

What's new at the DMV

Lean A3 Business Case Template

- New Concept commit template

Contact Center "Fetch Bot"

- Extending the bot ecosystem to the contact center with near real time data extraction and presentation

SR-1 Accident Bot

- Improving digital adoption with multi-channel intake strategy

Validation Bot

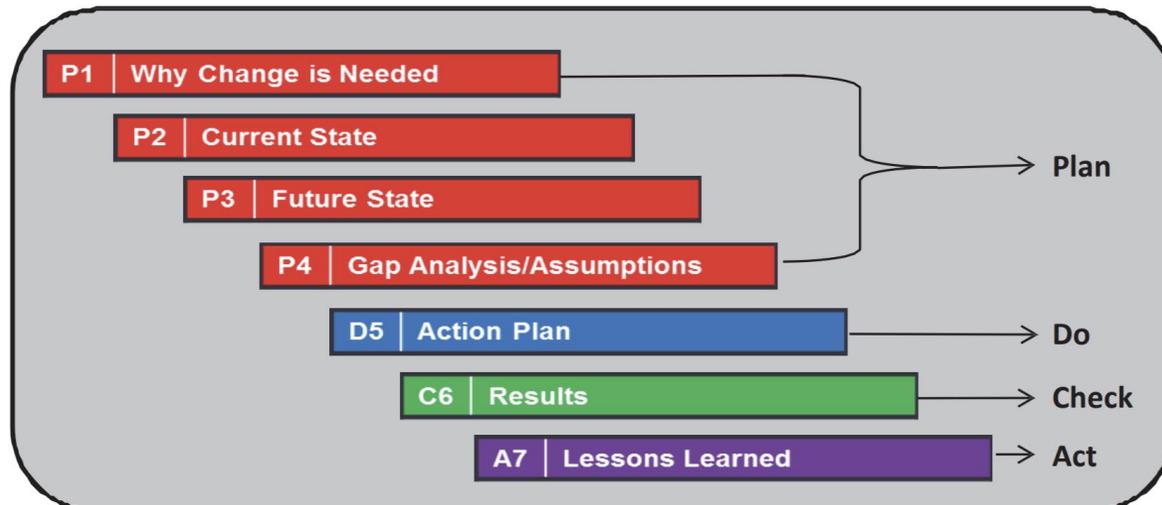
- On the go validation during intake

RPA Center of Excellence Maturity

- Picking the right projects
 - Business Case Development *New Template*
 - Concept Commit
 - Execution Commit
 - Readiness Validation *New Milestone*
 - ROI Calculations *New Minimum Viable Returns*
- Picking the right design pattern
 - Paper to Digital Bots (Using online workflow accelerators)
 - Backoffice Processing Bots (augmenting steps in a complex process)
 - Integration Bots (Queues and APIs. *New design pattern for Near Real Time*)
 - Conversion/File Bots (One time/ad hoc use in bulk)
- Sharing responsibilities
 - RACI for bot manager, business owners, technical team, executives, compliance
 - Organization readiness
- Execution and support model
 - Timelines and milestones
 - Status reporting and continuous improvement

Business Case Planning Template

- A3 (<https://www.calhr.ca.gov/Training/Pages/lean.aspx>)
 - Plan-Do-Check-Act model from CalHR Lean Academy
 - Plan phase (P1-P4) completed during the "Concept Commit"
 - Do (P5) filled in during "Execution Commit"
 - Added a new "Readiness Validation" milestone meeting prior the deployment



Business Case Planning Template

P1 Why Change is Needed

Sample Questions

- Why are we doing this?
- What is the burning platform?
- What is the chief complaint?
- What is the impact of this issue?
- Intent of the action
- Scope – Start & end points

P2 Current State

Describe attributes of the current state:

- Quantitative (Money/Errors/Amounts/Time)
- Qualitative

Graphically present picture of Current State

P3 Future State

Describe attributes of the future state:

- Quantitative
 - Money/Errors/Amounts/Time
 - Are metrics defined and achievable?
- Qualitative

Graphically present picture of Future State

P4 Gap Analysis/Assumptions

- What holds us back from the Future State?
- What are the root causes of these road blocks?
- Use Tools to ID Waste
- Brainstorm

D5 Action Plan

Action Item	Assigned To	Date Completed

C6 Results

Result	30d	60d	90d
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			

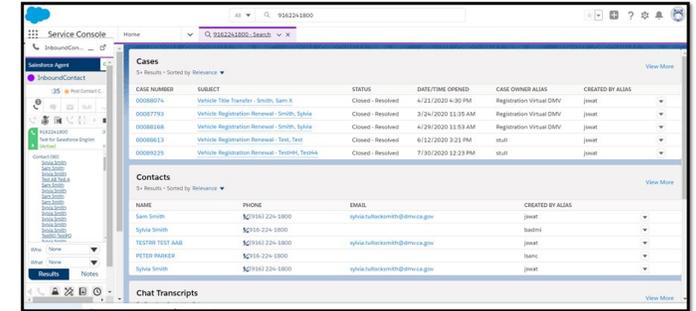
A7 Lessons Learned

Went Well/Helped	What didn't go well/Hindered

Highlighted use cases (Sept-Dec)

- Contact Center "Fetch Bot"

- Integration with Salesforce Contact Center instance with a UIPath "fetch bot" to check for caller eligibility to receive the renewal by mail form
- Customer information retrieval in real time for identity verification



- SR-1 Accident reporting

- Paper to online transformation with a back office transactional bot to a mainframe application and a content management system
- Reuse of the bot plumbing for reuse as a direct data interface with AAA Insurance



Highlighted use cases (Sept-Dec)

- Virtual field office “Validation Bot”
 - Verify on the go during intake
 - Check Vehicle VIN and Plate information
 - Check SMOG status

DMV VIRTUAL OFFICE



What Is DMV Virtual Office?

The DMV Virtual Office allows you to conduct select transactions that previously required an office visit.

This new convenient service allows you to upload necessary documents to complete your transaction. A DMV customer service representative will review and contact you to finalize the process – saving you time and a trip to a DMV office.

The DMV will be expanding available Virtual Office services.

Already submitted a case? [Check the status!](#)

NOTE: Many DMV transactions can already be completed using our online services.



Appendix..

Objectives of the discussion forum :

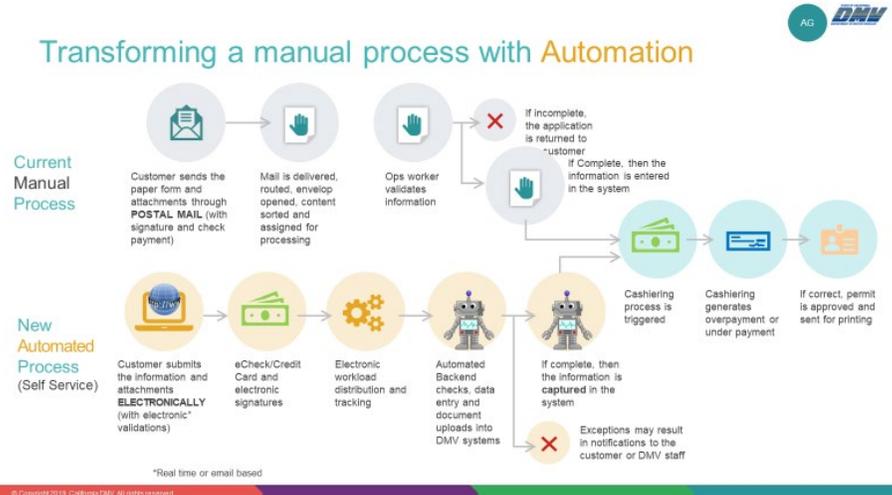
To share ideas, experiences and our journey to improve operations and gain efficiencies by implementing robotic process automation



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 verification 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 processing/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

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

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Responsibility matrix for Intelligent Automation

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

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• 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

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Operations (Continued)

Security

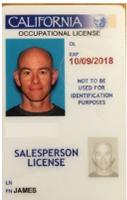
Access	Provisioning, deprovisioning rules, set up roles based access control (RBAC)
Segregation of duties	Human in the loop vs bot builder BOT manager vs BOT Auditor BOT performing 2 tasks previous completed by two different profiles
Password Management	Leverage an application-to-application password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

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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..

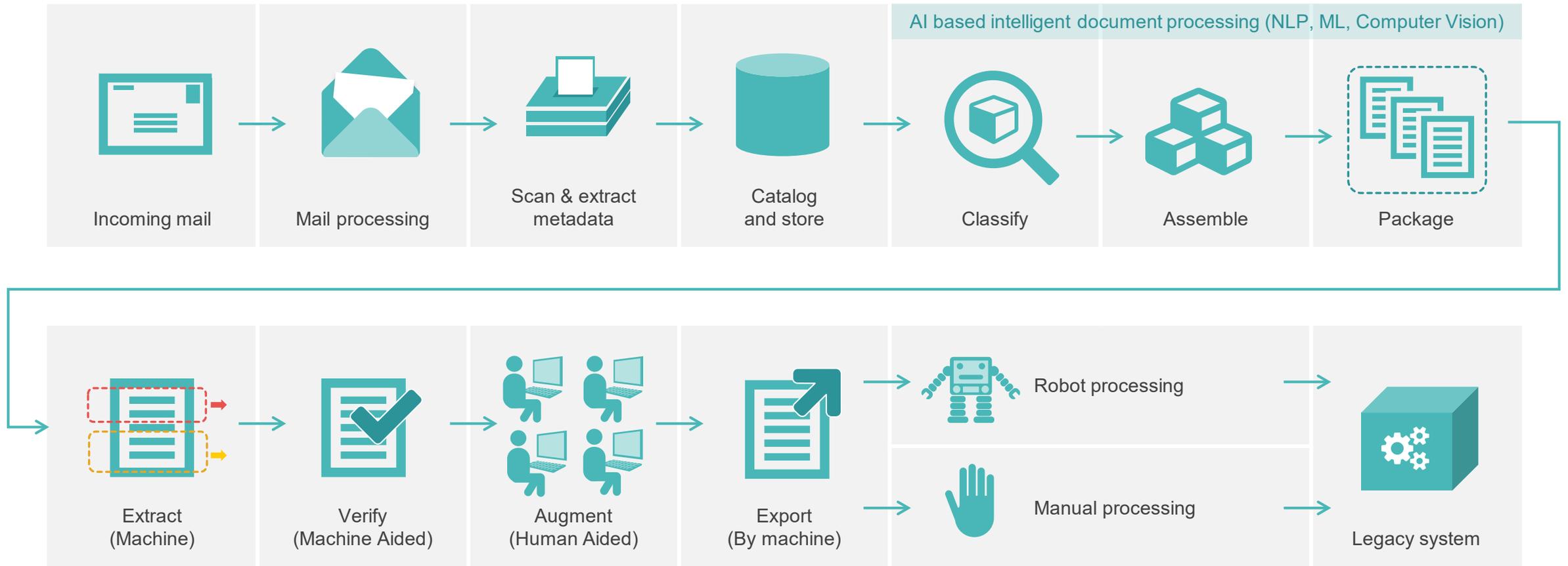
- RPA allows Second Residency customers to **complete the submission online** without having to deal with mailed in paper.
- RPA **protects Digital Mailroom crew members** during the pandemic outbreak with **remote access** to workload when **teleworking**
- RPA provides **relief to California citizens** 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 2nd 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



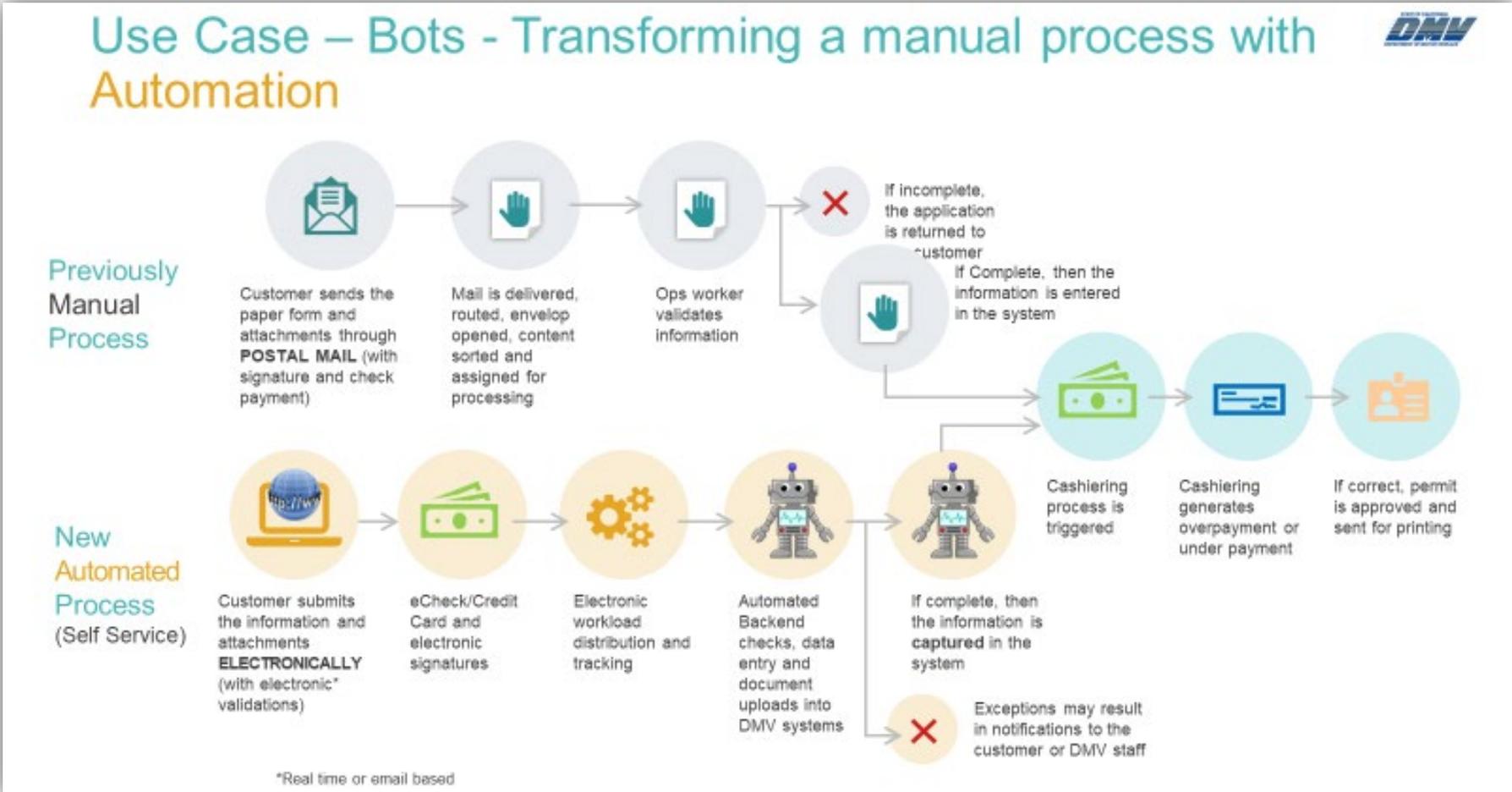
Customer is instructed to go online and sign a customer-specific form. If needed, attaches address change docs and redirected to ICA



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...