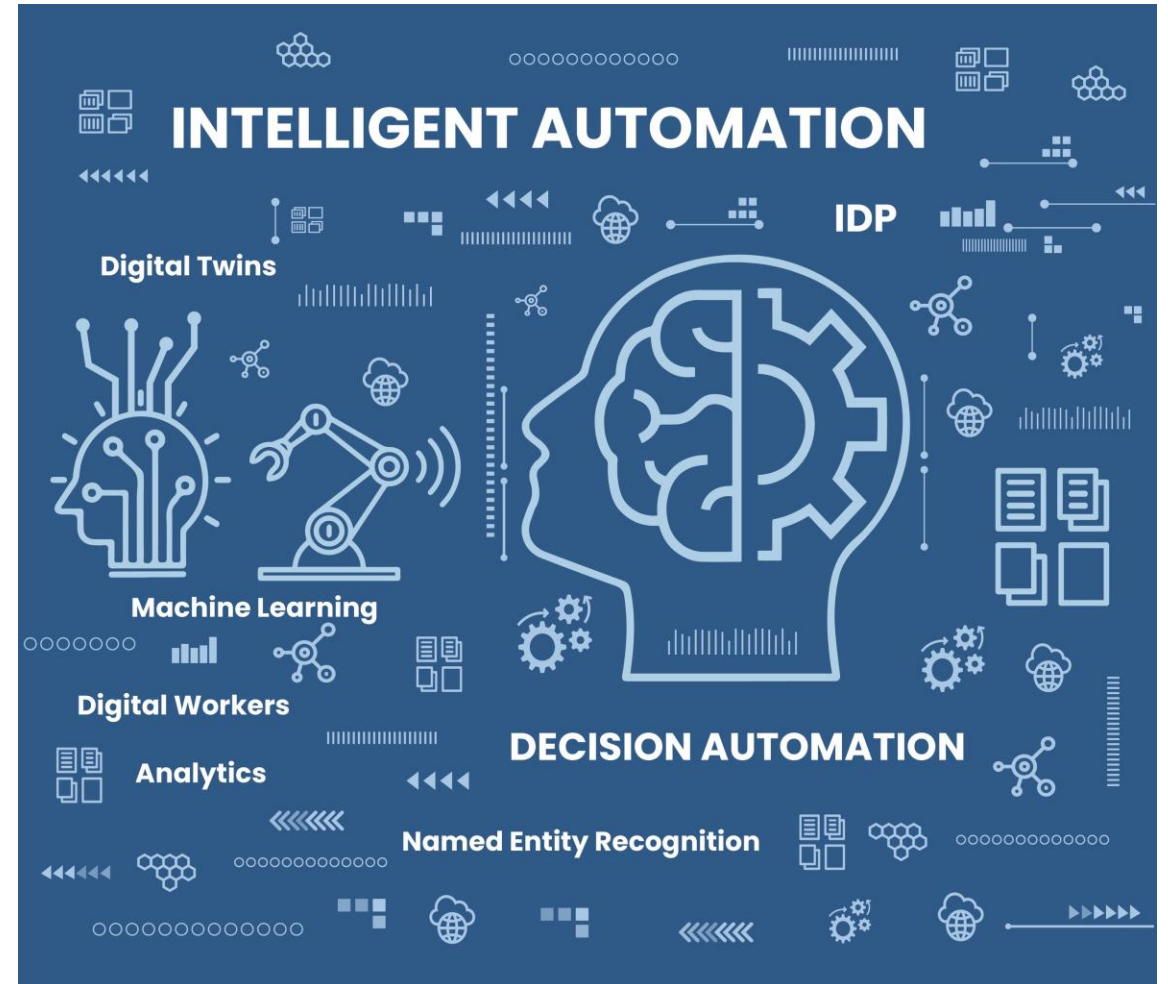


# Re-examining IDP in a World of AI, Robots, and ChatGPT

Nathaniel Palmer  
Chief Architect, Serco



# The Story of Seven Miracles...

Compound Efficiency Gains Exceeding 500%

Predictable Cost Reductions (contractually guaranteed) Plus Significant Margin Gains

Year-Over-Year Positive ROI on all Intelligent Automation Investments

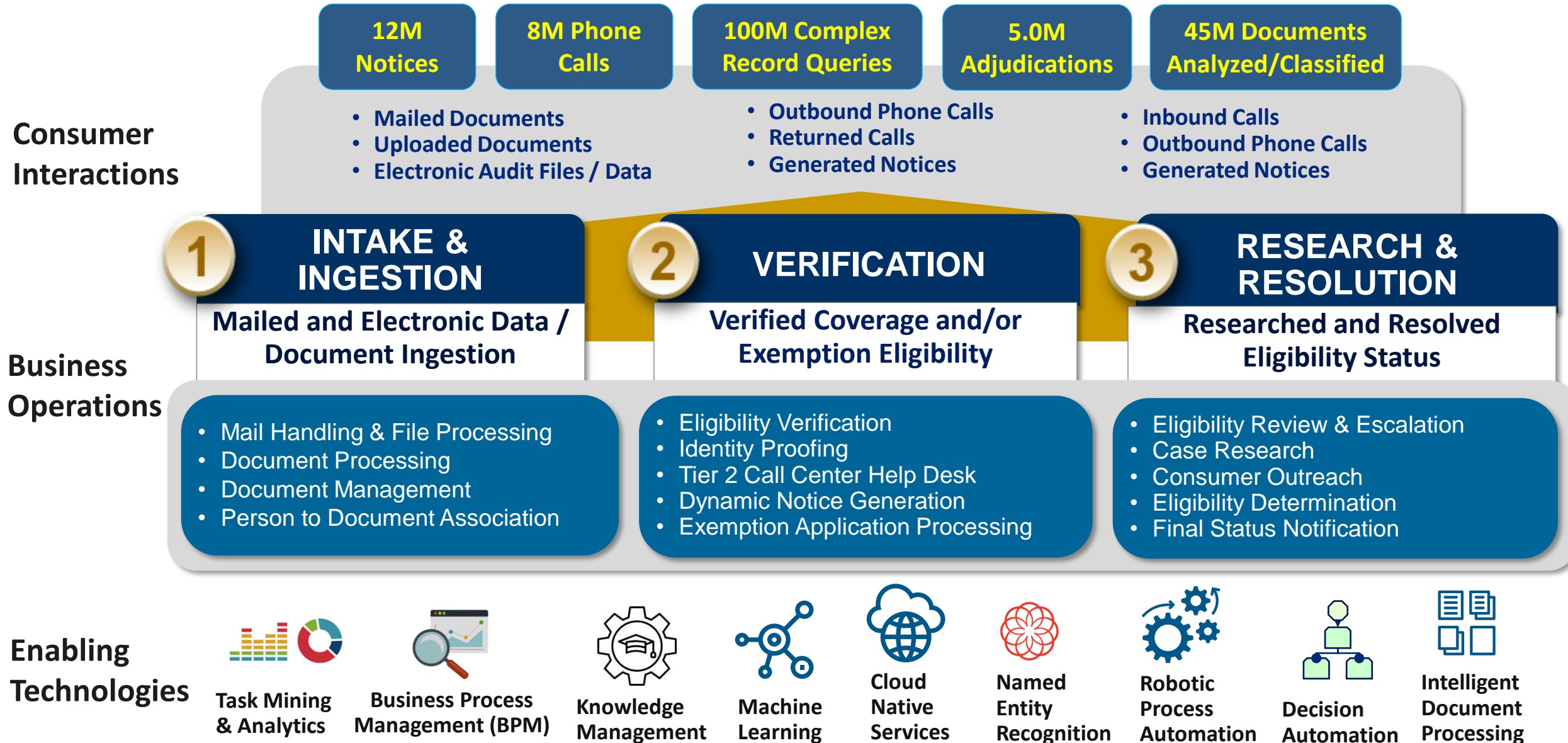
Previously Manual Complex Case Work Automated by 70% (or more) End-to-End

One-third of Work Volume Performed Without Requiring Human Intervention

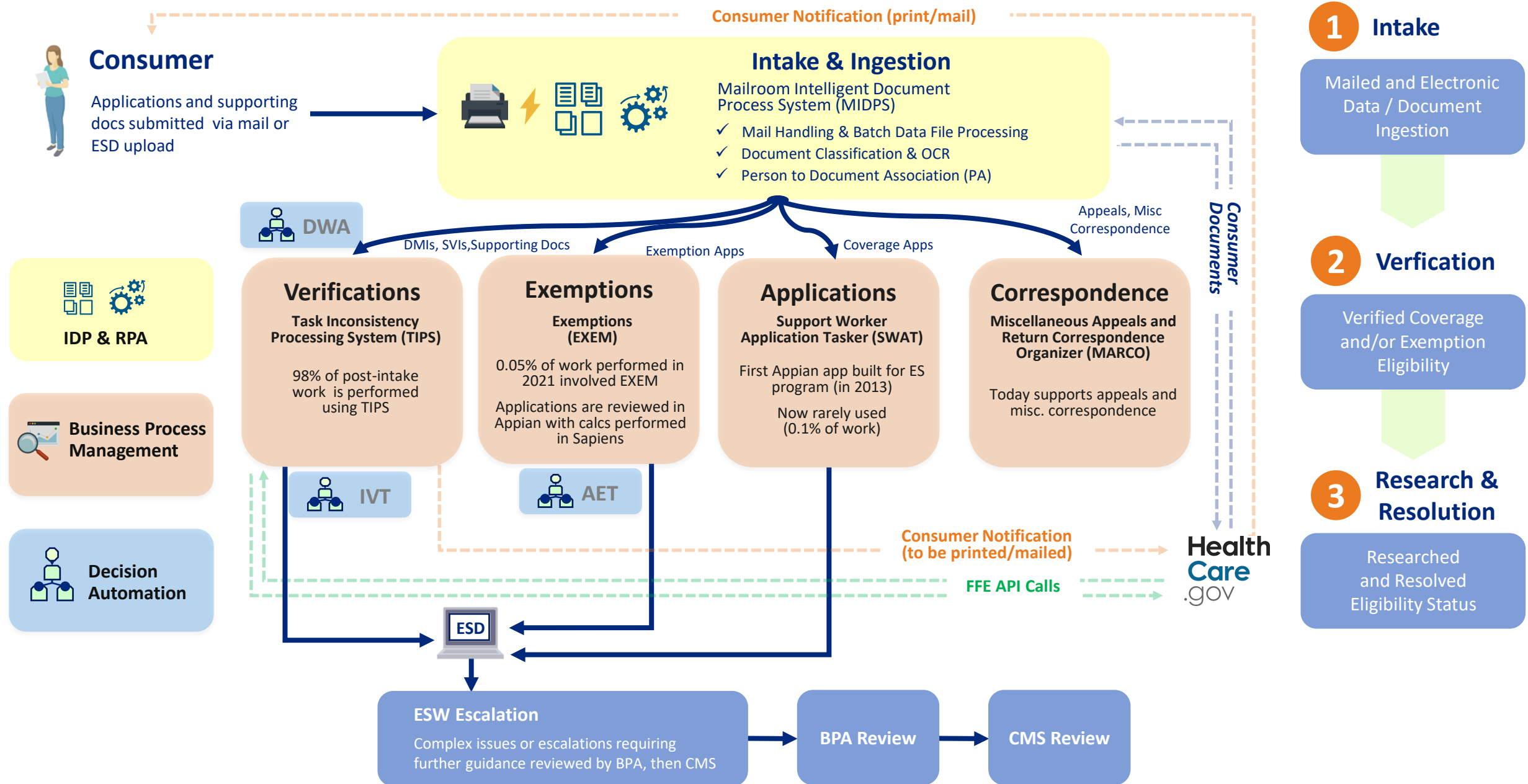
Complex Casework Performed 2-4 Times Faster With Greater Accuracy

20X Reduction in Operating Costs While Accommodating Seasonal Bursts and Lulls

# Serco CMS Eligibility Support Business At-A-Glance



# “Obamacare” Adjudication Lifecycle (circa 2017-2022)



# FROM

## Operations Designed to Peak Scale vs Seasonality

5,500 production workforce (peak staff)

4 Large Footprint (30,000 sq ft) Processing Centers

Highly manual work requiring extensive training, often involving re-work, adding delays

## Workforce Challenges

Lack of reportable analytics led to challenges in prioritization and efficient staff utilization

Tasks reliant on CSRs following detailed work instructions, training, and manual QA checks

## Low Margins Business Model

“Cost Plus Fixed Fee” (CPFF) model where the U.S. government carried all the risk in exchange for a low margin (e.g., the fixed fee)

# TO

## Significant Reduction in Peak Operational Footprint

1,000 +/- production peak staff

Remote Processing & 3 Small Regional Centers

More automated, streamlined processing with demonstrably higher quality & efficiency

## Optimizing Program Integrity

Consistent performance ensured via enforceable business rules and automation process steps

Clearly defined SLAs reported weekly

Workers freed to focus on supporting the consumer

## Risk Transference & High Margins

Fixed Unit Price where U.S. government faces no financial risk; margins are in our control and performance is both consistent and transparent



**This transformation was made possible through co-creation with customer stakeholders and the engagement of highly-skilled, domain-specific strategic partners**

You may ask yourself,  
**“WELL, HOW DID I GET HERE?”**



# Program Imperatives: Opportunities & Constraints

- Ensuring program integrity **by ensuring that** all work (every task) is performed consistent **with the (often fluid)** rules and policies **set by the customer and legislation**.
- **Managing work queues by** ensuring the right work gets to the right worker at the right time, **driving optimal workforce utilization despite** constantly fluctuating work volumes.
- Driving Efficiency and continuous cost savings **across all program through automation and task simplification of work involving resolution of** challenging issues and often ambiguous context, **requiring hand-offs and escalation, while using a diverse data sets**.
- Improving the Consumer Experience **by automating routine work while providing workers with the tools, information, guidance and training** to help consumers resolve complex cases in a more tailored but timely manner.
- **Leverage** data analytics to improve operational performance and consumer outcomes, **as well as to support policy decision making and assessment**.

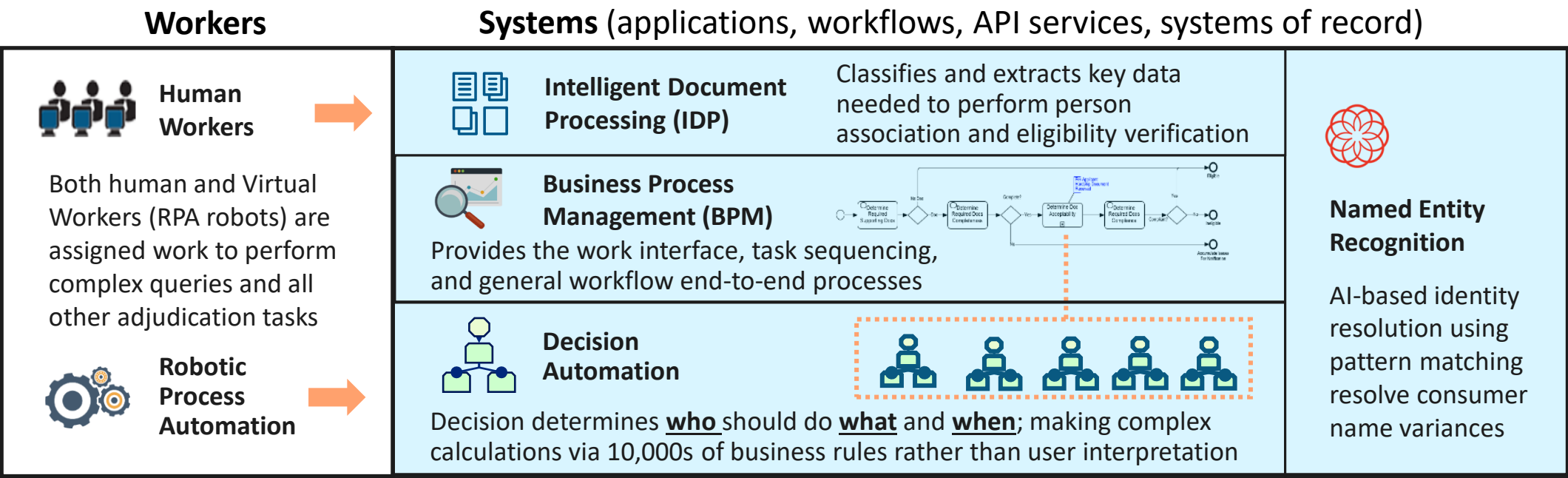


**Digital Transformation and Intelligent Automation** requires re-envisioning the structure of the task **to be not a single, discrete unit of work**, but business outcomes, and to remove the distinction between **what supports a task and the task itself** – as well as who performs the work



# The Focus is on the Worker (Human & Robot) Not the System (RPA is not a system)

Robots and humans log-in to the same core systems, **ensuring the same rules and controls are applied, with the same level of reportability, while allowing the same quality assurance to be performed, allowing program integrity to be ensured**



# Our Transformation Journey So Far...

## How We Made Automation Intelligent



**Phase 1: Document Automation:** Greater Automation Efficiency  
with Reduced Manual Work; Enabling Straight-Through Processing

Machine Learning and IDP accurately process tens of millions of documents, automatically classifying and extracting key data (all previously manually keyed) with automated validation



**Phase 2: Assisted Searching & Retrieval:** Securely Accessing & Uploading  
to the Government Systems Using Existing Security Controls & Protocols

RPA securely accesses government systems (with full user authentication and security controls) through API and legacy Web-based user interfaces; tens of millions of complex queries performed with greater accuracy and substantially faster than capable by human workers



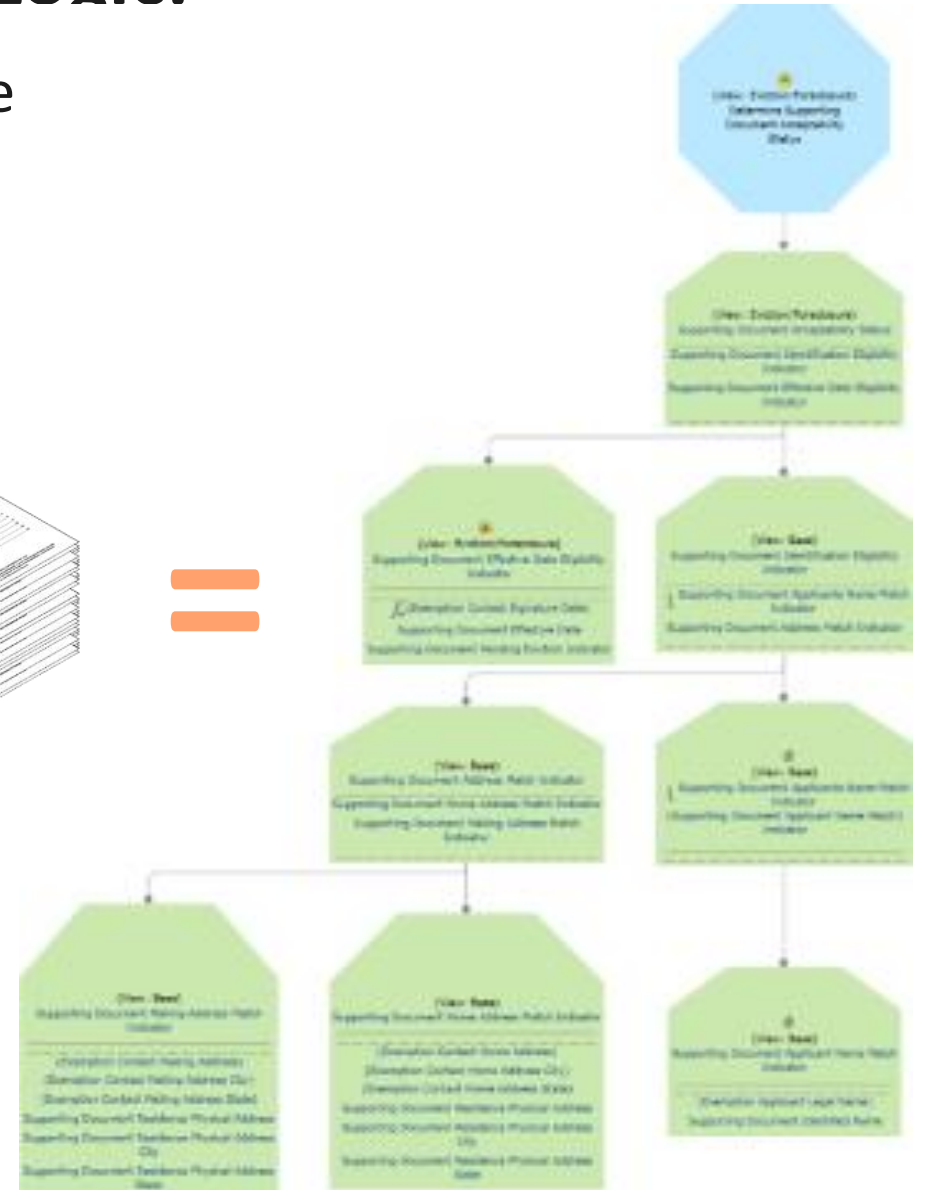
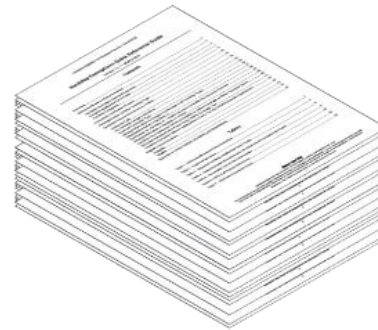
**Phase 3: Robo-Adjudication:** Faster Processing; Less Research Time;  
More Precise Analytics; Less Re-training and Required Specialization

RPA software is assigned tasks and performs each step as would a human worker, performing work with the same program rules and policies applied to human workers; delivering greater accuracy, efficiency, and quality of work; less reliance subjective rule interpretation; more accurate analytics; ensuring program integrity

# From Static SOPs Manageable Business Logic:

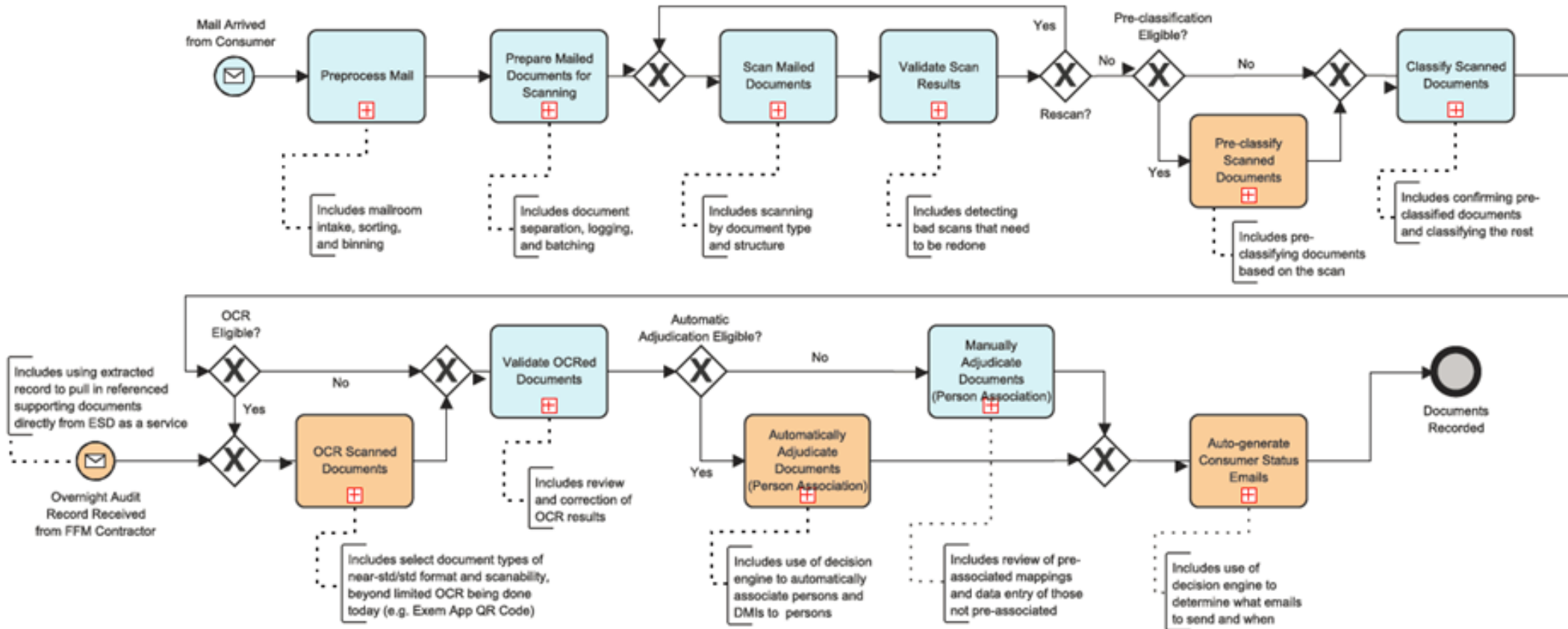
Adopting Decision Automation was the Critical First Step to Intelligent Automation

- Transformed 1,000s of Policy Pages and Reduce Days of Training With Manageable and Measureable Decision **Models Owned and Controlled by the Business**, Not Dangerously Locked Inside of Application Code
- Gained Analytics and Audit Reports Based on Actual Decisions and Actions Taken
- Allowed (all) Workers to Leverage Very Complex Rules Using Existing Interfaces

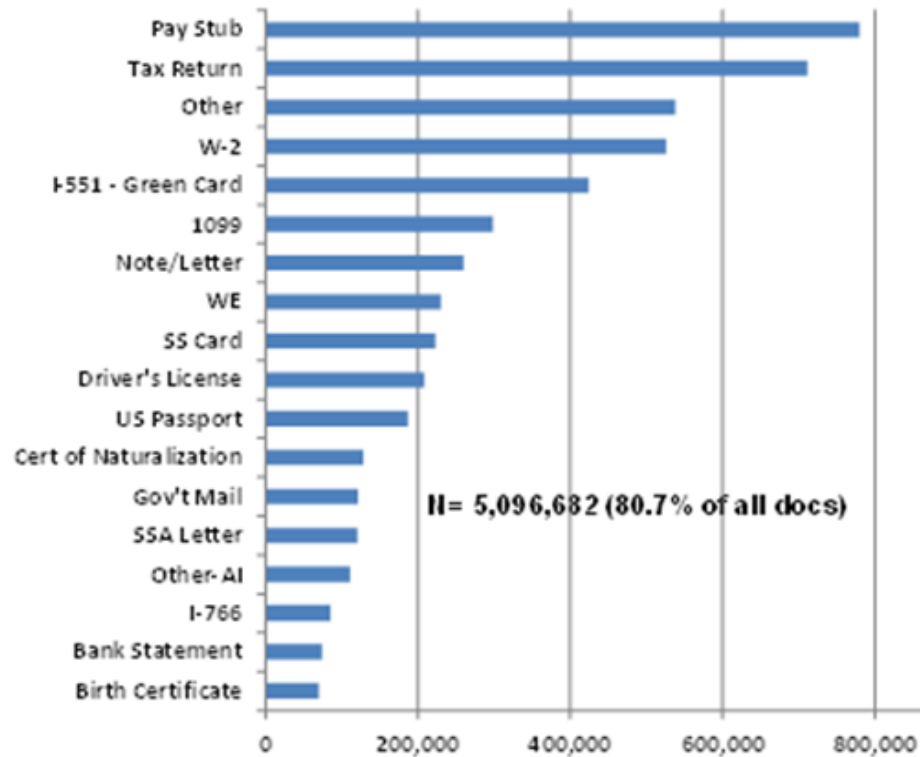


# Pivoting From a Mailroom Mentality:

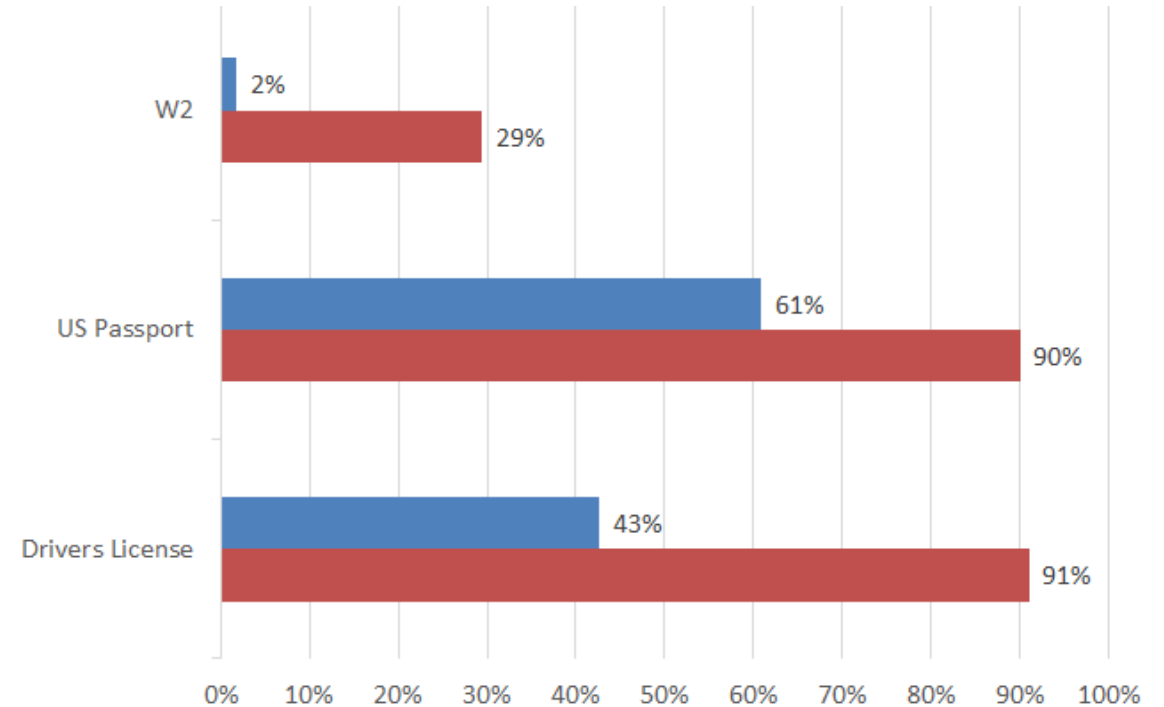
## Our IDP Journey From Cost Center to Profit Center



# Our Problem Space Isn't Capture & Recognition, It is Classification & Association (*"How much does STP failure cost?"*)








**Document Types  
& Volumes**








**Straight-through Pass Rate:  
Core IDP vs AI-enhanced**





# Bringing LLMs to Work (what it means to us and why)


 The text you provided appears to be a **Form 1099-DIV**, which is a tax form used in the United States to report dividends and distributions from investments. This form is issued by financial institutions to investors, providing them with the necessary information to report their investment income on their tax returns. The document provides details about dividends received, distributions, withholding taxes, and other relevant information related to investment income for tax purposes.   





 M for who?


 The document you provided, which is a Form 1099-DIV, is intended for **John C Harris**. It contains information about dividends and distributions from investments that John C Harris received during the specified tax year. This information is used for tax reporting purposes.   





 M for what tax year?


 The specific tax year for which the Form 1099-DIV is applicable is **2021**. This form provides information about dividends and distributions received by the recipient, John C Harris, during the tax year 2021.   





 M who is the payer?

 The payer mentioned in the Form 1099-DIV is **Leidos Holdings, Inc.** This is the company that issued the form and is responsible for providing the dividend and distribution information to the recipient, John C Harris, for tax reporting purposes.   

 M can I ask you questions about this text? July 7, 2023  
To whom it my concern:  
My name is Ivisleydis KENT. I worked at La Colonia Medical center located in Hialeah, until May 31, 2023; rate \$17 per hour. I'm not currently working. So far, this year I have reached an income of approximately \$14,000.  
Sincerely,  
Ivisleydis KENT

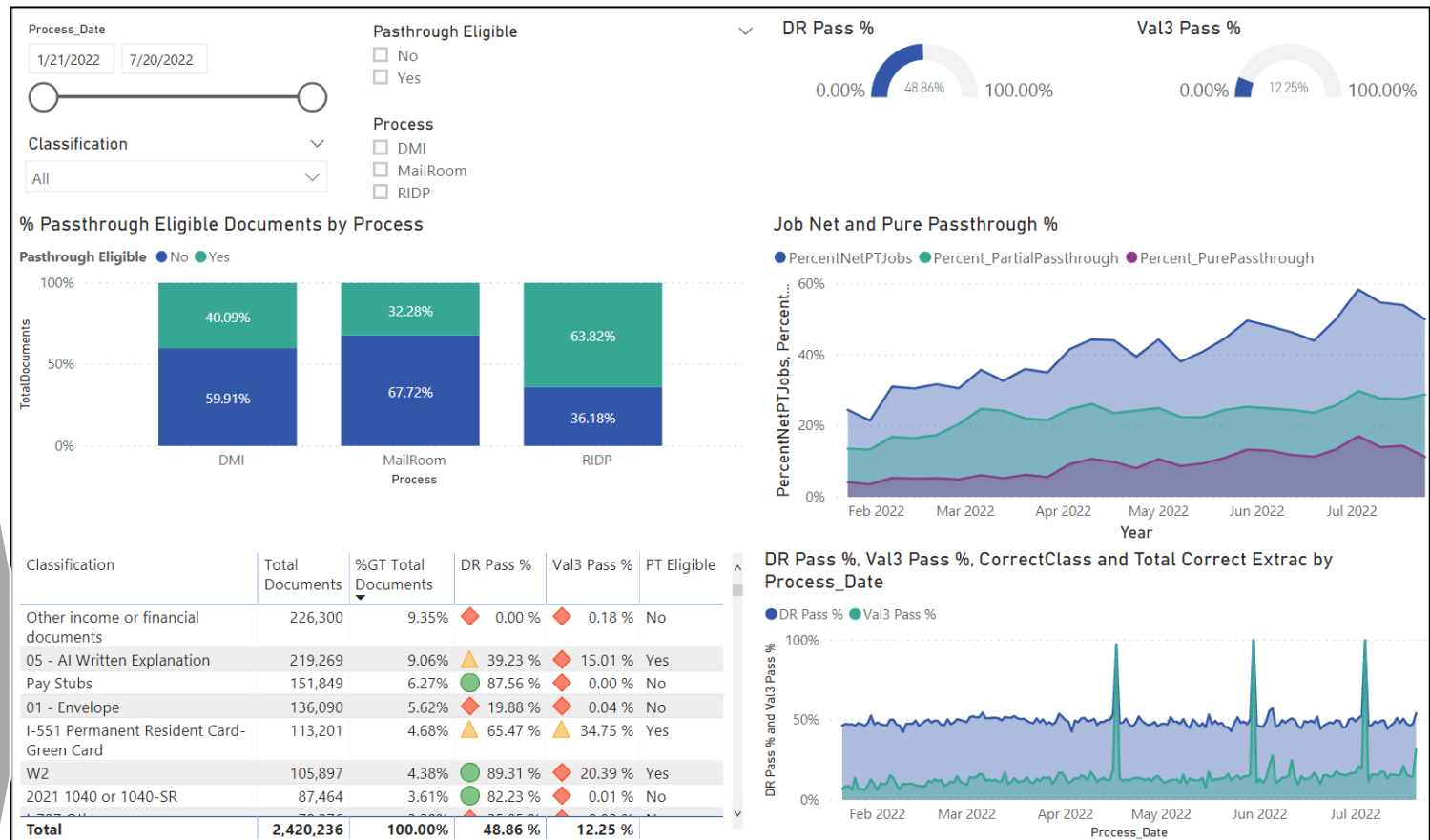
 Of course, feel free to ask any questions you have about the provided text. I'm here to help!   

 M What is the persons name? Are they working now? Where did they work before if anywhere and how much money did they make?

 The person's name is Ivisleydis KENT. As of the time of the letter (July 7, 2023), they are not currently working. Before this, they worked at La Colonia Medical center located in Hialeah until May 31, 2023. They earned a rate of \$17 per hour. So far, in the current year, they have reached an income of approximately \$14,000.   



Classification	Total Documents	%GT Total Documents	DR Pass %	Val3 Pass %	PT Eligible
Other income or financial documents	226,300	9.35%	0.00 %	0.18 %	No
05 - AI Written Explanation	219,269	9.06%	39.23 %	15.01 %	Yes
Pay Stubs	151,849	6.27%	87.56 %	0.00 %	No
01 - Envelope	136,090	5.62%	19.88 %	0.04 %	No
I-551 Permanent Resident Card-Green Card	113,201	4.68%	65.47 %	34.75 %	Yes
W2	105,897	4.38%	89.31 %	20.39 %	Yes
2021 1040 or 1040-SR	87,464	3.61%	82.23 %	0.01 %	No
I-797 Other	79,376	3.28%	25.05 %	0.03 %	No
06 - Marketplace Correspondence Letter	73,466	3.04%	92.59 %	78.13 %	Yes
Schedule C	63,736	2.63%	95.85 %	40.99 %	Yes
Employment Authorization Document that contains a photograph (Form I-766)	62,075	2.56%	73.67 %	34.94 %	Yes
SSN Card	60,397	2.50%	61.00 %	10.78 %	Yes
US Passport	57,183	2.36%	78.53 %	51.94 %	Yes
Drivers License	54,382	2.25%	69.19 %	33.89 %	Yes
02 - Multiple Forms	52,572	2.17%	0.00 %	6.38 %	No
2020 1040	50,183	2.07%	49.97 %	0.01 %	No
03 - Other	42,324	1.75%	0.00 %	0.12 %	No
Self-Employed Ledger	37,683	1.56%	0.00 %	0.16 %	No
1099-NEC	36,951	1.53%	88.48 %	0.00 %	No
Birth certificate - U.S. Public Birth Record	35,459	1.47%	63.56 %	0.00 %	No
2021 Schedule 1	34,778	1.44%	96.46 %	0.01 %	No
Other - Imm	32,479	1.34%	0.00 %	0.23 %	No
Other - AI	30,816	1.27%	0.00 %	0.12 %	No
04 - Letter from Consumer (Not WE letter)	26,285	1.09%	0.00 %	0.92 %	No
Certificate of Naturalization	25,537	1.06%	64.41 %	20.18 %	Yes
8962	23,947	0.99%	82.23 %	0.01 %	No
2020 Schedule 1	22,255	0.92%	48.68 %	0.00 %	No
8879	21,353	0.88%	96.93 %	0.00 %	No
Government issued tax documents include an individual's SSN	21,059	0.87%	0.00 %	0.20 %	No
1099-SSA	18,838	0.78%	92.42 %	26.91 %	Yes
Bank Statements	15,918	0.66%	77.04 %	0.01 %	No
SSA Benefits Letter	15,773	0.65%	69.18 %	34.43 %	Yes
1099-R	14,572	0.60%	93.57 %	0.82 %	Yes
Mailroom Coversheet	14,446	0.60%	0.00 %	0.26 %	No
VISA	14,057	0.58%	85.78 %	0.03 %	No
Check	14,011	0.58%	18.14 %	0.00 %	No
Annual Income Worksheet	12,595	0.52%	80.67 %	0.16 %	No
SSA COLA Letter	12,147	0.50%	64.40 %	42.25 %	Yes
I-94 Arrival-Departure Record with a foreign passport	12,091	0.50%	84.53 %	55.07 %	Yes
Marketplace Barcode	12,072	0.50%	61.11 %	1.52 %	No
<b>Total</b>	<b>2,420,236</b>	<b>100.00%</b>	<b>48.86 %</b>	<b>12.25 %</b>	

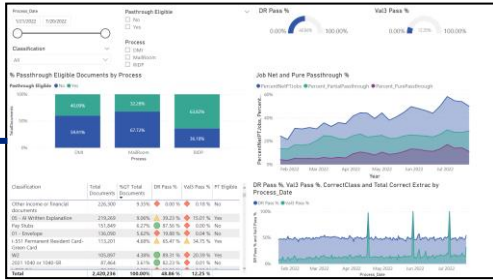


## Document Automation Operational Dashboard & Automated Benchmarking Tools

# Autonomic Innovation

# Analytics-Driven Continuous Optimization

# Document Automation Operational Dashboard



## Extraction Defects: Why RPA Didn't Resolve

# RPA Dossier

[illegible]

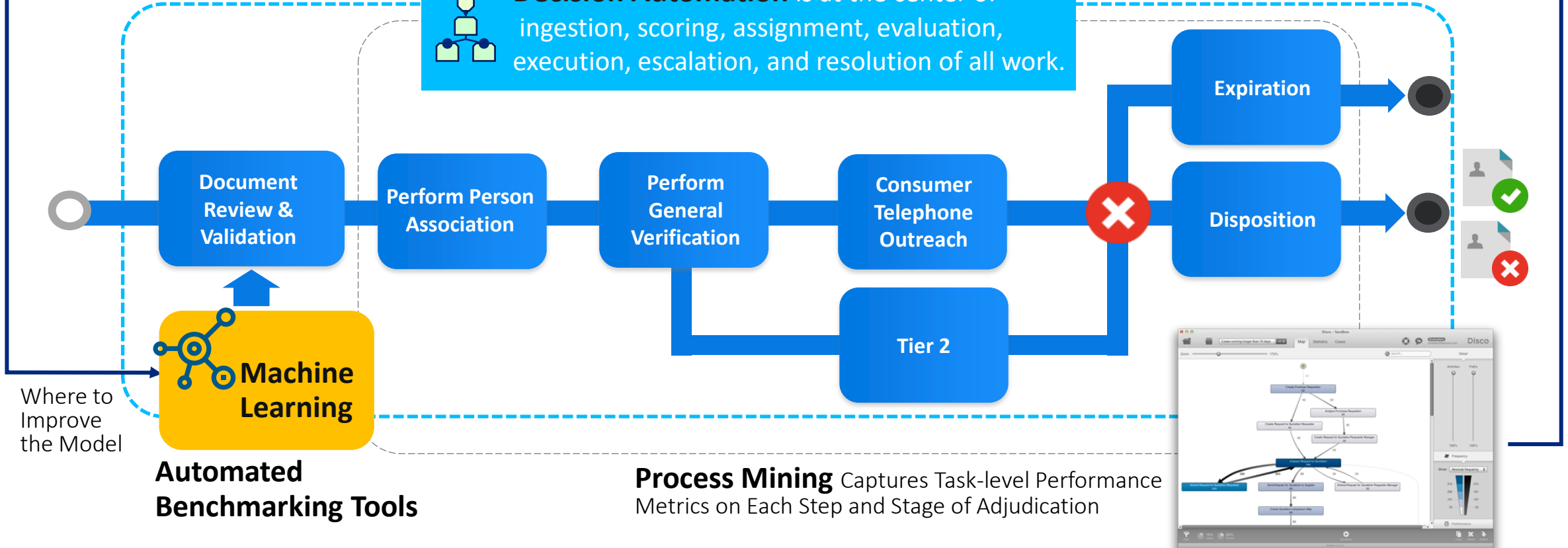
## What the Robot Did

## Intelligent RPA



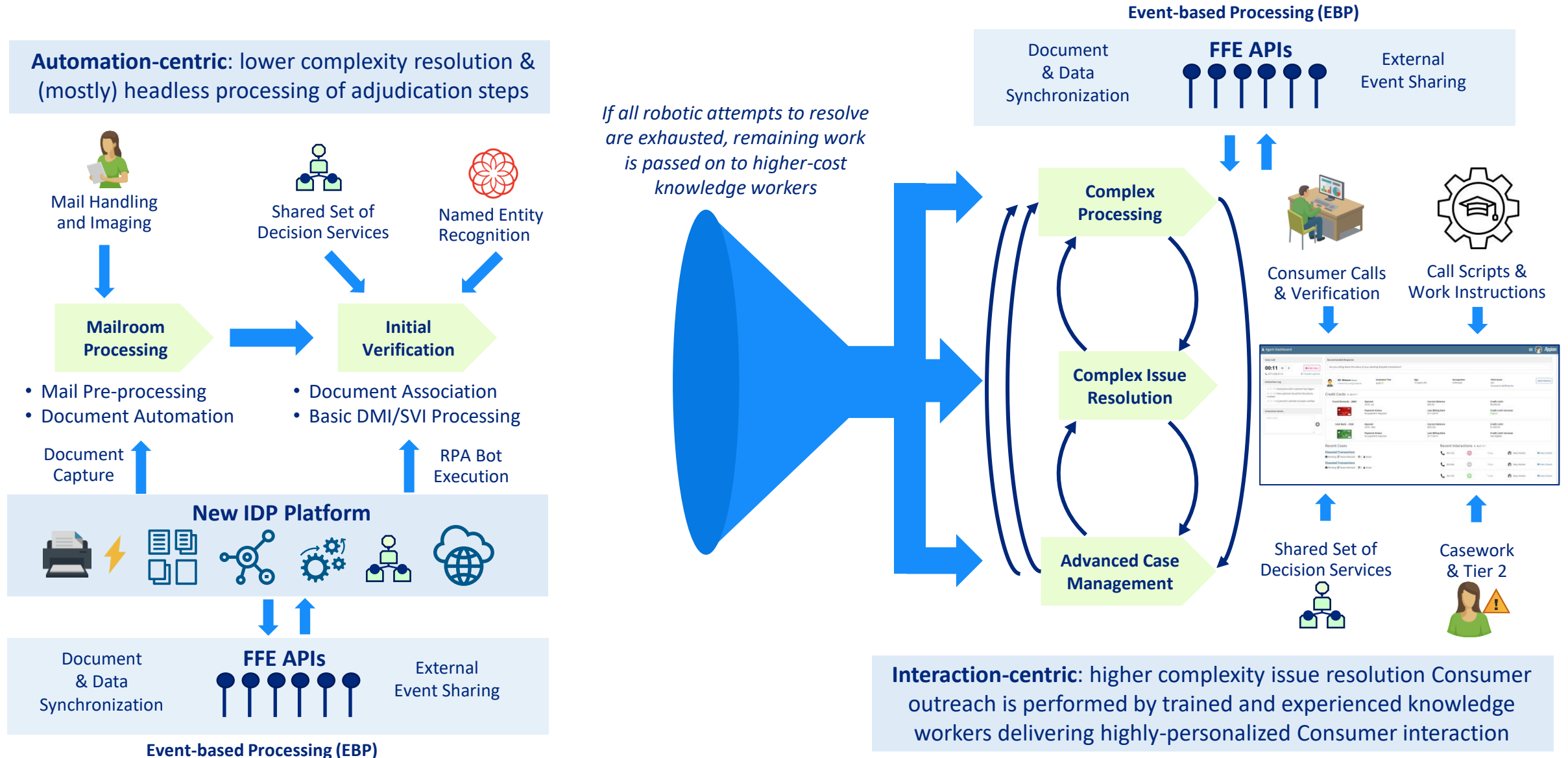
## Automation Targets Prioritized by Process Mining

**Decision Automation** is at the center of ingestion, scoring, assignment, evaluation, execution, escalation, and resolution of all work.





# From Compartmentalized, Sequential Processing to a Real-time Business Ecosystem (moving from Ingestion to Resolution)



# Thank you!

**Nathaniel Palmer**

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in [linkedin.com/in/IntelligentAutomation/](https://linkedin.com/in/IntelligentAutomation/)

