



Abstract

Palm Beach County Water Utilities Department now offers residents an improved self-service experience through its Interactive Voice Response (IVR) system. The IVR is integrated with the utilities customer service application, allowing residents to efficiently manage tasks that previously required human assistance. This system enables residents to have more control over their utility services.

Key improvements include:

- **Simplified Payments:** Eliminate manual intervention with effortless payment options, including bank and credit/debit card payments.
- **Increased Flexibility:** Manage services directly through the IVR system, including initiating turn-on/off requests and verifying meter readings.
- **Improved Accessibility:** Request payment extensions directly through the IVR system, offering convenience and peace of mind.

This innovative solution, developed, implemented, and supported by Palm Beach County's ISS (Application Services division), streamlines interactions for both customers and employees, adopting a more efficient and user-friendly experience.

The Problem or Need for the Program

PBC Water Utilities can overcome high call volumes and repetitive inquiries with the Interactive Voice Response (IVR) system. IVR enables customers to pay bills, answer common questions, and submit requests 24/7, freeing up staff and reducing wait times. This solution reduces reliance on live agents for routine tasks, allowing for more complex customer needs to be addressed. IVR also captures and analyzes customer interactions for data-driven decisions and service requests and even streamlines emergency response during high call volumes. Implementing IVR enhances customer experience, builds loyalty, and improves operational efficiency. It's a clear winner for water utilities seeking improved efficiency and customers' satisfaction.



Program Description

Overview:

Integrating the Interactive Voice Response (IVR) system with billing and customer information systems streamlines operations and empowers self-service for customers. We choose Application Programming Interfaces (Web APIs) for the integration.

APIs provide standardized methods for IVR systems to interact with billing and customer information systems. This approach simplifies integration and promotes flexibility.

Other Key Considerations:

- **Security:** Ensure secure data transmission and storage, complying with relevant regulations like PCI DSS.
- **Standardization:** Leverage industry standards like SIP and SSML for seamless integration and interoperability.
- **Scalability:** Choose an architecture that can accommodate future growth in call volume and data complexity.
- **Performance:** Optimize response times to maintain a positive customer experience.

Benefits:

- **Reduced Costs:** Automating tasks and deflecting calls to self-service channels reduces operational expenses.
- **Improved Customer Satisfaction:** 24/7 access to account information and self-service options empower customers.
- **Increased Efficiency:** Streamlined processes and data exchange enhance agent productivity.

Palm Beach Water Utility IVR Phone Menu:

1. **Emergency Repair & Boil Water:** Get immediate assistance for urgent issues.
2. **Account Balance & Payments:** Check your balance and make payments
3. **Location & Hours:** Find our service locations and office hours quickly and easily.
4. **Customer Service:** Request a payment extension, to Turn On/Off water services, or verify meter readings. You can also speak to a Customer Representative for other issues/requests.

WebAPI: Powering Utility Customer Experience

The WebAPI acts as the invisible engine behind Menu Options 2 and 4, enabling secure and efficient interactions. Whether you need to check your balance or connect with an agent, the WebAPI works seamlessly in the background.



Account Balance & Payments: Upon selecting this menu option, the ANI Lookup (*see definition below*) feature attempts to correlate the customer's phone number with a water billing account using our WebAPI. If no match is found, the customer must input their 10-digit account number along with either their 4-digit ID, the last four digits of their social security number, or their tax identifier. Throughout this process, the WebAPI facilitates the exchange of data with our database. Upon successful verification, our WebAPI promptly delivers the customer's account balance.

Customer Service:

1. **Existing Customer:** Upon selecting this menu option, the ANI Lookup (*see definition below*) feature attempts to correlate the customer's phone number with a water billing account using our WebAPI. If no match is found, the customer must input their 10-digit account number along with either their 4-digit ID, the last four digits of their social security number, or their tax identifier.
 - a. Payment Extension Request
 - b. Service Request
 - i. Turn On Request
 - ii. Turn Off Request
 - iii. Reread Request
2. **New Customer:** Upon selecting this menu option, the IVR transfers the customer's call to the Customer Representative's queue quickly and efficiently.

ANI Lookup: *is a telecommunications service that allows businesses to identify the phone number of an incoming call. Upon receiving the phone number details, we leverage our WebAPI to search our database for a matching account associated with the number. At this point, we transmit the account details, including the customer's name, back to the IVR system.*

The Cost of the Program

The Information Systems Services (ISS) team in Palm Beach County successfully developed a WebAPI that integrates the IVR system with the Water Utilities Customer Service Information System, showcasing their resourcefulness by leveraging existing annual enterprise development tools. This approach eliminated the need for additional software or hardware purchases, resulting in a cost-effective implementation that maximized the value of existing resources.

The development team used many existing database programs and interfaces, contributing to the cost reduction.

Contributions from Vendors/consultants:

Palm Beach County leverages its existing investment in the Genesys IVR platform to bring cost-effective solutions to the Water Utilities Department. Through a sharing agreement with other



agencies within the county, the department taps into the platform's power without incurring additional software licensing costs. Furthermore, Genesys provided consulting services to configure the IVR platform for optimal performance and seamless integration with existing systems, ensuring the Water Utilities Department reaps the full benefits of this technology.

Results/Success of the Program

Implementing the IVR system has transformed water utility operations, delivering wins for both businesses and customers. Call volume shrinks thanks to automated tasks, leaving live agents for complex issues. 24/7 self-service empowers customers, boosting satisfaction and streamlining routine tasks like payments, improving accuracy and efficiency. Invaluable data on customer behavior emerges, guiding service improvements. Costs drop as automation frees up staff, while emergencies receive faster, more efficient responses. Customers enjoy flexible payment options, easy account access, and personalized engagement, leading to more enjoyable interactions. Moreover, the IVR system seamlessly scales to meet growing demands, making it a future-proof investment. In short, the IVR system delivers a winning formula for Palm Beach County Water Utilities Department, optimizing operations and creating a customer-centric environment.

Since the date of implementation, November 27, 2022, customers have successfully made 106,948 bank payments, 47,570 credit card payments, 229 service requests, 1,469 payment extensions.

Worthiness of the Award

Overall, implementing an IVR system brings significant benefits to PBC WUD, making it a worthwhile investment. The IVR integration deserves the Government Experience award for the following reasons:

1. Cost savings: Automating routine tasks through IVR systems reduces labor costs and allows staff to focus on more complex issues.
2. Improved customer experience: IVR systems offer 24/7 self-service options, allowing customers to conduct business quickly and easily.
3. Increased efficiency: Simplified payment processing and service requests help reduce mistakes and enhance productivity.
4. Scalability: handling growing customer bases and increased call volumes without additional staffing.
5. Enhanced data collection: Provide valuable insights into customer behavior and preferences.
6. Better emergency response: Handling high call volumes during emergencies like water main breaks, providing quick response and instructions.



7. Integration with existing systems: Integration with existing billing and customer service systems, enhancing overall efficiency.

8. Reduced errors: Reduced manual errors and improved data accuracy.

9. Future enhancements: Easy to adapt to evolving customer needs and technology advancements.