



Transitioning to a Cloud-Based Utility System: Easton Utilities Case Study

Cloud-Based Utility Systems: Where the Journey Began

Fred Christie

Chief Information Officer
Easton Utilities



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Kevin Clancey

SVP, Service Delivery
SpryPoint

SpryPoint



About Easton Utilities

- Easton Utilities is responsible for the operation, management and maintenance of the electric, water, wastewater, natural gas, cable television and internet utility services for the Town of Easton and portions of the surrounding area. Easton Utilities provides service to 15,000 accounts across the service area.
- In 1923, Easton became the first municipality in the state to own all of its utilities and is the only microgrid in the state of Maryland owning two power plants that can generate more than its peak load.



Cloud-Based Utility Systems: Where the Journey Began

EUC provides many utility services

- **Electric, Gas, Water, Wastewater, Cable, Internet, Phone**

Guiding principles for Customer Information System

- **Provide excellent customer service**
- **Stability**
- **Interoperability (must integrate!)**
- **Maintenance free**

Cloud-Based Utility Systems?



2013 Cloud was on the cutting edge for utilities

- New model promised to deploy new functionality faster, more efficient
- Less IT footprint to manage, allow focus on core value of IT
- Pain points of upgrades, interoperability
- Salesforce was in its early days of disruption

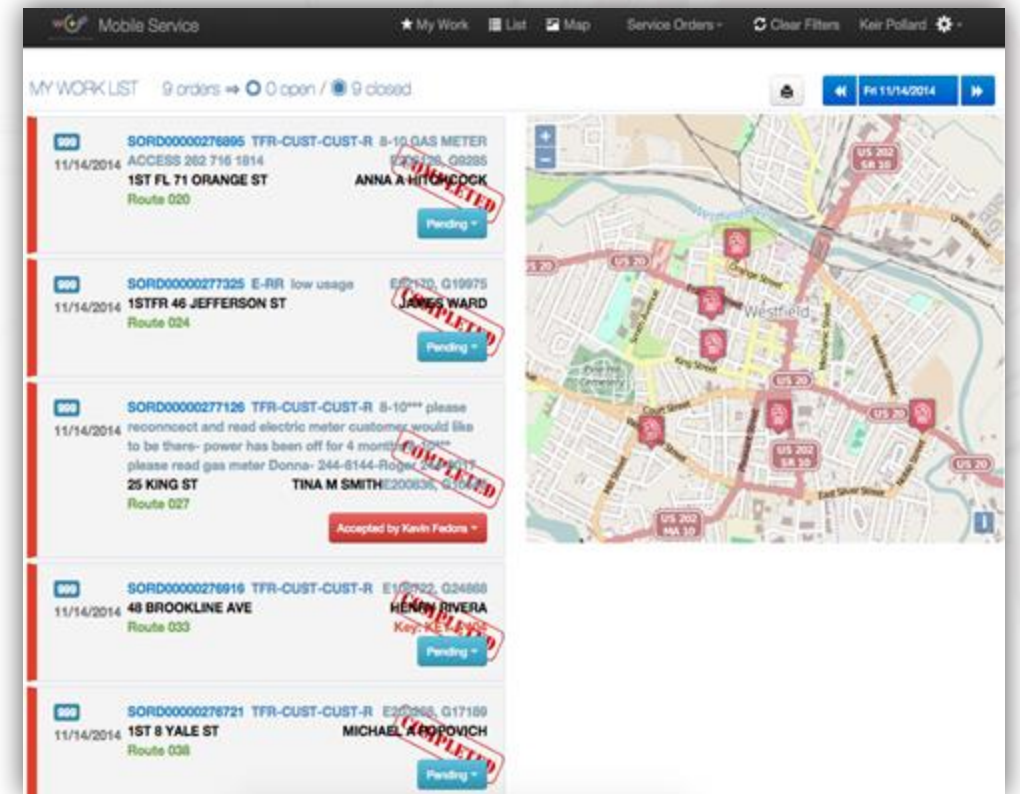
Cloud was not a distinct strategy choice

- It was potentially a benefit, but not a strategy
- Was not a “revolution” but became part of the “evolution”

Cloud-Based Utility Systems

2013 Chose SpryMobile

- Perfect application to test out the SaaS waters; all users outside the firewall
 - First adopters – Cable, Internet, Phone
- Browser based application for Field Service staff
- API based application made integrations with systems a reality
- Real time updates to other applications and users



Cloud-Based Utility Systems

2015 Expanded SpryMobile

- Work Orders, Asset Management
 - Pole inspections
 - Vegetation management
 - Vehicle maintenance
- More departments adopted
 - Started fielding requests from departments left out of original rollout
- Integrations
 - OMS
 - Vehicle Maintenance App
 - Utility Business Portal

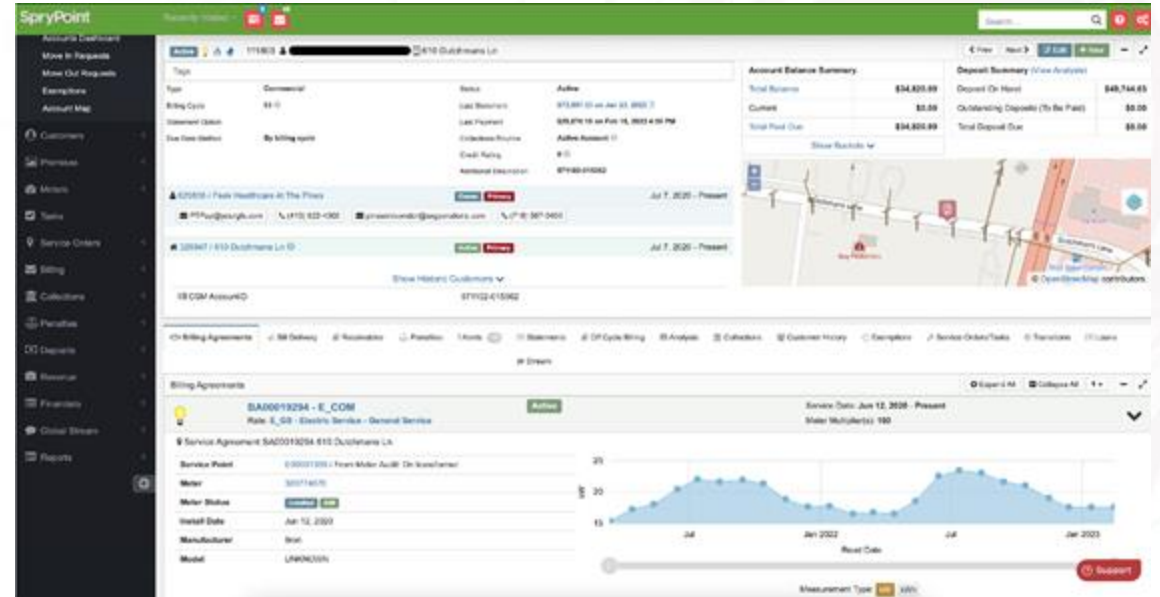
The screenshot displays the SpryMobile mobile work interface. At the top, there is a navigation bar with 'Mobile Work' and various utility icons. The main content area is divided into several sections:

- Asset: 215038**: A detailed view of an asset with fields for Asset Name, Description (PUMP DIAPHRAGM 01 CHL/BLMFLD), Asset Type, Asset Status (Active), Facility (WPX BLFD TWR), Acquisition Date (2016-06-01), Install Date (2016-06-01), Enabled for Time Entry (No), and GIS ID.
- Work Order History**: A table showing a list of work orders with columns for Date, Status, Work Order, and Type. It includes a 'Create New Work Order' button and pagination controls.
- Maintenance Schedules**: A table showing maintenance schedules with columns for Status, Name, Last PM, and Next PM. It also includes pagination controls.
- Location**: A map view showing the asset's location with coordinates 26.372562 -81.766486.
- Tags**: A section for adding tags to the asset, with a note that available tags will appear in a drop-down list.
- Add Asset Measure**: A button at the bottom right for adding new measures to the asset.

Cloud-Based Utility Systems

2020 Pilot SpryCIS

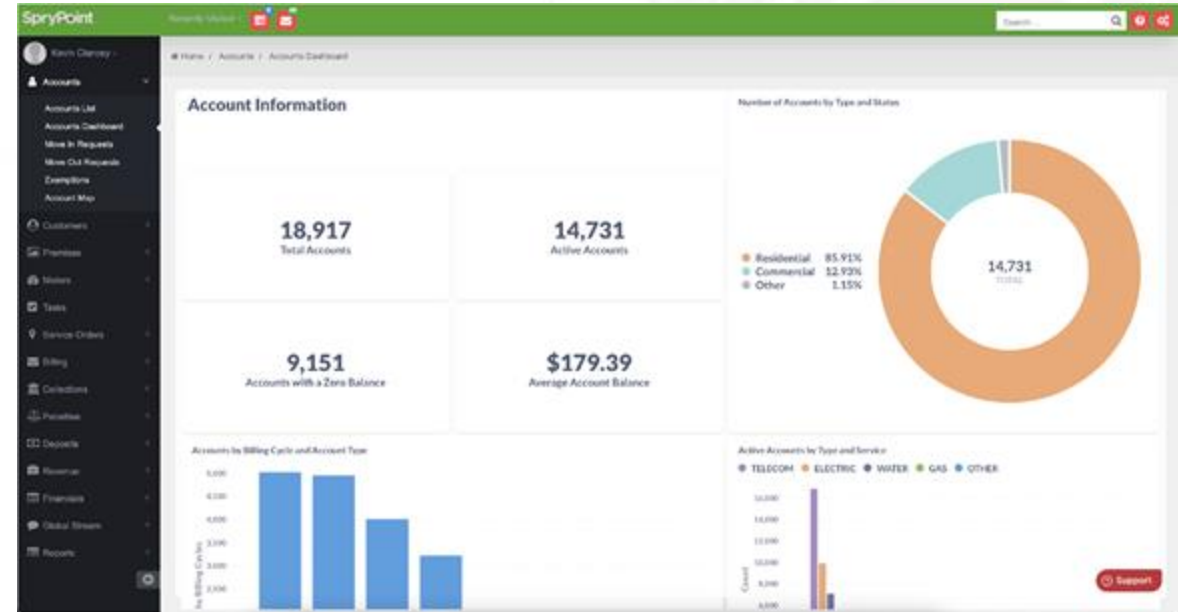
- Proof of Concept
- SpryPoint converted data and configured solution
- Stakeholders were able to see, feel and touch system
- 3 months
- Successfully buoyed our case to achieve project approval



Cloud-Based Utility Systems

2021 SpryCIS Go-Live

- Unanimous approval
- Go-Live November (9 months)
- Despite Covid complications, achieved on time on budget
- Integrations across EUC including...
 - OMS
 - Electronic Meter Card
 - SpryMobile
 - ESRI GIS
 - Phone System
 - Customer Page
 - Customer Portal
 - Collections Manager





Lessons Learned

Lessons Learned

Does not need to be a complete revolution

- Early adopters' successes breed EAGER future adopters

Agile based implementation

- Configurations, testing, releases, SPRINTS

API-first applications

- Vendor managed integrations
- Expandable integrations

Speed and scalability – true cloud applications

- AWS infrastructure / backbone



True SaaS



On-Premise



Hosted



SaaS

Services	Responsibility	Responsibility	Responsibility
Platform	Utility	Vendor	Vendor
Business Continuity & Disaster Recovery	Utility	Vendor/Utility	Vendor
Database	Utility	Vendor/Utility	Vendor
System Software	Utility	Vendor/Utility	Vendor
Additional Services (Single Sign-On, Reporting, Containers, etc...)	Utility	Vendor/Utility	Vendor
Business Applications	Utility	Utility	Vendor
Cybersecurity	Utility	Vendor	Vendor/Utility



True SaaS



On-Premise



Hosted



SaaS

Services	Responsibility	Responsibility	Responsibility
Upgrade Cost	High	Moderate	Low
Upgrade Frequency	Low	Moderate	High
Customization	High	Moderate	Low
Configuration	Moderate	Moderate	High
Scalability	Low	Moderate	High
Integrability	Moderate	Low	High
Cost Reduction Opportunities	Low	Moderate	High

SaaS Support Differences

✓ User Support

- Unlimited (Phone Calls, Email, Case logging) -
- Dedicated Support Contact
- Customer Portal
- Knowledge Base & Customer Community
- User Groups
- Webinars
- Embedded Documentation
- Product Feedback

✓ Application Support

- Uptime Monitoring
- Performance Monitoring
- Alerts & Error Notifications
- Logging & Developer Support
- Hot updates
- No upgrade cycles
- No infrastructure depreciation
- Built-in disaster recovery & business continuity
- Scalability / AWS limitless resources



Integration Demonstration

Application Programming Interface: API-First Principles



**YOUR API IS THE
FIRST USER
INTERFACE OF
YOUR APPLICATION**



**YOUR API COMES
FIRST, THEN THE
IMPLEMENTATION**



**YOUR API IS
DESCRIBED (AND
MAYBE EVEN
SELF-DESCRIPTIVE)**



Cloud CIS Results

Speed and Scalability

Rich searching and filtering

Sub-second responses

Horizontal processing

The screenshot displays the SpryPoint web application interface. The main content area shows an 'Electric Meter List' table with the following data:

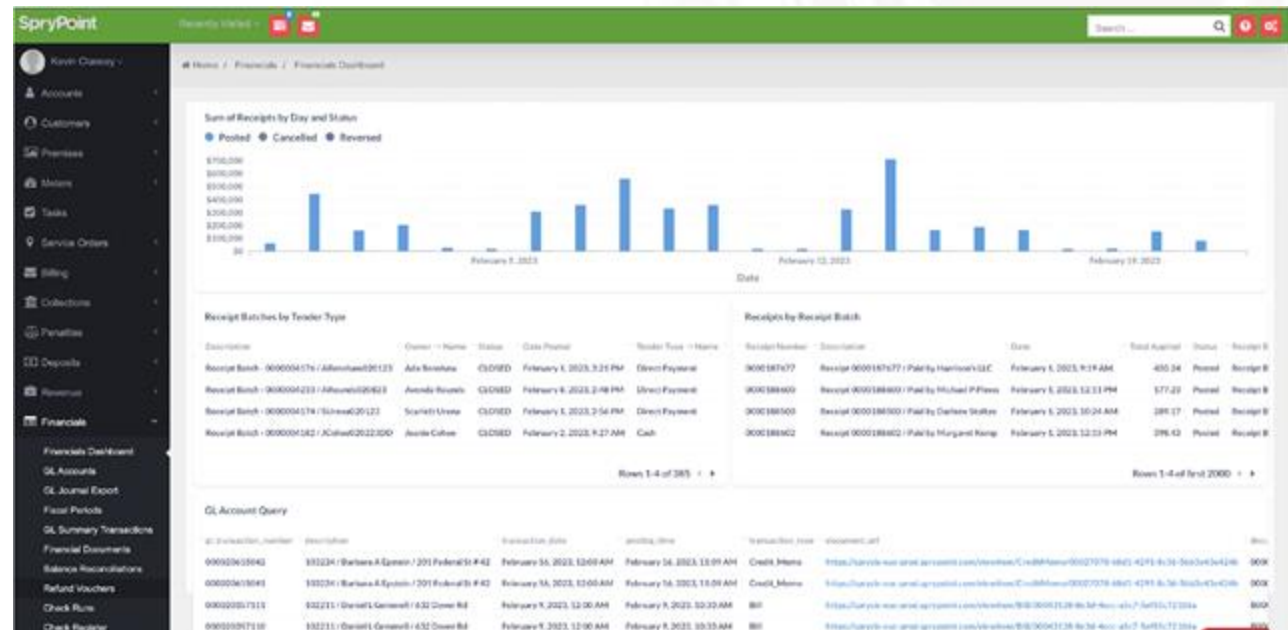
Meter Number	Description	Serial Number	Status	Manufacturer	Model	Active	Configuration
67358563	Electric Meter 67358563	67358563	Installed	Iron	UNKNOWN	Yes	ITRON Class 200 - 5 Digits
04841717	Electric Meter 04841717	04841717	Inventory	ABB	UNKNOWN	Yes	EMeter - E_ABB-A1D5 Dials 100 Mult Demand
46347147	Electric Meter 46347147	46347147	Inventory	Lands & Gyr	UNKNOWN	Yes	EMeter - E_L&G-M55 Dials 1 Mult
69332131	Electric Meter 69332131	69332131	Installed	Iron	UNKNOWN	Yes	ITRON Class 200 - 5 Digits
67428009	Electric Meter 67428009	67428009	Installed	Iron	UNKNOWN	Yes	ITRON Class 200 - 5 Digits
53460742	Electric Meter 53460742	53460742	Installed	ITRON	UNKNOWN	Yes	ITRON Class 200 - 5 Digits
69331851	Electric Meter 69331851	69331851	Installed	Iron	UNKNOWN	Yes	ITRON Class 200 - 5 Digits
71909158	Electric Meter 71909158	71909158	Installed	Iron	UNKNOWN	Yes	ITRON Class 125 - 5 Digits
37030801	Electric Meter 37030801	37030801	Inventory	Lands & Gyr	UNKNOWN	Yes	EMeter - E_L&GMS25 Dials 1 Mult
23115751	Electric Meter 23115751	23115751	Installed	Iron	UNKNOWN	Yes	ITRON Class 200 - 5 Digits

The interface also features a search bar, a 'Recently viewed...' section, and pagination controls at the bottom indicating 'Showing 1 to 10 of 18,385 entries'.

Reporting, Security, Accessibility

Reporting database, high availability

Live dashboards



Connections Summit Breakout Session #3 Feedback





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