



BUILDING THE DATA PLATFORM FOR A DATA-DRIVEN SMART CITY

HPE APAC Public Sector team
Kok-Siong Lim, Solutions Lead
Keith Pang, Enterprise Architect



SMART CITY DATA PLATFORM

- Dubai, the most populous city in the United Arab Emirates (UAE), is striving to become the happiest city on earth.
- HPE Pointnext Services was charged with designing and implementing an all-new Smart Dubai Platform, which brings together a citywide network of smart sensors integrated with analytics and real-time dashboards. This enables Dubai's government to make everything from finding parking to accessing healthcare easier, faster, and more satisfying.
- The result: a 24% increase in happiness levels within 11 months and AED 4.3B in government savings to date.

Inspiring **90%**
public happiness in 2016

500
happiness meters collect
800 votes per day

AED 4.3B
government savings to
date

24%
increase in happiness level
in 11 months

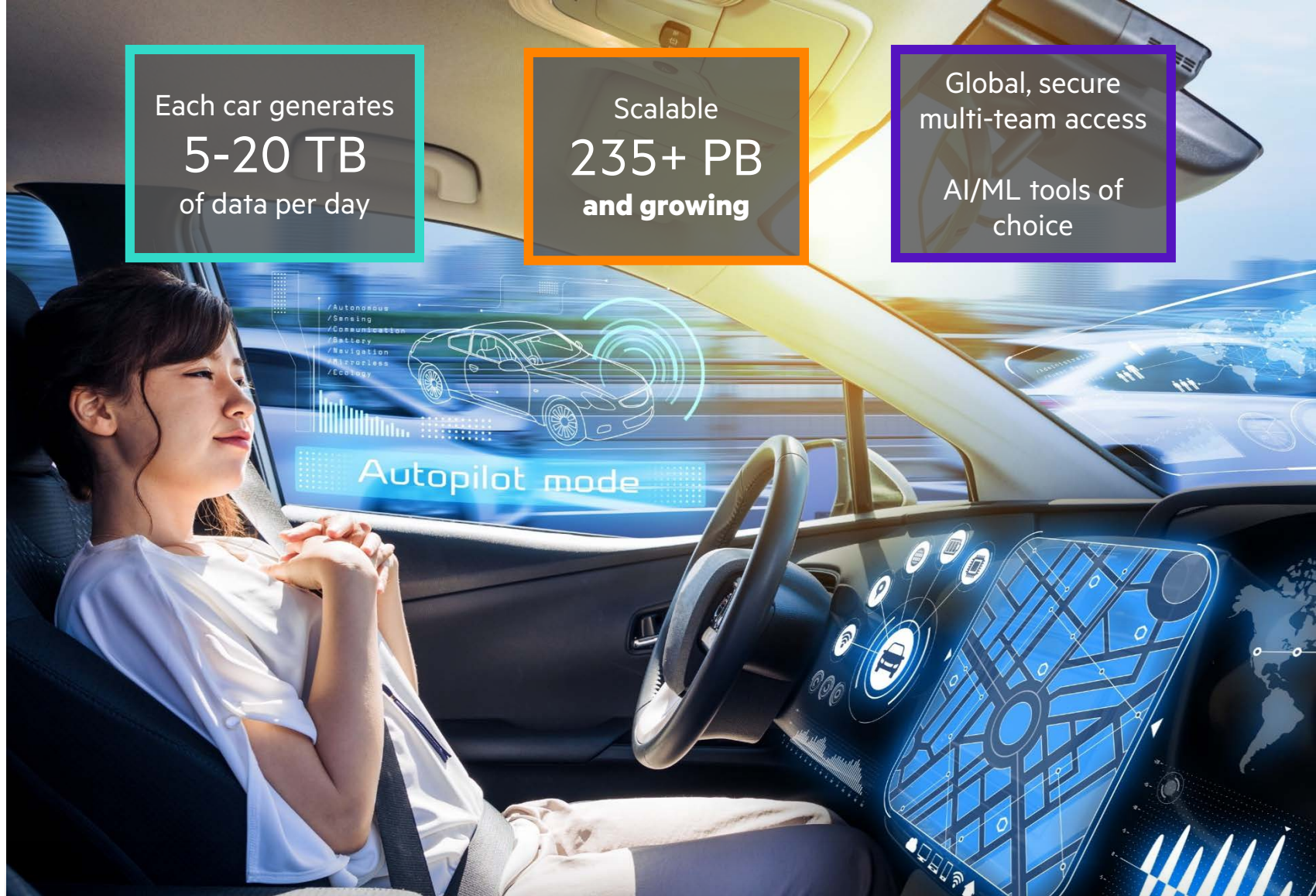
HPE DATA PLATFORM - A DATA-DRIVEN SMART CITY



AUTONOMOUS AUTOMOBILE PROGRAM

Solution enables automotive companies to reach L4 fully autonomous driving

- Training set inclusive of an estimated 10 million miles driven
- Performance and ease of management at exabyte scale
- Enables a global solution for “All Data” with in-place analytics
- Faster time to value with repeatable ADAS solution



Why HPE Wins

Ingest & integrate
from many
sources and APIs

Full range of
processing -
Analytics, AI / ML

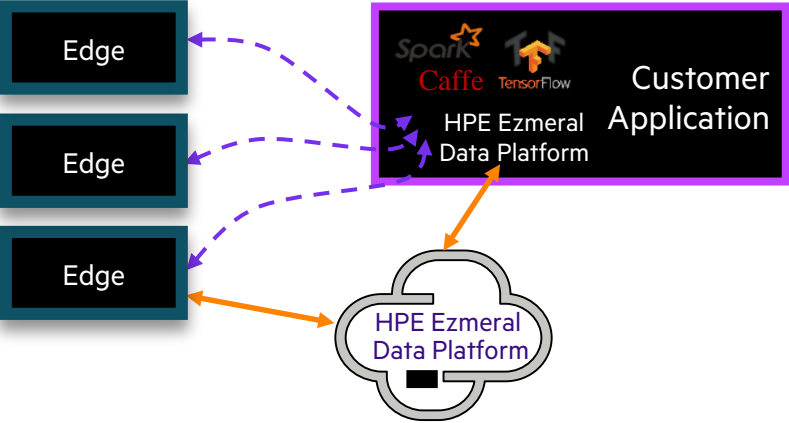
Secure for
multiple tenants,
data types

Governance,
access,
catalog, control

Deliver insights
into operational
apps

EDGE-FIRST, IOT & ANALYTICS WITH HYBRID CLOUD

Solution drives better profitability, speeds up business process cycle times as every edge is part of a larger Data Platform with connectivity to cloud for both edge and centralized analytics.



Real-time ingest of data from drilling platforms

Edge processing coupled with GPU accelerated centralized data lake

Reduce downtime in refining process

200,000 sensors
Collect data every second



Why HPE Wins

Ingest & integrate from many sources and APIs	Full range of processing - Analytics, AI / ML	Secure for multiple tenants, data types	Governance, access, catalog, control	Deliver insights into operational apps
---	---	---	--------------------------------------	--

DATA CHALLENGES FOR KEY TRANSFORMATIONAL INITIATIVES

BUSINESS INITIATIVES

- **ACCESS**—Inability to search, explore and analyze data for AI/advanced analytics
- **TRUST**—Data governance, sharing, trust, security issues

DATA PLATFORM Access, Trust, Speed, Cost

- **SPEED**—Adding new data sources, real-time data, driving new AI models, new apps
- **COST**—Exponential growth of data management costs

IT MODERNISATION

CUSTOMER WISH LIST FOR A NEXT GEN PLATFORM

An enterprise grade Data Platform that can:

- Allow the full spectrum of Analytics, AI/Machine Learning tools to be applied across a vast amount of data
- Impact operational applications in real time.
- Industrial strength, reliability, scale, security

Ingest from nearly any Consumers source, any type of data at any speed and manage in one unified platform

Freedom of tools for all the users to work with derive value from data

Build downstream operational apps for applying analytics and AI to the business in real time

Control for IT with uniform model of security, governance, sharing and platform administration

BIG BANG VS USE-CASE DRIVEN

The same but very different

Big Bang

Build the entire Data Platform first and then use-cases

A large up-front investment before production use-cases are deployed

Requires a full technical design and integration up front

Scaling out as the platform grows becomes a simpler task to fulfil

Use-case Driven

Incrementally build the data platform based on use-case adoption

Simplification of expanding use cases over time as components are reused

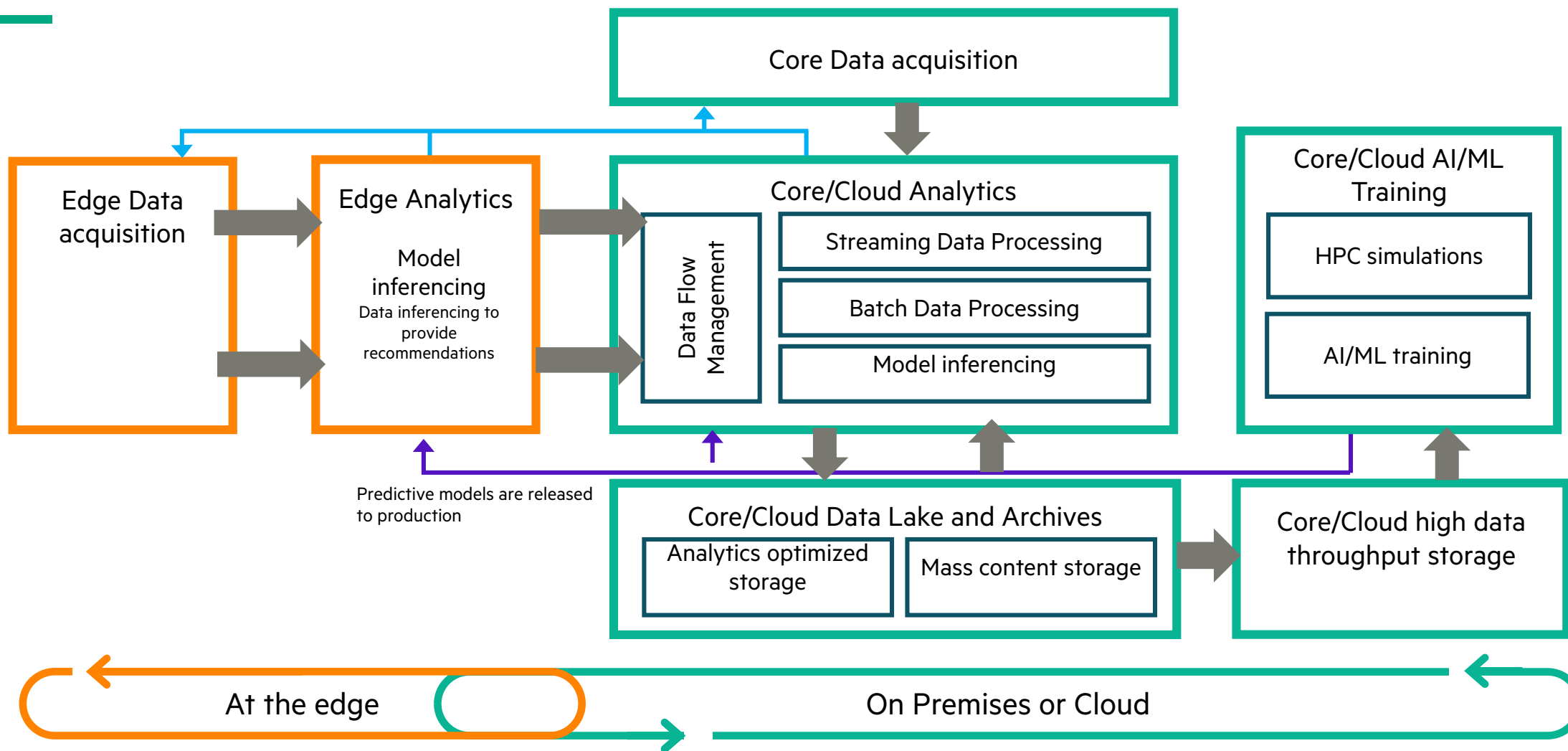
Requires a strategic plan from the start to prevent use-case silos

A Minimal Viable Platform becomes a reality

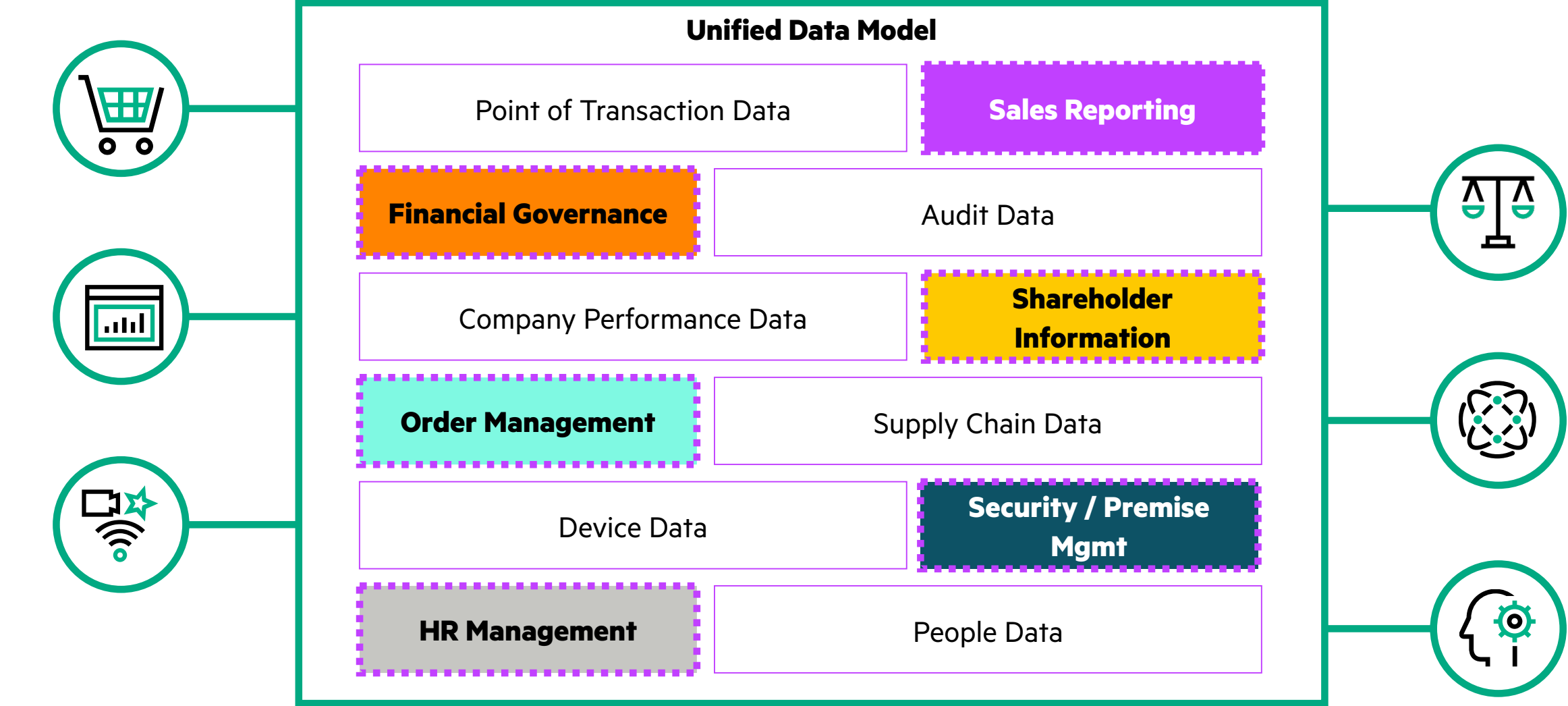


DATA PIPELINE

A typical workflow



UNIFIED DATA MODEL: RETAIL



BUSINESS IMPLICATIONS OF A UNIFIED DATA MODEL

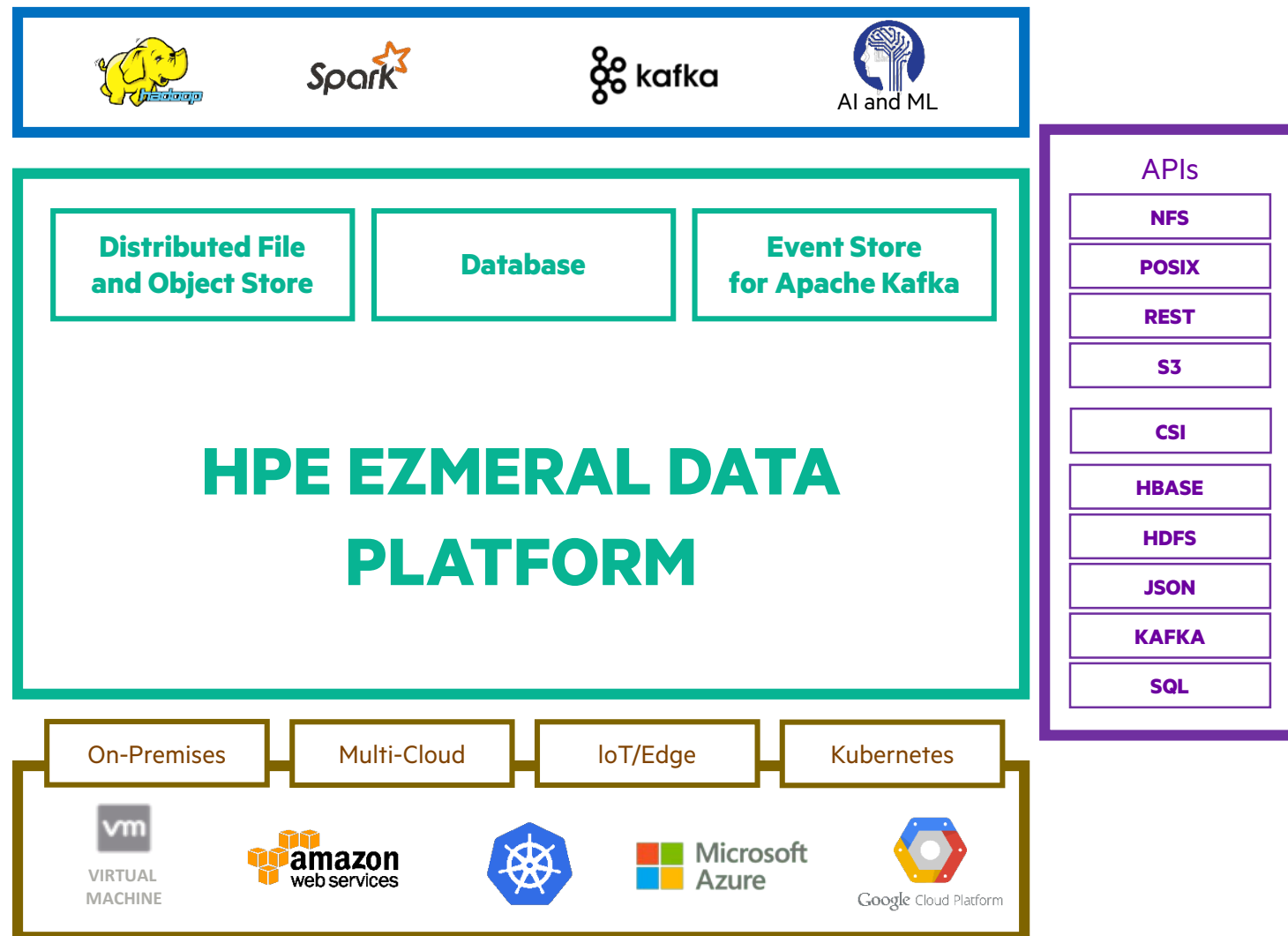
Deploy Global Data Platform

Drive Containerization

Simplify End-to-End AI/ML workflows

Deliver on Community Innovation

Control cost using Consumption Model



HPE EZMERAL SOFTWARE PORTFOLIO

SECURITY

For Security and SecOps teams

SPIFFE* **SPIRE***

COST CONTROL

For LOB and Finance teams

HPE Managed Cloud Controls

AI/ML and DATA ANALYTICS

For Data Science teams and ML Ops teams

For Data Analytics and DataOps teams

HPE Ezmeral ML Ops

HPE Ezmeral Data Fabric

CONTAINER MANAGEMENT

For Developers, and DevOps teams

HPE Ezmeral Container Platform

IT AUTOMATION and AIOPS

For ITOps and AIOps

HPE OneView

HPE InfoSight

THANK YOU



Kok-siong.lim@hpe.com

Keith.pang@hpe.com

