



PegaWorldiNspire

Using Natural Language Processing as a Service with Pega

Melissa B. Harris

IT Delivery Director, Unum Group



Agenda

Let's get started

- 1. Introduction to Unum Group**
- 2. Unum's Journey with Pega**
 - Robotics
 - Platform
 - Services
- 3. Our Use Case – Pega NLP for Email as a Service**
- 4. Benefits Achieved**
- 5. Challenges & Learnings**
- 6. Unum's Vision for the Future with Pega**

Who is



Leading Provider
of Financial
Protection
Benefits

Ranked
273
on Fortune 500

Comprised of
Unum US
Colonial Life
Unum International

\$7.2 B
In Benefits Paid
in 2018

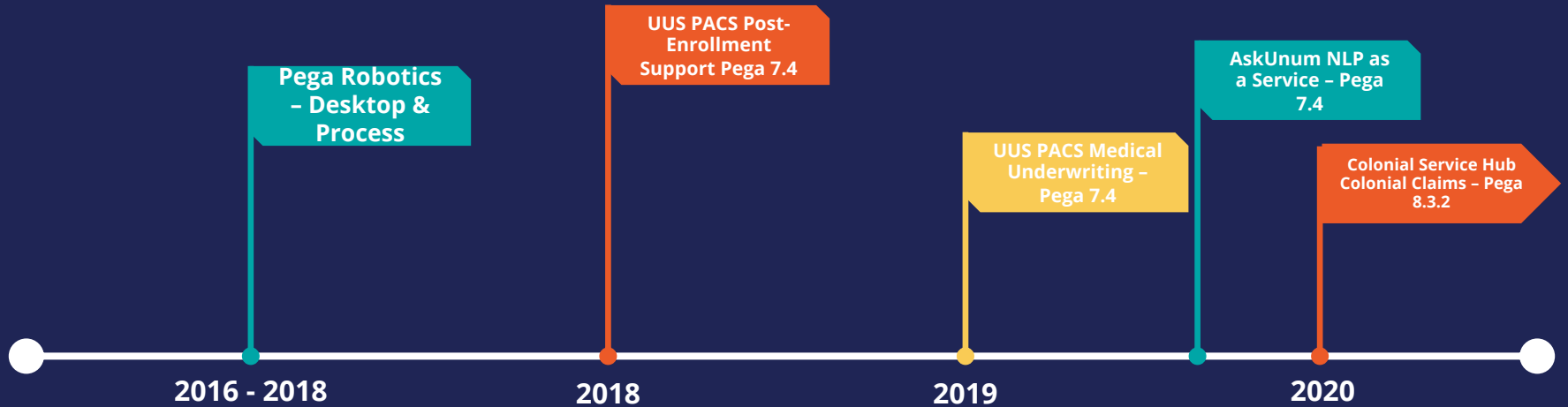
Supplemental & Voluntary
Benefits
Life & AD&D
Group Disability
Dental & Vision

We protect
38M workers
and their families

We help
318K people
return to work



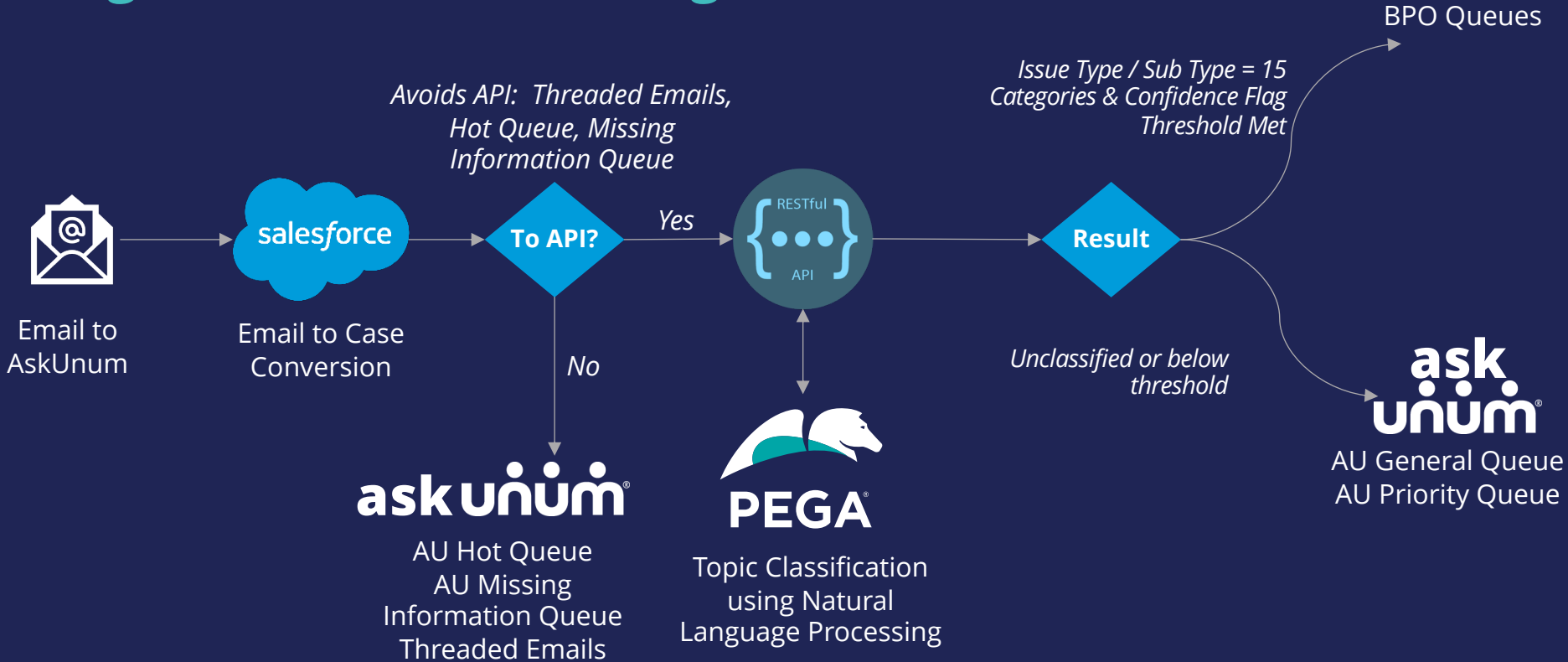
Our Journey with Pega



Problem

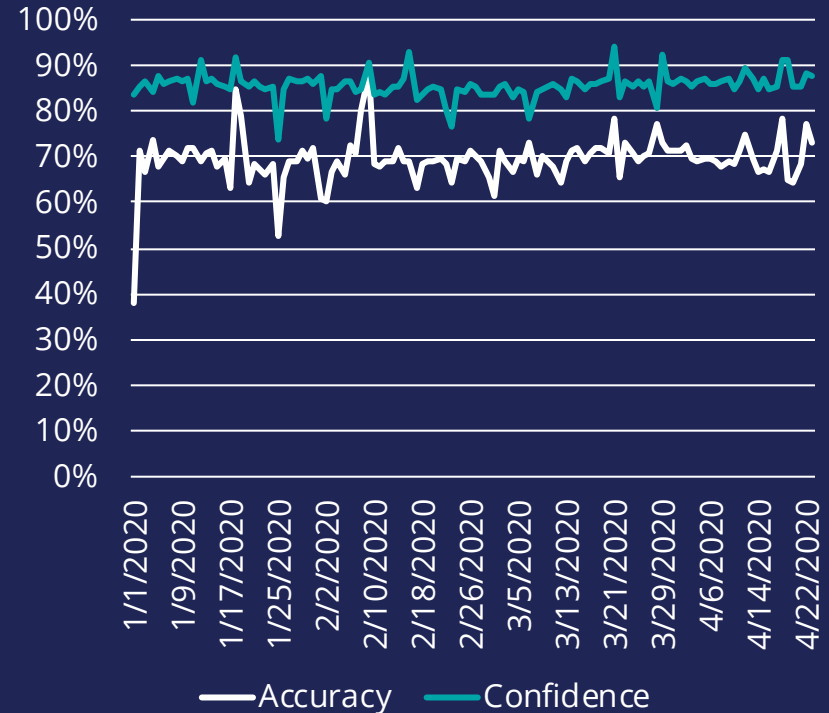
Statement: Rapidly create & train an NLP model for automated email triage to support Business Process Outsourcing Effort

High Level Solution Design



Benefits Achieved

- First implementation of AI NLP at Unum and operationalized
- First use of synchronous API calls within Salesforce implementation to invoke NLP service
- Completed development in 6 weeks
- Performance & Load Testing showed 100% pass rate with sub-second response time
- Model consistently returns 80% accuracy rate and 89% confidence interval
 - OpEx Savings & KPIs easily achieved through model usage, allowing for more work to flow to BPO provider automatically



Challenges & Learnings



Topic Classification Model Training **Requires accurate training data**; model required **multiple rounds of retraining** due to human errors in data labeling.



Keeping **Model & Application unified** brings great value – including ability to **ensure adaptive model learning** and flexible decision making.

Vision for the Future

2020 Pega Platform Initiatives Include:

- **Colonial Service Hub** – Pega 8.3.2 Application built with CSI, using Topic Detection, Intent & Entity Extraction Models to straight through process plan administrator email requests
- **Colonial Digital Claims Optimization** – Pega 8.3.2 Application for maximizing claims processing & unified views
- **UUS Pega 8.4 Upgrade**, including sunsetting OMC and consolidating robotics to a single platform





PEGA[®]

Build for Change[®]