5 FOUNDATIONS FOR 5G COMMERCIALIZATION

Network slices. Augmented reality (AR). Autonomous vehicles. The metaverse.

With speeds up to 1,000 times faster than 4G, latency under a millisecond and 1,000 times greater capacity, 5G delivers the fast, reliable connections needed for these innovative use cases—and ones that haven't even been dreamt of yet.

5G enables extraordinary experiences for subscribers, revolutionizes industries and empowers health services. But 5G is more than technology. It's about adopting new ways of working to support new business models, and reframing how we think about networks; not as technology platforms, but as value creation platforms and innovation enablers.
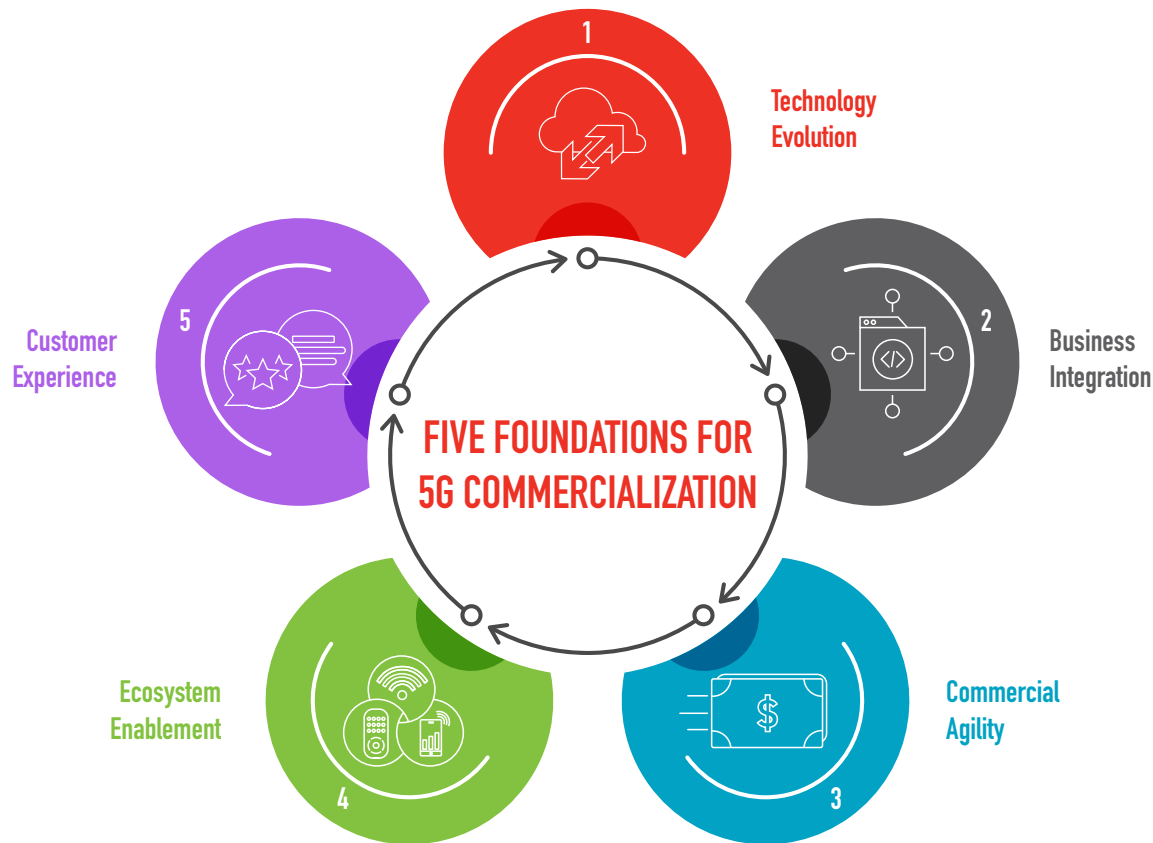
5G

BY EARLY 2021,

144 OPERATORS IN 61 COUNTRIES

HAD LAUNCHED AT LEAST ONE 3GPP-COMPLIANT 5G SERVICE.[2]

UNLOCK THE DIGITAL VALUE CHAIN

5G revenues are projected to increase from US$5 billion in 2020 to over US$350 billion by 2025. In addition, 5G is projected to account for 44 percent of global CSP revenue by 2025, as customers migrate from 4G and CSPs design new use cases.[1] In a recent TM Forum survey, 87 percent of respondents cited 5G as crucial or important to their revenue growth.[2]

To help CSPs capture the value of 5G, CSG has established the 5 Foundations for 5G Commercialization. In this eBook, we'll cover each of the foundations, on which CSPs can build strong, sustainable business models.


FIVE FOUNDATIONS FOR 5G COMMERCIALIZATION

1 Technology Evolution

2 Business Integration

3 Commercial Agility

4 Ecosystem Enablement

5 Customer Experience

[1] "5G to Generate 44% of Global Operator Revenue by 2025," Juniper Research
[2] "Is BSS ready to monetize enterprise 5G?," TM Forum

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TECHNOLOGY EVOLUTION

5G offers various benefits to CSPs and their customers: lightning-fast speeds, ultra-low latency, limitless capacity and reduced capex.

According to a recent GSMA Intelligence survey, CSPs are looking to gain the following benefits from deploying 5G SA networks.[3]
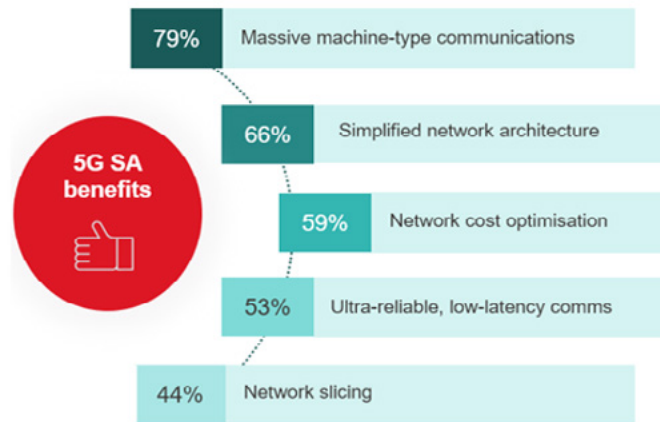

To fund this change, CSPs will need to invest in their networks. GSMA Intelligence predicts that between 2020 and 2025, CSPs will spend US$1.1 trillion on capex, with over 75 percent of that spending related to 5G.[4]

But 3G/4G networks won't disappear overnight, so CSPs need to maintain existing customers and services as they evolve to 5G nonstandalone architecture (NSA) and ultimately a 5G standalone architecture (SA).

[3] "Network Transformation 2021," GSMA Intelligence
[4] "2025 capex outlook (2020 update): the $1 trillion investment," GSMA Intelligence
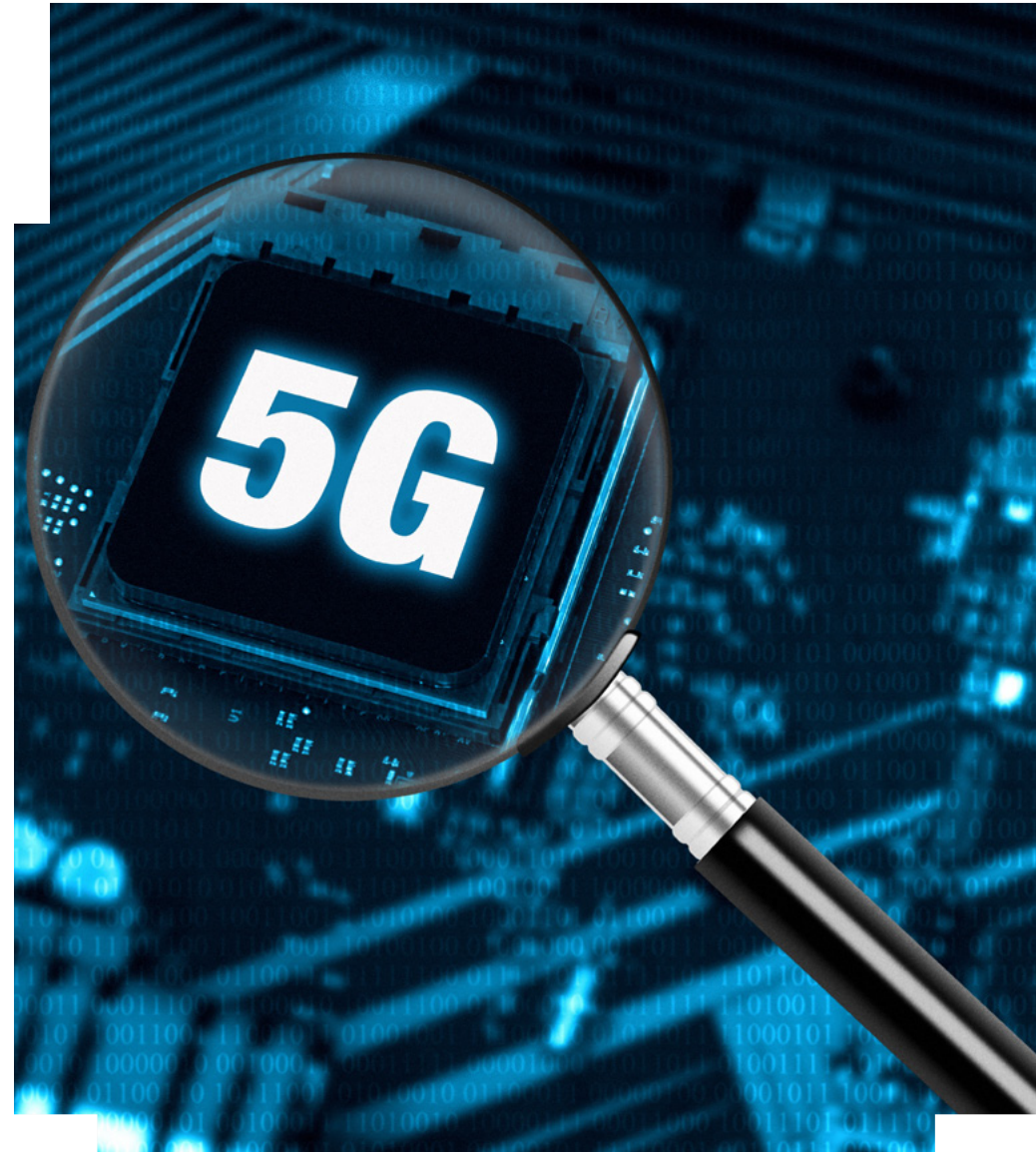
TRANSFORM FROM TELCO TO TECHCO

CSPs need a clear and pragmatic approach to transforming their organizations, while protecting their current 3G/4G subscribers and services. They also need to ensure that they successfully leverage every revenue-generating opportunity along their transformation journey. Through 5G, cloud and edge-based computing, CSPs can modernize more effectively to rapidly respond to market needs and roll out value-driven services and business models to fund their 5G investment.

HOW CSG CAN HELP

CSG's 5G cloud-ready portfolio is designed from the network up to quickly evolve your infrastructure to take full advantage of 5G and its related technologies (cloud, microservices, Open RAN, network slicing, network edge computing and more).

In addition, we can help you reinvent your BSS infrastructure with minimal disruption to your existing network, services, partners, customers, and most importantly, your revenues. This means you can protect the investment in your existing infrastructure while you prepare for the future, preserving your 4G revenues and customers while building out your 5G revenues.

BUSINESS INTEGRATION

5G is transforming not only networks and technology, but also how CSPs operate and how they go to market. And transformation won't stop at technology—it will extend to all parts of the CSP organization, including company culture. In a recent survey by TM Forum, 94 percent of respondents noted that developing the culture and agility necessary for experimentation and innovation as one of the main challenges to achieving 5G growth.[5]

Vendor lock-in, monolithic data silos and inflexible legacy systems are barriers to innovation and need to be removed to ensure CSPs can move at 5G hyperspeed. All aspects of IT and network infrastructure across the CSP's entire organization need to be tightly coupled with accounting and human resources through to customer care, fulfillment and service creation.

Lack of integration should no longer be a barrier to innovation. The technology should work for CSPs as they change their focus from their network to their consumers.

[5] "Mapping a path to telco revenue growth," TM Forum

CONQUER 5G COMPLEXITY

It is only by embracing open, cloud-native and standardized architecture that CSPs can implement faster concept-to-cash cycles, successfully co-innovate with partners and operate with the scale and flexibility needed by the market. It is important that all parts of CSPs' ecosystems work in harmony to enable real business results. This includes launching new services faster across all channels to increase sales, reduce costs and increase efficiency.

HOW CSG CAN HELP

Let CSG take on the complexity with our carrier-grade 5G portfolio, coupled with our years of network-level expertise handling the most complex integration projects. Our standards-compliant, microservices-based, open 5G solutions can accelerate your digital transformation and enable the elastic scaling, agility and openness needed for successful 5G commercialization. You can support all customers, services, partners and network types on one hyper-scalable platform, enabling you to easily integrate new capabilities and features with minimal disruption to ongoing business operations.

COMMERCIAL AGILITY

The COVID-19 pandemic has accelerated digital transformation by at least 7 years. CSPs need to act now to capture their place in this new digital-first way of living, learning and conducting business. The connectivity market has begun to slow down, and CSPs must move beyond providing only connectivity to adding more value for customers (B2C and B2B).

Legacy monetization solutions lack the agility and speed-to-market needed to evolve and keep pace as networks transform from 4G to 5G. CSPs can't afford to take months to launch new services if they are to succeed. CSPs need solutions that are flexible, agile and responsive to accelerate their time to market. Their currently deployed infrastructure won't be able to support the ultra-low latency, network slices, edge computing and scale needed for successful 5G commercialization.

SCALE FOR SUCCESS

5G allows CSPs to quickly evolve and adapt to the fluid needs of individual market verticals, with the inherent flexibility to handle rapid and massive market growth. CSPs should adopt the "fail fast, fail cheap" approach used by the hyperscalers to ensure that they accelerate their time to market for new products and services.

HOW CSG CAN HELP

CSG's 5G solutions enable you to easily manage all possible business and pricing models, including transaction-based, value-based, network slicing and edge models. CSG offers a full commercialization solution for 4G/5G hybrid networks, combining catalog driven CPQ, order management, billing, charging, policy control and customer experience from a single cloud-ready platform.

ECOSYSTEM ENABLEMENT

CSPs need to shift from vertical integrations to open ecosystems in order to grow 5G revenues beyond connectivity. B2C services and connectivity will not be enough to deliver a real return on their 5G investments. But this goes beyond being a reseller of third-party content and services. Digital ecosystems, where CSPs work closely with other partners to deliver value-added services, require collaboration, co-innovation and co-creation.

By placing themselves as the core of the digital ecosystem, CSPs can unlock between $400 and $700 billion in new revenues available from 5G enterprise and B2B2X opportunities.[6] Open standards and common interfaces such as TM Forum's Open APIs are key to success. In response, 5G commercialization solutions need to leverage openness to adopt new innovative use cases in gaming, healthcare, fixed wireless access, finance and others.

[6] "Becoming a tech-driven telco demands a new operating model," TM Forum
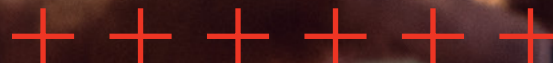
BECOME A CO-CREATOR, NOT A RESELLER

To reinvent themselves as innovation enablers and place themselves at the core of the new digital ecosystem, CSPs must identify key partner opportunities in target verticals such as healthcare, construction and manufacturing. With use cases varying from remote surgeries, smart agriculture and Industry 4.0, the next step is to develop solutions with long-term value designed specifically for each vertical. McKinsey estimates these partner ecosystems could add up to $60 trillion to the global economy by 2025.[7]

After CSPs select target verticals, they should seek out partners that understand the business challenges and opportunities faced by their B2B customers in these industries. For example, partnering with key transport vendors to drive innovation in self-drive trucks or collaborating with a major hospital group to create new services for patient care.

HOW CSG CAN HELP

CSG's 5G portfolio powers a fully integrated, agile and open 5G ecosystem architecture to drive new business opportunities across all verticals, designed not just to resell services but to co-create and monetize value-based solutions.

With CSG, you can centrally manage the entire digital partner lifecycle and support all business models, even the most complex B2B2X partnerships. You can create a robust and collaborative digital marketplace that drives real value and revenues while reducing overheads with zero-touch onboarding, rapid service launch, and partner self-care.

[7] "Ecosystem 2.0: Climbing to the next level," McKinsey & Company

CUSTOMER EXPERIENCE

With B2C 5G mobile connectivity unlikely be a significant revenue earner, CSPs need to focus on customer experience to stay relevant and cement their place at the core of the new digital ecosystem. Fragmented customer experiences over traditional channels mean CSPs will not be able to support true customer-first approach, and both market share and revenues will be affected.

By reimagining the experience they want to offer to their B2C and B2B consumers, CSPs can move from network-centric to customer-centric, focusing less on the network and more on the innovation and value that the network enables. Key strategies for success include upselling enhanced speeds and quality of service, bundling new content and services from third parties and delivering amazing customer experiences.
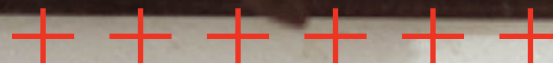
CREATE CONNECTED EXPERIENCES

According to Deloitte, the average U.S. home has 25 connected devices, up from 11 in 2019.[8] End customers want connected and immersive experiences as part of a frictionless customer journey across all devices and all channels. 5G enables CSPs to deliver proactive omnichannel experiences with a customer-first approach, combined with product and service co-creation and innovation. By prioritizing automation, hyperpersonalization and self-service, CSPs can deliver the same real-time experiences to B2B customers.

HOW CSG CAN HELP

With CSG, you can anticipate customer needs and behaviors to deliver hyper-personalized experiences (even to your B2B customers). Our proactive, AI-powered 5G solutions empower you to offer your B2B customers the same level of real-time personalization and omnichannel engagement you offer your B2C subscribers.

In addition, our agile systems ensure that you can pivot quickly to respond to new revenue opportunities with contextual offers powered by AI and rich holistic customer data. Powerful product catalogs, integrated business systems and accurate billing and charging provide your customers with frictionless self-service options expected by today's consumers.

[8] "Report: Connected Devices Have More Than Doubled Since 2019," Telecompetitor

THE CSG ADVANTAGE

- Experts at making the complex easy—we take on the complexity of 5G and enable you to focus on innovation

- Supporting the most complex charging models—pre-paid and postpaid models for B2C, IoT, roaming, content and enterprise, including hybrid models.

- Openness and standardization and proven scale for 5G networks

- Rapid service innovation with configuration not coding

- Lightning-fast business agility that takes full advantage of cloud technology

Our 5G portfolio is vendor-agnostic and seamlessly integrates with your current network, regardless of vendor. CSG provides an end-to-end commercialization platform to capture the maximum business value from CSPs' networks, from 3G to 4G/5G and beyond.

ABOUT CSG

CSG is a leader in innovative customer engagement, revenue management and payments solutions that make ordinary customer experiences extraordinary. Our cloud-first architecture and customer-obsessed mindset help companies around the world launch new digital services, expand into new markets, and create dynamic experiences that capture new customers and build brand loyalty. For nearly 40 years, CSG's technologies and people have helped some of the world's most recognizable brands solve their toughest business challenges and evolve to meet the demands of today's digital economy with future-ready solutions that drive exceptional customer experiences. With 5,000 employees in over 20 countries, CSG is the trusted technology provider for leading global brands in telecommunications, retail, financial services and healthcare. Our solutions deliver real-world outcomes to more than 900 customers in over 120 countries.

To learn more, visit our website at csgi.com and follow us on LinkedIn and Twitter.