

# Optum's Solution to Simplify License and Certification for Medical Professionals

Gwen Bot, Manu Kant, Preston Meadows  
Optum



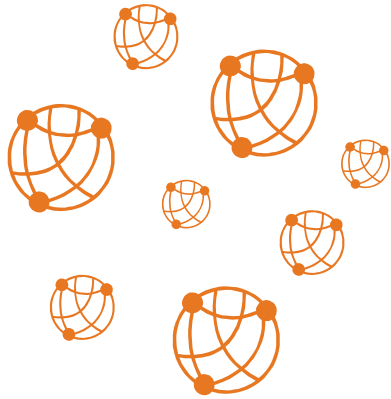
# How 'Well' Gets Done – Optum's Journey to Enterprise Clinical Licensure

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# Agenda

## Challenge



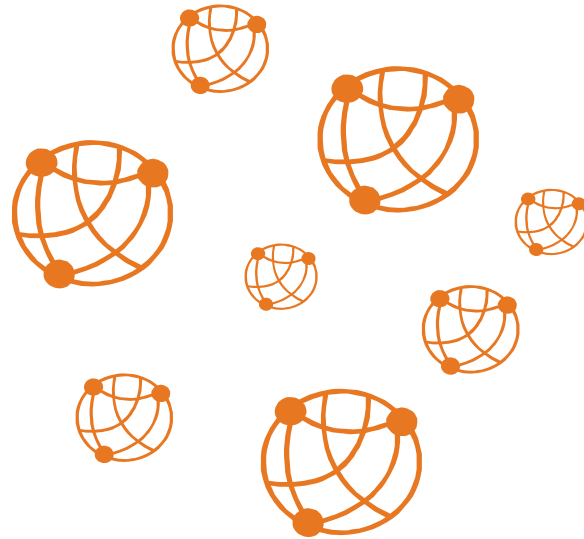
## Execution



## The Solution!



# Challenge



# UNITEDHEALTH GROUP



UnitedHealth Group is a distinctively diversified health and well-being company headquartered in the United States, and a leader worldwide in helping people live healthier lives and helping make the health system work better for everyone.

UnitedHealth Group serves clients and customers through two distinct platforms: UnitedHealthcare and Optum.

UnitedHealthcare provides health care coverage and benefits services.

Optum provides information and technology-enabled health services.

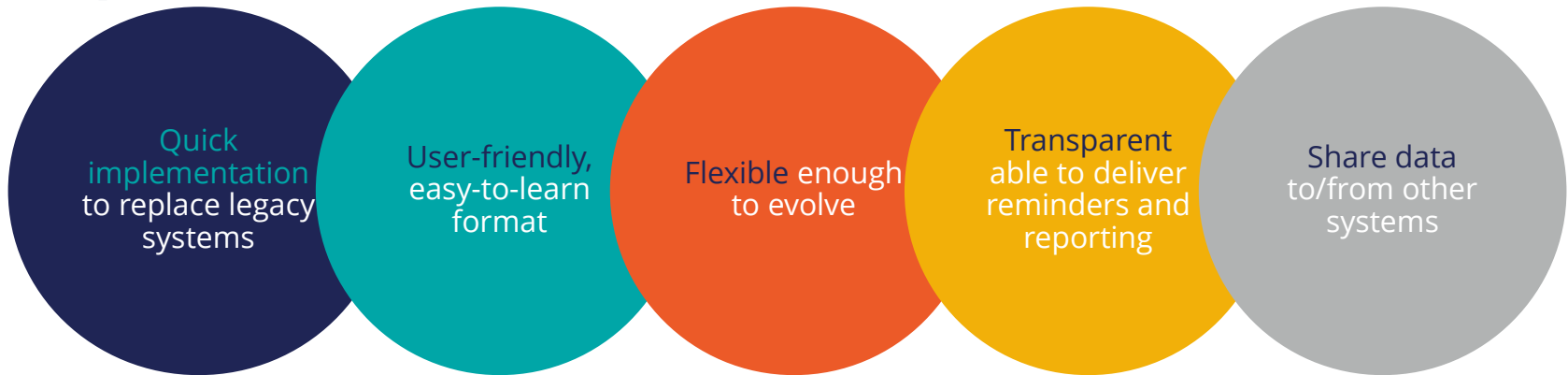
- 2018 revenues \$226 billion
- Serving 139 million people residing in all 50 states and more than 130 other countries
- Processes approximately 1 trillion transactions annually
- Investing nearly \$3.3 billion annually in technology and innovation
- Global workforce of 300,000, including 85,000 clinical professionals

# Business need

## Goal:

Provide an enterprise solution for obtaining, maintaining and tracking individual clinician licensure

## Requirements:



# Operational planning



## Process documentation and updates

All processes reviewed, gaps filled, full team engagement to maintain



## Team realignment

Understanding roles while matching and building skill sets to have the right people in the right roles



## Change cycle management

Over communicate with daily users and prepare for changes with feedback loop



## Customer feedback

Business Champions engaged in ad hoc, monthly and quarterly communications



## Charge back model

System receipt and time tracking allows for accurate financial charge backs at the business unit level

# Execution



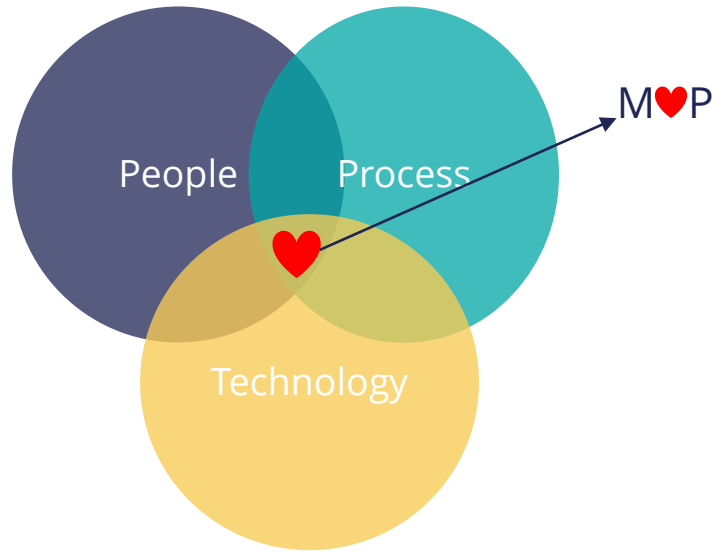


# Our journey with Pega



2010	2011	2012	2013	2014	2015	2016	2017	2018
	<ul style="list-style-type: none"> <li>Established a strategic customer relationship with Pega</li> </ul>							
		<ul style="list-style-type: none"> <li>Instituted BPM Center of Excellence; launched BPM focused programs</li> </ul>						
			<ul style="list-style-type: none"> <li>Evangelized BPM as a discipline across the enterprise</li> </ul>					
				<ul style="list-style-type: none"> <li>Implemented 30+ programs with substantial ROI; supporting 50,000 user base</li> </ul>				
					<ul style="list-style-type: none"> <li>Enterprise contract renewed with new products (mobile, product composer); doubled user base —100,000</li> </ul>			
						<ul style="list-style-type: none"> <li>Optum / Pega partnership</li> </ul>		
				<ul style="list-style-type: none"> <li>First commercial client, Optum / Pega engagement; adopted Optum modern delivery</li> </ul>				
							<ul style="list-style-type: none"> <li>Begin robotics journey</li> </ul>	
								<ul style="list-style-type: none"> <li>Digital Process Automation Journey</li> </ul>

# Design thinking



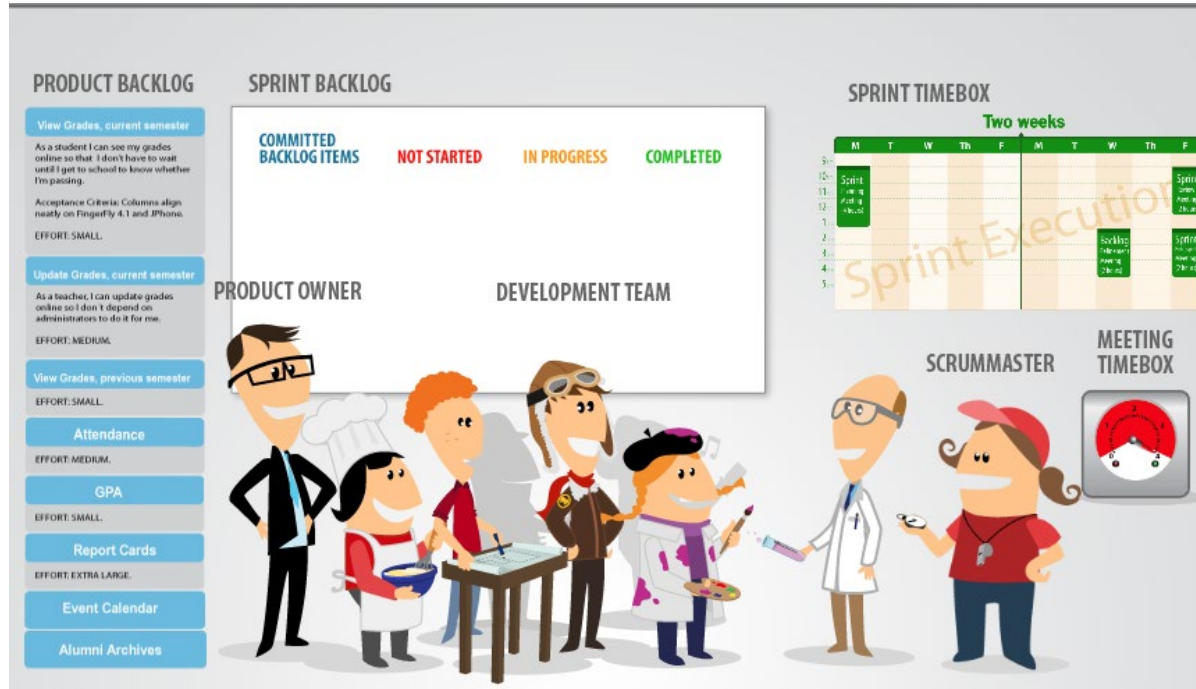
- Empathize
- Journey centric process
- Prototype using App Studio
- Test your 'Theory'

# Preparing for the climb



- Right people (skills)
- Right process (Trainings & methodology)
- Right technology – Pega & DevOps Tools

# Right people



The screenshot displays a Scrum tool interface with the following components:

- PRODUCT BACKLOG:** A list of items with descriptions and effort levels.
  - View Grades, current semester (EFFORT: SMALL)
  - Update Grades, current semester (EFFORT: MEDIUM)
  - View Grades, previous semester (EFFORT: SMALL)
  - Attendance (EFFORT: MEDIUM)
  - GPA (EFFORT: SMALL)
  - Report Cards (EFFORT: EXTRA LARGE)
  - Event Calendar
  - Alumni Archives
- SPRINT BACKLOG:** A board with columns for 'COMMITTED BACKLOG ITEMS', 'NOT STARTED', 'IN PROGRESS', and 'COMPLETED'. It is divided into 'PRODUCT OWNER' and 'DEVELOPMENT TEAM' sections.
- SPRINT TIMEBOX:** A two-week calendar grid for 'Two weeks' (M-F). It shows 'Sprint' items and 'Sprint Execution' text.
- SCRUMMASTER:** A role represented by a character in a white lab coat.
- MEETING TIMEBOX:** A role represented by a character in a red shirt and cap, next to a clock icon.

## People

- Encourage curiosity, learn personality styles
- Technology skills

## Co-location

- Whiteboard solutions
- Program Increment planning

# Right process

Training Title	Scrum Master	Product Owner	Solution Architect	System Analyst	IT Delivery PM	Development Team	Pega Lead Business Architect	Quality Assurance
100 Agile - Introduction to Agile Terminology and Concepts	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
101 Agile - Introduction to Agile at UHG/Optum	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
102 Agile - Writing User Stories	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
103 Agile -Product Owner Training	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
105 Agile - Scrum Master Training	REQUIRED	OPTIONAL	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
106 Agile -Agile Team Training	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
155 OSAM - Foundations	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
165 OSAM-Implementing OSAM	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
ICC - Install Manager Flowdock	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
Agile Practioner Flowdock Flow	REQUIRED	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL
107 CA Agile (Rally) Training	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED	REQUIRED
108 Agile- CA Agile (Rally) Tutorials	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL	OPTIONAL

## Role trainings

- Product owner
- Business sponsor
- Rule authors (business delegated rules)
- Release Managers
- Scrum Master
- Release Train Engineers

# Right process

	Project Iteration	Sprint	High Level Sprint Topic	Testing	Release	Dependencies	Warranty	Licensure Team Actions	
8/22/2016	PI1	S0	Infrastructure, Census File Feed, Initiate Data License Input Feature, Licensure Team View, Send License Feed to MPP						
8/29/2016									
9/5/2016		S0/S1							
9/12/2016		S1							
9/19/2016									
9/26/2016		S2							
10/3/2016						Release 1 Testing			
10/10/2016		S3							
10/17/2016							Release 1 Production	Census Feed to PEGA	
10/24/2016		S4							
10/31/2016	PI1 HIP		x					Licensure Team starts adding data to Pega	
11/7/2016									
11/14/2016	PI2		BIX, Initiate License Validation, Reporting, Manage Clinician Demographics, Ad Hoc Request, Case Search, Clinician View, Clinical Manager View, BSL View, Licensure Manager View, Generic Webservice (Verify License), Technical Help Support Requests	PI1 UAT				Continue to enter currently unsupported clinicians into PEGA	
11/21/2016		S1		Fix Issues					
11/28/2016					Release 2 Production	License Feed to MPP			
12/5/2016		S2							
12/12/2016									
12/19/2016		S3					Start working on BIX		P1 Under Warranty
12/26/2016		S4					NAS Drive for BIX		
1/2/2017									
1/9/2017	PI2 HIP		x						
1/16/2017						BIX Ready for Reporting Use			
1/23/2017	PI3		New License Request (until Fulfillment), New License Request (Post Fulfillment), Clinician Job Status Event Management, Cancel Inprocess Requests, License Expiration Management (Renewal Notification), Additional WO Reporting, Update Business Need						
1/30/2017		S1							
2/6/2017					PI2 UAT				
2/13/2017		S2			Fix Issues		Start working on Feed to ICUE		
2/20/2017									
2/27/2017		S3					Release 3 Production		
3/6/2017									
3/13/2017	S4								
3/20/2017	PI3 HIP		x					P2 Under Warranty	
3/27/2017					Regression Testing				

## Operational

- Process walkthrough
- Understanding hand-offs
- Prototyping with App Studio

## Grooming

- Write, review and rewrite
- Decrease ambiguity

## Understanding big picture

- Road-map features

# Right technology

## Technology ecosystem for our success!



- Tools for transparency in execution, measuring velocity
- Tools for deployment automation
- Tools for developing quality assurance automation
- Tools for executing test cases unattended
- Tools for service management

# Empowering business

## Business Configurability

- Business Rules Management
  - Developed on Pega platform.
  - Automates code promotion & back promotion
  
- Production Environment Configurability
  - Manage certain rules in production
  - Does not require traditional code push
  - Changes immediately reflected in production environment



# Organic evolution

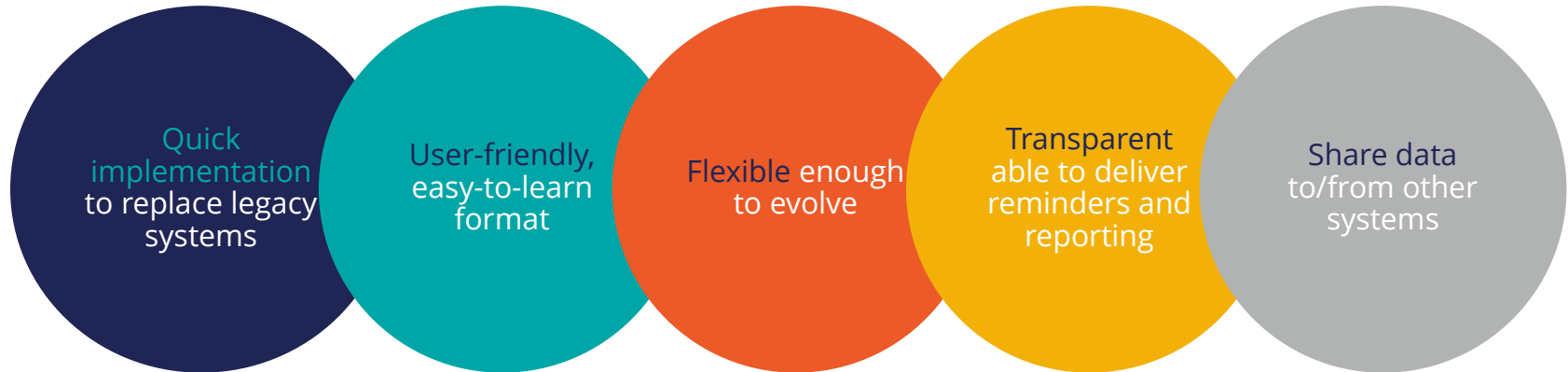
## Aligning business architect role with operations

- Financial Impact
  - Moving from capital to operational expense
  - Capital funds go further
- Quality Impact
  - Business architect closer to operational processes ensures better adherence to business needs
  - Reduction in 'lost in translation'

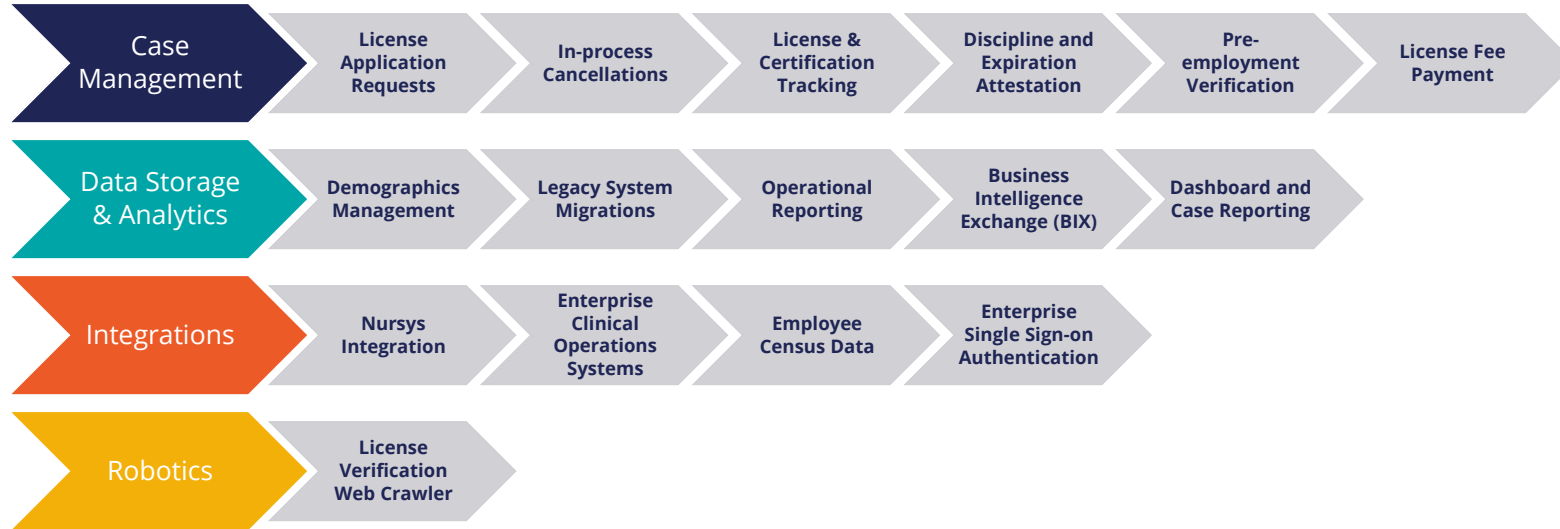
# The solution



# Defining the solution



# Defining the solution



Digital experience

# Case management



To: Meadows, Preston D  
Cc: PAL Notification: Discipline Status Update Case: LSN-2301  
Subject: Hello PRESTON MEADOWS,

The discipline status for ANTWAN BAER 's licenses has changed in the Partner in Active Licensure, PAL, system. Please see the table below for more information.

License Type	License SubType	License State	Licens
Medical Doctor	State License	Arizona	12345

**Clinical Licensure Chat**

First Name: Preston  
Last Name: Meadows  
Employee ID: [Redacted]

Clincian Type\* [Select]  
Payment Type\* [Select]  
State (only 1 per chat)\* [Select]

If this change is something you were previously unaware of, is posted. If it is not posted you may need to call the board or the appropriate next steps. Please contact your leadership or We ask that you acknowledge that you received this email by [Licensure Resource Center](#) to submit an Ad hoc Request.

[I Acknowledge](#)

**Input Licenses**

Use the information below to research and enter full license data for this individual

Candidate ID: [Redacted] Country: [Redacted]  
Candidate Full Name: [Redacted] State: [Redacted]

**New License Request (NLR-8681)**

1 day 23 hours from now

PROFILE CERTIFICATION NAME

ACLS Certification (Advanced Cardiac Life Support) for Healthcare Professionals

Basic Life Support (BLS) for Healthcare Providers

[Add Item](#)

ERRORS

LICENSE TYPE *	LICENSE SUBTYPE *
No Items	

**Fulfillment Activity**

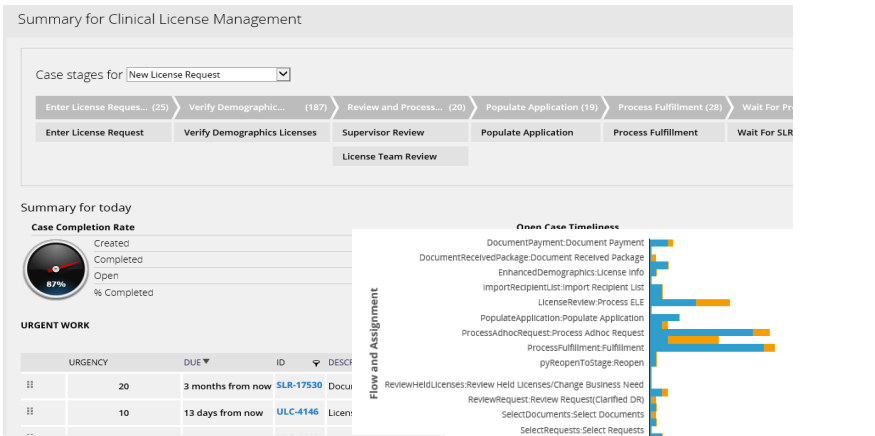
User ID [Redacted] Supervisor [Redacted]  
First Name [Redacted] Middle Name [Redacted] Last Name [Redacted]

\* Rhode Island | Nursing | Nurse Practitioner | Endorsement

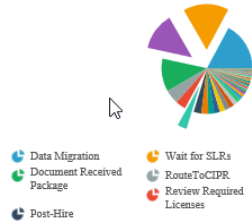
ERRORS	DOCUMENTS REQUIRED	INCLUDED IN PACKAGE*
	Instruction Sheet	Select
	Two Standard Fingerprint Cards	Select
	Paper Application	Select
	Certification of Fingerprints Form	Select
	Fingerprint Form	Select
	Discipline	Select
	Check The Board	Select
	UPS Mailing Label	Select

- License application requests
- In-process cancellations
- License & certification tracking
- Discipline and expiration attestation
- Pre-employment verification
- Payment tracking & receipt association

# Data storage & analytics



Average duration per flow task

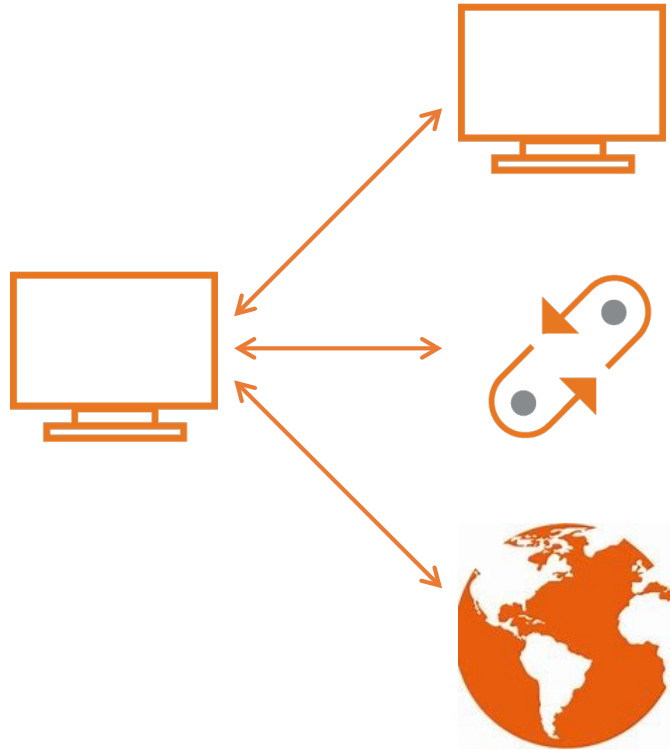


Scheduled Activities

Agent Name	Class	Activity Name	Pattern	
1	WorkExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
2	WorkHistoryExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
3	LicenseExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
4	PaymentTransactionExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
5	ProfileExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
6	LicenseHistoryExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
7	CertificationTypeExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
8	CertificationExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
9	OtherRecordsExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
10	OtherRecordsTypeExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
11	UPSDeliveryExtract	UHG-OCLM-Work	BixAgentWrapper	Recurring
12	EmailNotificationLog	UHG-OCLM-Work	BixAgentWrapper	Recurring
13	GenerateWeeklyErrorReport	UHG-OCLM-Work	BixAgentWrapper	Recurring
14	ProfileChangeLog	UHG-OCLM-Work	BixAgentWrapper	Recurring

- Demographics management
- Legacy system migrations
- Operational reporting
- Dashboard and case reporting
- Deep analytics using Pega

# Integrations and robotics



- Nursys integration (multi-thread)
- Enterprise clinical operations systems
- Employee census data
- Enterprise security
- License verification automation

# Case study - Pre-employment verification





# Pre-employment verification



Pre-Hire Onboarding (PHO-585)

Pre-Hire | **Post-Hire** | Resolved

Input Licenses  Merge With Profile

**Merge with Profile**

Once the Candidate appears in the profile table, enter their employee ID to associate the license information with the appropriate Profile.

Candidate ID: \_\_\_\_\_ Country: \_\_\_\_\_

Candidate Full Name: \_\_\_\_\_ State: \_\_\_\_\_

[+ Add Item](#)

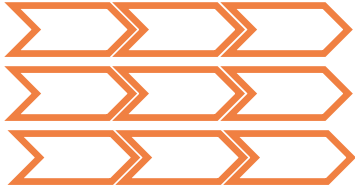
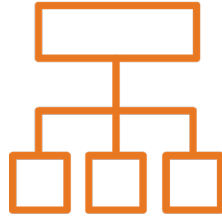
ERRORS	LICENSE TYPE*	LICENSE SUBTYPE*	LICENSE STATE*	LICENSE ID*	LICENSE DESCRIPTION*	LICENSE OFFERS RECIPROcity
	Nursing	Registered Nurse	New Jersey		Permanent	<input type="checkbox"/>
	Nursing	Registered Nurse	New York		Permanent	<input type="checkbox"/>

Please enter the Employee ID on behalf of whom the request is for (ex: 000123456)\*

First Name \_\_\_\_\_ Last Name \_\_\_\_\_

- Partnered with HR
- Create cases to investigate candidates
- Store temporary license data
- Reconciles census data
- Consolidate primary source verification
- Informs manager upon hire

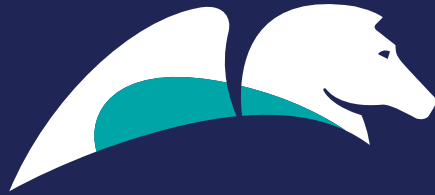
# Leveraged components



- Situational layer cake
- Rules delegation
- Declarative rules
- Reusable assets
- Journey-centric rapid delivery
- Pega App Studio (Prototyping)

# Q&A





**PEGA<sup>®</sup>**

Build for Change<sup>®</sup>