

Smart City Vision: Making San José America's most innovative city by 2020

San José's innovation imperative

San Jose has emerged from a decade of unparalleled fiscal distress, in which the City saw its workforce shrink by a third, services slashed, and expectations retrenched. Today, we face a unique opportunity to renew City Hall's role in markedly improving the quality of life of our residents, and in driving impact in our business climate.

This unique opportunity does not emerge from a fiscal windfall, however. Constrained revenue growth, long-neglected infrastructure, the burgeoning needs of an expanding population, and large unfunded liabilities will all continue to challenge the City's finances for another generation.

But, at the same time, transformative technology has made us more connected and more empowered than at any point in history. We can purchase and track delivery of any item to our doorstep with the push of a button, video chat with family across the globe for free, and control the temperature of our homes from our mobile devices. Residents expect this level of service in the private sector and increasingly demand it from government.

Together, these factors drive us to conclude that the City cannot continue providing the same services, in the same ways. As we rebuild and restore service levels, we must embark on new approaches, and new ideas. To thrive, San Jose must innovate.

Fortunately, we work and reside at the center of the most innovative community in the planet, with many of the world's most impactful technologies developed here in Silicon Valley. A decade of budgetary strain halted the necessary investment in technology infrastructure to support civic innovation in San Jose. Yet the current upgrading of several enterprise-wide software platforms, combined with the hiring and alignment of key staff to lead these efforts, provides San Jose with an opportunity to "leapfrog" cities with long-established digital innovation strategies.

Just as the world looks to Silicon Valley to provide the most creative, impactful technologies to disrupt industries and transform lifestyles, so too San Jose can become a global leader for civic innovation. Becoming a "smart city" means that game-changing technologies and data-driven decision-making will drive continuous improvement in how City government serves our community, and promote concrete benefits in safety, sustainability, economic opportunity, and quality of life for our constituents. Building a deliberate and focused strategy will also allow us to stretch limited public dollars to be more cost-effective and productive.

Smart City Vision: Making San José America's most innovative city by 2020

So, what would it take to make San José America's most innovative city by 2020?

- First, we need to embody core values to help us deliver on this mission.
- Second, we need to focus on a finite set of goals that will direct our work to the most pressing priorities and problems facing the city.
- Finally, we need a focused execution strategy to bring new digital skills and capabilities into City government and rapidly adopt innovative solutions from across sectors.

This document aims to lay out these values and priorities to have the most impact on the lives of our residents. Upon Council adoption, a work plan for execution will follow.

Core values to guide our work:

1. Integrate digital tools into the daily work of the City to promote a transparent, data-driven culture of innovation and continuous improvement.
2. Relentlessly focus on customer service, by integrating user-centric design principles into service delivery and technology platforms across City Hall.
3. Protect the individual privacy of our residents and provide secure IT platforms.
4. Favor technology solutions that are accessible to all residents and help to level the playing field for underserved populations.
5. Effectively partner with the private sector, universities, foundations, and other organizations to accelerate impact.
6. Embrace calculated risks, pilot new initiatives, and iterate to learn from failure before scaling initiatives.
7. Amplify the expertise of the City's own workforce by cultivating the best ideas within City Hall and throughout our community to leverage technology and data to improve services.
8. Allocate resources to initiatives based on Council's defined priorities, impact to the community, and return on investment to the City

Key Goals:

1. ***Safe City:*** *Leverage technology to make San Jose the safest big city in America.*

Illustrative Initiatives:

- a. **Broaden use of data analytics to improve safety**, including better targeting code enforcement, identifying homes with the highest fire risk for preventative measures such as smoke alarm checks, and using geo-tagged data on graffiti complaints, truancy rates, and other incidences to inform "hot spot" crime prediction and prevention.
- b. **Reduce traffic accidents and fatalities** with connected infrastructure, data analytics, and machine learning that can optimize traffic systems and identify high-accident intersections. Target prevention efforts, such as using behavioral insights to reduce speeding along corridors with high rates of injury crashes.

Smart City Vision: Making San José America’s most innovative city by 2020

- c. **Increase transparency** by providing datasets, data visualizations, and utilizing predictive modeling of crime and policing data. For example, pursue increased accessibility and visualizations of complaint, gang crime, auto theft, blight and property crime data.
- d. **Utilize “smart infrastructure” and digital platforms in emergency and disaster response** to improve preparedness, response, recovery, and resiliency, and integrate crowdsourcing to engage residents in recovery efforts.

2. ***Inclusive City:*** *Ensure all residents, businesses, and organizations can participate in and benefit from the prosperity and culture of innovation in Silicon Valley.*

Illustrative Initiatives:

- a. **Broaden access to basic digital infrastructure for all residents**, especially our youth, by enabling free or low cost, high-speed, 1 gigabit or faster broadband service in several low-income communities, and increasing access to hardware, including tablets and laptops, for low-income students.
- b. **Build digital skills of our residents** by investing in Opportunity Youth and professional training programs to create a pathway into high tech jobs in Silicon Valley. Expand our libraries’ roles as digital-skills training centers, with continued growth of coding camps, entrepreneurship training, maker spaces, and online learning centers.
- c. **Better utilize digital tools to help address homelessness and access to affordable housing in San José**, such as creating an online rental registry with Housing and Code Enforcement officials to better protect tenants from retaliatory evictions, substandard housing, and rent control violations. Work with non-profit partners to use mobile technology to better target scarce resources for homeless assistance.
- d. **Support economic development in historically struggling business districts** by using data tools to demonstrate the business case for investing in San Jose, such as illustrating the purchasing power of neighborhoods and foot traffic by location.

3. ***User-Friendly City:*** *Create digital platforms to improve transparency, empower residents to actively engage in the governance of their city, and make the City more responsive to the complex and growing demands of our community.*

Illustrative Initiatives:

- a. **Build a digital “neighborhood dashboard”** that allows residents to seamlessly access information, file reports, and collectively solve issues in their own neighborhood. A robust platform would enable residents to access information about nearby development projects, easily report broken streetlights and potholes, learn about local festivals, retail businesses, and new construction, as well as communicate with other neighbors interested in working together to tackle local challenges.
- b. **Expand civic engagement** through initiatives like participatory budgeting and zero-based budgeting, and mobile and online applications, to expand the role of taxpayers influencing City spending decisions.

Smart City Vision: Making San José America’s most innovative city by 2020

- c. **Utilize open data and data visualizations to inform public dialog, policy-making, and management decisions.** Ensure that all non-private city data is open by default in easily usable and understandable formats, and aim to integrate San José datasets with those of other relevant agencies, such as school districts, the County of Santa Clara, the Valley Transportation Authority, and the U.S. Census.
- d. **Modernize antiquated City technology systems to reduce costs, improve efficiency, and empower employees to improve service,** including substantial upgrades of finance, customer response management, and development services platforms.
- e. **Digitize, automate, and integrate city services to be “user-friendly,”** such as enabling online submission of all city forms and permit applications, and electronic payment for city fees. Empower City workers by increasing use of tablets and mobile devices to collect data in order to streamline inspections and other processes where it will improve productivity.

4. Sustainable City: Utilize technology to address energy, water, and climate challenges to enable sustainable growth.

Illustrative Initiatives:

- a. **Enable deployment of energy and water management technology** in buildings, and promote real-time data analytics to help residents and businesses conserve energy and water.
- b. **Rapidly deploy sensor technology on city streets and infrastructure and explore on-demand mobility apps to reduce GHG emissions.**
- c. **Create a “race to the top” across all City agencies and local businesses to improve energy and water efficiency,** using data to benchmark progress, and analytics to identify best practices.

5. Demonstration City: Reimagine the City as a laboratory and platform for the most impactful, transformative technologies that will shape how we live and work in the future.

Illustrative Initiatives:

- a. **Fully develop the city’s transportation innovation zone** to test new products and services, such as autonomous vehicles, that will dramatically shape transportation in the future and mitigate traffic congestion.
- b. **Build an “Internet of Things” platform employing transit vehicles and building infrastructure** with smart sensor technologies to improve safety, mobility, and optimize our transit system.
- c. **Create pathways for start-ups and innovators to easily access opportunities** to pilot and test new products and services with the City, such as hosting “demo days” to highlight the most innovative “smart city” companies in Silicon Valley, and sponsoring public competitions to encourage crowdsourcing of innovative solutions to civic challenges.

Smart City Vision: Making San José America’s most innovative city by 2020

How will we change the way we work to deliver on this vision?

In order to deliver on this vision, the City needs to move from utilizing IT as primarily a “support function” to investing in and embracing a digital strategy that becomes a core part of how we do business. Currently, there are many initiatives led by dedicated City staff to experiment with new technology, such as on-line learning in our libraries, and “smart” LED streetlights on our streets. A city-wide digital strategy will build on those efforts and help to move many pilot efforts to scaled impact.

This change means that we need to empower our workforce to unleash their creativity, recruit top talent from the technology sector, provide the right incentives and oversight to ensure progress, and partner with the private sector, foundations, local civic entrepreneurs, and universities to accelerate impact. We also need to take appropriate risks and provide room for experimentation and failure as we adopt new ways of working.

In particular, we will:

1. ***Foster a performance-driven, transparent organization focused on continuous improvement:*** Develop seamlessly updated performance dashboards for every department that will be published online to the public and updated quarterly in conjunction with the City Auditors Office, and used for managing continuous improvement.
2. ***Build leadership and capabilities throughout the organization:*** Create an Office of Innovation & Digital Strategy in the City Manager’s Office to direct and drive results, and strategically invest in new staff—or train and reorganize existing staff-- in key departments to expand capacity for implementation and invest in people. This will require intentional investment in people in areas such as IT, data analytics, business process, technical, and project management training. It also requires new and agile investments in technology infrastructure.
3. ***Provide oversight and policy guidance:*** Create accountability through a dedicated City Council Committee on Smart City and Continuous Improvement to track progress against the goals laid out in this vision document and in approved work plans. Leverage the Chief Innovation Officer in the Mayor’s Office to help guide these efforts.
4. ***Make it easier to partner with the City:*** We’ve created an Office of Strategic Partnerships in the Mayor’s Office to provide a single point-of-contact for philanthropic and private sector organizations, to improve our ability to secure external expertise and resources to drive results. Streamline procurement processes to more easily work with the city on initiatives laid out in this document.