

Major obstacles faced by enterprises at the edge – and how to overcome them

STL Partners webinar

Thursday 18th May

In partnership with:

**TELCO
SYSTEMS**

STL PARTNERS

Agenda

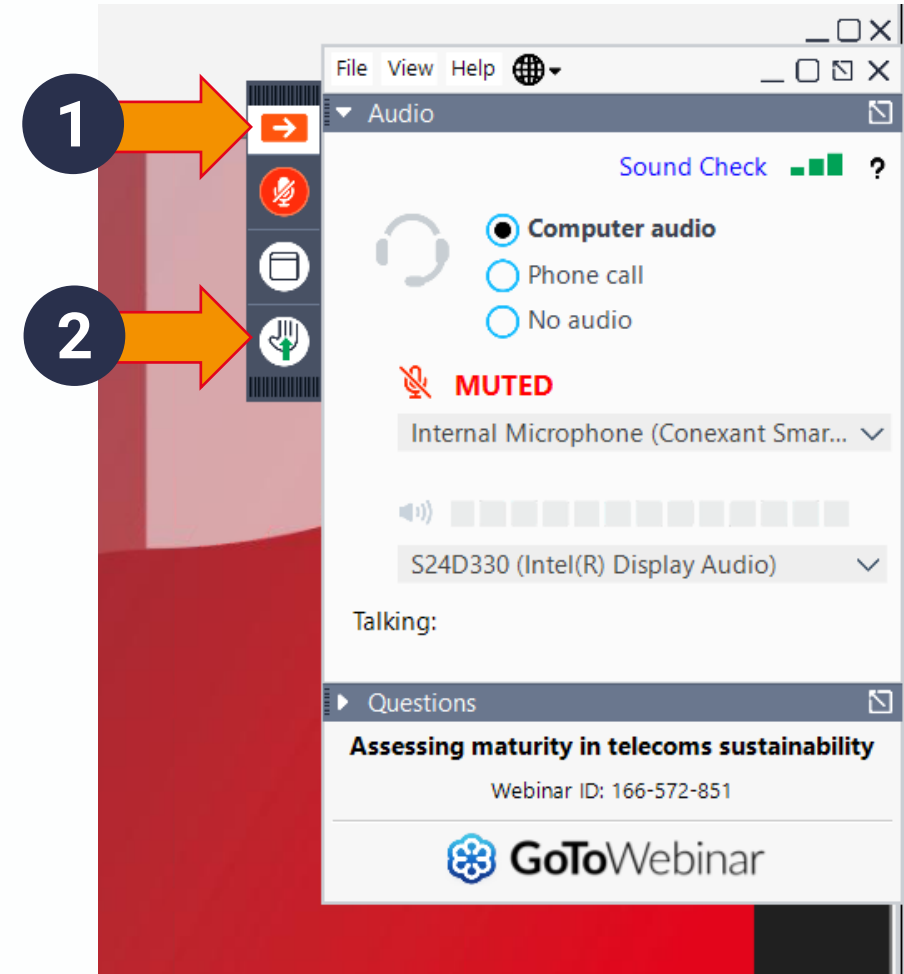
1	Introductions and housekeeping	STL Partners	16:00 – 16:05
2	Key on-premise edge use cases	STL Partners	16:05 – 16:20
3	Simplifying Edge Computing Complexity	Telco Systems	16:20 – 16:40
4	Panel discussion and Q+A	All	16:40 – 17:00

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GoToWebinar

- You're in listen only mode
- If you need us, please type a comment
- Feel free to type questions throughout the session for the Q&A at the end
 - Any questions that we don't answer live will be answered offline and shared in a summary Q&A document
- We'll send you the slides and a recording shortly after the session, please do share with colleagues



Our speakers today



IRIS FINKELSTEIN-SAGI

Chief Marketing Officer

Telco Systems



ERAN SHALEV

Director of Products –
Edge computing

Telco Systems



DALIA ADIB

Director, Consulting

STL Partners



MATT BAMFORTH

Senior Consultant

STL Partners



GABI CEPURNAITE

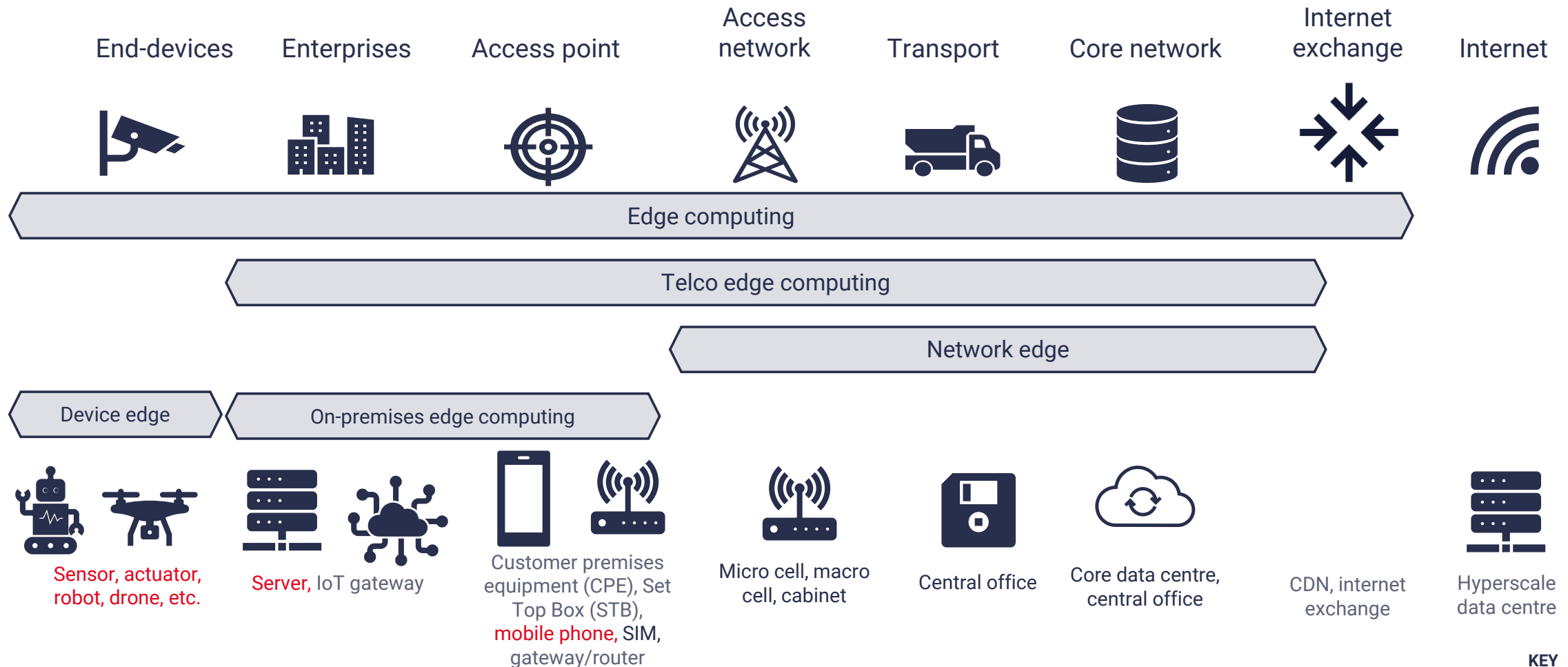
Consultant

STL Partners

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There are different types of edges depending on the location



On-prem edge opportunity is expected to grow at CAGR of 70% to reach USD \$6.6bn by 2030

On-premise edge is more mature than distributed edge



Emergence of **mission-critical use cases** leveraging technology such as video analytics, IoT, and automation.

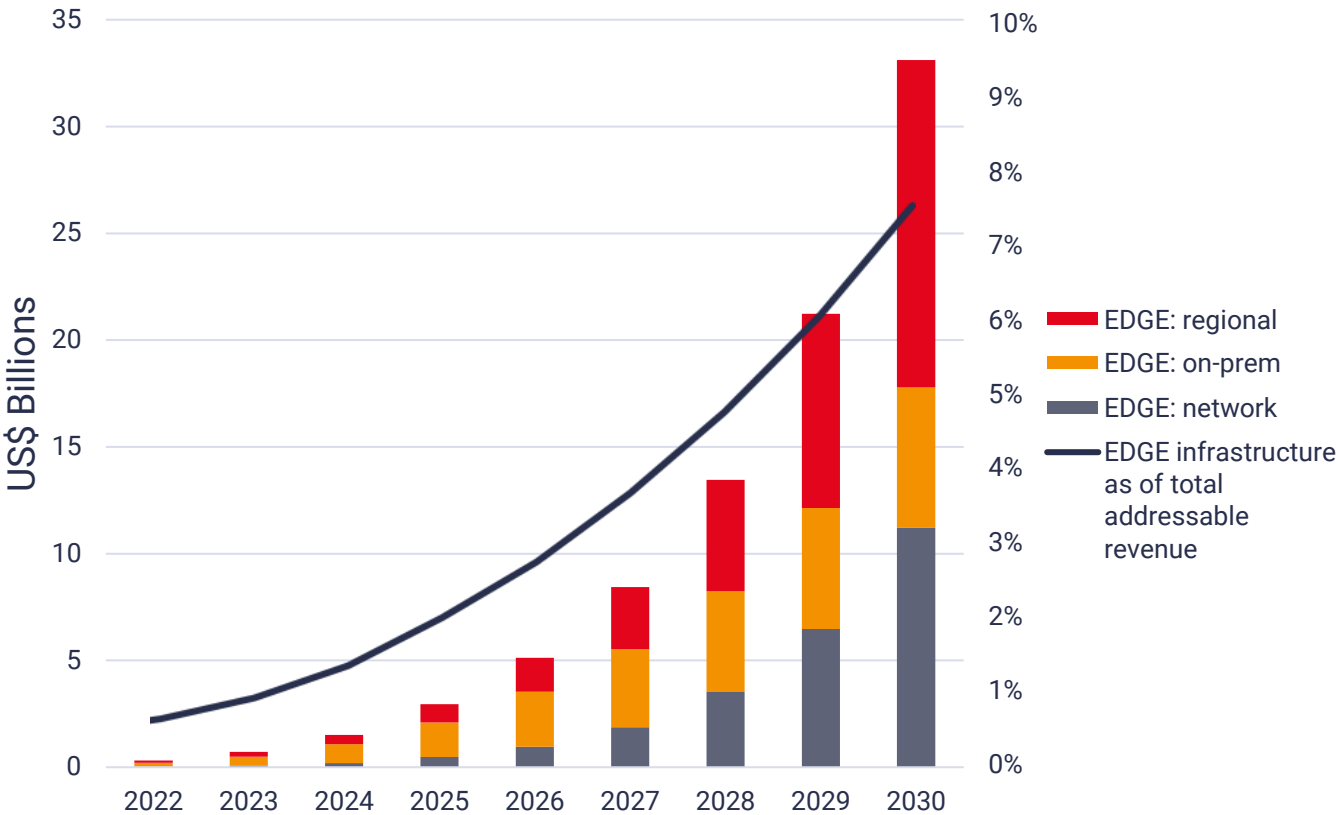


Increasing **importance of data sovereignty and security** as we generate more data than ever before.



The **rise of private networks** deployments.

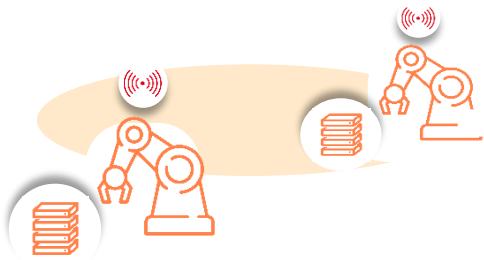
Total revenue from edge infrastructure in the overall value chain, 2022-2030



Source: [STL Edge Computing Market Sizing Forecast, 2022](#)

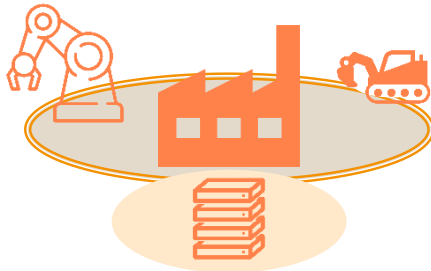
There are broadly four types of on-premise edge deployments driving adoption

On-device



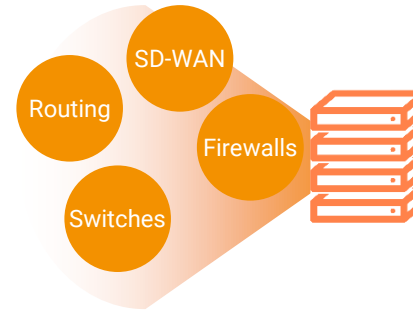
- For IT and OT use cases that involve low-latency requirements, compute may be very close/on the device itself
- This makes smaller devices like AR/VR headsets more heavyweight

Edge servers



- Enable the consolidation of data from multiple sources across a single site e.g. different production lines
- CSPs are using this infra. for private LTE/5G too

uCPE



- uCPE boxes can support both IT services and enterprise OT workloads
- The capacity of white boxes is a big limiting factor

Private wireless



- Private networks can support OT use cases independent of on-prem compute capacity
- There are some different drivers to edge such as remoteness of site

Networking-first

Security and data sovereignty are key drivers for on-premise edge adoption

Main drivers for on-premise edge



Data security
On-premise edge can provide greater control over data security and compliance



Data sovereignty
Some industries have regulatory requirements to process sensitive data on-premise



Low latency
On-premise edge can offer real-time processing or low-latency responses for application



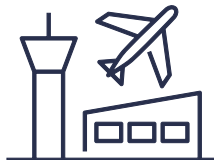
As such, industry verticals best suited for on-premise edge are:



Manufacturing



Oil & Gas



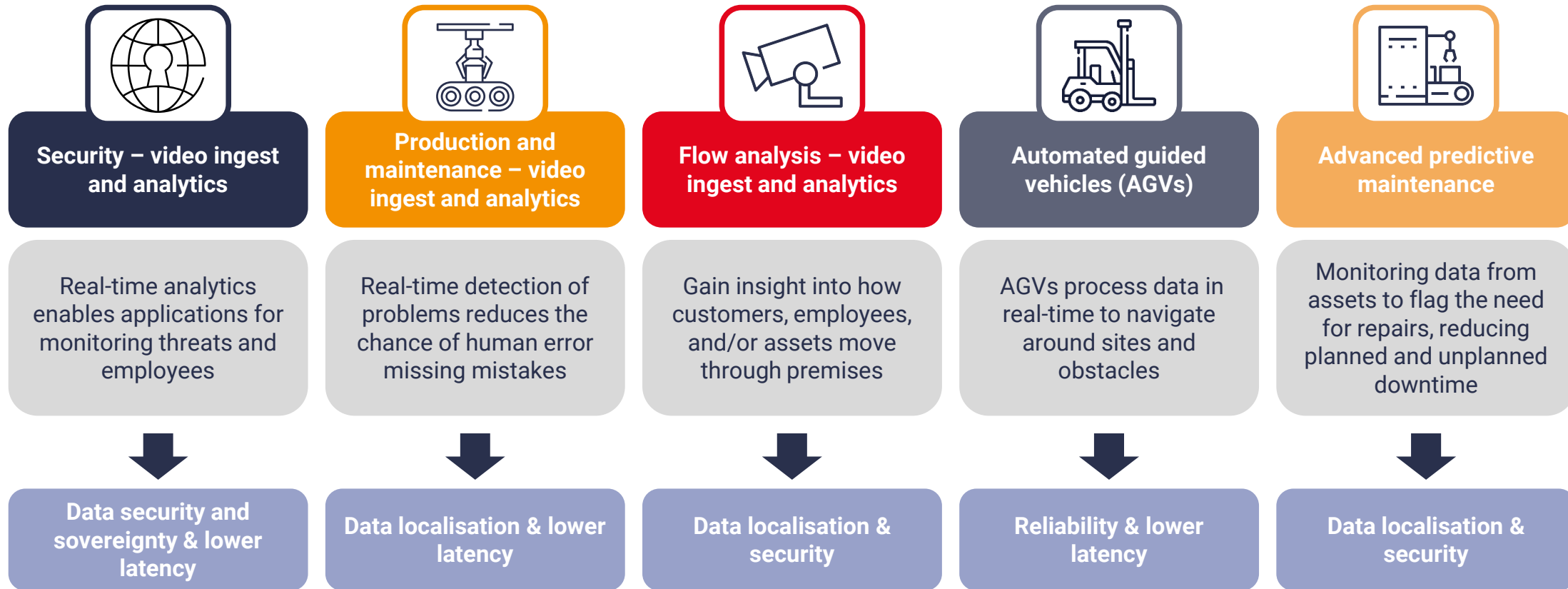
Transport



Healthcare

Video ingest and analytics is an anchor use case for on-premise edge

Use cases which leverage on-premise edge



Video ingest and analytics can bring together multiple different applications in different industries

How it works

- **Applications include:**
 - Production and maintenance
 - Security on a site or on a production line
 - Flow analysis of customers, employees, or assets
- Reduces chances of human error that can frequently happen when done manually
- Edge computing used **to collect video data, label and manage the data and run the analytics**

Why on-prem edge?

- **Expensive to:**
 - Replace existing cameras
 - Transport real-time video data
- Facial-recognition data is often subject to **data sovereignty** regulations
- Ability to **identify faults/threats in real-time**, even on fast production lines

Key industry verticals



Manufacturing



Extractives



Transport



Logistics



Utilities



AEC*

*AEC: Architecture, engineering and construction

Key edge capabilities required



Data localisation



Reduced backhaul



Light device



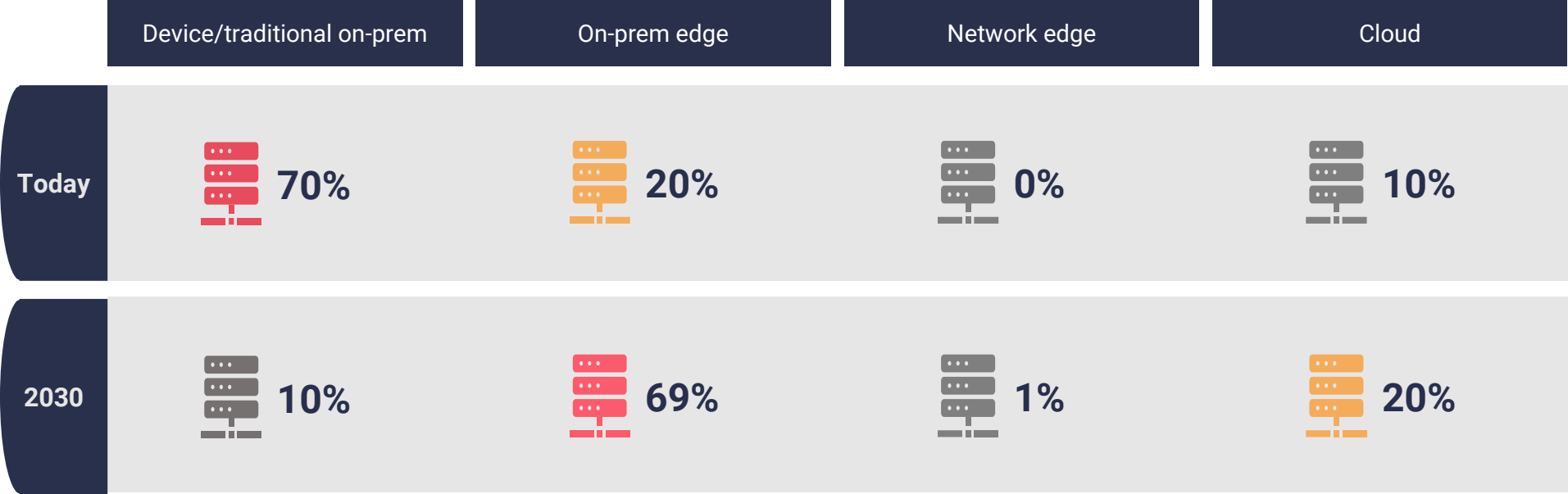
Latency



Resilience

Video analytics that previously used traditional servers will move to on-premise edge

Today, any analytics on video footage occurs on premium, AI-enabled video cameras. **Over the next seven years, we expect most enterprises would use an on-premise edge** to analyse the data, so that it never leaves the premises.



Percentages denote an estimate for the amount of overall application processing that occurs at each location



0-10% of total processing



11-30% of total processing



31-50% of total processing



51-75% of total processing



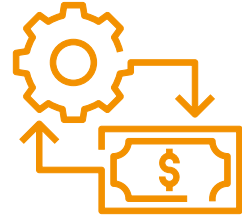
76-100% of total processing

Major challenges faced by enterprises at the edge



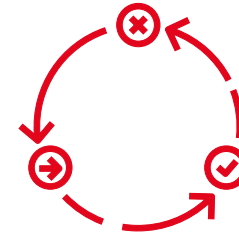
Enterprises don't speak "edge"

Enterprises are often not aware of what edge computing is and how they could benefit from it



Making the business case

Enterprises struggle to show how benefits of edge computing translate into measurable ROI



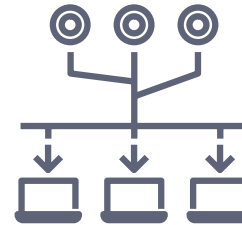
Lack of edge computing case studies

Without case studies, enterprises may struggle to understand how edge can be applied in their industry



Interoperability

Enterprises may struggle to ensure that different systems work together, especially with legacy equipment



Managing a highly distributed set of nodes

Enterprises may struggle to securely manage and maintain a highly distributed environment

Poll: What is the biggest hurdle facing enterprises in deploying applications at the edge?

1. Enterprises don't 'speak edge'
2. Making the business case
3. Lack of edge computing case studies
4. Interoperability
5. Managing a highly distributed set of nodes

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EDGILITY^{by}
TELCO SYSTEMS

Edge Computing is Complex.
Edgility Makes it **Simple**

Who Are We?

we know networks

we understand the edge

Almost 50 years expertise in
Networks & Telecommunications

Leader in innovative
Carrier Ethernet,
Metro Edge & Edge
Computing solutions

Multi-billion
dollar install base
@>300 Service
Providers in over
50 countries

Over 150 years cumulative experience
in Telco & Enterprise Cloud & Edge Computing

 amdocs

NOKIA

 ERICSSON

VERINT

 CISCO

 hp

blueplanet

allot

COMVERSE

 ECI
THE ELASTIC NETWORK

 HUAWEI

 Camilo

EDGILITY by
TELCO SYSTEMS

Common **Day 1** Edge Challenges

Cloud
or Edge?

where do
workloads go?

Legacy
HW?

Connectivity
& Security?

uCPE?



The Complexity of **SCALE**

The Complexity of **DEVICES @SCALE**

1000's (or more) of geo-
distributed physical
devices

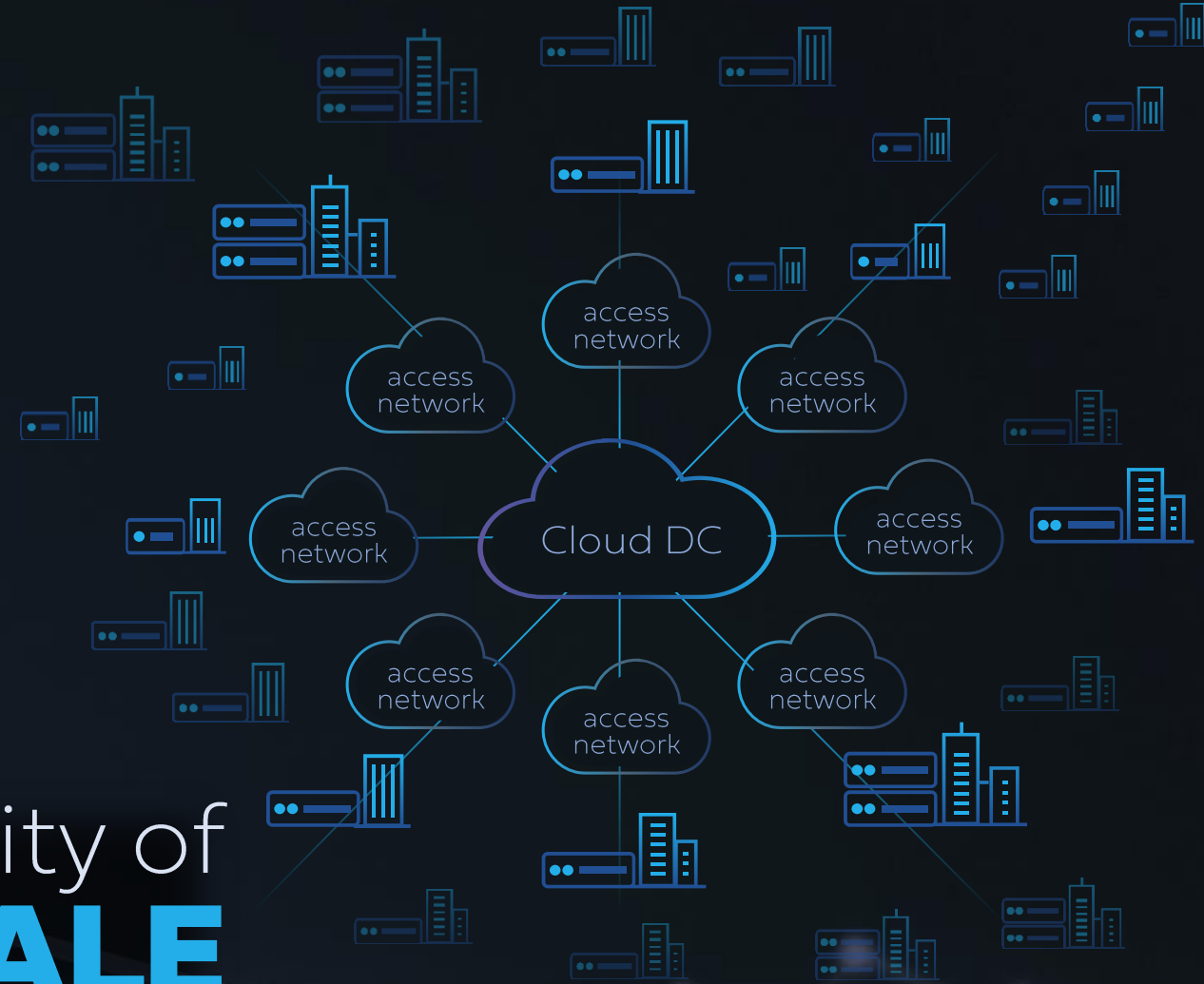
Each running
their own
VNF/VM/CNF



Multiple independent
management systems

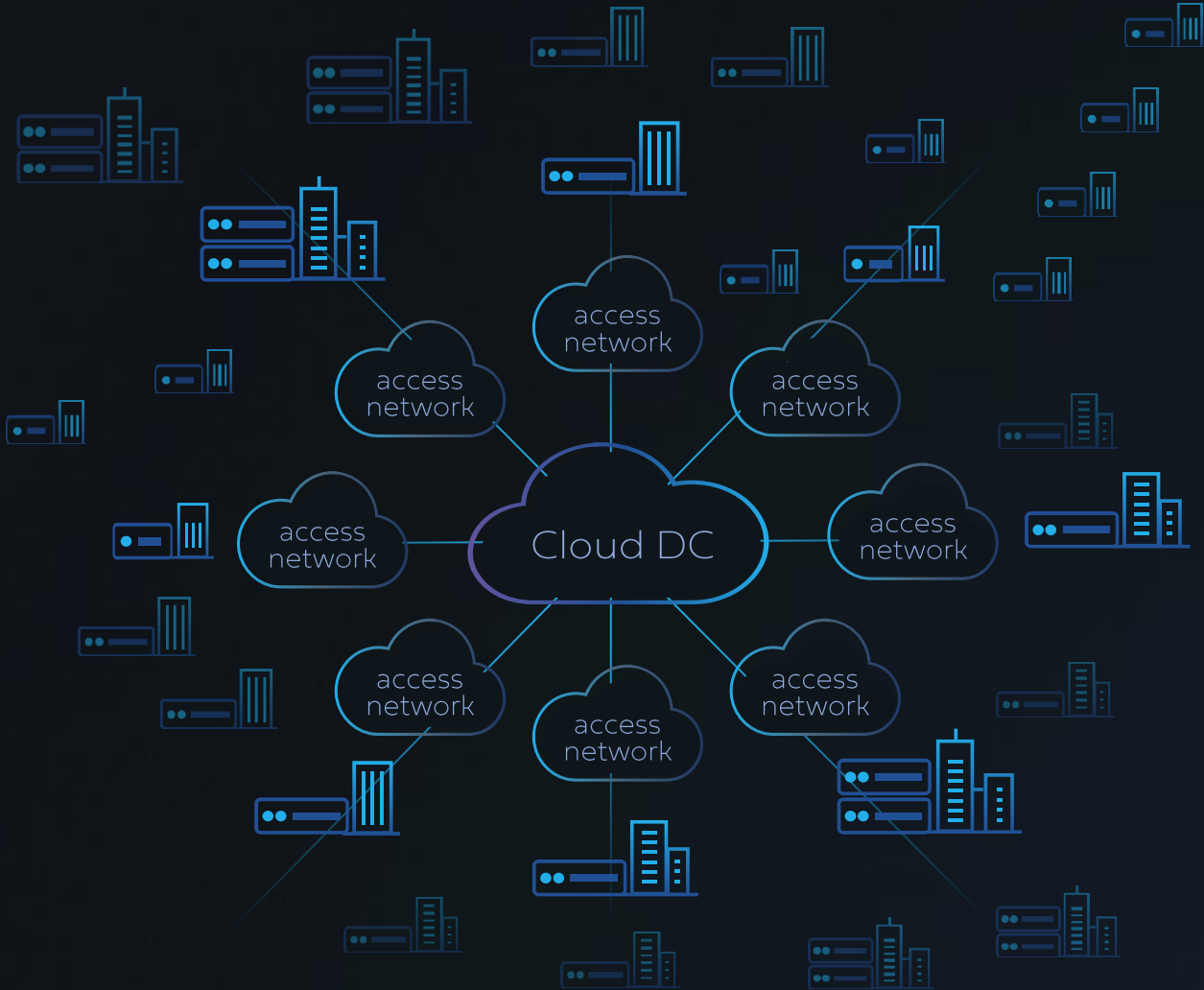
Variety of applications,
vendors, devices &
networks

The Complexity of **DIVERSITY @ SCALE**



The Complexity of **TCO @ SCALE**

Cost of devices
Cost of provisioning
Cost of maintenance
Cost of carbon emissions
Cost of diversity
Cost of SLAs



Deployment

Provisioning

On Site Troubleshooting

Time to Repair

**1% ZTP failure
rate of deploying
100,000 edge
devices**

=

**Manually deploy
1000 devices**

**EDGEiLITY
99.9999%
success rate
(0.01% failure)**

=

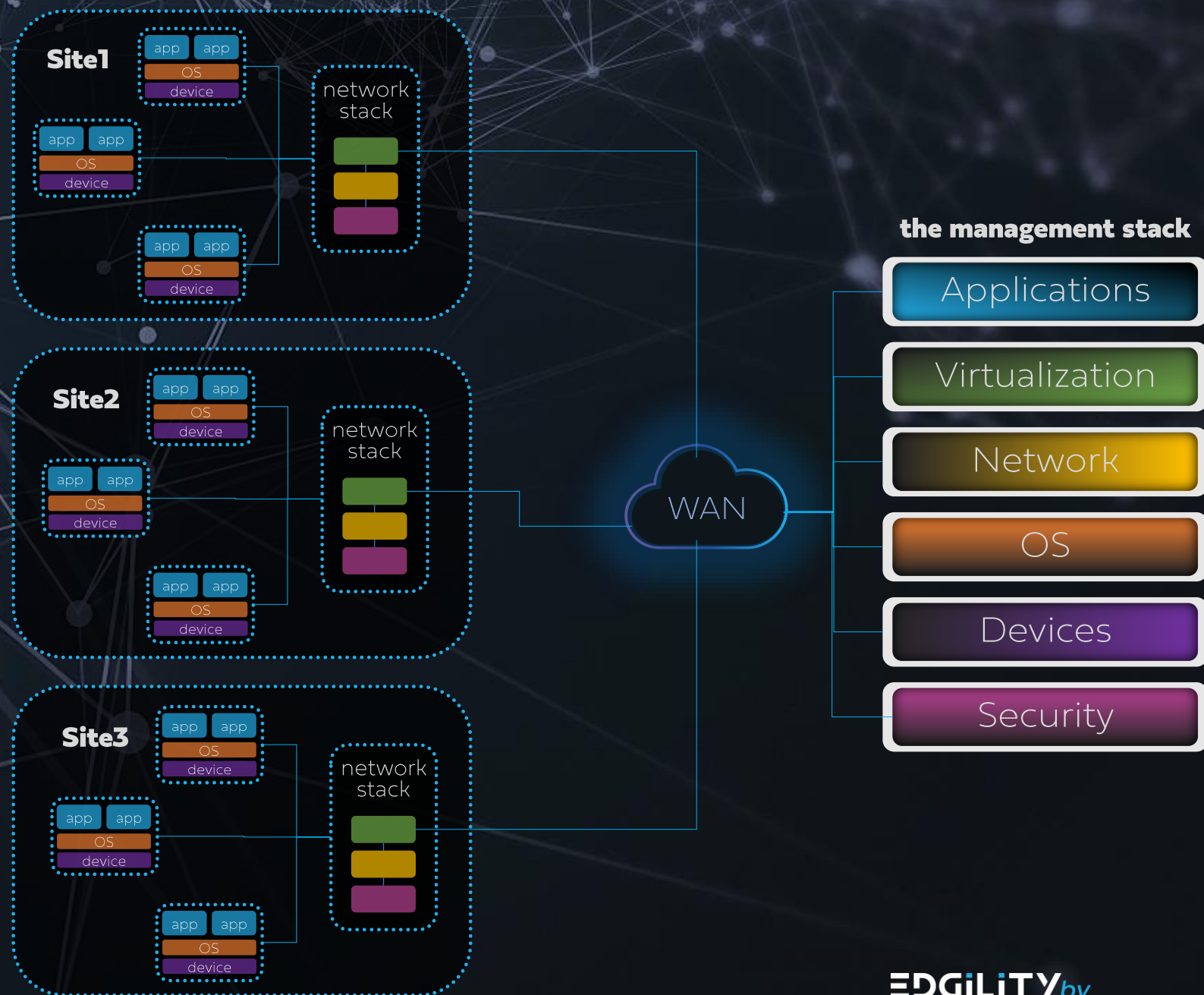
**Manually deploy
10 devices**

**Manual Labor, Truck
Rolls, Cost of SLAs....**

The Complexity of
OPERATIONAL EFFICIENCY@ SCALE

**EDGEiLITY_{by}
TELCO SYSTEMS**

The Management MESS



A
**UNIFIED
STREAMLINED
SIMPLIFIED**
Platform
for Edge
Computing

Site 1



Site 2



Site n



EDGiLiTY



Applications

Virtualization

Network

OS

Devices

Security

DAY 0

DAY 1

DAY 2

plan & design

BUILD CATALOGS

DESIGN SERVICES

DEFINE LICENSE MODELS

ADMINISTER USERS

CONFIGURE DAY 1

mass deploy

PROVISION

MONITOR

maintenance & operations

CHANGES &
MODIFICATIONS

LCM

UPDATES

DAY 0 ACTIONS

REMOTE
TROUBLESHOOTING

A
**UNIFIED
STREAMLINED
SIMPLIFIED**
Platform
for Edge
Computing

EDGILITY by
TELCO SYSTEMS

EDGiLiTY



EDGiLiTY
CENTRAL

A unified platform for edge computing that simplifies the deployment, operation, and maintenance of network functions, business apps, and computing devices across the edge continuum @ scale.



any box

Local Office

Regional Office

Home

Headquarters



EDGiLiTY OS

VIRTUALIZED CUSTOMER EDGE USE CASE



Drivers & Challenges

Replacing costly, legacy Cisco hardware

Achieving 'net zero carbon emissions by 2030'

Providing a scalable and future proof solution for their business customers

Expediting deployment of new services

Managing hundreds of thousands of physical devices

Solution & Value

Small footprint, low-cost, low-power white-boxes

Carbon emissions reduction of at least 45%*

TCO reduction of 60%*

Capable of deploying, managing and operating multiple virtualized services, at scale, across multiple sites

Efficiently managing 1000's of devices and services from one central location

Easy onboarding and deployment of new services

10 Gbps with no extra costs

*vs previous solutions

EDGEiLiTY *by*
TELCO SYSTEMS

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