

RAN Foundation for the Digital Transformation of Industries

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The Modern Network



Momentum building around key trends fueling digital transformation



Extending 5G indoors with small cells for new and enhanced experiences

Bringing multi-Gigabit, low-latency, and
virtually unlimited capacity

Supporting devices beyond smartphones
– tablets, always-connected laptops, XR

Utilizing existing infrastructure – Wi-Fi or
cellular – by co-siting small cells



Enterprises

Offices, shop floors, meeting rooms, auditoriums, etc.



Venues

Conventions, event halls, concerts, stadiums, etc.

Indoor 5G Drivers

“Enterprization” of the home

Growingly distributed workforce increases demands for carrier data services at home to maintain productivity

5G device proliferation and expansion

Increased volumes and diversity of products as 5G redefines mobile, compute, XR, automotive, productivity, education...

Apps move to cloud

As processing growingly moves to the cloud, speed and sustained latency performance become growingly critical

Indoor 5G Use Case Categories



High Speed
Internet



Sustained
low latency



Elite
Gaming



Cloud-based
Apps



Video
Streaming



8K
Video
Capture



Augmented
Reality



Position
Location



Multi-way
HD Video
Calls



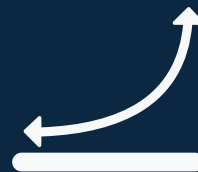
Scalability



Quality



Coverage



Capacity



Enterprises



Residential



Smart Cities



Stadiums

5G Small Cell
densification
solves for
today's
challenges,
networks, apps,
environments

5G mmWave

for cost-effective, quality leadership

12%

reassigned investment in
capex and opex for thousands
of high-density mmWave zones

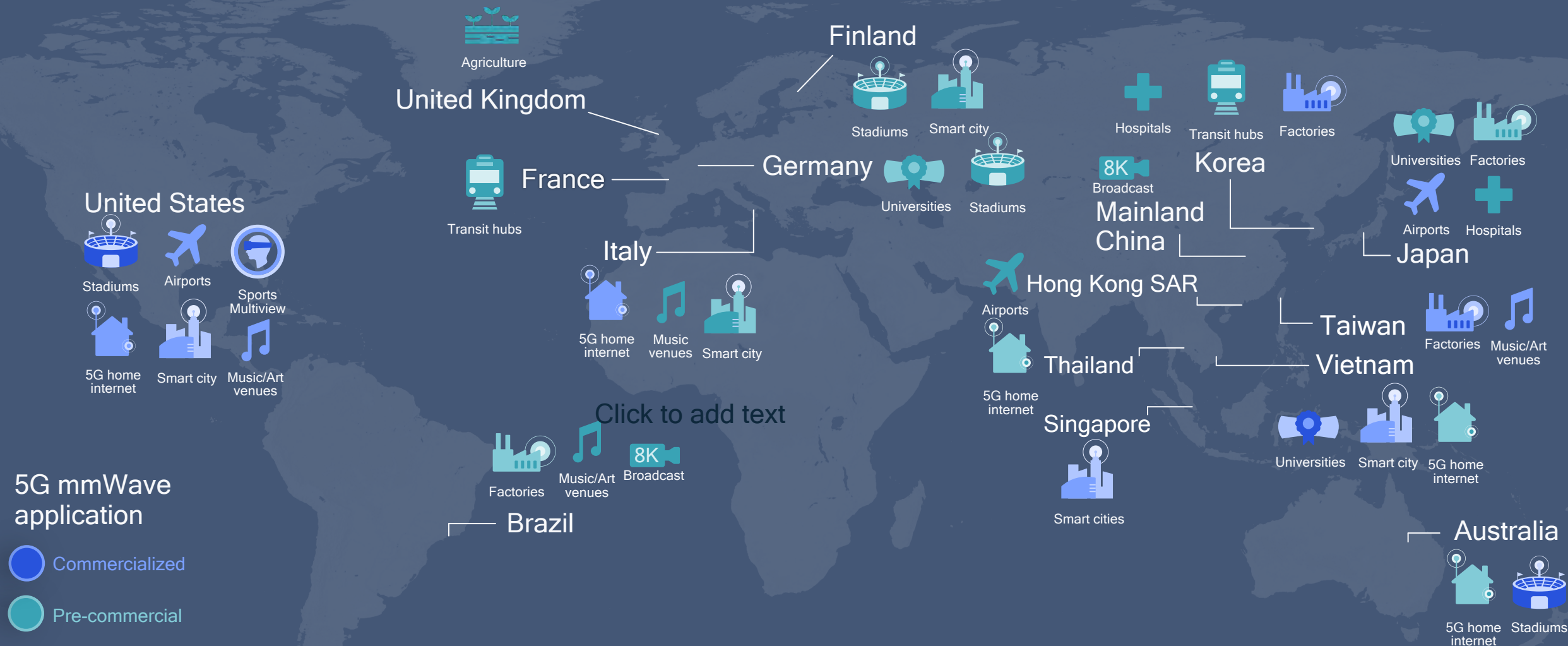
24%

of subscribers covered
daily with 5G mmWave

<5 years

to achieve positive business case
vs. typical 7-8 years for mid-band





5G mmWave applications

Countries and regions with mmWave use cases across mobile, fixed-wireless access, enterprise and private networks

5G mmWave commercialization in Japan



Smartphones



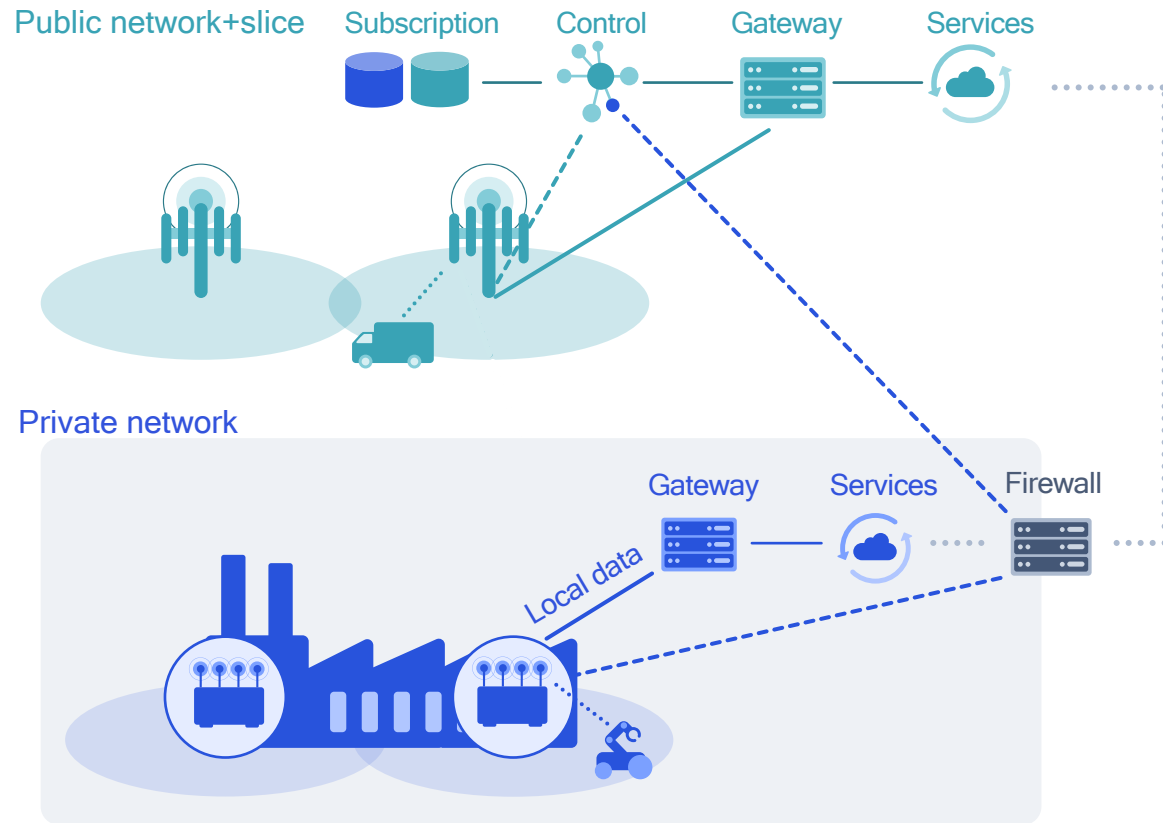
Hotspots and IOT gateways



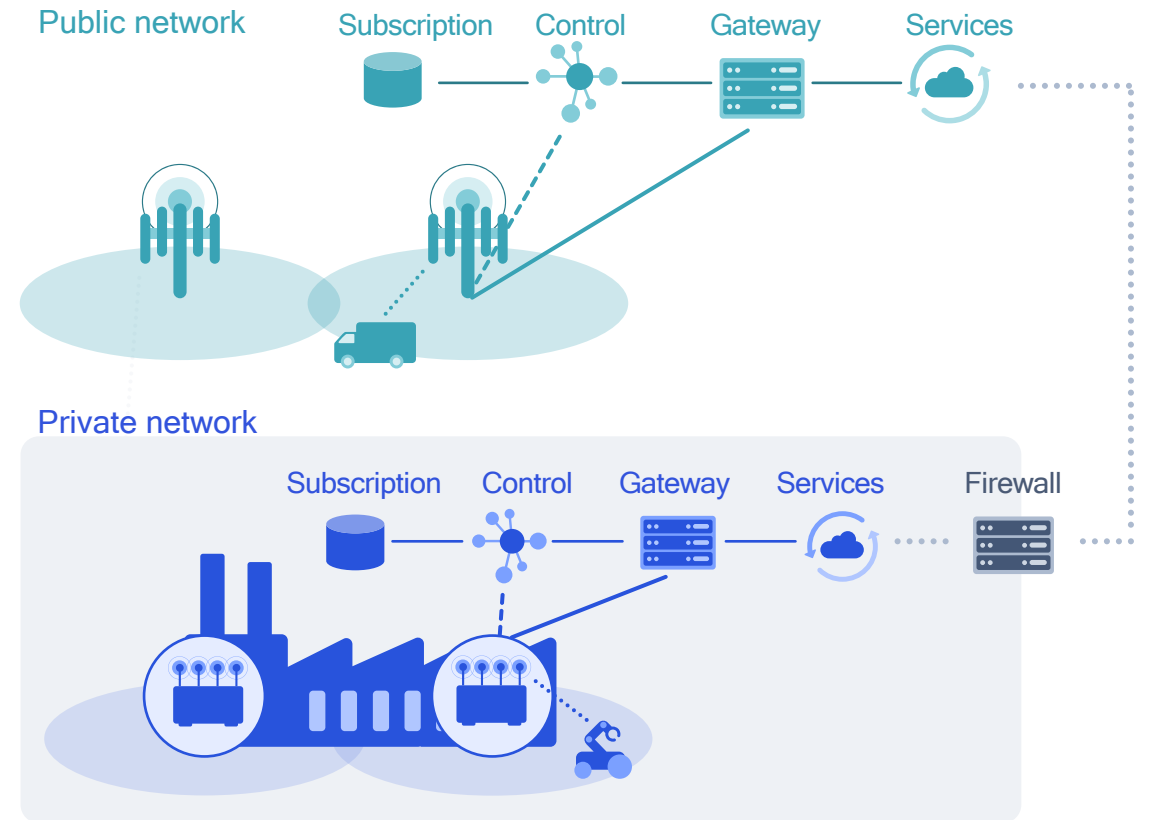
Small cells



Integrated private network

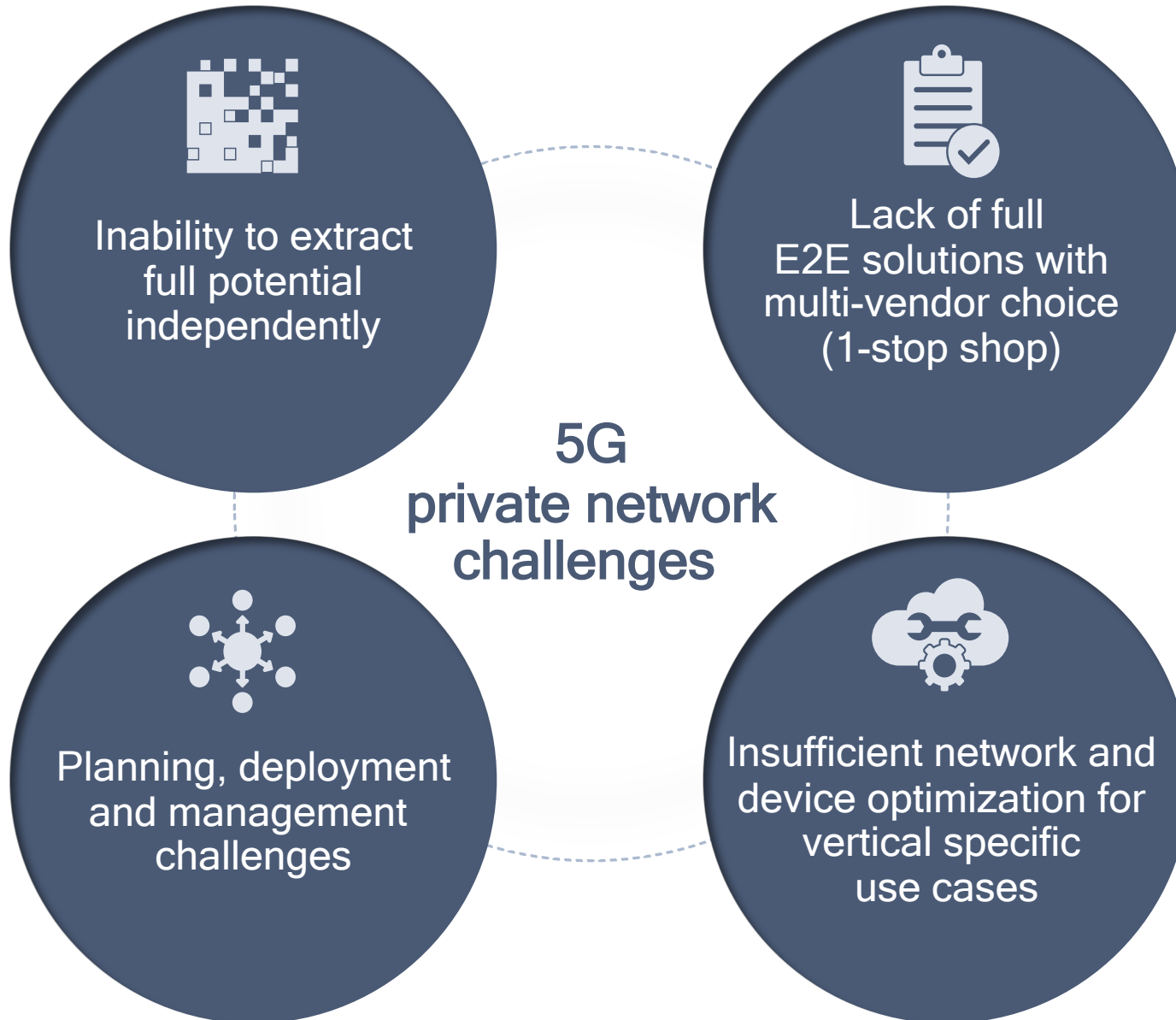


Independent private network¹



1) Mobility between private and public networks can still be supported via dual subscriptions

Multiple private network architectures offer deployment flexibility



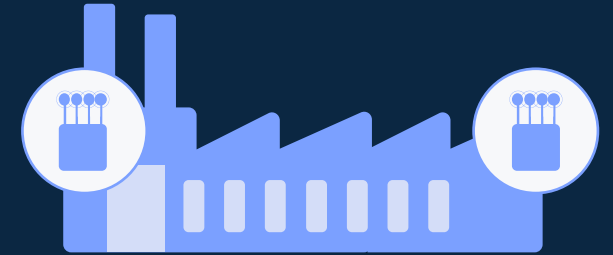
Challenges must be overcome to extract full potential of multiple types of 5G private networks



Powerful 5G
network performance

Pre-integrated, multi-vendor
solution for diversity of
deployments and use cases

Significantly simplified
deployment and management
capabilities



Ecosystem requirements addressing key 5G private network challenges

Pre-integrated multi-vendor,
end-to-end private network
solutions, with 5G profiles
ready for vertical-specific
use cases

5G Private
Network Partner
Ecosystem
Program

Qualcomm®
Private Networks
RAN Automation

Cloud-based solution for
streamlined planning,
plug and play deployments
and automated operations
to optimize and assure

Qualcomm

Comprehensive approach to 5G private networks

Pre-integration end-to-end
Powerful RAN performance
Multi-vendor benefits
Simplified deployments
Automated management

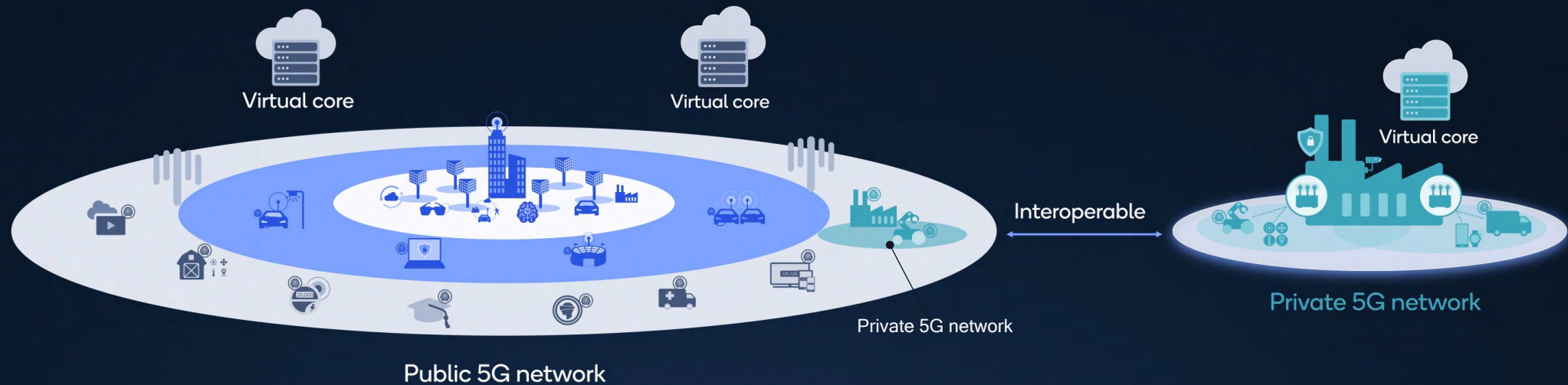


End
device
solutions

Leading power efficiency
and form factor solution
for enterprise-grade,
multi-vendor ecosystem of
small cells and remote units

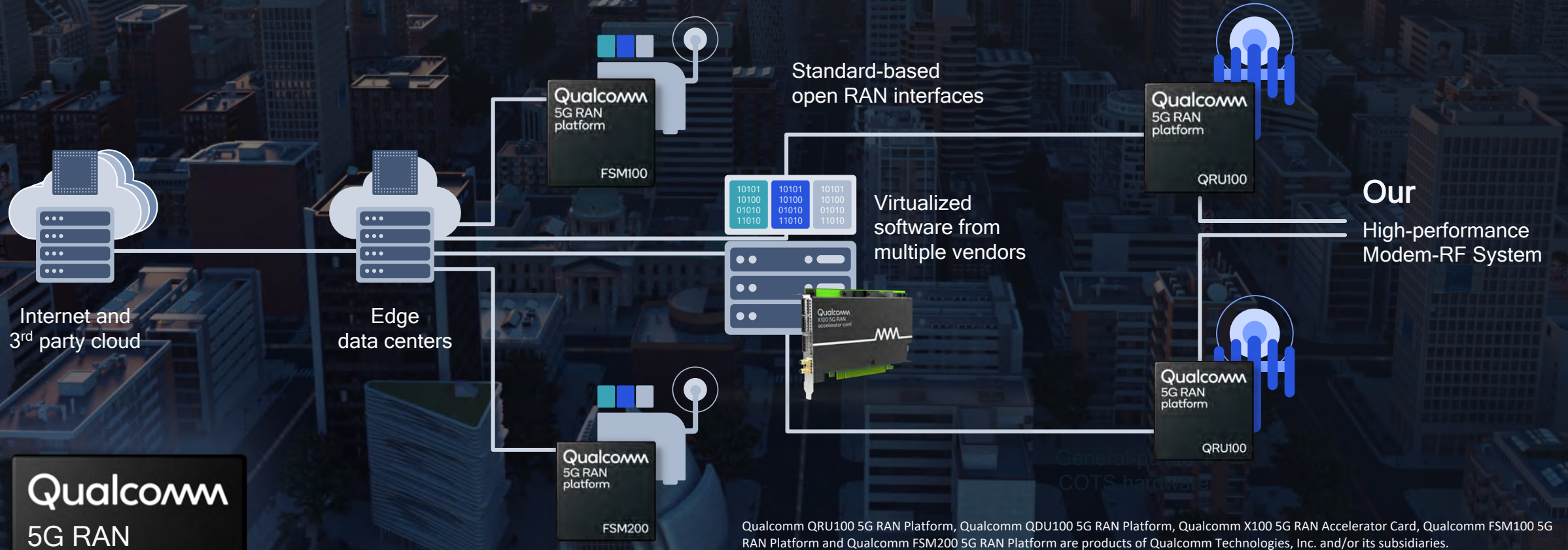
Digitally transform the
smart enterprise with
end-to-end ready to
deploy solutions
across 30+ verticals

Rearchitecting the network for the connected intelligent edge with open and virtualized RAN



Driving transition to Infrastructure 2.0

Powered by extended portfolio of Qualcomm 5G RAN platforms



High performance
Modem-RF

Virtualization
with hardware
acceleration

Flexible, scalable,
O-RAN
compatible

From Macro
to Small Cells

Integrated Sub-6
and mmWave
solution

Thank you



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