AWS re:Invent

NOV. 29 – DEC. 3, 2021 | LAS VEGAS, NV

GPS211-R1

Accelerating innovation with AI and ML

Vikram Anbazhagan
GM/Director, AI/ML, AWS

Paul Lasserre
Partner Global Segment Lead, Applied AI, AWS

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Partner Applied AI solutions: A step closer to turnkey AI with AWS Partners



Vikram Anbazhagan,
GM/Director, AI/ML, AWS



Paul Lasserre, Partner Global
Segment Lead, Applied AI, AWS

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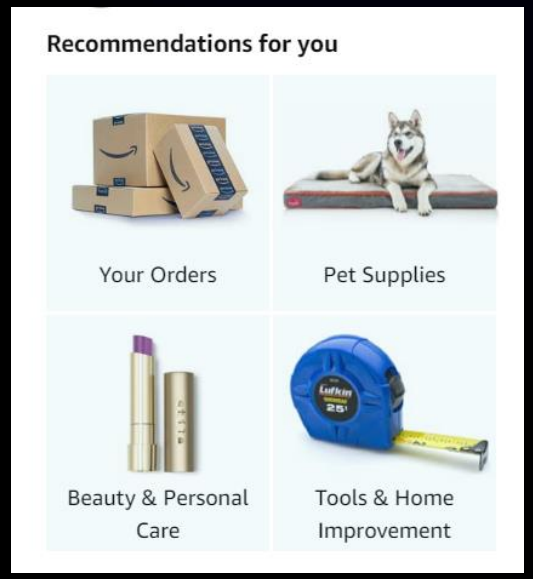
Agenda

1. Introduction
2. Innovation with machine learning (ML) at Amazon
3. How customers can accelerate their digital transformation with AWS AI/ML capabilities
4. Challenges with ML adoption and the growing role partners play
5. Working together around top ML use cases
6. A few announcements
7. How to get started

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Machine learning at scale is in Amazon's DNA









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The reach of ML is growing



INCREASED SPENDING

By 2024, global spending on artificial intelligence will reach $110 billion

IDC

IDC, “Worldwide Spending on Artificial Intelligence…” https://bit.ly/3mpQac2

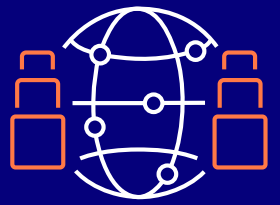


FROM PILOTING TO OPERATIONALIZING

By the end of 2024, 75% of enterprises will shift from piloting to operationalizing AI

Gartner

Gartner, “Gartner Identifies Top 10…” https://gtnr.it/3Bln3uU



AI TRANSFORMATION

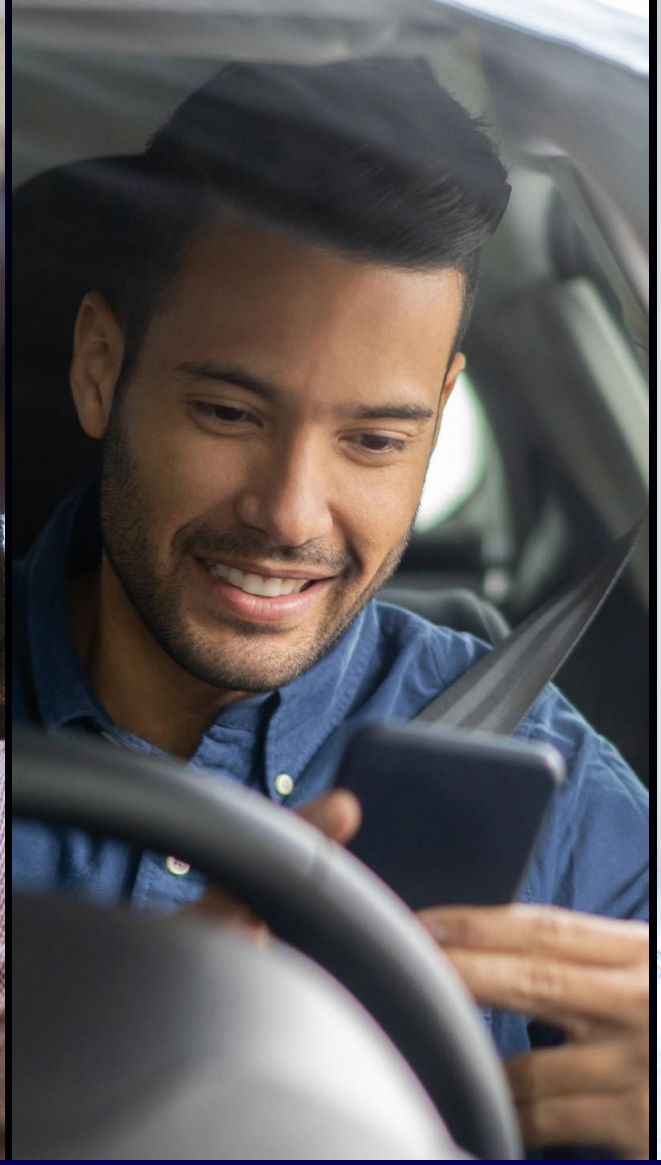
57% said that AI would transform their organization in the next three years

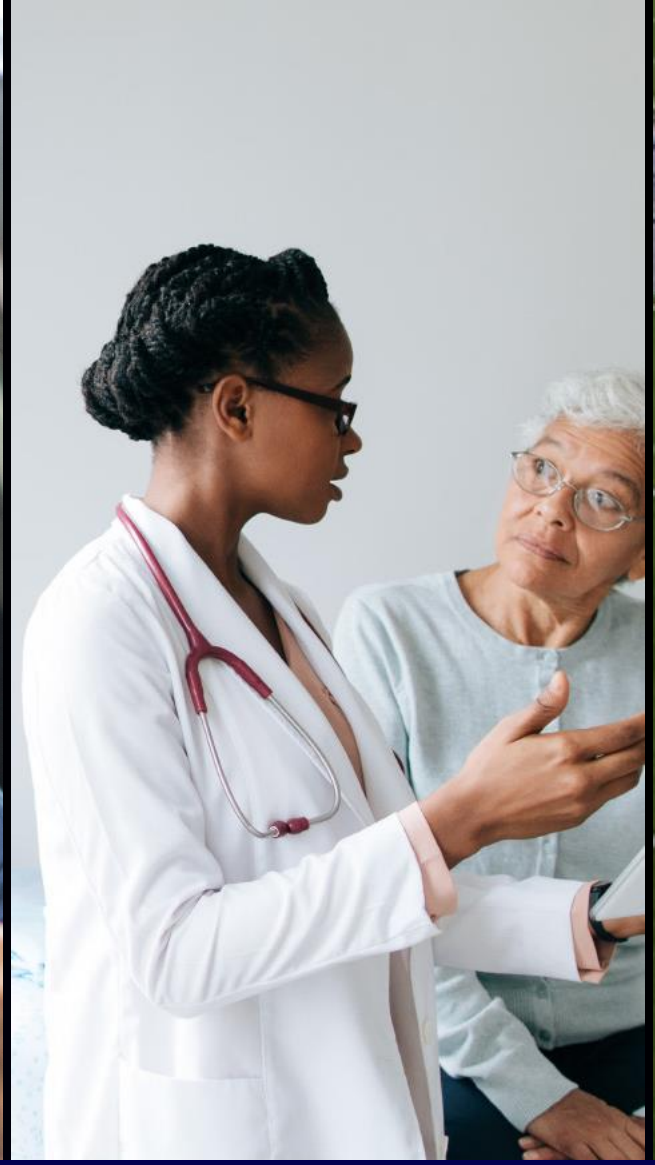
Deloitte

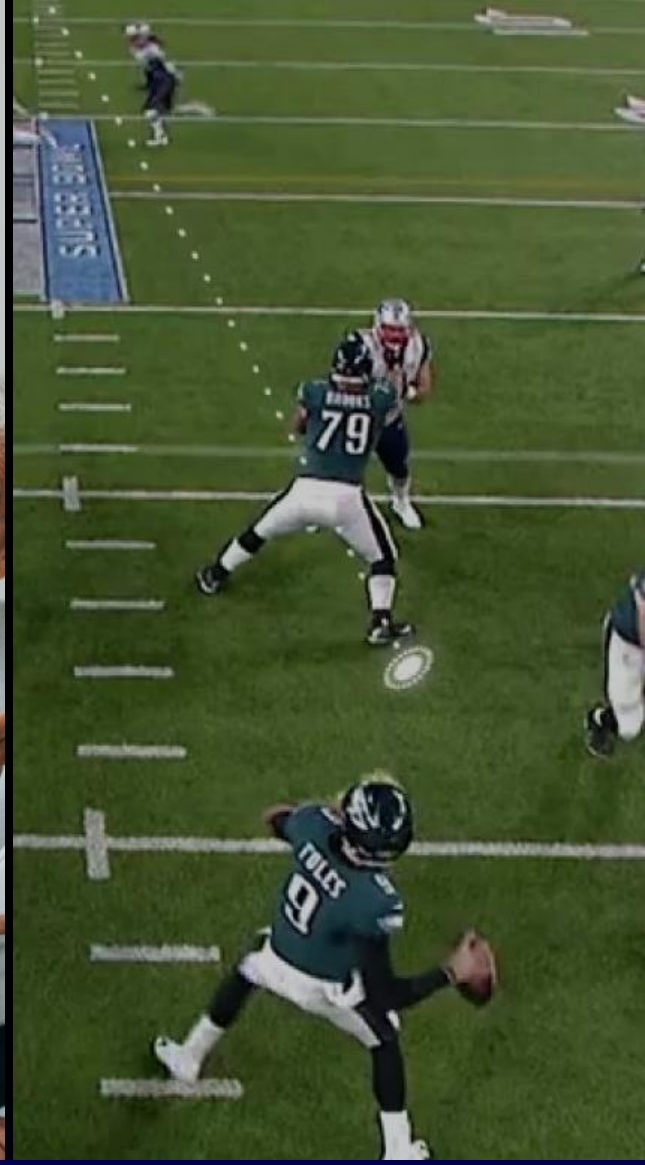
Deloitte, “Thriving in the era of pervasive AI,” https://bit.ly/3CtGDqf

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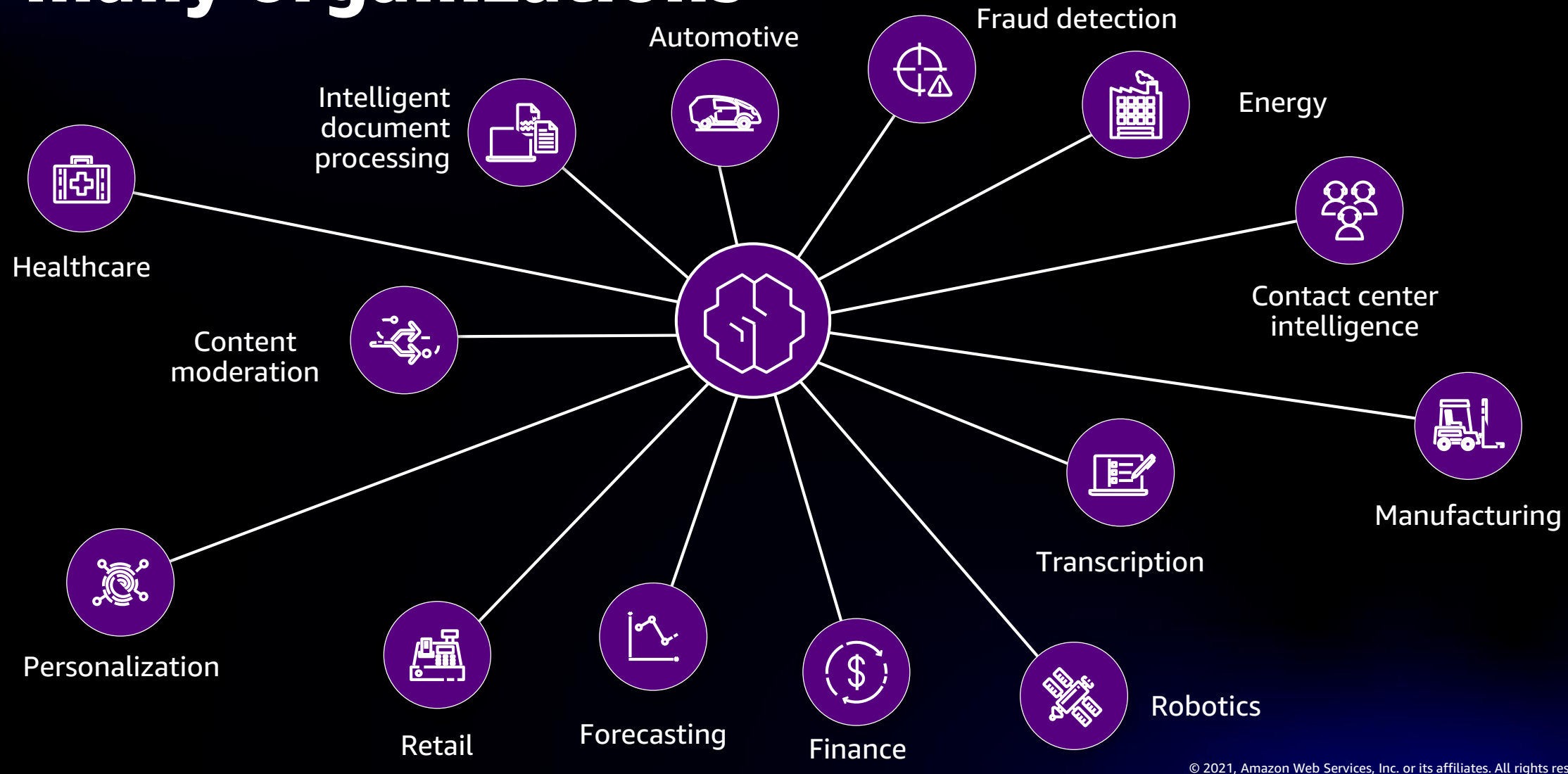
Cerner

NFL

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AI/ML is a strategic priority across domains for many organizations



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The AWS ML stack

BROADEST AND MOST COMPLETE SET OF MACHINE LEARNING CAPABILITIES

SOLUTIONS

BUSINESS PROCESS

Enhance the customer experience
- Intelligent contact center
- Personalization
- Media intelligence

Optimize the business
- Intelligent search
- Intelligent document Processing
- Fraud detection
- Business metrics analysis

Accelerate software development
- Next-gen DevOps

INDUSTRY

- Intelligent data lake
- Transcription
- Comprehension
- Predictive maintenance
- Quality inspection

AI SERVICES

Vision
- Amazon Rekognition

Speech
- Amazon Polly
- Amazon Transcribe

Chatbots
- Amazon Lex

Text
- Amazon Textract
- Amazon Comprehend
- Amazon Translate

ML PLATFORM

Label data

AMAZON SAGEMAKER STUDIO IDE

Data collection prep | Store features | Detect bias and explain predictions | Visualize in notebooks | Pick algorithm | Train models faster | Tune parameters | Deploy in production | Manage & monitor

CI/CD

ML FRAMEWORKS & INFRASTRUCTURE

PyTorch, Apache MXNet, TensorFlow | AMIs & containers | GPUs | Inferentia | Elastic inference | FPGA

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Opportunity to accelerate AI/ML adoption

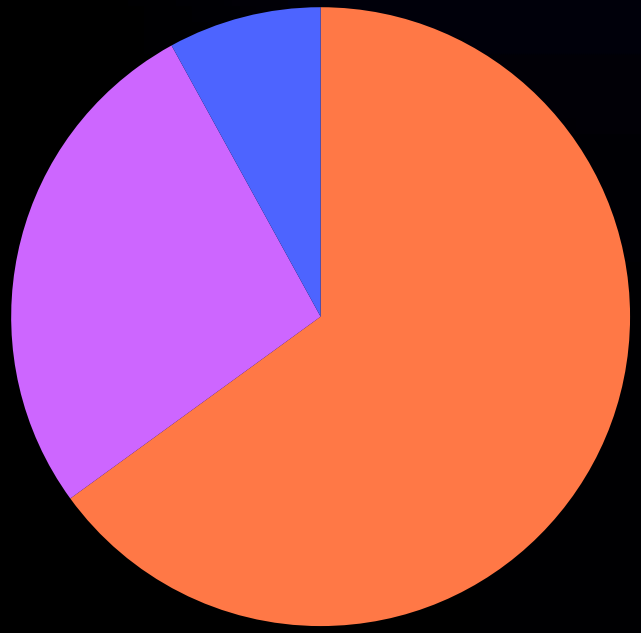
Despite a multitude of POCs, most customers find it hard to move AI applications into production and deliver business value to stakeholders



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More customers want ready-made AI/ML solutions

65% require or prefer cloud applications with AI*



What is your AI/ML preference when it comes to evaluating cloud-hosted/SaaS application providers?

*IDC

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Win-win-win philosophy



Customers win

Customers get AI turnkey solutions

Partners win

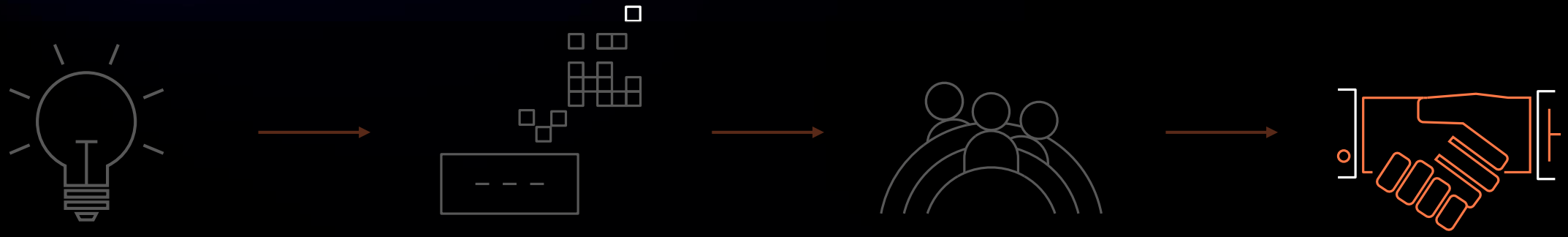
Partners accelerate innovation, delight customers, and create a durable business

AWS wins

AWS helps everyone win and wins in the process

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Partner Applied AI solutions



AWS develops prebuilt assets that bring together top AWS AI/ML services

Partners add differentiation to provide customer value

Partner and AWS drive customer engagement through top use cases and sales plays

AWS and partner create customer wins together

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Top horizontal AI/ML use cases

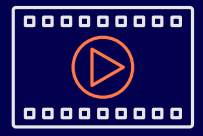
Enhance the customer experience



Personalization



Contact center intelligence



Media intelligence

Optimize business processes



Intelligent search



Intelligent document processing



Fraud detection



Business metrics analysis

Accelerate innovation



ML modernization



Next-gen DevOps

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ML use case finder

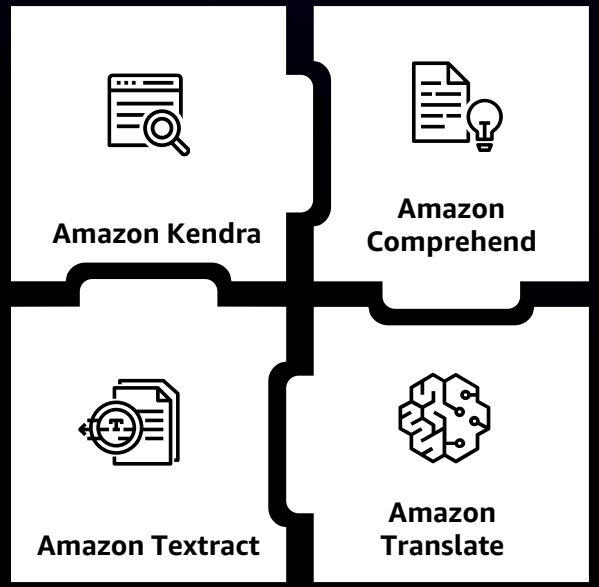


Contact your AWS Partner representative for more information

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Intelligent search

IMPROVE CUSTOMER INTERACTIONS AND BOOST WORKFORCE PRODUCTIVITY



Accelerate research and development
by finding relevant information in highly technical research and engineering documents

Minimize regulatory and compliance risks
by enhancing regulatory intelligence, correspondence, and access to up-to-date compliance data

Reduce support time and cost
by easily finding answers to questions on websites, in call centers, and via chatbots (without bot training)

Enhance customer search experiences
by creating interactions that delight, and give customers the answers they're looking for, whether it's a product search, return policy details, or a news article

Increase employee productivity
by creating a unified search and discovery experience to equip employees with the information they need to do their jobs

Customers

WSJ, bakertilly CAPITAL, Magellan HEALTH, Woodside, CITIBOT

Partners and solutions providers

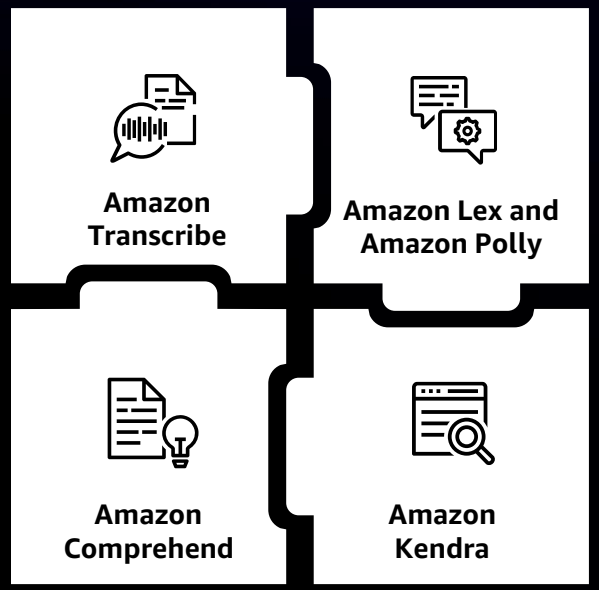
BA INSIGHT, sage, pwc, Onix, raytion

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AWS Contact Center Intelligence (CCI)

ADD INTELLIGENCE TO ANY EXISTING CONTACT CENTER



+ Amazon Translate and SageMaker for additional use cases

Increase customer satisfaction
By resolving customer issues faster through self-service virtual agents that are available 24/7/365 and delivering next best actions to live agents

Uncover conversations insights
by automating tracking of emerging trends, identification of agent coaching opportunities

Boost agent performance
by helping employees quickly resolve customer issues and focus on more complex inquiries

Customers

GE APPLIANCES · TechStyle FASHION GROUP · MAXIMUS · RYANAIR · octopus energy

Partners and solutions providers

VONAGE · HCL · talkdesk · GENESYS · salesforce

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Centers for Disease Control and Prevention (CDC)

Who: The United States' health protection agency. The CDC saves lives and protects people from health, safety, and security threats.

Problem: The need to stand up one of the largest contact centers in only a few weeks to address questions and concerns regarding a critical healthcare initiative.

Solution: The CDC selected Maximus as their BPO. Maximus selected SuccessKPI as the end to end analytics solution to provide AI, Machine Learning, translation, sentiment analysis, across multiple channels. Maximus chose a blend of technologies including CRM from Microsoft, Genesys Cloud, Twilio, and SuccessKPI. The full solution required turning up 21k+ agents in under 8 weeks, including testing at scale. The solution included end to end visibility into topics, themes, sentiment, caller journeys, effectiveness of IVR and WFM insights in addition to handling conversations from the callers.

Results: The CDC has handled hundreds of thousands of inquiries with a comprehensive end to end view of agent effectiveness, gained insights in root causes of vaccination hesitancy, and has a full 360 view of the contact center.

Products utilized: AWS Contact Center Intelligence services such as Amazon Transcribe, Amazon Comprehend, Amazon S3, Amazon SageMaker, Amazon EC2, AWS Lambda, and 20+ other Amazon Services.

SuccessKPI

CDC

MAXIMUS

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Amazon Transcribe call analytics API

WE LISTEN TO YOUR FEEDBACK

Easy-to-use call analytics API that can enable you to extract and add actionable insights from your customer interactions into your applications



High-quality ASR and NLP models **specifically trained for call analytics**

Easy to use – fully managed AI service

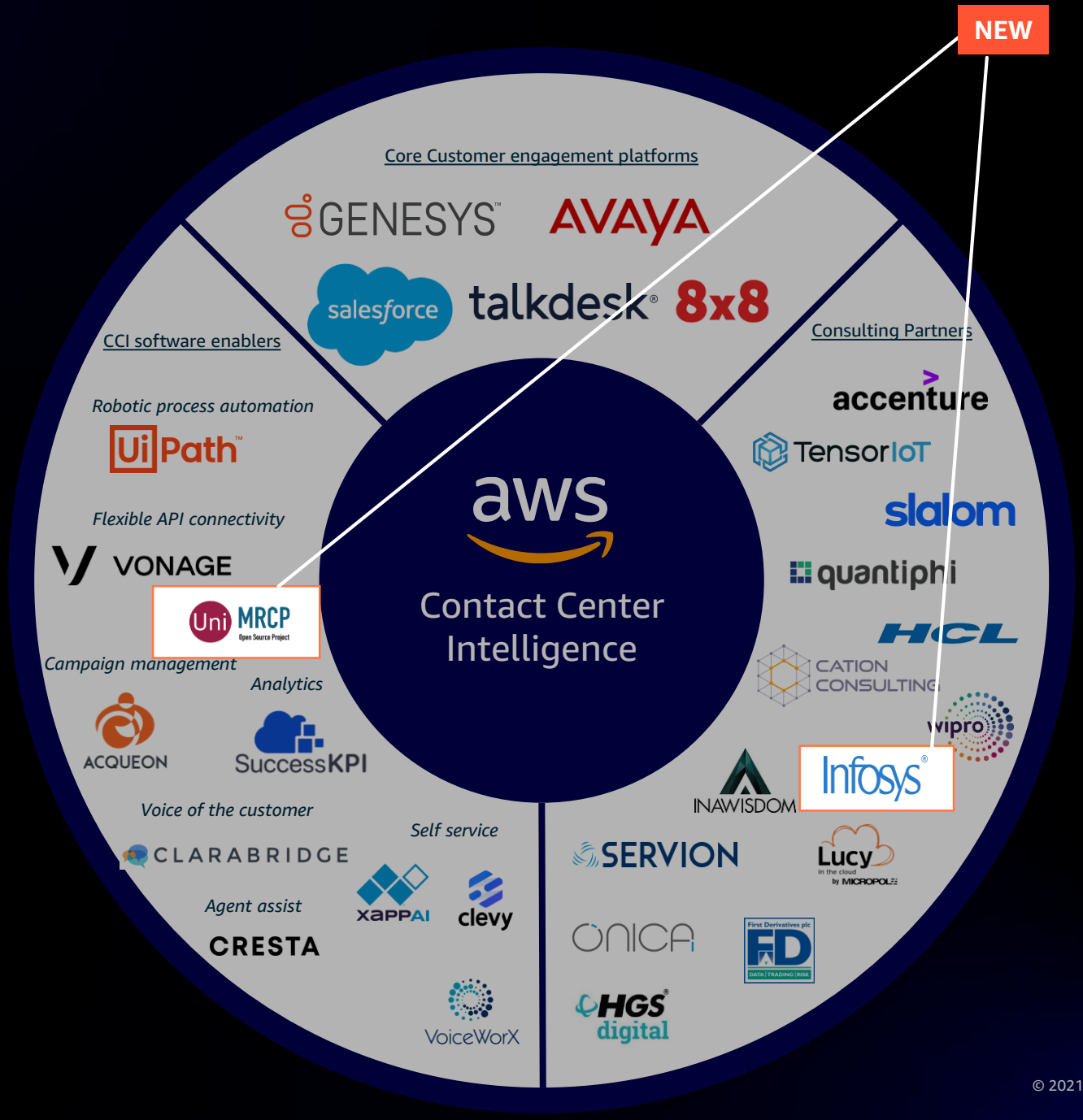
Automated call **categorization**

Detailed **analytics** and sentiment analysis

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Choose an AWS CCI Partner



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Including with analysts and influencers

"[Last year] Dan Miller and I highlighted the 2020 trend of AI in the contact center from pilots to mainstream. AWS CCI's success with partners and customers, and its investment in expanding the program, are further proof points that AI ramp-up continues in 2021."

Sheila McGee-Smith, 01/13/21

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"Some of the large enterprise customers we spoke to felt that Amazon could do a better job in taking a more solutions-oriented approach. It is nice to see AWS making this as an area of focus this year, for example [with] AWS Contact Center Intelligence solutions."

IDC 2020 WW ML software platform vendor assessment

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"Can Talkdesk get there [automate 80% of contact center interactions within 3 years]? That's a question I would have said no to just a year ago as the company was trying to build all the AI capabilities in-house. But the dual approach of building some features and partnering where needed should enable Talkdesk to scale much faster than it could otherwise. AWS arguably does AI better than any other company, so why not leverage its capabilities? Certainly, we'll see much more coming from Talkdesk in 2021."

Zeus Kerravala, 01/19/21

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IDC 2020 WW ML software platform vendor assessment

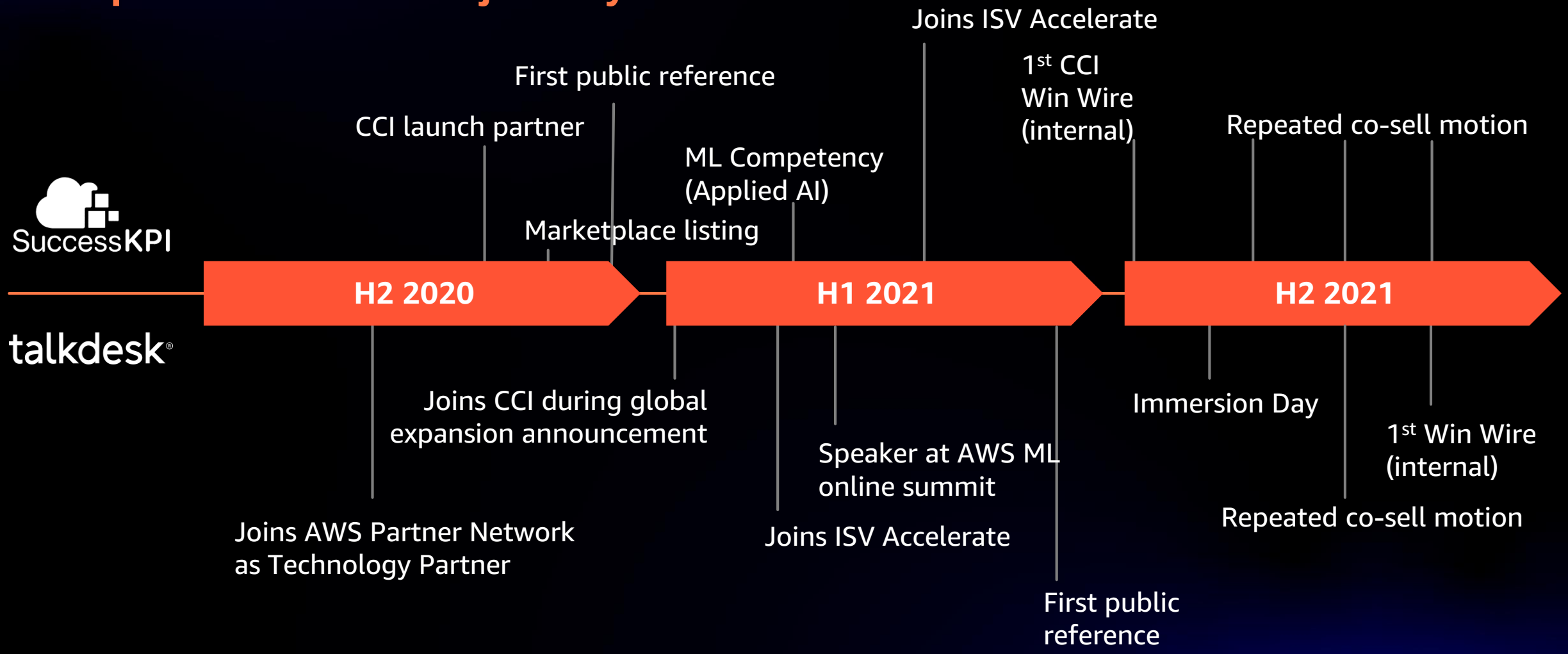
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All this while taking full advantage of the APN programs and benefits

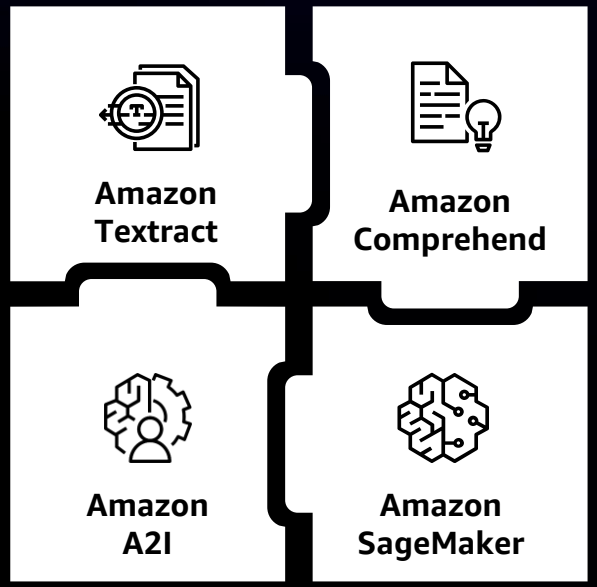
Examples of CCI Partner journeys



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Intelligent document processing (IDP)

IMPROVE CUSTOMER INTERACTIONS AND BOOST WORKFORCE PRODUCTIVITY



Increase accuracy of data
by processing documents more accurately, reducing errors caused from manual entry

Accelerate data processing
by streamlining manual processes

Reduce costs
By automating document workflows, thus reducing the complexity of data extraction and analysis

Improve employee productivity
By removing the manual process of pulling out insights from documents and entering information into various systems, enabling your employees to spend more time on value-adding business tasks

Customers

BDO bakertilly Anthem Celink Roche

Partners and solutions providers

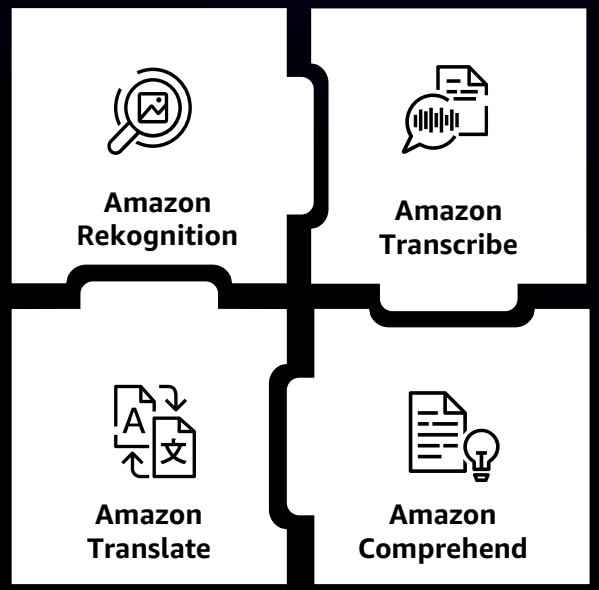
quantiphi Belle Fleur TECHNOLOGIES slalom Hyland CHANGE HEALTHCARE

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AWS media intelligence (MI)

INCREASE THE LIFETIME VALUE OF MEDIA CONTENT WHILE REDUCING OPERATIONAL COSTS



Lower operational costs
by automatically tagging and labeling objects and reducing manual processes needed for personalization

Boost customer engagement and accessibility
by engaging customers with more personalized content and attracting a broader audience with accessible and localized content

Improve compliance and brand safety
by reviewing images and videos against a wide variety of predefined or custom categories

Drive topline revenue through content monetization
by identifying logos and brands in existing media content to discover new monetization opportunities

Customers

NASCAR CBS echo360 SmugMug

Partners and solutions providers

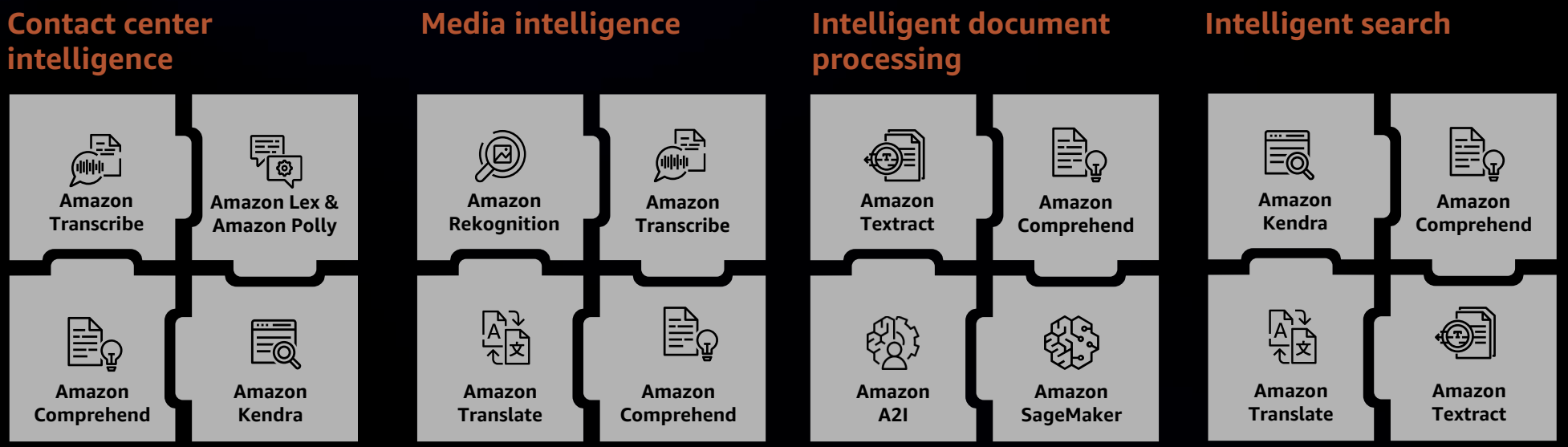
captionhub dalet GRAYMETA eeg SYNCHRONIZED

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PromoMii

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Introducing AI for Data Analytics (AIDA)



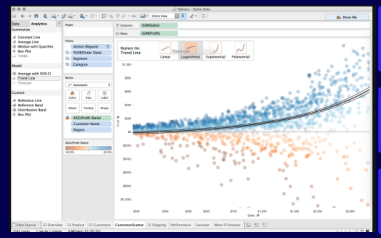
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AI for data analytics (AIDA)

Meet business experts where they are

NEW

AI for data analytics



- Democratization of predictive analytics
- Run business with foresight
- Embed ML in analytics workspaces

Access data
Data Warehouses, pipelining

Visualize insights
Business Intelligence and analytics

AWS Partners

Take action
Business process automation

AWS AI/ML services

Leading predictive analytics solutions powered by AWS AI/ML

Happy employees bringing foresight to their organization

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AI for data analytics (AIDA) partner solutions

NEW



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snowflake®



Amazon SageMaker

WESTERN UNION®

"We have reduced our **model deployment process from weeks to days**, enabling us to rapidly improve our customer experiences with digital banking services that meet our most strategic initiatives."

THOMAS MAZZAFERRO,
Chief Data Officer,
Western Union

30+ Data sources consolidated into a single source of truth

HARVEER SINGH,
Chief Data Architect,
Western Union

Millions Of annual dollars saved in costs by switching to Snowflake

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AI for data analytics (AIDA) partner solutions

EQUIP BUSINESS EXPERTS WITH FORESIGHT



Empower business experts
Bring predictive analytics in the normal workflow of an analyst, by embedding AI/ML into analyst workspaces

Break silos
between business domain experts and data scientists

Lower operational costs
with predictive analytics. Examples include supply pre-positioning, re-order optimizations, or workforce scheduling

Improve customer experience
by tailoring personalized experiences, from marketing preferences to product selection

Drive top line growth
predict customer churn, create next best action / next best offer playbooks, or predict lifetime value to adjust cost of acquisition

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Get started



Explore

- Reach out to your PDM/PSA to start the conversation
- Brainstorm at a Digital Innovation Workshop
- Meet our AI/ML team to hear about the latest



Engage

- Join the ML competency for increased visibility and access to the best AWS programs
- Already helping customers in these areas? Reach out and let's get the word out together



Share your perspective

We'd love to hear:

- What solution do you want us to prioritize next with you?
- Do you want to adapt an existing solution to a specific vertical?
- What else could we do together to accelerate transformation of organizations with ML?

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Thank you!

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