SWAN DaaS – 1st Group Meeting
Oct. 14, 2020

Terminology:

- There are so many different terminologies used (marketing vs. substance and true offering): DaaS (Data-as-a-Service), PaaS (Platform-as-a-Service), IaaS (Infrastructure-as-a-Service). Hardware-as-a-Service, and also recently "Insights-as-a-Service"
  - Many utilities just don't know what DaaS truly is with all the small variations.
  - There is some doubt of using "DaaS," raising questions such as "Are you selling my data?" KETOS commonly uses "Infrastructure-as-a-Service"

DaaS Concerns:

- DaaS sounds like a good solution, but why hasn't it taken off? We are still in the early stages and need to uncover the real barriers to adoption/implementation, such as:

  1. Ownership of data
  2. Security of data being stored in the cloud
  3. How do you make the data actionable?
  4. When working with multiple data providers; how do you reduce silos and have a clear POC (single source responsibility) to contact?
  5. Shifting the utility mindset when challenged with: professional pride, the slow RFP process, and labor unions
  6. Vendor perspective: wastewater "operational hell," false positives, liability concerns (who's responsible for a CSO or water quality incident?)

DaaS Benefits:

- DaaS helps shift risks (O&M, data transmission, data quality) to the right place, to those solution providers
- Utilities prefer DaaS since it offers CAPEX v. OPEX investment
- DaaS guarantees the "in-between process" (interoperability, data integration)
  - Utilities don't need to keep up with rapidly advancing technology
- DaaS is easier than hiring full-time employees
- DaaS is "extensible" and "flexible" for different applications

What are utilities looking for?

- Are utilities shifting their mindsets or is there a concern of 'letting go' of assets?
- Some utilities are looking for a 'cradle to grave' solution, but especially for small and medium systems, DaaS could be relevant (populations of 100,000 and less)
- Use of interpreted data vs. data can be more meaningful and ease concerns
- Customers want Business Outcomes. Computers need "Data'. Humans need "Information" (actionable, with context, timely to act upon)
- DaaS is still untested in UK market; utilities are looking to see who is a first-mover to learn from them

Amir Cahn's PhD Findings:

- Water and wastewater data are not the same
  - Wastewater data is more complex, difficult to understand
- There are several hybrid DaaS models (e.g. who's responsible for hardware installation, ownership, data verification, as well as what are the desired results)
- DaaS barriers (data ownership/cybersecurity) are less real-life challenges
  - For ownership, utilities often keep a duplicate of the data and much of this data is publicly available, for security, utilities often encrypt the data and trust the contract that security and ownership will be guaranteed
- Common theme of utilities being open to be technology test beds
- A DaaS contract needs to be fixed for minimum years and clearly defined
- DaaS leads to a utility vendor partnership based on mutual trust
- Unlike traditional models built with projections/safety nets, DaaS allow data to be the driver

Future Topics to Explore:

- ROI expectation for DaaS vs traditional solutions?
- What is the auditability of data?
- How can we build flexibility into DaaS contracts?