Automating Youth Care

Emerging & Innovative Technologies

State of Illinois
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EXECUTIVE SUMMARY

The Illinois Department of Children and Family Services (DCFS) has effectively run and managed a comprehensive and predominantly home-grown child welfare system for more than thirty years. The system maintained the data on children and families served by the agency, but the time had come to update or replace the system.

IllinoisConnect is the new and modern web-based system for child welfare workers, representing a comprehensive update to the policies and processes foundational to running the entire agency. It is truly transformational and a new generation of function – one of the most important support structures for the children of Illinois in a generation. The new modular and all-inclusive application will provide high-quality case management data that is easily analyzed, distributed, and used by workers, supervisors, administrators, researchers, and policymakers. The entire system, including all modules, will be implemented in a phased approach over the next several years.

The Psychotropic Medication Consent (PAC) Bot, a tool in the *IllinoisConnect* system, utilizes Robotic Process Automation (RPA) technology to improve processing efficiencies and provide in-care youth with the critical medications and care they need in a timely and accurate manner. This automated solution significantly reduces manual work, allowing employees to focus on more value-add tasks, bringing relief to an overburdened office, and reducing wait times for in-care youth to receive their medications. PAC Bot has been assisting the unit since its initial deployment in August 2023.

As of the end of April 2024, PAC Bot has processed over 9,000 consents, reallocated over 3,000 manual processing hours (on track to reallocate 5,040+ hours per year), reduced wait times by 80% so that youth in care are receiving medication an average of 27 hours faster, and mitigated the risk of critical medication and dosage errors.

IDEA

The Office of the DCFS Guardian is charged with the oversight and guardianship of the State of Illinois' youth in care. Its scope of duties includes reviewing all requests pertaining to a youth's care, including medical care and prescription drugs. Through the psychotropic medication consent process, the Office of the DCFS Guardian assesses and approves/denies requests from a clinician to prescribe an in-care youth a psychotropic medication. That decision is then communicated to appropriate stakeholders. Processing the more than 1,000 consents received monthly quickly and accurately is imperative to protecting the welfare of some of Illinois' most vulnerable residents. However, DCFS workers performed the processing manually, and were required to reference multiple documents and systems for each request. As they moved data from one document or system to another via copy and paste or manual entry, opportunity for errors was introduced. Errors in this process could result in medical consequences, as incorrect medications or dosages could be approved.

PAC Bot automates over 70% of a 55-step process, validating in-care youth legal status, reconciling, creating, and moving files, drafting the formal consent, distributing signed consents via email and fax, and sending automated email notifications, thus keeping all stakeholders apprised of the consent request status. The solution reallocates hundreds of manual processing hours per month to value-add tasks and reduces wait times for in-care youth to receive critical medications in a timely manner.

PAC Bot is the first of its kind at DCFS. The cloud-hosted RPA is directly in-line with several State CIO Top 10 Priorities including *(1) Digital Government/ Digital Services* by speeding time to critical medical services for some of Illinois' most vulnerable citizens, *(3) Artificial Intelligence/Machine Learning/ Robotic Process Automation* by leveraging RPA to automate a complex workflow, *(5) Workforce* by reimaging how Guardian Consent workers complete the process and engage with technology, and *(9) Cloud Services* via a multi-tenant scalable AWS cloud architecture.
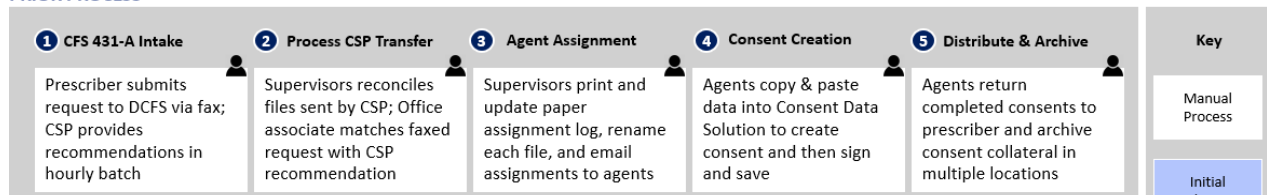
IMPLEMENTATION

PAC Bot was able to be seamlessly integrated into the DCFS Guardian Consent Unit process, providing immediate relief, while other *IllinoisConnect* modules were in development. The implementation for this effort included a collaboration between DCFS and the Illinois Department of Innovation & Technology (DoIT). The innovative solution aids processing statutorily required psychotropic medication consents that impact the health and welfare of children in Illinois.

DCFS and DoIT first assessed the current state psychotropic consent business process and identified multiple pain points and steps that required a high degree of manual effort. These areas were designated as opportunities for standardization and improvement. By defining business rules and stabilizing process areas, the existing consent process was adjusted within the bounds of governing policy to reduce the number of manual steps needed to complete the process.

Once the business process was re-imagined, the teams worked to build a "digital butler" powered by RPA. Using time-based triggers, PAC Bot runs in the background and only requires supervisors to indicate which workers are available for receiving assignments and for workers to verify that produced consents are accurate prior to signing.

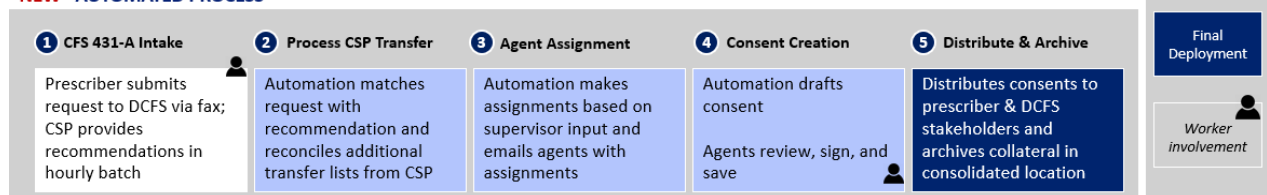**PRIOR PROCESS**

❶ CFS 431-A Intake	❷ Process CSP Transfer	❸ Agent Assignment	❹ Consent Creation	❺ Distribute & Archive	Key
Prescriber submits request to DCFS via fax; CSP provides recommendations in hourly batch	Supervisors reconciles files sent by CSP; Office associate matches faxed request with CSP recommendation	Supervisors print and update paper assignment log, rename each file, and email assignments to agents	Agents copy & paste data into Consent Data Solution to create consent and then sign and save	Agents return completed consents to prescriber and archive consent collateral in multiple locations	Manual Process

NEW AUTOMATED PROCESS

❶ CFS 431-A Intake	❷ Process CSP Transfer	❸ Agent Assignment	❹ Consent Creation	❺ Distribute & Archive	Key
Prescriber submits request to DCFS via fax; CSP provides recommendations in hourly batch	Automation matches request with recommendation and reconciles additional transfer lists from CSP	Automation makes assignments based on supervisor input and emails agents with assignments	Automation drafts consent; Agents review, sign, and save	Distributes consents to prescriber & DCFS stakeholders and archives collateral in consolidated location	Initial Deployment / Final Deployment / Worker involvement

Image 1: Business Process Summary

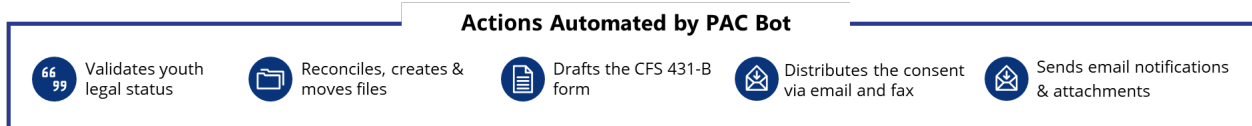The solution was implemented with significant collaborative efforts by cross-discipline teams including representatives from legal, policy, technology, testing, program staff, and security and risk assessment.

Technical Implementation: Implementation, Oversight

Guardian Consent Unit: Advocate, Implementation, Oversight, End-User, Beneficiary

Security and Risk Assessment: Implementation, Oversight

Testers: Oversight

Over the course of nine months and two releases, all infrastructure setup, process assessment, development, testing and training for PAC Bot was completed, bringing best-of-breed technology to DCFS on infrastructure that is easily scalable for additional use cases.

Actions Automated by PAC Bot

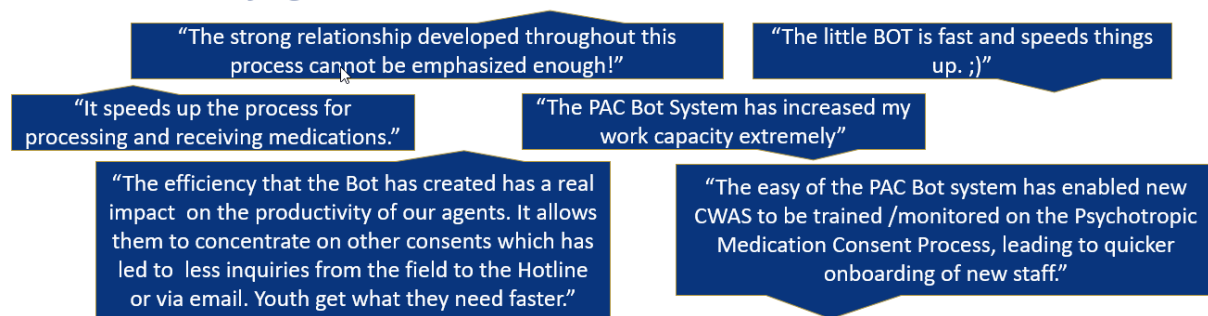| Validates youth legal status | Reconciles, creates & moves files | Drafts the CFS 431-B form | Distributes the consent via email and fax | Sends email notifications & attachments |

Image 2: Primary functions automated by PAC Bot

IMPACT

PAC Bot users have provided overwhelmingly positive feedback about the solution. Following implementation, all users completed a user satisfaction survey, with 100% of respondents indicating PAC Bot has made their roles easier and increased their efficiency. A small portion of feedback provided lessons learned for the implementation team, such as highlighting a need for robust change management and communications beyond initial deployment to support newly onboarded staff's familiarization with PAC Bot.

What users are saying…

"The strong relationship developed throughout this process cannot be emphasized enough!"

"The little BOT is fast and speeds things up. ;)"

"It speeds up the process for processing and receiving medications."

"The PAC Bot System has increased my work capacity extremely"

"The efficiency that the Bot has created has a real impact on the productivity of our agents. It allows them to concentrate on other consents which has led to less inquiries from the field to the Hotline or via email. Youth get what they need faster."

"The easy of the PAC Bot system has enabled new CWAS to be trained /monitored on the Psychotropic Medication Consent Process, leading to quicker onboarding of new staff."

Image 3: User Feedback

The implementation of PAC Bot has caused a profound shift in service delivery, especially regarding the expedited access to medication for children in care. PAC Bot's effectiveness in processing nearly 8,000 consents in the first seven months following deployment has not only streamlined operations but more importantly, it has **reduced the wait time for critical medication by 80%. This means children are now receiving their medication 27 hours faster**, a vital improvement that directly influences their health and wellbeing. By reallocating an average of 420 hours per month or over 5,040 hours annually, PAC Bot

allows child welfare employees to focus more on the care of these children rather than on administrative tasks. Additionally, the automation has led to a reduction in manual entry, thereby mitigating the risk of critical medication and dosage errors, ensuring safer and more accurate medical care for the children. PAC Bot has also diminished the volume of inquiries about the status of consents via hotline or email, indicating an improved communication process. This powerful impact of PAC Bot summarized in the image below underscores its transformative potential in enhancing not just efficiency but more critically, the quality of care and services provided to Illinois' youth in care.
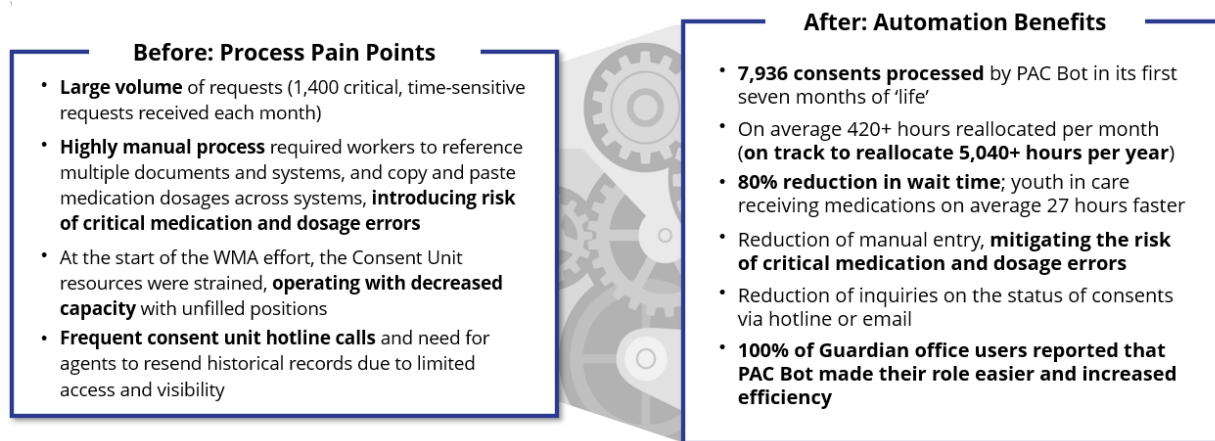
Before: Process Pain Points

- **Large volume** of requests (1,400 critical, time-sensitive requests received each month)
- **Highly manual process** required workers to reference multiple documents and systems, and copy and paste medication dosages across systems, **introducing risk of critical medication and dosage errors**
- At the start of the WMA effort, the Consent Unit resources were strained, **operating with decreased capacity** with unfilled positions
- **Frequent consent unit hotline calls** and need for agents to resend historical records due to limited access and visibility

After: Automation Benefits

- **7,936 consents processed** by PAC Bot in its first seven months of 'life'
- On average 420+ hours reallocated per month (**on track to reallocate 5,040+ hours per year**)
- **80% reduction in wait time**; youth in care receiving medications on average 27 hours faster
- Reduction of manual entry, **mitigating the risk of critical medication and dosage errors**
- Reduction of inquiries on the status of consents via hotline or email
- **100% of Guardian office users reported that PAC Bot made their role easier and increased efficiency**

Image 4: Impact Summary

While this implementation focused on psychotropic consents, other consent types can benefit from similar RPA solutions and broader digital transformation. Since implementation, the project team has continued its partnership working with the Office of the DCFS Guardian. The team is assessing all consent types for similar business process innovation opportunities, is designing an external portal for consent request intake for all consent types, and is exploring opportunities for more bots to support processing upon submission. By migrating to a portal and creating more bots to address consent intake and reconciliation, DCFS employees can significantly reduce time spent on labor-intensive tasks and increase time dedicated to mission-critical work. This shift will result in improved welfare for children and families across Illinois.

The world of automation is constantly changing. By embracing innovation and change in everyday business processes and RPA, Illinois illustrates its commitment to being on the cutting edge of technology, thereby fostering efficiency, accuracy, and productivity in its operations. This initiative serves as a testament to the importance of embracing business process innovation, as it not only streamlines workflows but also allows for the reallocation of human resources to more strategic, value-adding tasks. By doing so, Illinois positions itself to adapt to the rapidly evolving technological landscape and set a benchmark for others to follow.