

*2016 CSAC Challenge Awards  
Executive Summary*

**County of San Diego Assessor/Recorder/County Clerk (ARCC)**

**Title: Leveraging Tablet Technology for Process Automation**

**OVERVIEW:** Leveraging the use of mobile technology to automate the tracking and location of boats docked at marinas in San Diego County.

**PROBLEM OR CHALLENGE:** The County of San Diego has about 70 marinas and 12,000 boats that were inventoried using paper to gather information regarding their physical location, description, and value. The paper-based data gathering process for field canvassing was labor intensive, took a lot of time, and increased the risk of data handling errors. The system required extensive time to prepare the paper inventory for the information collection canvass in addition to the time to perform the data entry once the canvass was completed. The ARCC also faced the technical challenges of enabling network connectivity in the field in order to gather and validate information in real time, as well as updating existing data. The data regarding the collection of boat characteristics is time sensitive since the valuation of boats results in the dated issuance of an unsecured tax bill.

**SOLUTION:**

Research for a solution was initiated by doing a business process engineering (BPE) study of the current process. The proposed approach was to do a proof of concept (POC) and to use Marine Canvassing as the first process to reengineer. ARCC undertook the evaluation of several models/brands of tablets that met the criteria of storage, mobility, battery life, 4G connectivity, and compatibility with Assessor applications. After consideration of the preceding, the choice was made to use the Apple iPad mini. Based on the POC, we brought the concept to a third party vendor i.e. WAVE Technology Solutions Group (WAVE). WAVE is a software development company used by the ARCC for our SharePoint development and document management solutions. WAVE developed an application using 4G connectivity to the ARCC external SharePoint site. The external SharePoint design is such that the extranet and the intranet use the same SharePoint form with the external side being accessed through VPN. The solution will synchronize data when a VPN connection is established and then use the data

locally for improved performance and for when the connection is not active or cannot be established due to limited signal. This automated the front-end data capture. The back-end data entry was also automated using Sharepoint workflow, thus eliminating all manual processes.

**ORIGINALITY:**

As of submission, the ARCC is unaware of any other California County that uses 4G technology as a transport to a SharePoint platform leveraging SQL as a data storage archive – actually Los Angeles county has requested a copy so they can also implement it. The line of business application resides on an AS400 which required bi-directional replication to and from more current technologies to make the data available through a Web-based portal while still enforcing validation rules.

**BUDGET/COST/SAVINGS:**

Budgeted amount \$300,000

The total cost shared between WAVE and HP was \$273,265

Currently the fully loaded labor cost per FTE is \$65,000. The expectation is a saving of 1.5 FTE positions or \$97,500 per year. This gives an ROI of approximately 2.8 years.

**RESULTS:**

The implementation resulted in an automated canvass preparation and canvassing process that eliminated the need for a separate, manual, data-entry step after the canvass is completed. The implementation shortened canvassing time while achieving more accurate data input. And it improved customer satisfaction by enabling automatic and real time updates to the line of business application for a greater percentage of timely submission of unsecured tax valuations.

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