This presentation premiered at WaterSmart Innovations

watersmartinnovations.com
Making Waves in the Utility Sector: Cloud-based Solutions for Water Conservation
Presentation Overview

- What is the cloud?
- How does it work?
- Cloud-based solutions for water conservation
- Choosing a cloud-based solution
What is cloud-based software?
The cloud provides software and services

- The concept of cloud computing first appeared in the 1960s—but it did not take off until the late 1990s

- Examples of risk-adverse, regulated markets that have adopted cloud-based solutions:
  - Utilities
  - Government
  - Banking
  - Retail
Examples of cloud services

- Google Docs
- Apple iCloud
- Dropbox
- Netflix
- Amazon
- Facebook
- etc.
Benefits of using the cloud

- Cost Savings
- Automatic software updates
- Enhanced security
- Facilitates collaboration
Solutions for water conservation
Types of cloud-based solutions

- Behavior-based programs
- Smart irrigation technology
- Program management platforms
Behavior-based programs

Platforms facilitating messaging and other outreach strategies to encourage reduced consumption

Providers:

- Dropcountr
- AquaHawk
- Meterhero
- Smart Utility Systems (Smart iQ)
- WaterSmart
Behavior-based programs

Reduced water use by treatment group

5% cumulative savings in first 12 months
Behavior-based programs

- **Benefits:**
  - Can yield program savings not provided by pure data visualization
  - Can improve customer engagement
  - Can improve strategic communications
  - Can build greater trust between utility & customer

- **Challenges:**
  - Securing adoption by customers
  - Measuring associated water savings
  - Training customers on how to interpret results/information
  - Potential increase in call volume
Smart irrigation platforms

- Smart controller providers:
  - Residential controllers
    - Skydrop*
    - Rachio*
    - Weathermatic*
    - WeatherTRAK*
    - Hunter*
  - Commercial controllers
    - Banyan*
    - Weathermatic*
    - Hunter*

* ET-based controllers
+ Weather-based controllers
## Smart irrigation platforms

### Conservation Savings

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Water Savings</td>
<td>-10%</td>
<td>2%</td>
<td>23%</td>
</tr>
<tr>
<td>Total Savings (all cohorts)</td>
<td></td>
<td></td>
<td>123,931 gallons</td>
</tr>
<tr>
<td>% Total Water Savings</td>
<td></td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>Price per Gallon Saved*</td>
<td></td>
<td>$0.05</td>
<td></td>
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### Household Financial Savings

<table>
<thead>
<tr>
<th>Cohort</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>% Savings</td>
<td>-10%</td>
<td>1%</td>
<td>27%</td>
</tr>
<tr>
<td># of summers until payback*</td>
<td>Not beneficial</td>
<td>54</td>
<td>2</td>
</tr>
</tbody>
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Smart irrigation platforms

Use control settings available through smart irrigation technology to spread out watering schedules and reduce peak demand.
Track current & historical water usage

Monitor precipitation & evapotranspiration conditions
**Smart irrigation platforms**

**Benefits:**
- Water savings
- Can help manage peak demand
- Can increase customer satisfaction & notification

**Challenges:**
- Securing adoption by customers
- Customer technical training/ obstacles
- Measuring associated water savings
Program management platforms

- **Providers:**
  - AIQUEOUS *(WaterWays)*
  - ConserveTrack
  - iEnergy (Nexant)
  - Droplet Technologies
Program management platforms
Program management platforms
Program management platforms

- **Benefits:**
  - Organizes/simplifies program management
  - Can help create more efficient workflows (e.g., reduced paperwork, call volume)
  - Can reduce audit risk
  - Can improve effectiveness of customer outreach

- **Challenges:**
  - Getting IT department onboard (if necessary)
  - Department apprehension regarding data security
  - Getting customers to switch to electronic submissions
Choosing a cloud-based solution
Where should you start?

1. Identify what problem you are trying to solve
   - Water Conservation
   - Customer Engagement
   - Water Waste

2. Figure out your options
   - Can this be cost-effectively developed in-house in a timely manner?

3. Identify and engage internal stakeholders
   - IT, Management, Billing, Procurement