SPS COMMERCE

Platform Strategies Accelerating AI Initiatives

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Agenda

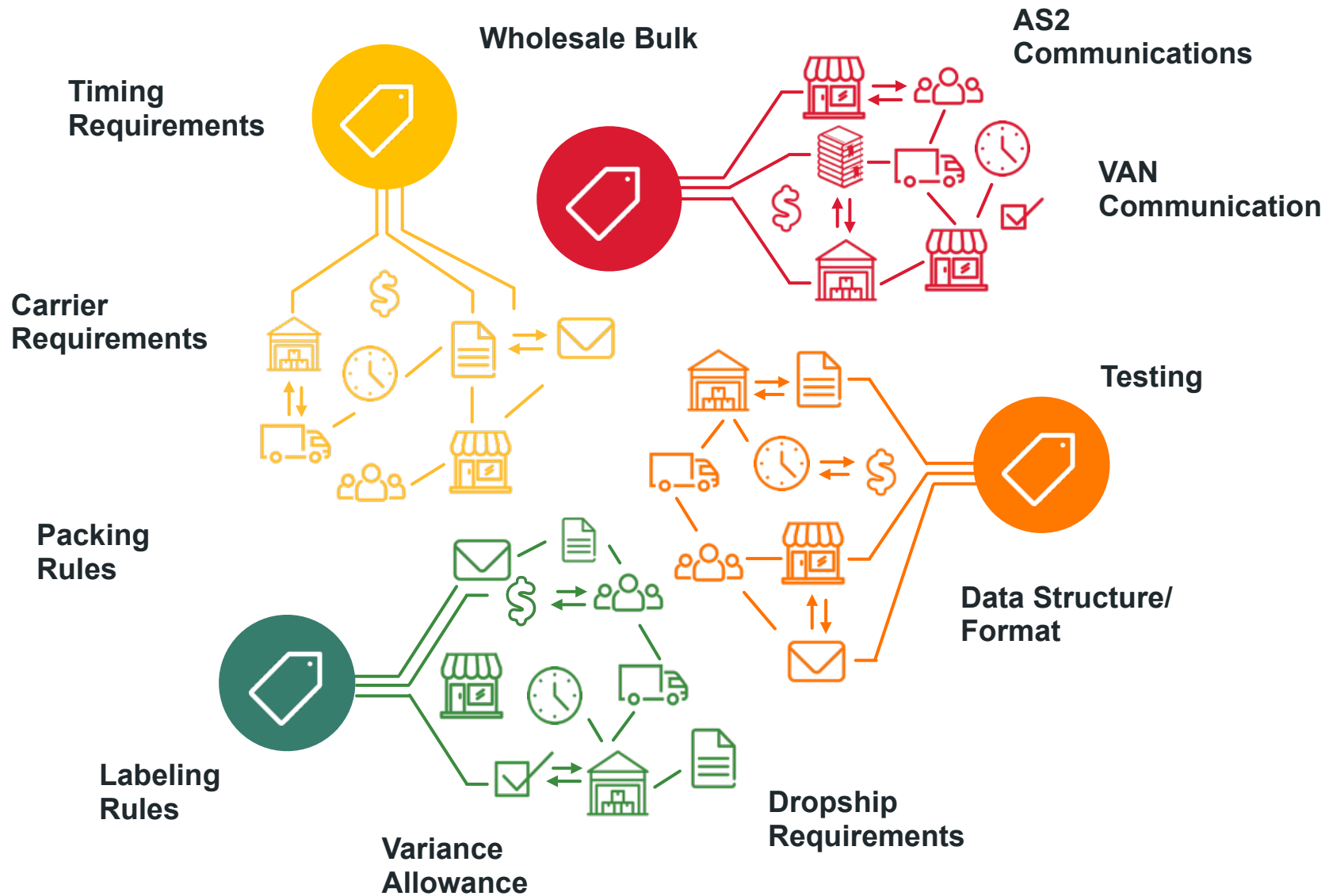- Introduction

- Movements from our Past

- An Approach to Mobilizing AI

- Wrap up

Supplier Business Needs are Complex

Core Products

Seasonal Products

Systems

Fulfillment Models

Pick and Pack Process

Lead Times

Shipping

3PL Partners

Roles

Suppliers

Channels

Team

Order Sources

Order to Cash Process

Master Data Format

Connections

Unique Contractual Requirements

Every Retailer Has Unique Rules and Expectations

Timing Requirements

Wholesale Bulk

AS2 Communications

VAN Communication

Carrier Requirements

Testing

Packing Rules

Data Structure/ Format

Labeling Rules

Dropship Requirements

Variance Allowance

1 Data/Information Exchange

2 Business Processes

3 Contacts

Prebuilt All Retailer Expectations into a Single Connection

1. data
2. business process
3. contact rules
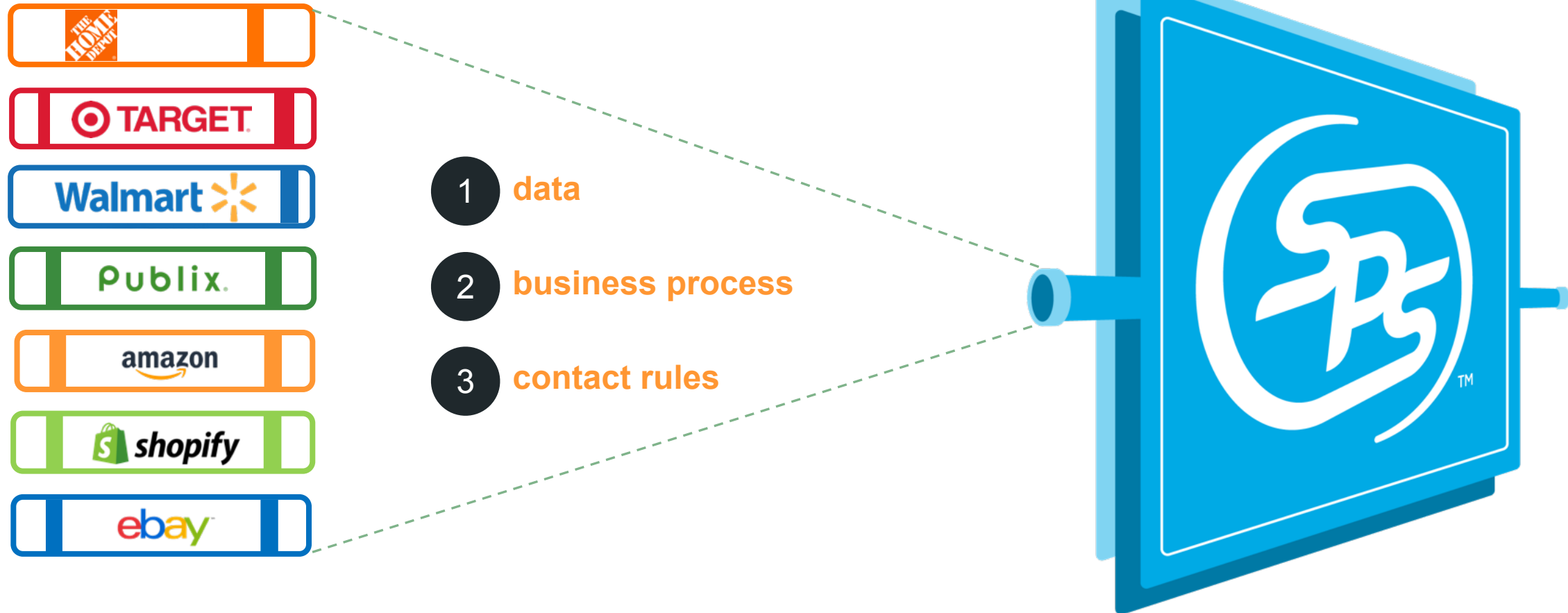
Gen AI – We've seen similar movements in the past….

We've seen similar with cloud computing...

*AI prompt used to generate this image:
Create a funny picture depicting cloud computing

*AI prompt used to generate this image:
Create a funny picture depicting microservice architecture

We've seen this before with Microservices Architecture

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What did we learn from past movements?

Infrastructure as Code & Repeatable Deployment Patterns

Managed Services Offer Incredible Scale & Availability

Observability is a Requirement

API Strategies are Necessary to Scale Access to Data Securely

Advanced Scaling & Scheduling is Important (Kubernetes)

What did our learnings produce?

- A lot of them produced concepts found in Platform Engineering:
    - Cloud Implementation Strategies
    - Network & Service Mesh
    - Scalable Compute: Kubernetes & Serverless
    - Deployment & Immutable Artifacts like Containers
    - Observability: Metrics, Logs, & Traces
    - API Gateway Strategies
        - Identity & Authentication
        - Authorization
        - Entitlements

- Outcome of these Learnings:
    - Enable product engineers to focus as much of their time as possible on the customer problem to be able to deliver value quickly and securely by solving "differentiated engineering" centrally

GenAI – It's Coming…… It's mostly already here….

3 Perspectives for Applying GenAI

Leverage Vendor
Features

Corporate or Internal
Services & Tooling

Customer Facing
Feature

Leverage Vendor Features

- SaaS Organizations are well positioned to offer meaningful value via GenAI technologies with lower friction than running your own services

*AI prompt used to generate this image:
Create a funny picture depicting customers waiting in line to pay a service provider for an easy button

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Corporate/Internal Implementation (an SPS Story)

*AI prompt used to generate this image:
Create a picture depicting an internal AI assistant named Sparky, intended to help improve business efficiencies

- Corporate/Internal implementations of GenAI are a great opportunity to explore GenAI safely with business benefits:
  - Securely control access with standard corporate authentication and networking
  - Easily govern appropriate data
  - Quick & engaged feedback loops
  - Potential for quick efficiency wins

- #TeamSPS Sparky
  - Accurate Internal Information:
    - Company Policies & Benefits
    - Helpdesk & Technical Troubleshooting
    - Developer Platform Documentation
    - Retailer Rulebooks
  - Marketing & Sales Assistance
    - Style & Branding
    - PowerPoint & Image Creation
    - Personas for Training

Customer Facing Features

- AI Product Features have the Potential to Increase:
  - Customer Satisfaction
  - Market Perception
 - Sales Close Rates
  - Revenue

But………..

*AI prompt used to generate this image:
Create a meme in the spirit of the Oprah "You get a" meme with a "you get an AI Tool" theme

Customer Facing Features

- But…….. It's publicly available and associated with customer expectations now. How do you:
  - Ensure it's highly available?
  - Resolve performance issues quickly?
  - Have the utmost confidence in your security and data access?
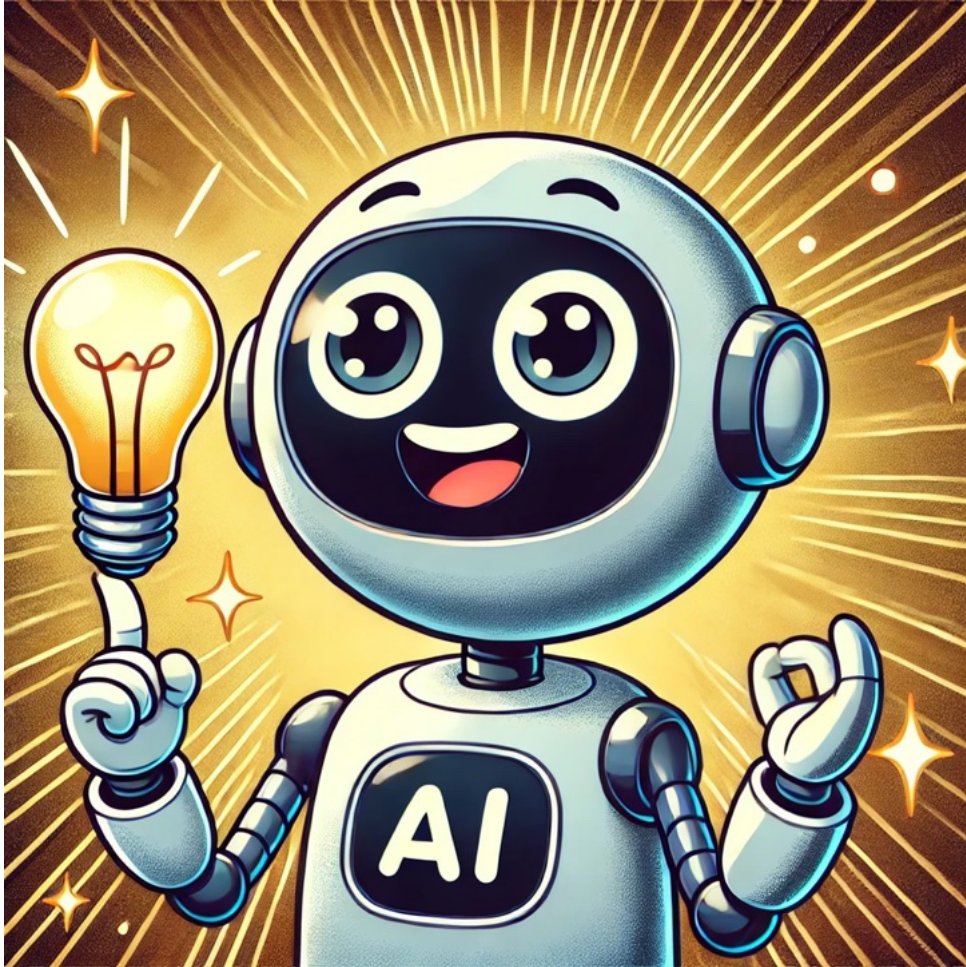 - Accurately meet the legal requirements for you and your customers?
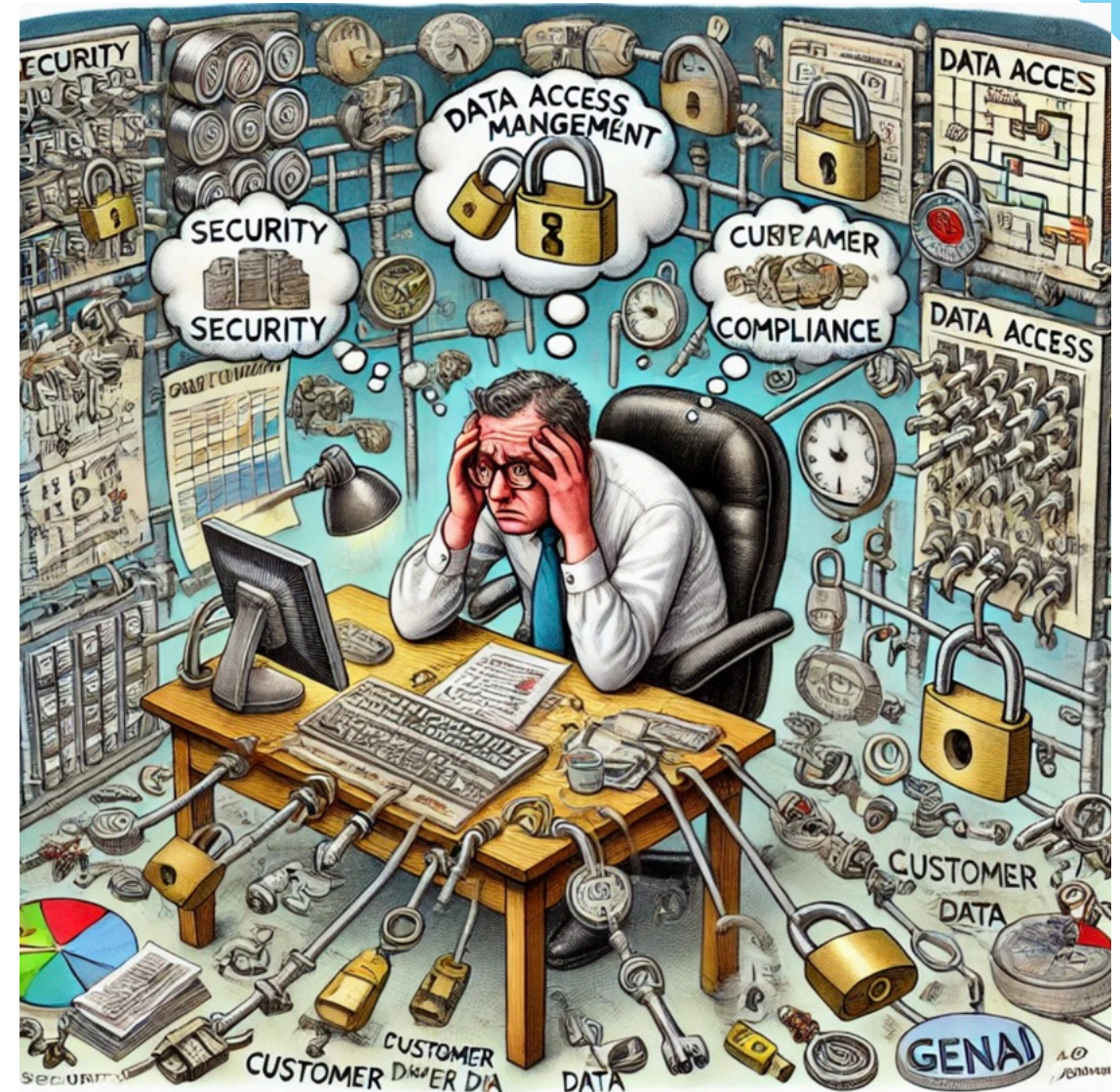
*AI prompt used to generate this image:
Create an image that depicts the anxiety associated with figuring out data access management for a production customer facing GenAI feature

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Example: AWS Bedrock + AppSync
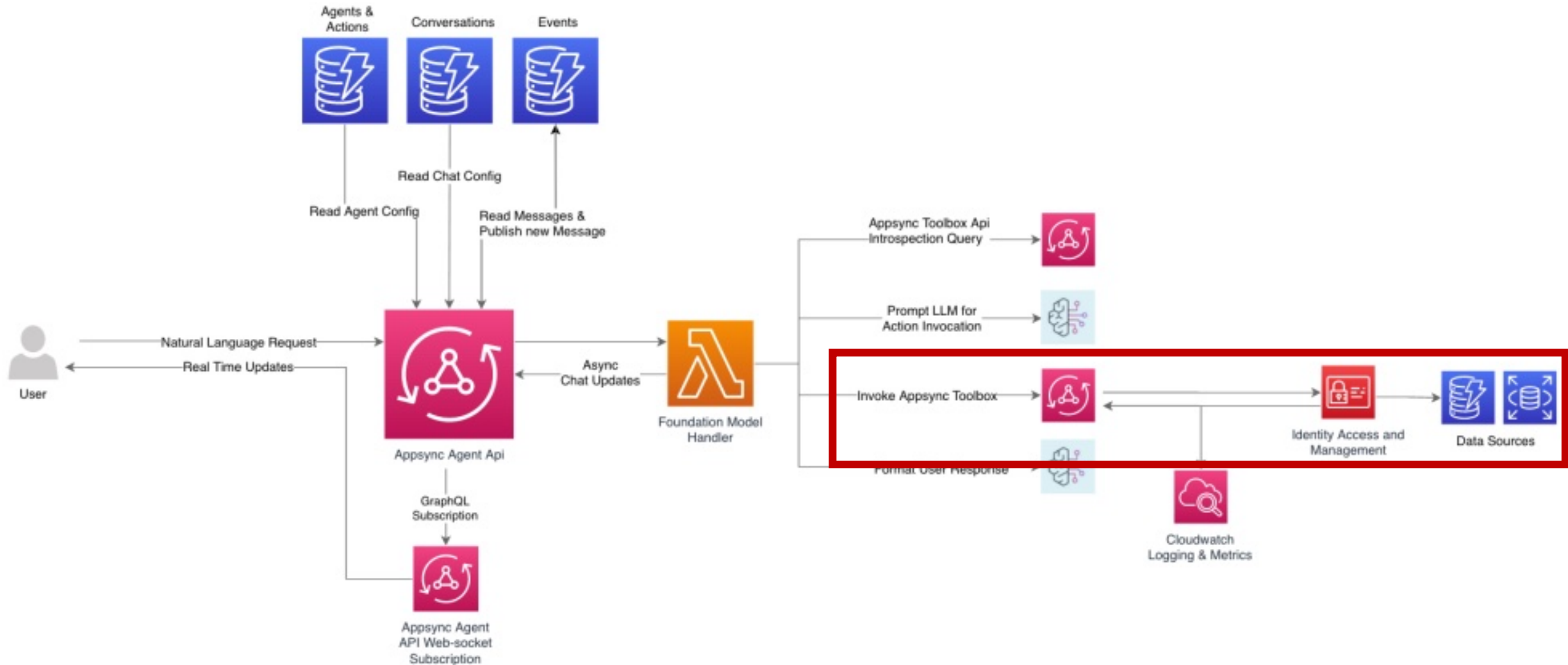
Wait...this sounds familiar!

*AI prompt used to generate this image:
Can you use the character you used earlier as "Sparky" but put it in an image inferring a moment of having an epiphany?

- Ensure it's highly available?
  - We leverage our platform that spans multiple AZs in multiple regions
  - We leverage cloud managed services where possible (OpenAI + Bedrock)
- Resolve performance issues quickly?
  - We leverage observability tools built into our platform for metrics, logs, and traces
- Have the utmost confidence in your security and data access?
  - We leverage our API strategy which includes Identity, Authentication, and Entitlements
- Accurately meet the legal requirements for you and your customers?
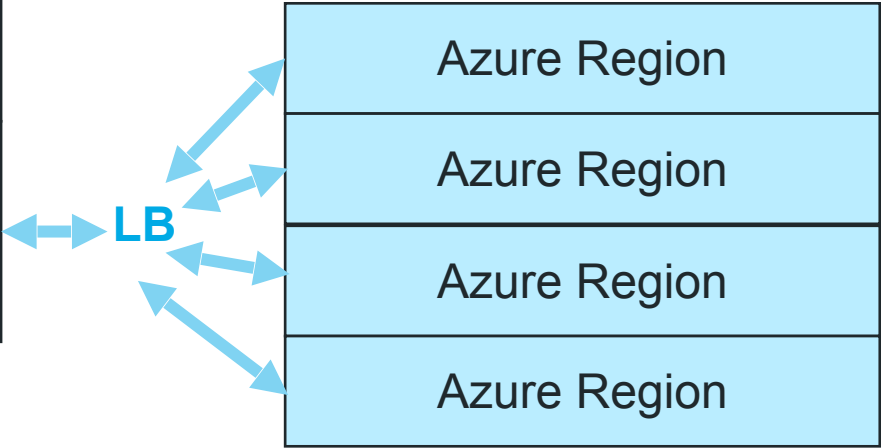 - You're on your own… but you should get started on this in parallel. ☺

The Story Visualized
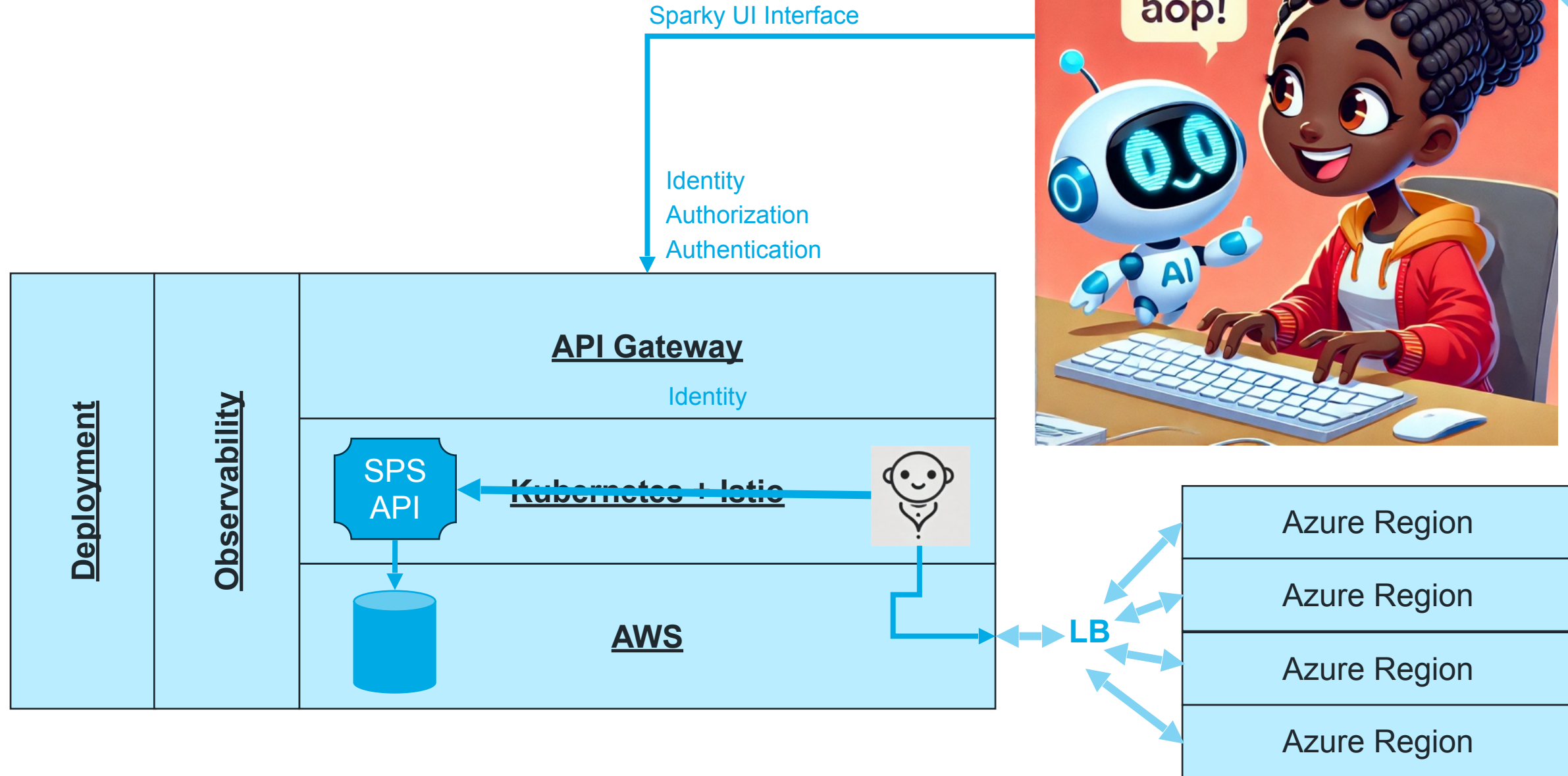
Deployment	Observability		
		Identity	Authentication
		API Gateway	
		Authorization	Entitlements
		Scalable Compute	
		Kubernetes + Istio	Cross Region Custers
		Multi-AZ	
		Centrally Managed Networking	Multi-AZ
		AWS	Multi-Region
		Automated Policies	Multi-Account

LB

Azure Region
Azure Region
Azure Region
Azure Region

The Story Visualized

Sparky UI Interface

Identity
Authorization
Authentication

API Gateway

Identity

SPS API

Kubernetes + Istio

AWS

LB

Azure Region

Azure Region

Azure Region

Azure Region

Deployment

Observability

The Wrap Up

Platform and API Gateway services will help you build, deploy and operate AI services quickly and safely

Consider categorizing implementations of AI so you can accelerate where it's safe or align your efforts to value

GenAI is a movement, we've seen movements before

Thank You

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