



Automate for Efficiency with Amazon AI Language Services

Special guest: VideoPeel

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What's this about?

- About the services
- Demo – analyzing customer reviews
- Voice of the customer – VideoPeel
- Q&A

The Amazon machine learning stack

APPLICATION SERVICES



AMAZON
REKOGNITION



AMAZON
REKOGNITION
VIDEO



AMAZON
POLLY



AMAZON
TRANSCRIBE



AMAZON
TRANSLATE



AMAZON
COMPREHEND



AMAZON
LEX

PLATFORMS



AMAZON SAGEMAKER



AMAZON MECHANICAL TURK

FRAMEWORKS / INTERFACES



The language services

Amazon Transcribe

Automatic conversion of speech into accurate, grammatically correct text

Amazon Translate

Natural and fluent language translation

Amazon Polly

Turn text into lifelike speech using deep learning

Amazon Comprehend

Discover insights and relationships in text

Amazon Lex

Conversational interfaces for text-based and voice-based applications

Common use cases



Voice of Customer Applications



Knowledge Management



Education



Customer Service/
Call Centers



Semantic Search



Accessibility



Enterprise
Digital Assistant



Captioning Workflows



Information Bots



Content Personalization



Content Localization

Amazon Translate

Amazon Translate delivers fast, high-quality, and affordable language translation

Amazon Translate

Arabic
Simplified Chinese
French
German
Spanish
Portuguese



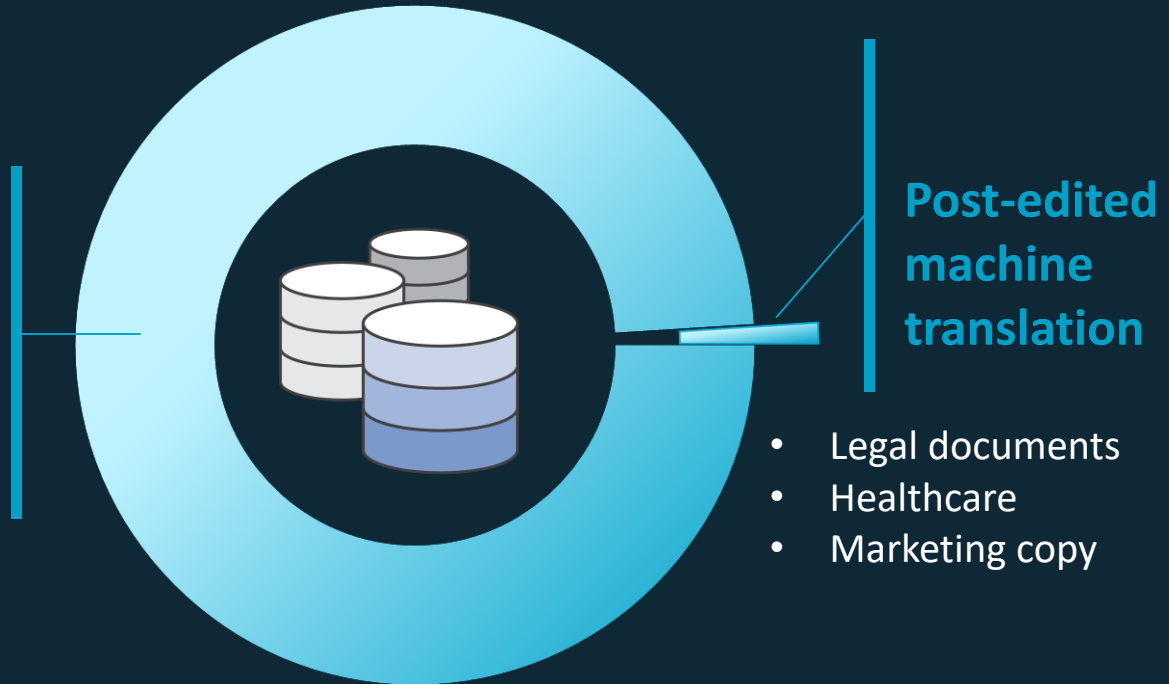
Japanese
Traditional Chinese
Italian
Russian
Turkish
Czech

Coming next: Danish, Dutch, Finnish, Hebrew, Polish, and Swedish

Use for high-volume and time-sensitive content

Machine translation

- User-authored content
- Text analytics
- Real-time communication
- Content discovery



Post-edited machine translation

- Legal documents
- Healthcare
- Marketing copy

Share of worldwide digital content

Amazon Translate – Console

The screenshot displays the Amazon Translate console interface. At the top, the AWS logo and navigation menu are visible. The main content area is titled 'Try Amazon Translate' and features a 'Translate text' section. This section includes a 'Swap languages' button and a 'Translate' button. Below these are two dropdown menus for 'Source language' (set to Spanish (es)) and 'Target language' (set to English (en)). A text input field contains the Spanish text: 'La crisis venezolana y el ataque a Siria, los temas que dominaron la Cumbre de las Américas'. The translated text in the target language field is: 'The Venezuelan crisis and the attack on Syria, the themes that dominated the Summit of the Americas'. Below the text fields, it indicates '91 characters, 92 of 5000 bytes used' and provides a 'feedback' link. The 'JSON samples' section below includes a 'View API documentation' button and a JSON request example:

```
{  "Text": "La crisis venezolana y el ataque a Siria, los temas que dominaron la Cumbre de las Américas",
```

 with a 'Select' button next to it. The footer contains a 'Feedback' button, the current language 'English (US)', and copyright information.

Amazon Translate – Command line

```
aws translate translate-text --cli-input-json '  
{  
  "Text": "La crisis venezolana y el ataque a Siria, los  
          temas que dominaron la Cumbre de las Américas",  
  "SourceLanguageCode": "auto",  
  "TargetLanguageCode": "en"  
}'
```

Amazon Transcribe

A fully managed and continuously trained automatic speech recognition (ASR) service that generates accurate transcripts for audio and video files

Amazon Transcribe – automatic speech recognition



Detect multiple
speakers



Custom
vocabulary



Support for both
regular and telephony
audio



Amazon S3
integration



Time stamps and
confidence scores







Punctuation



English and Spanish
with more to come

Amazon Transcribe – Console

 **Services** ▾ **Resource Groups** ▾   Admin/hira-Isengard @ 5098-3... ▾ N. Virginia ▾ Support ▾

 [Amazon Transcribe](#) > Create transcription job

Create transcription job

Input [Info](#)

Name

The name can be up to 200 characters long. Valid characters are a-z, A-Z, 0-9 and - (hyphen).

S3 input URL
Type or paste the URL of your input audio file in S3.

Valid formats for audio files are mp3, mp4, wav, and flac.



Language
Choose the language of the input audio.
 ▾

Format
Choose the format of your audio file.
 ▾
Valid formats for the audio are mp3, mp4, wav and flac.

Audio sampling rate (Hz) - optional
Type the sampling rate of the input audio file.

Must be an integer between 8000 and 48000

Apply custom vocabulary - optional [Info](#)
A custom vocabulary improves the accuracy of recognizing words, phrases, and commands.

 [Feedback](#)  [English \(US\)](#)

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Amazon Transcribe – Command line

```
aws transcribe start-transcription-job --cli-input-json '  
{  
  "TranscriptionJobName": "demo-job-97",  
  "LanguageCode": "en-US",  
  "MediaFormat": "mp4",  
  "Media": {  
    "MediaFileUri": "s3://mast-mast-3/mypath/myfile.mp4"  
  }  
}'
```

Amazon Comprehend

A fully managed and continuously trained natural language processing (NLP) service that helps you extract insights from unstructured text

Amazon Comprehend



Sentiment



Entities



Keyphrases



Languages



Topic modeling



Syntax

Syntax detection

```
aws comprehend detect-syntax --language-code 'en' --text 'I love cloud!'
```

```
{  
  "SyntaxTokens": [  
    {  
      "TokenId": 1,  
      "Text": "I",  
      "BeginOffset": 0,  
      "EndOffset": 1,  
      "PartOfSpeech": {  
        "Tag": "PRON",  
        "Score": 0.9999802112579346  
      }  
    },  
    ...  
  ]  
}
```

...

Supported parts of speech

ADJ – Adjective

ADP – Adposition

ADV – Adverb

AUX – Auxiliary

CCONJ – Coordinating Conjunction

DET – Determiner

INTJ - Interjection

NOUN - Noun

NUM – Numeral

O – Other

PART – Particle

PRON – Pronoun

PROPN – Proper Noun

PUNCT – Punctuation

SCONJ – Subordinating Conjunction

SYM – Symbol

VERB – Verb

Analyzing user reviews

As a product owner, I want to ...

- get the results of my experiment (did it work?)
- learn what customers loved/hated
- find what else impacts my customers' experience
- discover new ways to help my customer

Analyzing user reviews

As a potential customer, I want to ...

- learn about the offering (features)
- confirm what matters to me
- learn from others' experiences & opinions

Not all reviews are created equal

- Perspective (noob? expert?)
- Review length and coverage
- Grammar and typographical errors
- Writing style - conviction, expression, sarcasm, double negatives
 - Opinions Vs. observations
 - Explicit (“service was slow”) Vs. implicit (“the server took 30 minutes to bring me a glass of water”)

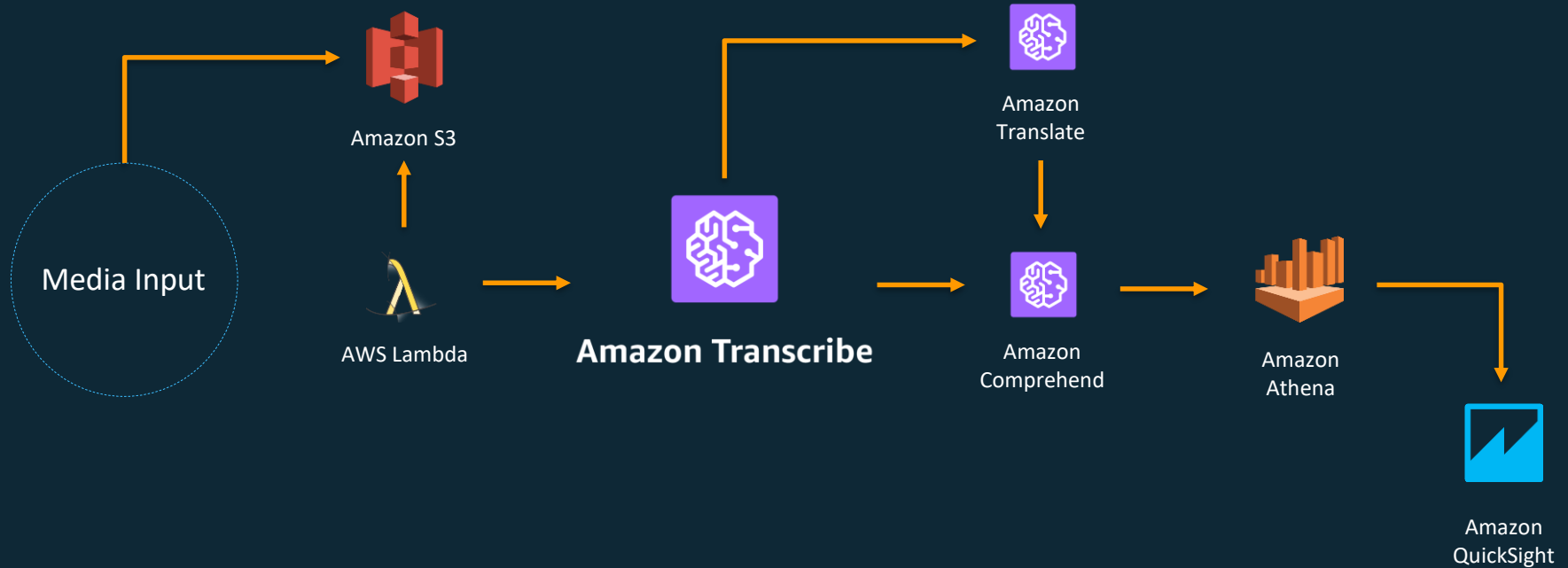
Sentiment analysis using POS tags – demo

Generating subtitles for video

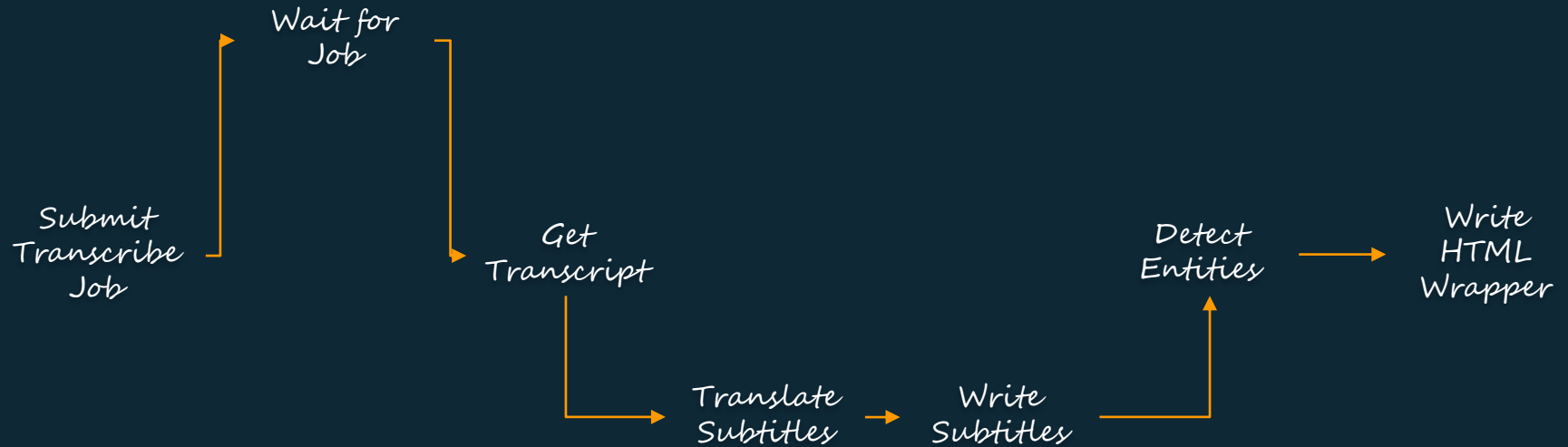
Amazon Translate

```
Translate.translateText({  
  "Text": 'Hello world',  
  "SourceLanguageCode": 'en',  
  "TargetLanguageCode": 'es'  
}, function(err, data) { ... });
```


Typical pipeline



Generating video subtitles





Patrick Tedjamulia

Co-founder & CEO



Ben Cobb

Co-founder & CTO



The Video Testimonial Platform
for Conversions & Consumer Insights

VideoPeel automates the collection of video testimonials to drive business results and better understand your customer.

Success Stories

ALL SUCCESS STORIES FROM THE PROTALUS COMMUNITY

SHARE YOUR STORY >

NOW VIEWING: VIDEO SUCCESS STORIES

FILTER BY



I'm a nurse, I work between 10 and 14 hours a day. Sometimes longer, sometimes less. But I'm on my feet all day usually. Over the years my feet have hurt and ached and were totally tired at the end of the day. I've tried the Dr. Scholl's and the inserts of other things and the shoes and nothing helped. Until I came across the M100's.

[READ MORE >](#)

—KENT HUFFMAN
NURSE

FOOT PAIN —
KNEE PAIN —
NURSE —



I never knew what plantar fasciitis was, my mom had it and said it was painful. I played in a soccer tournament in New Zealand (middle of April) but this foot pain started to hit me at the beginning of April. I was playing indoor soccer on Sundays and Thursday nights. The pain was sporadic, I would be laying in bed waiting for my game, watching TV, then all of a sudden I would get this pain in my left foot, in the arch area. I could barely walk and caused me to limp around until the pain went away. I would take an 800 ibuprofen then shortly after the pain would go away.

[READ MORE >](#)

—TRICIA NISHIKAWA

ATHLETE —
FOOT PAIN —
PLANTAR FASCIITIS —



For 6 months, I've worn Protalus insoles in shoes I wear for work and for leisurely walking. I feel secure and stable in them. I like the heel cup and the fact that they reach forward and provide comfort to the ball of my foot. I'm a husband and grandfather, just about to turn 69. I'm a minister and Air force Chaplin. I was in the Air Force all together for nearly 26 years. Currently, I'm the interim minister of a church where I've been for nearly a year. And will probably continue to do that type of work.

[READ MORE >](#)

—PHIL MILLER
MINISTER

FOOT PAIN —
HIP PAIN —
KNEE PAIN —
PLANTAR FASCIITIS —

VideoPeel edits each video for use in websites, emails, Facebook & Instagram ads, Amazon, Indiegogo, SEO, etc.

Aaron McCammon and Chimbinja Valente like Protalus.

Protalus
Sponsored · 🌐

"I was doubtful it would help but have been amazed how well it works. I can be on feet all day and walk with my daughter again. It has helped tremendously. Give it a few days to get used to them and you'll be glad you did." D. Blevins



nerve damage in my left foot

-BILL BASS

This is what People Have to say About Protalus®

Shop Now

👍👍👍 84 11 Comments 14 Shares 56K Views

👍 Like 💬 Comment ➦ Share ⌵

Domestic Shipping: Currently, items can be shipped only within the U.S. and to APO/FPO addresses. For APO/FPO shipments, please check with the manufacturer regarding shipping restrictions.

International Shipping: This item is not eligible for international shipping.

ASIN: B006EPM6UC

Item model number: 8.93169E+11


Average Customer Review: ⭐⭐⭐⭐

Amazon Best Sellers Rank: #147 in Health & Household
#2 in Health & Household
#27 in Sports & Outdoors

Would you like to tell us about a problem you're having with this product?

Related Video Shorts

Upload your video




I Tape Up Anything That's Bothering Me
KT Tape

Important information


Legal Disclaimer
No shipping outside of USA.

Sponsored products related to this item



I Tape Up Anything That's Bothering Me

REPORT ✕



Support When You Need It
KT Tape

KT Tape Helps Me to Move
KT Tape

Ultra Distance Running with KT Tape
KT Tape

I Tape Up Anything That's Bothering Me
KT Tape

VideoPeel's key challenge was to process and analyze thousands of videos to provide clients with actionable insights on who to target and what to message in their campaigns.

The screenshot displays two video entries from a 'DEMO CAMPAIGN' titled 'Record a Short Video Introducing Yourself and Sharing Your ACME Story'. Each entry includes a video thumbnail, a title, a description, user information, tags, and social sharing options.

Entry 1:

- Title:** DEMO CAMPAIGN
- Description:** Record a Short Video Introducing Yourself and Sharing Your ACME Story
- User Agreement:** Jane Doe (checked)
- User Info:** Jane Doe, 888-888-8888, jane@doe.com
- Tags:** plantar fasciitis, fiber myalgia, back pain, CVS, pressure, heel, walk, dog, Protalus, insoles, Add Tags
- Text:** I've had plantar fasciitis for about a year now. I've been battling with it. So I thought what do I have to loose, might as well try the Protalus insoles, and found out that they work well. I have fiber myalgia also so I have back pain all over the place. Well I actually did buy an insole from CVS and it said for Plantar Fasciitis but it didn't do a whole lot, it was a lot cheaper but it didn't do much. Protalus works great, it seems to take the pressure off my heel. It doesn't bother me when I have my shoes on with the insoles in. I don't have the heel pain and I can walk a lot.
- Metadata:** Jun 27, 2018, 6:17 AM
- Actions:** Reply, Edit
- Share:** YouTube, Amazon, Facebook

Entry 2:

- Title:** DEMO CAMPAIGN
- Description:** Record a Short Video Introducing Yourself and Sharing Your ACME Story
- User Agreement:** Jane Doe (checked)
- User Info:** Jane Doe, 888-888-8888, jane@doe.com
- Tags:** (None visible)
- Text:** Emily with the Happy Valley Derby Darlin's. We use KT Tape on a daily basis because in derby you get a lot of hits. So here a couple ways in which we use our tape, so we have our bunions that are taped because they cause a lot of pain when you're skating, we have our knees that are taped because we bend so much and it puts a lot of strain on the knee, we have our shoulders taped because we get a lot of shoulder hits and so it helps protect us, and then we get our ankles taped, we get our ankles taped a lot because of all the ways in which we have to move and bend around and then I actually currently have my foot taped because I have a
- Metadata:** Jun 27, 2018, 6:16 AM
- Actions:** Reply, Edit
- Share:** YouTube, Amazon, Facebook

Upgrade to Enterprise to generate personas dynamically from your current customers or your prospects. See example below.

VideoPeel AI and Machine Learning technologies integrate with Amazon Transcribe, Comprehend, and Rekognition to quickly transcribe each video and audio to create rich profiles we can cluster to generate dynamic consumer personas and insights.



HEALTH CONSCIOUS TRACY

"I want to create a healthy lifestyle in my home"

"It's made it possible for my husband and I to have bigger health initiatives. We try to jog in the evenings, 7-9 miles a day. - Jessica Noble"

"My energy level is higher, it has been the catalyst from the health standpoint. Now I don't have an excuse, I eat better, it's all part of my daily life. - Brad Houchen"



Customers



Ad Spend



ROAS

Age : 45-75

Gender : Female

Location : AZ, CA, FL, IA, IL, IN, MI, NJ, NV, NY, OK, OH, OR, PA, TN, TX, VA, WA

Education : University

Job Role : Nurse, Athletic Trainer, Massage Therapist, Pharmacist, MRI Tech, Pediatrician, Volunteer, Retail, Shipping, Teacher, Retired

Income : \$54,000+

Home Owner : Homeowners

Online Behaviors : Facebook, Instagram, Pinterest, LinkedIn

Passions : Health & Fitness, Family, Outdoors, Volunteering, Food, Animals

Weekend Activities : Walking, Running, Yoga, Travel, Hiking, Gardening, Food, Movies, TV Shows, Shopping, Family

Brand Associations : AARP, FitBit, Levis, Harley Davidson, Donald Trump, New Balance, Orange Theory, Walmart

Why did you need it? : I'm on my feet all day on concrete, have foot, ankle, knee, and back pain. Also, arthritis.

What impact did it have on you? : I can do my job better, I can stand for longer periods of time now with no pain, I no longer have to take constant breaks at work.

Why did you choose it versus other alternatives? : Dr. Scholl's and Orthotics didn't work.

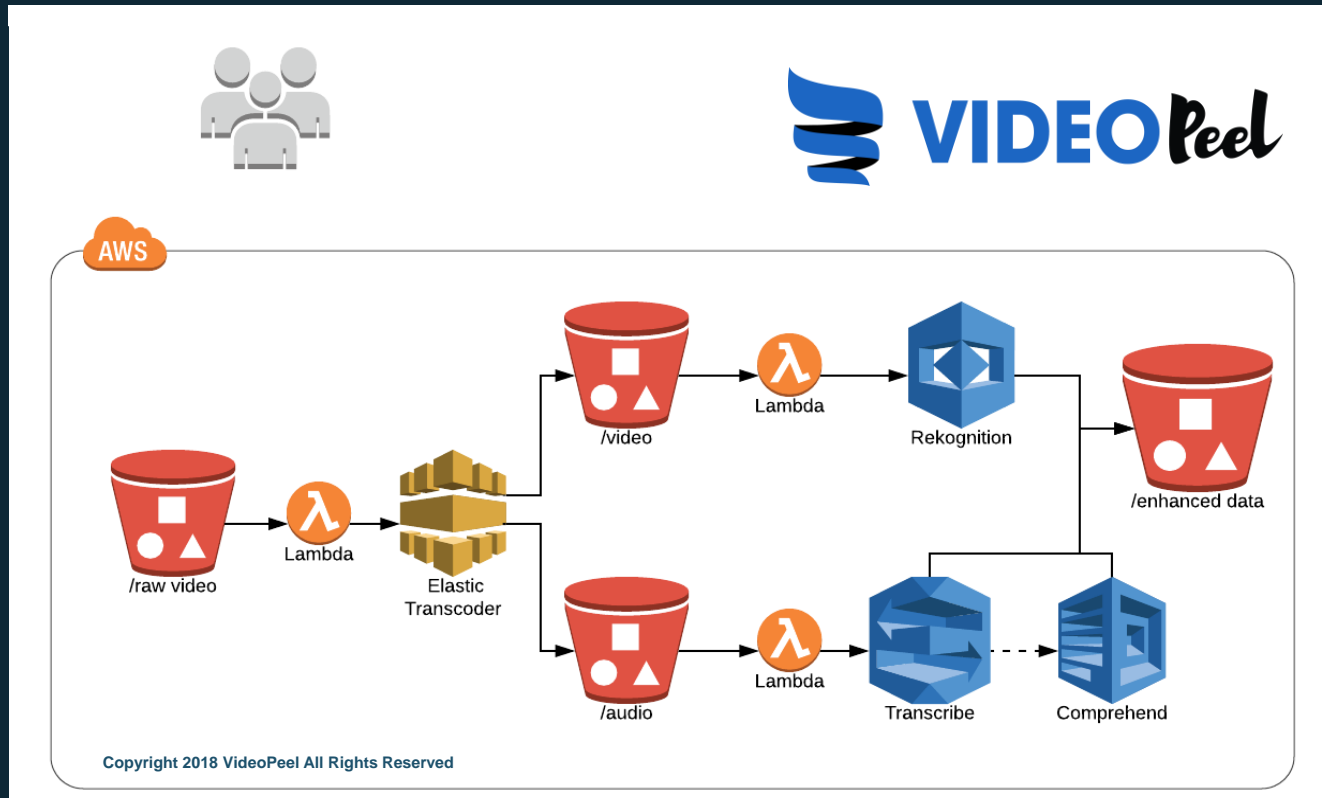


PHOTO & FILM JASON

"I use River to power up my batteries so I don't lose power during my time lapses. - Timmy Nguyen "



VideoPeel architecture - integration with Amazon Transcribe, Comprehend and Rekognition



Now what?

- Use Amazon Transcribe and Amazon Translate for media and big data workflows
 - Consider services like AWS Glue, Amazon CloudWatch Events, and AWS Lambda for scalability
- Try Amazon Comprehend for analyzing user generated content
- Watch for new patterns on the AWS ML Blog
 - <https://aws.amazon.com/blogs/machine-learning/>
- Tell us how we can improve these services

Thank you!