Enterprise 5G Monetization:
A core issue for CSPs
Enterprise 5G: Appetites are growing for new experiences

Forty percent of enterprises have some experience of 5G today, according to Omdia research.

Enterprises are beginning to buy into 5G for the business outcomes that this technology can help support: notably enabling real-time decision-making, better operational efficiency, and new customer experiences.

But transformational uses of 5G are still limited to a narrow business-to-business (B2B) customer segment—typically large enterprises—and a single flavor of 5G, usually a custom private network deployment.

A GROWING EMERGENCY

The status quo is a growing emergency for communication service providers (CSPs). The wider B2B universe is missing out on a rich portfolio of 5G-based solutions that could make businesses more resilient, efficient, and innovative.

This also means that enterprise 5G contribution to CSP revenue growth and diversification could be at risk.

How can CSPs accelerate and encourage 5G take-up across the wider B2B universe? Running the CSP’s mobile core as software as a service (SaaS) in a public cloud is one approach that may help.
A mobile core as SaaS could address some enterprise 5G challenges

**What is a mobile core?**
The core is the brain of the mobile network. It manages all aspects relevant to subscribers, including mobility management, routing, data download speeds, and charging.

**How does a mobile core operate?**
Traditionally, a CSP’s in-house experts run core functions on a custom private (on-premises) cloud infrastructure, although routine maintenance is often outsourced.

**Why mobile core as SaaS?**
Running a mobile core as SaaS in a public cloud offers lower setup costs and faster time to market. Service experimentation—for one-off or mass consumption—is easier, and resources can scale reliably on the fly as demand grows.
Enterprise 5G represents a rich menu of digital services

Enterprise 5G includes multiple value propositions serving different business needs in value and operational complexity.

But consuming the 5G portfolio is not as simple as it could be. Most enterprise 5G services are not available on demand.

CSPs do not have the operational agility to provide this yet, even when enterprises are eager to adopt new services such as 5G network slicing.

<table>
<thead>
<tr>
<th>SERVICE</th>
<th>OFF THE SHELF</th>
<th>A LA CARTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Public 5G</td>
<td>5G FWA</td>
<td>Private 5G</td>
</tr>
<tr>
<td>5G Network slicing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PROPOSITION</th>
<th>Anywhere productivity</th>
<th>When time is money</th>
<th>Optimal control, ultimate security</th>
<th>My experience, my way</th>
</tr>
</thead>
<tbody>
<tr>
<td>FOCUS</td>
<td>Person</td>
<td>Site</td>
<td>Campus+</td>
<td>Virtual group</td>
</tr>
<tr>
<td>CONSUMPTION</td>
<td>Personal device</td>
<td>Router</td>
<td>5G core, access points</td>
<td>Virtual 5G “slice”</td>
</tr>
</tbody>
</table>

SOURCE: OMDIA

THE ENTERPRISE 5G PORTFOLIO

THE 5G MONETIZATION CHALLENGE

THE ENTERPRISE 5G PORTFOLIO

OFF THE SHELF

A LA CARTE
CSPs are limiting their enterprise 5G potential

- Fewer than 0.5% of the world’s businesses are primary enterprise targets of CSPs.
- 98% of businesses do not need the private 5G services that CSPs are most eager to promote.
- A third of big businesses want to use 5G network slicing but cannot buy the service off the shelf.

CSPs are focusing their 5G efforts on large enterprises. This is partly because CSPs do not have cost-effective ways to test and industrialize more complex 5G value propositions targeting smaller firms.
The status quo: Time to revenue remains slow

A consultative 5G sale to larger enterprises with a long time to revenue and less predictable margin.

Self-service of 5G simple services to SMEs and SoHos with rapid time to revenue but limited margin uplift.

NOTE: NOT DRAWN TO SCALE. BASED ON EU27 B2B DEMOGRAPHICS. US SMEs ARE USUALLY DEFINED AS HAVING <500 EMPLOYEES. SOURCE: OMDIA
Value is shifting from connectivity to real-time experiences

- 56% will pay for **real-time data analytics** and enhanced SLAs
- 9 out of 10 enterprises see compelling use cases for **immersive technologies** (AR, VR, XR)
- 34% of enterprises expect to invest in **5G network slicing** within the next two years
Be predictably predictable

QUALITY IS THE TOP DECISION DRIVER

- Enterprises of all sizes, from SoHos and SMEs to multinational enterprises, are willing to pay for better digital experiences.
- Securing experience is fundamental for consideration of more complex services combining 5G with edge, XR, analytics, and beyond to deliver compelling business outcomes.

<table>
<thead>
<tr>
<th>Enterprises' top expected 5G benefits</th>
<th>Percentage of surveyed enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greater reliability for systems and apps</td>
<td>41%</td>
</tr>
<tr>
<td>Better compute/apps performance</td>
<td>37%</td>
</tr>
<tr>
<td>New services and revenues</td>
<td>34%</td>
</tr>
<tr>
<td>Improved security or compliance</td>
<td>31%</td>
</tr>
<tr>
<td>Cost savings or more effective cost models</td>
<td>29%</td>
</tr>
</tbody>
</table>

SOURCE: OMDIA
NOTE: N=160

HOW A MOBILE CORE AS SaaS CAN HELP

The on-demand model guarantees resource availability, ensuring digital experience is never compromised. A rock solid platform then builds trust to try more complex services and experimental business models.
Make consumption simple

**ENTERPRISES DON'T WANT SURPRISES**
- Enterprises want to avoid 5G sticker shock.
- Only 10% favor a pay-as-you-use model.
- Subscription is the most recognized and desirable payment model (do not confuse payment preference with consumption preference).

**HOW A MOBILE CORE AS SAAS CAN HELP**
A mobile core as SaaS offers CSPs deep control over network resource allocation and performance using a predictable subscription model aligned to what enterprises want too.

**ENTERPRISES, PREFERRED PAYMENT MODEL TO ACCESS 5G RESOURCES**

- **34%** Fixed monthly subscription
- **14%** Short-term rental of 5G assets (e.g., 5G network slices) for specific occasion
- **27%** One-off payment for 5G equipment and implementation services
- **15%** One-off and ongoing fees for design, build and management services
- **9%** Consumption-based fee
- **1%** Don’t know

**NOTE:** N=160
**SOURCE:** OMDIA
Satisfy operational expectations

EXCELLENCE MOTIVATES ENTERPRISES TO INVEST

- Today’s enterprise decision makers want 5G to improve quality in products and in how people work.
- Real-time decision-making and automated processes are also highly awaited investment cases.
- Future uses will rely on operating fail-safe low-latency environments, often using autonomous vehicles.

How a mobile core as SaaS can help

It is an elegant and automated delivery model, learning via artificial intelligence. Humans simply cannot manage the complex consumption uses around 5G that are attracting future investment.

Top enterprise 5G investment areas

- Improving inspection processes to reduce instances of production defects / substandard parts: 16% budgeted, 6% live.
- Helping remote/field workers respond to, identify, and fix problems later: 6% budgeted, 10% live.
- Improving maintenance operations to reduce downtime and stoppages: 8% budgeted, 8% live.
- Accessing real-time situational data to improve decision-making and response: 8% budgeted, 4% live.
- Automating processes to fill human skills gaps: 4% budgeted, 6% live.
- Verifying regulatory compliance / conditions of insurance: 2% budgeted, 4% live.
- Providing test and simulation tools to the wider workforce: 2% budgeted, 2% live.

Percentage of enterprises citing operational efficiency as a top challenge

- Budgeted to deploy 5G within 12 months
- Live 5G deployment

Note: N=49
Source: Omdia
React fast to demand

PIVOT AS CUSTOMER NEEDS EVOLVE

● Productivity gains are a potent trigger for current enterprise 5G investment.
● Improved quality of output and better decision-making are future drivers of 5G investment.
● Verifying compliance is another important driver.

HOW A MOBILE CORE AS SAAS CAN HELP

Mobile core as SaaS can help CSPs deliver and support an increasingly complex range of technologies and variable resource needs.

Top 10 enterprise 5G investment areas

- Improving inspection processes to reduce production defects / substandard parts: 8% budgeted to deploy, 4% live now
- Automating processes to fill human skills gaps: 6% budgeted to deploy, 6% live now
- Accessing real-time situational data to improve decision-making and response: 6% budgeted to deploy, 5% live now
- Helping remote/field workers respond to, identify, and fix problems faster: 6% budgeted to deploy, 4% live now
- Verifying regulatory compliance / conditions of insurance: 6% budgeted to deploy, 5% live now
- Reducing risk/exposure to operational hazard: 4% budgeted to deploy, 5% live now
- Moving to digital, cloud-based service models: 3% budgeted to deploy, 4% live now
- Expanding customer engagement channels to boost satisfaction and loyalty: 4% budgeted to deploy, 3% live now
- Improving energy efficiency: 3% budgeted to deploy, 4% live now
- Increasing digital sales with effective try-before-you-buy methods: 3% budgeted to deploy, 3% live now
- Improving collaboration and ideation with remote partners: 3% budgeted to deploy, 3% live now
- Reducing volume of waste: 3% budgeted to deploy, 3% live now

Percentage of enterprises surveyed

NOTE: N=160; 5G INVESTMENT, CURRENT AND IN THE NEXT 12 MONTHS
SOURCE: OMDIA

WHY A MOBILE CORE AS SAAS?

Mobile core as SaaS can help CSPs deliver and support an increasingly complex range of technologies and variable resource needs.
PUBLIC CLOUDS AND AS-A-SERVICE CONSUMPTION ARE COMMON AMONG ENTERPRISES

- Forty percent of enterprises would consider consuming new service types such as 5G as SaaS, and almost a quarter are open to edge as a service.
- Some security functions are acceptable as SaaS: rising volumes of data to be parsed make use of a public cloud a pragmatic option.
- What really matters to enterprises is performance transparency, accountability, and control over resources in the cloud

HOW A MOBILE CORE AS SAAS CAN HELP
Operate as CSPs’ key growth targets do; align to their business cycle. Support the premium SLAs that enterprises will pay for.

Enterprises: Which digital resources would you consume as SaaS from a public cloud?

- 5G connectivity: 36%
- Security assurance: 30%
- Identity management: 28%
- IoT management: 25%
- Edge computing resources: 22%
- Billing and transaction management: 18%
- Application development tools: 17%
- Analytics services: 14%

Percentage of enterprises willing to consume SaaS

NOTE: N=160
SOURCE: OMDIA
Address the security imperative

TOWARD REAL-TIME COMPLIANCE

- Security is an evergreen issue that continues to evolve, and to command investment.
- Enterprises need 5G for real-time compliance, monitoring, and making better fact-based decisions during a crisis.
- Crisis response implies the need to flex digital assets on demand, but ongoing monitoring indicates a subscription model.

HOW A MOBILE CORE AS SAAS CAN HELP

SaaS can handle the expanding perimeter and opportunity of security, either ad hoc or on a subscription basis.

Top enterprise challenge: Enhanced security – use of 5G in solution

- Verifying regulatory compliance / conditions of insurance: 13% use of 5G
- Integrating real-time physical and digital security management: 7% use of 5G
- Expanding methods of supervision for assets and staff: 7% use of 5G
- Improving asset recording and management: 4% use of 5G
- Accessing real-time situational data to improve decision-making and response: 4% use of 5G
- Improving disaster prevention and mitigation strategies: 4% use of 5G

Percentage of enterprises citing enhanced security as a top challenge

<table>
<thead>
<tr>
<th>Challenge</th>
<th>Percentage Using 5G</th>
<th>Percentage Not Using 5G</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verifying regulatory compliance / conditions of insurance</td>
<td>13%</td>
<td>11%</td>
</tr>
<tr>
<td>Integrating real-time physical and digital security management</td>
<td>7%</td>
<td>4%</td>
</tr>
<tr>
<td>Expanding methods of supervision for assets and staff</td>
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<td>7%</td>
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<tr>
<td>Accessing real-time situational data to improve decision-making and response</td>
<td>4%</td>
<td>4%</td>
</tr>
<tr>
<td>Improving disaster prevention and mitigation strategies</td>
<td>4%</td>
<td>2%</td>
</tr>
</tbody>
</table>

NOTE: N=46
SOURCE: OMDIA

Budgeted to deploy 5G within 12 months
Live 5G deployment
Be prepared for future disruption

**EXPECT GROWING APPETITE TO EXPERIMENT**
- The number of enterprises describing themselves as innovators has quadrupled from pre-pandemic levels.
- Enterprises investing in 5G to support a new business model or revenue stream are a small but growing minority.
- These enterprises are looking to 5G to accelerate collaborative ideation and improve product quality and output.

**HOW A MOBILE CORE AS SAAS CAN HELP**
SaaS-delivered CSP operations can provide on-demand resources and tight orchestration to satisfy enterprise appetite for experimentation.

**Enterprise innovators, current and planned uses of 5G**

<table>
<thead>
<tr>
<th>Current Uses</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Enabling cocreation with customers</td>
<td>7%</td>
</tr>
<tr>
<td>Improving inspection processes to reduce instances of production defects / substandard parts</td>
<td>7%</td>
</tr>
<tr>
<td>Improving collaboration and ideation with remote partners</td>
<td>4%</td>
</tr>
<tr>
<td>Increasing speed of product design and testing cycles</td>
<td>4%</td>
</tr>
<tr>
<td>Improving energy efficiency</td>
<td>4%</td>
</tr>
<tr>
<td>Implementing mixed reality to improve employee efficiency (e.g., diagnostics)</td>
<td>4%</td>
</tr>
<tr>
<td>Helping remote/field workers respond to, identify and fix problems faster</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Percentage of enterprises investing in 5G to launch a new business model / revenue stream**

- Trialing/running a 5G proof of concept: 7%
- Budgeted to deploy 5G within 12 months: 4%
- Live 5G deployment: 7%

**NOTE:** N=28
**SOURCE:** OMDIA
Next steps

Make 5G snackable
- Focus on off-the-shelf enterprise 5G monetization not just à la carte services offering uncertain profit margins.
- Use mobile core as SaaS to industrialize access to new digital experiences across a wider range of B2B customers.

Mirror enterprise consumption
- Follow your enterprise customers’ lead: make SaaS in a public cloud a preferred consumption model.
- Use mobile core as SaaS to automate resource management, freeing up in-house experts to focus on strategic decisions.

Fuel innovation appetites
- Make cocreation sprints common, not only between CSP network and enterprise lines of business but also between CSPs and enterprise customers.
- Use mobile core as SaaS to ideate, test, and launch new services faster.

WHY A MOBILE CORE AS SAAS?
About

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Our exhaustive intelligence and deep technology expertise enable us to uncover actionable insights that help our customers connect the dots in today’s constantly evolving technology environment and empower them to improve their businesses – today and tomorrow.

*The majority of IHS Markit technology research products and solutions were acquired by Informa in August 2019 and are now part of Omdia.
Omdia conducted a dedicated survey of 160 enterprise technology decision makers about their 5G investment plans. Industries represented include manufacturing, healthcare, energy and utilities, transportation, public safety, sports and entertainment.

Further reading

- Trends to watch 2023: Enterprise 5G Monetization
- Enterprise 5G survey insights 2022
- Enterprise Strategy: How to Satisfy Innovative Ambition
- Making Enterprise 5G Pay: The Human Factor

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