Is there such a thing as an edge IoT platform?

STL Partners & Volt Active Data: Edge IoT platforms webinar 2

31st May 2023

STL PARTNERS

Agenda

1	**Introduction**	STL	5 mins
2	**Is there such a thing as an edge IoT platform?**	STL	15 mins
3	**Data Processing Characteristics of an Edge IoT Platform**	Volt	15 mins
4	**Panel discussion and Q&A**	STL, Volt & Nearby	25 mins

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STL Partners & Volt Active Data
Edge IoT platforms webinar series

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Verticals and use cases enabling growth

Date & Time: 21 Feb, 4pm GMT

Topic Areas

- Introduction to edge IoT platforms
- Use cases and key verticals ✓

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Is there such a thing as an edge IoT platform?

Date & Time: 31 May, 4pm BST

Topic Areas

- Is there a need for a converged edge IoT platform?
- Designing edge IoT platforms

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Horizontal or vertical – winning business models in edge IoT

Date & Time: 5 Sep, 4pm BST

Topic Areas

- Edge IoT business models in telecoms
- The role of telcos in edge IoT

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What is the role of data analytics in edge IoT?

Date & Time: TBC

Topic Areas

- The role of data analytics in edge IoT
- Optimising data analytics
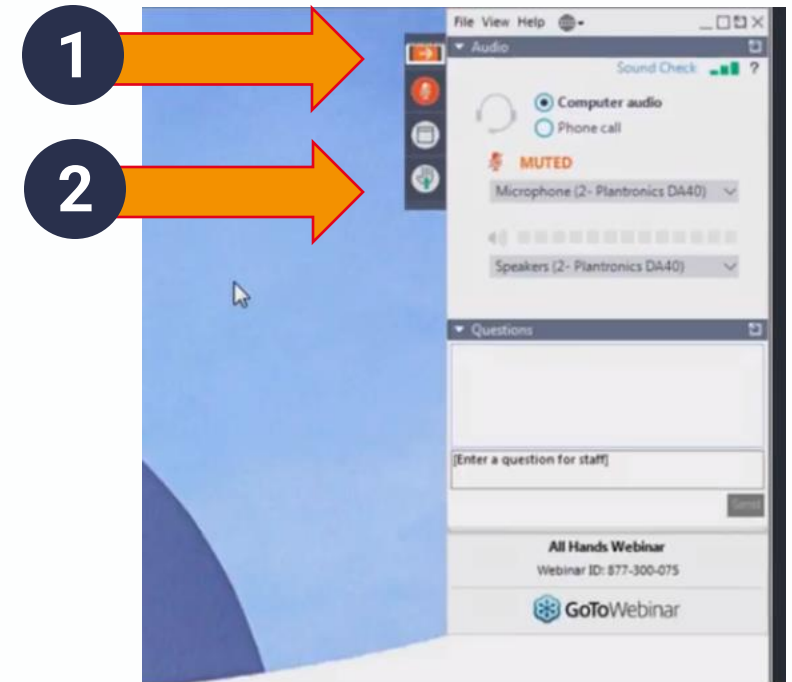
📅 **Webinar 2 – Tuesday 31st May – 4PM BST | 11AM EDT | 8AM PDT**

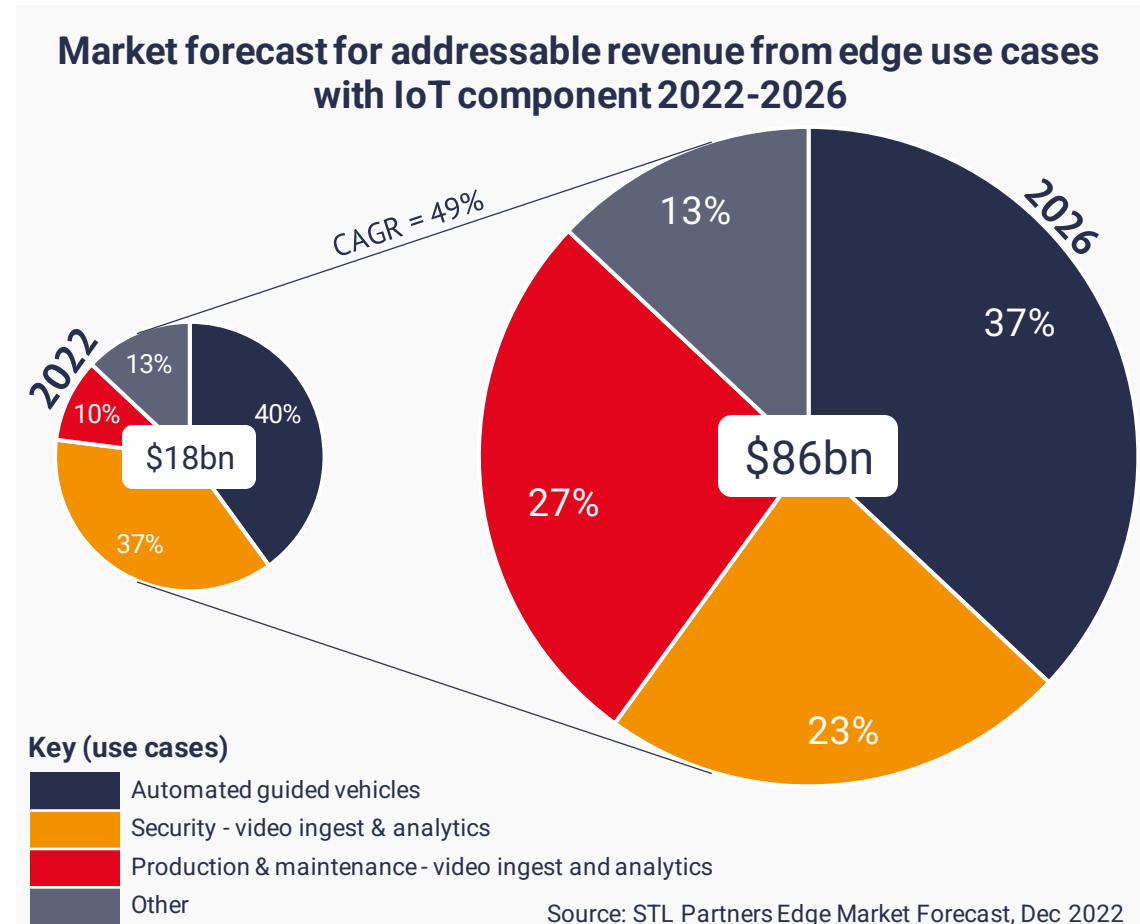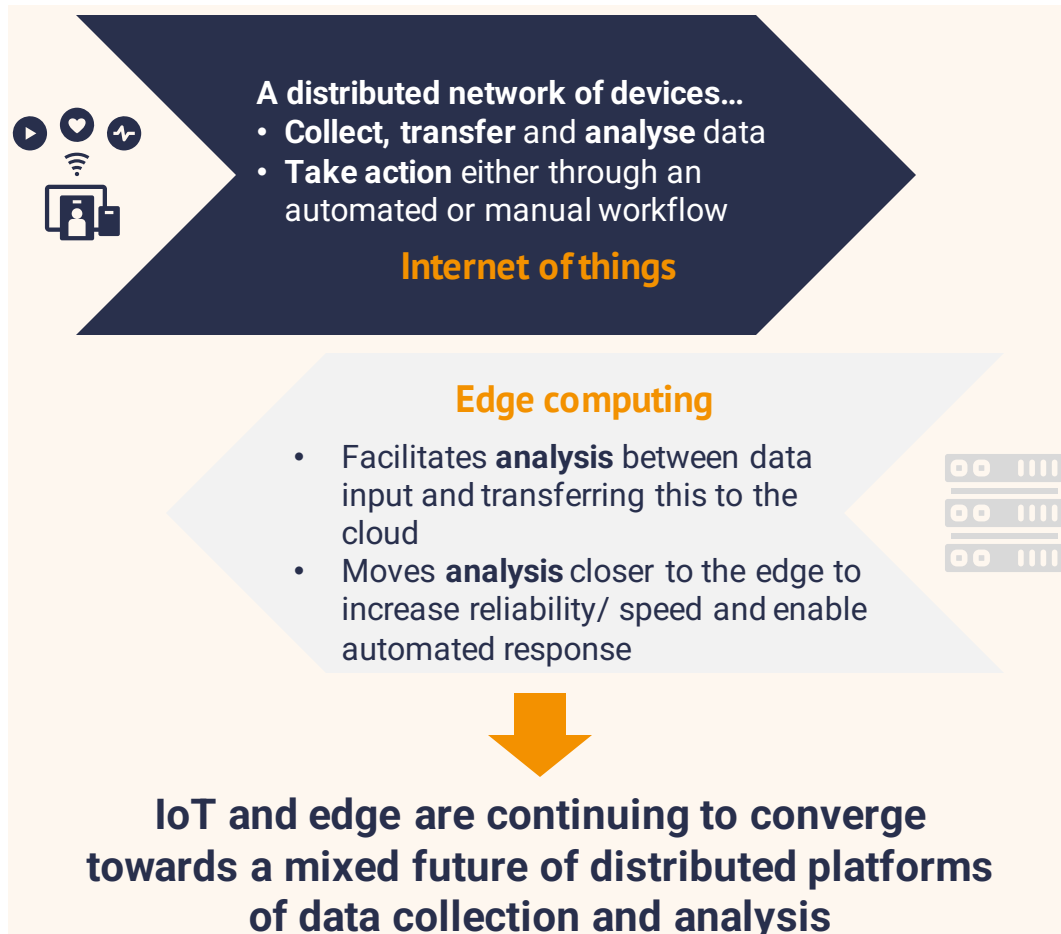**VOLT ACTIVE DATA**

GoToWebinar

- You're in listen only mode

- If you need us, please type a comment

- Feel free to type questions throughout the session for Q&A at the end

- We'll send you the slides and a recording shortly after the session - do share with colleagues

- On Twitter? Tweet us @STLPartners

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The market for edge-enhanced IoT use cases is projected to grow 5x over the next four years

A distributed network of devices…
- **Collect, transfer** and **analyse** data
- **Take action** either through an automated or manual workflow

Internet of things

Edge computing

- Facilitates **analysis** between data input and transferring this to the cloud
- Moves **analysis** closer to the edge to increase reliability/ speed and enable automated response

IoT and edge are continuing to converge towards a mixed future of distributed platforms of data collection and analysis

Market forecast for addressable revenue from edge use cases with IoT component 2022-2026

CAGR = 49%

2022 — $18bn
- 13%
- 10%
- 37%
- 40%

2026 — $86bn
- 37%
- 13%
- 27%
- 23%

Key (use cases)
- Automated guided vehicles
- Security - video ingest & analytics
- Production & maintenance - video ingest and analytics
- Other

Source: STL Partners Edge Market Forecast, Dec 2022

Edge IoT platforms can enhance use cases that drive profitability for enterprises who adopt them

What is an edge IoT platform?

A platform that allows a large number of connected devices to work automatically and harmoniously together, without compromising on network and ultimately IoT device and application performance.

Edge IoT platforms help enterprises solve business and operational challenges:

Unlock new revenue opportunities	Increase operational efficiencies

Unlock new revenue opportunities

- Autonomous vehicles
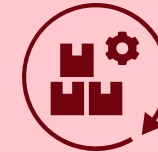- Remote patient monitoring & care
- Smart retail

Increase operational efficiencies

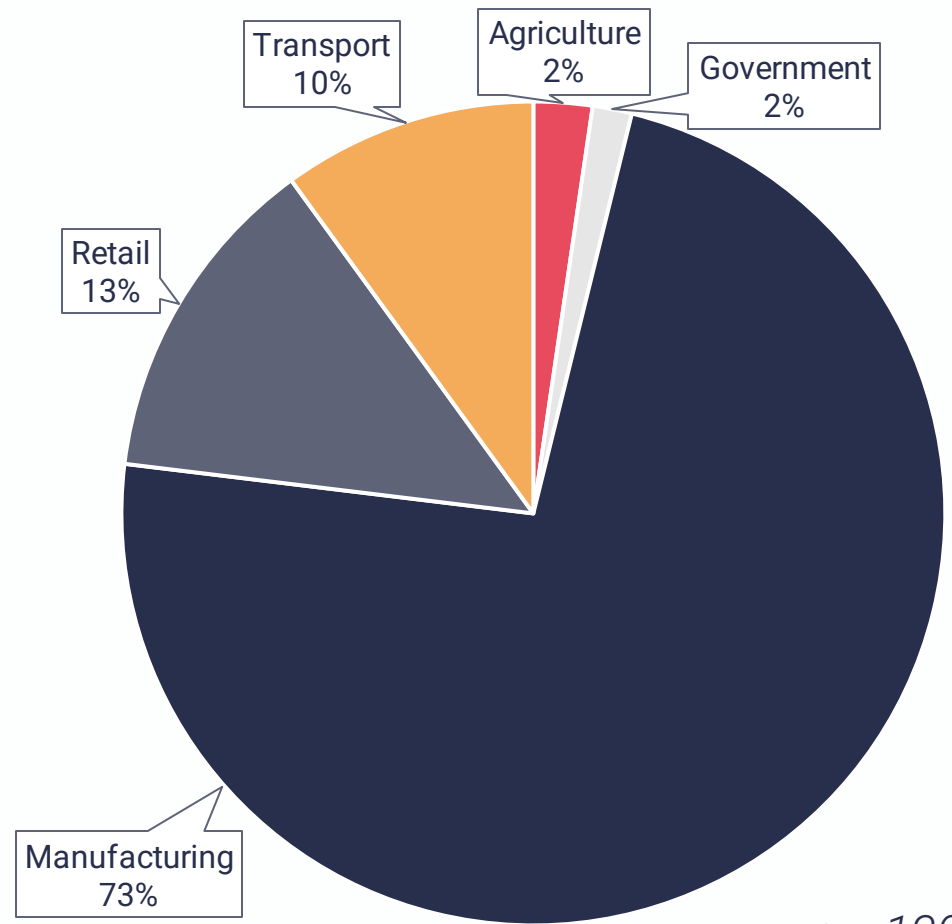- Production & maintenance: video ingest & analytics
- Real-time inventory management
- IoT analytics for building management

Poll from Webinar 1: Which vertical do you think will have deployed the most mature edge IoT platforms by 2026?
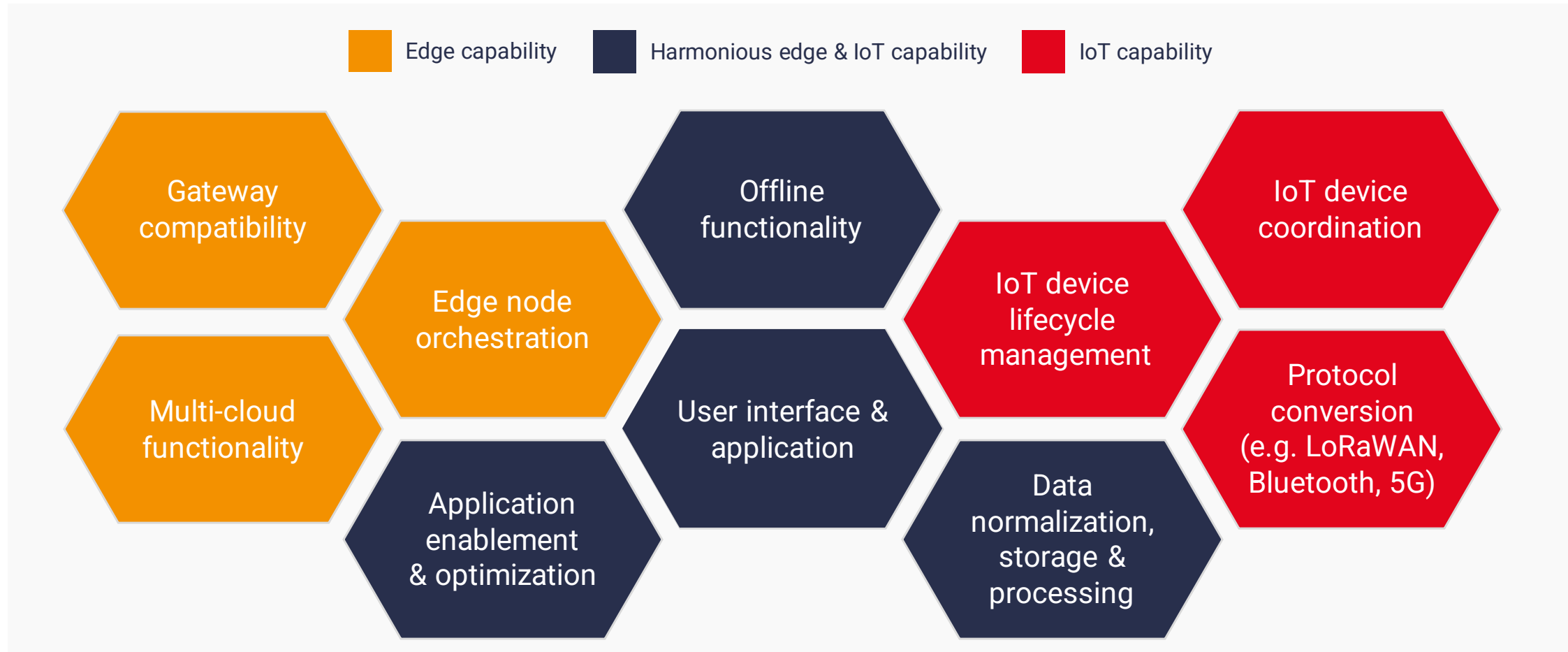

Transport
10%

Agriculture
2%

Government
2%

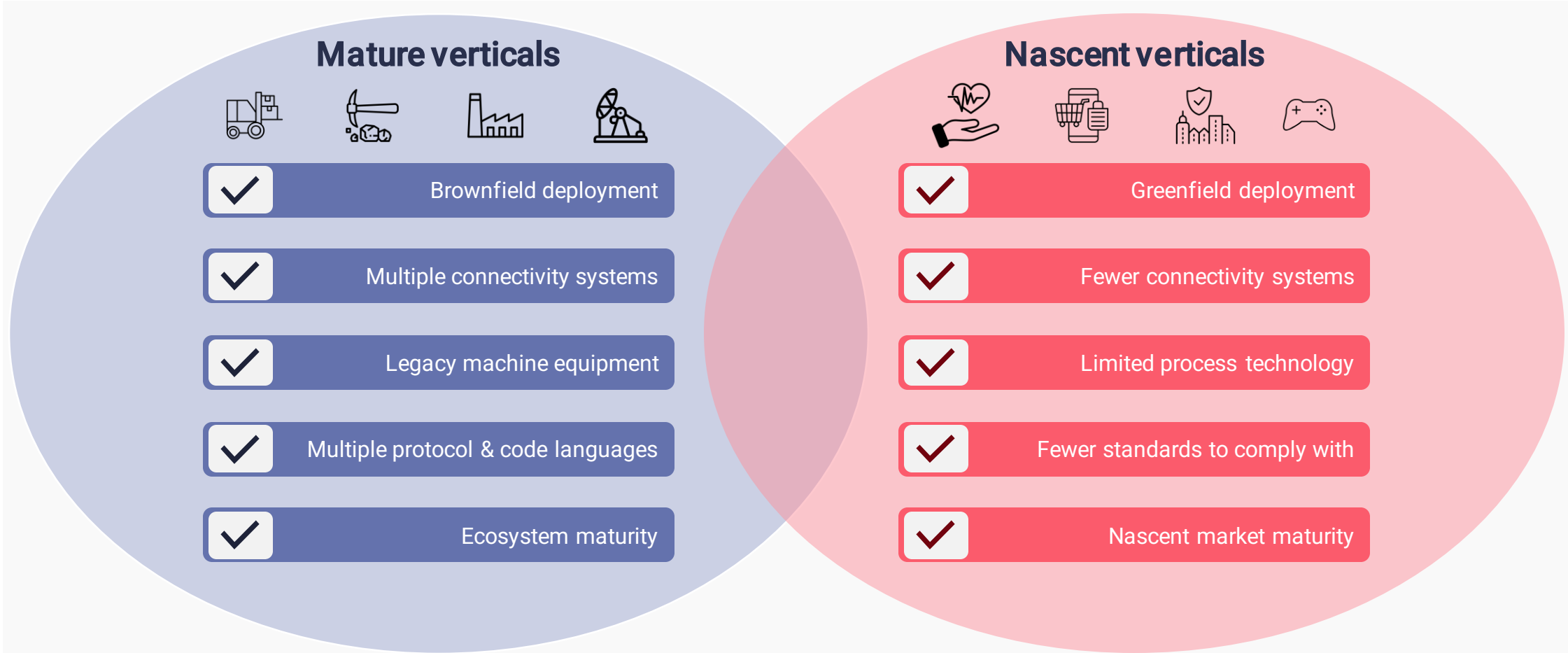Retail
13%

Manufacturing
73%

n = 130

Poll: Where are you on your edge IoT journey?

1. Not considering adopting/providing IoT or edge

2. Considering adopting/providing either IoT or edge separately

3. Considering adopting/providing a single edge IoT solution

4. Deployed/implementing IoT or edge separately

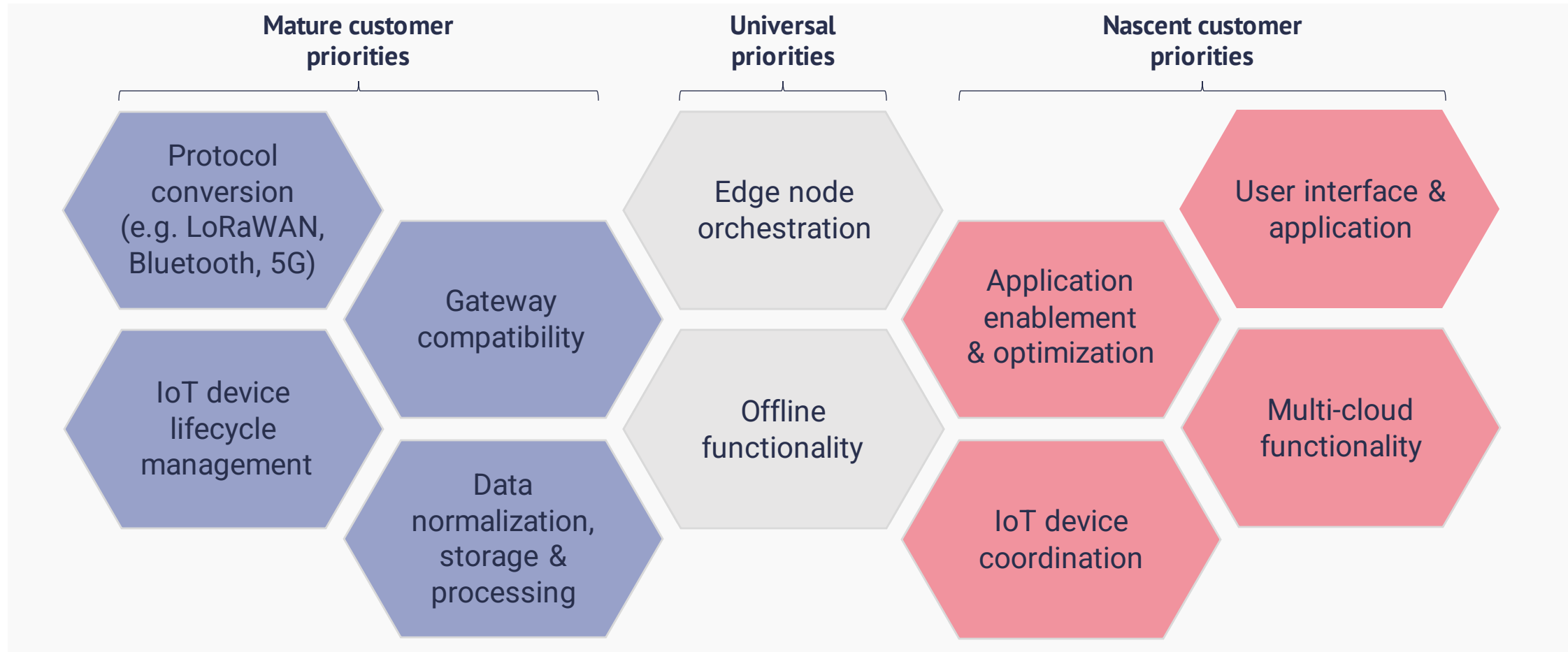5. Deployed/implementing at least a converged edge IoT solution

Specialised platforms can maximise value by delivering on harmonious requirements

Legend:
- Edge capability (orange)
- Harmonious edge & IoT capability (dark blue)
- IoT capability (red)

- Gateway compatibility
- Multi-cloud functionality
- Edge node orchestration
- Application enablement & optimization
- Offline functionality
- User interface & application
- IoT device lifecycle management
- Data normalization, storage & processing
- IoT device coordination
- Protocol conversion (e.g. LoRaWAN, Bluetooth, 5G)

Platform providers must consider the maturity of each customer...

Mature verticals

- ✓ Brownfield deployment
- ✓ Multiple connectivity systems
- ✓ Legacy machine equipment
- ✓ Multiple protocol & code languages
- ✓ Ecosystem maturity

Nascent verticals

- ✓ Greenfield deployment
- ✓ Fewer connectivity systems
- ✓ Limited process technology
- ✓ Fewer standards to comply with
- ✓ Nascent market maturity

...in order to prioritise different platform capabilities

Mature customer priorities

Universal priorities

Nascent customer priorities

Protocol conversion (e.g. LoRaWAN, Bluetooth, 5G)

Gateway compatibility

IoT device lifecycle management

Data normalization, storage & processing

Edge node orchestration

Offline functionality

Application enablement & optimization

IoT device coordination

User interface & application

Multi-cloud functionality

To reach customers, platform providers must collaborate in an increasingly specialised edge IoT ecosystem

Edge IoT ecosystem

IoT devices

NEPs

Platform provider

SIs

CSPs

ISVs

Collaborators can amplify the value of their platforms by choosing best-in-class partners

A customer achieves…

…an effortless user experience

…high value, tailored applications

…ultra-low latency data management

…advanced analytics and automation

…a platform perfectly integrated with IT & OT
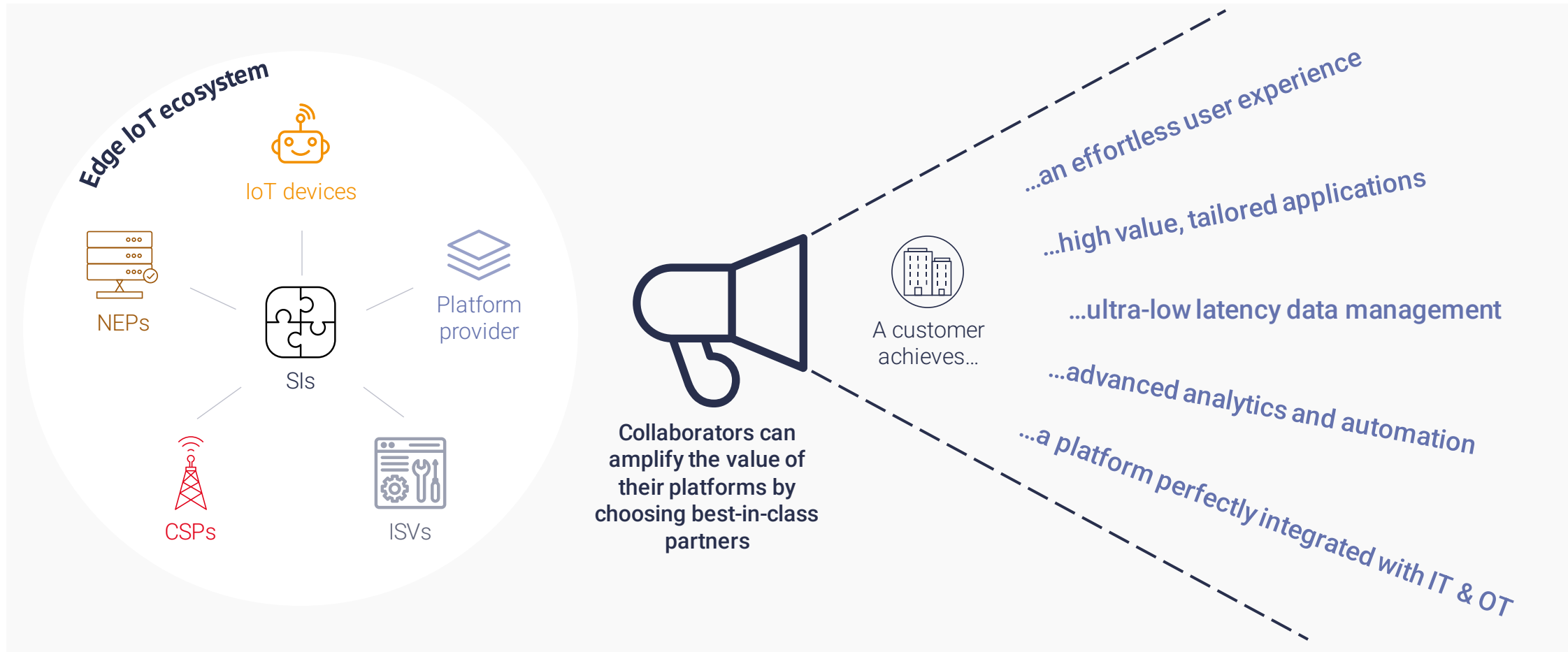
Convergence can help platform providers differentiate their platforms to capture value in a crowding marketplace

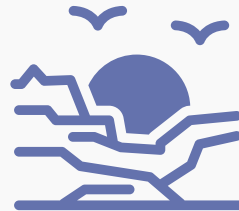**Technical convergence is an imperative for platform providers**
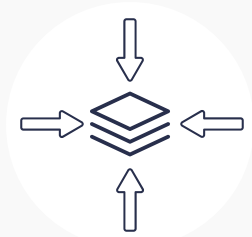
Converged edge IoT platform

Has an effortless user interface
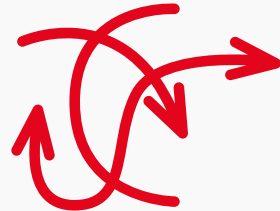
Manages complexity

Distributed with an enterprise-wide view

However, choosing the right name to describe a platform is a challenge

Different customer segments respond better to different names…

'IoT platform' is more attractive to enterprises

'Edge platform' is more attractive to telcos

'Edge IoT platform' is attractive to SIs

Poll: What should we be calling these platforms for edge and IoT?

1. Edge Platform

2. IoT Platform

3. Edge IoT Platform

4. Edge Enhanced IoT Platform

5. Other

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> A real-time data processing platform that handles the entire ingest through act process for event-driven data
> Designed for applications where latency and consistency cannot be compromised at scale, and data can never be lost

SAMPLE USE CASES

> Telco Charging and Policy

> Fraud & Threat Prevention

> Hyper-Personalization (CX)

> Real-Time ETL & Mediation

> Real Time Private Networks

> Smart Cities - Road Traffic Management

> Smart Grid – IoT Device Management

> Compliance & Regulatory Reporting

> Fleet Management

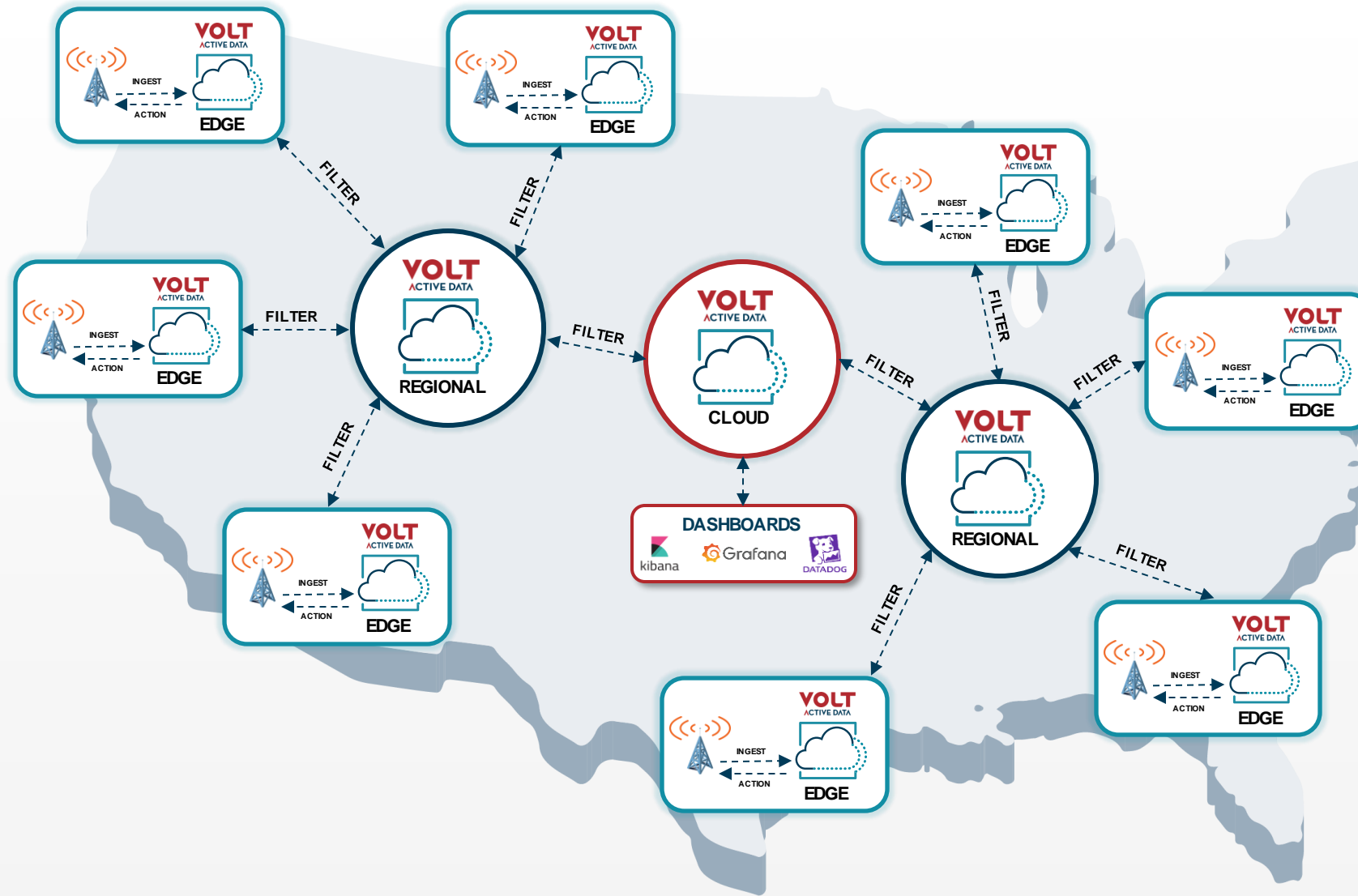> **Edge Optimized Federated Decisioning**

> Active Digital Twins

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IOT DATA PROCESSING AT THE EDGE

VOLT
ACTIVE DATA

TIERED DATA PLATFORM FOR EDGE IOT

HEADQUARTERS

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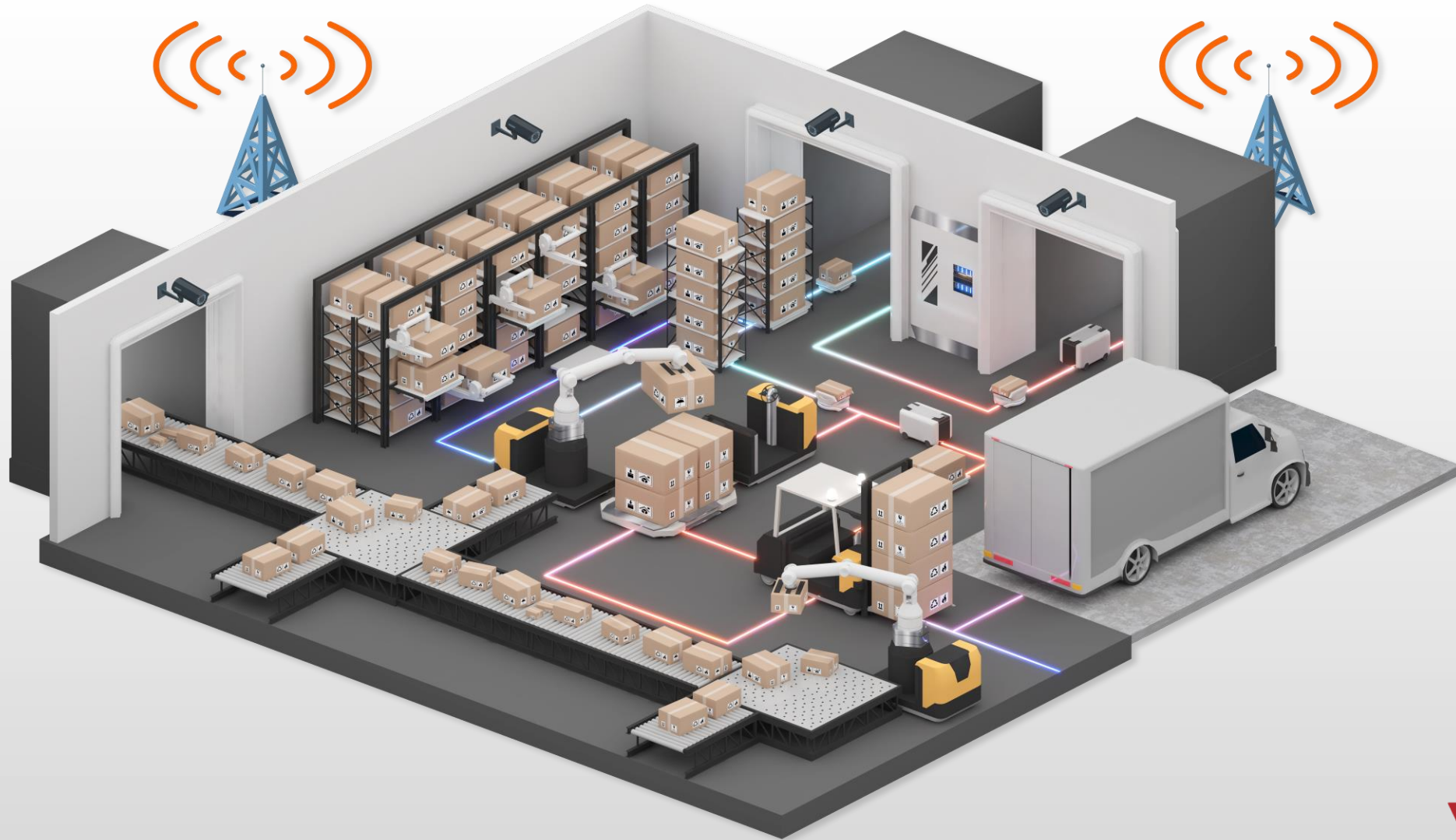
TIERED DATA PLATFORM FOR EDGE IOT

- Tiered concentration is a very meaningful approach as leaf tiers can satisfy the latency SLAs and then use the higher levels for more visibility purposes
- Helps to save a lot of data transmission/storage costs by filtering out the useful data close to the source and at each level.

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