



CompTIA[®]

Public Technology Institute

2022 SOLUTIONS AWARDS

The 2022 Solutions Awards recognize CompTIA Public Technology Institute (PTI) member cities and counties that have implemented or updated innovative technology solutions within the past 15 months that positively affected local government performance and service to the public.

Awards are given based on jurisdiction population for Information Technology; Web Services, E-Government, Public Outreach, and Mobile Apps; GIS; and Public Safety and Emergency Management and Community Resiliency.

An independent voting committee reviewed all entries and selected award recipients.

Following are abstracts of the entries that were recognized as winners or significant achievement recipients by the panel of judges. The abstracts were provided as part of the application.

About CompTIA Public Technology Institute (PTI)

Established in 1971 by several major national associations representing state and local governments, CompTIA PTI has been viewed as the focal point for thought leaders who have a passion for the furtherance and wise deployment of technology. CompTIA PTI actively supports local government officials through research, education, professional development, executive-level consulting services, and national recognition programs. www.pti.org.

CompTIA®

Public Technology Institute

2022 SOLUTIONS AWARDS

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2022 SOLUTIONS AWARDS

WINNERS

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population Under 50,000

CITY OF SEGUIN, TX

Cyber Champion

The City of Seguin is a historically rural city of 30,000 transforming in real time to an exurb of the greater San Antonio/Austin region via an influx of rapid industrial, commercial, and residential growth. With a projected 10% year-over-year population expansion over the next decade, FTE's have grown at a rate of 4% annually resulting in the city managing the effects of the rapid growth through limited staffing. Municipalities have increasingly become targets for cyber events - operationally doing more with less opens the door for cyber threats. The Seguin Cyber Champion program is the city's evolving approach to meeting this critical challenge.

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population 50,000 to 249,999

CITY OF WORCESTER, MA

360 Cybersecurity Program

The City of Worcester is committed to improving its security culture and posture through technology solutions and human-centered risk mitigation. Recognizing that most cyber incidents start with an employee making a mistake, the City has developed a robust cybersecurity awareness program which includes mandatory in-person and online cybersecurity awareness training, as well as sophisticated phishing simulations. Throughout the pandemic, the City's Technical Services department also implemented secure tools to allow employees to access their desktops and core applications, ensuring that City departments could continue to provide excellent service. In addition, the City has introduced enhanced perimeter and end-point protection, tied back to a 24x7x365 Security Operations Center, which is a critical component to mitigating risk, particularly given current global circumstances. In addition, the City is getting key staff involved in tabletop exercises to identify any gaps that might exist in our response plans.

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population Over 250,000

COUNTY OF ALAMEDA, CA

SHIE Depot – Social and Health Care Data Lake

Alameda County established a multi-sectoral data aggregation repository, named Social Health Information Exchange (SHIE), as part of California's Whole Person Care program. To enable decision-making for cross-sector care coordination for the underserved communities and provide a separate analytics environment, the Health Care Services Agency (HCSA) partnered with the Information Technology Department (ITD) to build a data lake in Microsoft Azure using an Enterprise Master Person Index tool to link data sets. This provided population health management and care coordination in a multi-sectoral way. During the COVID-19 pandemic, this program identified vaccination targets and delivered care equitably to underserved communities including the homeless population. Data coming from various sources in different formats generated the need for accuracy and reliability. This resulted in an innovative patient data matching project which used a technology called "Referential Matching." Having a robust data lake environment with data from seven different health care and social sectors is not only innovative but could potentially act as a model for other counties.

GIS (Geospatial Information Systems)

Population Under 50,000

CITY OF SEGUIN, TX

Ad Hoc to Enterprise Scale GIS

The City of Seguin is a historically rural city of 30,000 transforming in real time to an exurb of the greater San Antonio/Austin region via an influx of rapid industrial, commercial, and residential growth. With a 500% increase in residential permits since 2019, the city currently has 44 subdivisions with 13,000 new dwellings in the planning process resulting in a projected 10% year-over-year population growth over the next decade. FTE's have grown at a rate of 4% annually resulting in the city managing the effects of the rapid growth through limited staffing. The city needed to transform its dated GIS strategy and approach to managing data alongside a rapidly growing community and escalating demands of city provided services.

To visually represent data reflecting the substantial changes underway in one of Texas's oldest cities, the city budgeted for and hired its first dedicated GIS resource through a nationwide search in FY21-22. Taking the dated ad hoc data available representing the early remnants of GIS the city had leveraged previously, an enterprise scale GIS platform was built over the following months providing the baseline to maximize the opportunity of leveraging data in revealing the changes resulting from incredible community growth. In doing so, a documented path to upgrade from basic data representation to an enterprise scale GIS platform was established for other local government entities to follow.

GIS (Geospatial Information Systems)

Population 50,000 to 249,999

CITY OF RANCHO CUCAMONGA, CA

Re-inventing Capital Improvement Project Tracking with GIS

For the City of Rancho Cucamonga, keeping track of every Capital Improvement Project (CIP) was a daunting task. Every stage of planning from location to budgeting had to be done on paper. The City's Department of Innovation & Technology (DoIT) used GIS technology to re-invent this whole process. Our team analyzed every aspect of the old process. Converting paper forms into spatially aware GIS datasets. Now when City staff creates a new Capital Improvement Project, they use a map to locate their project area and create a point. This point represents the actual location of the improvement project. In addition, the data form we created allows them to track every stage of development; whether that is financial data or project status; all this can now be done electronically. With the cooperation of various City departments and effective teamwork, this project has led to a much improved and enhanced CIP system. This new system saves time, money, and most importantly improves the City's quality of service to its residents.

Public Safety and Emergency Management, Community Resiliency

Population Under 50,000

LATAH COUNTY, ID

The Show Must Go On! 911 Cannot Be Out of Service

Our small IT team of four was down a person for the better part of 2021. On the eve of a scheduled 911 project for a new system, one of the IT members opted out from working for the county. And then there were two. But the show must go on! We dove in head first, learning what we needed for the new 911 system and what we had to do to transition with minimal downtime to our 911 dispatch center. As part of the original plan, we partnered with two of our regional counties, Lewis and Nez Perce in Idaho. If there is a catastrophic outage in any of our 911 dispatch centers, the others can assist with calls. It took a few months working with the various vendors and partner counties to resolve the configuration issues, but we successfully made the live cutover and have been operational on the new system for several months.

Public Safety and Emergency Management, Community Resiliency
Population 50,000 to 249,999

NMPP ENERGY

Power Generation Operations and Mutual Aid Request

The Operations Application created by NMPP Energy Digital Solutions Group is intended to streamline communications from and to participating communities, many that are rural, to report generation outage notifications and to request power and natural gas mutual aid.

Public Safety and Emergency Management, Community Resiliency
Population Over 250,000

METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS

Visualizing Variants: Building a COVID-19 Multi-State Phylogenetic Tree

In the summer of 2021, epidemiologists were making preparations for schools to return in-person in the metropolitan Washington region. More in-person interactions gave more opportunities for new variants of concern to develop and spread throughout the community. DC, MD, and VA epidemiologists partnered with bioinformaticians to use the genetic sequencing of COVID-19 positive cases to visually see the connections using a phylogenetic tree. This tree allows epidemiologists to make links between cases, across state lines, based on the number of mutations, not merely relying on contact investigations. Given the interest and need for this work, the Metropolitan Washington Council of Governments received support from

de Beaumont Foundation, CareFirst BlueCross BlueShield, the Morris and Gwendolyn Cafritz Foundation, Healthcare Initiative Foundation, and the Northern Virginia Health Foundation to develop and maintain a phylogenetic tree with data from the District of Columbia, Maryland, and Virginia, and has since expanded to Pennsylvania, and New York. This effort continues in 2022 as weekly calls host both epidemiologists and bioinformaticians to share strategies on making phylogenetic data actionable, with current efforts to monitor the sub-lineages of Omicron, including BA.2. This is a powerful group that will continue to innovate and share ideas, making breakthroughs that can assist with current and future responses.

Web Services, E-Government, Public Outreach, and Mobile Apps
Population 50,000 to 249,999

CITY OF BELLEVUE, WA

Cloud Native Public Document Center

City of Bellevue's Information Technology Department and City Clerk's Office partnered to utilize cloud technologies to provide residents easy access to public documents. The Public Document Center is a responsive and accessible web application that enables users to find available documents without making public record requests or contacting city staff. This project leverages cloud technologies such as Azure Blob Storage, Azure App Service, Azure Cognitive Service, and Azure DevOps Pipeline. The application was developed using the modern web development framework React for optimal user experience. The Public Document Center provides enhanced searching, sorting, and filtering capabilities. The city also has analytics on the Public Document Center to better learn what residents are using and how to improve the application in the future.

Web Services, E-Government, Public Outreach, and Mobile Apps
Population 50,000 to 249,999

CITY OF BRYAN, TX

150th Anniversary Website and Digital Engagement Campaign

The City of Bryan marked its 150th Anniversary of Incorporation on November 29, 2021. With this momentous occasion falling in the middle of the pandemic and an extremely small budget to work with, the City of Bryan Communications Department took on the task of telling the community's history in a free, accessible, fun and interactive way by harnessing technology and digital engagement as the centerpiece of the yearlong campaign.

Web Services, E-Government, Public Outreach, and Mobile Apps

Population Over 250,000

COUNTY OF ALAMEDA, CA

In-Home Supportive Services (IHSS) Provider Online Enrollment

Alameda County Social Services Agency (SSA) needs the prospective service providers of the In-Home Supportive Services to enroll in the program by submitting the completed application forms either by dropping in person or by mailing. After that, the staff will screen the forms for the completeness of the data submitted and then schedule the prospective to undergo an in-person orientation program. Once their background check is completed, they will be eligible to provide the service and get paid for their services. Alameda County Social Services Agency (SSA), in partnership with Alameda County's Information Technology Department (ITD), launched a new online website that automates the

enrollment and training process, thus the enrollment and training process can be completed online. The online website (<https://ihsspe.acgov.org>) provides providers more flexibility to submit their applications from anywhere, at any time, using any smart device. Prospective providers can be screened and set up with online training over Zoom. After attending the training, their attendance can be verified through the website. The application assists in qualifying providers and enables training to be conducted remotely. With the pandemic and associated shelter-in-place orders, this online enrollment and training process provides providers with a safe and secure way to enroll to be a provider.

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SIGNIFICANT
ACHIEVEMENTS

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population Under 50,000

TOWN OF SAHUARITA, AZ

IT Internship Program

The Town of Sahuarita implemented an IT Internship program a number of years ago. This year we honed our program to emulate, as close as possible, the CompTIA A+ Certification Exam: Core 1 Objectives. Prior to this, we simply used a Volunteer Internship Agreement between the potential volunteer intern and the Town and a Systems Volunteer position description. We changed that by taking the CompTIA A+ Core 1 Exam Objectives and simplifying them to meet our 480-hour (six month) internship and the part-time nature of the work (as the intern is in school and A+ certifies a technician's competency at a 9-month level of experience). We added value to our program by partnering (in an abstract way) with a premier certification and industry accreditation authority. This takes our program to a new level, allowing the Town to both instruct and give necessary work experience to potential candidates. The Town now offers the intern, upon successful completion of work, a paid temporary six-month position. This gives our interns the opportunity to gain that one year of experience that most entry level IT position descriptions require.

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population 50,000 to 249,999

CITY OF VACAVILLE, CA

Next Gen Data Backup Security and Compliance

The City of Vacaville needed to get an edge on protecting our data against cyber threats like ransomware and simplify data operations while recovering from data loss as quickly as possible. Rubrik's solution with global visibility allows the IT team to identify and lock down sensitive data exposure. As a result, the city can avoid data exposure and proactively create remediation plans to address high-risk incidents.

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population Over 250,000

CITY OF BOSTON, MA

Digital Equity, Digital Inclusion & Online Learning During/After COVID19

Boston has invested about \$15 million to address Digital Equity & Inclusion efforts by improving access to affordable and reliable broadband for households and businesses and by facilitating ‘ease of access’ with up-to-date digital tools. Boston’s approach to the digital inclusion has been a four-legged stool strategy:

- Foster competition to provide choice to residents, households and businesses.
- Demand comprehensive deployment of wireline and wireless providers in all Boston’s neighborhoods.
- Provide the digital tools (Chromebooks, notebooks, hotspots, subsidies) to connect and engage online.
- Help our residents, students and vulnerable citizens to learn and acquire the digital skills to work, learn and play online.

In addition to work done during the pandemic, Boston has begun to invest over \$12 million to further bring digital equity and inclusion to nearly 23,000 Boston public housing residents, library users, and school-age families thanks to the \$7.17 billion Emergency Connectivity Fund (ECF), which was signed into law by President Biden a year ago this week as part of the larger American Rescue Plan Act. In addition, Boston is actively engaged with CBO’s and social service agencies in signing households up for the Affordable Connectivity Program (ACP). ACP is a unique, needs-based federal program funded by the Infrastructure Investment and Jobs Act of 2021 providing \$14.2 billion to modify and extend the Emergency Broadband Benefit Program (EBB COVID Program) as a longer-term broadband affordability program. ACP now provides eligible households with a discount on broadband service (\$30/month) and connected devices (\$100/device) as the successor to EBB. As of February, over 19,000 Boston households have signed up for the new Affordable Connectivity Program (ACP). Ongoing, Boston is actively engaged in a multi-pronged Digital Equity and Municipal Broadband study that we hope will help us to answer questions and help us better understand the internet access landscape in Boston right down to the census block – In particular: Accessibility, quality, affordability, opportunities, and workforce.

Information Technology (telecommunication, cybersecurity, emerging tech, data/metrics, I.T. management, operations, customer service, and infrastructure)

Population Over 250,000

TRAVIS COUNTY, TX

Enterprise Court Management Solution (Odyssey)

The clerks and courts needed a modern case management system for better collection, storage, and management of their case-related data. If personnel spend less time on data entry, manipulation and output, these offices and their staff would have more time for actual case work, investigation and research. The County implemented an on-premise solution leveraging Tyler Technologies Odyssey software including the Case Manager, Check Manager, Financial Manager, Judge Edition, and Portal modules. This included managing over 1,500 requirements, building a hardware infrastructure, migrating existing Justice of the Peace office from SaaS, converting data from 20 sources, building over 20 data integrations, managing 32 development projects, and training approximately 500

users. A total of 18 department processes were mapped, updated and implemented into the new solution. Because these processes and workgroups were using different disparate solutions, the integration into a single platform resulted in standardization across the enterprise for how data is stored and shared. Having a party-based system across the enterprise enables multiple departments visibility to a comprehensive case history for defendants. This helps staff direct and guide constituents when contacting Travis County Clerks and Courts offices. A single and updated source of truth has minimized research time and improved accuracy of processes.

GIS (Geospatial Information Systems)
Population 50,000 to 249,999
COUNTY OF ROANOKE, VA
Capital Improvement Program (CIP) Web Application

Roanoke County, Virginia's Capital Improvement Program (CIP) application is a customized solution that addresses the County's need to empower their citizens with information about projects submitted to the Board of Supervisors (BOS) for approval. The app was created using the Esri ArcGIS for Enterprise platform with accessibility in mind, and an emphasis was placed on integrating the latest technologies to ensure mobile compatibility and the use of location services. The CIP is a detailed ten-year listing of projects submitted to the BOS for approval. For the purposes of the CIP, a capital project is defined as having a countywide benefit, a cost in excess of \$100,000, and a lifespan of over five years or, if funded by bonds, a lifespan at least equal to the length of the bond issue. This can include items such as reconstruction or replacement of buildings or equipment, new construction or development, and acquisition of property and equipment. The CIP application offers government transparency to its citizens, by including project information in an easy-to-use and mobile solution. Citizens and staff are no longer tied to desktop computers, as the app can be used on a variety of mobile devices, from any location. This increased ease-of-use helps streamline the day-to-day operation of staff while giving citizens access to CIP data whenever, and wherever, they choose. Please click on the following link to launch the CIP application: <https://gisweb.roanokecountyva.gov/cip/viewer.html>.

Public Safety and Emergency Management, Community Resiliency
Population Over 250,000
DURHAM COUNTY, NC
Community Transit Plan

The Durham County Transit Plan will establish a vision and action plan for transit services like Go Durham and Go Triangle bus and demand response transit service, and commuter rail service. This plan will guide how the half-cent sales tax funds are spent on things like bus service or even new bus purchases and new bus stops. The transit plan identifies projects, what they will cost and when they will start. The previous transit plan, first adopted in 2011 and updated in 2017, allocated a large portion of sales tax funds to the Durham Orange Light Rail Project. With the discontinuation of the Durham Orange Light Rail Project in 2019, the priorities of our area shifted. As a result, the Durham and County Transit Plan update will focus on identifying new transit projects to be funded and which projects from the previous plan should continue.

Since the transit tax was approved in 2011, a lot of work has already been done to improve the transit service in Durham. In addition to the projects that will be included in this latest plan update, there are already service and infrastructure improvements that will either continue to be funded with transit sales tax funds or will begin to be funded in 2021. Recently several projects through GoTriangle and GoDurham's Better Bus project have been committed and are already underway. These include projects like bus transit corridors that help buses move faster along busy roads like Fayetteville Street and Holloway Street, improvements to some of the busiest transfer centers that serve multiple routes like the Village and South Point, and better bus stops that will add amenities to bus stops in Durham.

Web Services, E-Government, Public Outreach, and Mobile Apps

Population 50,000 to 249,999

CITY OF ALEXANDRIA, VA

City Website Platform Replacement

In 2019, the City of Alexandria began the process of identifying a replacement platform for the City's website and the project was successfully completed in February of 2022. This milestone aligned with two of the City's Information Technology Services (ITS) Strategic Plan themes by modernizing technologies that introduce opportunities for improved data quality. The improvements promote a well-informed community through information sharing and services. The City has regularly prioritized the response and recovery needs of our community during the pandemic. The City's website has continued to serve as the primary method to disseminate information and provide access to City services. Successful replacement of the website was paramount for the City, as this crucial strategic tool enabled the City to deliver information and services to the community safely, conveniently, and reliably throughout

the pandemic. Data Quality criteria were defined as key metrics for success. These criteria included information integrity, to ensure it was customer focused, current, and consistent across the site. Other objectives encompassed mobile and user-friendly accessibility, improved search results, and additional page-building options for City web content editors to improve user readability. Content was restructured to improve the customer experience. A topic-based presentation of content became the focus, which was a departure from the traditional, organizational-based presentation. More than 50 multi-departmental web content editors collaborated to produce nearly 2,000 new pages of content while reducing overall web pages by 20 percent. This reduced redundant information and increased its integrity. Content became more consistent, with concise and searchable sets of results.

Web Services, E-Government, Public Outreach, and Mobile Apps

Population 50,000 to 249,999

CITY OF SCOTTSDALE, AZ

Shared SMS/Text Messaging Tool

SMS or Text messaging is a key mode of communication around the world, but it's designed as person to person. When working with customers in a government space with multiple support agents, it's a more challenging effort. Scottsdale developed a group-based messaging platform to enable citizen to team communications. Using PaaS tools, Scottsdale quickly created and deployed a multi-use platform to enable this group to person communication.

Web Services, E-Government, Public Outreach, and Mobile Apps

Population Over 250,000

COUNTY OF ALAMEDA, CA

General Services Agency Website

The Alameda County General Services Agency (GSA) is one of the largest, most important departments in Alameda County, providing workspaces and essential support and services. GSA plans, designs and builds the structures that transform our community, including hospitals, libraries, and courthouses. GSA is also a diverse workforce of over 400 people, spanning a wide variety of trades and professions. By creating opportunities for local businesses, GSA fosters a thriving local economy. Their cutting-edge Energy, Sustainability and Clean Commute initiatives keep our neighborhoods safe, clean and green. One thing that wasn't so cutting-edge was the GSA website. As one of the agency's primary points of contact, the website includes crucial

information for vendors and citizens. The information on the site was challenging to find due to the content being built from a content owner perspective rather than focusing on what the users needed. This made the site feel incomplete, unintuitive to navigate and inflexible on how it can be accessed. GSA partnered with the Alameda County Information Technology Department (ITD) and outside vendor Peak-Interactive to redesign and rebuild their website from the ground up. The new GSA website allows for easier updates, meets accessibility guidelines, works well on all devices, and most importantly, elegantly delivers easy-to-find, user-centric information to the county's constituents.

Web Services, E-Government, Public Outreach, and Mobile Apps

Population Over 250,000

COUNTY OF ALAMEDA, CA

Social Services Agency Virtual Kiosks with Anti-virus Scanning and Optical Character Recognition

Alameda County Information Technology Department (ITD) collaborated with Alameda County Social Services Agency (ACSSA) to successfully launch a mobile friendly Virtual Kiosk web application that allows for residents to submit documents and/or request a replacement Electronic Benefits Transfer (EBT) card or a Benefits Identification Card (BIC) without having to visit an office. One of the goals of the project was to provide residents a similar level of experience they would expect using a physical kiosk at an ACSSA office but with the convenience of accessing the kiosk's services remotely from their computer or smart device. ACSSA assists approximately 475,000

individuals, or one in four Alameda County residents. The Virtual Kiosk is designed to assist all individuals as it accepts documents for all assistance programs and can replace benefit cards for food, cash, and medical assistance. The Virtual Kiosk is accessible to the public anywhere from any device, and the information provided is stored in a secure data center with controls and security elements in place to protect external access to Personally Identifiable Information (PII). As a result, this streamlines the process for ACSSA to keep track of any documents submitted or requests for replacement benefits cards safely and securely.

Web Services, E-Government, Public Outreach, and Mobile Apps

Population Over 250,000

DURHAM COUNTY, NC

Board of Elections: Ballot Tracking Application

The BOE Ballot Tracking Application provides insight regarding ballot use statistics at One-Stop locations through the Electronic Poll Book (EPB) maintained by the State Election Information Management System (SEIMS) and local user input. This integration provides real time inventory levels of each active ballot style at each active One-Stop Site. The BOE Ballot Tracker Application is a cost-efficient tool developed in house to prevent ballot issues at One-Stop Early Voting Sites across Durham County. The implementation of this application has served to improve the voting experience for citizens of Durham County as well as provide relief to Logistics Staff within the organization by ensuring accuracy and tracking inventory. This innovative application

was created with minimal cost to Durham County as a whole and has resulted in significant savings to Election Operational Costs. This was accomplished by thoughtful consideration being given to existing technological infrastructure and how we could build upon it without recreating any pre-existing technology. Durham County has a highly skilled IS&T department with experienced Systems Architects, allowing us to efficiently produce the Ballot Tracker Application. The logic behind the system can easily be emulated by any county that has the resources and existing infrastructure. Durham County is exploring the possibility of making this application open source for other North Carolina counties.