MWC 2025

5 Key Themes from Juniper Research

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MWC 2025: Key Themes & Insights

Mobile World Congress 2025 was the latest iteration of the GSMA's landmark event, showcasing the latest advancements and trends in the telecommunications industry. This report aims to provide a thorough analysis of the immediate and future impacts of those developments on the telecoms industry.

One of the central themes of MWC 2025 was the integration of artificial intelligence (AI) into mobile technology. Major players, like Samsung and Huawei, unveiled AI-powered tools and solutions designed to enhance user experience and optimise network performance.

In addition to these specific developments, our report provides insights into the general direction of the telecoms market. Network operators are increasingly becoming technology players, leveraging their infrastructure and expertise to compete with established technology vendors. This shift is reshaping the competitive landscape and creating new opportunities and challenges for both operators and vendors. Our report analyses these trends and offers predictions on how the telecoms industry will evolve in the coming years.

As part of this year's event, Juniper Research's in-house experts have assessed public announcements and meetings with key telecoms stakeholders to provide our opinions on how the outcomes of this year's Mobile World Congress will change how we see 2025 developing. We have consolidated our thoughts into five key themes we believe will be prominent in 2025:

1. AI has Moved Beyond the Hype, Now it Must Demonstrate Long-term ROI
2. APIs are a Key Focus, but Operators Risk Reducing Market Role to 'Connectivity Pipes'
3. Early-stage Satellite Ecosystem Developing with Expected Substantial Disruption to Connectivity
4. Mobile Messaging Market Changing to Digital Communications and Customer Experience
5. Mitigating Telecoms Fraud Requires Specialist Third Parties to Tackle Evolving Tactics More Than Ever

1. AI has Moved Beyond the Hype, Now it Must Demonstrate Long-term ROI

Artificial intelligence (AI) has been the subject of much attention over previous years, and it was the most prevalent topic in announcements and in our discussions with vendors this year. However, conversations in the market have evolved from talking about the capabilities of AI to more in-depth discussions and quantifying the benefits of including AI in technology processes. Indeed, much has been made about the 'AI bubble' and when it will burst; however, the technology is now so pervasive in telecommunications that we believe there is no bubble to burst – many stakeholders are already reporting substantial benefits from the levels of automation it brings.

The question that 2025 will need to answer is: what is the most cost-effective way to deploy AI models into existing operations? For example, ZTE announced the launch of its DeepSeek AiCube, a solution that offers enterprises an efficient, large-model commercial solution for the deployment of AI.

The development of AI has exceeded all expectations; with the technology expected to underpin use cases that have not yet been thought of. The key benefit of AI across any use case is automation; if it can be automated, we expect operators and other stakeholders to begin exploring the potential for AI implementation soon.

However, this substantial rise in AI, combined with strategies that prioritise enterprise-based revenue over consumer-based revenue, leaves operators with a notable challenge; networks must become more diversified to meet the increasing demands for connectivity that AI is creating.

But what do operators need to do now to best position themselves to meet these growing enterprise needs? Firstly, Juniper Research believes that diversification of networks must be interpreted as networks that can be adapted to solve the various requirements of enterprise users. This must require minimal investment into changing network architectures, which will be enabled by technologies such as 6G, network slicing and emerging RAN technologies.

However, this rapid growth in AI and its pervasiveness at MWC 2025 raise three significant questions:

1. Is the development of AI outpacing regulation and standards, and if so, how will this impact its future use?
2. Will the regional differences in AI implementation drive a further gap between service differentiation between operators?
3. Most importantly, will operators reach a point of diminishing returns through over-implementation of AI?

These questions will need to be answered to create a path to long-term ROI; at present, much of the real-world AI usage amongst network operators is internal and is used to assist employees in network operations. However, there are clear signs that overall legislation into the use of AI is beginning to take form in regions such as the EU, the US and Japan. However, these regulations are not specific to telecoms and largely outline the usage level compared to the risk to enterprises and consumers. Over 2025, we expect telecoms regulatory bodies to be more heavily focused on outlining market-specific standards for operators.

It is an important distinction to note that operators themselves are AI users, not developers of AI. In the enterprise space, network operators must be considered AI resellers, in essence. As a result, we expect this regulation to be primarily focused on how AI can be offered to enterprises, such as in network automation and processes.

2. APIs are a Key Focus, but Operators Risk Reducing Market Role to 'Connectivity Pipes'

Telecoms APIs were a much-discussed topic at this year's event. APIs are enabling operators to expose the capabilities of their networks more efficiently to developers and other third parties, in turn creating new revenue opportunities in the enterprise sector. This shift is driven by initiatives such as CAMARA and the GSMA Open Gateway, which standardise and simplify access to telecom networks through common APIs. There are various benefits to the implementation of APIs, such as:

- Increased Revenue: By exposing network capabilities through APIs operators can create new revenue streams. They can charge developers for API access based on usage, subscription plans, or revenue-sharing models.
- Enhanced Customer Experience: APIs enable operators to integrate emerging technologies like AI, IoT, and 5G into their services.
- Operational Efficiency: APIs streamline various processes within telecom networks, reducing the need for manual intervention and minimising errors.

However, Juniper Research believes that a focus on APIs also presents challenges for telecom operators. One significant risk is the potential reduction of their role in the market to merely a connectivity pipe. In essence, operators may have a reduced role in overall service delivery if they become too reliant on service provision through APIs.

As they expose more network capabilities through APIs, operators may become increasingly reliant on third-party

developers and service providers to create value-added services; a move which may potentially lead to reduced market influence.

To mitigate this risk, operators must build strong enterprise relationships and carefully select their partners. Partnering with the right third-party communication service providers (CSPs) is crucial for maintaining a competitive edge and ensuring that their APIs are used to deliver high-quality services.

However, whilst these frameworks create a platform for the growth of the telecommunications API market, they must not be considered the end goal. The end goal is monetisation, and how this is achieved will vary depending on the use case. The end user must be considered with each use case, and the API provider must implement go-to-market strategies and pricing models accordingly. For example, the APIs which will be needed on a recurring basis, such as network slicing, should be monetised via a subscription-based model, whereas high-volume, low-value APIs such as number verification should be monetised on a per-API basis.

Figure 1: Global Telecom API Revenue ($m), Split by Use Case, 2025 & 2029

Source: Juniper Research

3. Early-stage Satellite Ecosystem Developing with Expected Substantial Disruption to Connectivity

Over the past two years, there has been a steady growth of interest in the role satellite connectivity can play in various connectivity elements, such as 5G, roaming, and IoT. Notably, there were a few announcements from various mobile network operators (MNOs) and satellite network operators (SNOs) during the event. These include:

- Deutsche Telekom and Google's Direct-to-Handset (D2H) Connectivity: Deutsche Telekom and Google took a significant step towards D2H connectivity through satellite connectivity. They announced the first successful SMS sent and received via geostationary (GEO) satellites from a Google smartphone.
- Globalstar's LEO Satellite Network Expansion: Globalstar announced a $2 billion investment to expand its low Earth orbit (LEO) satellite network. This expansion will underpin future direct-to-device (D2D) solutions.
- HFR's Private 5G and LEO Satellite Integration: HFR unveiled a solution that integrates private 5G networks with LEO satellite connectivity. This offering is enterprise-focused, providing robust connectivity options that combine the benefits of 5G and satellite technology.
- ITU's Partner2Connect Digital Coalition (P2C): The International Telecommunication Union (ITU) committed to over $70 billion in investment for connectivity.

However, despite this increasing activity, questions remain on the long-term prospects for the generation of revenue from satellite connectivity. Challenges such as the high initial cost, the inclusion of SNOs in the service provision value chain, licensing concerns, and rapidly evolving market dynamics are all apparent today. However, Juniper Research has identified a lack of a clear path to securing a return on investment as being critical to solve before operators can justify further substantial investment.

Notably, whilst operators are increasingly creating partnerships with third parties for the development of new services, Juniper Research believes that it is imperative that operators continue to retain billing relationships with enterprise clients, or they risk becoming a mere connectivity provider. We believe that the future market for satellite connectivity is a prime example of this.

The biggest competition for direct-to-cell connectivity are the other various connectivity technologies that can be adopted. In practice, Juniper Research envisages direct-to-cell connectivity playing a role in network architectures that encompass several connectivity solutions. The enterprise sector provides a varying set of market challenges, largely dependent on the use case. The general market for satellite connectivity has evolved rapidly over the past 20 years; however, the integration of network operators dramatically lowers the cost of customer acquisition, as operators often already own an enterprise billing relationship.

4. Mobile Messaging Market Changing to Digital Communications and Customer Experience

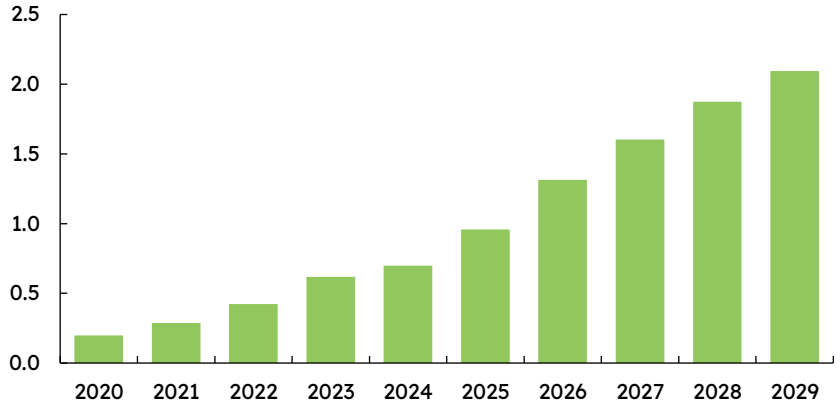
The mobile messaging market has undergone rapid transformation over the past 24 months; Juniper Research has extensively investigated trends such as rising SMS prices, increasing artificially inflated traffic (AIT) and the growth of APIs, as key factors that are changing the dynamics of mobile messaging. However, this means that the role of a Communications Platform as a Service (CPaaS) provider is changing; they can no longer rely on previously held business models that focused on supporting multiple channels, such as SMS, rich communication services (RCS), over the top (OTT) business messaging, or even email. Over the last 12 months there has been an unprecedented amount of turbulence in the market, and it is clear that the leading CPaaS players have responded well to this.

Juniper Research has identified several key movements in the messaging space:

- A greater focus on campaign management tools: There has been greater interest in adopting CPaaS solutions from marketing teams, rather than organisational teams, over the last 12 months. This is likely down to the changing market dynamics and increased capabilities provided by rich media channels, such as RCS and OTT messaging apps. High prices of SMS termination and fraud over SMS networks have driven enterprises to explore other channels, and this has led to more interest for promotional activity rather than transaction messaging.
- The growing availability of APIs has also led many CPaaS vendors to offer comprehensive mobile identity services. Indeed, digital identity provider, Glide Identity, announced at this year's event a partnership with Google Cloud for identity APIs, expanding on partnerships with operators such as Telefónica, Vodafone, Deutsche Telekom and T-Mobile. Indeed, CPaaS players will be providing mobile identity services to the same companies which, in the past, they have provided SMS termination to.

A key driver of these shifts has been the growing demand from B2C enterprises for interactive customer experiences, either through conversational AI or chatbots, with the average customer today expecting companies they use to offer these services.

Figure 2: Global Number of Companies Leveraging Conversational AI (m), 2020-2029



Source: Juniper Research

There will continue to be a considerable rise in the number of B2C companies using conversational AI for customer interactions. Overall, we expect more CPaaS players to reposition their services, moving away from the bridge between operator networks and enterprises, to working more directly with the enterprises themselves; with AI becoming a core component of their technology stack.

5. Mitigating Telecoms Fraud Requires Specialist Third Parties to Tackle Evolving Tactics More Than Ever

Fraud continues to be a persistent and evolving threat; a continual game of cat-and-mouse between telecoms stakeholders and fraudulent players looking to exploit operator channels through increasingly innovative means. This fraud occurs over various channels, such as roaming, messaging and voice. There were notable announcements at the event this year, including:

- GSMA's 'Scam Signal' Tool: The GSMA, in collaboration with UK Finance, introduced a new tool called 'Scam Signal'. This service is designed to detect signs of phone-based fraud, particularly when scammers attempt to trick customers into authorising transactions on their mobile banking apps.
- Honor's AI Deepfake Detection Tool: Chinese smartphone maker Honor showcased a new tool that allows its smartphones to detect deepfakes—deceptive AI-generated images and videos. Users can request verification of content with a single click, and the AI tool claims to detect fakes with 99% accuracy.

Whilst the industry has invested heavily in AI-based fraud detection and mitigation solutions over the last decade, there has been a substantial rise in the use of AI by fraudulent players to benefit monetarily, such as voice cloning, vishing, call forwarding, and international revenue sharing fraud (IRSF). Additionally, the wide array of fraudulent tactics and the sizeable amount of traffic over telecoms networks makes detecting and mitigating fraud more efficient with the use of AI.

So, Juniper Research expects a larger number of partnerships between network operators and AI specialists, for tackling the wide variety of prevalent fraud and, most importantly, mitigating the impacts on network users.

As network operators increasingly target enterprise use cases, it is essential that operators begin to consider enterprises, including small-to-medium enterprises (SMEs), as core customers when looking at maximising customer satisfaction.

About Juniper Research

JUNIPER® RESEARCH

Juniper Research has been providing essential market intelligence to the telecommunications and network operator industries for over two decades.

Our operators and providers portfolio comprises 30+ reports, covering everything from established technologies, such as CPaaS and Flash Calling, to emerging technologies, such as Chatbots and 5G Satellite Networks.

This level of coverage, together with our industry-leading client support programme and quarterly forecast updates, means that no matter how fast the market moves our clients never have to worry about being left behind.

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