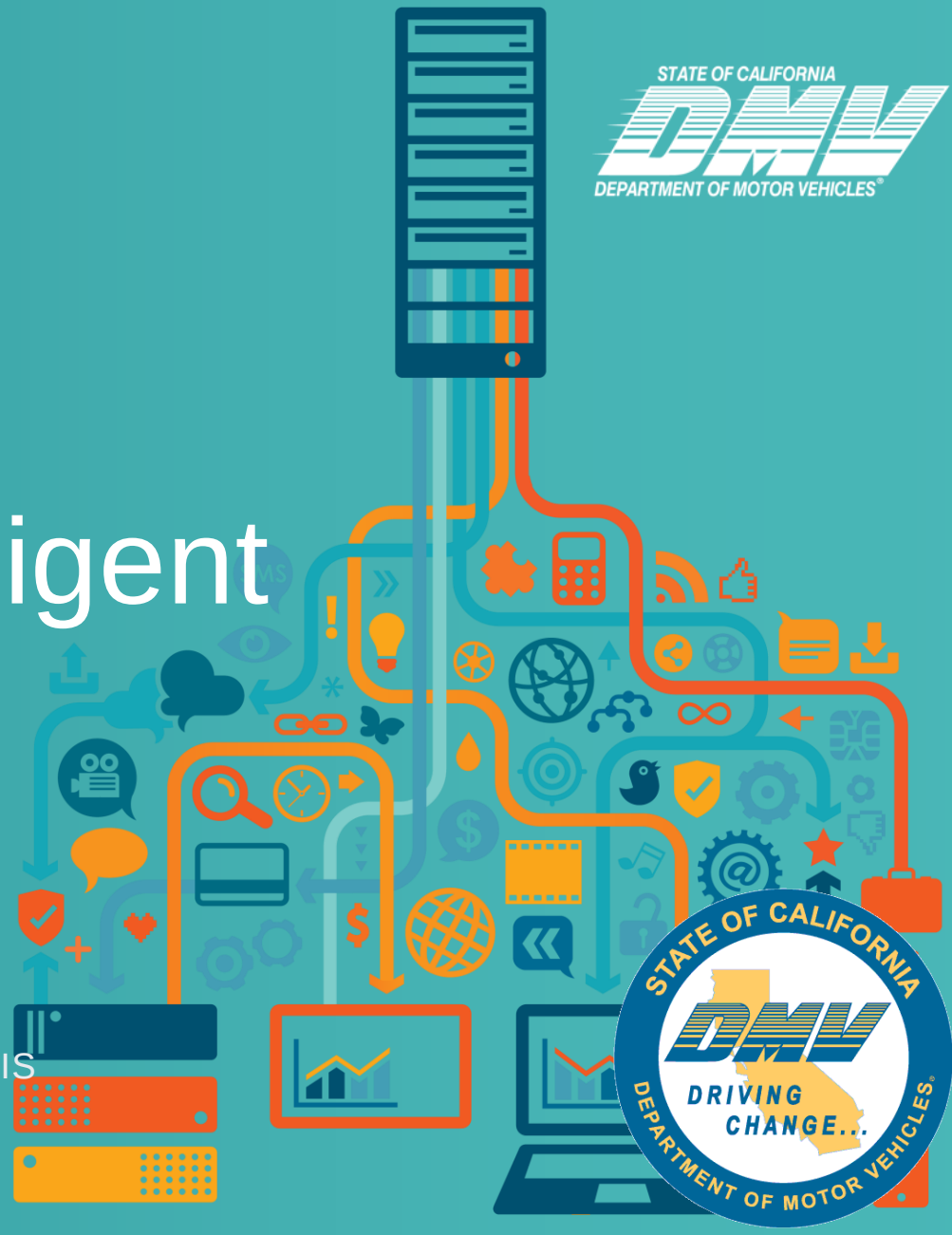
State of California Intelligent Automation Workgroup

Sharing our IA journeys



DMV, CDPH, FI$Cal, Energy, DOT, EDD, JCC, Wildlife, CalPERS, CDT, CHP,

Covered Cal, SCO, DGS, DOR, CalSTA, SCIF, HCAI, NV DMV, NASA, UC DAVIS

10/20/2023

Agenda

- Attendance and new attendee introductions
- New RPA use cases at the DMV
  - Disabled Person Placards, Lien Sales Under $4k, Personalized License Plates, E-Recruitment
- Roundtable - Latest trends, Updates, Opportunities, Needs

AG

Objectives of this forum :

To share ideas, experiences and our Intelligent Automation journey across the State to improve operations and gain efficiencies

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What's New? - Roundtable

Latest trends, upcoming opportunities, possible needs, Topics of interest

DMV, ***CDPH***, OSHPD, **FI$Cal**, **Energy**, **DOT**, EDD, JCC, Wildlife, **CalPERS**, **CDT**, CHP, Covered Cal, **SCO**, DGS, ***DOR***, **CalSTA**, SCIF, ***HCAI***, ***Nevada DMV***, **HSR, UC Davis**

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DMV's **Intelligent Automation COE**:

Manage the technology, process and governance to support department wide intelligent automation initiatives while creating secure, reliable and repeatable implementations of robotics, AI/ML and workflow based automation

Intelligent Automation in Action

49*

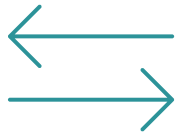
Use Cases Deployed

OPS: 25 | FOD: 13 | CSD: 2 | INV: 1
ISD: 1 | ASD: 5 | POL: 1

> 322K

Tech Hours Saved

OPS – 203.09K | FOD – 89.79K
CSD – 16.01K | INV – 6.02K



> 11.5M

Transactions Processed

OPS: 6.66M | FOD: 3.02M
CSD: 966.25K | INV: 25.48K

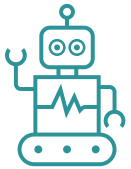
> 4.4M

Sheets of Paper Saved

18

Workflow based Use Cases

OPS: 9 | FOD: 4 | INV: 1
ISD: 1 | ASD: 3



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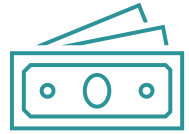
Bot Based Use Cases

4

AI / ML Use Cases



> $14.8M

Cost Avoidance

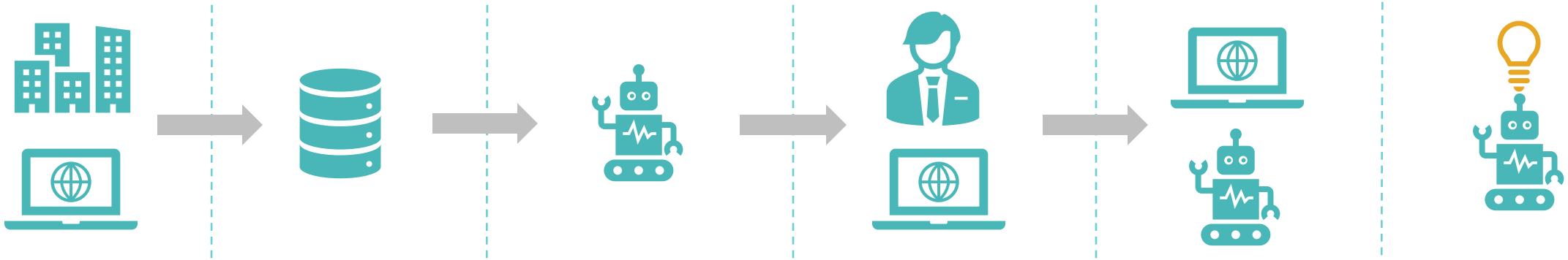
OPS : $9.53M | FOD: $3.95M
CSD: $704.70K | INV: $264.84K

* 9 use cases end of life/fully realized (Temp DL ext., OL/EASE, OL Survey, 2nd Residency, and Digital Mailroom (NRL), 2 Payment Catchup Bots, AKTE bot) | Data current as of 10/5/2023

Personalized License Plates

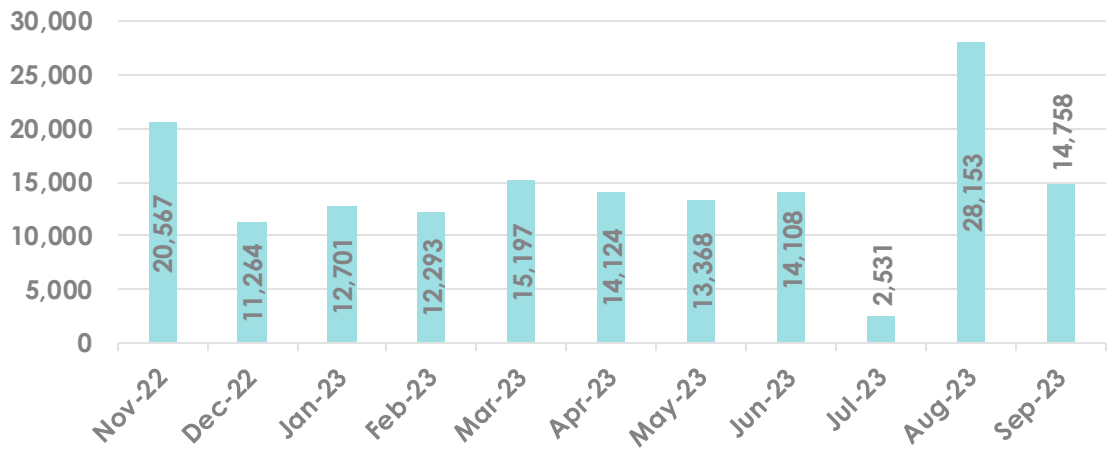
[Generative AI as a reviewer]

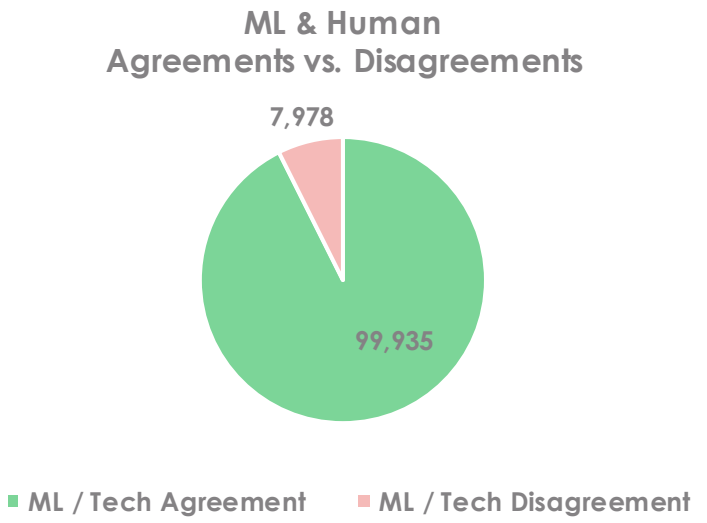
NG

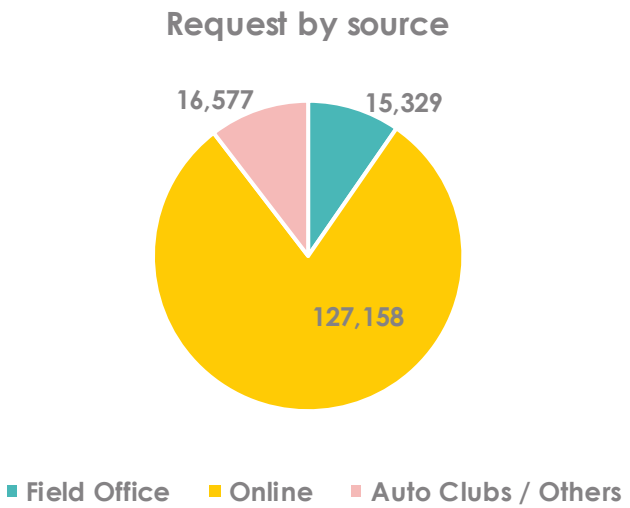


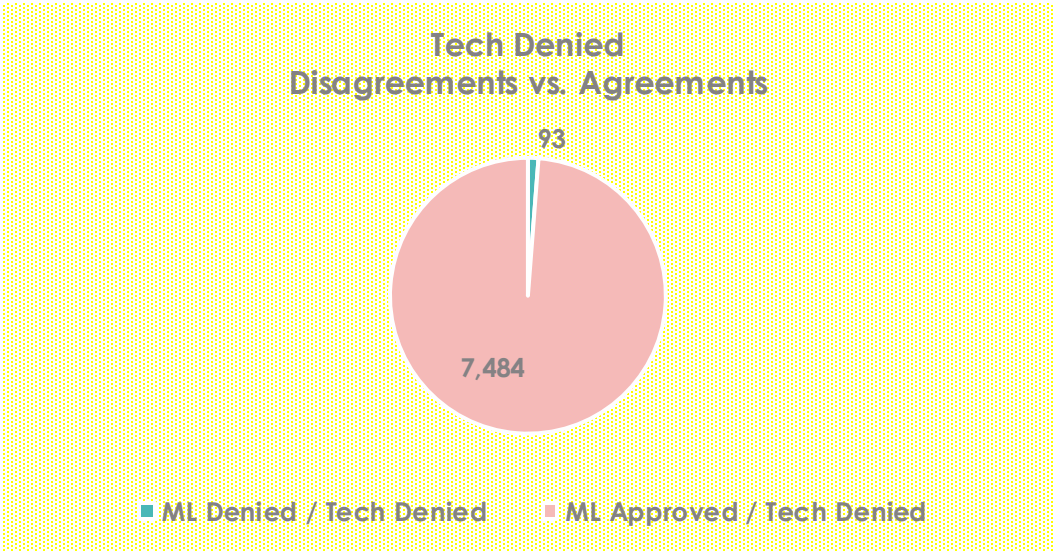
Customer Intake	Databases	AI / ML	Web Workflow	AI + UiPath Bot	Future
Customers use online system, field offices, or auto clubs to request custom license plates. **For online requests AI/ML Model pre-screens the requests including LLM to discover hidden issues**	Online intake checks for already issued plate, already denied plates, business rules for patterns	AI / ML based models (BERT / GPT 4.0) review each request for toxicity, hate, offensive words, reverse words, mirror words, character substitutions and provide approve / deny recommendations to staff.	DMV Staff approve or deny requests. **LLM generates explainable reason.** AI/ML picks up the disagreements to improve its models. Currently AI/ML is 93% in agreement with humans.	A bot performs final checks on business rules, performs plate assignment in the backend systems. Web workflow generates a report of approved plates for CalPIA.	Our goal is to train our AI/ML models to be in 100% agreement with staff. Model is learning from previously denied plates, current social trends

ELP Automation

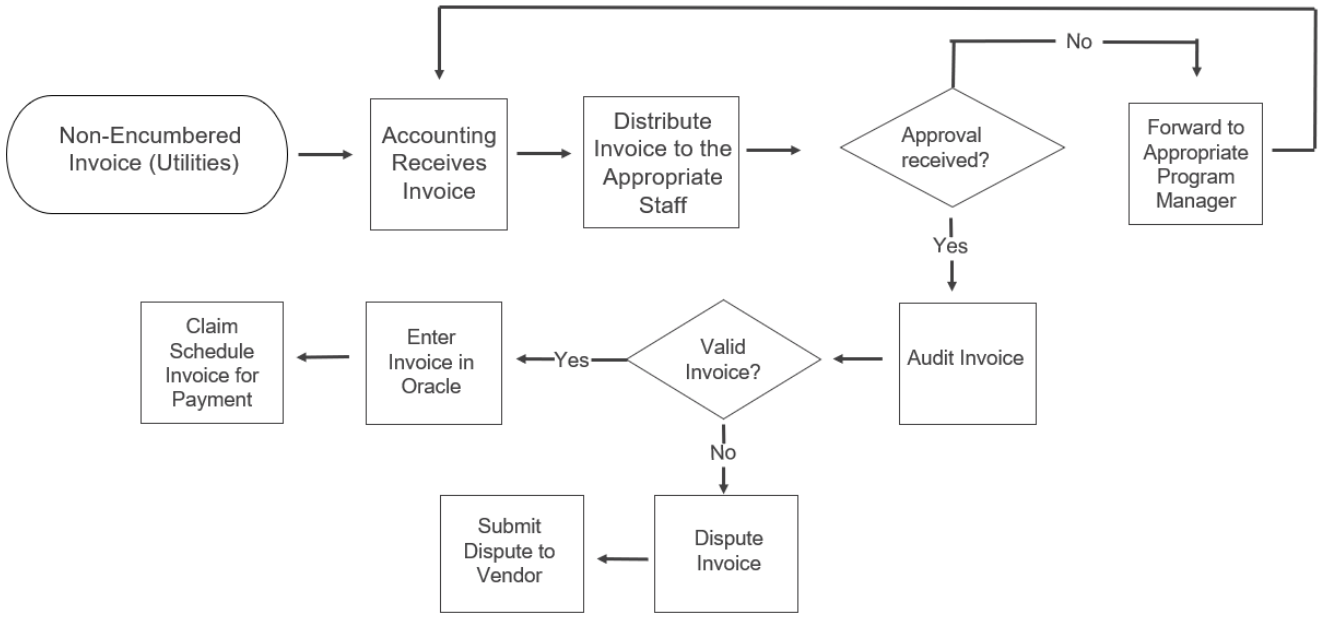








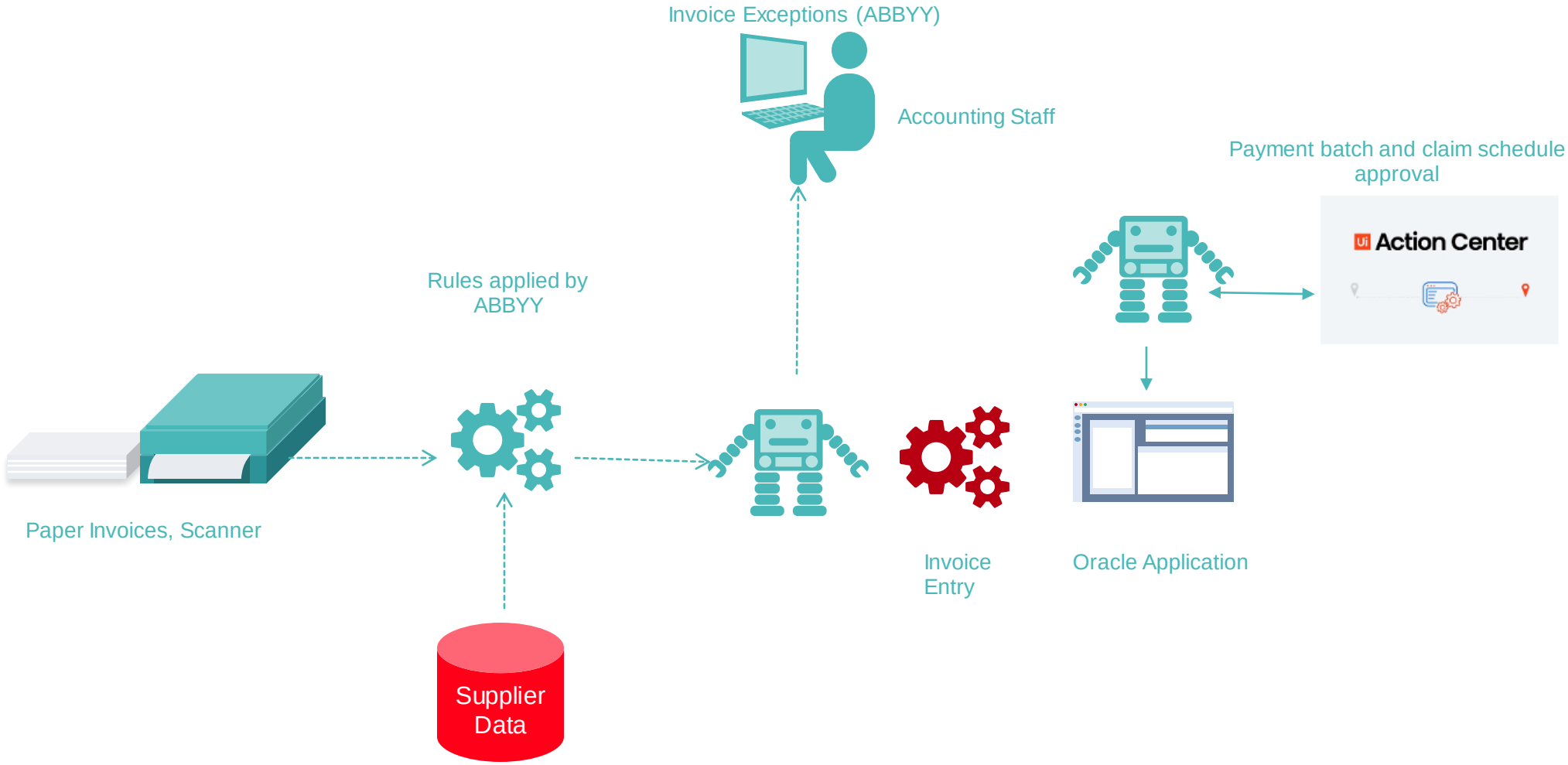
Invoice Processing - Previously



Process Metrics

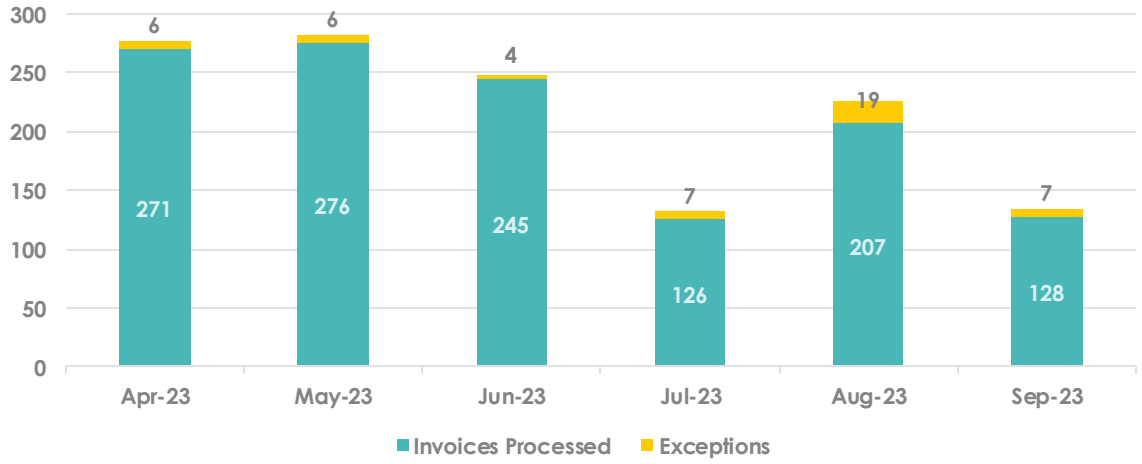
Description	Statistics
Average Number of Utility Invoices processed per Month	300
Average time per transaction to audit, key, process payment batch and print claim schedule documents in Oracle	20 Minutes
FTE/Year	0.6
Average time per transaction to request and correct errors	1 hour

Automated Invoice Processing

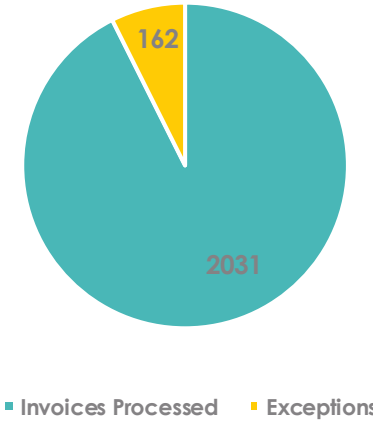


Automated Invoice Processing

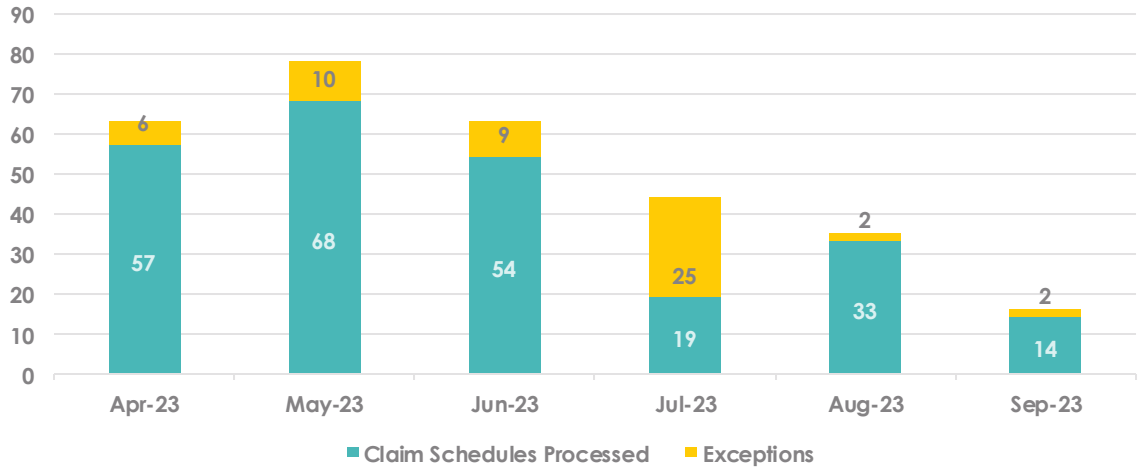
Invoices processed by month



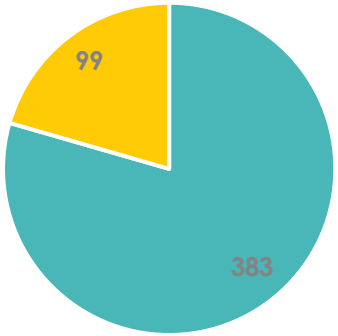
Automation success rate for Invoices



Claim Schedules processed by month



Automation success rate for Claim Schedules



Digital Imaging & Archive

DOCUMENT ARRIVAL/PREPARATION

Documents are prepared for scanning by sorting from other types of documents, mending tears, and removing paperclips and staples. Prepared documents placed in queue to be scanned.

IMAGING

Documents sent to IBML scanner. During scan process, electronic batches are created.

AUTOMATION-ABBYY

Optical Character Recognition (OCR) and Intelligent Character Recognition (ICR) of ABBYY program automates manually indexing of required fields. Batches with confidence level below threshold digitally sent to human verifiers

BOT

Compares extracted ABBYY data to the Shadow database.

VERIFICATION

Data entries with errors or Documents with low character confidence are sent to Verification station for manual verification

BOT

Structured data pushed to Robotic Process flow in UiPath

INDEXES ADDED TO SQL DATABASE/QUICKWEB

Indexes added to SQL database, images in QuickWeb

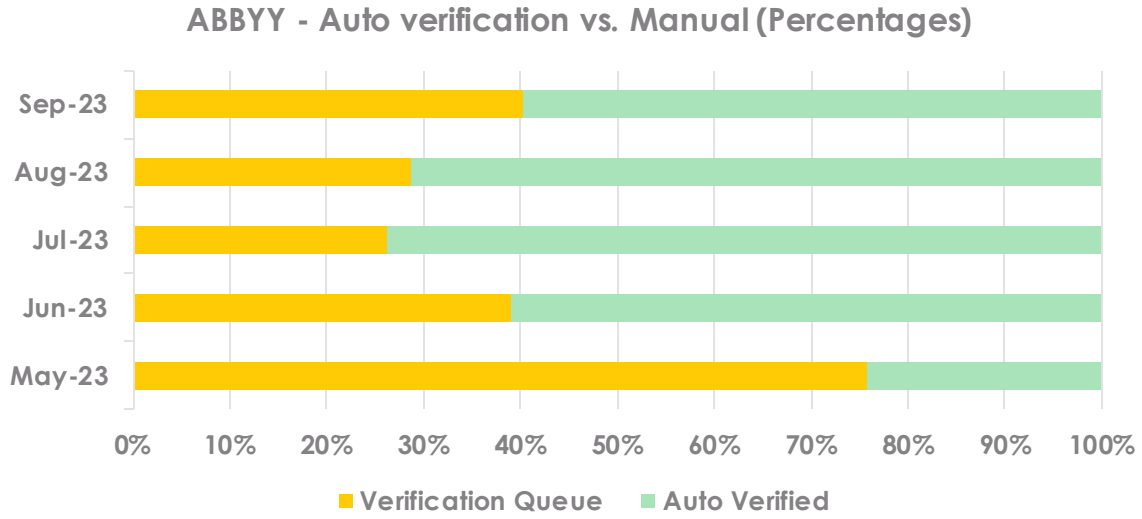
Data Mismatch

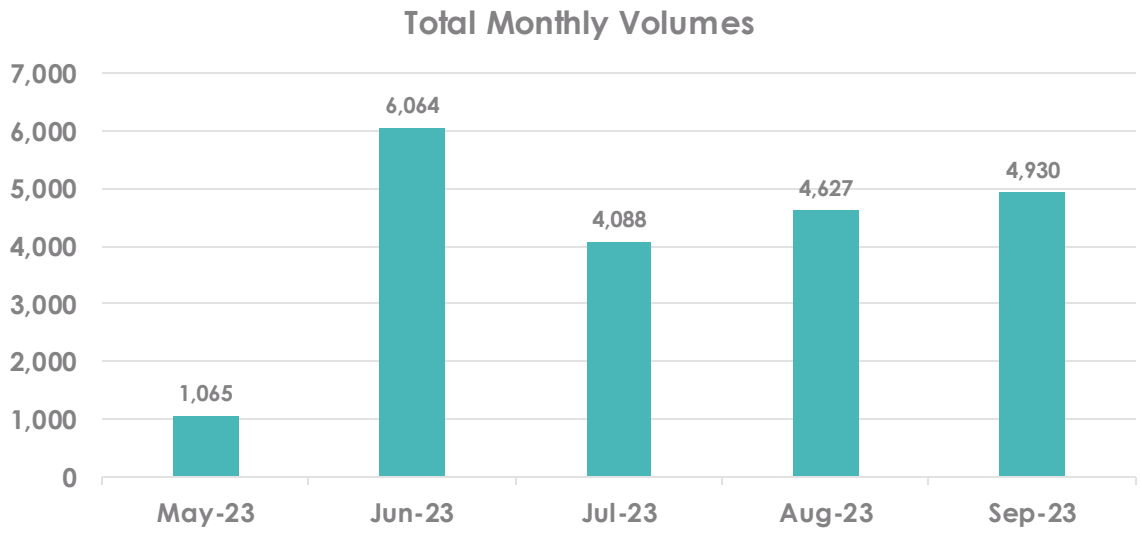
ERROR CARDS

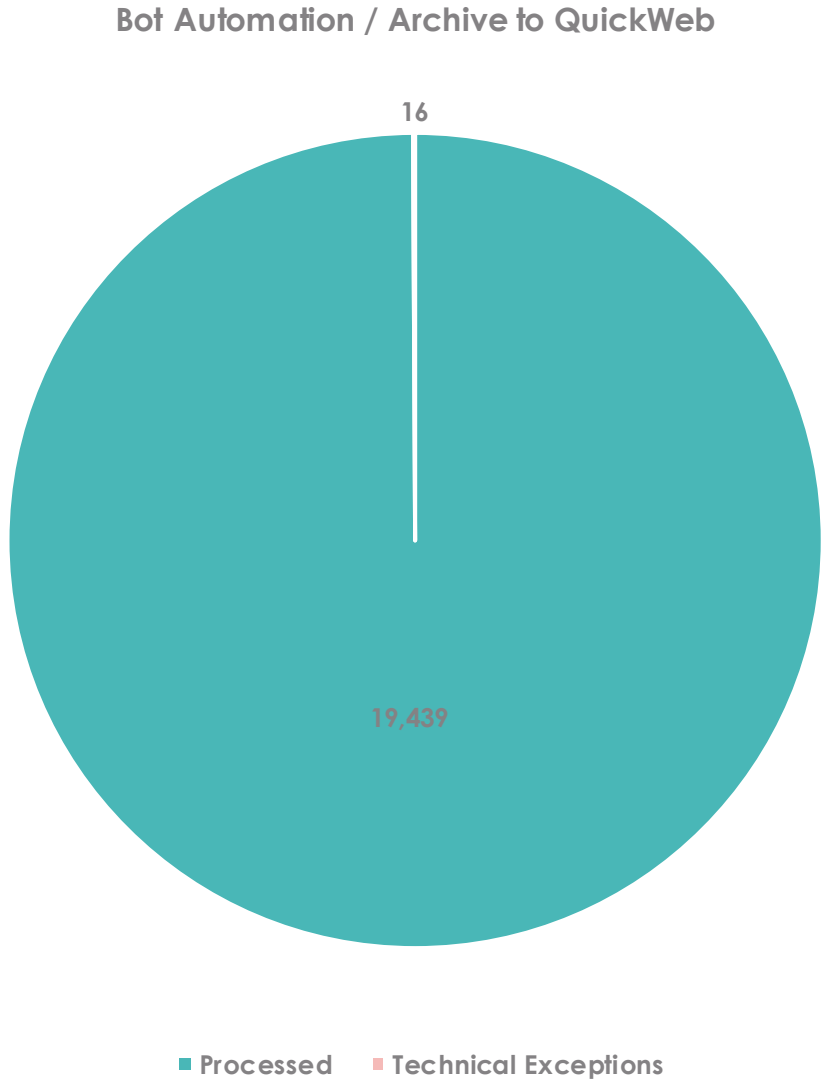
Produced by discrepancy in validation fields; manually corrected on QuickWeb

12

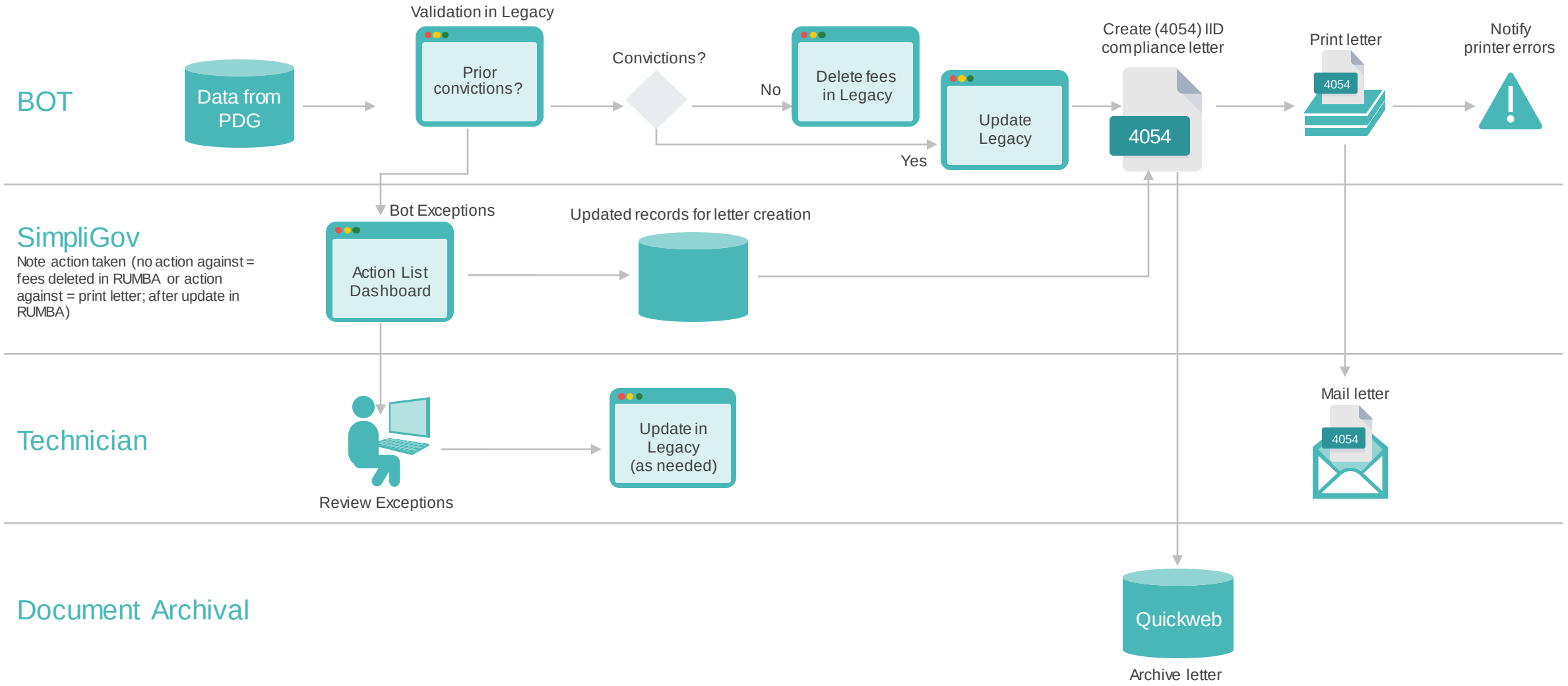
Digital Imaging & Archive



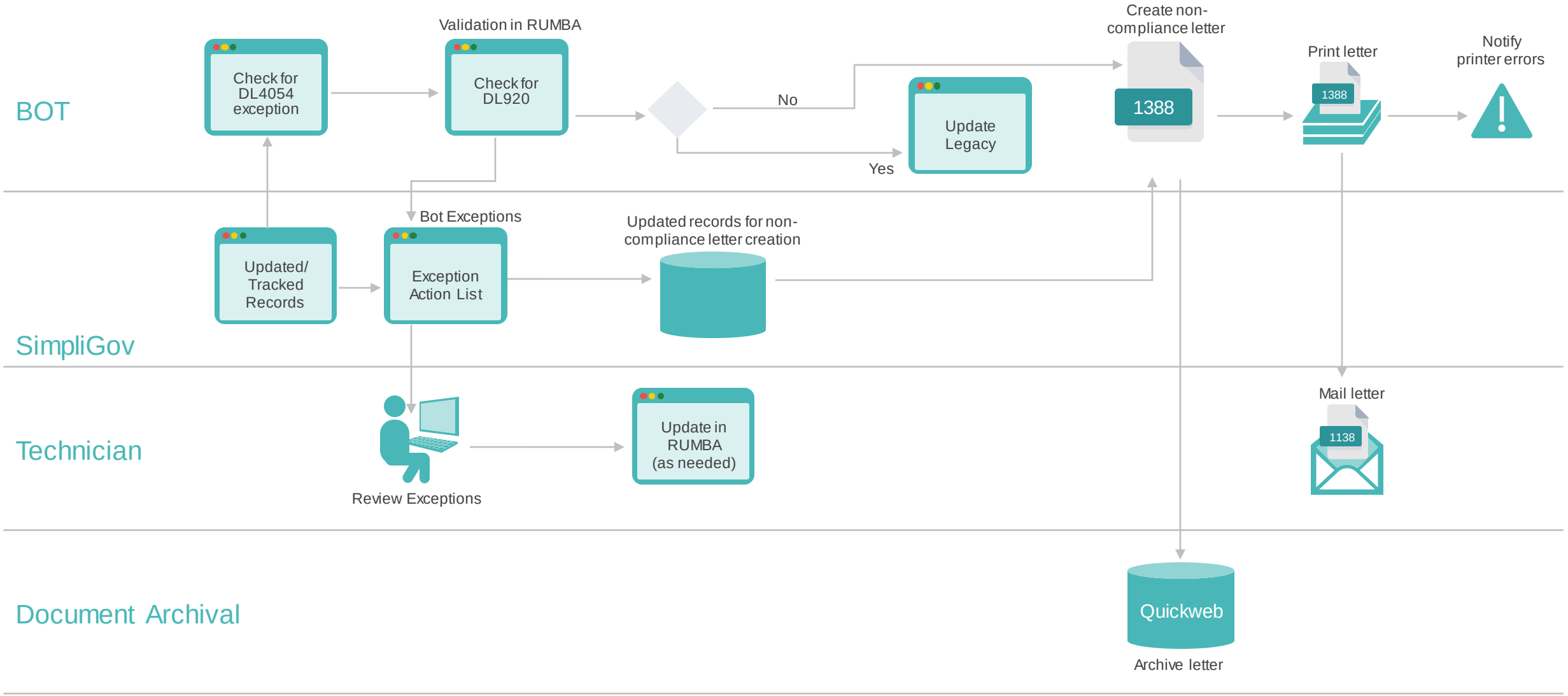




Future SB 1388 Opening Process

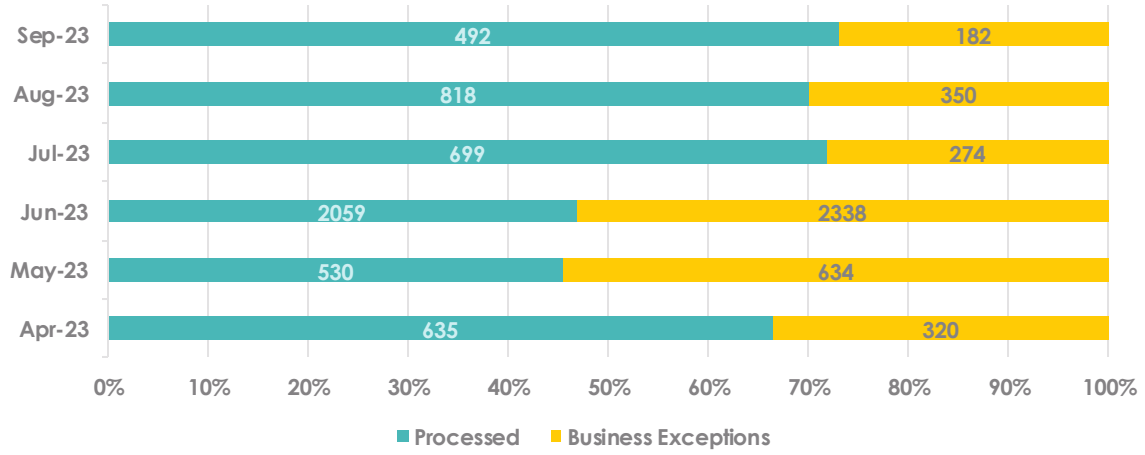


Future 1388 Closing Process

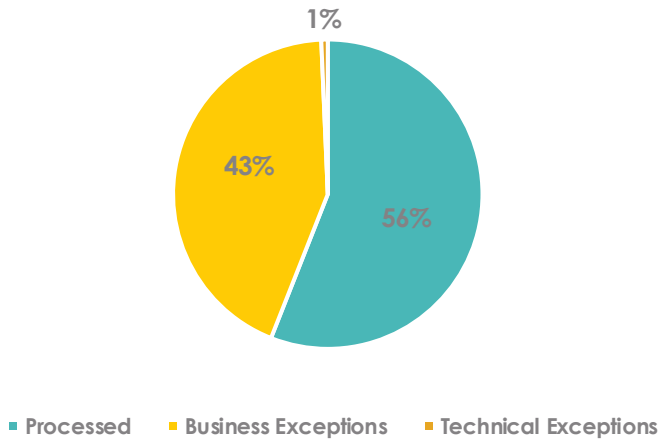


SB1388 – Ignition Interlock Device

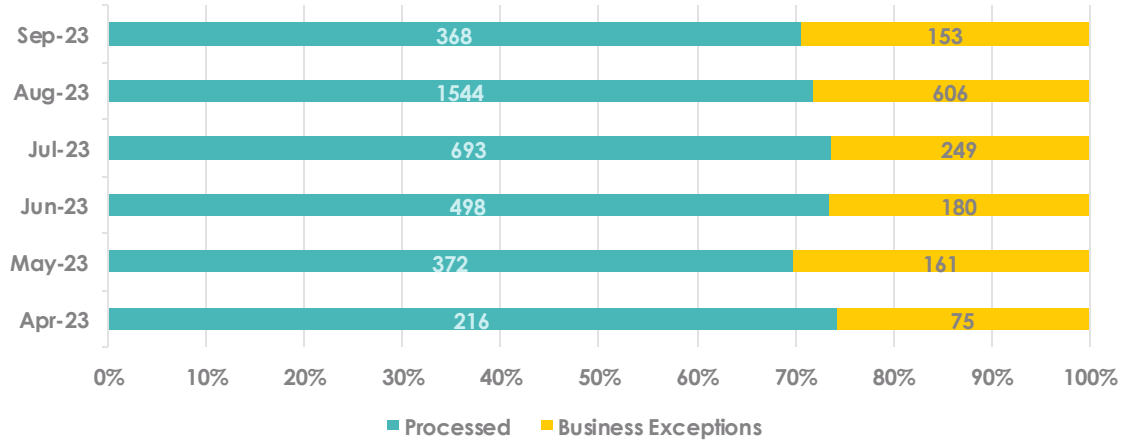
Open Cases by month



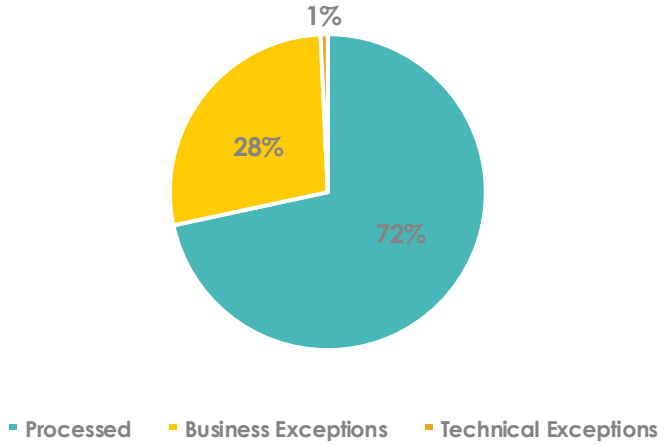
Automation for Open Cases



Closed Cased by month

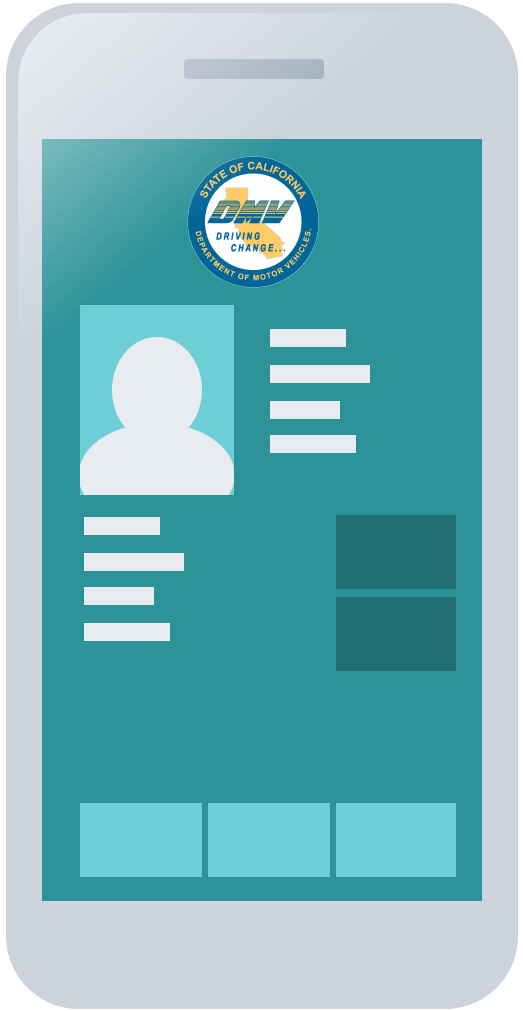


Automation for Closed Cases



Topic 9 - Mobile Driver's License Guiding Principles

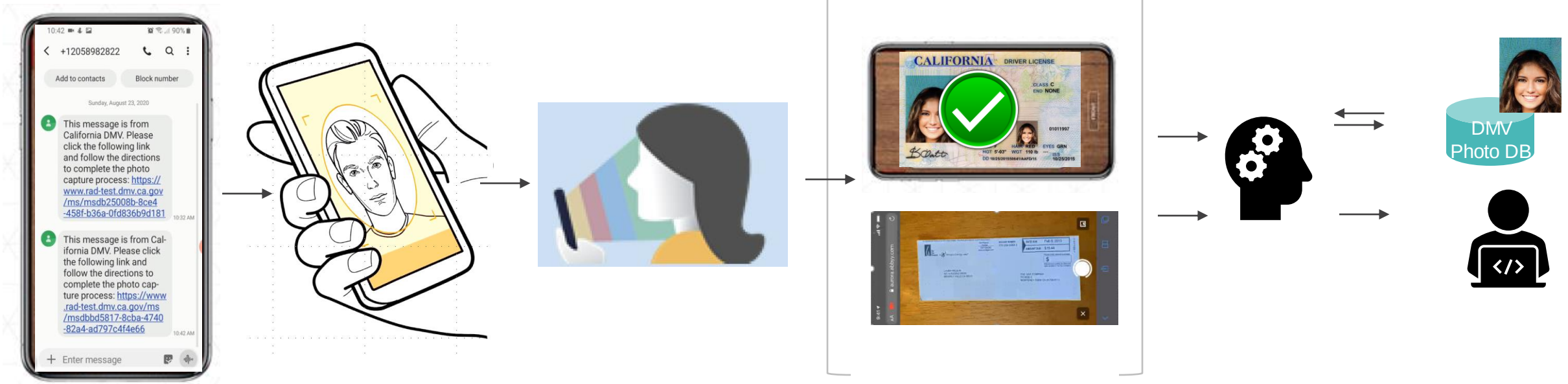
Creating an open source wallet to store and present digital credentials



- An optional, digital version of a state driving license or ID
- User control of data released from digital ID
- "Pilot First", built ready to scale (0.5%)
- A California digital issuing and management platform
  - Fair and equitable, serves all Californians
  - Secure and reliable
  - Privacy preserving, abides by California privacy law, and protects Californians
  - Future proofed: mDL & DL standards, new partnerships
  - Relying party ecosystem, public/ private sector roles

- Simpligov Combined Demo 20230203.mov
- TSA Credential Authentication Technology mID Scan.mp4
- Gartner submission: https://youtu.be/pUlOXruO2yc

Topic 9 - Proofing: Presence, Identity and Document Validation



Presence Verification

User Opts in and notified to start the verification process if eligible

User follows instructions allows access to the mobile camera and

Mobile web app detects liveness and assesses fraud scenarios

ID Verification

Mobile web app verifies Identity and other documents scanned for authenticity and information

Device and Data Verification

All documents, liveness results and selfie is sent to backend AI/Computer vision engine for further verification and data and 1:1 photo comparison

Any low confidence AI results and further processing is queued up for DMV technicians to complete the work. User reachout may be required in some cases

Topic 9 - Verify Identity – Data and Device

Digital Assessment

STEP 1

Digital Identity Intelligence

Assess the four digital behavior pillars for all digital transactions:

- **Device:** Web & Mobile Device Intelligence
- **Location:** True Location and Behavioral Analysis
- **Identity:** Identity and Link Analysis
- **Threat:** Bot and Malware Threat Intelligence

High risk/fails move to stepped up authentication →

Identity Attribute Corroboration

STEP 2

ID Verification

Validate data against authoritative source:

- **Full name**
- **Address**
- **DOB**
- **Phone**

If pass →

Identity-to-Phone Association

STEP 3

Phone Validation

Verify Phone # and phone line risks:

- **Account details**
- **Device details**

If pass →

Possession-Based MFA

STEP 4

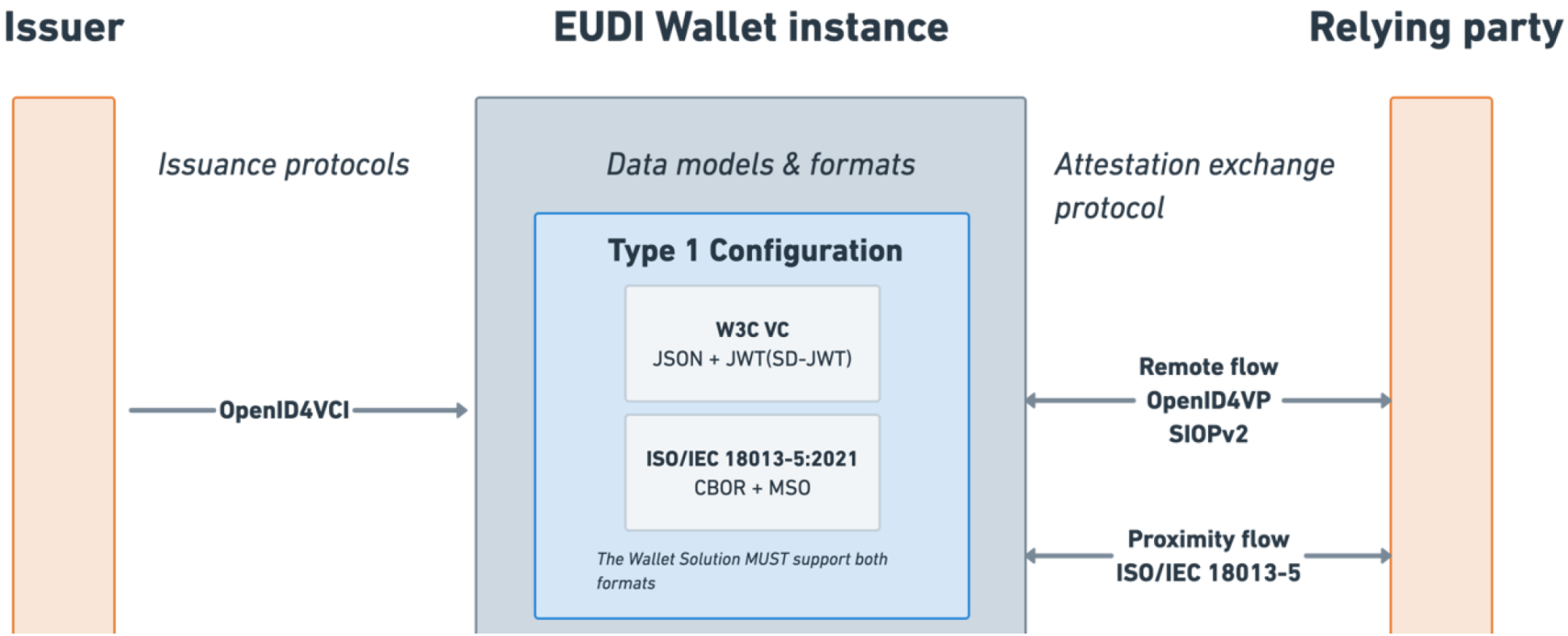
One Time Passcode

Send temporary code to a validated

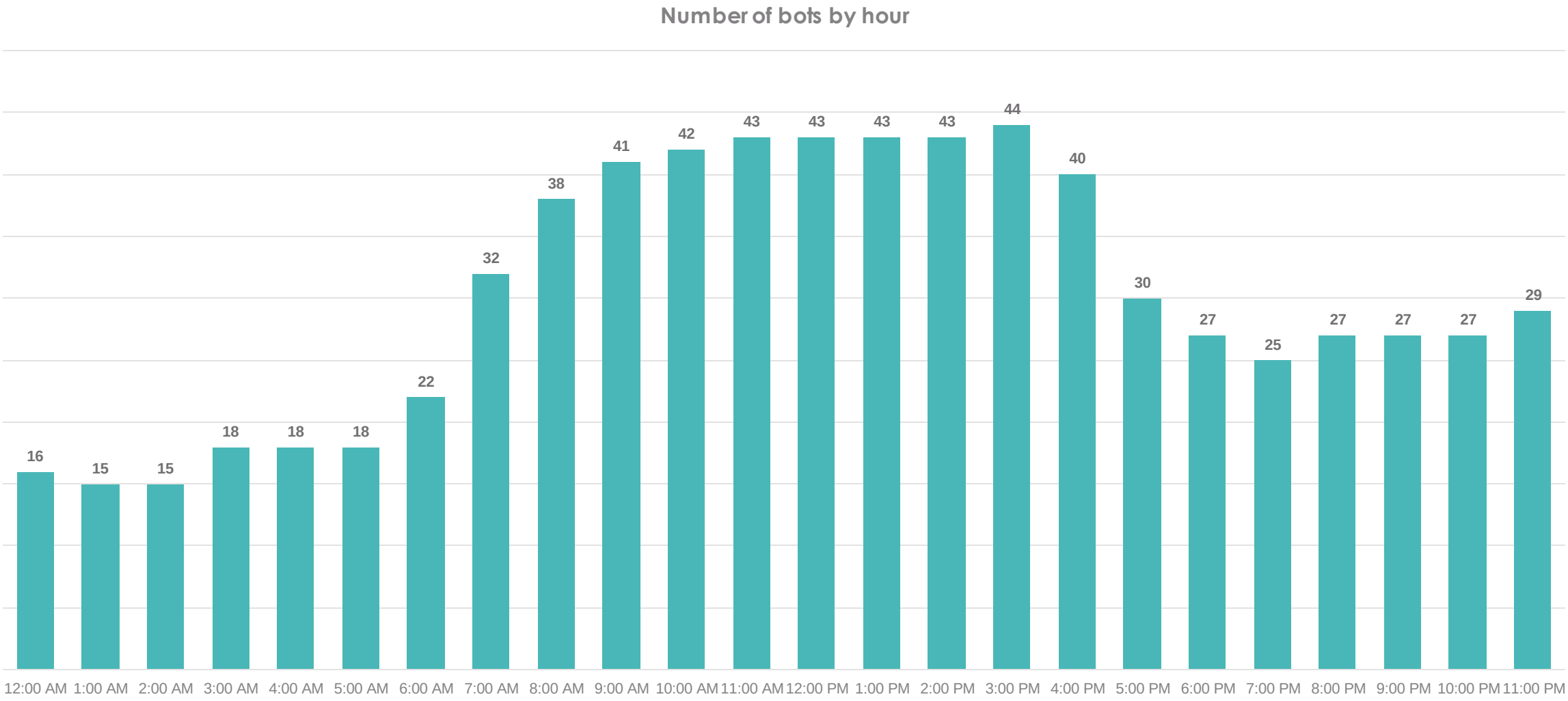
- **Mobile phone**
- **Landline**
- **Email address**

- Broad-based consolidated referential data accurately separates the low risk from the high risk immediately
- Configurable step up process introduces the proper level of friction for the level of risk identified

Topic 9 - DMV Wallet: EU Digital Wallet Framework



Automation bots at work



* Data current as of 8/25/2023 | Total bots licensed: 55 | Data Source: SharePoint Bot Occupancy Schedule

Governance of Automation and Innovation

Demonstration

Innovation and Automation Hub

- Centrally capture and manage automation opportunities and process improvements, prioritized by impact and ROI
- Centrally manage ideas - Track everything from idea to production in one place—with visibility and control
- Prioritize most impactful opportunities - Invest in opportunities that matter to your business by prioritizing them based on your own KPIs, maximizing organizational impact
- Implement faster with efficient collaboration - Accelerate improvement and automation with efficient collaboration across SMEs, developers, and the CoE
- Visualize your map to ROI - Visualize automation complexity and estimated costs and benefits to project your ROI.

Appendix

Execute Presentation

Background

- Currently, indexing is done by Fairfax software (via bar code scan or OCR).
- Identified forms can't be indexed by Fairfax due to mixture of handwritten and printed variants.

Situation

- The 3 highest volume forms indexed are MCSA 5875, Abstract Card DL 106 and No Fee ID DL 933/937 totaling 55,000 monthly.
- It takes average of 18 seconds to index 1 form.

Assumptions

- With automated indexing, labor & time savings will be a direct benefit.

Recommendations

- Automate the business process with ABBYY and UiPath.

Data / Statistics

➢ All Transactions:
55,000 monthly

➢ Workload:
279 hours monthly

➢ Positions involved:
Office Technician (OT) 27
Key Data Operator (KDO) 6
Motor Vehicle Rep. (MVR) 2

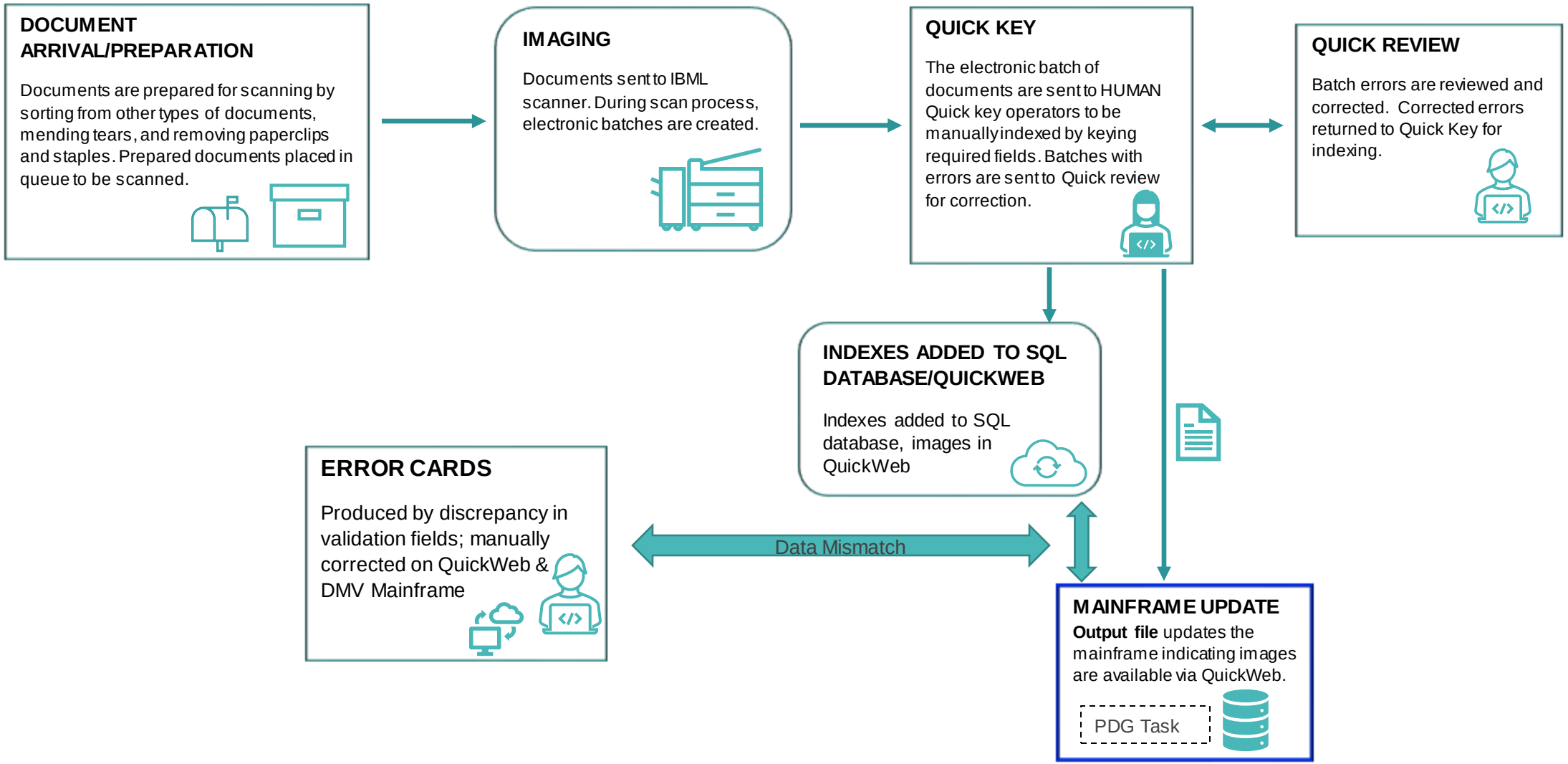
➢ Backlog
Varies (0 - 10 days)
**Bases on last 6 months*

25

DL/ID Forms and Stats

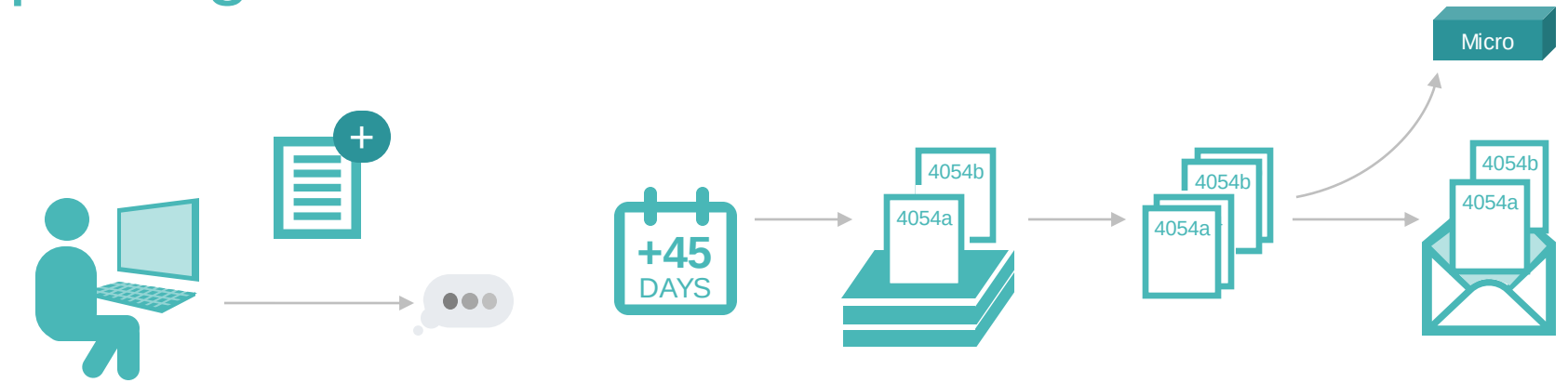
Form Name	Number of forms (Monthly)	ABBYY Efficacy	Key in time (seconds/form)	Key Time (hrs./mo.)	Potential Savings (hrs./mo.)
MCSA5875	21,000	60%	20	117	63
Abstract Card DL 106	20,326	84%	15	85	61
No Fee ID DL 933/937	13,930	60%	20	77	41
TOTAL					**165**

Current Process Diagram



27

Opening Phase



Technician goes into Driver Safety Application (DSAP) to create a case

Technician adds comment to record indicating length of IID requirement.

Technician adds suspense review date for 45 days from date of when the case was opened in DSAP.

Technician prints the notification letter and the exemption form.

The technician prints two copies, one for driver and one for QuickWeb.

Send letter to driver. Send docs to Document Imaging.

<! -- END OPEN PHASE -->

Ends open phase and 45 days later will begin close phase.

<! -- BEGIN CLOSE PHASE -->

45 days later…

DSAP sends daily emails to technicians – contains all DLs and all suspended records for that day.

Technician prints all daily DSAP report.

Complete Closing

Technician prints the H6 printout for each record.

Technician reviews the H6 record and looks for an IID or an exemption on file.

Is there an IID or Exemption on file?

- **If YES**
- Close case in DSAP
- Update decision in DSAP “closures” tab. Check off two boxes in DSAP.
- In RUMBA, technician sets a review date based on IID term requirement.
- Place IID restriction on record.
- **END**

- **If NO**
- In DSAP add non-compliance comment.
- In Update decision in DSAP “closures” tab.
- In RUMBA technician sets a review date based on IID term requirement.
- Place IID restriction on record.
- Create letter to the court (DL 4054c).
- Print two copies of the letter.
- Mail one copy to the court.
- Send one copy to QuickWeb.
- **END**

P3: Future State

- Automation will:
  - Create a letter for the customer and the court.
  - Track the compliance timeframe.
  - Add the IID restriction to the record.
  - Add images to Quick Web.

Future Process Metrics

Description	Statistics
Automation will process 89% of the monthly 2,100 convictions	1,870
FTE/Year (projected savings)	1.5