



**Hewlett Packard
Enterprise**



Intelligent Edge

HPE makes sense out of SAP's SAP Leonardo suite and how that integrates into your 'Digital Core' to unleash the business and disrupt

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Vice President – Global SAP
Practice and Alliance
Based out of Palo Alto, USA
SAP focused since 2007

Today's Agenda

- 1 Opening Remarks – The 'Edge to Core' Era
- 2 HPE Next – We run SAP – Why this matters
- 3 Retrofit your Things - How SAP Leonardo works
- 4 Intelligent Edge Use Cases from HPE & SAP
- 5 Why trust HPE for your SAP deployment

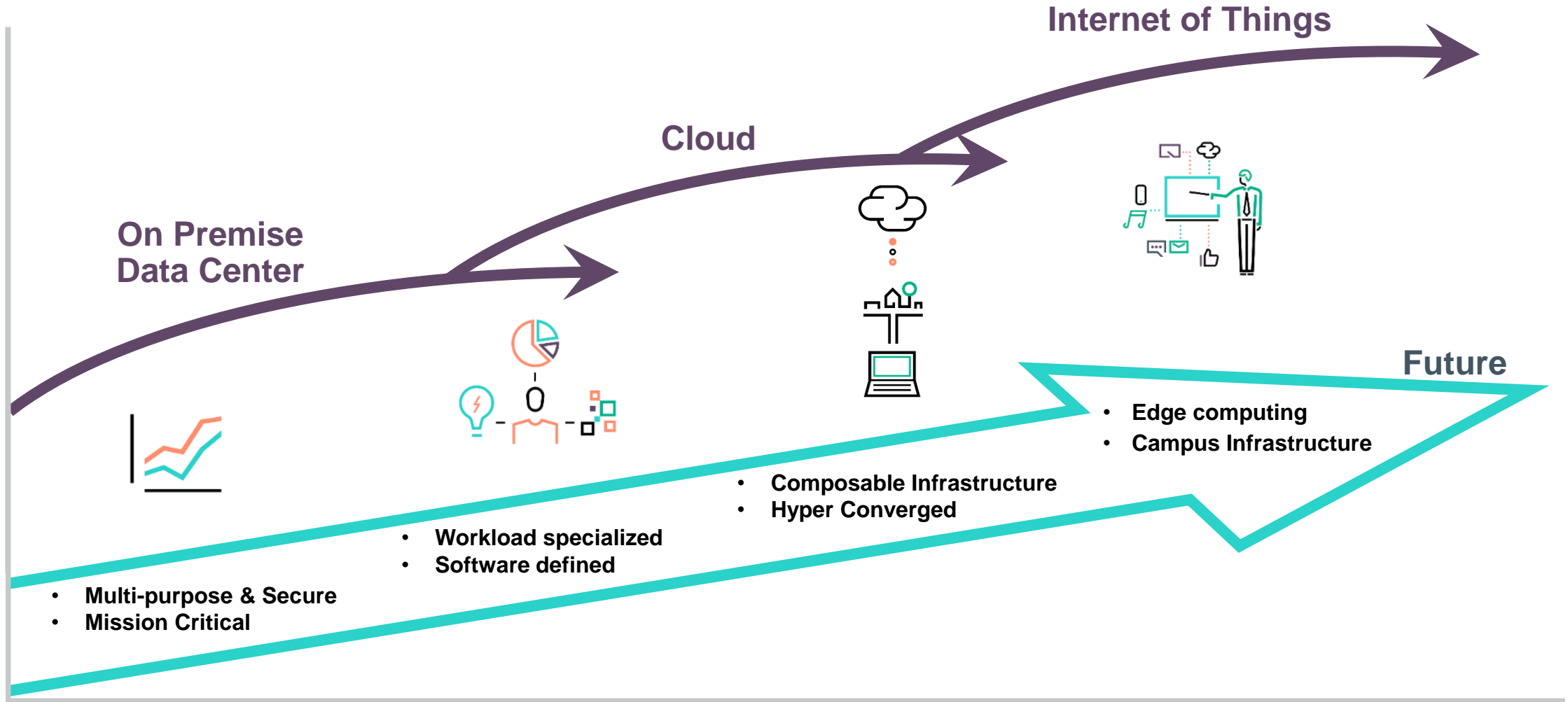
Opening Remarks

HPE believes the world will be hybrid and that the intelligent edge will unleash an industrial IoT revolution



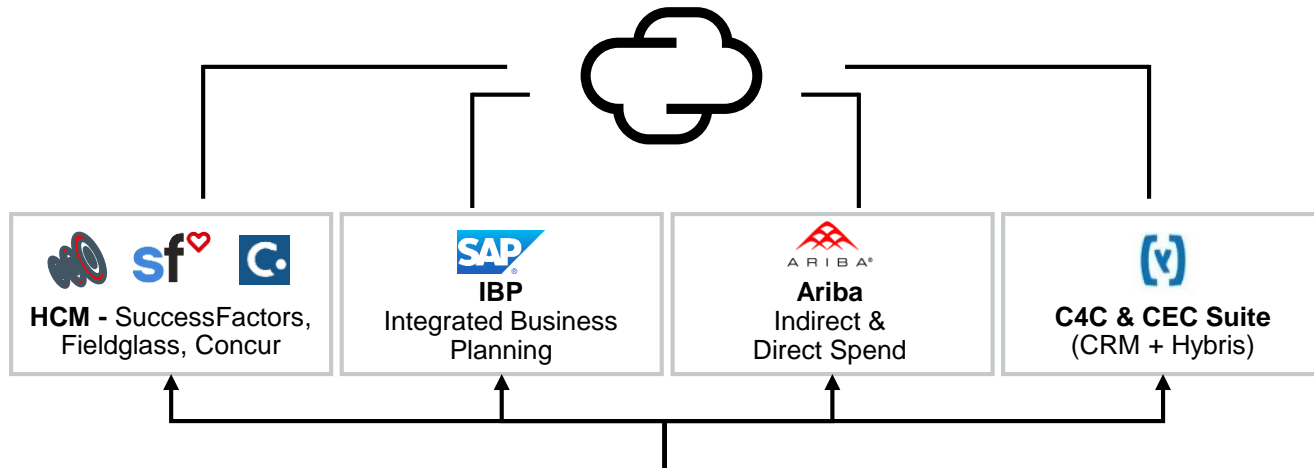
Opening Remarks

HPE's innovation commitment to help customers progress toward the future

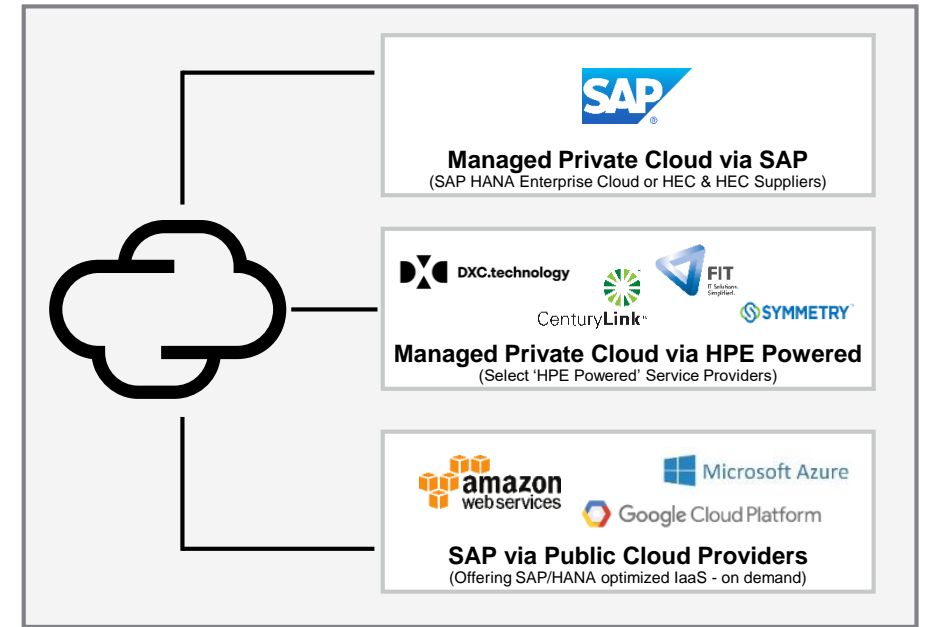
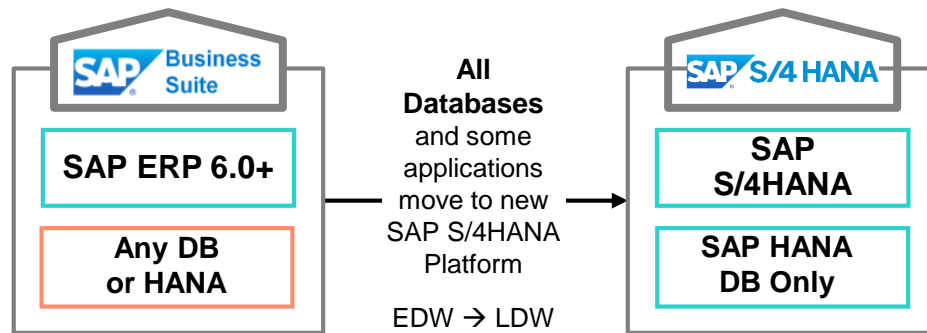


100% of SAP Customers will be hybrid by 2025

What will happen to SAP ERP?



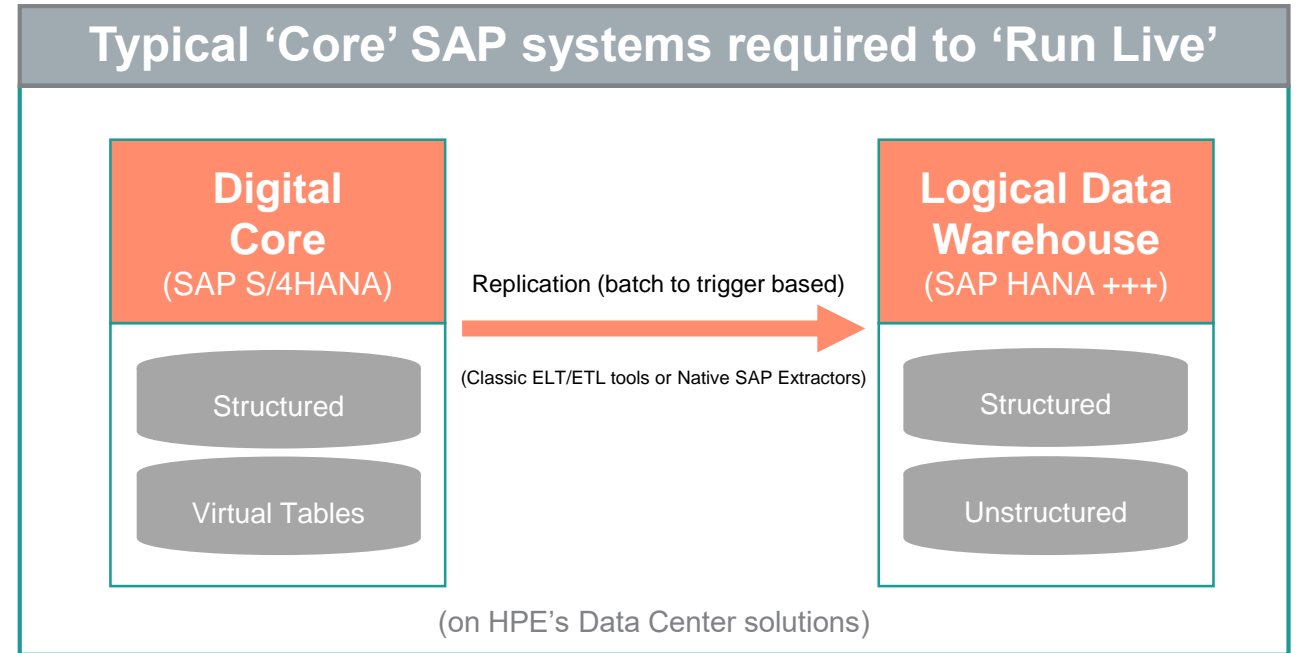
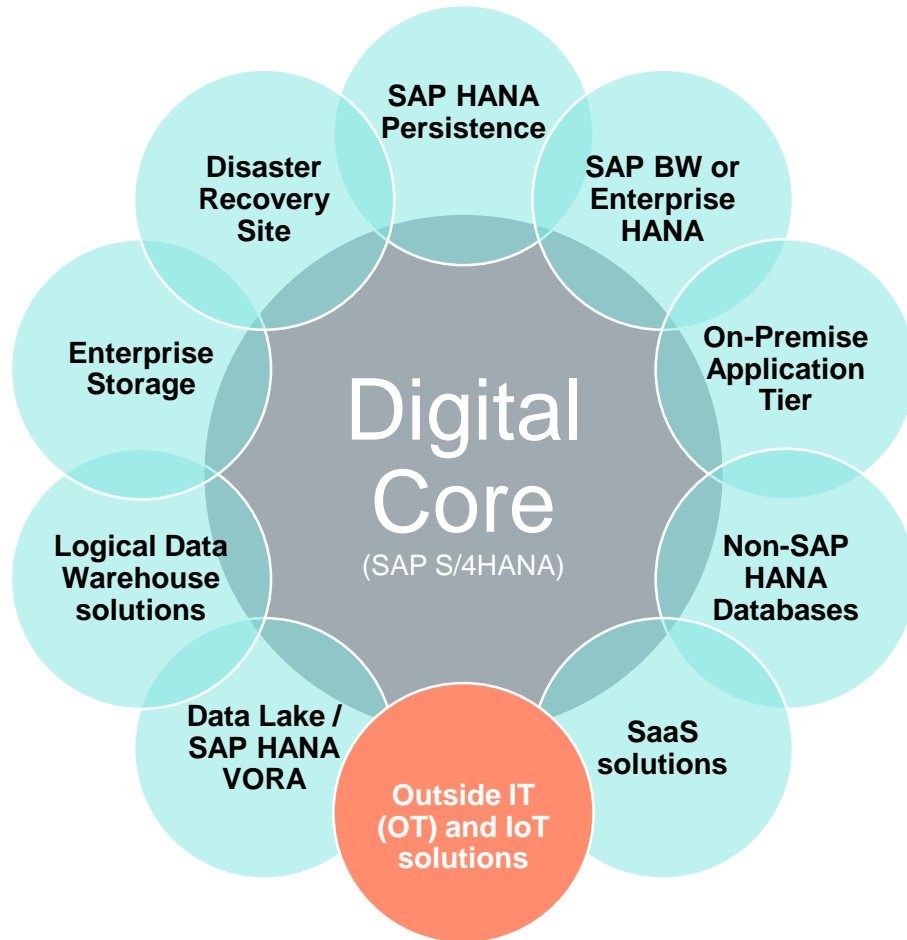
Several classic SAP ERP on-premises applications will move directly to SaaS
(Select SAP Software as a Service or SaaS offering)



The resulting 'Digital Core' stays on-premises, or moves to multiple consumption choices

Mission Critical Connections in the 'Edge to Core' era

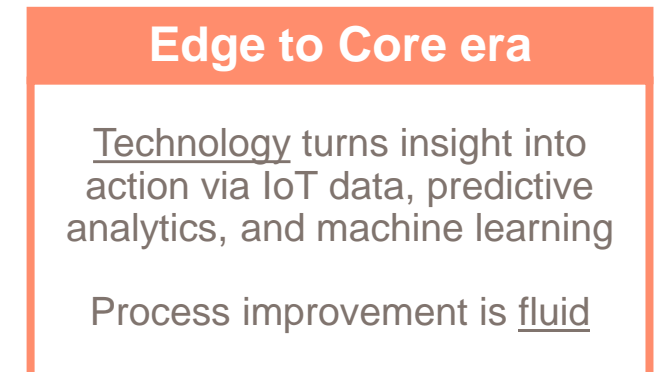
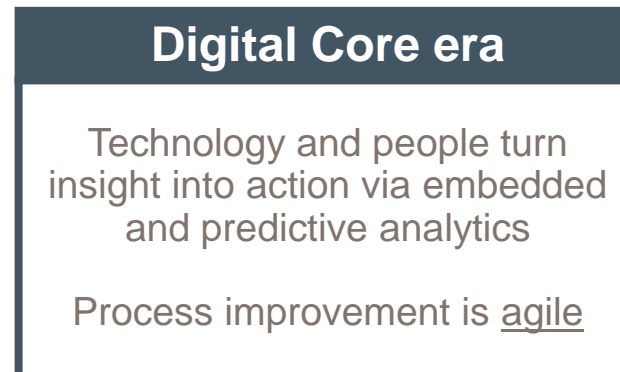
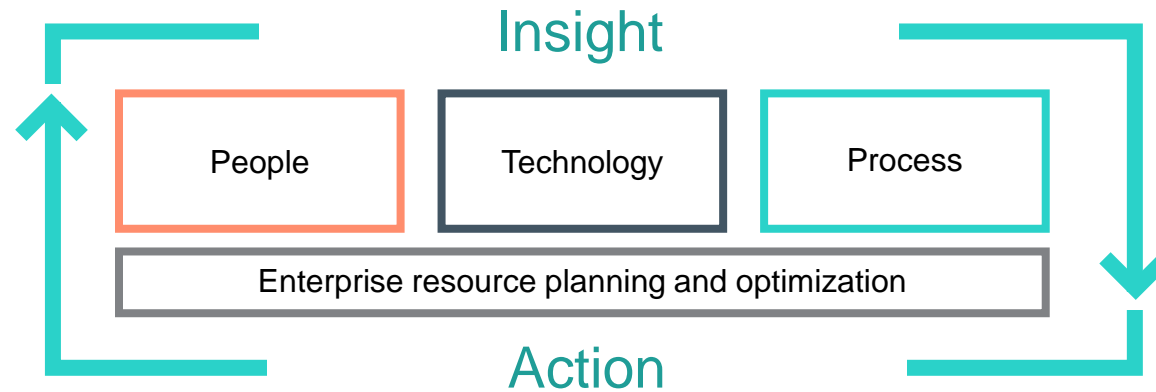
Understanding the key architectural considerations and how this impacts your hybrid cloud deployment options



(Shift Left with HPE's Edgeline 'Converged Edge' solutions)





Role of Modern ERP

Evolution and progression of 'Insight to Action' in context of the 'Industrial IoT revolution'



HPE Next: HPE's Business Case for Digital Transformation

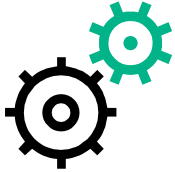
Understanding SAP's critical role in our 'Next Gen IT' and 'Quote to Cash' projects

		From	To
	Offerings	Volume: 26+ platforms 50K active configurations ¹	10 platforms 10K active configurations
		Value: ~27 platforms	7 platforms
		Option SKUs: ~3500 across major commodities	~875 across major commodities
	Supply Chain & Manufacturing:	17 manufacturing locations	7 manufacturing locations
	Services:	33 supported languages Diffused locations	10 languages Centralized hubs
	Processes & IT:	1000 processes ~950 applications 10 ERP systems	100 processes ~350 applications 1 ERP system

Learn More: <http://investors.hpe.com/#hewlett-packard-enterprise-securities-analyst-meeting-2017>

We run SAP...

HPE first deployed SAP ERP over 20 years ago... we started our journey to SAP S/4HANA here



ERP & supply chain

- **SAP ERP Central Component (ECC) accelerator**—ERP processes in key areas such as order management administration, month/quarter/fiscal year end processing, and live operational reporting.
- **SAP S/4HANA (S/4) in sandbox**—Delivering modern 'experience-at-scale' to users for both ERP and SCM. UAT for new Process'
- **SAP Global Trade Services (GTS)** reporting views enabled via a **SAP HANA live sidecar**

40 TB of SAP HANA | 28 TB (production)



Next Gen SAP analytics

- Migrated off **SAP Business Warehouse (BW) Accelerator to SAP BW on SAP HANA** and saw great query performance across the board for all SAP BW reports
- Near real-time **visibility** into inventory and accounts for lookups and 'Quote to Cash'

18.5 TB of SAP HANA

We also use SAP's cloud...



Financial planning

- Migrated **SAP BusinessObjects™ Planning and Consolidation (BPC) to SAP HANA** to improve overall performance for core users
- Drive accelerated and sophisticated scenario planning in real time
- End user productivity increases and gains

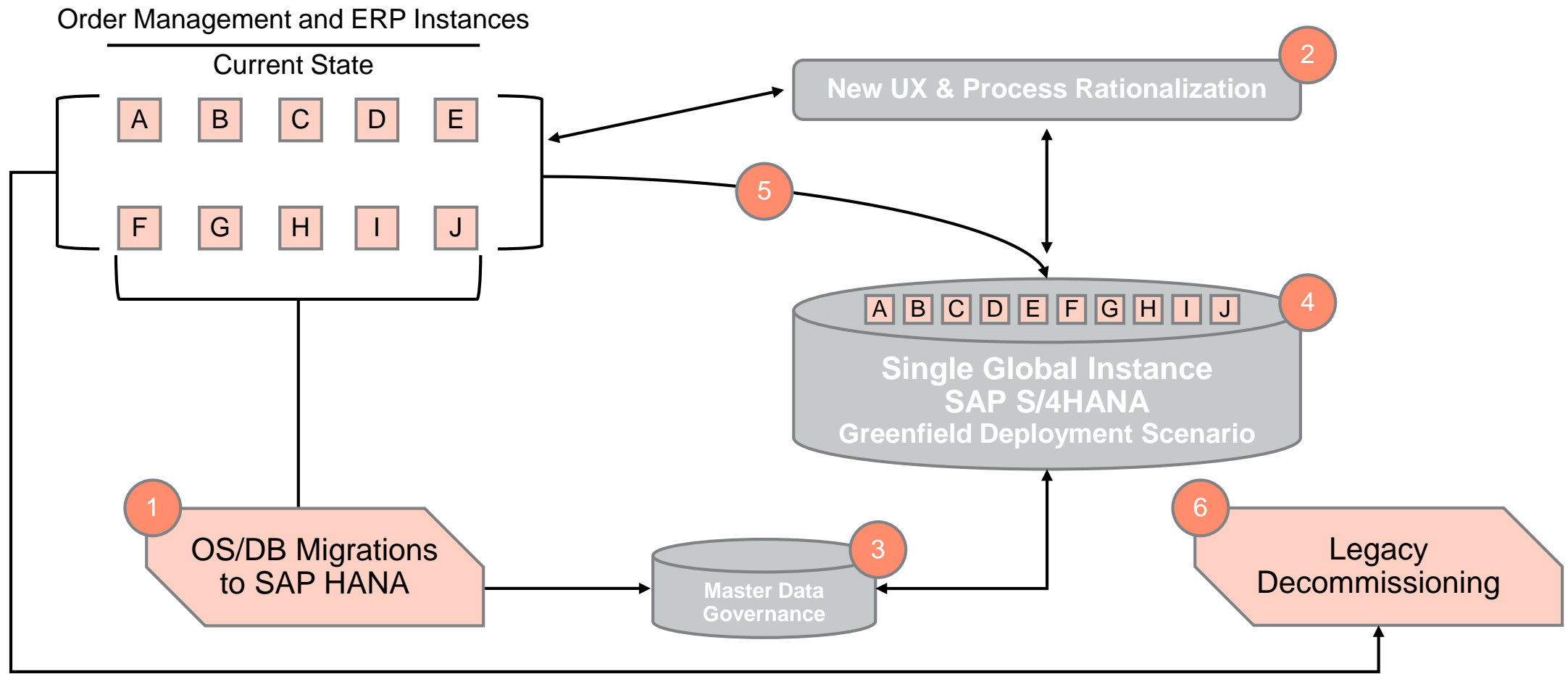
2 TB of SAP HANA

← Deployed on HPE's Mission Critical Infrastructure solutions →

(ConvergedSystem/SAP HANA appliances)

We run SAP...

HPE's instance consolidation and agile migration strategy into a single greenfield SAP S/4HANA instance



We run SAP...

HPE leverages APO and now IBP to optimize our Global Supply Chain and collaboration with critical suppliers

Every 60 seconds, we ship... **12** Network Devices... **10+TB** Storage... **5** Servers

Plan

10K+
Active SKUs

Source

100+
Suppliers

Make

5M+
Units Annually

Deliver

70+
Ship-to Countries

Services

200+
Spares Suppliers

Customer

15K+
Orders managed daily



**2016
Industry Awards**

Gartner.

#4 top IT SC (#17 all SC)
10/10 social responsibility



#1 Vendor in Q3



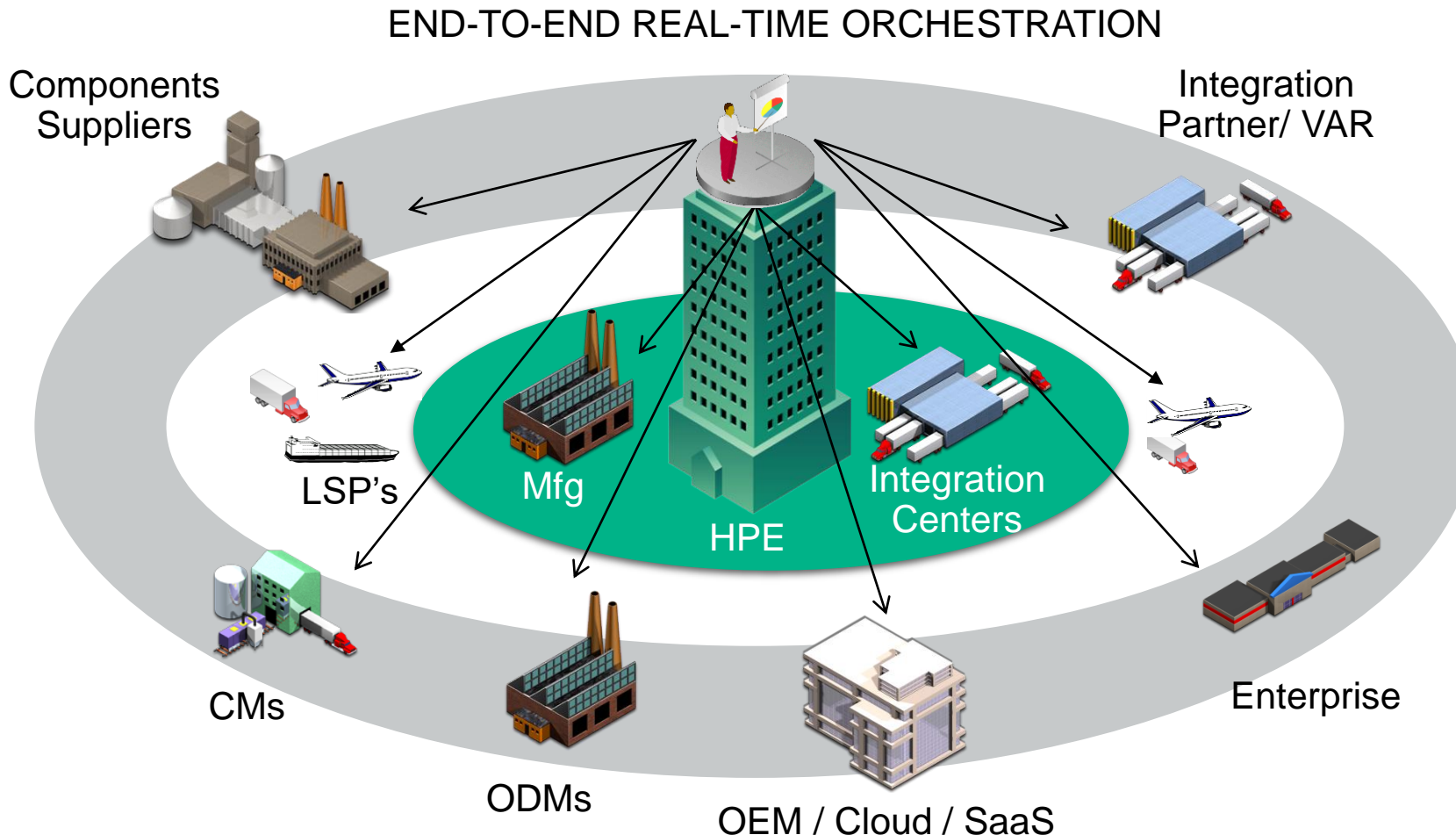
Stop Slavery



#1 in industry segment

Global Supply Chain Scale

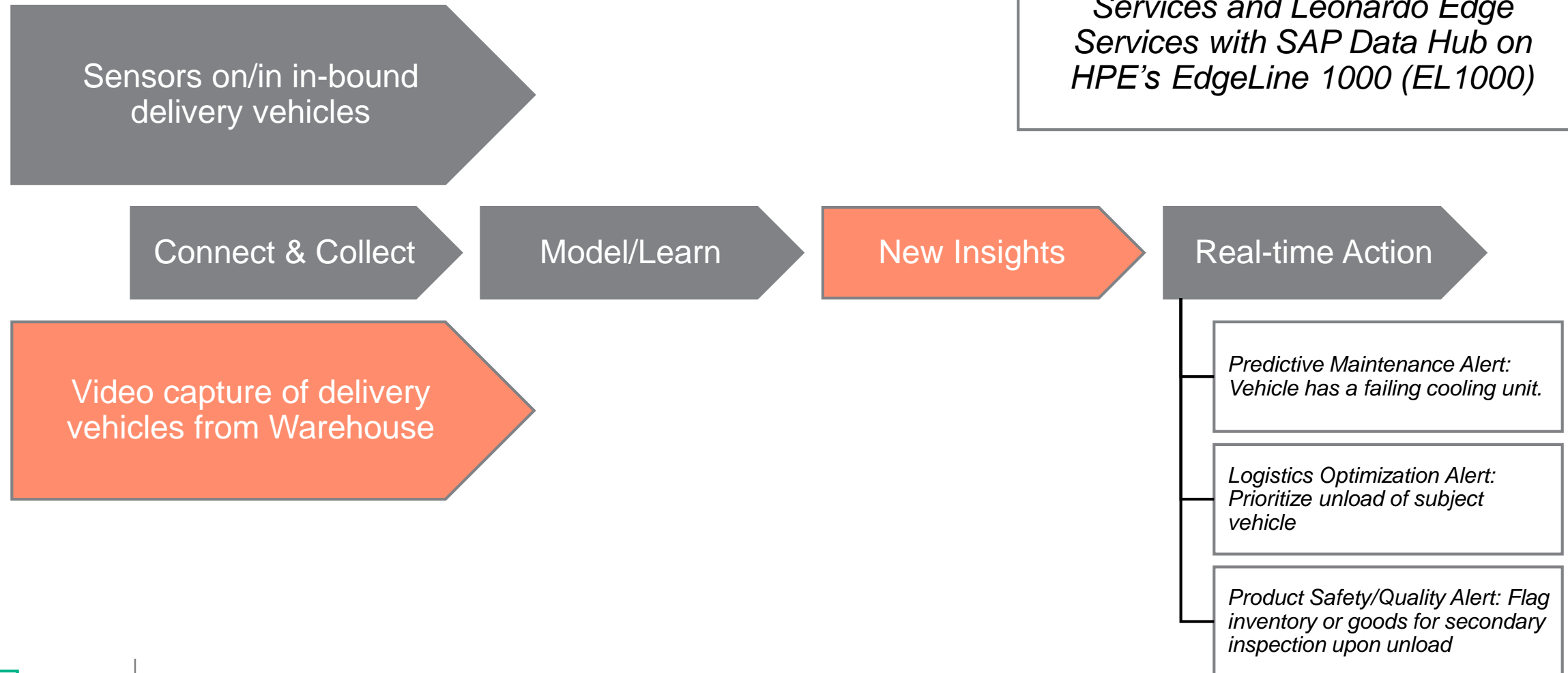
... via 7 HPE fulfillment nodes, 37 direct ship nodes, 35 distribution nodes, 102 critical suppliers



Logistics	- 5 Key partners
	- Delivery precision >99%
	- Claims <10 ppm
Partners	- 650,000 EG shipments/year
	- 3,500,000 boxes/year
	- 75,000 tons/year
Suppliers	- 60 trucks/day
	- 3 ODMs
	- 2 CMs
Disturbance	- > 10 Integration Partners
	- Managing 18.500 orders / month
	- 100+ Suppliers
	- 20,000 Parts
	- 60 engineering events/day
	- 20 reactive
	- 40 proactive
	- 200+ Shortages/month
	- 300+ Escalations/month

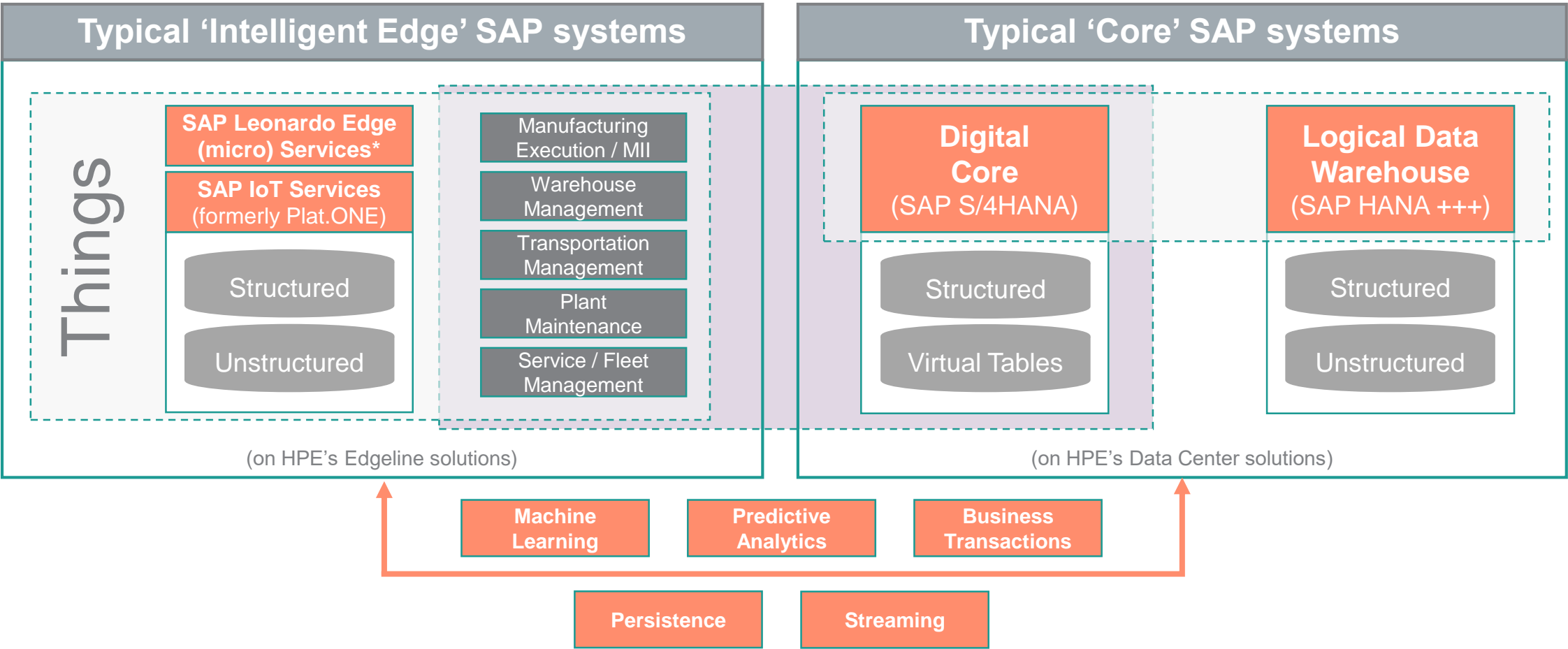
Live Demo: Smart Warehouse IoT Use Case

This live demo is running SAP IoT Services and Leonardo Edge Services with SAP Data Hub on HPE's EdgeLine 1000 (EL1000)



Retrofitting your important ‘Things’ with SAP Leonardo

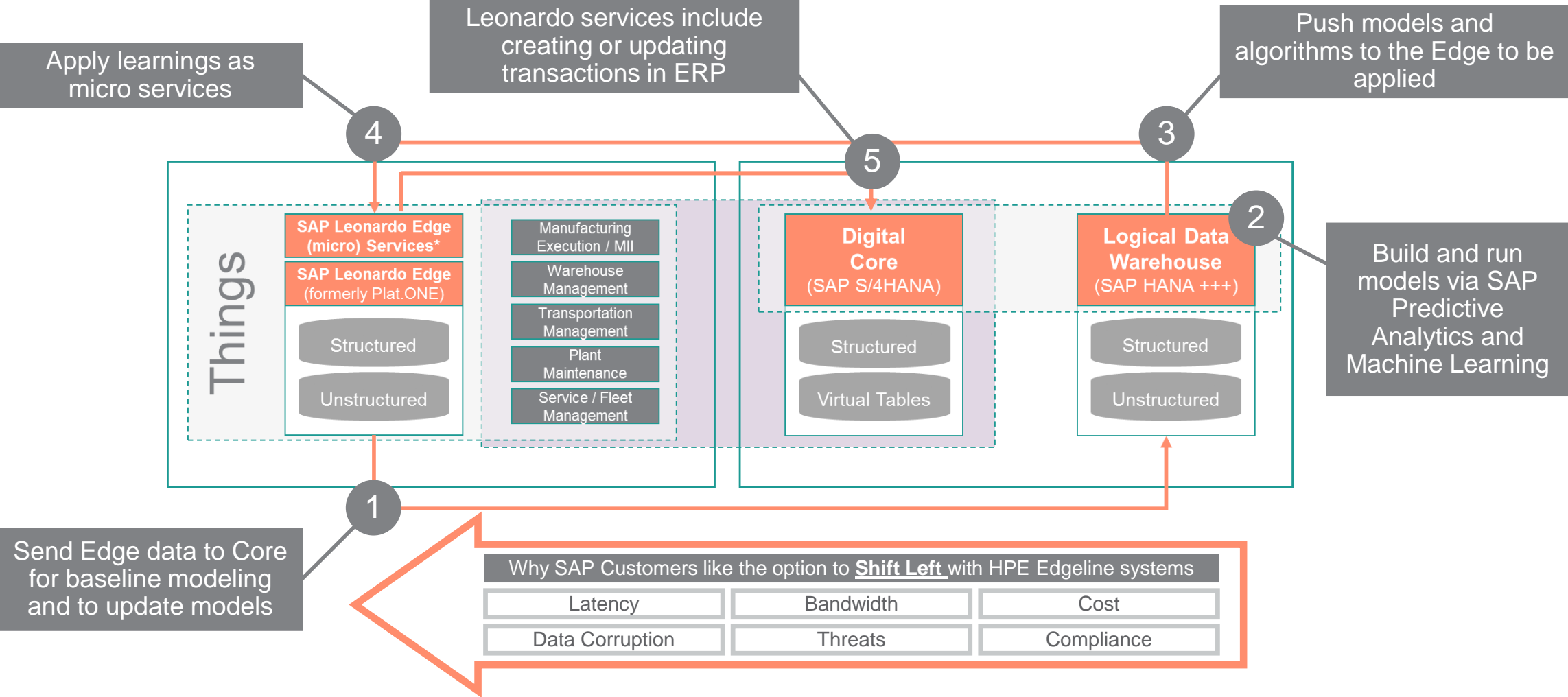
SAP Leonardo connects your edge to your core to improve yields, utilization, productivity, safety, quality, profitability, etc.



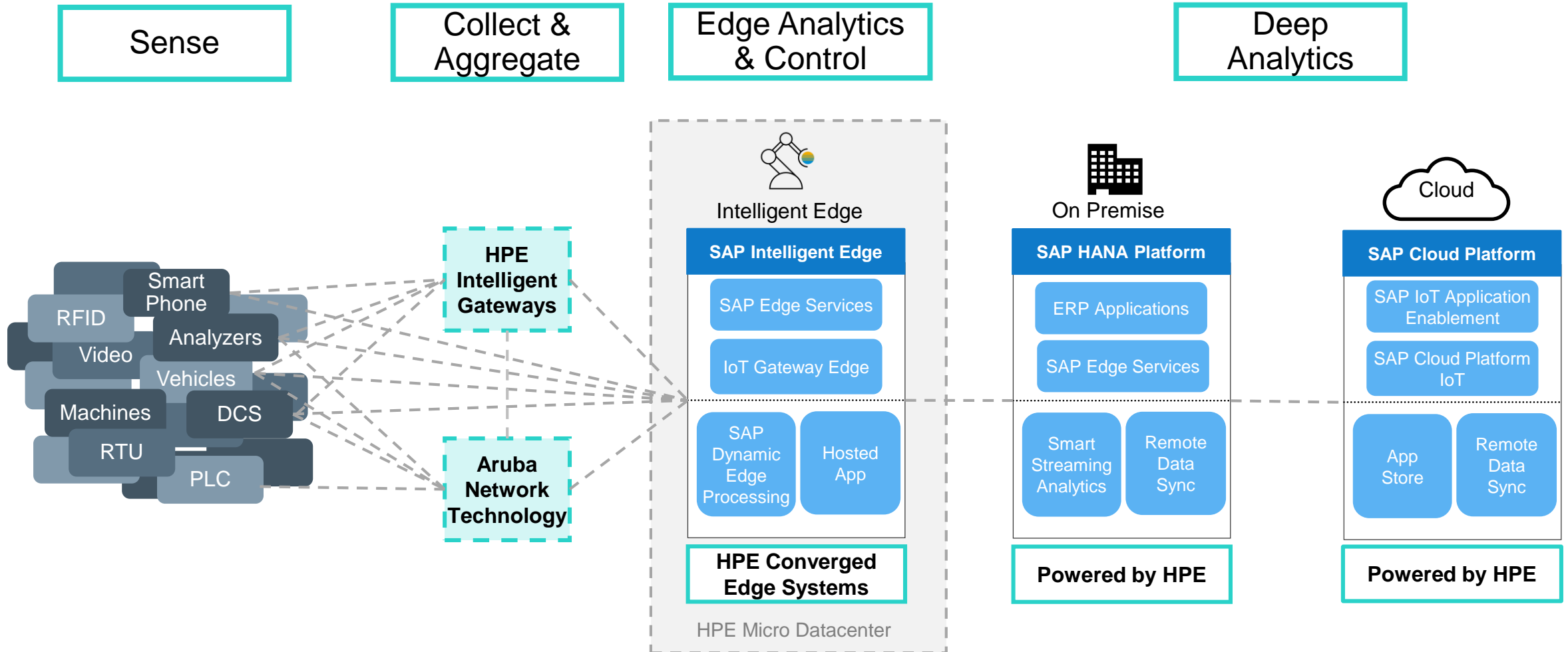
* Required ‘Core’ services shown here like SAP Machine Learning and SAP Predictive Analytics can run on the SAP Cloud Platform or On-Premise but should be run wherever you intend to build your Data Lake or Logical Data Warehouse longer term

How SAP Leonardo works

Why customers are shifting left to turn Data → Insights then Insights → Action in the ‘Edge to Core era’



HPE & SAP IoT: Logical Architecture



Your Edge - HPE Edgeline IoT Systems

Data Center-class IoT optimized solutions engineered to be deployed into harsh edge environments



**HPE Edgeline GL10
Intelligent Gateway**

Expandable, low power edge gateway powered by Intel Atom dual core processor for data aggregation and light compute at the edge



**HPE Edgeline GL20
Intelligent Gateway**

Industrialized, performance-optimized edge gateway is powered by Intel Core i5 processor for data aggregation and higher compute capabilities



**HPE Edgeline EL1000
Converged Edge System**

Features a single compute blade (up to 16 Intel Xeon cores), with two data capture/control slots and multiple I/O and storage options



**HPE Edgeline EL4000
Converged Edge System**

Includes up to four compute blades (up to 64 Intel Xeon cores), with four data capture/control slots, and scalable high capacity storage

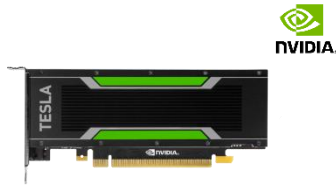
**HPE Factory
Ship option for
SAP Leonardo Edge***

**HPE ProLiant m510
Server for ELx000**
(General Purpose IoT Workloads)
(Intel Xeon D, 2.0GHz, 8 or 16 cores)

**HPE ProLiant m710x
Server for ELx000**
(High End IoT Workloads: Video, etc.)
(Intel E3v5, 3.1-3.6GHz, 4 cores, GPU)

Add-On Options

GPUs



NVIDIA Tesla P4

- GPU Memory: 8GB
- EL1000 Capacity: 1-2 Cards
- EL4000 Capacity: 1-4 Cards

Description: Any site looking to expand SAP infrastructure to support heavy data analytics

Wireless Connectivity



HPE GL10



HPE GL20



Aruba AP-205



Aruba AP-335

- 3G/4G
- BT/BLE
- WiFi
- ZigBee
- LoRa
- Sigfox
- And more...

HPE Micro Datacenter

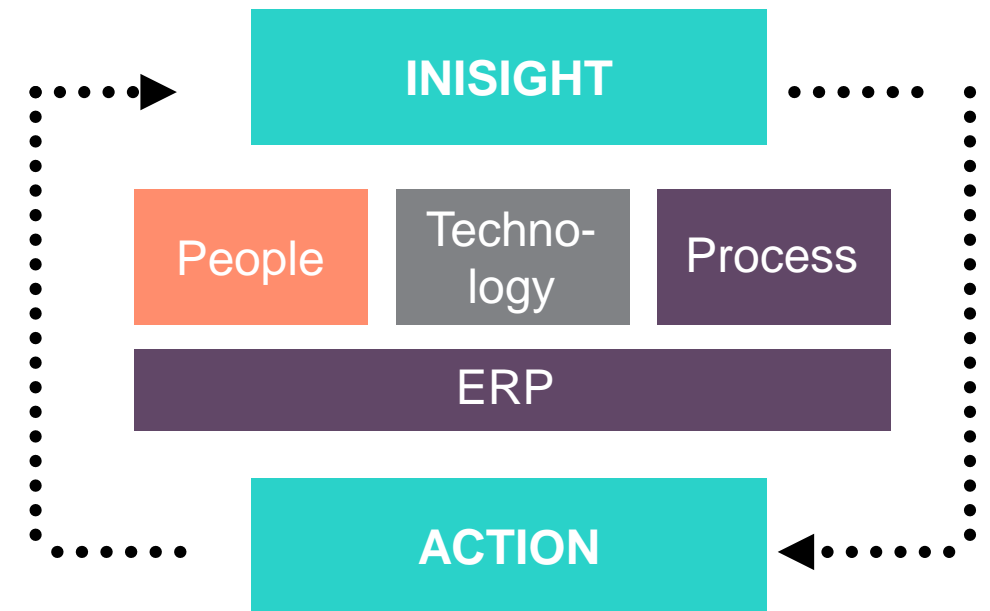
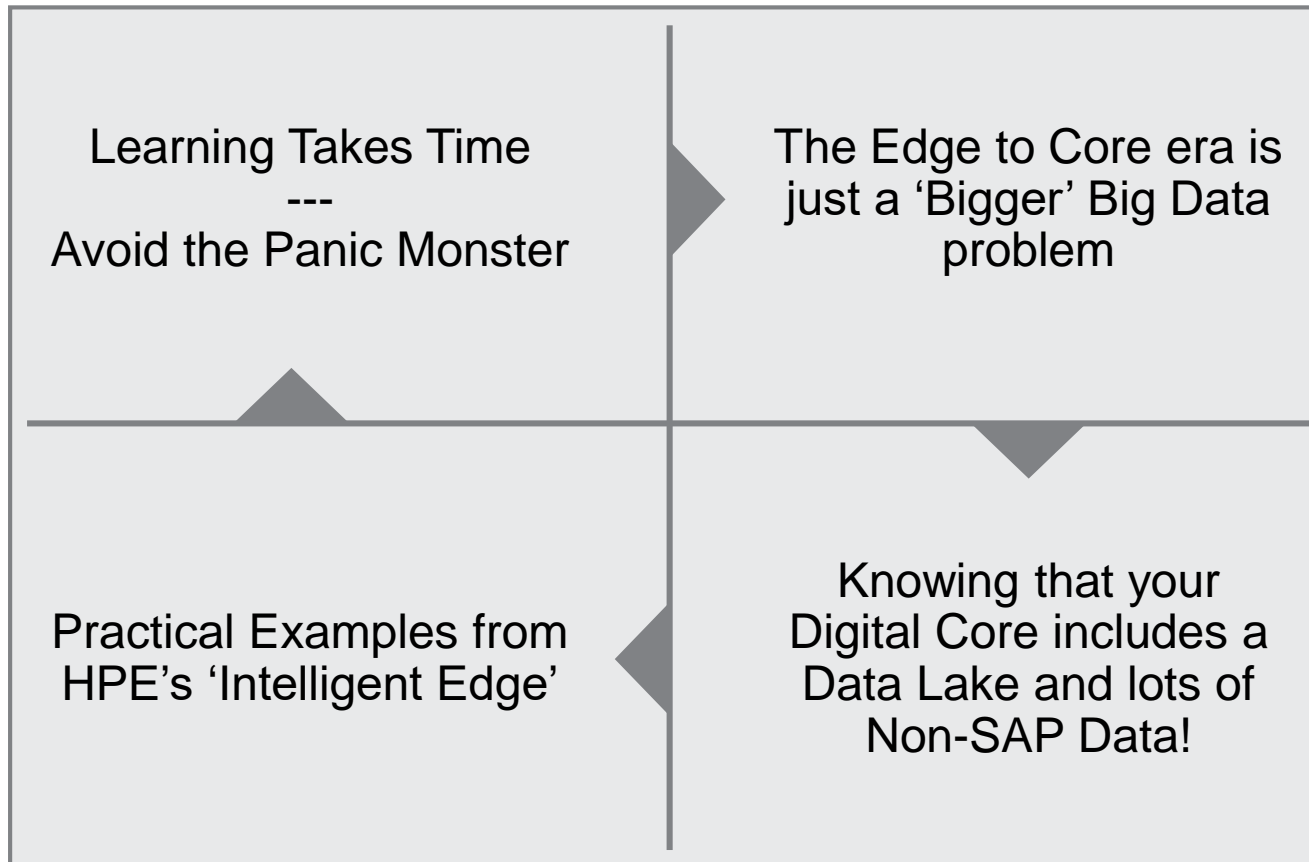


A single and half cabinet data center solution which supports edge deployed converged hybrid infrastructure. Provides a protected data center environment for medium or large implementations.

- Self contained space, power and cooling
- Software defined
- Unified remote management/control of all infrastructure
- Factory enabled rapid hybrid infrastructure

HPE's Edge: What is HPE doing to make their edge... intelligent?

Smart Device / Predictive Maintenance Use Case: Your Core is HPE's Edge and it (or you) call us 5+ million times a day!



Why Trust HPE...

... for your SAP deployment and implementation needs

 Hewlett Packard Enterprise		28 year Alliance	   
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We know SAP® | We run SAP | End-to-end portfolio | Co-Innovation roadmap

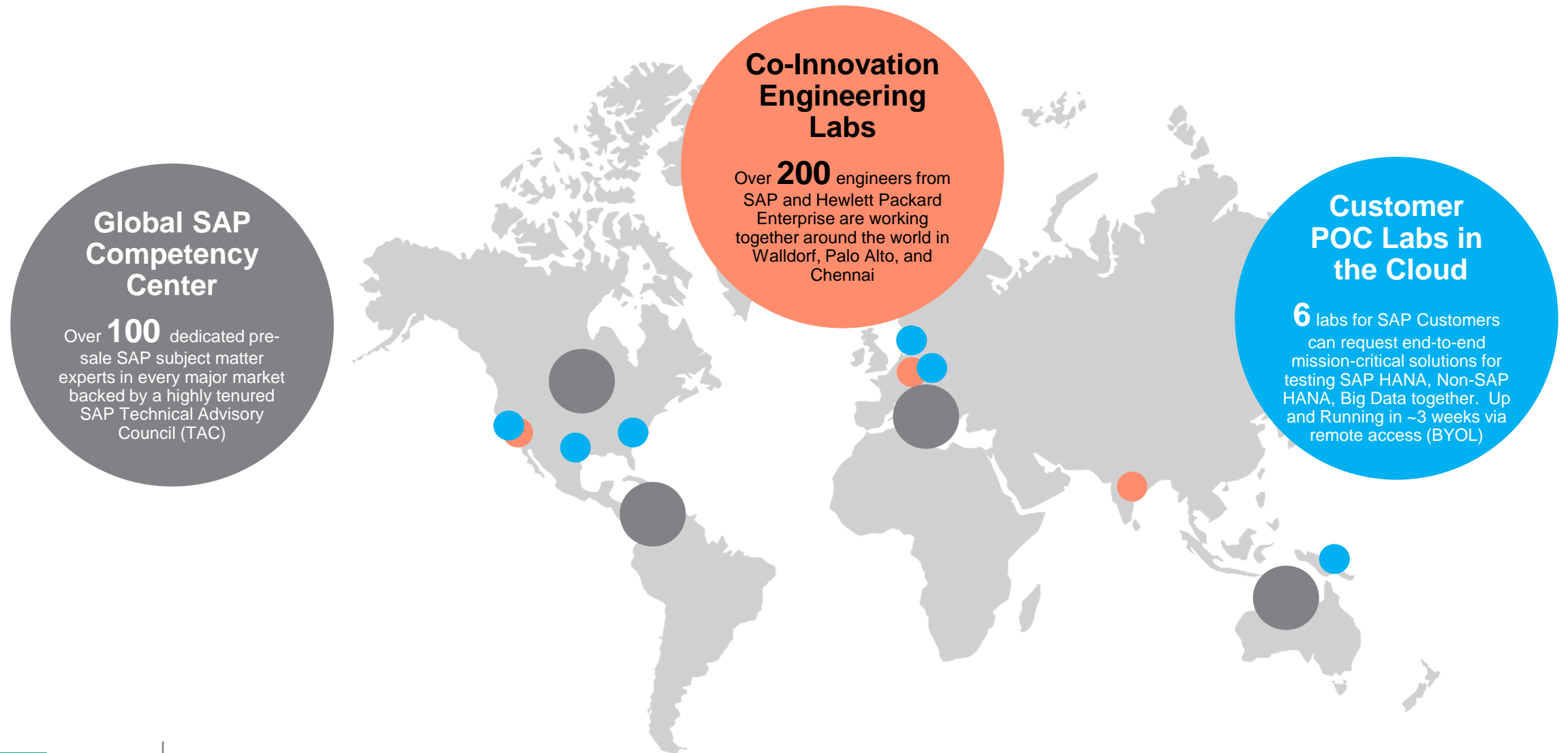
**Mission Critical
Infrastructure Solutions**

**Industry and Intelligent
Edge/IoT Solutions**

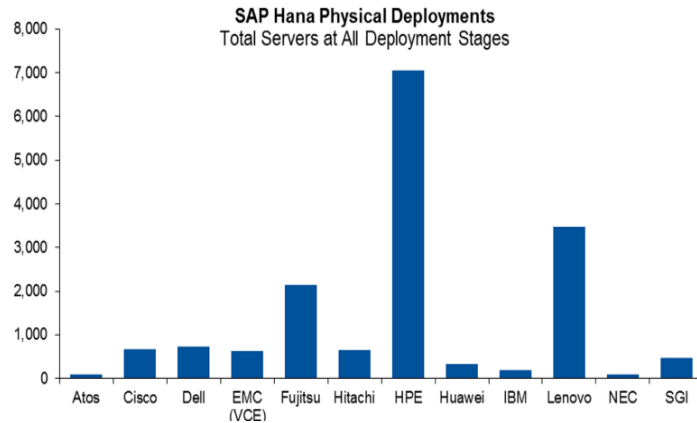
**SAP Service and
Support offerings**

**Secure Hybrid
Cloud Options**

We know SAP...



Your Core – HPE's Mission Critical Solutions for SAP



**#1 Market Share for
SAP HANA***



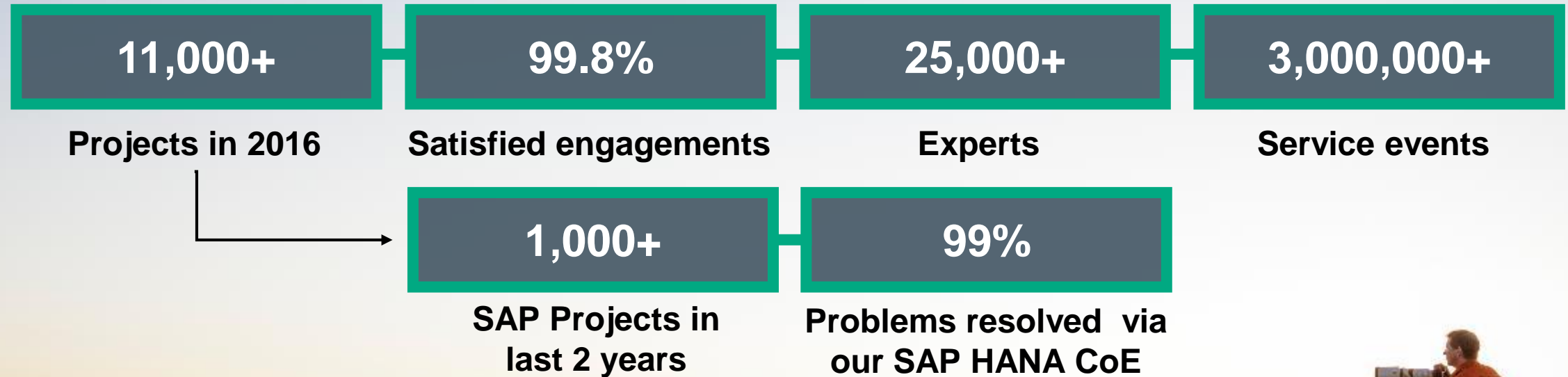
**Trusted by more than 2500
SAP HANA customers**



**Innovation to extend the
investment value**

HPE is your guide in the Edge to Core era

We have the delivery experience, global reach, and scale to make it happen



Thank You

We're here to help you go further, faster

A true partnership where collaborative people, empowering technology and transformative ideas accelerate change

Accelerating innovation

Accelerating transformation

Accelerating value

Accelerating Live!

Find us on the Web

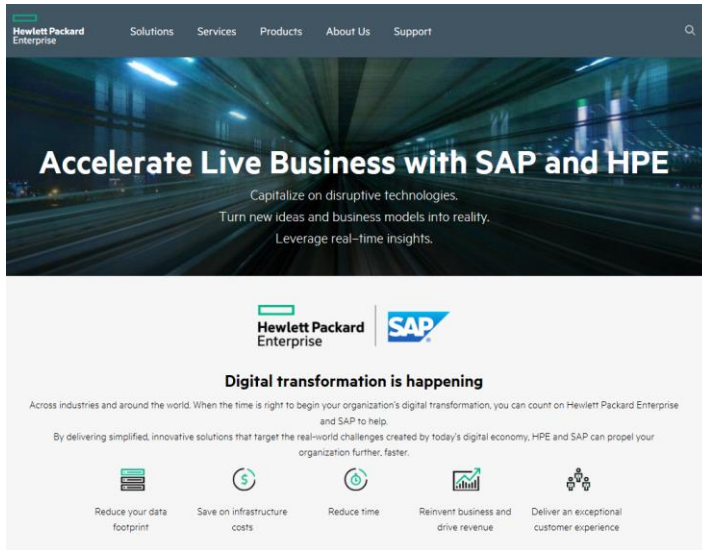
<http://acceleratelivebusiness.com>

See us at Sapphire, TechEd, or at a Forum event near you

Where to go for more information

HPE SAP [Accelerate Live Business](http://acceleratelivebusiness.com) Web Page

For the latest and greatest information on HPE and SAP, make sure to visit:
<http://acceleratelivebusiness.com>



Register for additional HPE [SAP Webinars](#)

- SAP Sapphire **Best of Show** – Bringing context to the innovations and announcements at SAPPHIRE NOW from SAP, the SAP partner ecosystem, and of course HPE
- **Big Bang vs Agile** - Move to SAP S/4HANA faster, more easily and more affordably with HPE's agile S4in4 approach
- **Your Apps | Your Data** Protect your SAP data without holding back your Digital Transformation and Hybrid Cloud agenda with HPE
- **Your Edge | Your Core** Bringing OT and IT together to implement a future-proofed IoT strategy with SAP and HPE

Visit us at SAP TechEd in Las Vegas from September 24 - 26



HPE Booth #300

Your Core - HPE Compute Solutions for SAP HANA

Data Center infrastructure designed for flexibility and unmatched scalability

HPE Synergy TDI Compute Blocks

2-socket Intel E5 and 2-4 socket Intel E7 compute blocks



HPE ProLiant DL380 TDI Compute Blocks

Cost Optimized Solutions for entry level workloads on the Intel E5 architecture

HPE ProLiant DL580 TDI Compute Blocks

Scalable 2 Socket and 4 Socket Intel E7 compute blocks for enterprise class workloads

HPE MC990 X TDI Compute Blocks

4-20 socket Intel E7 compute blocks with flexible modularity for mission-critical applications

HPE Superdome X TDI Compute Blocks

Unparalleled scalability and flexibility with 2/4/8/16 socket Intel E7 building blocks for mission critical workloads

HPE ConvergedSystem 500 Appliances for SAP HANA
(CS500 is based on the HPE DL580)

HPE ConvergedSystem 900 Appliances for SAP HANA
(CS900 is based on the HPE Superdome X)

Your Core - HPE Storage Solutions for SAP HANA

Comprehensive data persistence and protection

All Flash Storage for SAP HANA Persistence



3PAR StoreServ

- 6 nines availability
- Quality of Service guarantees resource prioritization
- Snapshot capable for near instant backup and recovery



XP7 Storage

- 100% data availability
- Extreme scaling and efficiency—single XP7 rack scales supports up to 128 SAP HANA servers
- Robust data protection – zero data loss or corruption

Comprehensive Data Protection



HPE StoreOnce

Disk based backup appliance with PB scale

Catalyst Plug-in for SAP HANA

- High speed online backup and recovery giving DBAs complete control of backup process

Recovery Manager Central (RMC) for SAP HANA

- App consistent snapshot backup with remote data replication