

Buenos Aires

Buenos Aires uses technology for more responsive service delivery



Deloitte's Smart City Initiative

Around the globe, cities are adapting to technology in ways that bridge the promise of the future with the unique character each has built over the generations. While no two have the same experience, many are learning the same lesson: The path ahead is determined not by how many technologies are in use but by how well they work together.

The Deloitte 360° Smart City Framework allows city stakeholders to speak a common language as they decide together how new tools can improve the experience of city life. Across the domains of economy, mobility, security, education, living, and environment, Smart Cities expand the definition of "infrastructure" and find new connections between old challenges.

In each client story, and in the many more that will follow, people are finding a way to make their environments healthier, greener, more prosperous, and more responsive to residents' everyday needs. What can we learn from their example?

With a population of more than 3 million spread over 78 square miles, Buenos Aires owns more than one million pieces of public infrastructure, including 370,000 trees, 120,000 public lights, 56,000 sidewalks, and 28,000 stormwater drains.¹

Maintaining such a vast public infrastructure can be a challenge. The city has long allowed citizens to log complaints or service requests through a call center for everything from fixing a pothole to removing graffiti. Unfortunately, the feedback mechanism was largely ineffective since the city was very slow in addressing those complaints, averaging 600 days (almost two years) to resolve a complaint in 2011.²

In 2010, city hall resolved to fix this problem. Part of the solution was a new IT system that would streamline information flow and improve departmental coordination.³

The city launched a mobile app citizens could use to register complaints or they could flow in via social media. For instance, when a resident sees a problem like a manhole missing or a broken sidewalk, she can tweet a picture to the ministry along with a short description. The app, using an integrated geographic information system (GIS) technology, sends the location of the complaint to the ministry and work is assigned to the nearest vendor to resolve the issue. To close the loop, a city street

inspector—using a mobile device—validates the work done by the vendor and uploads a picture through the app showing the issue was resolved.

The ministry also uses dashboards to make sense of the real-time data that flows in. The dashboards provide insights on the status of each complaint, how the ministry is addressing it, and also captures citizen ratings on resolved complaints.

The granular data that Buenos Aires is collecting via sensors and crowdsourcing also enables the city to evolve hyperlocal solutions for certain areas. For instance, the city is now able to predict floods in certain areas using sensor data. The city frequently faces severe floods due to its location on the shores of the river Río de la Plata. Apart from using data from weather reports, the city's sensor network in sewage drains can now measure the speed, direction and level of water in the sewage drains and feed the data to city IT systems, setting off an alarm if flooding is predicted.⁴

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The responsive system has created tremendous impact on the city's quality of life parameters. The average time to resolve a complaint plunged 93% without additional budget, allowing the city to fix more problems in less time. The city has also seen an uptick in almost all satisfaction indices including the green spaces satisfaction index (49 to 76), streets works index (13 to 45), public lighting index (19 to 51), and storm water drains index (19 to 56).⁵

How Deloitte helped

The city of Buenos Aires engaged Deloitte to overhaul its infrastructure and maintenance management IT platform, so it could streamline back-office tasks and information flow and improve coordination among city departments. Knowing it would take time to address the city's broad array of issues, Deloitte developed a project road map that included a nine-year, multiphased implementation approach.

Starting in 2009, Deloitte deployed numerous solutions, including customized SAP software to centralize and integrate data across multiple city departments, and a GIS-enabled mobile app that citizens use to submit complaints in real time, bringing them into the city's maintenance process. Additionally, integrating Internet of Things technologies, such as sensors, enables the city to predict and proactively respond to events in precise locations.

To date, the city is resolving significantly more complaints in less time with no additional budget. Citizen satisfaction with city services is at an all-time high, and third-party vendors and suppliers are paid faster due to the enhanced planning and accountability features present in the new platform. Deloitte continues to add services and functionality to enable faster response time and better long-range preventive planning.

Contact us:

Alvaro Casalins

Managing Director

Deloitte Consulting LLP

Email: acasalins@deloitte.com

Endnotes

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2. Alvaro Casalins, "Digital Transformation: Modernizing the Buenos Aires City Government," Meeting of Minds, October 24, 2016, <http://cityminded.org/modernizing-buenos-aires-city-government-17341#>
3. Deloitte, "Deloitte Global SAP Practice: Buenos Aires Client Engagement," October 3, 2014, YouTube video, <<https://www.youtube.com/watch?v=BACxUZkZxU>>
4. Interview with Deloitte Argentina project team, November 8, 2016
5. Deloitte Argentina, "Deloitte RC – Responsive City," Apple App Store, Vers. 2.1.1, <https://itunes.apple.com/us/app/deloitte-rc-responsive-city/id943007411?mt=8>

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