



Fixed-Mobile Convergence

White Paper



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1. What is Fixed-Mobile Convergence?

Fixed-Mobile Convergence (FMC) unifies fixed line and mobile communication across locations and devices.¹ The term was coined in 2004 by the Fixed-Mobile Convergence Alliance (FMCA), defining it as 'a transition point in the telecommunications industry that will finally remove the distinctions between fixed and mobile networks, providing a superior experience to customers by creating seamless services using a combination of fixed broadband and local access wireless technologies to meet their needs in homes, offices, other buildings and on the go'.² The aim of FMC is to allow a single device to connect to, and seamlessly switch between wired and wireless networks. This convergence creates more efficient, and cost-effective communications solutions for enterprises of all sizes that reduce system maintenance and the number of devices required.³

In a converged world, the mobile/cell phone becomes an extension of an organization's private branch exchange (PBX). With a growing mobile workforce, employees rely on mobile/cell phones for business communications and accessing the full range of their company's voice services from any location. With FMC, employees can be reached on one number, whether calls are taken via a fixed line or a mobile device. This more efficient way of calling centralizes communication.⁴





1.1. What are the features of FMC?

1.1.1. Automatic voice handoff

With FMC, calls are automatically transferred from local or mobile networks or Wi-Fi, depending on signal strength. Calls are initiated to other networks as one signal becomes low and the two are seamlessly bridged. With no indication to the call participants, the conversation can continue with no interruptions.

1.1.2. Session redirection

Session redirection enables calls to move from one device to another. This is useful when a user takes a call on a desk phone but then needs to leave the office. By redirecting the session to their mobile device, the call can continue uninterrupted. This can be made possible through dual-mode devices that run applications so that calls can be forwarded to the device of choice, as well as by connecting calls via the cell network.

1.1.3. Single-number reach

With single-number reach, one number can reach a user across multiple devices, allowing employees to be more responsive to their clients. Single-number reach also enables a separation between work and personal calls, enabling users to have an office number for business contacts that will reach them on any device, which is separate from their personal number. With all calls anchored by the organization's PBX, businesses have greater control over communications, making compliance with industry regulations easier.¹ In the same way as session redirection, this is enabled through dual-mode devices as well as connecting calls via the cell network.

2. FMC and the telephony market

With the world of work becoming less tied to office hours and locations, the telephony market is moving towards increased connectivity. Reports have found that across the globe remote work is increasing: 2020 brings about a significant change with 50% of the UK workforce working remotely,⁵ 61% of the US transportation industry and 57% of the US IT industry now work remotely,⁶ and almost 70% of Australians work remotely each week.⁷ Telecommunications service providers are developing cloud-based solutions that can deliver optimum connectivity to this growing cohort of mobile workers.¹

Both consumer and enterprise mobile users are demanding more from their service providers. In response, unified communications solutions are being built to provide FMC to telephony customers. Gartner predicts that global UC spending will grow at a 2.6% compound annual growth rate to reach \$46.4 billion in 2023.¹³



2.1. FMC around the globe

FMC is, and will continue to be, an important long-term trend in the development of communications. No single provider can deliver FMC globally, so service providers must work together to provide coverage across mobile and fixed networks to provide FMC solutions to their user base.⁹

This work began in Europe in 2012 and has included mergers and acquisitions deals to combine networks and secure the coverage required to offer FMC to customers. In France, dominant market forces have achieved over 60% mobile penetration within the fixed

broadband base.¹⁰ FMC remains in the early stages, globally, meaning there are significant convergent growth opportunities for telecommunications players to take advantage.

Key factors in the development of FMC solutions include reliability and resistance. As networks advance, service continuity must be maintained. Security is also a vital consideration. A study by the European Commission recommends network security standards should be reviewed within a framework such as ISO 27001.⁹

3. Why do businesses need and want FMC?

With employees increasingly mobile: working from different locations within an office, as well as traveling to client and partner sites and events, and working from home, FMC provides a consistent experience. Users can switch from one device to another, depending on their environment: for example, using a mobile/cell phone on a train but their laptop at home.¹



3.1. Efficiency

FMC offers simplified communications that allow employees to be reached more easily. The ability to seamlessly move from fixed to mobile networks, and from deskphone to mobile device, means conversations can continue uninterrupted. Mobile devices become an extension of the PBX, with one set of communication tools used across an entire workforce, no matter how large.⁴

Businesses also increasingly want one portal or system to manage all of their communications from. FMC helps achieve this by bringing all of an organization's telephony together in a single place.

3.2. Convenience and reduced costs

With cloud-based FMC solutions, organizations of all sizes can benefit from deploying communications via an OpEx model. There are often minimal or no upfront costs and because the solution is consistent across all departments, locations, and devices within a business there is one set bill, one subscription, and one service to manage. This consistency can help businesses to better manage their finances, as there are no unexpected costs for maintenance or updates to prepare for or react to. Compared to separate fixed line and mobile billing, FMC solutions heavily reduce costs as mobile devices can call via the Wi-Fi network rather than incurring minute charges from a mobile plan.⁴



3.3. Greater compliance control

Employees increasingly rely on their cell phone as their primary voice communication tool. This means less compliance control for organizations. With FMC, mobile devices are covered by the same communications solution as fixed lines and so compliance measures can be applied to all devices.¹ Cloud-based call recording that is compatible with FMC solutions, such as Dubber, can capture calls made across all devices. This is key for compliance with the record keeping requirements of industry regulations such as MiFID II or Dodd-Frank.

3.4. Consistency across a business

With FMC, organizations can retain their existing PBX infrastructure, with the added benefits of single-number reach, centralized mailboxes, and consistent functionality across all devices. This includes additional services such as call recording and voice AI tools like Dubber. Contacts can be unified across devices without requiring a user to sync them. Users can choose the device they are most comfortable using, knowing the same PBX functionality such as hold, transfer, and call routing are available.¹

3.5. Improved responsiveness

With FMC, organizations can redirect calls to relevant contacts to ensure that important calls are never missed. Providing customers with a single number that can be used to reach someone on the first try positively impacts customer service providing reassurance and increasing brand loyalty.⁴

4. How do I get FMC for my business?

Enterprises can deploy FMC solutions from service providers, without the need for in-house IT support staff. Organizations can deploy the solution globally to all their sites and devices. Talk to your service provider about FMC to find out when they plan to launch services.

5. The future of FMC

Global deployments of FMC are expected to gain momentum throughout 2019 and 2020 with nationwide launches predicted to take from three years up to a decade to fully deploy. Operators including AT&T, Verizon Wireless and Deutsche Telekom are all launching FMC solutions alongside 5G. Analysts predict that providers will offer packages to their customers that bundle voice, messaging and internet with video and TV services as part of these solutions.¹¹

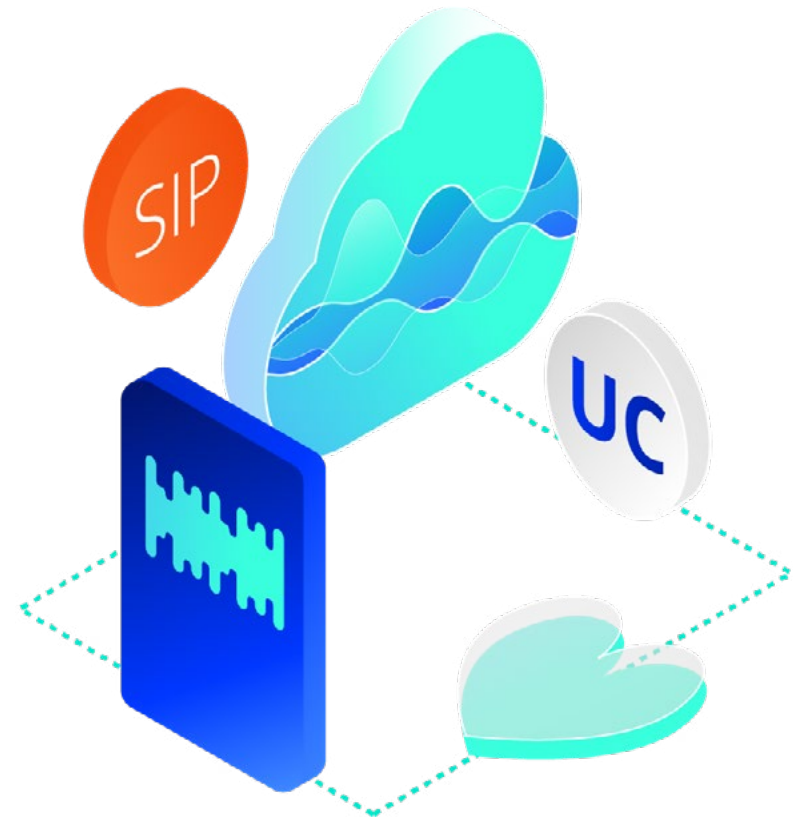
Upselling will be key to FMC, with cloud solutions that can integrate with FMC allowing service providers to differentiate their offering from the competition.¹¹ New go-to-market strategies will need to be created to unlock further growth opportunities to enhance the customer experience with a broad range of additional services. As FMC solutions consolidate billing, sales, marketing and customer care, service providers will be able to reduce costs and eventually integrate systems such as provisioning for further savings.¹²



6. Dubber and FMC

Telecommunications service providers are looking to stay ahead of the competition with more powerful, personalized services. FMC lends itself to integration with other cloud-based communication solutions. Dubber is a native cloud platform that is ready to integrate with FMC solutions and increase growth. As a robust, carrier-grade recording platform, Dubber opens up the potential to offer call recording to all telephony users, including UC, mobile and SIP Trunk users. This makes the Dubber platform ideal for FMC solutions, giving service providers the ability to securely record calls across all devices on their network. Dubber's API allows service providers to deploy Dubber to their customers automatically when they provision users on their phone system, and they can also configure users and display call recording content through their own systems.

Not only does the Dubber solution add immediate value to FMC solutions, it also future-proofs offerings as enterprises begin to demand tools to collect and utilize their voice data. With Dubber, enterprises of all sizes can start collecting voice data from interactions across all departments of the business. Dubber's voice AI service transcribes everyday phone calls into valuable data assets for both businesses and individuals. This service increases stickiness for customers due to the burden of moving suppliers and possibly losing recordings.





7. Conclusion

FMC unifies communications across fixed and mobile networks. This makes mobile devices an extension of an organization's PBX and brings a consistent solution to every user and device. With workers becoming increasingly mobile, the telephony market is moving towards cloud solutions that offer the same experience across a company. There are great opportunities for telecommunications service providers to reach out to enterprises with FMC solutions that meet their current and future requirements.

With FMC, organizations can benefit from and want the efficiency that comes from simplifying communications. Not only can businesses save money by consolidating their communications, but they also gain greater control for regulatory compliance. With one consistent solution across an entire enterprise, employees have better reachability. This can improve customer experience as well as productivity within a business.

Dubber's native cloud platform is primed to integrate with FMC solutions. The platform has the ability to record across fixed and mobile networks with security and scalability. This gives enterprises access to valuable, previously untapped, voice data. The Dubber solution enables service providers to differentiate themselves from the competition and future-proof their offering.

Dubber call recording is an ideal accompaniment to FMC solutions and can work in tandem to help organizations with their regulatory compliance. By capturing all voice data across fixed and mobile lines, enterprises can build vast data lakes that can provide actionable insights to identify opportunities for business improvements.

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