



Driving Into the Future with Cisco IoT Control Center

Cisco Knowledge Network Webinar

December 6, 2023

Driving Into the Future with Cisco

Cellular IoT management that powers your business



Today's speakers



John Malzahn

Leader, Provider Mobility
Product Marketing



Michael Blanck

Engineering Product Manager,
IoT Control Center



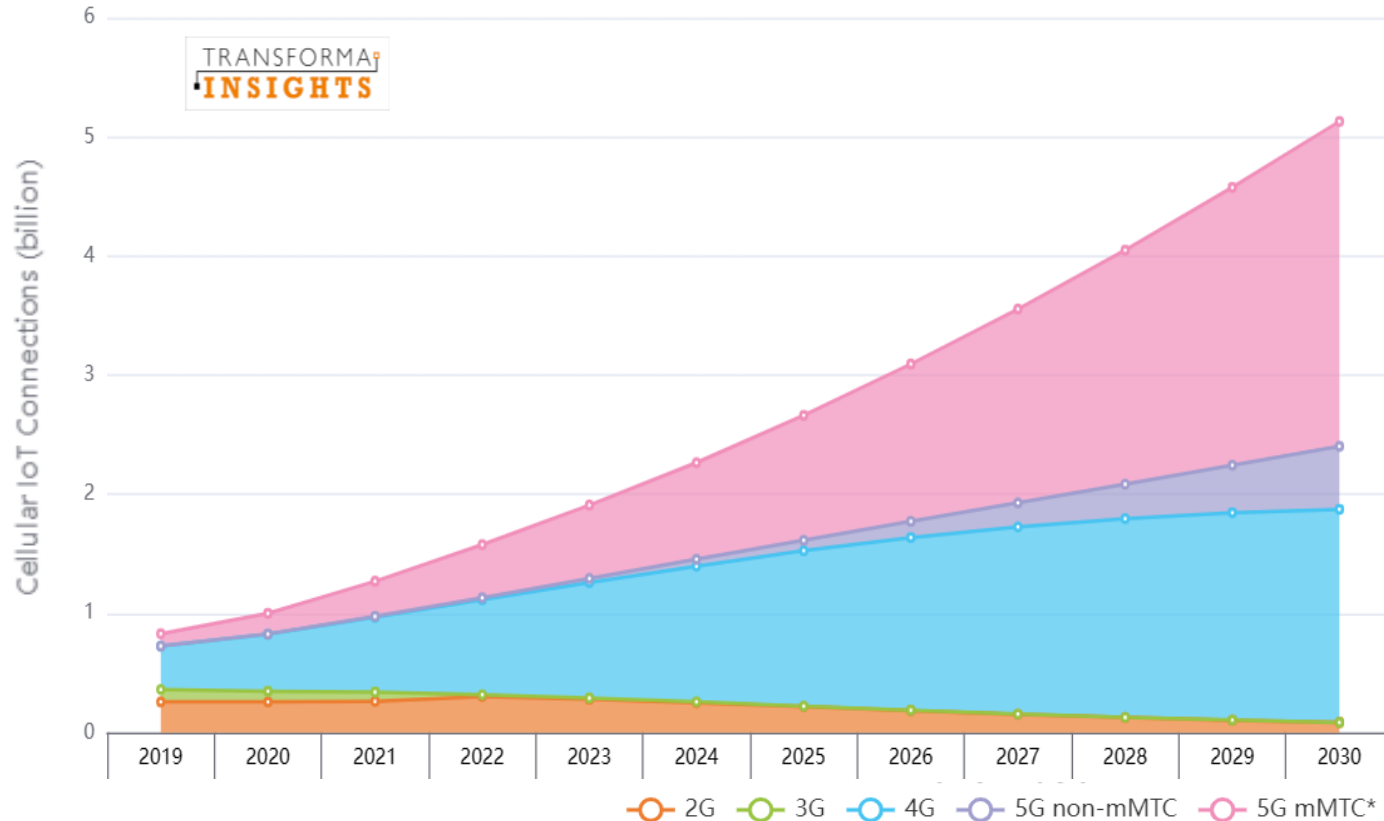
Karthik Sundaramurthy

Engineering Product Manager,
IoT Control Center

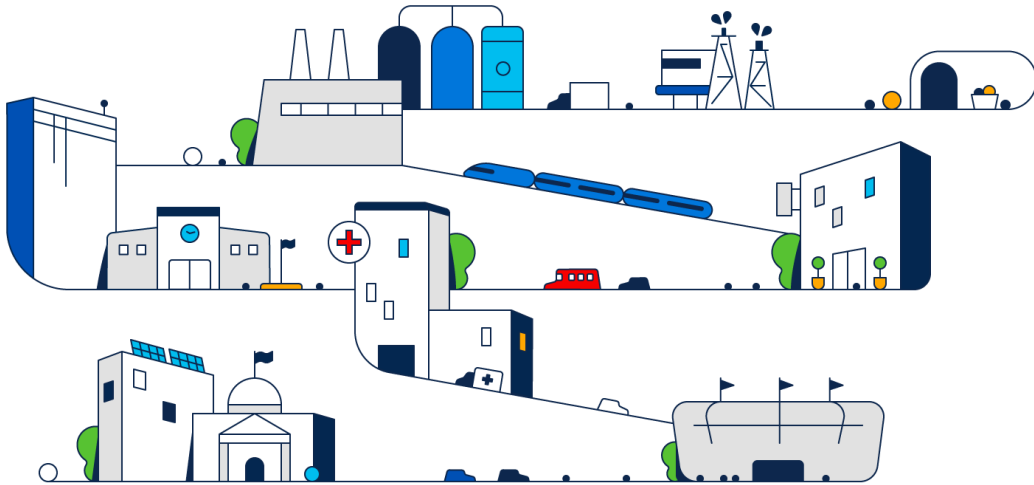
Agenda

- Transforming business with cellular-powered IoT
- Introducing Cisco IoT Control Center
- How IoT Control Center does more than manage connectivity
- Product Demo
- Getting started

Cellular IoT connections will grow to 5B by 2030



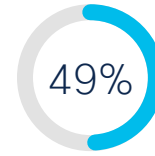
And IoT connections are transforming the enterprise



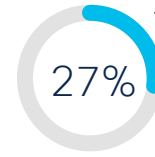
56% Increasing efficiency and productivity



37% Reducing cost



49% Improving service or product quality



27% Enhancing customer experience and retention

The impact is significant across a range of industries and use cases



Connected car

Automakers are making driving safer through vehicle telematics and adding new revenue streams

High data usage, low latency, complex SIM lifecycle



Financial services

Financial organizations are getting scale and reliable service for PoS and ATM systems

Mission-critical connectivity, low latency



Smart meters

Utilities are saving costs and improving customer service with smart electric meters

Low data usage, low reliability, high latency



Asset management

Retailers are monitoring the health of their machines and servicing them faster

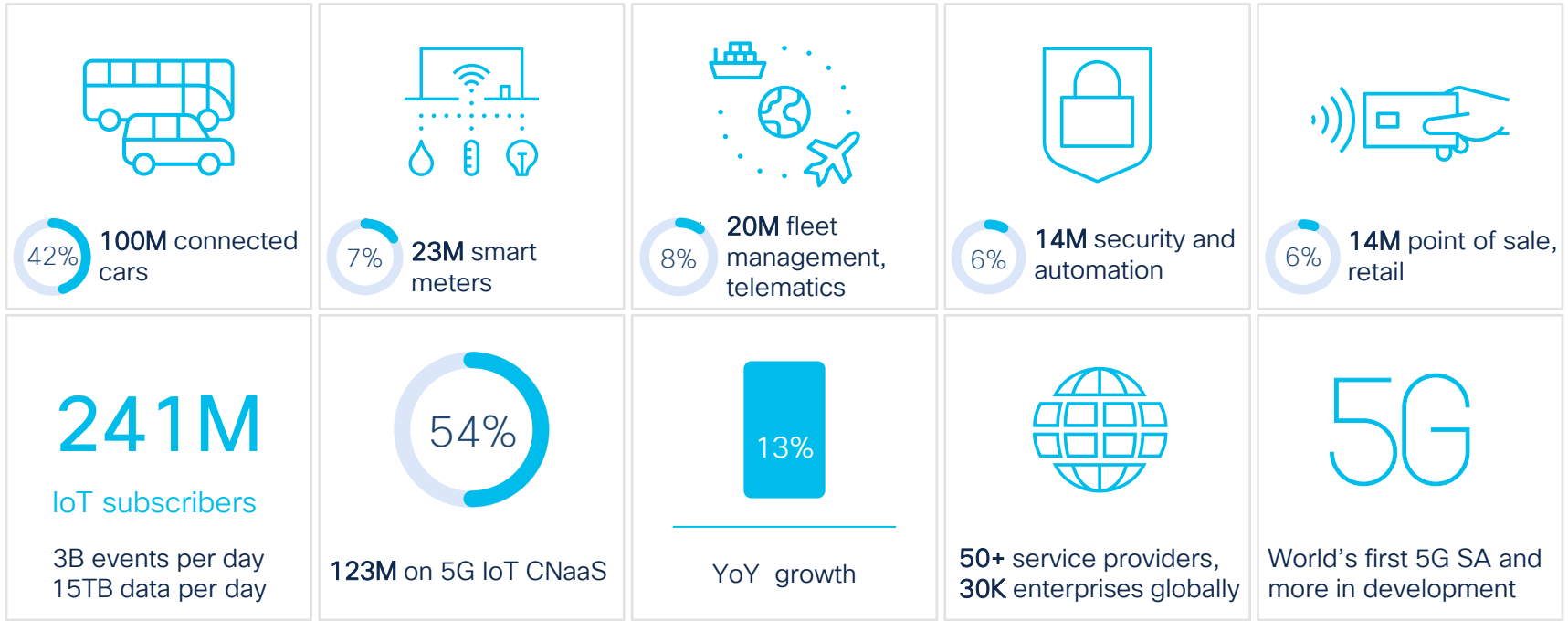
Low data usage, low reliability, high latency

Control Center delivers differentiated value

Helps to solve many key IoT challenges

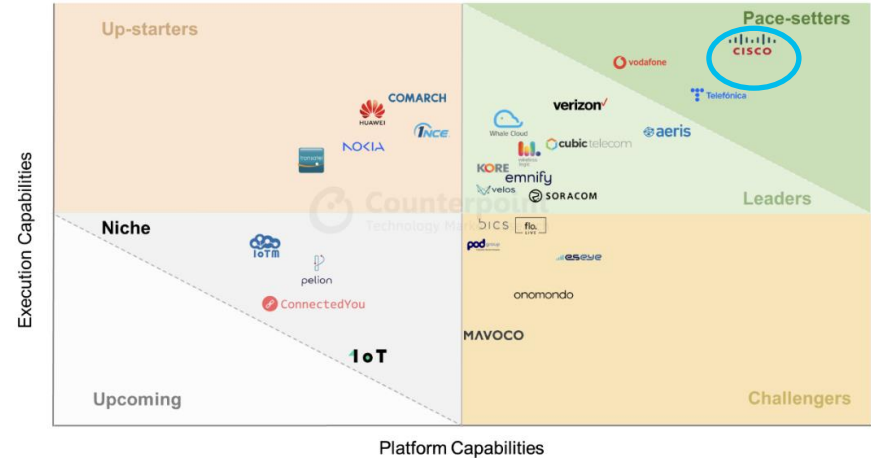


Cisco IoT Control Center is driving real-world impact at scale



Cisco leads as industry “Pace-setter” in Counterpoint Research’s Global 2023 IoT Connectivity Management Platform (CMP) Ranking*

Counterpoint CORE: Connectivity Management Platform, 2023



“Cisco has a significant lead over its competitors in terms of platform capability as well as execution capability.”

Akshara Bassi, Senior Research Analyst, Counterpoint

Connected Car



Why automotive OEMs want Control Center



Full automation

- Automated provisioning
- Lifecycle aware configuration
- Business process automation
- Rich APIs and feeds



Flexible billing

- Rich set of rate plan types and billing options
- Split billing and multi-party billing
- Event-driven incentives and credits



Global scale

- 50+ service providers covering 120+ countries
- Same integration for all service providers
- Localization tools



Ops tools

- Real-time diagnostics
- Machine-learning apps
- Real-time network visibility
- Security tools and fraud prevention

Automotive OEMs want to offer:

Telematics services



Internal use

- OTA SW updates
- Diagnostic information
- Metrics and data collection



Passenger safety

- Automatic crash notification
- SOS button
- E-call compliance



Security and convenience

- Door lock/unlock
- Vehicle recovery / Kill engine
- Concierge service
- Mobile application

Infotainment services



Built-in head unit apps

- Streaming music
- Parking finder
- POI and navigation



Third-party services

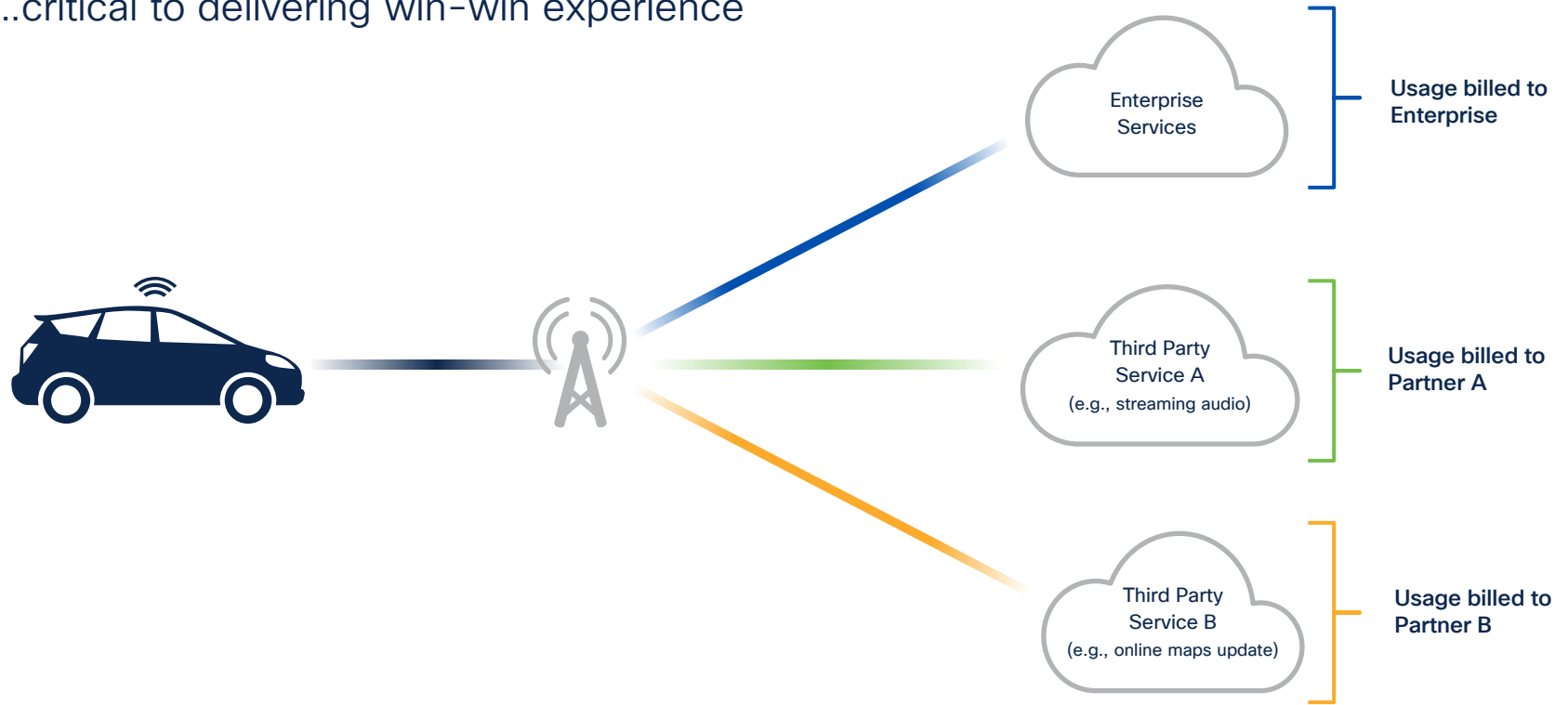
- Usage based insurance
- Premium audio and video
- Apple CarPlay/Android Auto



In-vehicle Wi-Fi hotspot

Multi-party and Split billing

...critical to delivering win-win experience



Troubleshooting simplified for the average user

Device Status

Congratulations! This device has successfully connected.

ICCID

89302720396911992662

In Session

Yes

SIM Status

Activated

Suspended

No

SIM Barred

No

Usage Limit Reached

No

Rate Plan

JW Ent 10MB

Month to Date Data (MB)

1.319



Passed

Provisioning

SIM state permits passing traffic



Passed

SIM / Device

SIM is allowed to use wireless network resources



Passed

Network Connection

Successfully connected to wireless network



Passed

IP / Internet

Device has an IP Address and is currently connected

- Can the device interact with the customer servers?
- Is the APN configured properly?
- Is the IP address incorrect?
- Can the device open ports or sockets?

Connected vehicle: Major trends



Autonomous, connectivity, electrification, shared mobility (ACES)



Need to monetize services; new partnerships and business models



Connectivity reliability
“car always-connected model”



Infotainment evolving; drivers expect a tailored experience



Increased data, processing, compute, transfer, latency requirements



Increased security risks

Can current connectivity management support the future?

Control Center Roadmap and 5G Innovation

Powering 5G Enabled Applications

Commercially deployed today with a path to realize applications of the future

Safety and Security, Telematics

Predictive maintenance
with diagnostics



OTA updates (cybersecurity correction,
driving features, etc.)



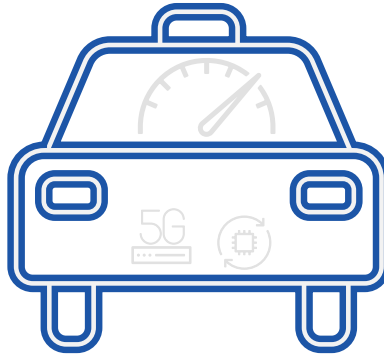
Telematics, Fleet Management
and Location based services



OEM led usage
based insurance



Data enrichment for 3rd party services
(EV infra, emergency, etc.)



Consumer Experiences



Infotainment applications,
Wi-Fi hotspot



Accident Avoidance



Ecommerce / marketplace
for 3rd party apps



C-V2X and edge: HD Maps, VRU
protection services, VPA, etc.



Electrification



Edge Intelligence

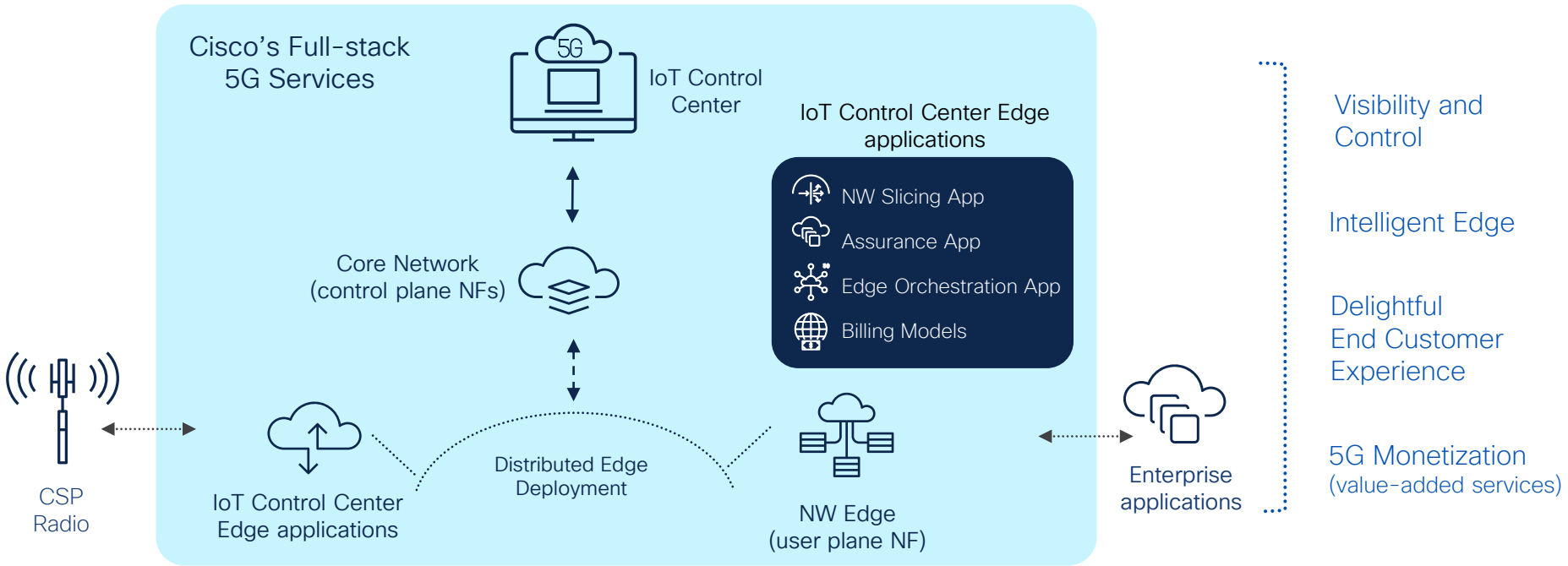


Intelligent cockpit



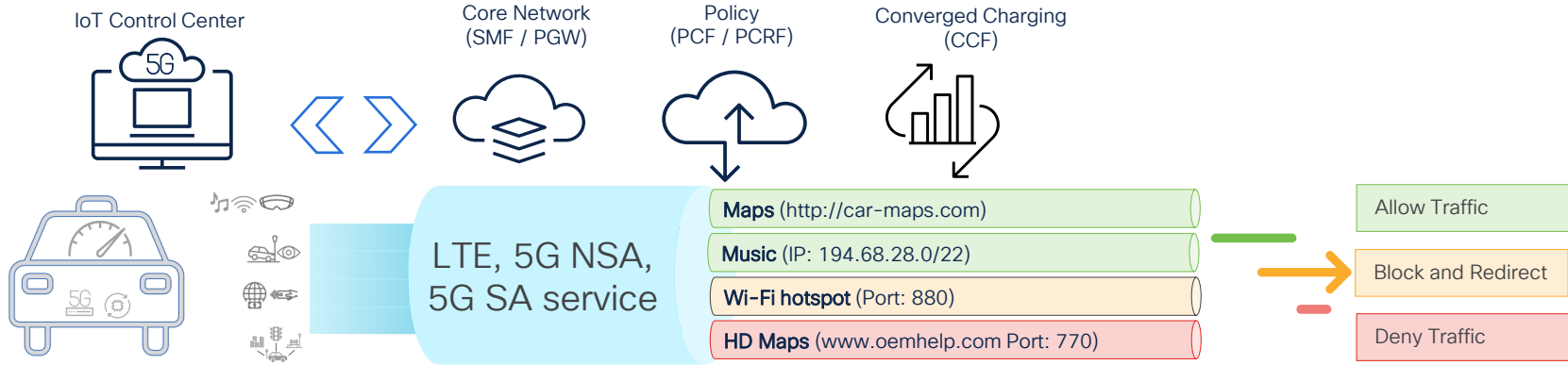
Cisco's full stack 5G service

Enabling global IoT deployments with agility



Self-serve capabilities to launch subscription services OnDemand

With Dynamic traffic classification, policy and charging control



1 : Classify Application Traffic as Data Streams

Create New Data Stream

All fields required unless marked otherwise.

Data Stream Name: OTA Firmware EV

Description (Optional): Firmware Update for E36

Service Provider Name: Jasper Systems

Shared: No

Account Name: SRC Test Acct

Traffic Classification Criteria

IP_AND_PORT	IP_ADDRESS_AND_TO	Operation Type	Value
<input type="checkbox"/>	<input type="checkbox"/>	SNR_QUERY	SNR_QUERY_CONTAINS 00a.aa.00.00.00.00
<input type="checkbox"/>	<input type="checkbox"/>	TCP_PORT	TCP_PORT_RANGE 52 - 64
<input type="checkbox"/>	<input type="checkbox"/>	SNR	SNR_CONTAINS EV.OTA.DEM
<input type="checkbox"/>	<input type="checkbox"/>	IP_ADDRESS	IP_ADDRESS_RANGE 72.121.19.25 - 72.121.19.96
<input checked="" type="checkbox"/>	<input type="checkbox"/>	HTTP_URL	HTTP_URL_CONTAINS fwota.com.oem.net

Total Count: 6

Traffic Reporting

Stream ID: System Generated Assign Manually

Save and Edit Later Cancel

2 : Create and manage NW policies

Create Policy

Information

Policy Name: New Vehicle Data Data

Policy Action String: DENY.ORGAN

Assignment: Create Service Control Action

Policy Action String: DENY.ORGAN

Policy Name: New Vehicle Data Data

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Policy Name: New Vehicle Data Data

Policy Action String: DENY.ORGAN

Assignment: Create Service Control Action

3 : Enable differential treatment for roaming zones.

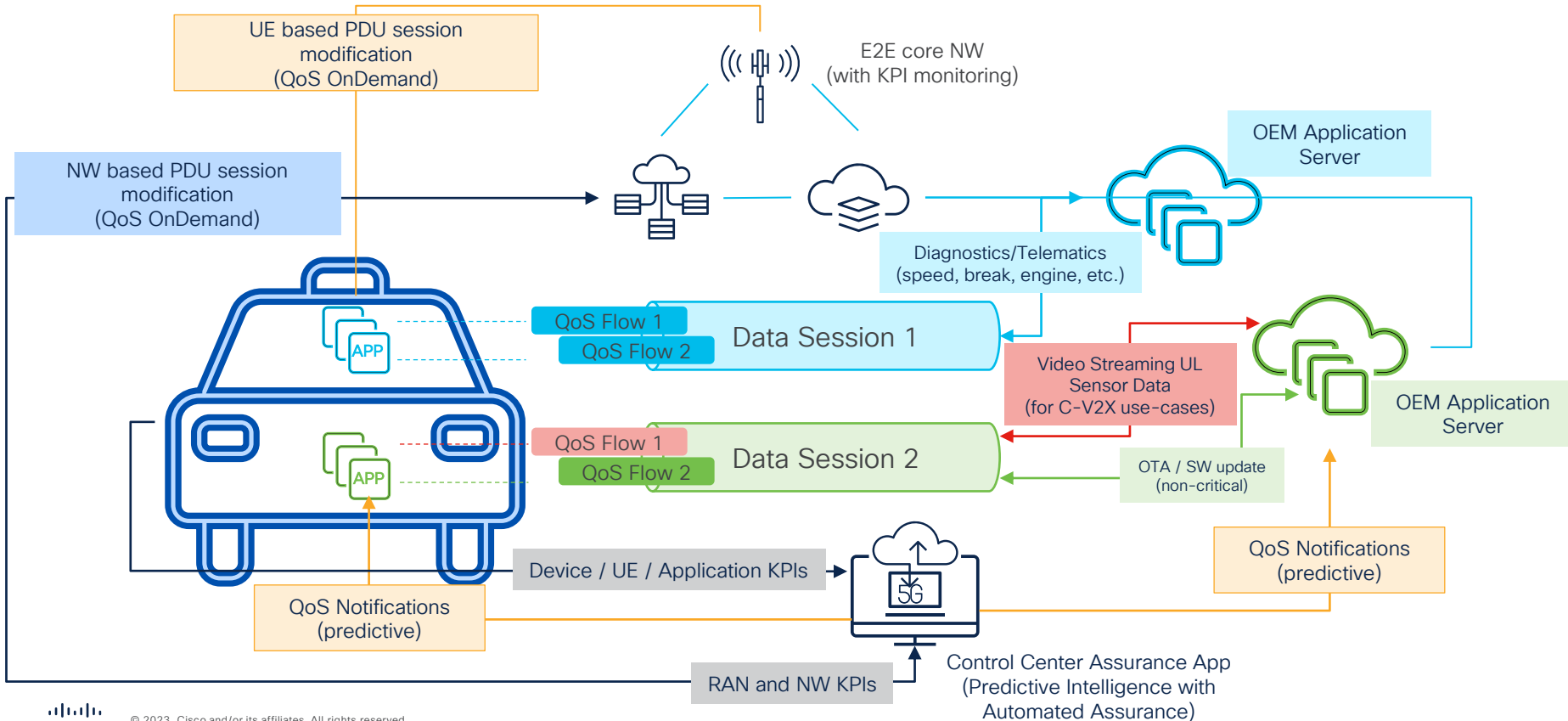
4 : Associate data streams with policies

Policy Rules

Stream ID	Default	Group 1	Group 2	Group 3	Group 4	Group 5	Group 6	Group 7	Group 8	Group 9	Group 10
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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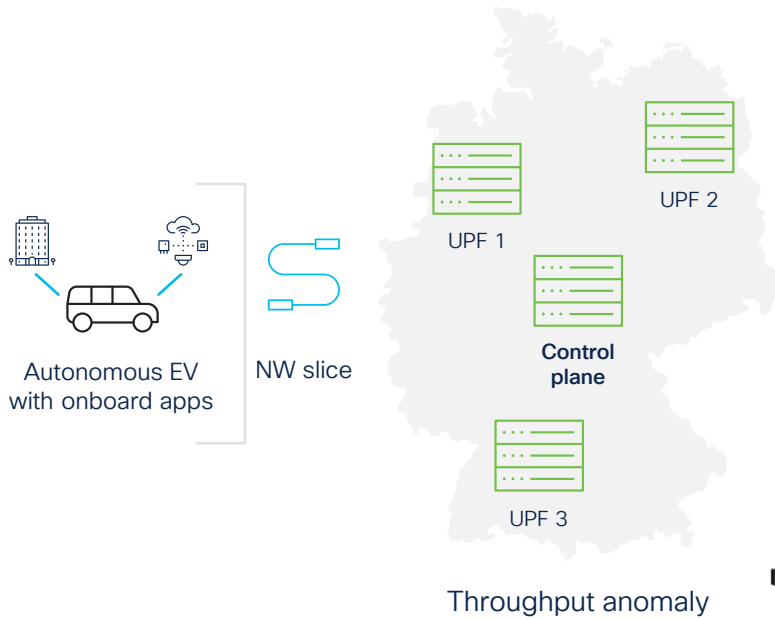
Closed-loop Service Assurance

QoS OnDemand



Diverse 5G applications with slicing and edge capabilities

Dynamic network slicing is available with IoT Control Center today



Demo



The Cisco difference



We are the CMP market leader

Our global experience, reach, and track record are second to none. We connect more devices and connected cars for more enterprise customers than any other platform on the planet.*



We understand your business better

Our scale and reach gives us a deep insight into markets and your needs. From the complexity of connected cars to the massive scale of smart meters, Cisco has helped 32,000+ businesses across industries expand their cellular IoT.



We are constantly innovating

At Cisco, we are solving tomorrow's IoT challenges today to give you the competitive edge to focus on what matters most—growing your business.

For more information
visit our web page:
cisco.com/go/iot-mobility



Products and Services Solutions Support Learn Explore Cisco Search

Working Group: Two to Grow a Part of Cisco. [Read more](#)

Solutions / Internet of Things /

Cisco IoT Control Center

Bring Cisco control to IoT cellular device connectivity.

[Read blog](#) [Watch video \(2:09\)](#)

Benefits Capabilities Customer Stories Use Cases Starter Kit Resources [Contact Cisco](#)

Don't just connect—grow

With cellular IoT management that powers your business.

- Scale faster**
Accelerate innovation and time-to-market to drive and expand market leadership.
- Operate smarter**
Deliver superior customer experiences while increasing profitability.
- Protect better**
Secure user and device access and respond quickly to suspicious behavior.

How it works

Accelerate growth and innovation

Quickly and accurately connect, provision, and deploy devices at scale with IoT Control Center. Combine thousands of automation rules to match any IoT use case and any business scenario to rapidly grow your unique business. Outpace the competition by launching new products and services quickly and easily expanding across geographies—with a platform available around the world. Capitalize on emerging technologies through continuous platform innovations.

Deliver better customer experiences

Get set for superior, more reliable customer experiences, with IoT Control Center. AI/ML anomaly detection proactively finds and alerts you about any device or connectivity issues in the background, so you're ahead of problems before they reach your customers. Plug into an extensive library of APIs that integrate directly into existing applications and systems from IBM, Microsoft, SAP, Salesforce, and more to provide smooth and efficient operations. And no more surprise data overage charges: IoT Control Center automatically picks the right rate plan based on your real-time usage, boosting your profitability.

Questions?





The bridge to possible