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Our Vision: To be the best place in America to vote

GOVERNOR'S STERLING AWARD RECIPIENT

2022 U.S. EAC Clearinghouse Awards Submission

Outstanding Innovations In Elections

Outstanding Innovations in Elections

During the 2022 election cycle, the Hillsborough County Supervisor of Elections office developed an application that was used to track and report on receipt of unofficial results. This innovation enabled us to have more timely results reporting, with **100%** of precinct-level results received by **8:25 p.m.** election night for the **2022 General Election**.

Background

Hillsborough County is a large county in Florida with more than **900,000** registered voters, **448** precincts, and **247** Election Day polling places. One of our challenges during countywide elections on election night is ensuring that all results are received in a timely manner from all Election Day polling places. In the past, it has been difficult to accurately track results received versus results pending and maintain a direct line of communication between the election phone bank and hundreds of poll workers when poll workers are tired and anxious to head home. Any miscommunication that takes place during this time can cause significant delays in results reporting, lengthen an already very long workday, and lead to public distrust of election results. Since tabulation results are received on a standalone server, there is no way to communicate receipt of those results (or results that have not been received) quickly back to poll workers without having an external system and process in place. Our team developed an application that integrated more than a dozen different databases and services so that we could track the transmission of precinct results much more quickly and efficiently and, in turn, significantly improve our election night results reporting process.

We had seven core objectives that were considered while designing an application and improving our end of night reporting process:

1. Improve communication between the election phone bank and poll workers.
2. Streamline the end of night process and ensure poll workers are trained to understand the importance of returning results back to elections headquarters.
3. Develop an Election Results application and interface that allows users to quickly review results that have been received and filter down to locations that have pending results.
4. Design the Election Results application to act as an intermediary between poll workers and the elections headquarters while providing real-time updates to stakeholders.
5. Implement a text message solution and automation to report to poll workers once their results have been received.
6. Develop a low-code application dashboard for tracking polling place results by status that can be easily trained to support staff and updated for future elections.
7. Develop processes within the application that enables election phone bank operators to quickly identify issues and independently put contingency plans into motion.

Poll Worker Process Improvement

Poll workers were trained for the 2022 elections to remain at their polling place and not power down equipment until after they received a text message from our office alerting them that their results were received. This provided our team enough time to determine which locations had partial or no results received. One team focused on notifying poll workers when their results were received while a separate team worked to contact poll workers that had results that were not yet received.

Text message sent to poll workers confirming receipt of results.

Election Night Results Application

The application was designed to integrate poll worker data, polling place details, precinct assignments, and equipment allocation in one low-code solution. Additionally, two user-generated lists were utilized on election night. One list was used to report on results received while the other list was used to track contingency plans and status for locations that had not yet reported results. The election results tracking page displays all active precincts for the focus election. Each precinct is an interactive button that, once selected, changes color to indicate either partial or all results received. Since more than one precinct can be assigned to a tabulator, the application is configured to change the results received status for all precincts assigned to that tabulator by selecting any one of the assigned precincts. This new configuration greatly increased the speed of recording results received. All the tracking mechanisms were periodically patched into a dashboard that was visible to operators who were on the phone with poll workers. Results tracking data was patched to a database that allowed operators to see the results status of all Election Day polling places.

Election Phone Bank Dashboard

Phone Bank operators could filter down to locations with pending results. As results batches were patched to their application, the number of locations with pending results shrunk down until it was a smaller, more manageable list. By 7:45 p.m., election phone bank operators began contacting locations that had not yet reported results to provide support or confirm that results were being driven to election headquarters. Updates were flagged by operators within the application to indicate results status. If the poll worker was heading into the office, the operator would update their status and provide an estimated time of arrival. As results for each location were received, the location's status was updated until all 247 Election Day polling places had reported results.

Periodic Reports

After each batch of results were marked as received within the application, the application automatically compiled and emailed a report of the percentage of results received by precinct and location. Information from the email report was then communicated to candidates, media, and interested voters.

Award Criteria

INNOVATION

Our custom-developed applications were designed entirely with Microsoft PowerApps, a low-code solution which allowed us to implement a variety of innovative solutions, described below and shown in the supporting documents: Election Night Results Application, Election Phone Bank Dashboard, and Automated Periodic Report.

1. The **Election Night Results Application** addresses an issue we had in bridging all our tracking systems and data for 448 precincts and 247 Election Day polling places. The application acts as a ready-board and provides an interface that can be updated instantly to tally results information by location and precinct, generate reports, and provide batch data updates to stakeholders. The Election Night Results Application is an innovation that eliminates manual tracking of the receipt of results on static spreadsheets and instead provides real-time data and a dynamic interface with actionable insights.
2. The **Election Phone Bank Dashboard** helps us with the challenge of tracking results returned by location and communicating results status with poll workers. The application connects and integrates 4 services and more than 10 different lists and databases. Within the dashboard, elections staff can review all the information that pertains to Election Day Polling Places. This innovation allows our staff to review polling place information, poll worker details, drop site contact numbers, location equipment allocation, and results received **all in one place**. Further, tracking mechanisms within the interface help to ensure poll workers are contacted if their results are only partially returned or were not received. Most importantly, the Election Phone Bank Dashboard greatly increases the speed in which we can determine which poll workers need to be contacted and instructed to drive their results into the elections headquarters.
3. The **Automated Periodic Report** provides a solution to communicate information more quickly and accurately between the Election Phone Bank and other stakeholders. The dashboard tracks a variety of data such as partial results, pending results, and results received. Additionally, the automation leverages Outlook email and Microsoft Teams to provide reporting of precinct and location data. In addition to instantaneous communication of results received, the periodic report provides details of the locations with outstanding results and the status and estimated time of arrival of results back to election headquarters.

While embarking on this ambitious overhaul of our end of night reporting process, we chose to use a low-code application because it offers several benefits that can be realized by any election office. Many low-code solutions, such as PowerApps, are cloud-based and provide a secure platform for storing and accessing data. Additionally, low-code applications can be used to create forms and dashboards that are tailored to the specific needs of the organization. Furthermore, PowerApps can

be used to create mobile-friendly applications that can be accessed from any device, making it easier for the elections office to manage data and access information quickly from wherever they are.

SUSTAINABILITY

The Election Night Reporting application and Election Phone Bank Dashboard have been developed with sustainability in mind. For example, we developed election-based parameters that are configured to automatically update the dashboards based on the type of election, and utilize dynamic data for polling places, drop sites, and poll workers. Additionally, the Election Night Reporting application can be quickly and easily reset between elections, allowing it to be used for all future elections. Further, our custom PowerApps can be updated and accessed through standard licensing within Microsoft Teams, an application used by many organizations. Finally, low-code solutions like PowerApps are easy to use and manage, making them a great choice for organizations with a diverse set of needs; they are also cloud-based, meaning that they can be easily scaled up or down as needed.

OUTREACH

Developing an Election Night Reporting Application and Election Phone Bank Dashboard helped our organization to reinforce public confidence by providing candidates, poll workers, members of the media and voters with more timely tracking and reporting of election night results.

COST-EFFECTIVENESS

Our innovative applications are cost-effective because we leveraged low-code solutions which can be built and supported with minimal external licensing costs or overhead. For example, as a cloud-based solution, PowerApps eliminates the need for purchasing and maintaining physical hardware and provides the ability to store and access data from anywhere with an internet connection. By utilizing a low-code solution, elections offices can save time, money, and resources while providing a secure and reliable platform for storing and managing election data.

REPLICABILITY

The Election Night Reporting Application and Election Phone Bank Dashboard can be easily replicated by other election offices, and they provide a service that can be custom-tailored to meet the specific needs of each office. Election professionals who are already familiar with Microsoft Office products such as PowerPoint and Excel can likely understand and apply many of the formulas and features necessary to create their own low-code solutions immediately. Additionally, like many low-code solutions, PowerApps has built-in functionality that will analyze an existing data connection or table and automatically generate a simple, custom application that can be published and used by elections staff to update data. Finally, the solutions can be easily adapted to changing requirements, making them ideal for election offices that may need to make frequent changes to their systems.

GENERATING POSITIVE RESULTS

The successful implementation of low-code solutions for election administration has yielded our organization numerous positive results and we plan to continue leveraging these applications to integrate, automate, and improve various election processes in the future.

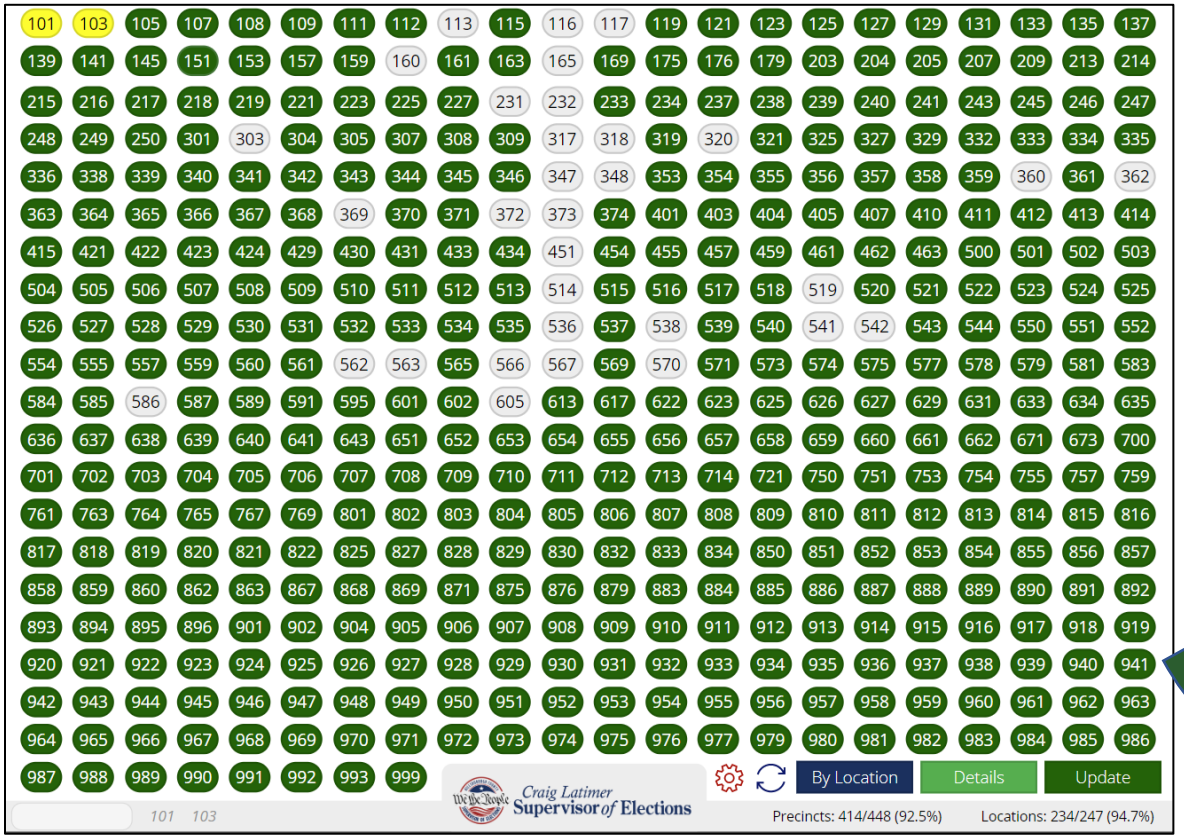
Below are positive results observed from developing the Election Night Results application:

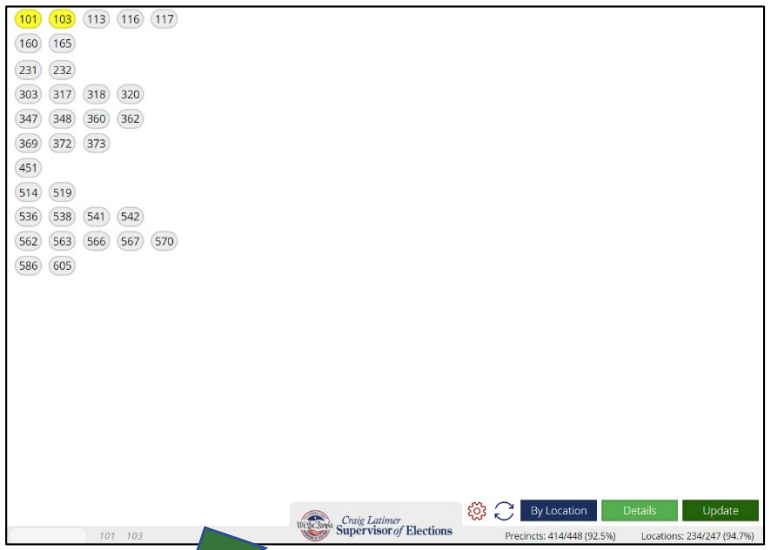
- Reported timely results with 100% of precinct-level results reported by 8:25 p.m. election night during the 2022 General Election.
- Streamlined the process of collecting and reporting election results by precinct and location.
- Provided faster response time and communication with candidates, media, and public regarding percentage of precincts reporting.
- Enabled us to identify locations with pending or partial results more quickly and allowed us to act on contingencies to promptly deliver results into the office.
- Improved communication between the election office, phone bank operators, and poll workers.

Supporting Documents

Election Night Results Application

The interactive results tracking dashboard enables the user to select each precinct, which then highlights the location and any precincts assigned to it and flags it with a color to indicate partial results or all results received.





The dashboard can be filtered down to display precincts with **no results received**.

No Results

Partial Results

Results Received

Supporting Documents (Poll worker information redacted or replaced)

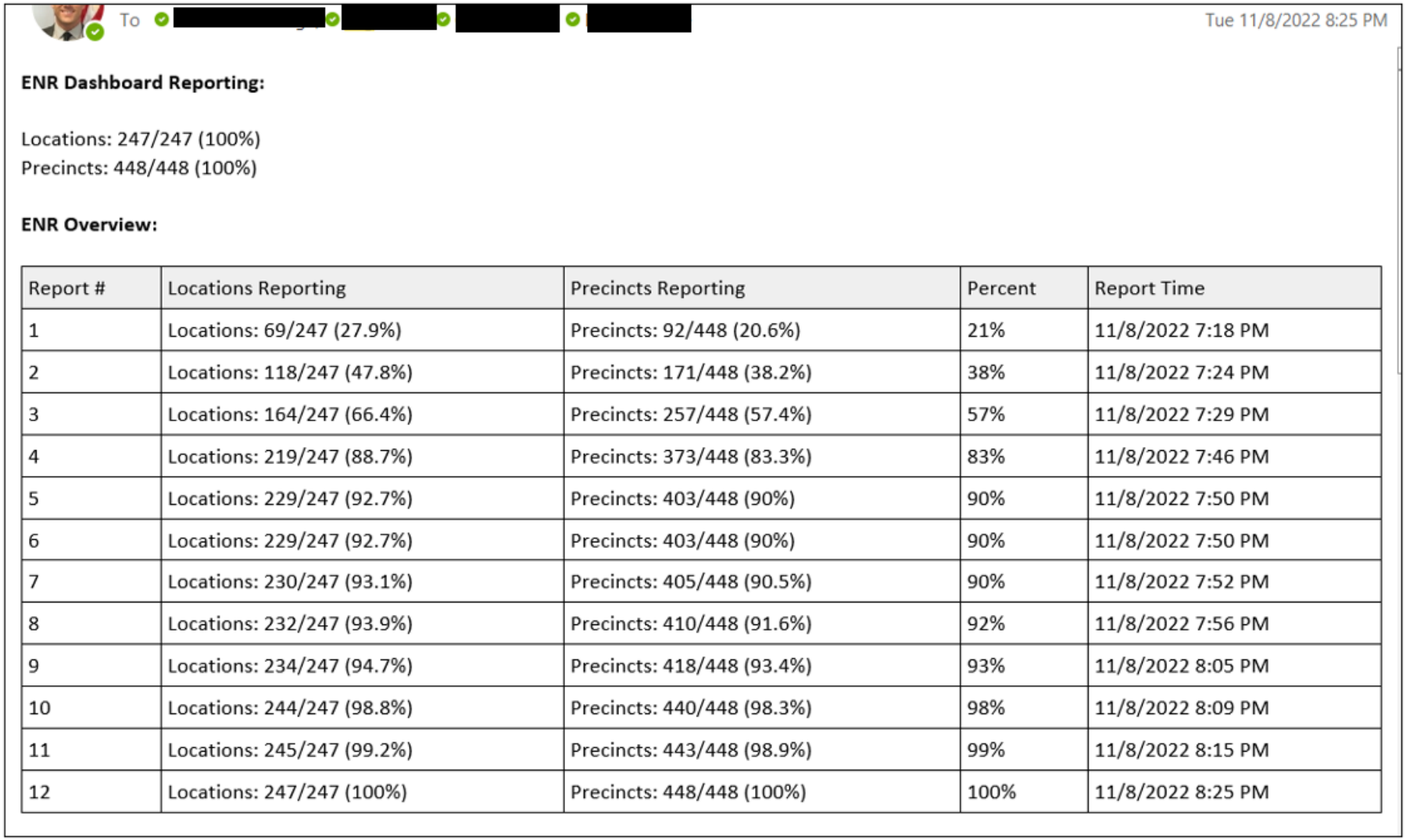
Election Night Phone Bank Dashboard

Within the interactive Election Night Phone Bank Dashboard, operators could filter down to the polling places assigned to them that also still have pending results. By doing so, operators could contact poll workers directly to let them know that their results had not yet been received. Additionally, operators could update the dashboard to indicate the poll worker they spoke with and their results status. Using the status drop-down, operators could indicate if the poll worker was driving results into headquarters and their estimated time of arrival.

Supporting Documents

Automated Periodic Report

The Election Night Results application would also send reports by email each time a report batch was pushed through to the election phone bank. The email would notify recipients of the percentages of precincts and locations reporting and logging each time a batch was sent throughout the evening. Below is our end of night results report for the **2022 General Election**:



To [redacted]

Tue 11/8/2022 8:25 PM

ENR Dashboard Reporting:

Locations: 247/247 (100%)
Precincts: 448/448 (100%)

ENR Overview:

Report #	Locations Reporting	Precincts Reporting	Percent	Report Time
1	Locations: 69/247 (27.9%)	Precincts: 92/448 (20.6%)	21%	11/8/2022 7:18 PM
2	Locations: 118/247 (47.8%)	Precincts: 171/448 (38.2%)	38%	11/8/2022 7:24 PM
3	Locations: 164/247 (66.4%)	Precincts: 257/448 (57.4%)	57%	11/8/2022 7:29 PM
4	Locations: 219/247 (88.7%)	Precincts: 373/448 (83.3%)	83%	11/8/2022 7:46 PM
5	Locations: 229/247 (92.7%)	Precincts: 403/448 (90%)	90%	11/8/2022 7:50 PM
6	Locations: 229/247 (92.7%)	Precincts: 403/448 (90%)	90%	11/8/2022 7:50 PM
7	Locations: 230/247 (93.1%)	Precincts: 405/448 (90.5%)	90%	11/8/2022 7:52 PM
8	Locations: 232/247 (93.9%)	Precincts: 410/448 (91.6%)	92%	11/8/2022 7:56 PM
9	Locations: 234/247 (94.7%)	Precincts: 418/448 (93.4%)	93%	11/8/2022 8:05 PM
10	Locations: 244/247 (98.8%)	Precincts: 440/448 (98.3%)	98%	11/8/2022 8:09 PM
11	Locations: 245/247 (99.2%)	Precincts: 443/448 (98.9%)	99%	11/8/2022 8:15 PM
12	Locations: 247/247 (100%)	Precincts: 448/448 (100%)	100%	11/8/2022 8:25 PM