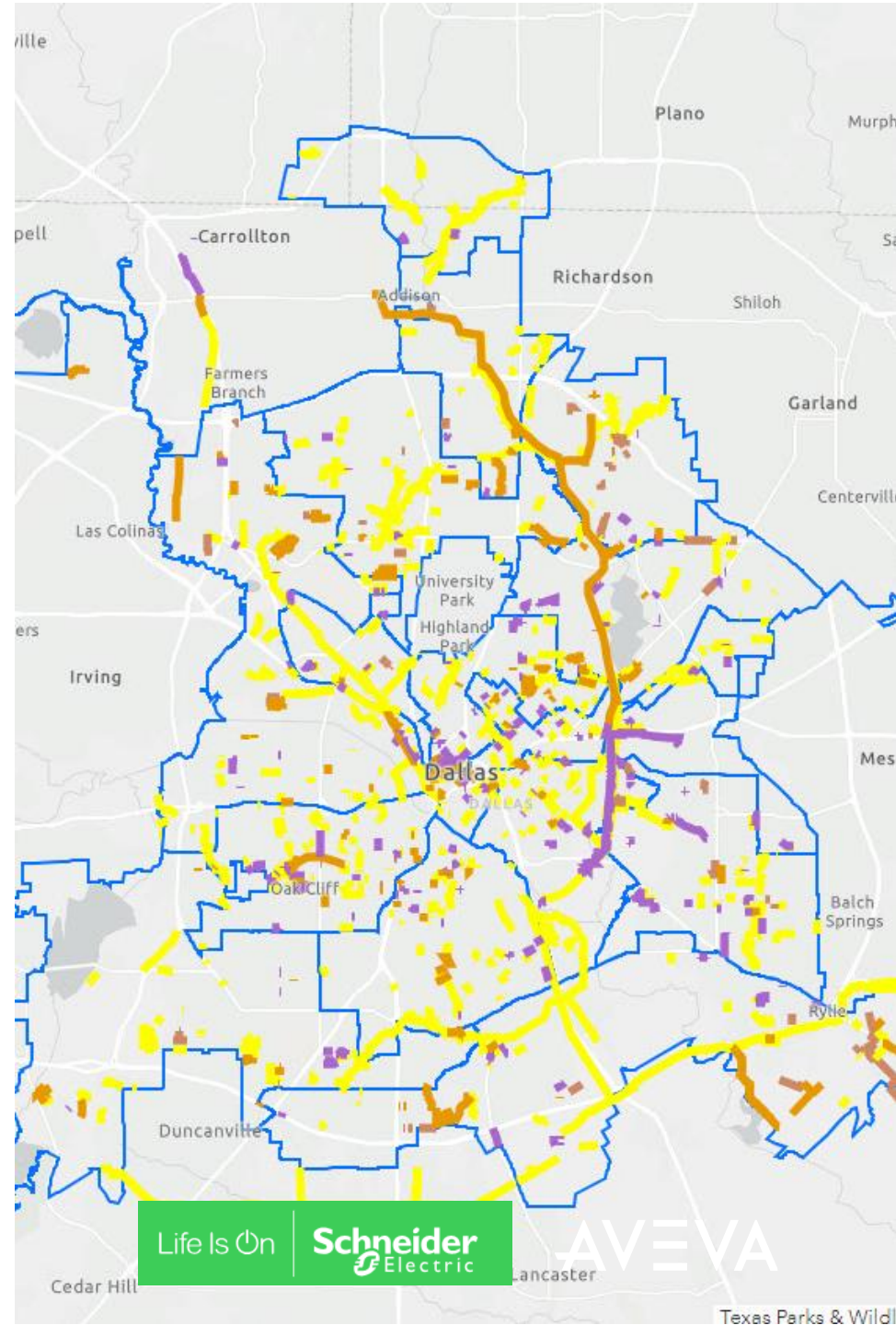
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Business Challenges

- Meeting growing customer needs
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Outcomes Sought

- The latest AVEVA technology



Outcomes sought

- **Quality of Service:** High performance, always available operation
- **Streamline Operations:** Optimize alarming through rationalization and reduction schemes
- **Cyber Safety:** Monitor and analyze network intrusion events (in response a DoS event)
- **Service Resilience:** Optimize process flow and energy consumption using AVEVA PI System dashboards

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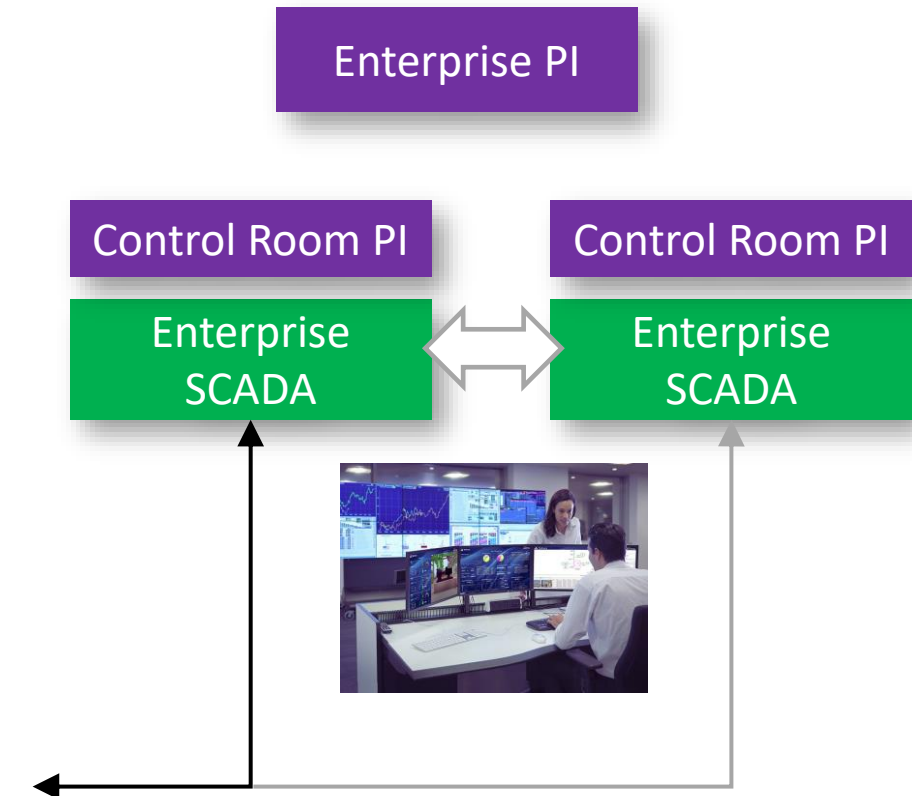
AVEVA Products Deployed & Delivered

- SCADA
- Historical
- Cybersecurity



AVEVA products deployed & delivered

- Telvent OASyS upgraded to top-of-the-line **AVEVA Enterprise SCADA product**
- Two control room **AVEVA PI System** historical systems fed with real-time data from the field.
- **Enterprise PI System** synchronized the two control room AVEVA PI System entities, providing timely data for current and post-hoc SCADA field data analysis.



Project implementation

- **Prime Controls:** Integration Prime Contractor
- **Schneider Electric:**
 - SW supply & expert SCADA integration services
 - Cybersecurity Group - Network monitoring intelligent tools, installation and configuration services
 - Custom application ports and improvements (eg host control strategy package)
 - UI upgrade to high-performance graphics.
 - Pump station upgrade support in parallel with the main project

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AVEVA Products Deployed & Delivered

- SCADA
- Historical
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Challenges Addressed

- Technical
- Business



Dallas Water adopts AVEVA SCADA and AVEVA PI System for water infrastructure modernization

Challenge

- Highest population growth of any U.S. metro will require system expansion
- Climate change and projected temperature increases impact on supply
- Cybersecurity threats and service availability
- Delivery system / pumping optimization
- Resiliency: aging infrastructure & aging workforce

Solution

- Upgrading pumping and distribution operational support systems with AVEVA HMI/SCADA and data management software

Results

- **Improved efficiency, reduce maintenance costs**
- **Hyper availability, advanced alarming, high performance, advanced security capabilities leading to clearer situational awareness and improved operational insight**
- **High performance, high capability post-hoc data analysis for system fine-tuning and improved procedural analysis capabilities**



“

DELETE – Quotation can be replaced with a compelling statistic or outcome.

Conclusion

- **Challenges:** DWU is facing simultaneous population growth and water supply challenges
- **Approach:** DWU is upgrading its pumping and distribution operational support systems with AVEVA Products Enterprise SCADA & AVEVA PI System
- **Outcomes:** DWU is anticipating efficiency and cost improvements

Questions?

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