



# Memorandum

**TO:** HONORABLE MAYOR AND  
CITY COUNCIL

**FROM:** Rob Lloyd

**SUBJECT: SAN JOSÉ 311 IMPROVEMENT  
OPPORTUNITIES AND ROADMAP**

**DATE:** May 18, 2021

Approved

Date: 5/19/2021

## **BACKGROUND**

The Mayor's March Budget Message for Fiscal Year 2021-2022, approved by the City Council, directed the City Manager to (1) issue a Manager's Budget Addendum on resident and stakeholder feedback received on San José 311, identifying opportunities for improvement and a roadmap for executing these improvements, and (2) allocate one-time funding to invest in a two-year program to expand San José 311 internal capacity—for both feature development and customer experience.

This memorandum details the workplan for San José 311 (SJ311), including resources needed to add and maintain at least five new services by the end of 2022, expand the geographic equity of 311 use, and achieve strong customer satisfaction ratings.

### ***History of the San José 311 web portal and mobile application***

SJ311 (formerly My San Jose) was a major step toward realizing the San Jose Smart City Vision by using an omni-channel digital platform to empower resident engagement. It was the tip of the spear for the City's digital strategy to meet San Jose's early Smart City objectives, involving re-engineering City processes, making services more accessible and responsive through technology, and resourcing City services based on the data trends that surfaced through an integrated look at service delivery demands. The SJ311 web portal, mobile application ("app"), direct chat service, data dashboard, and customer relationship management system implemented in the City Customer Contact Center were all launched at the end of July 2017 and have been used since. Six service report types were originally released based on community and City Council input: abandoned vehicles, graffiti abatement, potholes, streetlight outages, illegal dumping, and "other issues" to serve as a catchall for all other requests until new services were designated for development.

In its first year, SJ311 helped the City manage approximately 165,000 service requests from the web portal and mobile channels. During 2019-2020, the City received more than 209,000 service requests from over 39,000 active users. Beginning in 2018-2019, the Office of Civic Innovation began managing the My San Jose product. The team introduced a strong focus on customer-centric design and introduced improvements that fine-tuned mobile app performance, addressed

data synchronization and reporting needs, and improved usability of the app. However, community use of My San Jose stalled at approximately 165,000 contacts per year.

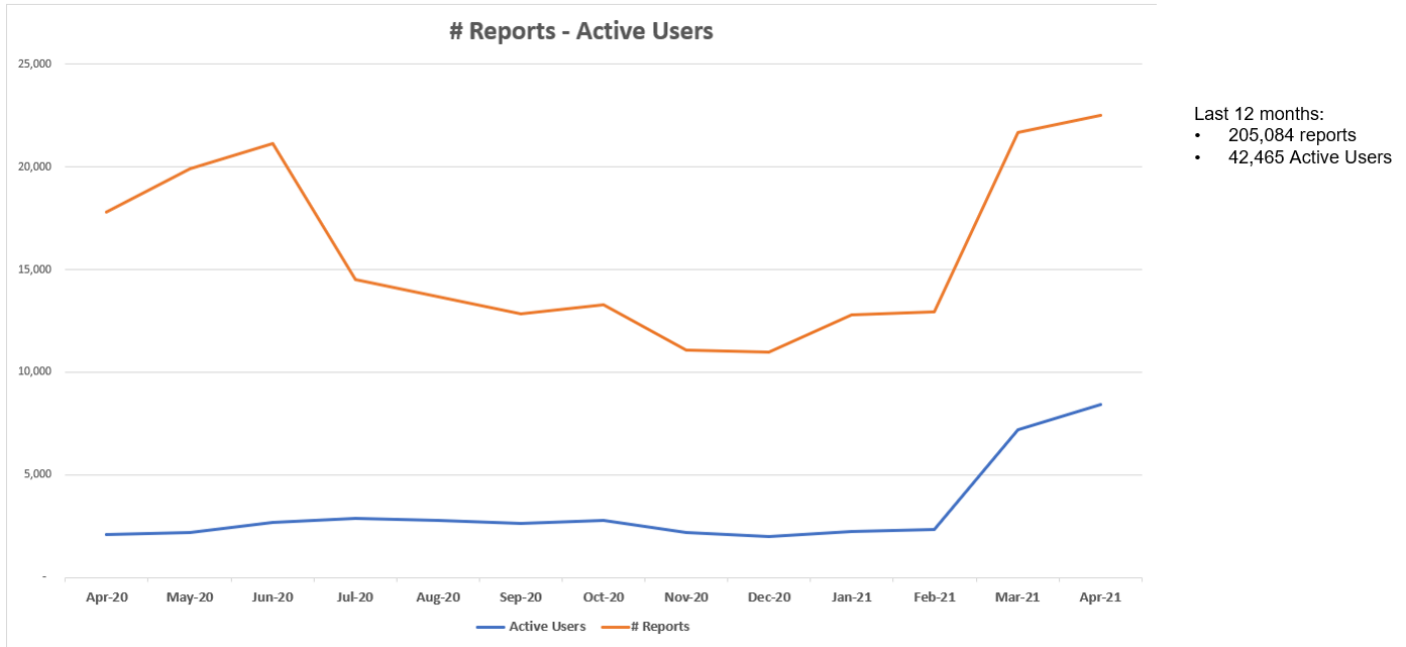
For 2020-2021, product ownership transferred back to the Information Technology Department. In March 2020, the City rebranded My San Jose as SJ311 to best align the service as a central engagement tool for the City. Partnering with Google.org and Mission Critical Partners, the City led the founding of National 311 Day; piloted technologies for multi-lingual support to bridge more of the San Jose community; built the first virtual service agent to open the City to hyper-efficient and high-satisfaction automated call handling; and transitioned non-emergency calls from the City's 9-1-1 public safety answering point to relieve some pressures from the Fire and Police departments.

Between November 2020 and March 2021, the SJ311 team worked with vendor partners to build on those foundations. The City launched the first full new features and major enhancements to San José 311 including:

- On November 20, 2020, the City implemented machine learning functionality to dynamically translate Spanish and Vietnamese inputs from resident into English for handling by City staffs. The solution then translates content from the City back to the resident's original Spanish or Vietnamese language.
- On March 2, 2021, the SJ311 team added residential Garbage and Recycle Service functionality into SJ311 to provide community members with the ability to enter a self-service request for junk pickup, a garbage/recycling cart, to report a missed pickup, and/or to start service.
- On March 11, 2021, as part of the second annual National 311 Day, the City launched an outreach campaign to communicate with residents how best to access City services. In addition to extensive outreach through social media and other neighborhood-specific channels, the City ran a promotional campaign via billboards and bus shelter ads across the City in multiple languages. The bus shelter ads ran from April 19 to May 19, while billboards started going live on April 26 for the duration of approximately a month.

SJ311 reporting decreased for the period of the COVID-19 pandemic. However, recent increases have occurred and performance metrics are shared with stakeholder departments. These correlate with 2020-2021 efforts to improve usability, increase functionality, and to increase engagement for and awareness of SJ311.

## SJ311 – Total Reports and Active Users



### *Good people, bad processes*

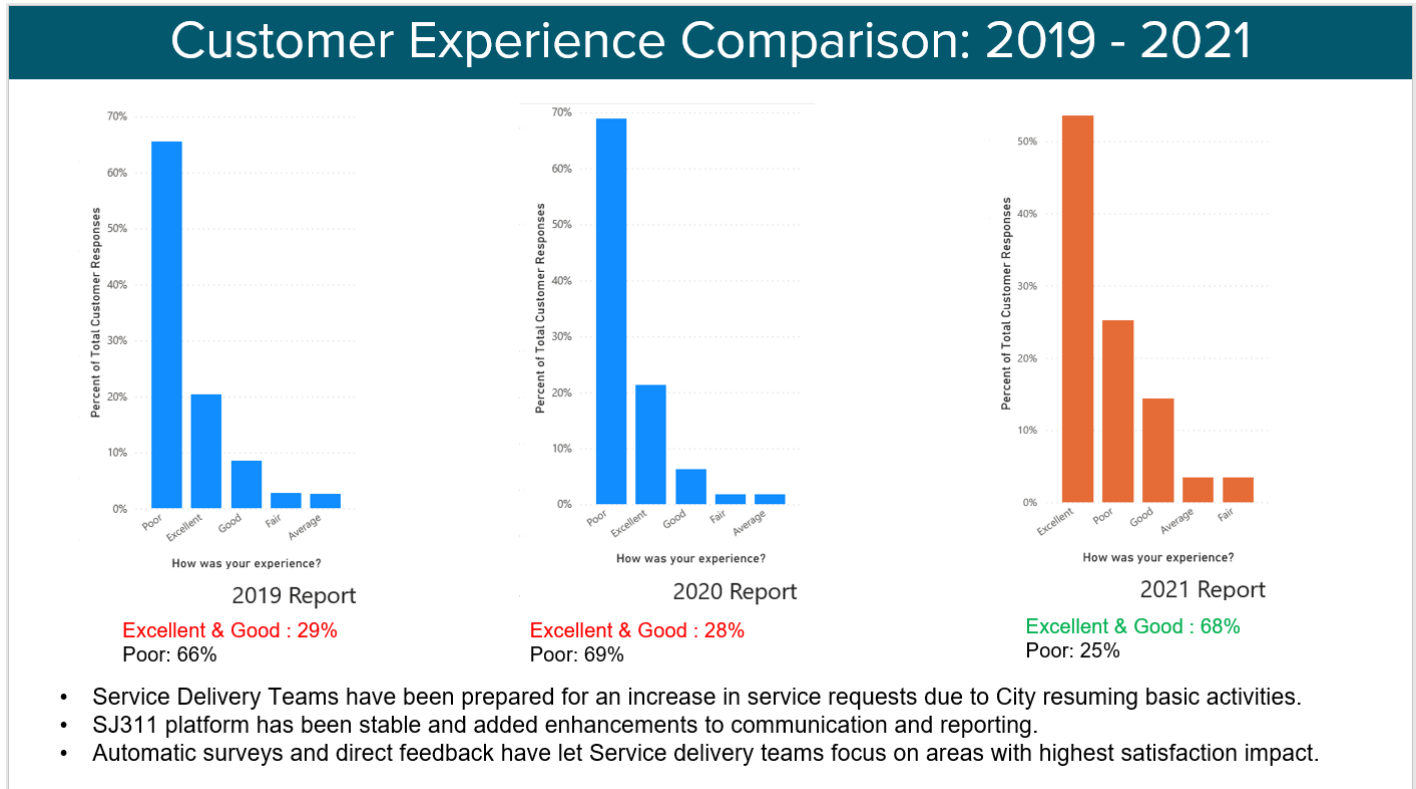
As presented at the January 5, 2021, City Council meeting<sup>1</sup>, the experiences of SJ311 validated how critical it is that City processes be effective in delivering successful outcomes to the public and staff before it is ready for automation. Residents are especially disappointed when they experience: (1) closure of cases without resolution and effective communication; (2) unresolved requests closed due to transfer to another responsible agency; and/or (3) cases unresolved for more than a few days without active communications that a delayed response will occur. Further, automating flawed processes and failing to adjust resources where demands are high can produce more frustration. As an example, changes to the service delivery approach for abandoned vehicles caused significant frustration for SJ311 users that were expressed to the City.

### Importance of Order Fulfillment to Customer Satisfaction



<sup>1</sup> <https://sanjose.legistar.com/LegislationDetail.aspx?ID=4735431&GUID=E9BE4B60-2494-4E1A-ADB9-CE40719A8645>

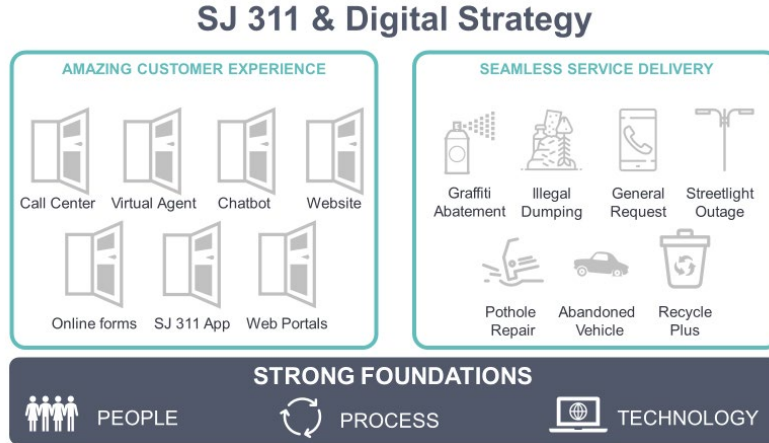
Expectations for immediate response increase when services are offered digitally. Setting clear service targets that are consistently met increases customer satisfaction. Since the launch of the initial services in 2017, the City made continuous improvements to the technology and application, City processes, and messaging of City service levels. The City is beginning to see customer satisfaction ratings reflect renewed efforts to synchronize people, process, and technology components in case fulfillment. There is more improvement ahead, with San José stakeholder departments reviewing their service delivery and communications approaches.



## ANALYSIS

### *Establishing a long-term omni-channel digital strategy*

To support the City's demands for future of service delivery through and beyond COVID-19, the Information Technology Department established a clear vision and strategy around digital services. The SJ311 and Service Delivery initiative builds on the omni-channel approach to digital services that provides a consistent, personalized experience for customers across all channels (website, web portals, online forms, chatbot, virtual agent, contact center, mobile app) and devices.



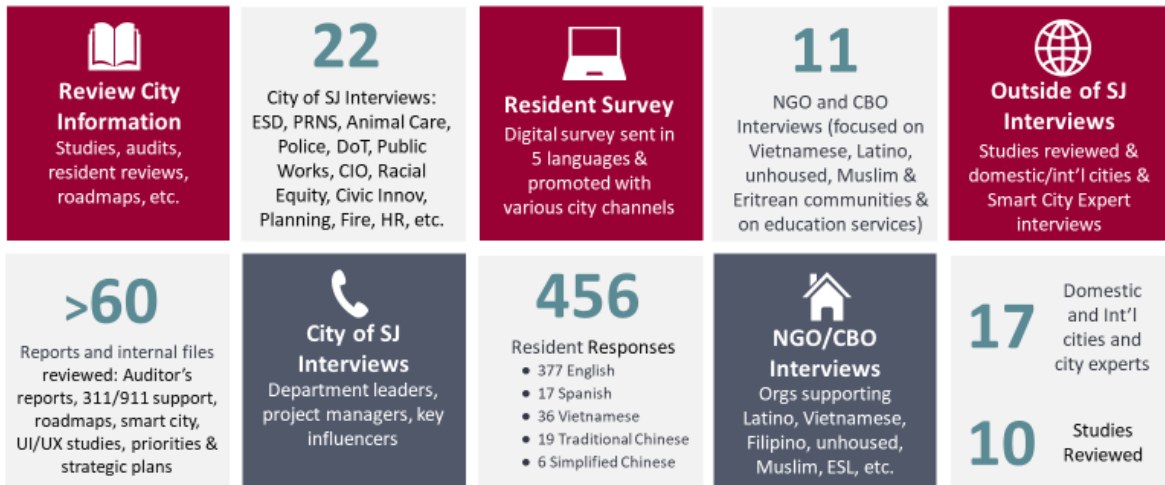
The SJ311 and Service Delivery initiative:

- Provides a digital services roadmap and resource plan for improving the efficiency, effectiveness and equitable delivery of services for the public;
- Provides clear governance for prioritizing, delivering, managing, and measuring performance of digital services across the City’s omnichannel approach to informing, engaging and transacting with our users;
- Refreshes SJ311’s technologies, website, portal, staffing, key software, and security into a refined digital services portfolio and technology stack; and
- Emphasizes reengineering of City processes to support the digital services vision and strategy.

The creation of this digital services strategy was based on extensive community input gathered through an engagement with Harvard Business School Community Partners (HBS-CP) aimed at building a view of the City’s digital transformation based on the needs of customers— residents, businesses, partners, etc. The following Digital Services principles guide the new strategy:

1. Develop a customer-driven design and process re-engineering approach to key initiatives.
2. Create a specialized and collaborative approach to address equity and inclusion.
3. Adopt a digital-first emphasis focused on leapfrogging and fostering resident dialogue.
4. Create a culture that empowers employees to execute.

## Summary of Inputs to Digital Services Strategy



In addition, the digital services strategy includes several projects to support accessibility across our digital channels with added emphasis on federal accessibility guidelines, often referred to as Section 508 and WCAG standards, at minimum. The goal is to offer an optimal experiences for all users including the differently-abled community. The following principles will drive the City accessibility work as a joint effort led by the Information Technology Department and City Manager's Communications Office, together with the Web Governance Committee and stakeholders from City departments:

1. **Inclusive:** Will consider the diverse needs of the disabled community which includes community members who are vision-impaired, hard-of-hearing, and/or living with other cognitive and physical impairments. One in four individuals in the U.S. lives with a disability.
2. **Efficient, transparent and unified:** Will build on existing accessibility efforts within the City, will minimize duplicate efforts, and will partner with City departments.
3. **Omnichannel:** Accessibility compliance will be audited across all of SJ311's physical and digital touchpoints.
4. **Iterative:** Any recommendations will be deployed in smaller pilots, tested, and then redeployed in an iterative process to measured impact.
5. **Collaborative:** Decisions will be made with, not for, differently-abled people. We will keep community partners continually informed and engaged with our progress.

### ***Roadmap moving forward***

The COVID-19 pandemic accelerated transitioning many City services to digital channels. While the City achieved recent success in adding language translation and Garbage and Recycle Service to SJ311, those efforts were multiple years in the making. Scaling the City to rapid expansion of digital service delivery will require efforts and investments including:

- **Catalog City Services Positioned for Digital.** Compile a wholesale inventory of services apt for automation through one of the City’s digital service delivery channels (website, web portals, online forms, chatbot, virtual agent, contact center, mobile app).
- **Assess and Build Digital Readiness.** Determine the readiness of each service for automation and redesign service delivery and business processes around the new processes and technology automation.
- **Assess Channels to Match Community Demand.** Through established governance, determine which channel is most appropriate for automation of the service/process.
- **Build on Successful Technologies.** Extend the City’s business process automation platform and development team to include citizen-focused forms and transactional workflows.
- **Optimize Efficiency.** Increase the speed and lower cost for adding new services to SJ311 by moving to pre-built automations and a more configurable version of the current development platform.
- **Standardize User Experience.** Build upon sanjoseca.gov by redesigning and integrating the user interface of third-party applications.
- **Skill-up Staff for Digital Service Delivery.** Invest in tools and training for City staff to develop skillsets around service delivery automation, electronic content management and business process reengineering.
- **Standardize Automated Language Translation.** Extend Auto Machine Learning language translation to digital service platforms (website, chatbots, virtual agents) across the City.
- **Improve Equity and Accessibility.** Ensure that equity and accessibility is continually evaluated as services are automated.

These investments will position the City to add and maintain at least five new services by the end of 2022, expand the geographic diversity of 311 users, and achieve strong customer satisfaction ratings.

The roadmap pictured below reflects the next services prioritized to be automated based on a prioritization exercise conducted by the SJ311 Executive Steering Committee, with leadership representatives from City departments, the City Manager’s Office, and the Information Technology Department. The group provides oversight of the City’s SJ311 digital services efforts and transitions.

## San Jose 311 Roadmap 2021/2022

	Backlog	Assessing Readiness / Resource Needs	Recently Launched / Post Launch Support
Newer ↑	Language adaptor for automated translation	Report damaged sign	Machine Learning Language Translation: Spanish and Vietnamese
	Pay parking ticket	Report dumping into storm drains	Multilingual Virtual Agent
	Homeless encampment	Report broken traffic signals	Resident Garbage and Recycling
	Pay business tax renewal	Report storm drain or sewer flooding	Permanent fix for Native App login Issue
	Report code violation	Add Mandarin language	
	Animal licensing		
	Report problem electric scooter		
	Pay utility bill		
Release ↓	Report Fireworks		
Older	<ul style="list-style-type: none"> <li>• Report dead animal for pick-up</li> <li>• Prostitution &amp; Human Trafficking</li> <li>• Report Park Concerns</li> <li>• Report a shopping cart</li> <li>• Report a tree problem</li> <li>• Report sidewalk problem</li> <li>• Racial Equity / CBO requests</li> <li>• Affordable Housing (Doorway) Integration</li> <li>• Integration of Park Requests</li> </ul>	<p>Report Fireworks service rated lower during a prioritization exercise due to response and enforcement process challenges.</p> <p>Prioritization session was held on 12/11/2020</p>	

### ***Resource needs***

The following resources are needed for incorporating an omni-channel approach to digital services. While these items are important, due to the City’s General Fund outlook for next year and the ongoing shortfall that is expected to continue beyond 2021-2022, Priorities 5-8 are not included in the 2021-2022 Proposed Budget.

Included in March Budget Message?	Ranked Priority	Description	2021-2022	2022-2023
Yes	1	One 2-year Limit-Dated Enterprise Technology Supervising Analyst position to support and develop Omni-channel SJ311 Technologies (chatbot, virtual agent, web-portal, mobile app and reporting capabilities) to decrease dependency on contracted development	\$205,000	\$205,000
Yes	2	One 2-year Limit-Dated Senior Analyst position to support usability and accessibility for SJ311	\$170,000	\$170,000
Yes	3	Funding for additional licensure needed through Oracle to move onto low code/no code platform for faster scalability of SJ311 and funding to pay cloud consumption and support costs to support machine learning language translation and the Virtual Agent (Google Cloud, Twilio, Spring ML)	\$200,000	\$200,000



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Yes	4	Funding to scale additional services, language translation, text messaging or other features into SJ311 and the City website	\$175,000	\$175,000
No	5	One-time funding of \$1 million, over a two-year period, for contracted development to migrate existing services to low code/no code platform and build additional services into SJ311	\$500,000	\$500,000
No	6	One-time resource pool of \$500,000, over a two-year period, for consulting expertise to assist departments in Business Process Re-engineering	\$250,000	\$250,000
No	7	Funding for an annual outreach campaign, with an equity focus, to educate residents on where to go for which services - 311 vs 911	\$50,000	\$50,000
No	8	One-time funding to redesign 3rd party apps currently linked to sanjoseca.gov that do not conform with usability and accessibility standards	\$150,000	

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As part of the 2021-2022 Proposed Operating Budget, one-time funding of \$1.5 million over a two-year period is recommended to fund the items that were included in the Council-approved Mayor's March Budget Message for Fiscal Year 2020-2021 as listed in the above table (Priorities 1-4), which will result in the implementation of five new services by the end of 2022-2023 and make continued improvements on the geographic diversity of the user base and customer satisfaction ratings. It is important to note that Priority 3, additional licensures, will result in an ongoing funding commitment, as all SJ311 services – including the existing and five new services – will be transitioned to the new platform. Funding will need to be identified to continue these services into 2022-2023 and beyond.

/s/  
ROB LLOYD  
Chief Information Officer

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