Advantages of Becoming Event-Driven with Advanced Event Mesh

Dirk Oppenkowski
VP SAP Alliance - SOLACE

September 27, 2023

Public

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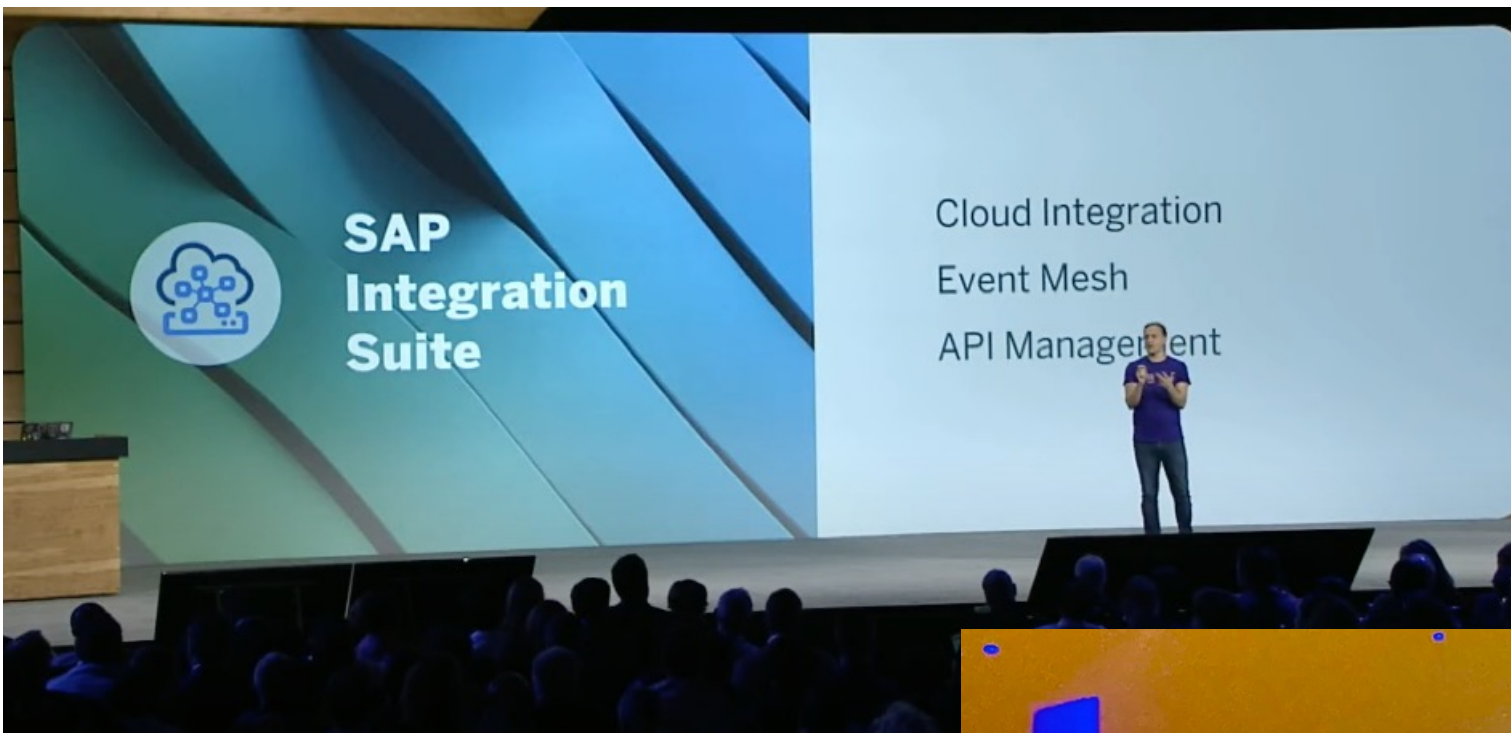
THE BEST RUN SAP
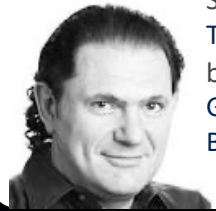
Source: Introduction to Event-Native Thinking and Building by Yefim Natis, Gartner Application Innovation & Business Solutions Summit 2023

Industry Perspective

Why Event Native: Comparing Synchronous only APIs

Why Event Native: Comparing Synchronous only APIs

Tune in to "Events"

Responsive Apps

Better Innovation and Analytics

Better Robustness and

Faster Time to Market

Future Proof

Performance

What is Event Driven Architecture?

In modern businesses, when something happens... (i.e. an *event* occurs)

And (frequently) do something about it

Customer buys certain product
- Inventory System → Decrement in-store and online
- Merchandise Management → Request replenish from stock room
- Customer Loyalty → Update points, reward for new level

High temp detected in drive motor
- Safety Assurance → Degrade or cease operation
- Personnel Alerts → Notify security to indicate closure
- Maintenance Scheduling App → Dispatch repair technician

Passenger boards flight a little late
- Boarding Management → Update expected departure time
- Connections ML Engine → Rebook passengers missing connection
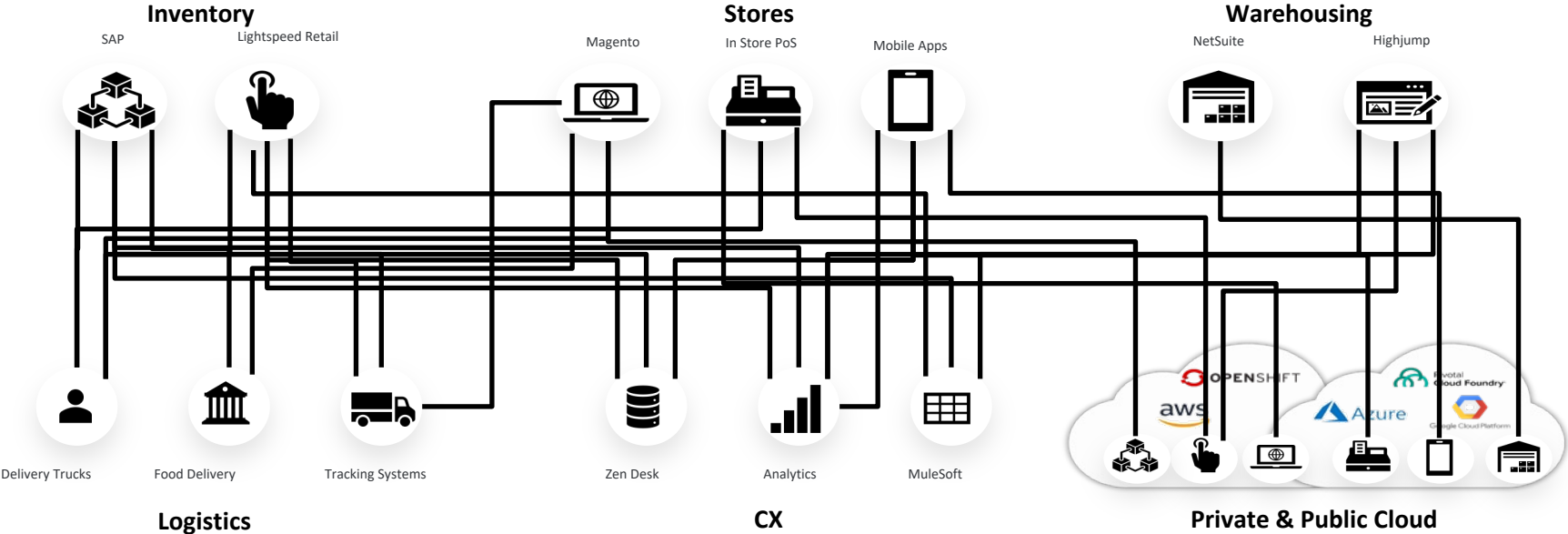- Customer Notifications → Change passenger status, alert family

- **Global in nature**
- **Hybrid Cloud, Edge**
- **Diverse Technologies**
- **Enterprise Grade**
- **Simple (event design, discover, govern)**

SAP Advanced Event Mesh

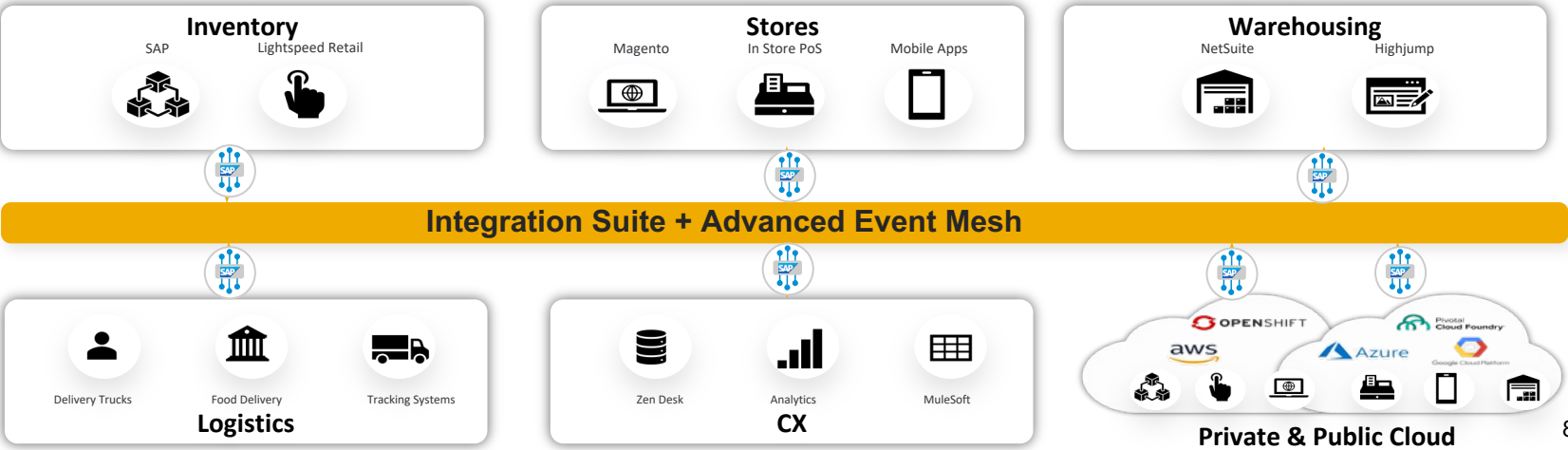# Move from Spaghetti Integration to Plug & Play Architecture

From

"Spaghetti Architectures" Delay Digital Transformation

Inventory
SAP Lightspeed Retail

Stores
Magento In Store PoS Mobile Apps

Warehousing
NetSuite Highjump

Delivery Trucks Food Delivery Tracking Systems

Logistics

Zen Desk Analytics MuleSoft

CX

Private & Public Cloud

To

A Publish – Subscribe Mesh

Inventory
SAP Lightspeed Retail

Stores
Magento In Store PoS Mobile Apps

Warehousing
NetSuite Highjump

Integration Suite + Advanced Event Mesh

Delivery Trucks Food Delivery Tracking Systems

Logistics

Zen Desk Analytics MuleSoft

CX

Private & Public Cloud

Selected Real Time Customer Examples
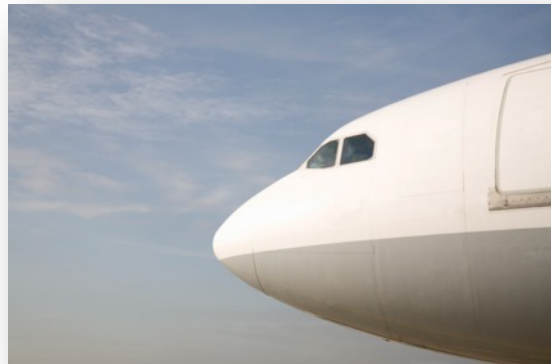

Speed and Reliability

Availability

Supply Chain

Customer Experience

Customer Guidance

Data Distribution

Bank: Consolidated trading & market data platform

Bank-wide consolidation coupled with Event Driven Architecture unleashed sizable savings

Situation & Goals

- Disparate messaging systems were cumbersome, unreliable, and slow

- Multiple platforms across regions for FI/FX, equities front & middle office and post trade data

- High cost of maintenance, slow speed of infrastructure

Solution

Global platform for FI/FX, Equities front & middle office and for all post trade data using an enterprise-wide Event Mesh

Benefits

- Bank wide consolidation

- Common distribution backbone for market data, post trade data, reducing complexity and hence reducing risk

- >100B messages per day in March 2022

Furniture Retailer: Digital Transformation

Real-time view and updates on stocks and shipments across heterogenous environments

Situation & Goals

- Adopted cloud first approach, struggling to feed newer applications built on cloud with the data sources predominantly on-prem.

- Real-time inventory management

- Real-time shipment notification & updates

Solution

- Advanced Event Mesh to connect customer facing webshop to inventory and logistics backend

Benefits

- Accurate stock information & order status across omnichannel customer experience

- Online share revenue increase from 18% to 30%

- Liberated access to data, turbo-charging innovation and agility

Food and Beverage: Intelligent Supply Chain

Consumer-driven supply chain to improve production and distribution is a mission-critical

Situation & Goals

- Incorporate consumer and customer sentiment
- Automate event and data flow
- Include 4PL partners
- Standardized and Global Integration of partners (e.g. co-manufacturers, co-packers)
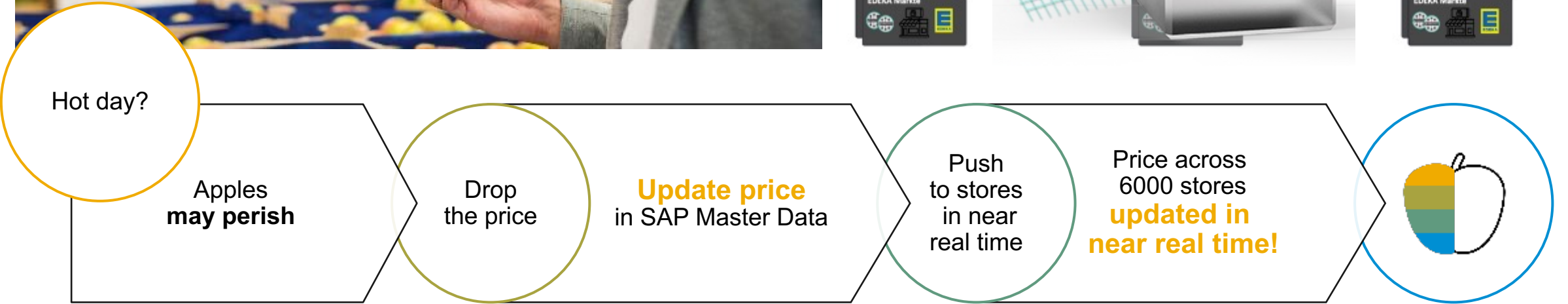
Solution

- Real-time event-mesh to connect Kinaxis Suppy Chain, SAP ERP and other applications

Benefits

- Multi-Million $ supply chain savings due to route optimizations and real-time transit visibility
- 35% Forecast Improvement
- Reduced waste due to IoT based production optimization

Real-Time Promotion Management

Hot day? → Apples **may perish** → Drop the price → **Update price** in SAP Master Data → Push to stores in near real time → Price across 6000 stores **updated in near real time!**

Manufacturer: Industry 4.0

Connected manufacturing driving productivity improvements

Situation & Goals

- Plant produces brake control systems with 20+ years connected manufacturing experience

- Demand-driven material replenishment

- Full visibility of any order at any time

- Automatically generated analysis to pinpoint production line failures in real-time

Solution

- Advanced Mesh real-time event-mesh connects 5000 systems
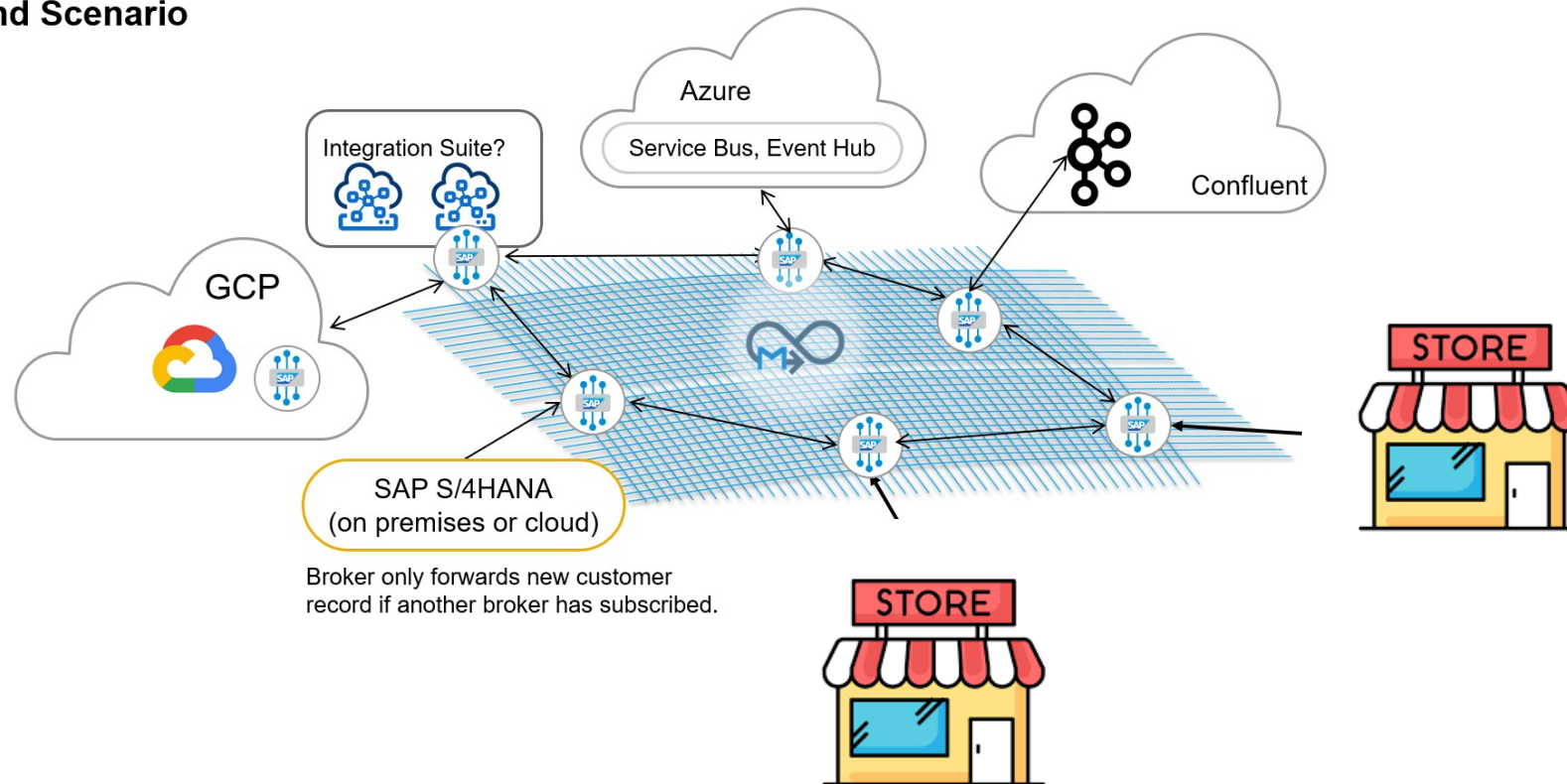
Benefits

- Fully automated flow of goods with leaner logistics processes

- Reduced inventories, standardized maintenance processes, and 100% traceability

- 23% increase in productivity

- Focus employees on higher value tasks

Advanced Event Mesh Connecting All Your Environments in Real-Time

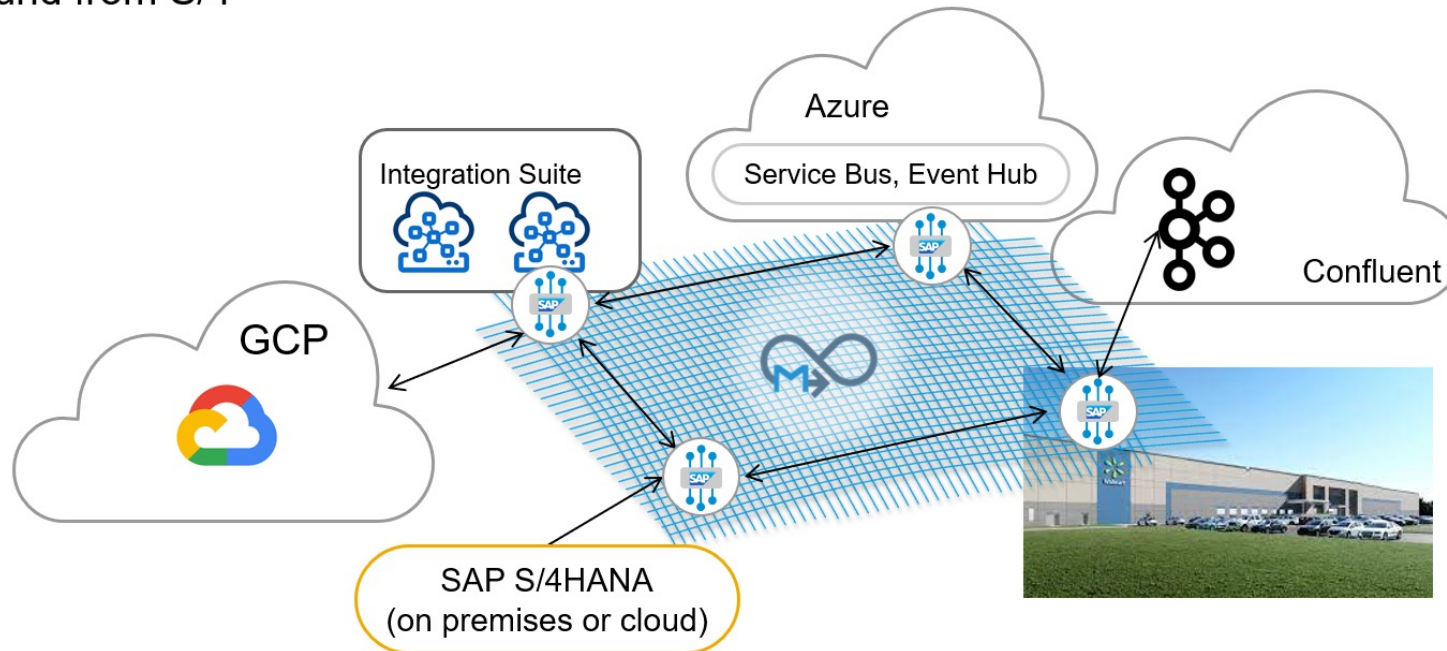**SAP Integration Suite, advanced event mesh**

Inbound Scenario

- Order Management Inbound
- Batch (24h-36h) to real-time
- Decoupling Stores from S/4HANA availability
- Simplify Connectivity Security

Advanced Event Mesh Connecting All Your Environments in Real-Time

Outbound from S/4

SAP Integration Suite, advanced event mesh
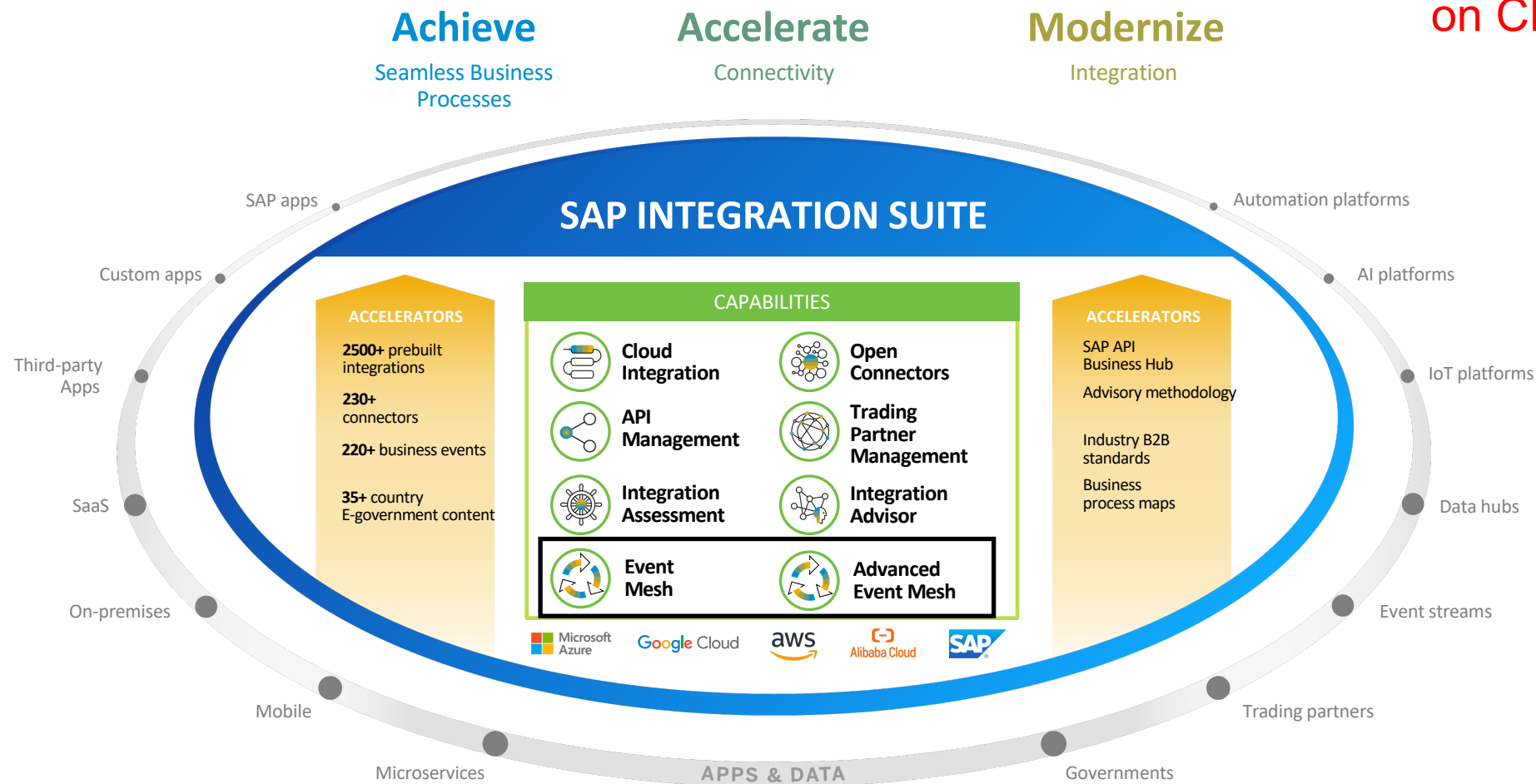
- Master Data Outbound

- Push MDM changes out in real-time instead of hourly

- Push changes once, fan-out to multiple systems

- Connect systems directly to real-time feed instead of polling Big Query periodically for changes

- Leverage dynamic topic filtering to efficiently select relevant master data

New SAP Integration Suite, advanced event mesh enables responsive business processes at enterprise scale

Available on CPEA

Achieve
Seamless Business Processes

Accelerate
Connectivity

Modernize
Integration

SAP apps

Custom apps

Third-party Apps

SaaS

On-premises

Mobile

Microservices

Automation platforms

AI platforms

IoT platforms

Data hubs

Event streams

Trading partners

Governments

APPS & DATA

SAP INTEGRATION SUITE

ACCELERATORS

2500+ prebuilt integrations

230+ connectors

220+ business events

35+ country E-government content

CAPABILITIES

Cloud Integration

Open Connectors

API Management

Trading Partner Management

Integration Assessment

Integration Advisor

Event Mesh

Advanced Event Mesh

Microsoft Azure Google Cloud aws Alibaba Cloud SAP

ACCELERATORS

SAP API Business Hub

Advisory methodology

Industry B2B standards

Business process maps

Five Key Elements of an Enterprise EDA Strategy

Real Time Response

Real time data routing and synchronisation between systems
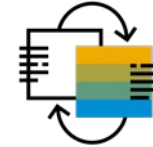
Fan Out Calling

Reduce un-necessary duplicate data pipelines & just plug new consumers in

Dynamic Routing

Delivers the correct message to the correct application in real time dynamically

Decoupled Connectivity

Reduce the risk that changes in one module will necessitate a change in another module

Events Discovery

Enterprise EDA requires event visibility across the enterprise – developers won't use what they can't find

Improve customer satisfaction and experience

Cut development time + cost of 1-to-many interfaces

Reduce egress charges and load on interfaces

Leverage plug & play for higher agility

Accelerate application development

Thank you.

Contact information:

Dirk Oppenkowski
dirk.oppenkowski@solace.com

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