

Bring The Power Of Edge To CSPs

Petasus 5G MEC Platform On Dell

RCR Wireless Webinar Presentation

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Table Of Contents

Introduction

**Business
Opportunity
& Customer
Challenges**

**Dell
Telecoms
Strategy**

**Solution
Overview**

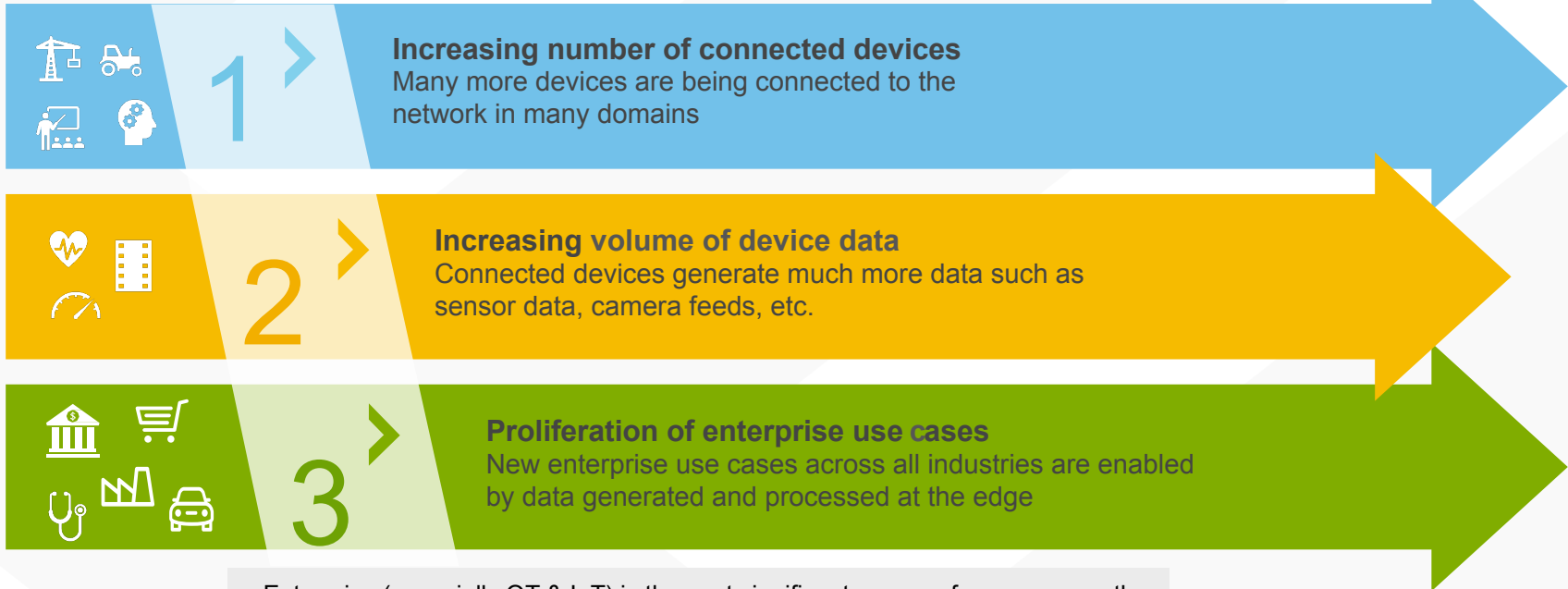
**Use
Cases**

An aerial photograph of a city street grid is overlaid with a white digital circuit pattern. The pattern consists of various geometric shapes like squares, circles, and lines, connected by thin white lines, resembling a network or data flow. The word "Introduction" is written in a large, white, sans-serif font in the center of the image, partially overlapping the circuit pattern. The city below shows various buildings, streets, and green spaces.

Introduction

5G Is The “Enterprise G”

End-consumer of service is no longer just an individual but instead an enterprise, device or application.



Enterprise (especially OT & IoT) is the next significant source of revenue growth

Monetizing digital services

requires a platform

and an ecosystem

Telecom Services @ the Edge. A Convergence

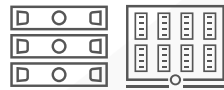
The Telecom Services Edge is a convergence point of the enterprise network and the telecom network.

Enterprise Networking



Devices

Consumer | Gamers | Workforce



Access

SD-WAN | uCPE



Industry 4.0

Gateways | Intelligence | IoT



Enterprise Edge
Dedicated/private MEC

Telecom Networking



MEC / RAN

1000's of locations

Application Management



100's of locations



Core Telco Cloud
10's of locations



MEC / RAN

High Performance
"Open Edge"

Network Edge
Distributed/public MEC

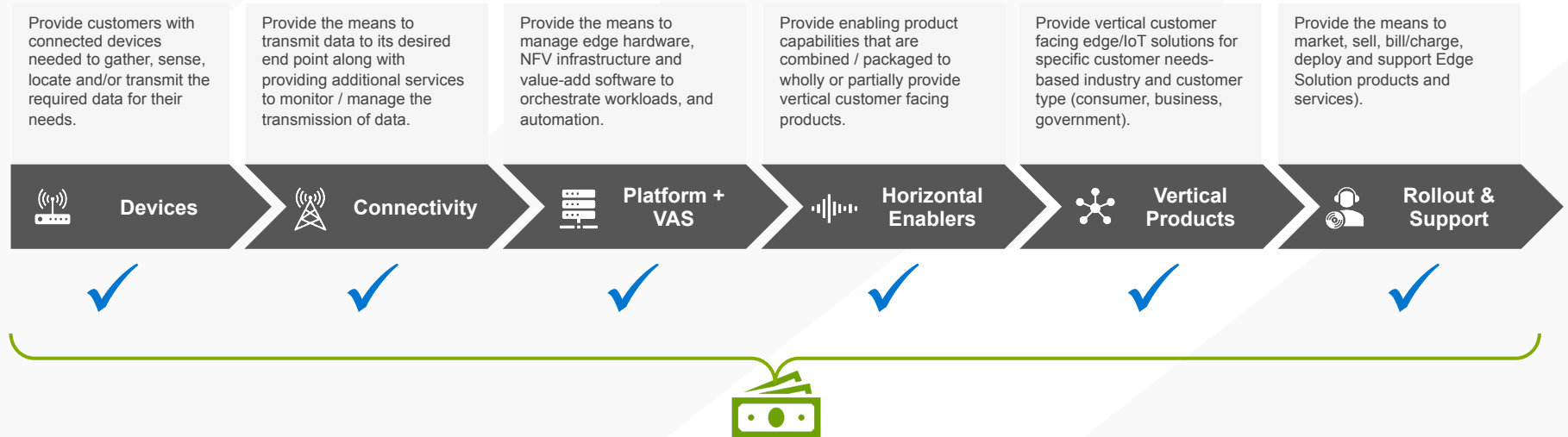
Seamless Extension

Multi-access edge compute is the convergence of **Teleco Cloud and IT Cloud in the RAN**



Edge Compute Value Chain

Revenue generation needs a set of components to come together to achieve outcomes desired by an enterprise.



It takes a combination of these functions to **CREATE OUTCOMES** that meet an enterprise need in order to **GENERATE REVENUE** from enterprises

✓ **DELL as a partner**

An aerial photograph of a city street grid, overlaid with a complex digital circuitry pattern. The circuitry consists of white lines, nodes, and geometric shapes (squares, circles) that trace paths across the buildings and streets, suggesting a network or data flow. The text "Business Opportunity & Customer Challenges" is centered in a large, white, sans-serif font.

Business Opportunity & Customer Challenges

Enterprise Pain Points

Primary research by different analysts is broadly in agreement over enterprise issues.



Security



Cost



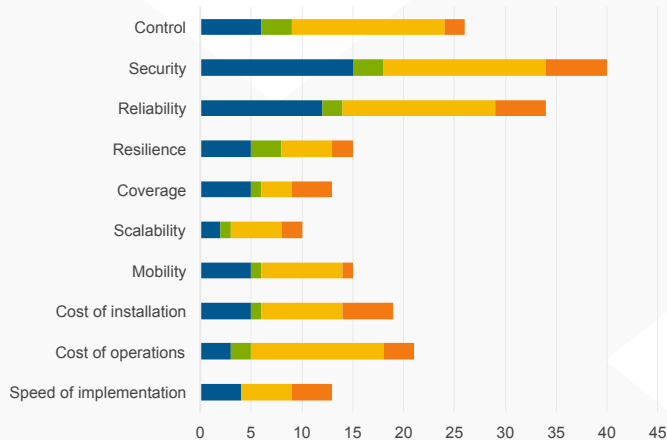
Uncertain ROI



Complexity

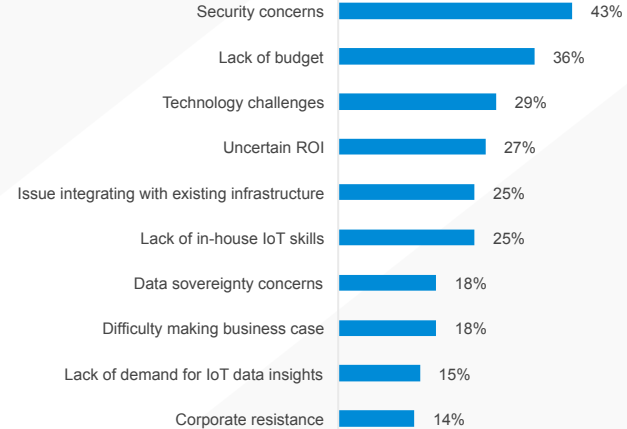


Connectivity



■ AEC ■ Extractives ■ Manufacturing ■ Transport & logistics

Source: STL partners (Sep 2020)



Source: 451 Research VoTE 2021

Metrics

\$3.7B USD

Worldwide Market size value of MEC in 2021¹

\$38.6B USD

Worldwide MEC Market size forecast by 2028¹

33.7% CAGR

MEC growth rate, CAGR from 2021 to 2028¹

256+

Major companies doing MEC business already and this number is increasing rapidly.¹

32 hyperscaler local zones

Hyperscalers are rapidly expanding MEC business through partnership with Telco's.³

\$2.3B USD

Global Investment into Private 5G network by 2025.²

\$9.3B USD

Global investment into Private 5G Network by 2030.²

65% CAGR

Private 5G network growth rate global, CAGR from 2021 to 2030²

¹ Fierce Wireless, 2019
² <https://www.keitai.or.jp/japanese/topics/2019/1218-2.pdf>
³ <https://www.infoq.com/news/2021/12/aws-local-zones-expansion/>

An aerial photograph of a city street grid is overlaid with a white, glowing network diagram. The diagram consists of interconnected nodes and lines, resembling a fiber optic or data network, centered in the middle of the city. The text 'Dell Telecoms Strategy' is prominently displayed in the center of the image, overlaid on the network diagram.

Dell Telecoms Strategy

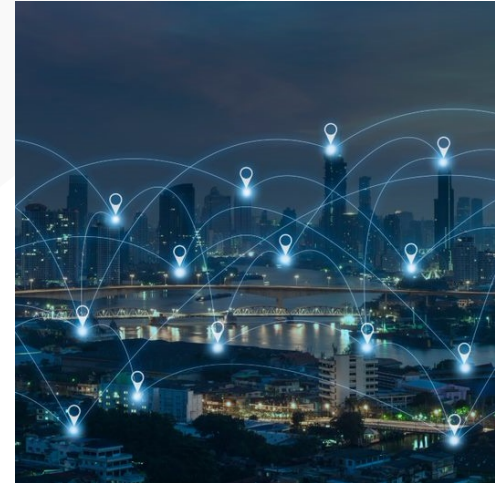
Leading Telecom's Open Future



Co-creating revenue opportunities with
Solutions
Co-Creation Services



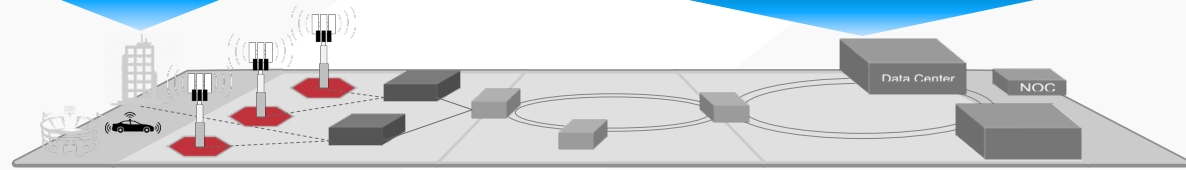
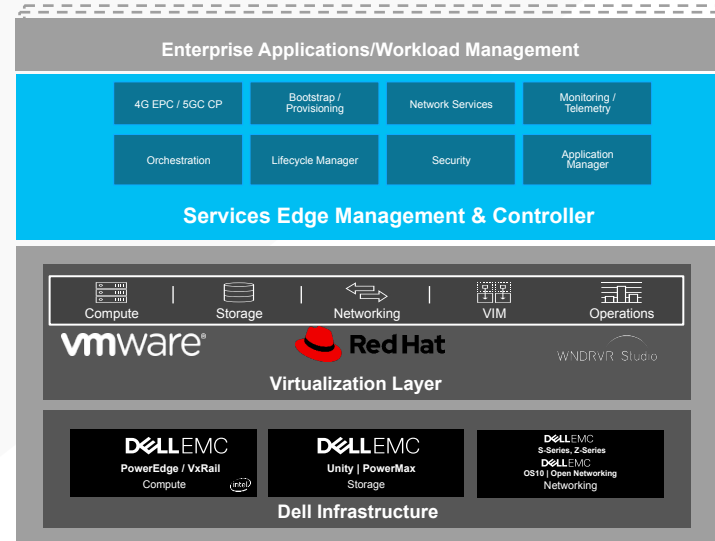
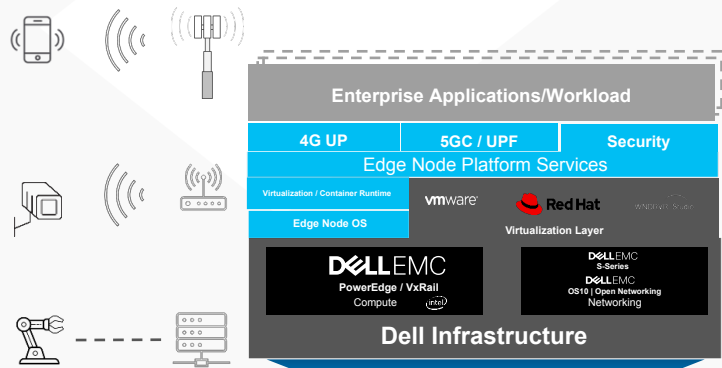
Accelerating partnerships with
Strategic Alliances



Uniting the open ecosystem in our
Open Telecom Ecosystem Lab



Platform + Ecosystem



An aerial photograph of a city street grid is overlaid with a complex digital circuit diagram. The circuit consists of white lines representing traces, nodes, and various geometric shapes like squares and circles, suggesting a network or data flow. The text "Solution Overview" is centered in a large, white, sans-serif font.

Solution Overview

Why SKT Develops It's MEC Platform/Business, with Dell?

SKT visions itself as a “AI & Digital Infrastructure Service Company”, rather than a “dumb pipe”.

The need to stand up to technology challenges from verticals' who demand digital transformation **now** (media verticals), particularly in time-to-service and service performance.

Responding to government initiatives who are obliged to provide essential services critical to society fabric (e.g. transport, road safety, city surveillance, healthcare)

Lack of mature e2e MEC solutions in market. Ad-hoc features available but need a significant integration effort.

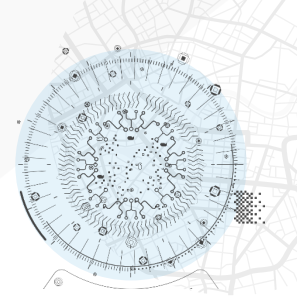
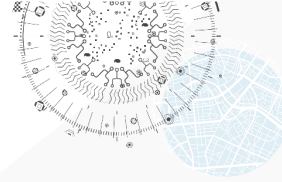
Affordable

Vision
of AI & ICT
Service
Company

A mature
e2e MEC
solution

Time-To-
Service

Solution Architecture: Today



Customer-facing Services

MEC Biz Console

Order Management

Hybrid MEC Service

Service Manager

**MEC Platform &
Edge Cloudlet Management**

MEC Platform Manager

Petasus 5G Edge

CSP Edge

Fulfillment

Assurance

MEC Infrastructure Functions

Edge Virtual Infrastructure Manager

EdgeStack

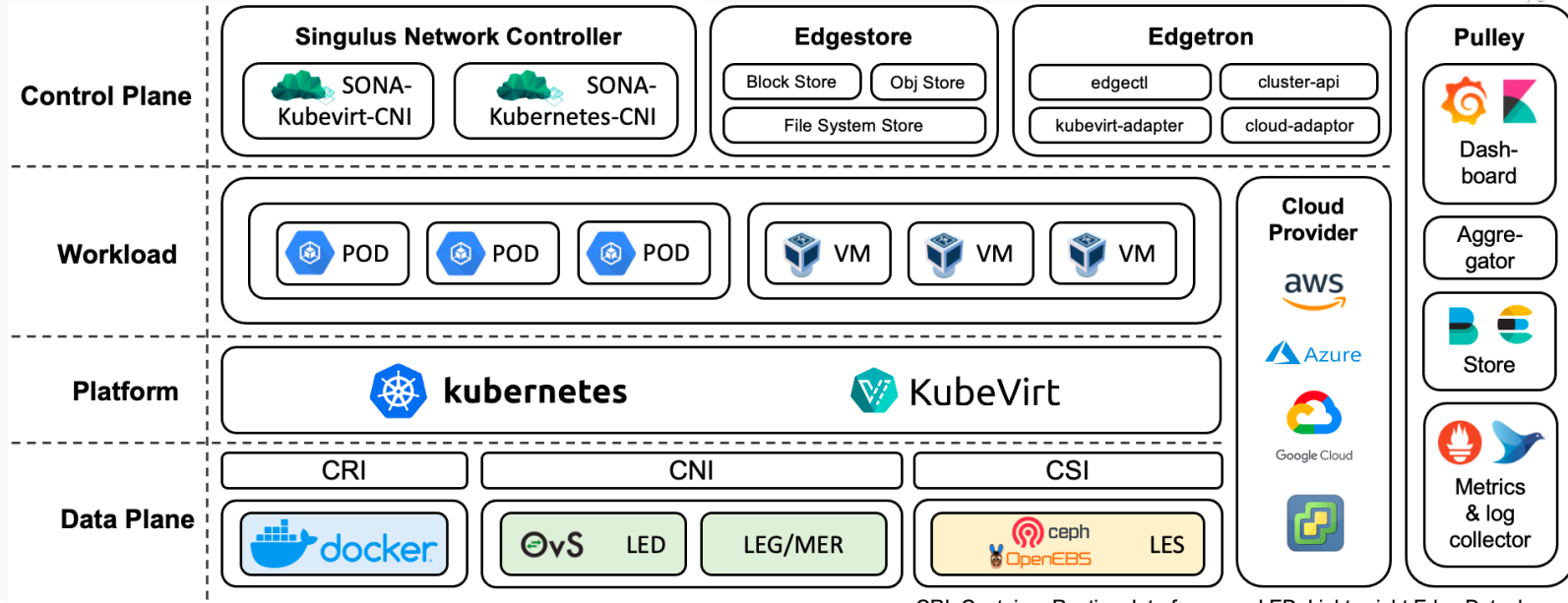
**Multi-access Edge
Data Plane processing**

MEC Router

GPU

AI chips

EdgeStack Architecture



CRI: Container Runtime Interface
 CNI: Container Network Interface
 CSI: Container Storage Interface

LED: Lightweight Edge Dataplane
 LEG: Lightweight Edge Gateway
 MER: Multi-access Edge Router

Solution Architecture: Today



Customer-facing Services

MEC Biz Console

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**MEC Platform &
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MEC Platform Manager

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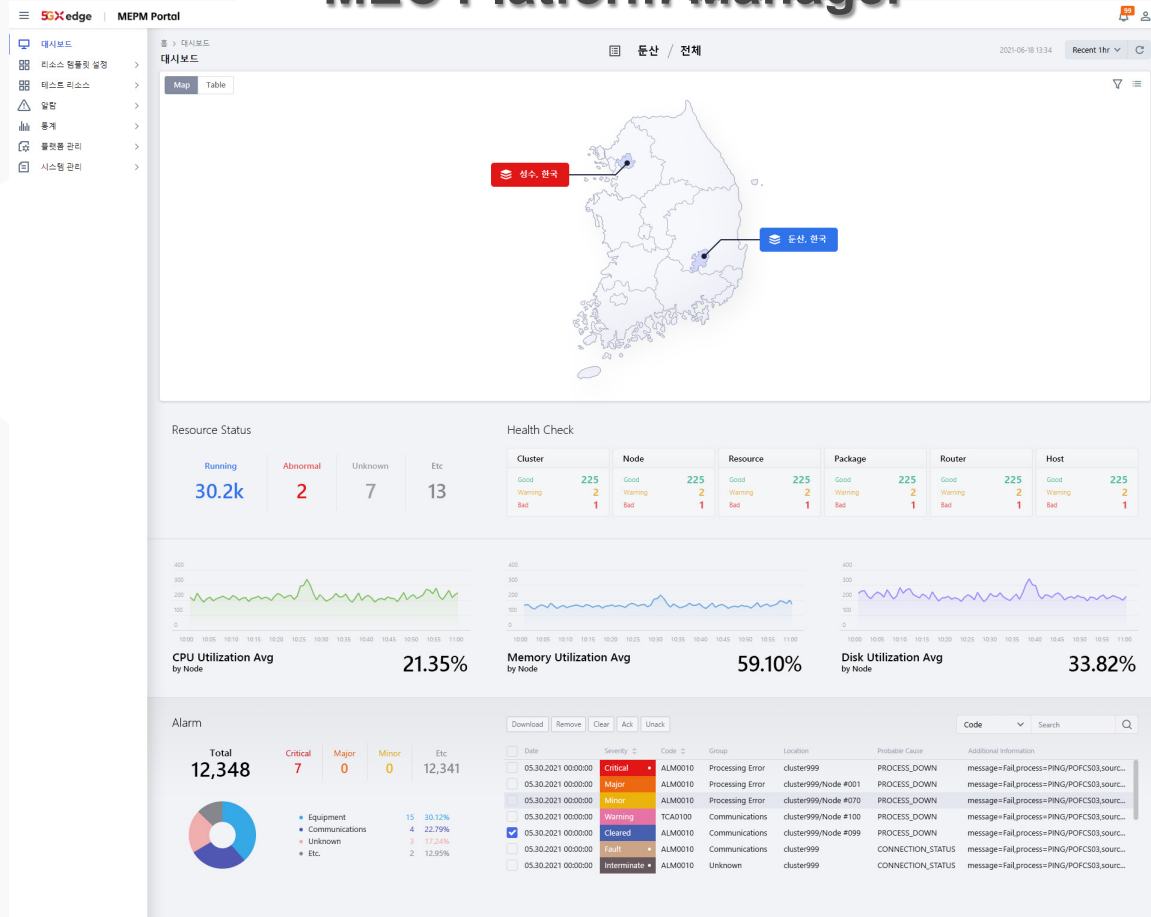
**Multi-access Edge
Data Plane processing**

MEC Router

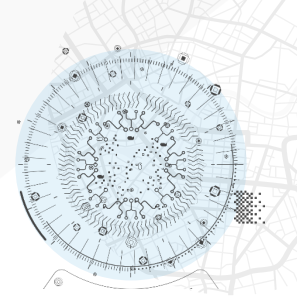
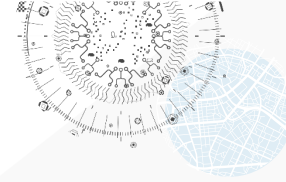
GPU

AI chips

MEC Platform Manager



Solution Architecture: Today



Customer-facing Services

MEC Biz Console

Order Management

Hybrid MEC Service

Service Manager

MEC Platform & Edge Cloudlet Management

MEC Platform Manager

Petasus 5G Edge

CSP Edge

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MEC Infrastructure Functions

Edge Virtual Infrastructure Manager

EdgeStack

Multi-access Edge Data Plane processing

MEC Router

GPU

AI chips

Solution Architecture: 2022

Domain-specific MEC Products



Media Edge Product
Media Edge PaaS
SDK
App



Customer-facing Services

MEC Biz Console

Order Management

Hybrid MEC Service

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MEC Platform Manager

Petasus 5G Edge

CSP Edge

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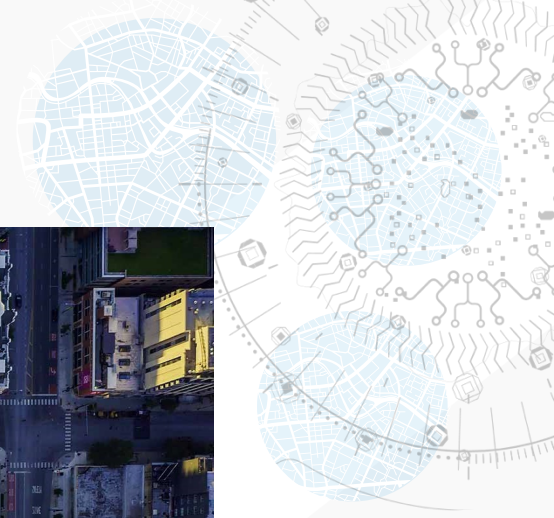
Multi-access Edge Data Plane processing

MEC Router

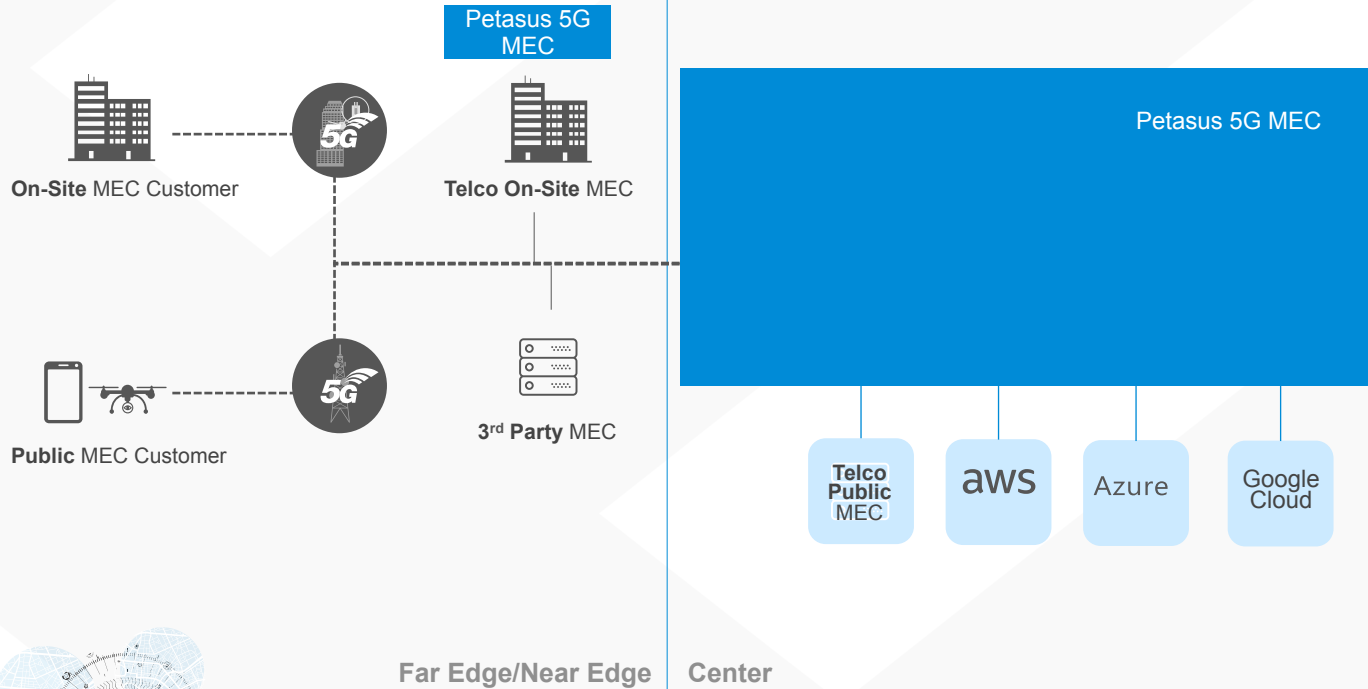
GPU

AI chips

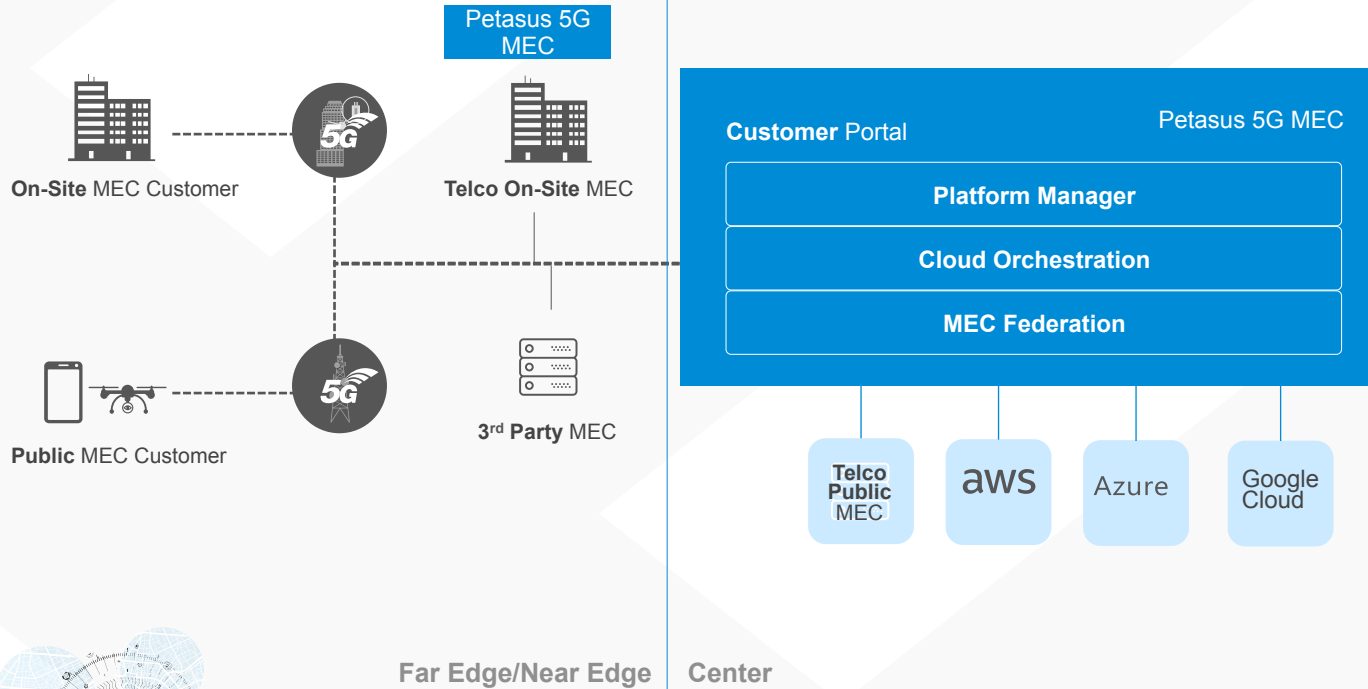
Why Are Service Providers Excited?



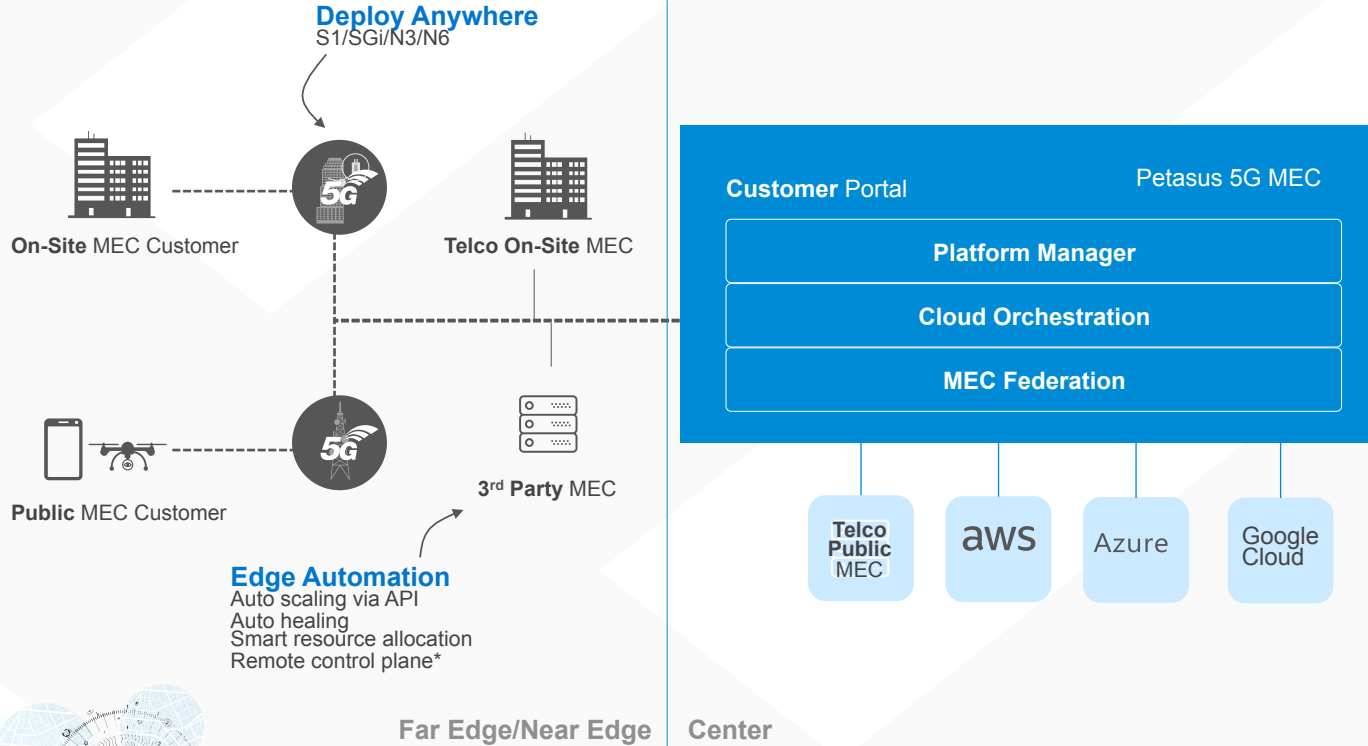
Petatus 5G Solution Highlight



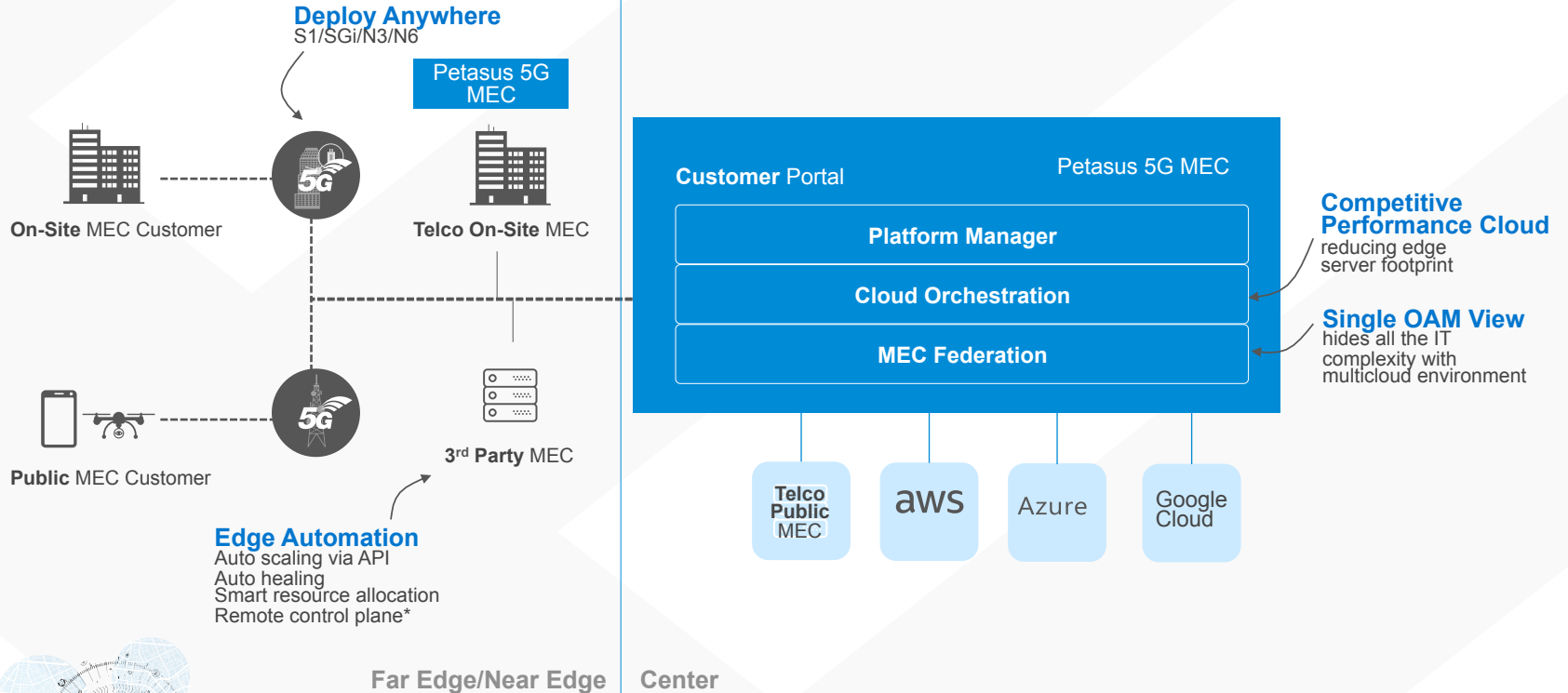
Petatus 5G MEC Solution Highlight



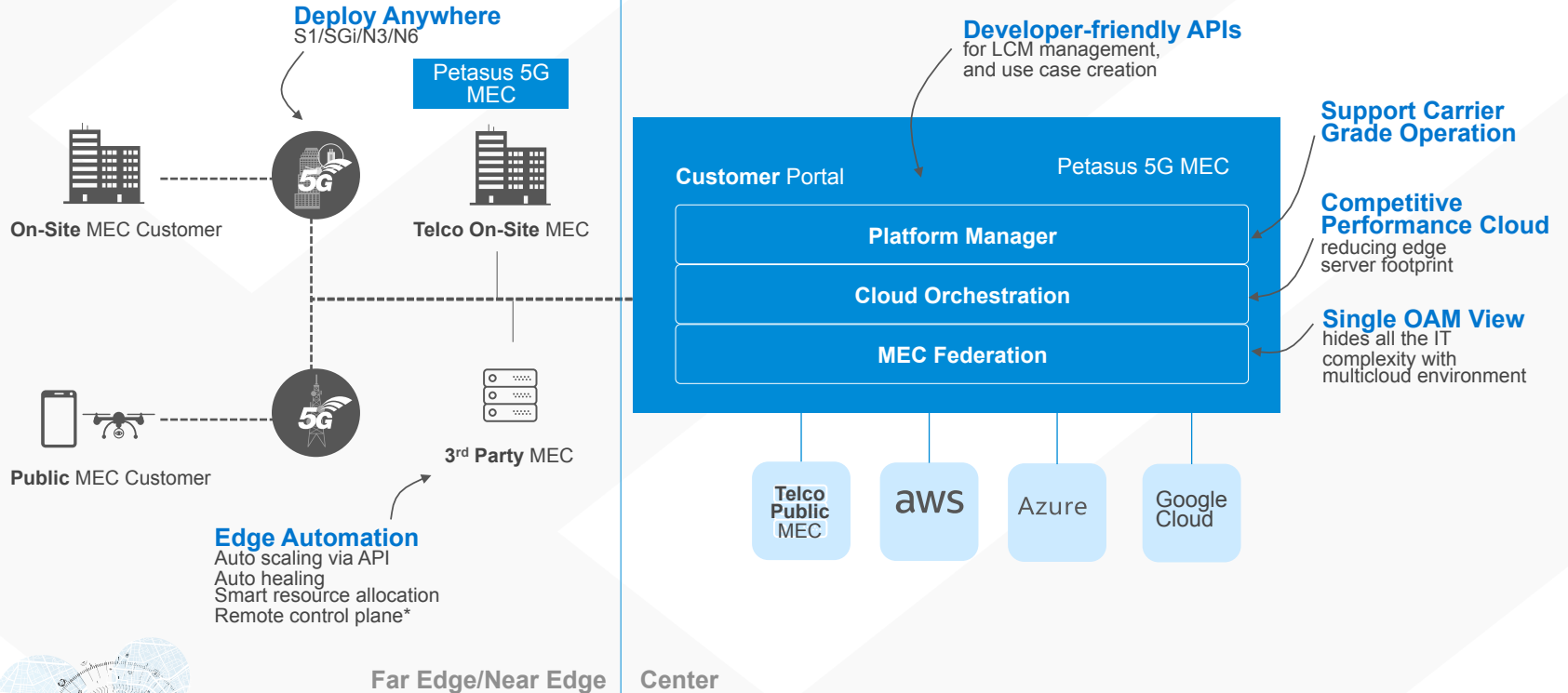
Petatus 5G MEC Solution Highlight



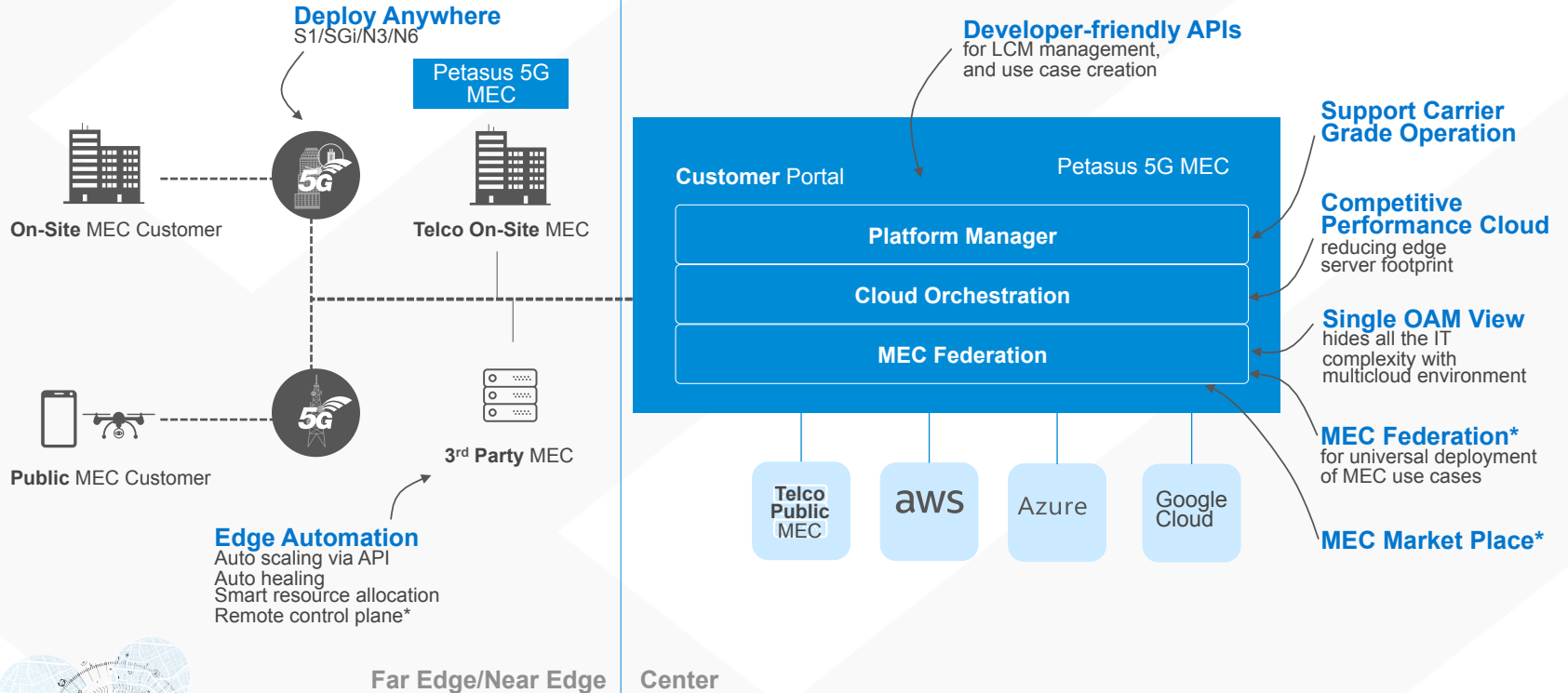
Petatus 5G MEC Solution Highlight




Petatus 5G MEC Solution Highlight



Petatus 5G MEC Solution Highlight



An aerial photograph of a city street grid is overlaid with a white digital circuit pattern. The pattern consists of various geometric shapes like squares, circles, and lines, resembling a network or data flow. In the center of the image, the words "Use Cases" are written in a large, white, sans-serif font. The background shows a mix of urban buildings, streets, and green spaces with trees.

Use Cases

B2C 5G MEC Services

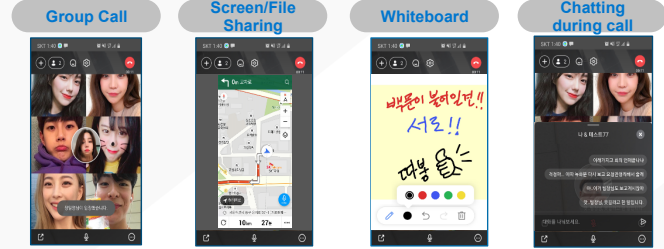
Changdeok ARirang

Using 5G MEC & AR to improve the visitors experience of palaces with many physical barriers



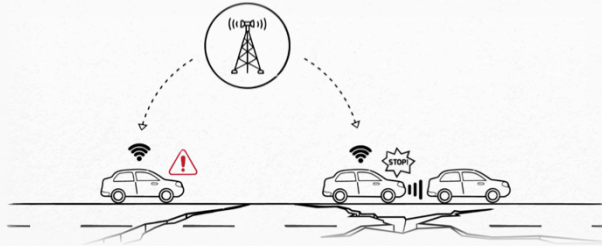
Video Call Education Service

'High Quality (QHD)' Commercial Service, Video/Voice/Text Communication through group call

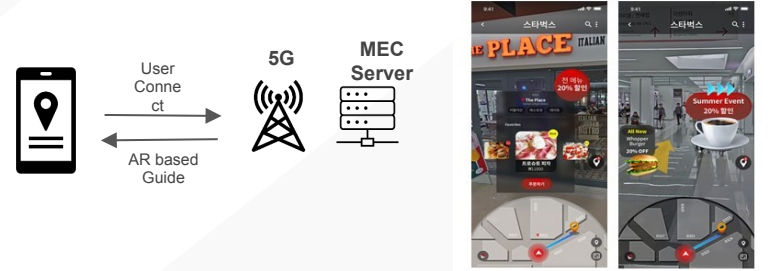


Road Breakage Monitoring Service

Ultra Low Latency Infrastructure for Autonomous Driving, Connected Car Communication



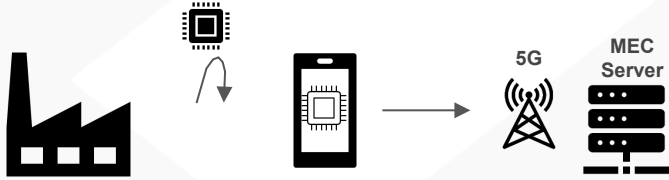
AR Indoor Navigation Service



B2B 5G MEC Services

Device Memory Test

Device Test with MEC use cases



Shinhan Bank

Testbed for Financial Application & Kiosk



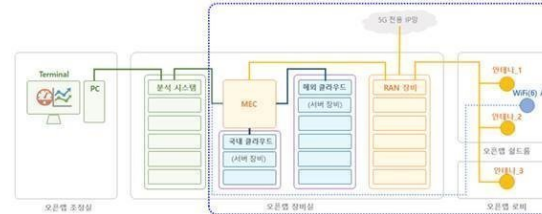
Vision AI based Smart Quarantine Service

MEC based more accurate & immediate patient detection & notification



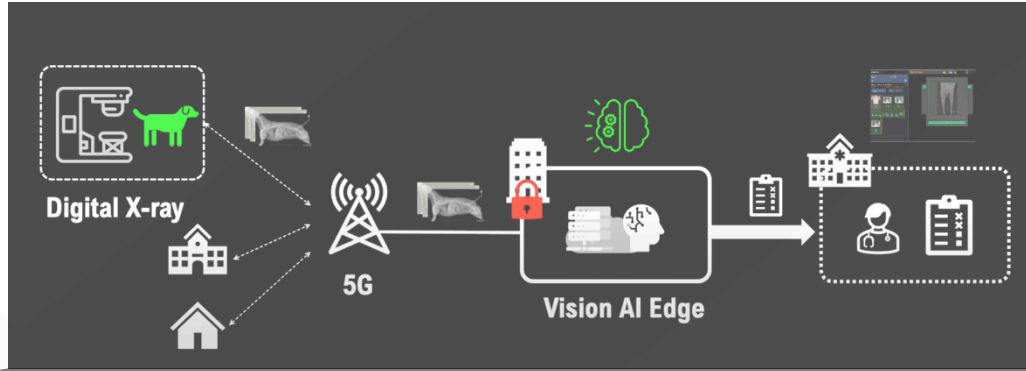
NIPA Open Lab

MEC Open Lab for MEC service providers



Vision-AI

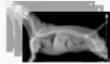
Vision AI is used to analyze the X-ray image from animal hospitals and detect diseases automatically.



[Vet Hospital X-ray Room]

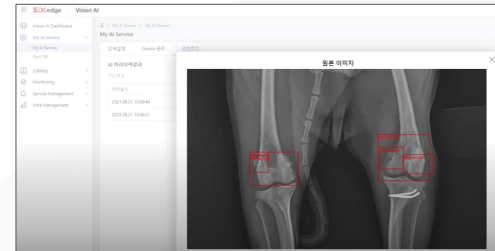
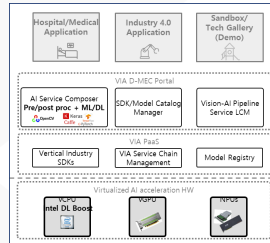


- NanoX.ARC or existing X-Ray device**
- X-ray images
 - Dental X-ray images
 - Other diagnostic images such as CT, MRI, Ultrasound



DX image transfer

EMR, PACS, Electronic medical info, Image transmission service



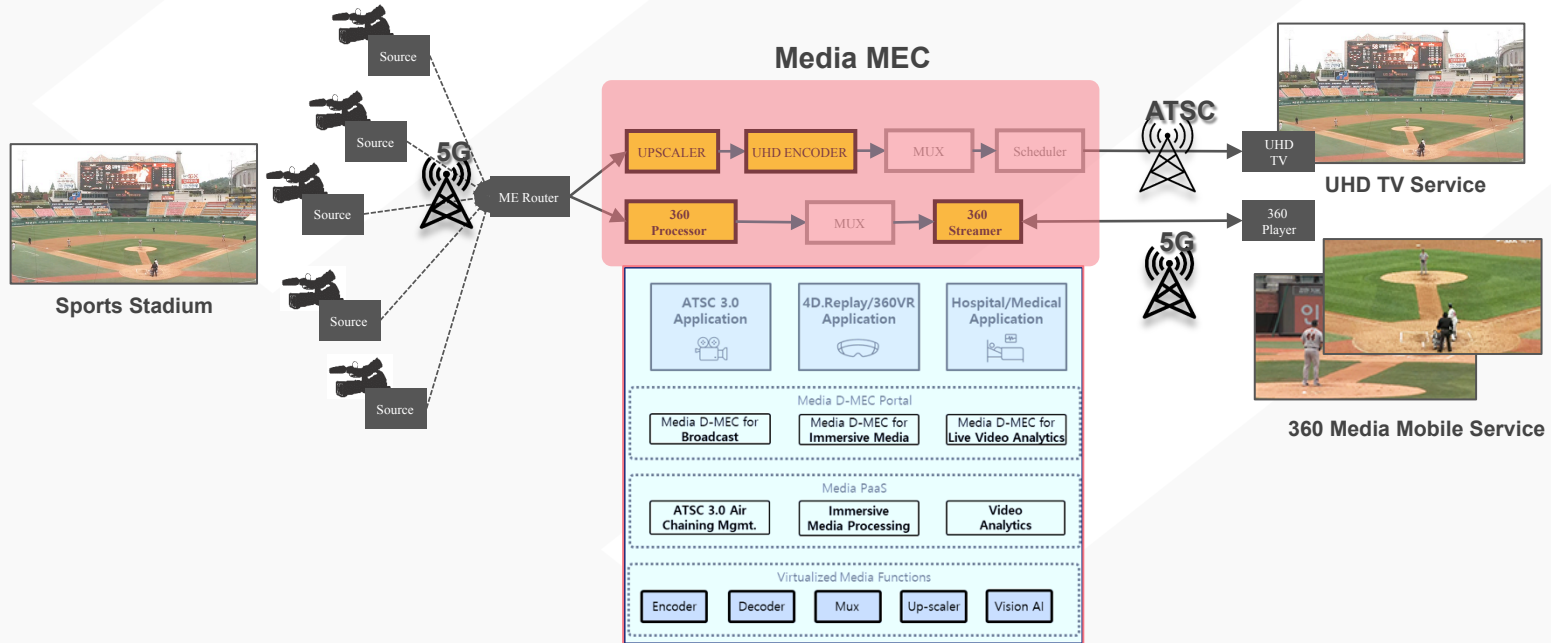
Animal Hospital

5G MEC

Vision AI Service

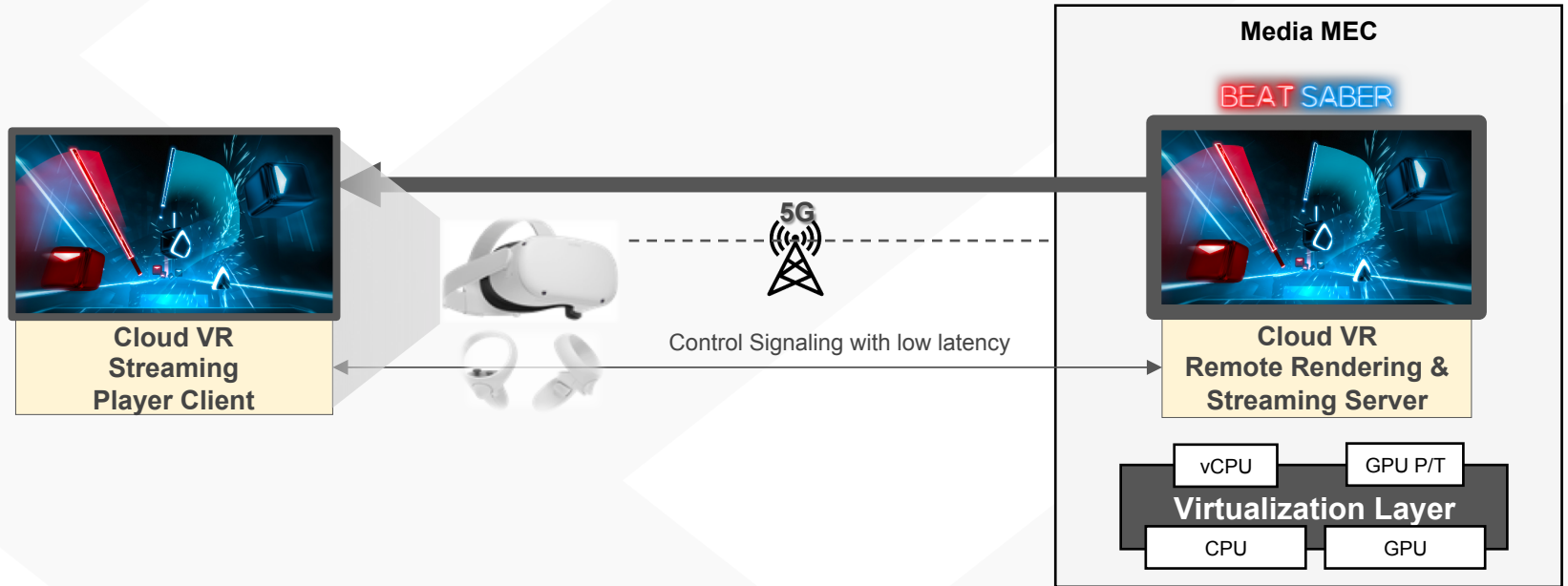
360 Degree (4D) Camera

Media MEC is used to process and create 360 degree (4D) video using multiple cameras installed in sports stadium.



Immersive Cast – Cloud Gaming

Media MEC provides the VR rendering feature with **higher resolution** than device rendering and **lower interaction latency** than public cloud.



Call To Action On Dell Sales

**Enable your 5G Mobile Edge
business with just one call to Dell!**

Solutions Co-creation Services: cocreate@dell.com

Telecom System Business – Solution Sales, Dell Technologies

DELLTechnologies