Smart calling — multi-device

One phone number for a more convenient user experience
Telecommunication service providers can evolve and provide a more flexible and attractive mobile voice service experience for their customers. This can be achieved by leveraging the mobile voice service in 4G (using VoLTE), which creates a foundation for interoperable consumer and enterprise communication services on different devices across 4G, Wi-Fi, and 5G.

Explore how service providers can monetize the multi-device voice service and increase revenue, reduce churn and attract new customers.
The concept of Smart Calling

Smart calling enables users to benefit from a more flexible voice and messaging service user experience on different types of smart devices; smartphones, smartwatches, etc.

Several devices, such as smartphones, smartwatches, laptops, and other voice-capable devices (using VoLTE), can be reached with the same mobile phone number (multi-device).

A single phone could also have several "virtual identities" (phone numbers) in addition to the primary identity (phone number) of the SIM card (or eSIM) — a multi-line service. The user can thus select by whom to be reached dependent on the role and time of the day (work, private, home, and several temporary phone numbers).

With the shared number functionality several people can be reached on the same number, e.g. a family number or a temporary team number.

The service provider messaging service (SMS/MMS) can be used on different devices and numbers.

Additional voice, communication, and messaging related use cases and services will also be developed in the future as part of the Smart Calling.

Multi-device user benefits

Be reachable via the mobile phone number on the device that suits each particular moment in life; at home, on the go, when sporting, when working.

The multi-device functionality supports parallel or serial ringing for all included devices. Users can also transfer calls between devices (pull an ongoing voice call to the preferred device). Thus, if you want to leave your smartphone at home, when going jogging, you can pull the call to your smartwatch and continue talking.
Service provider monetization of multi-device

Service providers could increase revenue, attract new users, and reduce churn by adding advanced voice calling capabilities for more types of devices, some examples are listed below and are exemplified in figure 2.

- Increase revenue by enabling voice calling on more types of devices, using the one number service, so users can be reached on multiple devices with the same number (and also transfer calls between devices). Up-sell the voice service on more devices on top of the existing bundle.
- Increase revenue by re-selling more devices, which also include voice calling capabilities
- Build brand value: Increase the relevance of the service provider voice and communication service by enabling it on many types of devices using one common phone number
- Improve operator stickiness once a user already has a subscription

As an example, service providers have increased monthly revenue by introducing smartwatches, which also have voice calling capabilities, that improve the user value of such a device. The average global monthly fee is around 6 USD for high-end smartwatches, with a global variation between markets of 3-10 dollars.
Only service providers can enable smart calling in a mobile network

The solution used in a mobile network to deliver voice services in 4G, 5G, and Wi-Fi is the IP Multimedia Subsystem (IMS), another industry name for this technology is Voice over LTE (VoLTE). It enables service providers to offer high-quality voice and communication services, simultaneously with mobile broadband data services on smartphones and many other devices, across LTE/4G, Wi-Fi, and 5G.

Only service providers can deliver these types of services over a mobile network with:

- **High-quality voice everywhere:** even if the network is congested with mobile data traffic (surfing, streaming, etc.), the voice service will always be prioritized in the network to provide high-quality voice service. The voice calls can be moved seamlessly between mobile accesses, over 4G, Wi-Fi, and 5G, to provide uninterrupted voice calls when the user moves between cell towers.

- **The mobile phone number is the unique identity that users can be reached on, and can easily call anyone who has a phone number.**

- **Transfer ongoing calls between different multi-device capable devices, across 4G, Wi-Fi, and 5G.**
What do I need in my mobile network to launch multi-device voice calling to my customers?

Multi-device requires implementation of Voice over LTE (VoLTE, where the IP Multimedia Subsystem (IMS) delivers the telephony services) in your mobile network. To enable voice calls on more devices, you need new software on top of your IMS infrastructure.

- Ubiquitous LTE coverage in your market (LTE, EPC etc.)
- **Ericsson IMS** (VoLTE) with new software features in MTAS ([Multimedia Telephony Application Server](#)) and SBC ([Session Border Controller](#))
- Device onboarding with **Ericsson Secure Entitlement Server**
- Device software application

IMS will also be used to deliver 5G voice services. Thus, the multi-device functionality will work in future 5G networks as well.

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**Find out more about VoLTE**

If you have not already deployed VoLTE in your network, find out how to do this easily with Ericsson’s cloud-based solutions. Also, find more information about the generic benefits and technology for [VoLTE](#).

VoLTE will also be used to enable voice calls in 5G networks, including new innovative services. Find out more about the technical network evolution aspects of 5G voice, as well as inspiration on new 5G innovations for voice and communication services for consumers, business and enterprises: [Learn about mobile network evolution aspects of voice over 5G](#).

More about Ericsson’s VoLTE solutions and products: [Cloud VoLTE and Evolved Communication](#) VoLTE will also be used to enable high-quality business and enterprise services. Find more here: [Enterprise communication](#).
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