EXECUTIVE SUMMARY

ICT ELECTRONIC GOVERNMENT SURVEY

2023

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Executive Summary
ICT Electronic Government 2023

In 2023, 10 years have passed since the first data collection of the ICT Electronic Government survey. Every two years since 2013, indicators have been generated on the adoption of information and communication technologies (ICT) among federal and state government organizations of the executive, legislative, and judicial branches and the Public Prosecutor's Office, as well as local governments. In addition to pointing out the main advances and challenges related to digitalization in the public sector in the last decade, the sixth edition of the survey highlights initiatives related to the use of these technologies for an inclusive and people-centered digital government and the inclusion of new technologies in the activities of public organizations. As a new feature of the 2023 edition, indicators were collected on registration or login requirements for access to online public services.

Federal and state government organizations

NEW TECHNOLOGIES

In 2021, the ICT Electronic Government survey measured, for the first time, the adoption of data-based new technologies such as Artificial Intelligence (AI) and blockchain among federal and state government organizations. In 2023, there was an increase in the use of AI technologies (from 24% to 30%) and the Internet of Things (IoT) (from 18% to 27%), whereas the adoption of blockchain remained stable (Chart 1). The use of AI showed the greatest difference between levels of government: While approximately half of federal organizations (49%) used this type of technology, not even a third of state organizations (28%) adopted AI in the 12 months prior to the survey.

Among the reasons for not adopting AI technologies, the lack of qualified personnel was the most cited by federal organizations (34%), followed by not being a priority for the government organizations (25%). At the state level, the most cited reasons were not being a priority for the government organizations (35%), lack of qualified personnel to use AI (32%), incompatibility with the government organizations' existing technologies (32%), difficulties regarding the availability or quality of the data required (31%), and lack of need or interest (31%).

AMONG THE REASONS FOR NOT ADOPTING AI TECHNOLOGIES, THE LACK OF QUALIFIED PERSONNEL WAS THE MOST CITED BY FEDERAL GOVERNMENT ORGANIZATIONS (34%)

CLOUD COMPUTING

Adoption of cloud computing services has increased in all the items investigated over the survey's time series (Chart 2). However, ICT Electronic Government 2023 found that these services were more commonly available at the federal level, such as cloud e-mail services, cited by 81% of federal and 59% of state government organizations. Cloud processing capacity services were the least contracted by federal (44%) and state (36%) government organizations.

PRESENCE ON SOCIAL NETWORKS

Almost all federal (99%) and state (93%) government organizations had profiles or

accounts on social networks in 2023. The social networks with the greatest presence of federal and state government organizations were Instagram or Flickr (89%), Facebook (72%), YouTube or Vimeo (67%), and WhatsApp or Telegram (52%). For the first time, TikTok was measured separately and was cited by 14% of federal and state government organizations. The survey pointed to greater diversification of presence on social networks at the federal level: 87% of federal and 60% of state government organizations had profiles on four or more social networks. Among the branches of government, more than 80% of the judicial (86%) and legislative (85%), and the Public Prosecutor's Office (84%) organizations, were on four or more social networks.

Local governments

ONLINE PUBLIC SERVICES

In 2023, 91% of Brazilian local governments offered at least one of the eight digital services investigated available on their websites. A decade earlier, when the survey was carried out for the first time, this proportion was 75%, demonstrating an increase in the availability of online services by local governments. Throughout the time series, there has been growth in all the services measured by the survey (Chart 3). Only one service was not offered by most local governments with websites: scheduling appointments, assistance services, and others (33%). Between 2021 and 2023, four online services showed a significant increase: generating electronic invoices (from 78% to 83%); generating tax payment slips or other payment tabs (from 63% to 70%); generating documents such as licenses, certificates, permits and others (from 58% to 65%); and checking ongoing administrative or judicial proceedings (from 50% to 57%).

IN 2023, 91% OF BRAZILIAN LOCAL GOVERNMENTS PROVIDED AT LEAST ONE OF THE EIGHT DIGITAL SERVICES INVESTIGATED BY THE SURVEY

There are still disparities in relation to population size. The smaller the municipality's population, the fewer services were made available via their websites: While 94% of local governments of municipalities with more than 500,000 inhabitants offered five or more types of online services, this was the case for just over half of those with up to 10,000 inhabitants (56%). Another example is the possibility of scheduling appointments on the websites, mentioned by less than a third of local governments of municipalities with up to 10,000 inhabitants (27%) and 88% of those with more than half a million people.

ACTIONS FOR DIGITAL INCLUSION

More than half of local governments (54%) made free Wi-Fi points available in public spaces, such as parks and squares. This was more common in capital cities (79%) and municipalities with more than 100,000 up to 500,000 inhabitants (66%), and more than 500,000 inhabitants (80%). However, there has been a decrease in initiatives for public Internet access centers, such as telecenters, throughout the survey's time series. Between 2015 and 2023, there was a decrease of 27 percentage points in the provision of free Internet access centers by local governments, from 72% to 45%.

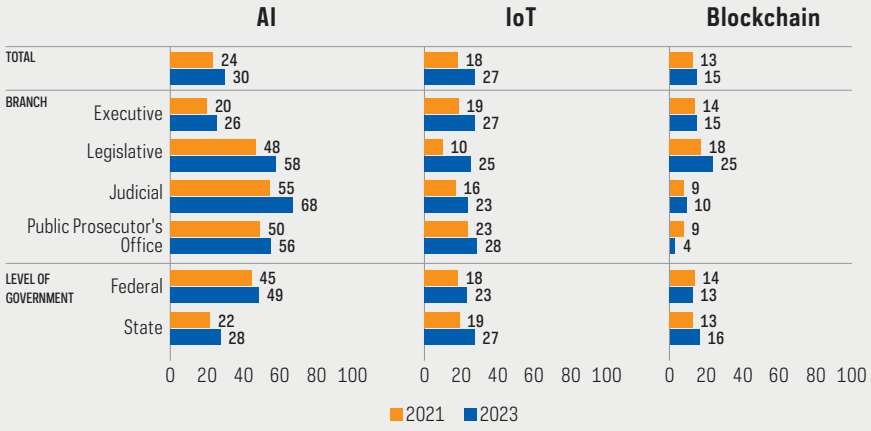
TECHNOLOGIES FOR URBAN MANAGEMENT

Between 2019 and 2023, there was an increase in the proportion of local governments with operations centers for monitoring situations such as traffic, security, and emergencies, from 21% to 33%. The ICT Electronic Government 2023 survey found that this type of initiative was more present in the largest cities, reaching 84% of local governments of municipalities with more than 500,000 inhabitants (Chart 4). There were also differences between the areas monitored

CHART 1

FEDERAL AND STATE GOVERNMENT ORGANIZATIONS THAT USED NEW TECHNOLOGIES IN THE LAST 12 MONTHS, BY TYPE (2021-2023)

Total number of federal and state government organizations (%)



87%
of federal government organizations had profiles or accounts on four or more social networks

60%
of state government organizations had profiles or accounts on four or more social networks

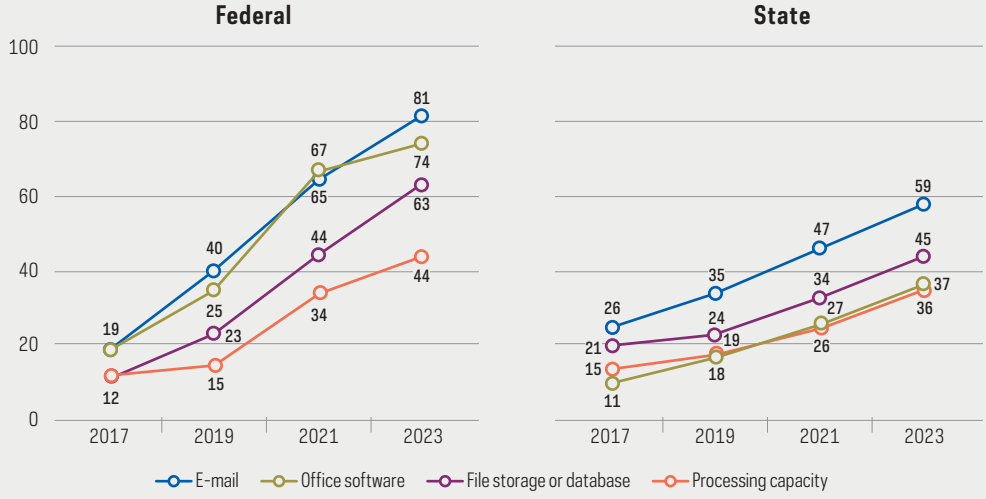
29%
of federal government organizations had profiles or accounts on TikTok

12%
of state government organizations had profiles or accounts on TikTok

CHART 2

FEDERAL AND STATE GOVERNMENT ORGANIZATIONS THAT USE CLOUD COMPUTING SERVICES, BY TYPE OF SERVICE AND LEVEL OF GOVERNMENT (2017-2023)

Total number of federal and state government organizations with an information technology department (%)



according to the size and location of the local governments. While the areas most mentioned by the capital cities were traffic (100%), public security (82%), and public transportation (80%), in the other cities, these centers were mainly focused on monitoring public security (90%) and public buildings or heritage (81%).

Survey methodology and data access

Carried out every two years since 2013, the ICT Electronic Government survey maps the incorporation of technologies in the Brazilian public sector and their use for the provision of public services. In addition, the study investigates the existence of initiatives for access to information and society's participation in the activities of government organizations through technologies. The survey has two units of analysis: federal and state government organizations of the executive, legislative, and judicial branches and the Public Prosecutor's Office; and local governments. Data collection for the 2023 edition, carried out by telephone, took place between July 2023 and February 2024. A total of 677 federal and state government organizations and 4,265 local governments were interviewed. The results of the ICT Electronic Government survey, including tables of proportions, totals, and margins of error, are available on the website of the Regional Center for Studies on the Development of the Information Society (Cetic.br) – https://www.cetic.br. The "Methodological Report" and "Data Collection Report" can be consulted in both the printed publication of the survey and on the Cetic.br|NIC.br website.

Digital identification and access to online public services in Brazil

New indicators show that the main way citizens access public services online is by registering or logging in to the government organizations' own systems, with room to expand integration in digital identification between different branches and levels of government in the country. Among federal organizations, the most mentioned types of registration for access to digital services were the government organizations' own login systems (42%), followed by the federal government's Gov.br platform (32%). In state organizations, the most frequently mentioned forms were their own registration systems (25%), by the state governments (14%), and by Gov.br (12%). In local governments, the adoption of their own registration systems (40%) was the most common form of access to digital services among Brazilian cities, followed by Gov.br (13%).

100%
of local governments with more than 500,000 inhabitants said they had websites

94%
of local governments with more than 500,000 inhabitants offered five or more digital services via their websites

92%
of local governments with up to 10,000 inhabitants said they had websites

56%
of local governments with up to 10,000 inhabitants offered five or more digital services via their websites

CHART 3

LOCAL GOVERNMENTS, BY TYPE OF SERVICE OFFERED ON THEIR WEBSITES (2013-2023)

Total number of local governments with websites (%)

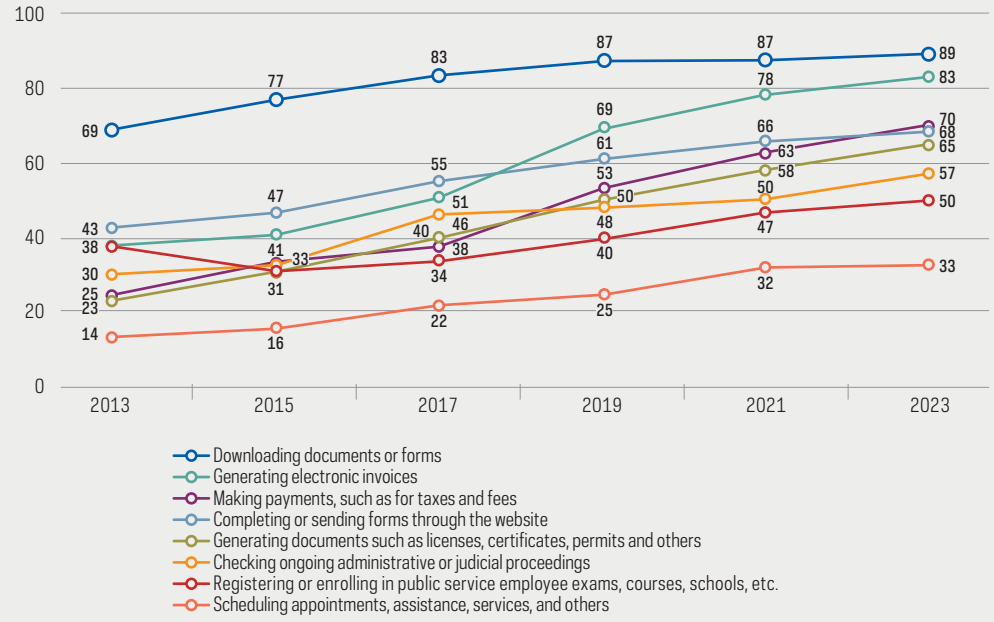
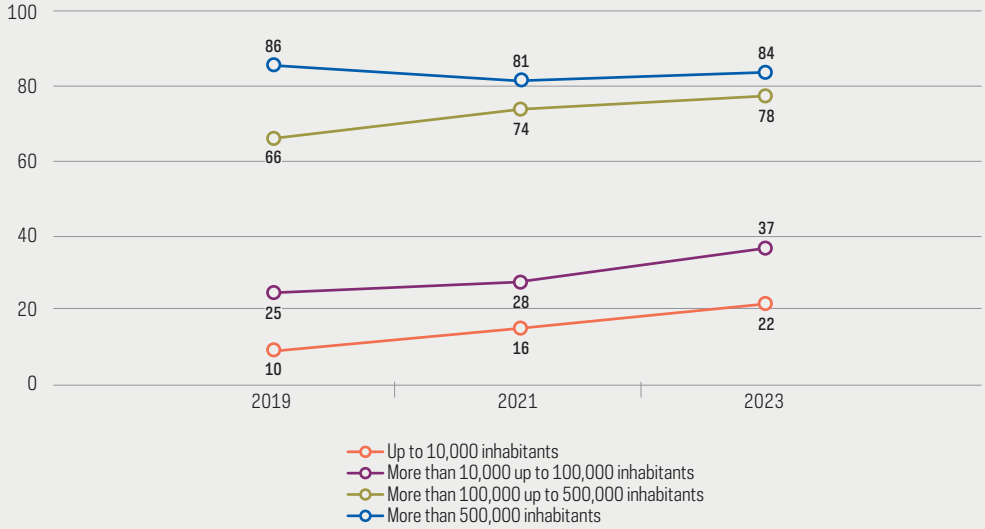


CHART 4

LOCAL GOVERNMENTS WITH CENTERS OF OPERATION FOR MONITORING TRAFFIC, SECURITY, OR EMERGENCY SITUATIONS, BY SIZE (2019-2023)

Total number of local governments (%)



ABOUT CETIC.br

The Regional Center for Studies on the Development of the Information Society, a department of NIC.br, is responsible for producing indicators and statistics on the access and use of the Internet in Brazil, disseminating analyzes and periodic information on the Internet development in the country. Cetic.br is a Regional Study Center, under the auspices of UNESCO. More information at http://www.cetic.br/.

ABOUT NIC.br

The Brazilian Network Information Center – NIC.br (http://www.nic.br/) is a non-profit civil entity, which in addition to implementing the decisions and projects of the Brazilian Internet Steering Committee, has among its attributions: coordinate the registration of domain names – Registro.br (http://www.registro.br/), study, address and handle security incidents in Brazil – CERT.br (http://www.cert.br/), study and research network technologies and operations – CEPTRO.br (http://www.ceptro.br/), produce indicators on information and communication technologies – Cetic.br (http://www.cetic.br/), implement and operate Internet Exchange Points – IX.br (http://ix.br/), enable the participation of the Brazilian community in the global development of the Web and support the formulation of public policies – Ceweb.br (http://www.ceweb.br), and host the Brazilian W3C office (http://www.w3c.br/).

ABOUT CGI.br

The Brazilian Internet Steering Committee, responsible for establishing strategic guidelines related to the use and development of the Internet in Brazil, coordinates and integrates all Internet service initiatives in the country, promoting technical quality, innovation and dissemination of the services offered. Based on the principles of multistakeholderism and transparency, CGI.br represents a democratic Internet governance model, internationally praised, in which all sectors of society participate equitable in the decision-making. One of its formulations is the 10 Principles for the Governance and Use of the Internet in Brazil (http://www.cgi.br/principios). More information at http://www.cgi.br/.

Access complete data from the survey

The full publication and survey results are available on the **Cetic.br** website, including the tables of proportions, totals and margins of error.

ACCESS
WWW.CETIC.BR