Private Networking for Mission-Critical Activities

How Private 5G enhances the DoD and other federal agencies

Cisco Knowledge Network

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Today's Presenters

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GDIT

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CISCO

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CISCO

Private 5G in "Mission-Critical" Logistics and Warehousing

Session Agenda

What is Private 5G and Why is it a Game Changer?

Understanding the unique differentiation private 5G brings to enterprise networks

The Cisco and GDIT Private 5G Advantage

An introduction to Cisco's Private 5G solution covering architecture, key features, and benefits along with capabilities and knowledge GDIT brings to address specific mission-critical use cases

Use Case Review

Mission-critical logistics and warehousing have specific sets of requirements that can be addressed only by a combination of resiliency and security along with deployment experience

Demo of the Solution and Q&A

Digital trends shaping the future of business

Hybrid work
Work from home | Work from office | Work from anywhere
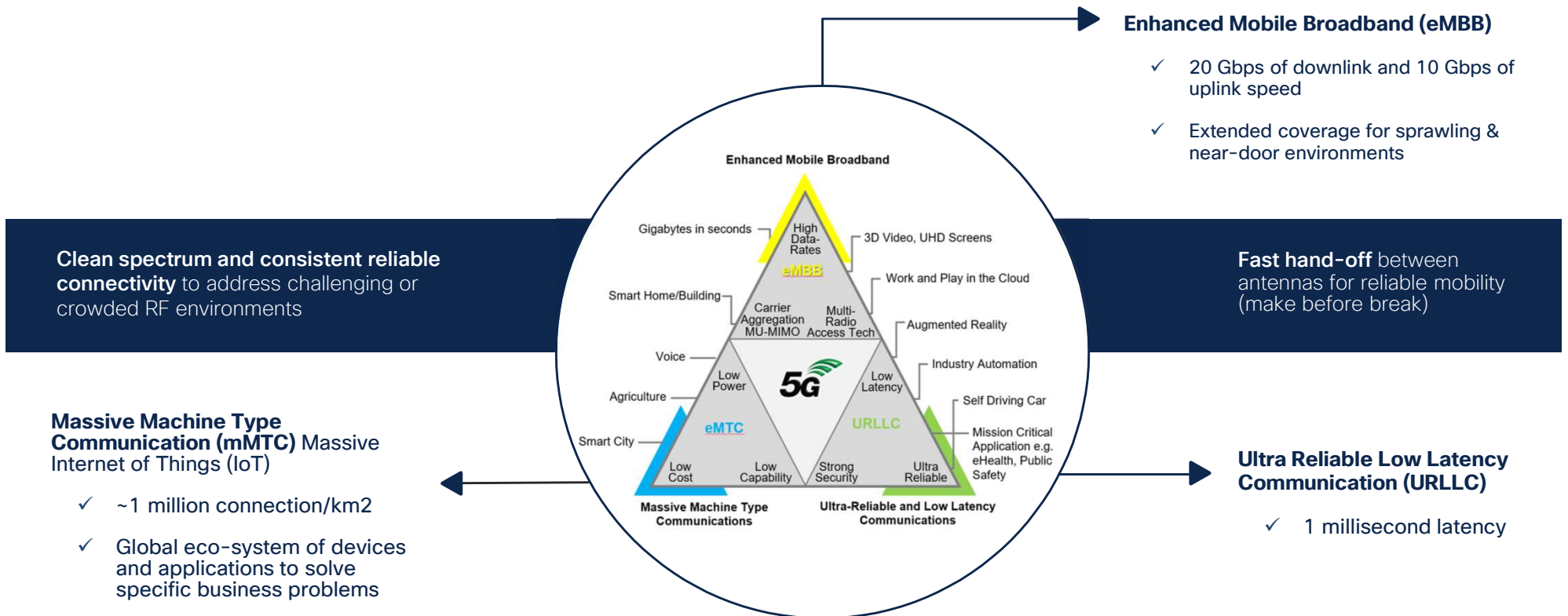
Industry 4.0
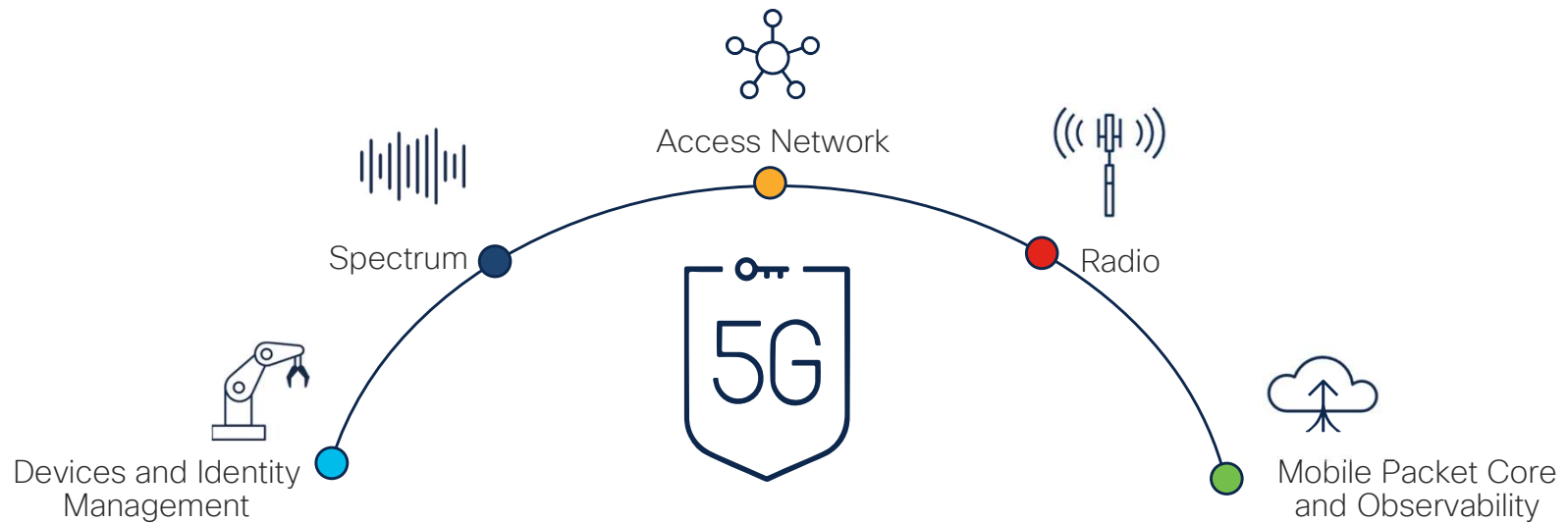Automation | Internet of Things | AI/ML

Hybrid cloud
Private cloud | Hybrid cloud | Public cloud

5G Features & Capabilities

Enhanced Mobile Broadband (eMBB)

- ✓ 20 Gbps of downlink and 10 Gbps of uplink speed
- ✓ Extended coverage for sprawling & near-door environments

Clean spectrum and consistent reliable connectivity to address challenging or crowded RF environments

Fast hand-off between antennas for reliable mobility (make before break)

Massive Machine Type Communication (mMTC) Massive Internet of Things (IoT)

- ✓ ~1 million connection/km2
- ✓ Global eco-system of devices and applications to solve specific business problems

Ultra Reliable Low Latency Communication (URLLC)

- ✓ 1 millisecond latency

Enhanced Mobile Broadband

- Gigabytes in seconds — High Data-Rates
- 3D Video, UHD Screens
- eMBB
- Smart Home/Building
- Work and Play in the Cloud
- Carrier Aggregation MU-MIMO
- Multi-Radio Access Tech
- Augmented Reality
- Voice
- Industry Automation
- Low Power
- 5G
- Low Latency
- Agriculture
- Self Driving Car
- eMTC
- URLLC
- Mission Critical Application e.g. eHealth, Public Safety
- Smart City
- Low Cost
- Low Capability
- Strong Security
- Ultra Reliable
- Massive Machine Type Communications
- Ultra-Reliable and Low Latency Communications

What is Private 5G?

Access Network

Spectrum

Radio

Devices and Identity
Management

Mobile Packet Core
and Observability

Integrated End-to-End Security and Zero Trust Architecture

*A private cellular network that is built using **3GPP 5G technology, dedicated** to carrying **traffic from a specific entity** (e.g., an enterprise) in **licensed radio spectrum** and can **coexist seamlessly** with other access technologies*

SR0   I had revised this slide somewhat to make it less salesy. Can we consider using the other version?
Smallwood, Rob, 2022-10-28T16:05:33.101

SR0 0   To me we want to express in general terms what private 5G is and not jump right into associating it with Cisco
and GDIT
Smallwood, Rob, 2022-10-28T16:11:50.370

RG(0 1   OK with this Rob and I moved the solution to the end so we get to the arch last
Ravi Guntupalli (raguntup), 2022-10-28T16:54:46.048

GDIT + Cisco
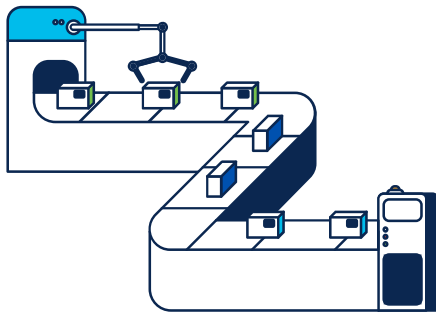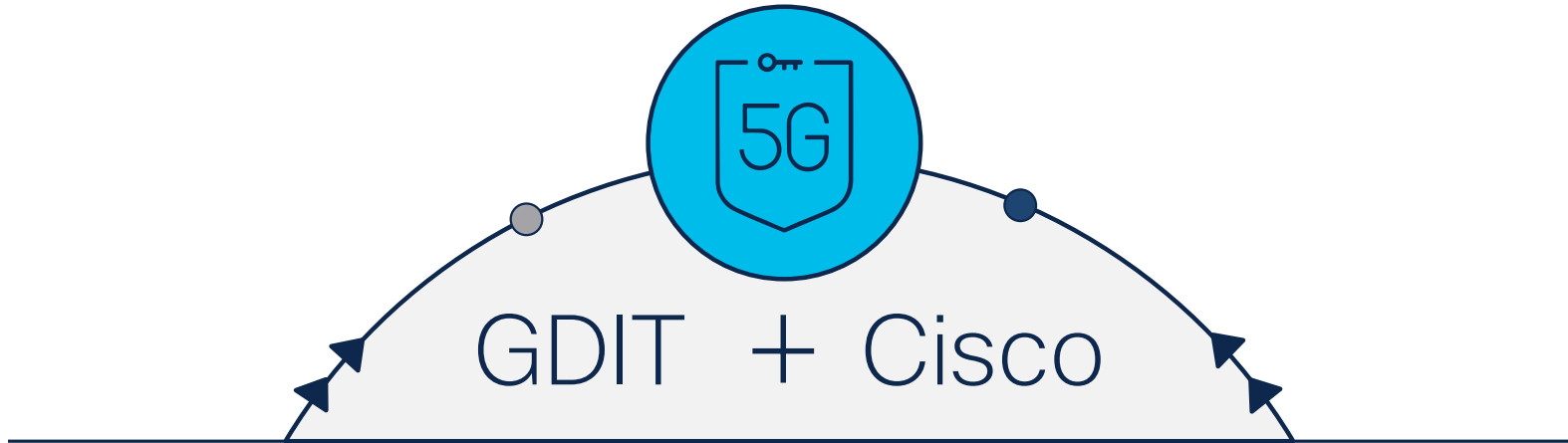
✓ Use case knowledge

✓ Easy to consume solution

Slide 7

SR0 I would move this up after the what is 5G content possibly after slide 6
Smallwood, Rob, 2022-10-28T16:10:00.848

RG(0 0 See if the new flow works please
Ravi Guntupalli (raguntup), 2022-10-28T17:47:34.172

Key Industry Verticals and Applications Addressed By Private 5G

Platform Connectivity	Command & Control (C2)2/BM	Logistics & Manufacturing	Improved Network Access
Improved platform-to-platform connectivity	Networking disparate sensors & shooters to develop a common operating Picture	Increasing supply chain efficiency & inventory / asset management	Private 5G networks for specific customer use

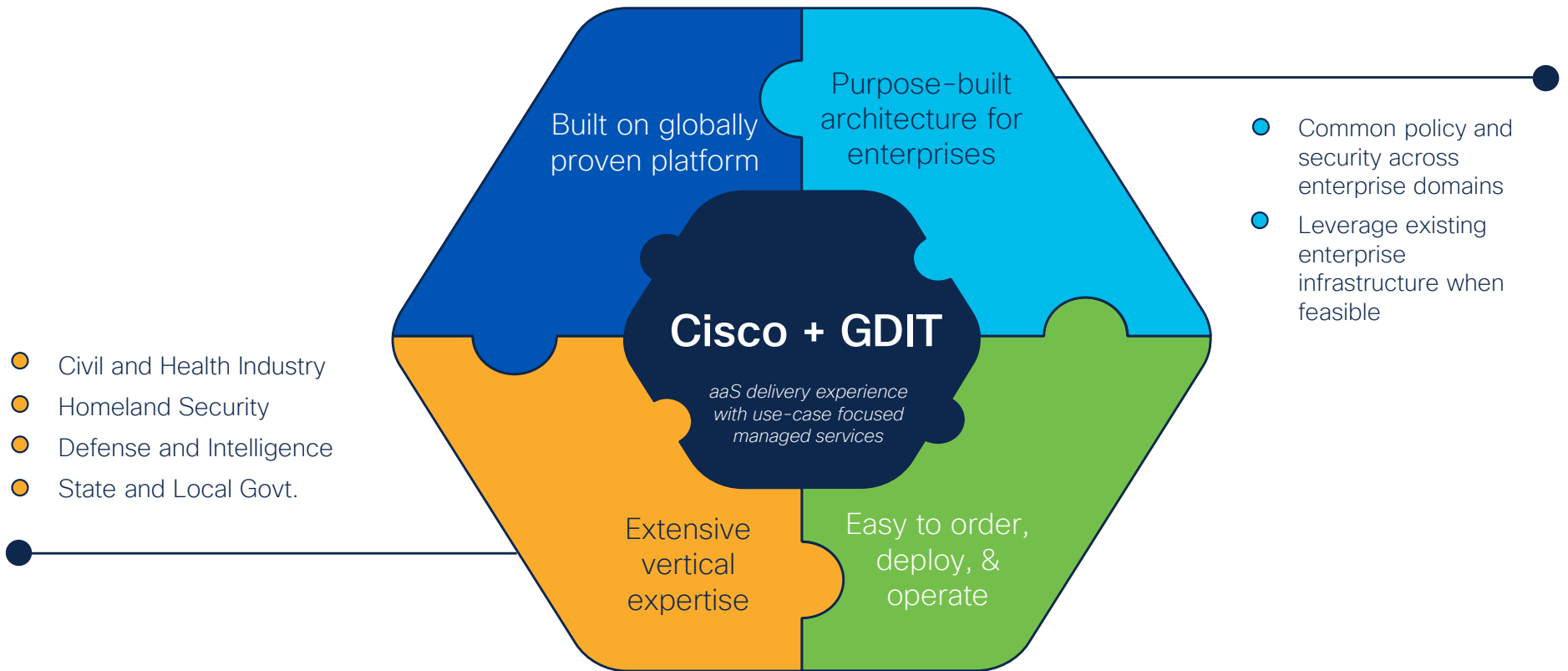| Training	Smart Infrastructure	Health	Education
Developing immersive and virtual training environments	Single and multi-modal sensor integration for automated warehouses	Healthcare IT systems, imaging systems, autonomous procedures, and telehealth	4K/UHD/3D broadcasting and improved online learning

GDIT & Cisco collaborate to design holistic solutions to address common use cases tailored to our customer requirements and needs

Value of Cisco-GDIT Delivery Model for Private 5G

Civil and Health Industry

Homeland Security

Defense and Intelligence

State and Local Govt.

Built on globally proven platform

Purpose-built architecture for enterprises

Cisco + GDIT

aaS delivery experience with use-case focused managed services

Extensive vertical expertise

Easy to order, deploy, & operate

Common policy and security across enterprise domains

Leverage existing enterprise infrastructure when feasible

Slide 9

SR0   Could we replace the word partners with GDIT

Should we consider reframing this slide as a "who we are" slide – a little less salesy. This would let us explain why we're working together, what we're doing, and why the information we're sharing today is relevant. We should shorten it a little and possibly move earlier in the deck.
Smallwood, Rob, 2022-10-28T16:09:19.886

RG(0 0   Let me know if this works and now that solution is at the end - this slide auto moved ahead of other slides
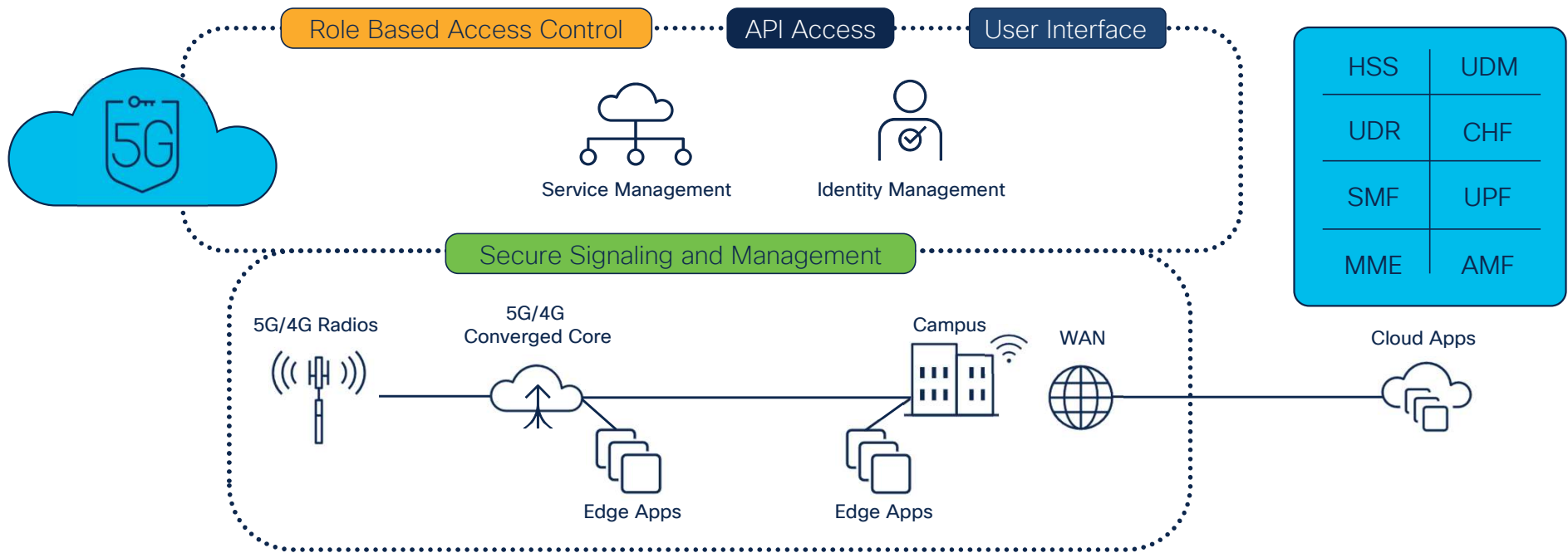Ravi Guntupalli (raguntup), 2022-10-28T16:56:32.154

Private 5G Solution Components

Management
Cloud managed

Identity & Policy
Intuitively integrated into existing enterprise systems

Mobility Core
Industry leading 4G/5G converged mobility core

Radios
Certified and validated Open RAN radio partners
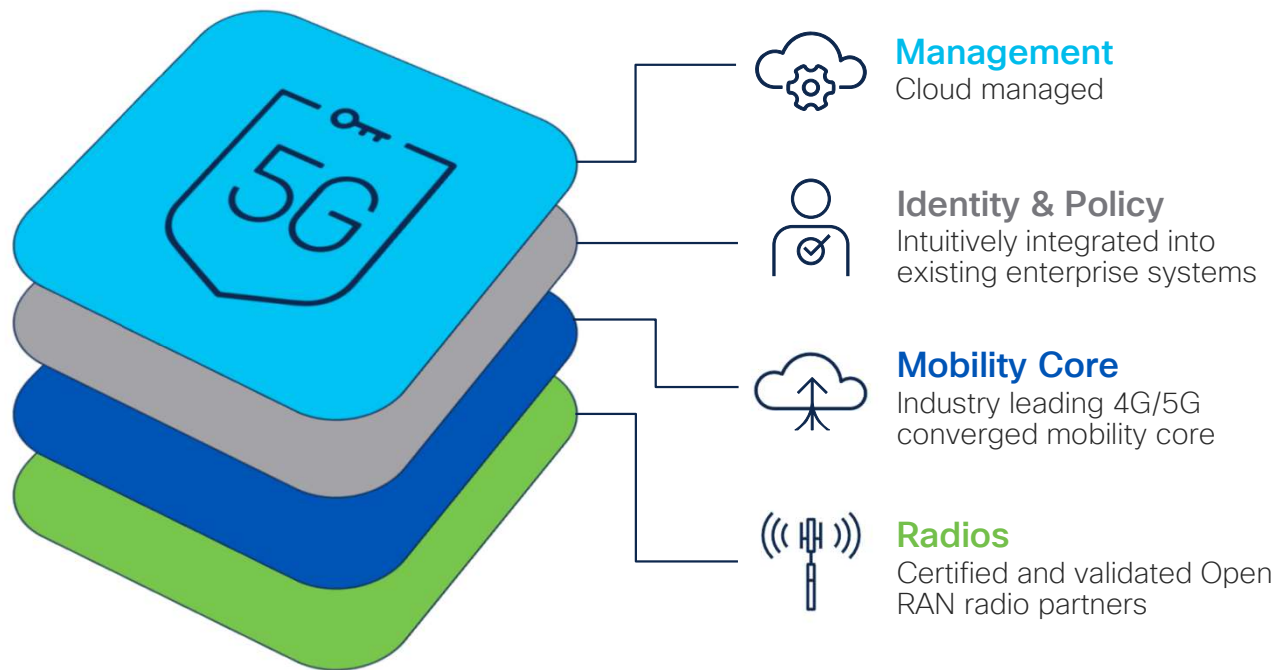
Simple

Intuitive

Trusted

GDIT

Making Private 5G Simple and Secure

Role Based Access Control · API Access · User Interface

Service Management · Identity Management

Secure Signaling and Management

5G/4G Radios · 5G/4G Converged Core · Campus · WAN · Cloud Apps

Edge Apps · Edge Apps

HSS	UDM
UDR	CHF
SMF	UPF
MME	AMF

Cisco Private 5G Demo

GDIT

Summary

Cisco Private 5G

Enterprise-ready private 5G network
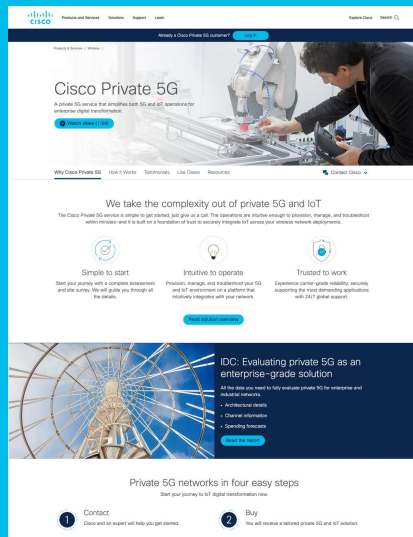
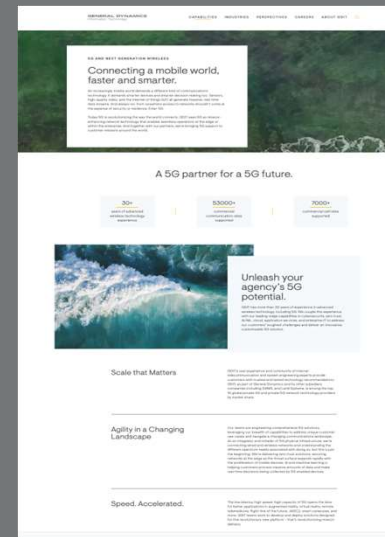Expertise delivering mission-critical use cases

Simple like Meraki Wi-Fi
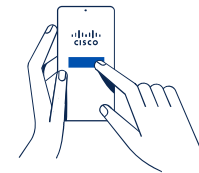
Trusted by enterprises with unified identity and policy via ISE

For more information visit

cisco.com/go/private5g

https://www.gdit.com/capabilities/
technology-solutions/5g-wireless/

Slide 14

SR0   Should we also put a link to GDIT here
Smallwood, Rob, 2022-10-28T16:10:33.175

RG(0 0   Yes - please add it
Ravi Guntupalli (raguntup), 2022-10-28T17:48:00.816

Questions?

GDIT