THE VALUE OF DIGITAL GOVERNMENT









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Digital government is not only a matter of modernization and technology. It is about improving public services for citizens and businesses, aiming to deliver services that are friendly, easy to access and intuitive. Furthermore, it is about improving government efficiency, making a more productive use of public resources.

This small compendium of cases shows how different digital government tools can help governments do more for less while generating benefits and savings that positively impact citizen and business well-being. Each case presents the investment made, the monetary savings and other benefits reaped through a digital government project.

CASES ANALYZED

BRAZIL: ELECTRONIC PAYMENT OF THE	8	REPUBLIC OF KOREA: PUBLIC DATA	20
MOTOR VEHICLE TAX IN SÃO PAULO		EXCHANGE SYSTEM	
PANAMA: CITIZEN SERVICE CENTER 3-1-1	10	SPAIN: ELECTRONIC JUDICIAL AND	22
		ADMINISTRATIVE AUCTIONS PORTAL	
URUGUAY: SINGLE GOVERNMENT	12		
DOMAIN - GUB.UY		MEXICO: BIRTH CERTIFICATE ONLINE	24
ECUADOR: MODERNIZATION OF THE	14	EL SALVADOR: SOCIAL PROGRAM	26
CIVIL REGISTRY		PARTICIPANT SINGLE REGISTRY	
BRAZIL: ELECTRONIC CRIME REPORT	16	ARGENTINA: NATIONAL DIGITAL	28
N SÃO PAULO		INCLUSION PLAN	
SPAIN: DATA INTERMEDIATION PLATFORM	18		

^{*} Data is current as of November 2018 unless otherwise noted

BRAZIL



is a state-level tax that motor vehicle owners must pay annually, with a rate that depends on the state, the value of the vehicle and its age. Payment is a precondition for obtaining a license. It can currently be paid online.

ELECTRONIC PAYMENT OF THE MOTOR VEHICLE TAX IN SÃO PAULO

IMPLEMENTATION

Prior to the implementation of the electronic payment, vehicle owners had to visit the state transportation department several times to check that the vehicle had no pending fines, fill out payment forms and go to a bank to finish the transaction. Additionally, they had to pay for the mandatory insurance, also in a bank, with a different set of forms. As of 1998, owners have the option of paying the tax online directly to the bank, using the national vehicle ID to automatically check the amount due, pending fines and license data. Following completion of the transaction, proof of payment is physically mailed to the citizen. The state finance ministry is immediately notified upon payment.

SAVINGS

INVESTMEST: US\$940K¹

- Development of the online licence application, connecting all necessary databases - US \$450k
- Digital signatureencyption system US\$180k
- Training US \$90k
- Website to check outstanding balances -US \$220k

OPERATING COSTS: US\$90K/YEAR

- Maintenance and operation

GOVERNMENT: US \$219 MILLION/ YEAR²

- Reduced operational expenditures (paper, printing, archives)
- Fewer staff dedicated to in-person service
- Reduced administrative and management expenditures

CITIZENS: US \$710

MILLION/YEAR

- Corresponds to 20.1 million transactions in 2017
- Savings on the cost of the forms themselves, which had to be covered by citizens
- Fewer trips to public offices
- Less lost earnings due to time in transit and in line
- Fewer payments to third parties to assist with the transactions

BENEFITS

- Increased tax collection
- Reduction in the amount of paper used and stored
- Greater transparency in the tax collection process and improved information on payments processed
- Improved efficiency and effectiveness of public servants

¹ The investment was 1 million reals. This is equivalent to US \$940k in 2017 prices, with an exchange rate at the end of 2017 with R3.3/USD.

² Savings from 2017

PANAMA



311.aob.pc

3-1-1 is hotline where citizens can ask questions make complaints, report irregularities and make requests quickly and easily, all of which are directed to the government agencies responsible for providing a response. This service is available 24/7 and works on any internet-enabled device.

CITIZEN SERVICE CENTER 3-1-1

IMPLEMENTATION

3-1-1 began a significant restructuring effort in 2015, including the launch of a new operational model and innovative technological platforms, generating greater savings for government institutions, greater citizen uptake, increasing the number of participating government agencies, expanding the array of services and incorporating new measurement tools. The planning and design phase for the restructuring took 3 months; the implementation was undertaken over the course of 2 years.

KEY ACHIEVEMENTS

Between January 2015 and September 2018, 3-1-1 received 6.2 million contacts from citizens. 170 government institutions currently participate, including central government, decentralized agencies and local governments.

SAVINGS

BENEFITS

INVESTMENT: US\$190K

- Purchase of new tools including 2 mobile applications and a webbased case portal

OPERATING COSTS: US\$151K/MONTH

- Contact center (US \$107K/month)
- Maintenance of the Customer Relations Management/Business Intelligence tools, including 2 mobile applications, webbased case management tool and development services (US \$18k/month)
- Salaries of 10 staff (US \$18k/month)
- Promotion (US \$8k/month)

GOVERNMENT: US \$11 MILLION/ YEAR

- The savings include what it would cost to replicate a similar service with 24/7/365 coverage in 164 entities, each operating independently

GOVERMENT:

- Increases ease of serving citizens and provides higher-quality services with a wide array of access options
- Produces data that can be used for policy design, all of which are published on the government open data portal
- Foments coordination among participating government entities, which meet once per month

CITIZENS:

- Increases access to services, eliminating barriers of schedule and distance
- Increases the availability of information for citizens to exercise their rights and report irregularities

URUGUAY



aub.uu

Gub.uy is a single website through which the government communicates with citizens and brings them closer to the state. It integrates all the website of the central government, facilitating access to and use of government services. It has a standardized image, contents and information architecture and centralizes the technological infrastructure with open platforms that can be used on publicly-available tools.

SINGLE GOVERNMENT DOMAIN - GUB.UY

IMPLEMENTATION

The design and conceptualization of the single domain began in early 2017, and that same year its Alpha and Beta versions were made available. Uruguay had a government portal since more than 10 years prior, which connected government websites. It gradually evolved towards this new model of a single domain to respond more effectively to citizen demands in clear and simple fashion while reducing operating costs for government.

KEY ACHIEVEMENTS

A total of 70 websites from the central administration have been integrated to gub.uy. It also contains the catalog with information on 2,804 government transactions, all of which can be started online and nearly 60% of which are completely digital. With a single sign-on people can log on safely and easily to access digital public services. Furthermore, the "My Profile" area was launched, in which citizens can track the progress of their government transactions, see a unified calendar displaying all of their appointments with government entities, sign documents with their digital ID and manage their personal information, among other personalized services.

SAVINGS

BENEFITS

INVESTMENT: US \$2.2 MILLION

- Design and development of the portal
- Migration of individual pages
- Installation of AGESIC teams in different government entities
- Amortized over the first two years

OPERATING COSTS: US \$700K/YEAR

- New developments, operation, maintenance and tech support
- Expenditures stabilize in year 3, upon completing the migration of all web pages

GOVERNMENT: US \$1 MILLION/YEAR

- Previously, the annual expenditure in the central administration for the design, development, licenses, operation and renewal of independent web pages was US \$1.7
- The annual cost of having a centralized platform with components and formats that are reusable for all public entities is US \$700k per year
- This difference generates US \$1 million in savings per year
- Each entity manages its contents in a decentralized fashion

- Strengthens digital interaction between the government and citizens through simple and clear websites with relevant and accessible information and services within reach for all, within one consolidated point of entry
- Improves service quality by centralizing usage data for analysis on citizen needs

- Offers greater security and privacy guarantees for citizens when using digital services
- Readily available infrastructure for all of government

ECUADOR



The civil registry modernization and sustainability project was a holistic reform of the entire civil registration, identification and documentation system, whose objective was to achieve financial and technological sustainability. This required the transformation of the planning and budgeting tools, hiring schemes and civil service career trajectories, infrastructure and technology, the location of service points and citizen interfaces.

MODERNIZATION OF THE CIVIL REGISTRY

IMPLEMENTATION

The General Directorate for Civil Registration, Identification and Documentation (DIGERCIC in Spanish), the government entity in charge of legal identity, began its reform process following the declaration of an institutional emergency on December 21, 2007, and was guided by a Modernization Plan that was in effect until 2017.

KEY ACHIEVEMENTS

- In 2016, citizen satisfaction with the DIGERCIC reached 87%
- In 2015, the average resolution time for ID services was 49 minutes, including an average wait time of 34 minutes and service time of 9 minutes
- The DIGERCIC has improved its operational efficiency: the revenues per service delivery point increased more than 1300%, from US \$18k in 2010 to US \$268k in 2016
- Since 2014 more than 140,000 identification documents (national IDs, birth certificates) have been provided to individuals in hard-to-reach areas, thus reducing underregistration rates

SAVINGS

BENEFITS

INVESTMENT: US \$230 MILLION

- Between 2008 and 2017
- Includes systems, machinery and installations

OPERATING COSTS: US \$872K/YEAR

- Operation, maintenance, materials

SOCIAL³: US \$466 MILLION

- Correspond to savings of US \$456 million between 2011 and 2016 for national IDs and US \$10.5 million in 2015 and 2016 for birth registrations.
- Savings related to transportation to service delivery points, time spend in transit and in line
- Savings in service provision
- Unit-level savings:
 - · IDs: US \$26
 - Birth and death registrations: US \$41
 - Administrative resolutions: US \$141

- Increases access to a foundational ID, key for accessing other rights and social programs
- Reduces transaction costs related to identification
- Increases efficiency and revenue generation for the DIGERCIC
- Reduces amount of paper used and stored thanks to the introduction of technology and the possibility of accessing services online

^{3 &}quot;Social" savings refer to combined savings for citizens and government. Used when a disaggregation is unavailable.

BRAZIL



delegaciaeletronica.policiacivil.sp.gov.b

Citizens of São Paulo can report a variety of crimes online using the webpage of the state police: car theft; missing or found persons; robbery or loss of documents, license plates and mobile phones, among others

ELECTRONIC CRIME REPORT IN SÃO PAULO

IMPLEMENTATION

The online crime reporting tool was created by the IT team of the civil police intelligence department. It began operation in 2000 and has been updated periodically since then. Through this system, citizens can access the reporting tool online and fill out a form with their personal information and the crime, which upon receipt is cross-checked with police databases in order to take the necessary actions.

INVESTMENT: US \$9K

- Initial investment in IT systems

OPERATING COSTS: US \$2,1K/YEAR

- Operating expenditures and maintenance

GOVERNMENT: US \$940K/YEAR

- Fewer police dedicated to registering crime reports
- Reduced operating expenditures associated with the physical spaces necessary for in-person crime reporting

CITIZENS: US \$20 MILLIONS/ YEAR

- Reduced expenditure on transportation
- Less time spent in transit and in line; on average a citizen spends 2.25 hours to report a crime in person and 15 minutes online
- Increases ability of citizens to restore their rights to the protection of themselves and their property
- Generates crime data that can be used for public policy design
- Increased crime reporting may dissuade potential future criminals
- Facilitates automatic processing of documents submitted online

⁴ The savings correspond to 2004, in 2017 prices and are only counted for the City of São Paulo. In 2004, a total of 151,900 reports were submitted online, while 680,333 were submitted in person.

SPAIN



This tool (PID in Spanish) allows government entities to consult, verify and validate data of citizens who conduct transactions through an interoperability platform. This relieves the citizen of the obligation to provide the government with its documents to complete government transactions.

DATA INTERMEDIATION PLATFORM

IMPLEMENTATION

Data verification is conducted automatically through a transaction management application that facilitates checking information on identity, domicile, employment, official titles, social security, and property registrations, among others. The PID commenced operation in 2007 following the issuing of decrees that prohibited government entities from requiring photocopies of citizen ID documents.

KEY ACHIEVEMENTS

The system is currently used by 1,035 entities. As of September 2018, more than 110 services are available on the platform. Since its launch, the number of transactions has increased constantly: at the end of 2007, 1.3 million data points had been transmitted, by 2017 this number had increased to 77 million. Through mid 2018, this number had reached 58 million.

INVESTMENT: US \$7,6⁵ MILLION

- US \$53k per institution in implementation costs, and US \$766k annually for maintenance of the central PID system
- Assumes implementation in 100 entities with highest transactional volume
- Purchase of servers, licenses, application and program development, design of security policies, technical assistance

SOCIAL: US \$2 BILLION BETWEEN 2007 AND 2018

- Corresponds to 360 million transactions
- Substitution of in-person and telephone transactions for online transactions
- Lower operations expenditures (paper, printing, archives)
- Fewer staff dedicated to in-person service provision
- Fewer lost work hours for citizens

- Reduction in the volume of paper used and stored (avoids nearly 20 million photocopies of IDs and 10 million photocopies of residence certificates per year)
- Increased data quality thanks to reduced fraudulent submissions and human error through checks conducted by the corresponding government entity

- Reduction of the number of permits and residence certificates issued by municipalities
- Increase in collaboration among government entities to deliver services

⁵ Data correspond to an analysis conducted in 2014.

REPUBLIC OF KOREA



Interoperability platform that allows public servants to check citizen data online, eliminating the need for citizens to submit documents.

Available 24/7/365.

OREA PUBLIC DATA EXCHANGE SYSTEM

IMPLEMENTATION

The public data exchange plan commenced in 2003 with agreements to improve inter-institutional cooperation and data exchange. The construction and implementation of the platform began in 2005 and has undergone periodic updates since then.

KEY ACHIEVEMENTS

The system currently contains 148 types of administrative information shared by 627 organizations, including administrative offices, public institutions and financial institutions. Between 2005 and 2015 more than 1.25 trillion queries and downloads were conducted through the platform.

SAVINGS

BENEFITS

INVESTMENT: US \$80 MILLION

- Between 2005 and 2017; annual budget of US \$6.7 million
- Includes investment in the platform, annual updates and the costs of connecting institutions and databases to the platform

OPERATING COSTS: US \$2,83 MILLION/ YEAR

- Operation and maintenance

SOCIAL: US \$990 MILLION

- Savings related to reduced transportation to in-person service delivery points, time lost in transit and in line, and fees charged for issuance of documents
- Reduction in emissions of CO2 of 673 million tons per year
- Reduction in the use of resources like paper and printing
- Greater convenience and efficiency for public servants
- Reduced errors on forms and greater data fidelity

SPAIN



subastas.boe.es

The unified auctions portal for the Official State Gazette Agency (Agencia Estatal Boletín Oficial del Estado) allows for administrative and judicial auctions to be conducted online that are open for any citizen. Judicial auctions allow for the monetization of mortgaged or embargoed goods so that debtors can pay their debts. Goods such as properties (houses, parcels), vehicles, jewelry, paintings, machinery and others, can be auctioned.

ELECTRONIC JUDICIAL AND ADMINISTRATIVE AUCTIONS PORTAL

IMPLEMENTATION

The portal was implemented in October 2015 for the entire public administration, substituting in-person auctions. Any citizen can participate in an electronic auction through the portal, which allows for the virtual submission of bids.

SAVINGS

BENEFITS

INVESTMENT: US \$800K

- US \$590k for development and implementation of information systems
- US \$210k for maintenance during the first year

OPERATING COSTS: US \$160K/YEAR

- System maintenance

GOVERNMENT: US \$61.5 MILLION/ YEAR

- Fewer public servants dedicated to managing in-person auctions
- Reduced expenditure on physical space, electricity and other costs associated with the space for the auctions
- Reduced expenditure on material costs related to in-person auctions

CITIZENS: US\$80.8 MILLION/YEAR

- Savings on transport to the sites of physical auctions
- Less lost time in transit

- Increased transparency of the auction process
- Greater efficiency in public expenditure and better returns on auctioned items
- Greater participation in auctions (previously, 95% had zero participants) due to the increased ease of publicizing the auction and ease of access for citizens
- Greater efficiency from having only one portal for the entire public administration

MEXICO



www.gob.mx/Actanacimiento

The online birth certificate allows any Mexican citizen to obtain a certified copy of his or her birth certificate through the National Single Window, available 24/7/365.

BIRTH CERTIFICATE

IMPLEMENTATION

The online birth certificate is a result of inter-institutional collaboration of multiple entities from the central government and municipalities that took 2 years. The process entailed the work of over 500 public servants from central and local government, from the standardization of the format for the birth certificate in the state governments, to the establishment of interoperability with the 32 states to enable a 100% digital service. The online birth certificate has been available since mid-2017.

KEY ACHIEVEMENTS

- More than 3,000,000 certificates downloaded, 89% of which were paid for online
- More than 41 million visits to the components of the certificate
- Greater than 92% satisfaction with the online service, counting over 1,076,444 survey responses
- A total of 230,012 tickets submitted at the Gob.mx helpdesk, the most frequent issues being the digitization of a certificate (on average 70 tickets daily) and rectification of errors (on average 53 tickets daily)

INVESTMENT: US \$4 MILLION

- 32 local teams, the technical team at Gob.mx and the National Population Registry (RENAPO)
- A portion of the Gob.mx infrastructure
- (Digital services in Mexico are designed with the technical and human resources of each entity)

CITIZENS: US \$660 MILLION⁶ BETWEEN JULY 2017 AND NOVEMBER 2018

- In person: the national average cost for obtaining a birth certificate is US \$220, including transportation costs (sometimes from one state to another), lodging, food, taxis or other transport, and lost income during the time spend in the process
- Online: average cost of US \$4.9, representing a savings of 98% for citizens in comparison to the in-person option. The average time for obtaining a certificate online is 15 minutes

CITIZENS:

- Democratizes access to a foundational identity document that is a gateway to other rights
- Immediacy in obtaining the document from anywhere in the world, from any device connected to the internet
- Establishment of a shared format accepted by institutions everywhere in the country regardless of the jurisdiction that issues the document

GOVERNMENT:

- Citizen perception of a more innovative government that uses technology
- Interoperability among state governments and agencies allowing for the automatic validation of the birth certificate
- User satisfaction with the online service

⁶ Savings are the multiplication of the number of certificates issued since July 2017 and the difference between the in-person and online costs.

EL SALVADOR



The Single Registry is a tool that supports the Universal Social Protection System. It is designed to serve as a centralized registry that contains structured, codified and normalized data that allows for the identification, characterization and segmentation of the socioeconomic characteristics of individuals, families, households and environments of the participants in the social protection system.

SOCIAL PROGRAM PARTICIPANT SINGLE REGISTRY

IMPLEMENTATION

The Single Registry project started in 2010 in the context of the implementation of the National Open Data Policy. Standards to unify registers among different programs have been established and disperse databases are being connected under the interoperability guidelines provided by the Digital Government Directorate. The planning and design of the Registry took 18 months; the adaptation of the physical space and hiring of the necessary personnel took 24 months; the first version of the Registry was available 36 months following commencement of the project.

KEY ACHIEVEMENTS

4 programs/subsidies are currently included in the Registry; in total there are 9 institutions that participate in the national social protection strategy that must eventually be connected. 1.4 million citizens from 167 municipalities have been registered, out of a total of 262 municipalities nationwide.

INVESTMENT: US \$2,6 MILLION

- Support for the registration and/or updating of household information
- Personnel to administer the tool
- Technical services and infrastructure for the IT systems
- Strengthening participating entities and content production

OPERATING COSTS: US \$10K/MONTH

- Salaries of technical personnel
- Software licenses

SAVINGS

- Cleaning of beneficiary rolls of cash transfer program "Comunidades Solidarias" (quantification not available)
- Elimination of registries of individual programs (quantification not available)

BENEFITS

- Consolidates information in the Planning Secretariat and facilitates the management and coordination among different public institutions that execute social protection programs
- Greater transparency in the delivery of public benefits
- Allows for objective and transparent prioritization of participants in social programs based on a model that measures their quality of life
- Eliminates duplicate costs of registration and identification of participants in social programs

- Facilitates the integration of databases from different institutions
- Unifies the methodologies for prioritizing potential participants and standards for registration in different programs
- Facilitates access to social programs by lowering transaction costs

ARGENTINA



argentina.gob.ar/inclusiondigital

Training, courses and talks on digital literacy and digital skills throughout the country, with the objective of equipping people with the abilities, motivation and confidence necessary to use new technology for personand professional benefit. The plan offers municipalities, provinces and other public entities the possibility to implement training activities in different formats under three lines of action: digital literacy, digital skills for business, and financial inclusion.

NATIONAL DIGITAL INCLUSION PLAN

IMPLEMENTATION

Nationwide implementation is made possible by the Network of Digital Tutors. In each city, the training activities are led by local college students who, in exchange for their service, receive a stipend that helps them complete their studies. The pilot was conducted near the end of 2016 and the at-scale implementation began in March 2017.

KEY ACHIEVEMENTS

- Implemented in more than 125 municipalities and cities
- By October 2018, trained more than 225,000 people in 2,134 courses
- The Network of Digital Tutors has more than 300 members

BENEFITS

TESTIMONIALS

INVESTMENT: US \$0

- Does not require investment

OPERATING COSTS: US \$700K/YEAR

- US \$420K for stipends
- 15 full-time employees: US \$280K
- Increase in the population 4 years or older that uses ICTs. Between 2016 and 2017, the use of cell phones increased from 78.9% to 81.2% and the proportion of people who use internet rose from 71% a 74.3%
- Generates abilities to use new technologies to resolve problems and participate in everyday activities
- Abilities to improve job prospects and promote micro-economic development
- Knowledge and motivation to access banking services through digital channels
- Foments the use of different digital government tools

Some examples of how the digital literacy programs have impacted citizens:

- Julieta, a 22-year old psychology student from La Plata, is part of the network of tutors. She teaches a weekly class on Excel and Word to prisoners at the Olmos prison to increase their job prospects upon their realease. She has trained 211 prisoners in 16 different courses
- Lilia, from the province of Jujuy, belongs to the local senior center, where she learned how to find information on the internet thanks to a Digital Inclusion course
- Pablo, from La Carolina in the province of San Luis, has a tourism business and received a digital marketing training that he has used to implement new promotion mechanisms and improve his sales



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URUGUAY

Agencia de Gobierno electrónico y Sociedad de la Información y del Conocimiento (AGESIC)





