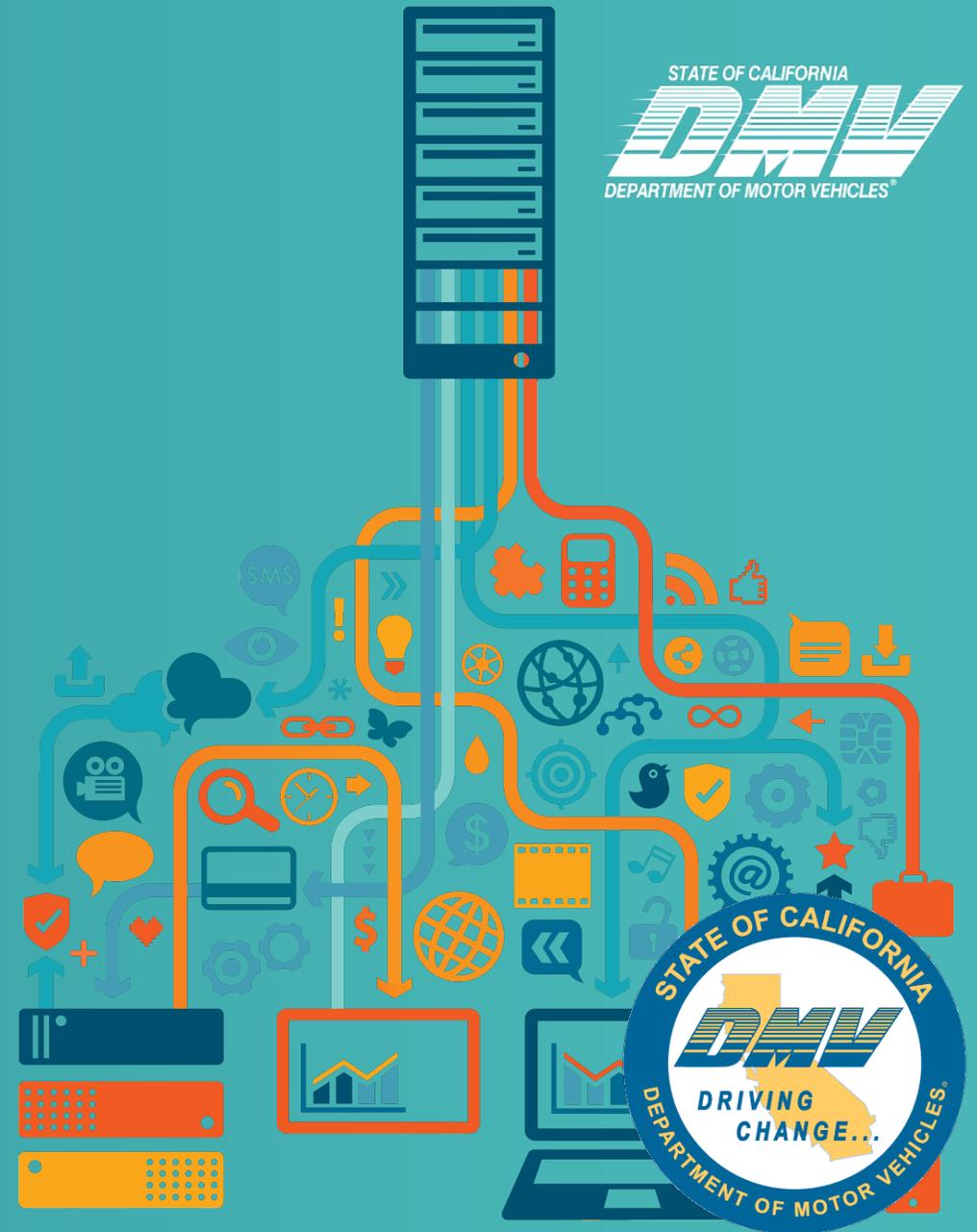


# State of California RPA Discussion Forum

Sharing our RPA journey

DMV, CDPH, OSHPD, FI\$Cal, Energy, DOT, EDD,  
CDT, CHP, Covered Cal, SCO, DGS, DOR

8/28/2020



# Topics

## Introductions

- 5 min – New departments - DGS, DOR

## Recap of the last couple of meetings

- 5 min – blueprints, ROI, candidates, lifecycle, RACI, Bots (MCP, OL, Temp DL and DLIR)

## Discuss where we are in our journeys – FI\$Cal

- 15 min – Neeraj Chauhan

## Discuss where we are in our journeys - DMV

- 10 min – Steve Gordon/Ajay Gupta

## Discuss where we are in our journey - ALL

- 15 min

## Discuss previous action items

- 5 min – shared repositories (CDT), UIPath proposal on Statewide “elastic” licensing, AI Pilot update

## Open discussion

- 5 min

## Objectives of the discussion forum :

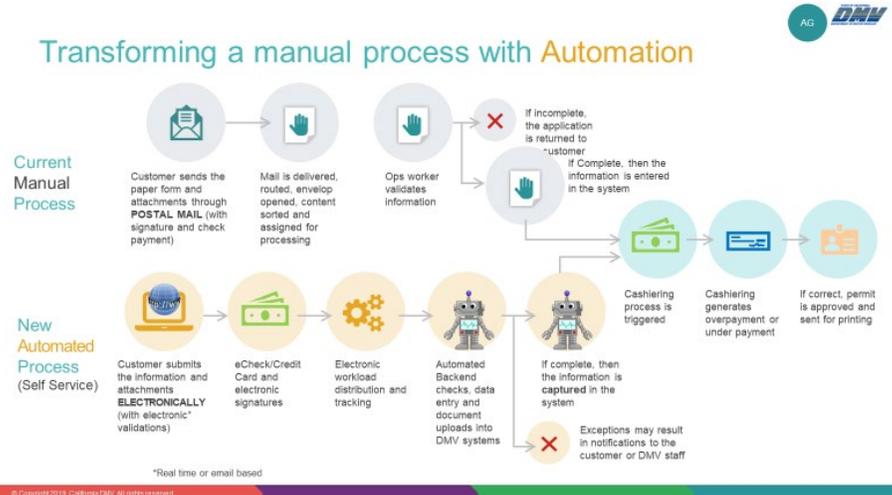
To share ideas, experiences and our journey to improve operations and gain efficiencies by implementing robotic process automation



# Recap of the last couple of meetings

# We discussed...

- RPA Blueprints



## Additional Ideas - Second Residency Verification

Current Process	DMV prints a customer specific letter, form, and return envelope	DMV stuffs envelope and mails it	Customer opens it, signs and returns it. If needed, inserts address verifications docs	DMV receives opens and sorts the documents	DMV scans it	DMV reconciles data in systems
New Proposed Process	DMV prints a generic letter instructing customer to GO ONLINE	DMV stuffs envelope and mails it	Customer is instructed to go online and sign a customer-specific form. If needed, attaches address change docs and redirected to ICA			Data automatically reconciled and digitized in DMV systems and content repository via bots

- ROI Calculation

### Detailed ROI Modeling Example, part 1

Factors, units and costs

Operational Effort		Technology		Baseline Effort	
Unit: Total # of hours used (annually)	4,972 hours	Unit: % of available bot minutes allocated to the process over a year. (usage tracked to a minute)	7%	Unit: On-time setup effort in hours (hiring, management, integration, standards)	150 hours
Cost: Hourly Rate for the Staff engaged in the current process	\$21.50	Cost: Licensing cost (include Bots, Orchestrator and Studio)	\$139,762	Cost: Hourly Rate (blended) for the COE team supporting bot implementation	Portfolio Mgr \$43.57 Technology Mgr (vendor) \$150.00 Advisor \$xxx.xx
Unit: % Yield (effective effort reduction estimated with bot implementation)	70 %	Cost of the infrastructure to host and execute the bots	TBD	Unit: # of automation projects slated to be developed concurrently (over 24 months)	TBD
Savings in materials (paper, storage) and IT (desktop support)	TBD	(Total staff operational hours in years) * (% effort reduction with automation) * (blended hourly rate of the operational staff) * (automation span in years)		Unit: # of automation projects slated to be maintained concurrently (over 24 months)	TBD
Customer interaction hours (rejections, status inquiries, delay grievances)	218 hrs/year (based on 30% rejection rate)	(IT assets annual cost to run automation) * (automation span in years)		(Setup effort) * (Blended rate of setup staff)	
Expected reduction in customer interaction hours	633 hrs/year (based on 70% success rate)	(Ongoing COE mgmt. effort by year) * (Blended rate of management/COE staff) * (# of COE years for ROI calculation)			
Automation project lifespan (years)	2 years	(Total customer interaction hours in years) * (% call reduction with automation) * (blended hourly rate of the customer support staff) (automation span in years)			

+ Efficiency gains (hours or \$\$)  
- Cost of gaining efficiencies

### Detailed ROI Modeling Example, part 2

Factors, units and costs

Project Specific Effort (Implementation)		Shared Support Effort		Other Factors	
Unit: Bot development hours	190 hours (100 dev+40 process/requirements analysis, 20 testing, 20 deployment)	Process Automation support hours (ongoing maintenance of as-is - no enhancements)	3-4 hours/week	Incentive to participate	
Unit: management time allocated to specific process	54 hours/week	(Projected Defect fix effort - weekly) * (Blended rate of Dev/Test Staff - weekly) * (# of work weeks in a year)		Gratuity for participation	
Cost: Hourly Rate (blended) for the automation team supporting process implementation	Portfolio mgr \$43.57 Integration Mgr \$51.63 Technology Mgr (vendor) \$150.00 Advisor \$xxx.xx	(Ongoing COE mgmt. effort by year) * (project duration in fraction of the year) * (bot allocation %) * (Blended COE mgmt. rate)		Managing the savings (what to release to the common pool and what to keep for new projects)	
				Grievances	\$ +
				Fines/Lawsuits	\$ +
				Backlog impact to the customers	
				Communication on the fund reallocation to stakeholders	

+ Efficiency gains (hours or \$\$)  
- Cost of gaining efficiencies

# We discussed...

## • Team structure

### Primary Implementation Actors

<b>Bot Manager/ Product Owner</b>	<ul style="list-style-type: none"> <li>Provides resources, approvals, and validates process efficiency and other business benefits</li> <li>Defines the 'New World' for their staff</li> <li>Overs day-to-day operations and business decisions; plans and manages workload distribution in the new model</li> <li>Manages post implementation automation (fixes/enhancements) pipeline</li> </ul>
<b>Process and Implementation Manager</b>	<ul style="list-style-type: none"> <li>Acts as the implementation manager, process champion, customer planner</li> <li>Defines, manages, and documents process changes</li> <li>Validates process changes and assists Bot Manager defining the 'New World'</li> </ul>
<b>Product Tester</b>	<ul style="list-style-type: none"> <li>Staff that possess in-depth knowledge about the process/product</li> <li>Participates in process and system integration validation</li> <li>Identifies and logs system errors/bugs during testing validation</li> </ul>
<b>Technology Integration Manager</b>	<ul style="list-style-type: none"> <li>Facilitates integration process, provides infrastructure for testing, stage and production environments</li> <li>Coordinates efforts to ensure system compliance on data security policies and standards</li> </ul>
<b>Compliance Manager</b>	<ul style="list-style-type: none"> <li>Responsible for validating the process automation implementation for compliance to COE established standards and DMV security policies</li> <li>Coordinates with Portfolio Manager and Audits to address potential risks and concerns</li> </ul>
<b>COE/Technology Manager</b>	<ul style="list-style-type: none"> <li>Responsible for set up and ongoing operations of the digital transformation COE.</li> <li>Assists and supports the Compliance Manager in aspects of system and data security measures and controls</li> </ul>
<b>Digital Transformation Portfolio Manager</b>	<ul style="list-style-type: none"> <li>Responsible for end-to-end execution of all digital transformation projects</li> <li>Responsible for project selection, team set up, and project planning and scheduling</li> </ul>

### Responsibility matrix for Intelligent Automation

Activity	COE	CEO	Business Owner	Process Owner	Vendor
<b>Business Requirement</b>	<ul style="list-style-type: none"> <li>Responsible for scope and direction of the overall automation</li> <li>Responsible design standards, practices and principles</li> </ul>	Informed	<ul style="list-style-type: none"> <li>Maintain the list of processes that have automation potential</li> <li>Perform the assessment to prioritize the process that can be automated</li> <li>Participate in discovery sessions</li> <li>Provides Subject Matter Expertise (SME)</li> </ul>	<ul style="list-style-type: none"> <li>Participate in the discovery sessions</li> <li>Sign-off on the process that will be automated</li> </ul>	<ul style="list-style-type: none"> <li>Participate in discovery sessions</li> <li>Develop Process Definition Document (PDD)</li> </ul>
<b>Program Setup and Governance</b>	<ul style="list-style-type: none"> <li>Establish governance</li> <li>Create ROI</li> <li>Manage resource allocation</li> </ul>	Informed	Informed	Informed	Informed
<b>Platform Administration and Operations</b>	<ul style="list-style-type: none"> <li>Maintains the solution</li> <li>Responds to incidents, Triages and prioritizes</li> <li>Validates the implementation for process, legal and security compliance</li> <li>Managed bot allocation and schedule</li> </ul>	<ul style="list-style-type: none"> <li>Deploys Robots to dev, test and production environments</li> <li>Provide access to the systems that are part of automation</li> <li>Administers users and access to dev, test production environments</li> <li>Performs periodic review of the platform for security and performance</li> </ul>	<ul style="list-style-type: none"> <li>Manages exception processing workload</li> <li>Originates incidents</li> <li>Initiates business continuity activities during bot downtime/issues</li> </ul>	Act as the project manager/coordinator	Provides guidance on platform configuration
<b>Robot Development</b>	Consulted	<ul style="list-style-type: none"> <li>Provides access to vendor</li> <li>Shadows vendor during development</li> </ul>	<ul style="list-style-type: none"> <li>Acts as the Product Owner</li> <li>Manages backlog of processes</li> <li>Performs testing</li> <li>Oversees process changes</li> <li>Plans and executes the staff role revisions</li> <li>Defines workload redistribution</li> </ul>	Act as the project manager/coordinator	Develops new Robots
<b>Process Changes</b>	Consulted	Consulted	<ul style="list-style-type: none"> <li>Defines and manages the change</li> <li>Documents the change</li> <li>Validates process changes</li> </ul>	<ul style="list-style-type: none"> <li>Defines and manages the change</li> <li>Documents the change</li> <li>Validates process changes</li> </ul>	<ul style="list-style-type: none"> <li>Recommends process changes</li> </ul>
<b>Training</b>	Consulted	Supplies candidate students	Supplies candidate students	Supplies candidate students	Provides training on the tool and knowledge transfer
<b>Security</b>	Consulted	<ul style="list-style-type: none"> <li>Enforces/validates security policies around data and access</li> <li>Implements secure coding practices</li> </ul>	Provides input	Provides input	<ul style="list-style-type: none"> <li>Implements platform security, secure credential storage and access management</li> </ul>
<b>Contract Management</b>	Measures if the goals (ROI) of the automation are achieved	Owens the contract and software subscription	Owens day to day use and SLA monitoring	Informed	Accountable
<b>Configuration Management</b>	Informed	Approves production deployment of configuration updates	Informed	Informed	<ul style="list-style-type: none"> <li>Provides development services for major updates</li> <li>Owens production deployment of configuration updates</li> </ul>
<b>Upgrade Management</b>	Informed	Implements platform upgrades	<ul style="list-style-type: none"> <li>Tests changes and upgrades</li> <li>Understands new product features</li> </ul>	Informed. Understand new product features	Provides upgrade guidance

## • Operating Model

### Operations

#### Operating Model Layers

Strategic	Identify use cases, agree on prioritization, roadmap for future, report out to leadership and executive team
Tactical	Bot outcome, benefit tracking and day to day management of bots, change management, identifying bot processes, reviewing for compliance, optimizing and prioritizing use cases
Operational	Development, maintenance and operations (Build and Run teams together), Infrastructure support. Continuous monitoring of Bots, triaging runtime issues and fixing/ fine-tuning/ optimizing. Process compliance, managing security/compliance

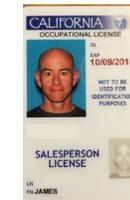
### Operations (Continued)

#### Security

Access	Provisioning, deprovisioning rules, set up roles based access control (RBAC)
Segregation of duties	Human in the loop vs bot builder BOT manager vs BOT Auditor BOT performing 2 tasks previous completed by two different profiles
Password Management	Leverage an application-to-application password management tool (Ex Beyond Trust) to maintain ID and password expiry rules/provisioning

# Use cases implemented so far (Jan-Apr)

- Motor Carrier Permit Renewal
  - Paper to online with a back office transactional bot to an Oracle forms application. 60K/year
- Vehicle Salesperson Occupational License Renewal
  - Paper to online with a backoffice transactional bot to a mainframe application. 80K/year
- Temporary Driver License
  - Web workflow with back office validation bot and document generation application. 2,500/day
- Driver License Internet Renewal Expansion
  - Augmenting legacy application via file processing and automating bulk manual transaction. 170K anticipated



### Driver License Internet Renewal

DMV is now offering the option of Federal Compliant REAL ID driver license and ID cards.

#### REAL ID

- A REAL ID card allows you to:
- Use for identification to board domestic flights.
  - Enter military bases and most federal facilities.

#### Apply for a REAL ID

If you don't have a REAL ID, we recommend getting one. You can fill out the application online and plan your office visit to complete the process. Make sure to bring your documents with you:

- A legal document to prove your identity
- Name change documents for every legal name change
- Your social security document
- Two residency documents

[Learn about REAL ID](#)



# Other progress updates

- OSHPD
  - In the process of building POCs
- CDT
  - Artificial Intelligence/ Machine Learning/ Robotic Processing Automation in May.
- Fi\$Cal
  - In the process of establishing an Automation Workgroup
- Energy
  - Implementing automation use cases



# Where are we now? – FI\$Cal



# Where are we now? - DMV

# June-August 2020 – The headlines..

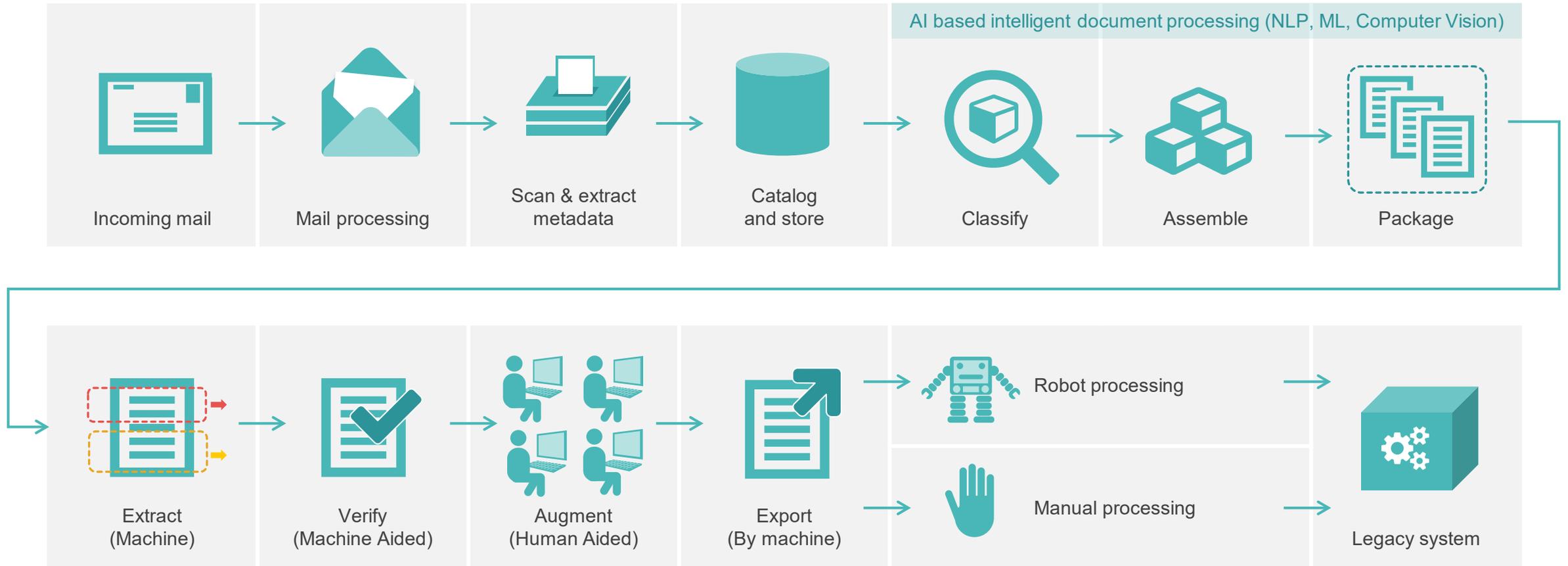
- RPA allows Second Residency customers to **complete the submission online** without having to deal with mailed in paper.
- RPA **protects Digital Mailroom crew members** during the pandemic outbreak with **remote access** to workload when **teleworking**
- RPA provides **relief to California citizens** by **temporarily extended driver license expiration date** of California drivers during quarantine
- DMV **speeds up Virtual Field Office processing** by introducing automation to process legacy payments and mail

# June-August 2020 Accomplishments – Featured Bot

## Digital Mailroom

- Use case deployed in August 2020
- DMV receives more than 5-6 million Notice of Release of Liability mail items a year.
- The automation process includes an AI engine performing analysis on scanned incoming mail items and enabling teleworking workforce to securely access paper workloads amid COVID-19 pandemic
- 80% of scanned incoming Notice of Release of Liability mail items were automated using Bot and AI.

# Use Case – Bots and AI - Digital Mailroom



# June-August 2020 – Featured Bot (Continued)

## **Second Residency Letter**

- Use case deployed in May 2020
- Customers still needed to have 2<sup>nd</sup> proof of residency were directed to submit the information online
- 800K letters were mailed out
- 125K (16%) have completed the submission electronically
- \$736K in labor savings

# Use Case – Bots - Second Residency Verification

## Current Process



DMV prints a customer specific letter, form, and return envelope



DMV stuffs envelope and mails it



Customer opens it, signs and returns it. If needed, inserts address verifications docs



DMV receives opens and sorts the documents



DMV scans it



DMV reconciles data in systems

## New Proposed Process



DMV prints a generic letter instructing customer to GO ONLINE



DMV stuffs envelope and mails it



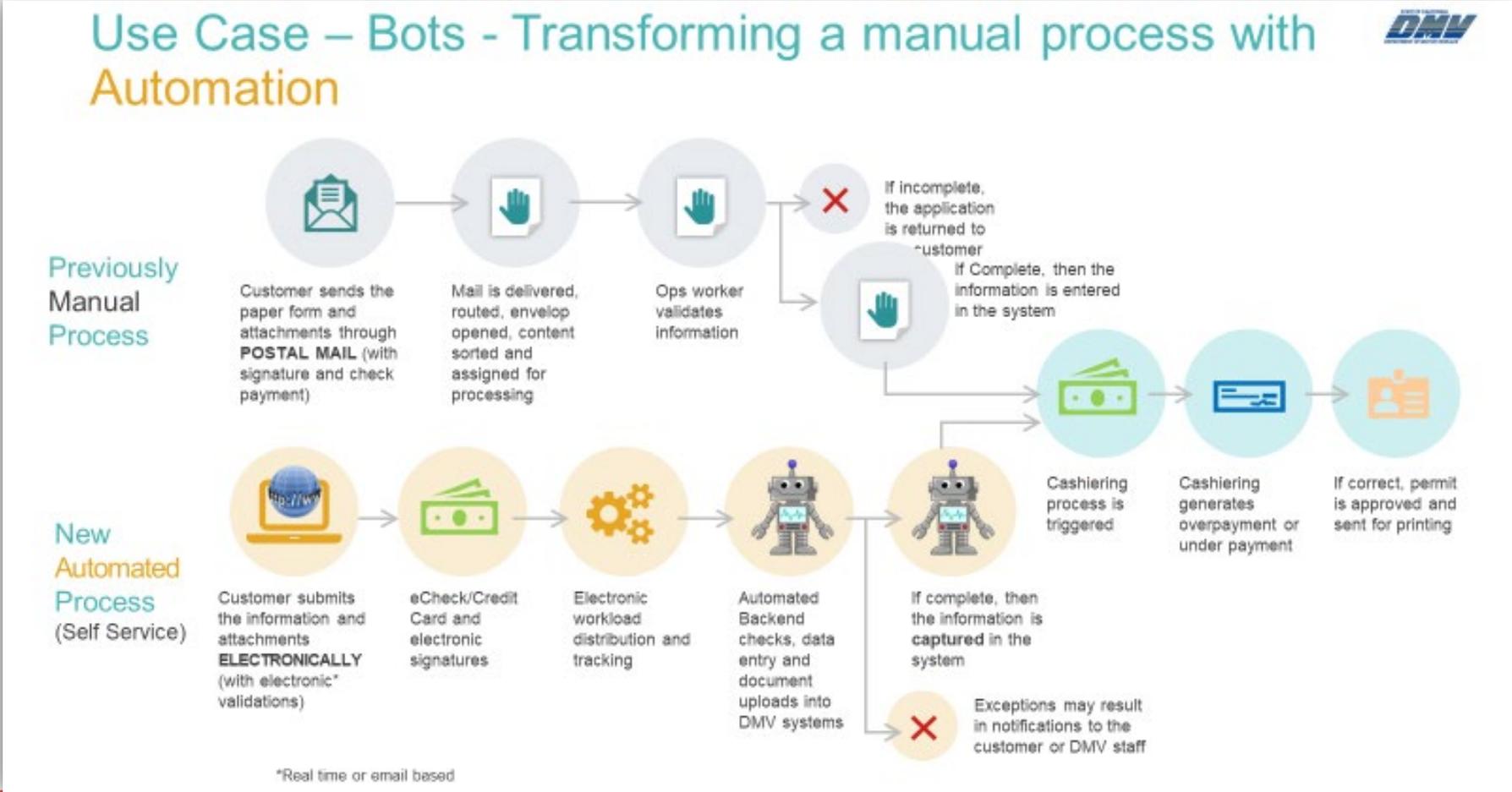
Customer is instructed to go online and sign a customer-specific form. If needed, attaches address change docs and redirected to ICA



Data automatically reconciled and digitized in DMV systems and content repository via bots

# Featured Use cases in works

- Autonomous Vehicles - Provide a new online channel for the autonomous vehicle manufacturers to obtain and renew test vehicle permits





# Where are we now? - All



# Idea sharing..

# Optimizing the bot ecosystem

- 25 Unattended bots automating 13 business scenarios and sharing multiple workloads to optimize licensing
- 24x7 bots, scheduled bots and ad-hoc bots
- Schedule driven by resource constraints/conflicts of target systems, human involvement

	HOURS																							
Robot Name	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Robot01	Motor Carrier Permit Renewal - Pre Validation																							
Robot02					Second Residency Quick Web																			
Robot03	Occupational Licensing - Pre Validation																							
Robot04	Temp DL Extension																							
Robot05																								
Robot06	Temp DL Extension																							
Robot07																								
Robot08																								
Robot09																								
Robot10																								
Robot11																								
Robot12					Second Residency Quick Web																			
Robot13																								
Robot14																								
Robot15																								
Robot16	Digital Mailroom and NRL Bots																							
Robot17	Digital Mailroom and NRL Bots																							
Robot18	Digital Mailroom and NRL Bots																							
Robot19	Digital Mailroom and NRL Bots																							
Robot20	Digital Mailroom and NRL Bots																							



# Updates on previous action items

shared repositories (CDT), UIPath proposal on Statewide “elastic” licensing, AI Pilot update...