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Antonio Ramos Guardiola (CIIO)
aramos@prits.pr.gov
Raissa Calderón rcalderon@prits.pr.gov

**Government goes paperless with
IDEAL**

A strategic use of digital tools and tactics are transformed into a streamline platform for government procedures and services on the Island of Puerto Rico.



EXECUTIVE SUMMARY

IDEAL's (Spanish acronym for Puerto Rico's Online Electronic Identity Access System) design and development started on February 4, 2021, as part of Puerto Rico's Government Executive 2021-007. This executive order established PRITS (the Puerto Rico Innovation and Technology Service) as the government agency tasked with catalyzing the digital transformation of the Island's entire framework, systems, reduce costs, and improve digital citizen services.

IDEAL's main opportunity was to remove the citizens' responsibility of going from agency to agency seeking certifications that the state already has in its possession, by consolidating and digitizing the documents.

Due to PRITS design and implementation of IDEAL, by providing your full name, Social Security number, date of birth, Puerto Rican driver's license or identification number, Merchant Registration number (if applicable), phone number, or email address, citizens/customers authorize the search of the required documentation right from their phones.

IDEAL has currently, under strict cyber security measures, integrated 12 government agencies, 25 certificates, 14 compliances and demonstrates 150 data points on the platform.

These key metrics validate the effectivity of IDEAL with a current total of 1,828,710 searches done by the government for individuals and entities. Hence, attending to the seen opportunity of creating a digital, agile, and immediate government operation that centralizes citizen's data like never before.

IDEA

In an era marked by rapid technological advancement and shifting citizen expectations, the role of government in facilitating seamless and efficient interactions for its constituents has never been more critical. This is how IDEAL, acronym in Spanish for Puerto Rico's Online Electronic Identity Access System, came to the drawing board. PRITS (Puerto Rico Innovation and Technology Service) served up a bold leap forward to resolve once and for all, the lack of access to documents between the agencies that compose the Government of Puerto Rico, citizens and entities who needed these certifications in their daily interactions for procedures and services.

Let's take a Puerto Rico Government agency tour.

If you are a local resident in Puerto Rico and wanted to pre-qualify for a home assistance voucher for example, you would have to take an entire day off to finish the agency tour. The tour consisted of visiting each agency to obtain the needed certification or valid documentation that the housing department, for example, required to be handed in to proceed with the prequalification process.

Here is another example, a citizen looking to acquire a contract with the government would spend upwards of three months to get proper certifications before being eligible to submit a proposal for a contract.

These are just two scenarios that bring to context how bureaucratic managing and attending to state related affairs were in the Government of Puerto Rico, before IDEAL.

Previously to IDEAL, each individual government agency had attempted to address this very same issue by establishing digital websites for citizens to obtain their certification or document. In a second attempt, the government consolidated all the individual websites under one domain. But it still meant having to take the agency tour, just rather than it being physically it went digital.

This is what makes IDEAL so unique, it is the consolidation of all the documents and certifications that belong to the Government of Puerto Rico in one centralized source and accessed by civil servants to reduce bureaucracy, ensure valid certifications, and accelerate transactions.

Complementing IDEAL, IDX provides a set of API's that empowered other agencies to enhance their existing platforms with interoperability data. Now, IDEAL and IDX achieve in less than 3 seconds, what would have taken the citizen looking for a government contract three months to finish.

Hence, IDEAL spans over five of the ten top State CIO Priorities: digital government/digital services, legacy modernization, identity and access management, cloud services, and consolidation/optimization. IDEAL embraces the power of technology to address inefficiencies, streamlining government procedures thru a platform that is currently being rolled out to local governments in the Island.

This innovative and user-friendly authorization process enables citizens to grant access to their information without compromising their personal identifiable information (PII), to the municipality which in return optimizes the service being offered to the citizen without ever exchanging one piece of paper between them.

IMPLEMENTATION

IDEAL has been implemented as part of a tiered, multi-phased approach that is continuously evolving to support the initiatives of the government of Puerto Rico. At the onset of the program, it was important that the champions and sponsors of the project worked closely with the analysis and architecture teams to develop a deep understanding of the use cases, existing pain points, and high-level requirements that were used to achieve project success. During these initial discussions, the roster was defined, and teams collaborated on strategies for communicating both internally as a project team, and with external partners.

Using a flexible and hybrid strategy of project management and custom application development has yielded successful, high-quality, and on-time delivery. There are many components of the project management approach that helped achieve these results. Initially, the project team worked closely to identify the goals and needs by working closely with the subject matter experts. Through these answers, the architecture team was able to research and design a scalable solution that was in line with the long-term vision of the executive team. From these research sessions, the application development team utilized an efficient agile scrum-based approach to build, test, and deploy. Along the way, design and review sessions were held with the business and leadership team ensuring the project was delivered successfully.

Following the initial delivery, IDEAL has had numerous iterations from the initial project delivery. The product has grown significantly since the initial delivery; however, the same mechanisms of project management remain in play. The project team continues to meet at regular and frequent cadences to go over strategy, review new use cases, and build out and go over business requirements. To keep the project team, stakeholders, and executives informed, the project management team builds out weekly status reports showcasing all efforts currently underway or in the backlog of the program. Weekly review sessions are also utilized to help plan and make shifts to the project. Ad-hoc meetings with project stakeholders help identify any questions that arise.

Success in the IDEAL project is identified through not only the timeliness and quality of the deliverables, but also how the stakeholders and executive team are informed of the status of the project health. Success is also identified by the usage, of the project.

Throughout the project, the team has successfully worked through critical timelines to meet the needs of the users. To be successful, it was important to break out deliverables and identify the criticality of features. This allowed the team to build components of the product based on criticality, and still meet the main objectives in the identified timelines.

Quality has been another success metric that is looked at through the IDEAL project. The use of different types of testing such as manual and automated testing has ensured that a high-quality product gets deployed to the users. The project team also engages in various other types of monitoring and architecture review to ensure the quality remains successful.

One other component of identifying success is using user metrics. The product has built-in reports that can track usage, as well as additional KPIs and metrics that can be captured through secondary tools. We also look at growth in the product and identify new functionality that can be added to the product based on user feedback.

The project to develop the initial phase of IDEAL was done through Puerto Rico Executive Order 2021-008. The project designed and established an interoperability system between the agencies of the Government of Puerto Rico for government efforts or procedures including hiring, permits, requests for aid and services. One of the benefits by completing the project is transparency. IDEAL eliminated administrative obstacles related to document management and provided immediate access to information without bureaucratic processes. Agility is an

additional benefit for the IDEAL project. IDEAL simplified government procedures and streamlined administrative processes by making coordination between agencies immediate and centralized. IDEAL also provides an interoperability platform to help access and centralize the data of the citizen or company into a single system. This allows for the secure and uninterrupted flow of information between agencies. IDEAL was designed to consolidate and digitize all documents and certifications held by the Puerto Rican Government. Its primary purpose was to streamline recruitment processes, government aid programs, and other procedures by allowing the government to automatically provide necessary citizen or company information.

This eliminated the need for individuals or businesses to search for or submit documents that the government already possesses, simplifying operations across Puerto Rico.

With the growth of IDEAL usage, IDEAL phase 2 was implemented to allow other systems to utilize the same functionality that IDEAL has into their own systems. IDEAL phase 2 uses a RESTful API design allowing other systems to connect and integrate seamlessly with IDEAL ensuring a robust data interchange. IDEAL Phase 2 adheres to stringent security standards required for government data handling, ensuring all data exchanges are secure and compliant. The platform provides both a sandbox and production region to the IDEAL consumers. Using a sandbox environment provides a secure and isolated testing area to integration and test without impacting live data.

IDEAL Phase 3 was designed and delivered allowing for a highly configurable version of IDEAL allowing agencies, municipalities, private sector, and non-profits to create their own organizations within IDEAL. The organization structure allows for certain users at an organization to become an admin for their own environment. These admins can then do administrative functionalities such as managing users, defining, and creating system solutions based on business requirements.

The IDEAL program is continuously growing with many new projects offering major enhancements and feature functionalities. The project team continues to work closely to review and work on defining the project requirements, measuring success, and building out roadmaps for growth.

Designed as an enterprise level system, the framework of IDEAL is built as an interoperability platform utilizing APIs to connect with other agencies for real-time information. IDEAL is very scalable and can handle large amounts of simultaneous users and transactions through the system. IDEAL is also built to be used externally at different types of organizations such as government agencies, municipalities, and private sector entities. Other systems such as

ERPs can directly integrate with the data supplied by IDEAL. This makes it ideal for organizations looking to utilize government information when building out their processes.

Not only has IDEAL been built as scalable, but the system is also designed to be very reliable and maintained with high availability. The team works to ensure minimal downtime allowing for uninterrupted access to data. IDEAL provides built-in KPIs, Analytics, and reporting to allow users the ability to see information on searches, but also on information related to user activity. IDEAL is also continuously maintained with feature requests and regular updates to recognize and support user needs.

The IDEAL system employs a cloud-based serverless architecture, which is inherently scalable, secure, and designed to handle asynchronous workloads efficiently. By leveraging the cloud, IDEAL can dynamically adjust resources to meet demand, ensuring optimal performance regardless of traffic fluctuations. The serverless model eliminates the need for server management, reducing operational overhead and enhancing security. This architecture supports asynchronous processing, allowing tasks to be executed independently and improving overall system responsiveness and reliability, making it an ideal solution for modern, high-demand applications. Additionally, IDEAL includes a robust collection of REST APIs, enabling easy integration with other systems. This allows external applications to interact with and utilize IDEAL services efficiently, further enhancing the versatility of IDEAL platform.

IMPACT

This project is still making things better. Currently the project is optimizing how PRITS can attend to the 132 agencies and their IT Systems to work together to transform Puerto Rico's government based on a secure and efficient infrastructure that did not exist before.

Key Benefits provided by IDEAL:

- Provides immediate and direct 24/7 access to official sources of information.
- Simplifies procedures, workflows, and administrative processes, saving time and money.
- Reduces security and compliance footprint and operational overhead.
- Eliminates the citizen's reliance on expensive third-party sources.
- Easy to configure platform that can be quickly rolled out within each integrated agency.
- Self-service user administration by government employees.
- Intuitive user interface highlights compliance and certificates between agencies.
- IDEAL is integrated directly with each agency's IT structure leveraging secure, standardized APIs for data exchange.

IDEAL matters because it is a clean slate of interoperability from which many other connections will be stacked allowing for this Identity Access System to become the one stop shop for

government interoperability.

The Statistics speak for itself

The department of Justice has an average of 1,714,742 hits on IDEAL to expedite transactions, job recruitment and other agency-based services.

The housing Department hits IDEAL with 245,633 solicitations to expedite citizen requests for affordable housing vouchers.

The Single Business Portal hits IDEAL for its government to business transactions with 28,844 searches.

The Labor department does 1,191 transactions on average for recruitment while the contracting and procurement agency hits IDEAL with 63,891 searches.

The configurable menu is one of the main elements that allows for this system to keep evolving attending to the specific needs of every new agency connected to IDEAL.

However, its IDEAL's ROI that connects the results to the original opportunity attended by PRITS with this centralized system.

Using the example first stated in the idea section, an interested citizen seeking an affordable housing voucher, has an ROI with IDEAL since it allows for a faster processing of transactions allowing for a more efficient use of federal funds. Meaning that more citizens can benefit from the available funds due to faster qualification process since more requests can be done via IDEAL.

Previously to IDEAL, the 236,266 searches for documents to provide this one service would be done manually, on a case by case, and at the rate the citizen handed them -since it required the agency tour. Meaning that less than 1000 cases were processed by month for housing vouchers. According to the housing department (CDBG-DR/CDBG-MIT webpage) an average of 10,276 cases are processed.

Hence, the long road with IDEAL is to continue integrating as many state and local government offices as possible. The principal future use for IDEAL is called Integrated Eligibility. Ushering in a new era of efficiency and connectivity including the private sector and higher ROI on interconnecting programs, benefits, and services they are eligible for without having to visit the agency allocating the service.

In the case of banks, validated and officially sourced documents and certificates can be immediately requested to IDEAL making this a 5 minute a mortgage prequalification process for example. A transaction that is not currently possible. Prequalification requires the citizen to join the agency tour.