Leading Change
Inspiring Progress

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JUNTA DE EXTREMADURA

5G Network Slicing

A revolution for emergencies and critical communications

MWC 2025

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20 minutes

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01

Innovating with 112 Extremadura

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The impact of innovation

FOCUS ON CLIENT

1

DETECTING THE MOST INNOVATIVE BUSINESS AND TECHNOLOGY NEEDS OF OUR CUSTOMERS

AN INNOVATIVE TEAM

2

LATEST TECHNOLOGIES MIX + **VALUE PROPOSITION AND TELEFÓNICA'S STRATEGY**

REAL PROOFS OF CONCEPT

3

SOLVING CHALLENGING CUSTOMER NEEDS THROUGH INNOVATION AS THE PATH TO BUSINESS DEVELOPMENT

https://www.telefonica.es/es/innovacion/

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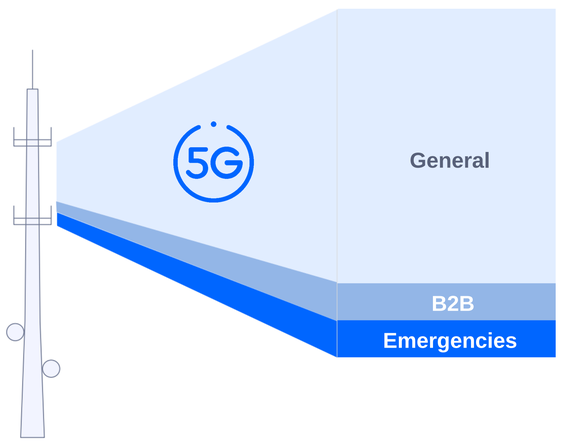
The impact of innovation

5G Network Slicing: a technology born from Innovation

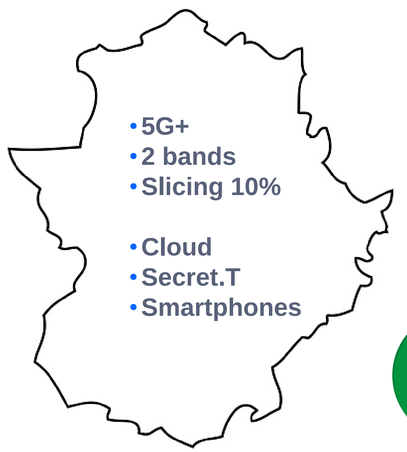
What is 5G Slicing?



Leading the 5G slicing market

- National Firsts
- 5 services
- 92% coverage
- 3.5GHz leader
- 100% green

Pioneers in Europe



- 5G+
- 2 bands
- Slicing 10%
- Cloud
- Secret.T
- Smartphones

112 emergencias extremadura

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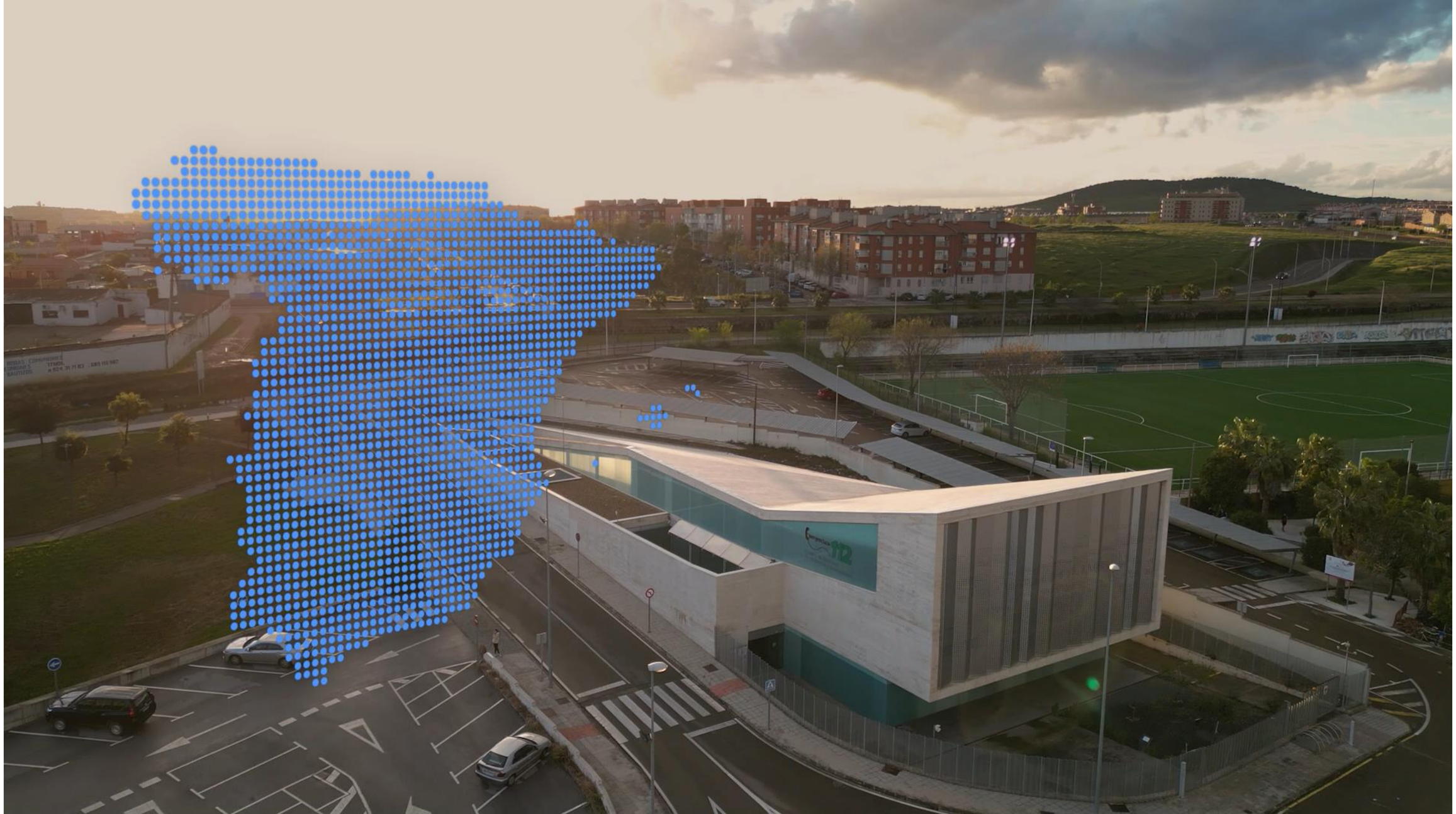

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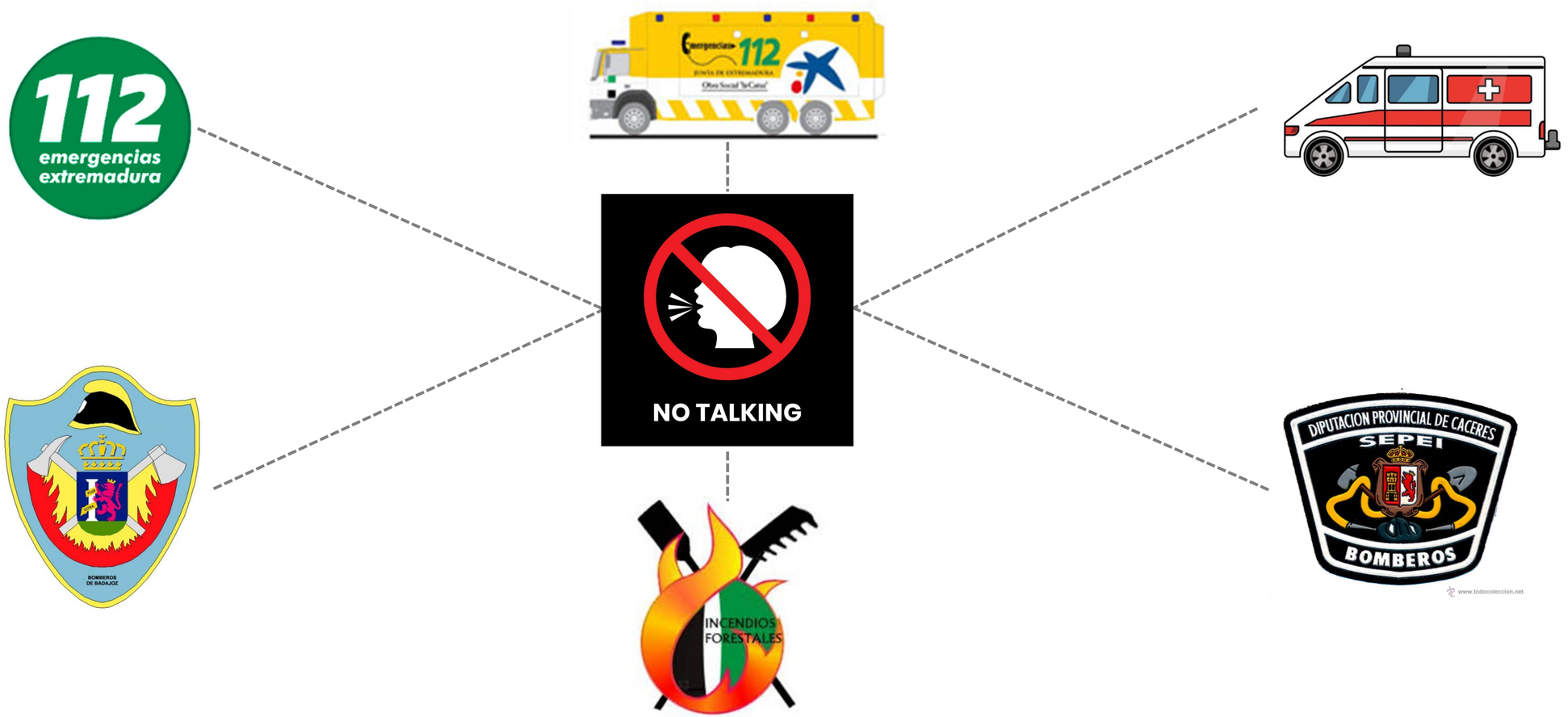
112 emergencias extremadura

PROBLEM! Current Situation in extraordinary emergencies…



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A NEED for evolution:

Which use cases is 112 Extremadura testing?

5G Slicing

3500MHz and 700MHz

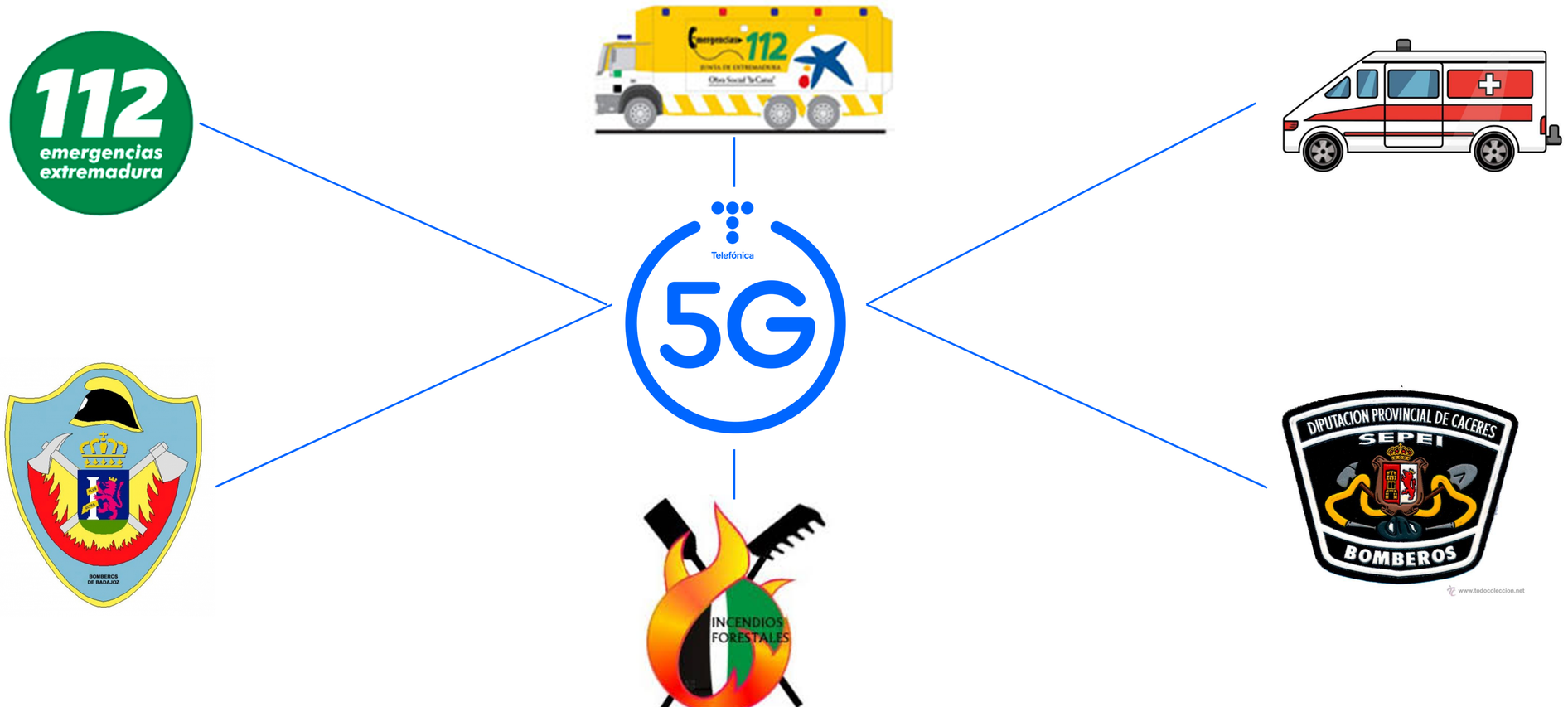
Cell on wheels + slicing

Backhaul links

Mission Critical Services

MCX (MCPTT-Video-Data)
User Experience

OPPORTUNNITY APPEARS: LET'S GO!



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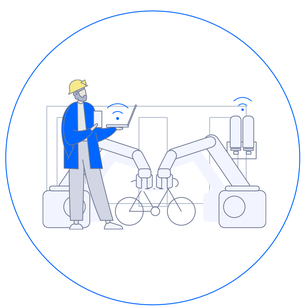
02

Network Slicing: a commercial reality

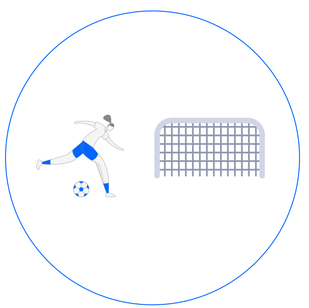
Mobile connectivity has become more relevant for B2B customers and best effort is not good enough for all use cases

Workforce on the go



Critical devices

Fixed network redundancy / alternative



High density environments

Slicing

Network technical capability to provide differentiated quality of service on the mobile network

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Mobile QoD API

3rd party B2B/B2B2X services or fast PoCs

Mobile QoD API service

Network & IT Systems Slicing capability

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Slicing is now a commercial reality incorporated in Telefonica Spain's portfolio

Mobile QoD API

3rd party B2B/B2B2X services or fast PoCs

Mobile QoD API service

Mobile QoD API

Movistar Intranet Premium & Red privada virtual

Private 5G as a Service over the public network

Connectivity service

Mobile QoD APIs

WAN underlay (VPN-IP 5G / DIBA 5G)

Primary or back-up connectivity for CPE in customer sites

Connectivity service

Mobile QoD APIs

Corporativo Móvil 5G Premium

COMING SOON

Premium service for VIP / Critical B2B customer lines

Connectivity service

Mobile QoD APIs

5G Misión Crítica

COMING SOON

Mobile connectivity for Public Safety services (police, firefighters…)

Connectivity service

Mobile QoD APIs

Network & IT Systems Slicing capability

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An API-first approach based on Open Gateway APIs has accelerated Product Innovation whilst improving efficiency

- Immediate replicability across portfolio – Faster TTM
- Flexible and agile operating and business models
- Enable 3rd party global innovators with multi-telco footprint
- Improve cost efficiency

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03

The future of Network Slicing

Network Slicing can enhance even more the customer experiences

TELEFONICA IS LEADING MAIN TELCO STANDARDS EVOLUTION TO TAKE NETWORK SLICING EXPERIENCES TO THE NEXT LEVEL:

DELIVERING THE CUSTOMER THE CONTROL OF WHICH SPECIFIC APPLICATIONS ARE USING WHICH CONNECTIVITY SERVICE

APP TOKEN DEFINITION IN GSMA

- Keeping customer privacy
- Authenticating applications with tokens
- Ensuring service integrity
- CUSTOMER owns the steering rules

ADVANCED COLLABORATIVE NETWORK PROTOCOLS TOGETHER WITH NETWORK SLICING CAN ACHIEVE LOWER LATENCIES, LOWER PACKET LOSSES AND SCALABLE THROUGHPUT EVEN DURING CONGESTION SITUATIONS

L4S IMPLEMENTATION

- Customer device, 5G RAN, 5G CORE and OTT collaborate to adapt bitrates during congestion
- Applicable on specific Network Slices

INDUSTRIALIZATION OF NETWORK SLICES NEEDS TO BE A REALITY EVEN IN NETWORK SHARING SCENARIOS: TELEFONICA IS WORKING ON THE DEFINITION OF THE DYNAMIC NETWORK SLICING IMPLEMENTATION BETWEEN OPERATORS

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Wrapping up

INNOVATION

Pioneering critical comms
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CUSTOMER REAL NEEDS

COMMERCIAL REALITY

- **Real services differenciation**
- **Services portfolio available**
- **Qos ogw api**

COMMERCIALLY AVAILABLE

THE FUTURE

- **Dynamic slicing**
- **Slicing per app**
- **Control back to the customer**
- **Collaborative protocols (L4S)**
- **Network sharing scenarios**

EVEN BETTER EXPERIENCES

INNOVATION LOOP

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Consejería de Presidencia, Interior y Diálogo Social