Why VoLTE means services to monetize

The use cases for VoLTE are growing, fueled by interest in devices with voice capabilities, voice enhanced IoT services and unified communication services. We have compiled a list of addressable use cases driven by VoLTE functionality. Each use case is listed and briefly described here and you can also see live videos of many of these examples.

ericsson.com/VoLTE
Accelerating global expansion of VoLTE

VoLTE growing fast in all regions

Service providers continue to evolve their voice networks to VoLTE-based services. These have now been launched in more than 200 networks in over 90 countries. VoLTE services are being deployed using cloud technologies, to enable cost-efficient network operations, easier capacity scaling and faster service deployment. VoLTE subscriptions, estimated at 2.1 billion at the end of 2019, are projected to reach 6.4 billion by the end of 2025, and to account for more than 85 percent of combined LTE and 5G subscriptions.

VoLTE, the foundation for enabling 5G voice calls

VoLTE will also be the foundation for enabling 5G voice calls, SMS and new types of communication services on various 5G devices. This will be deployed stepwise in 4G and 5G networks, using LTE-NR dual connectivity, Evolved Packet System fallback and voice over NR. New use case uptake and device availability There are more than 2,500 VoLTE-enabled device models. The latest models also include the most recent high-definition voice codec Enhanced Voice Services (EVS). This provides improved audio and music quality within calls on VoLTE capable devices, including 5G smartphones, as well as better call reliability across LTE and Wi-Fi. More than 165 EVS-capable device models are available, and EVS has been deployed by 29 service providers.

VoLTE, enabling new use cases

The first service providers have now launched voice calling capabilities on smart speakers using the same mobile phone number as on a smartphone. This builds on the VoLTE multi-device network capabilities, where several devices can be tied to the same phone number, such as phones, cellular smart watches, smart speakers and other devices. There are now more than 80 service provider networks with cellular smartwatches enabled with voice services. Video calling over LTE (ViLTE) is now provided in around 20 networks, and there are 395 device models available. Other services based on VoLTE include additional phone lines on the same phone, group numbers, different types of enterprise collaboration services in combination with mobile HD voice, and voice in IoT devices. 5G-related service innovations for consumers, enterprises and industries are being explored, including combinations with AR and VR, and interactive calling.

1-4 GSA (Oct 2019)
Industry Players working together

**IoT devices with voice support**
An example of an area to explore further is voice services in an IoT context. This is an area where operators can monetize VoLTE via enterprises. VoLTE for Cat-M1 is now just starting to emerge on the market, in infrastructure as well as in device chipsets, and as a next step, it will be incorporated in all kinds of IoT devices where a basic voice calling capability would make business sense.

**Improved customer service for coffee drinkers**
For instance, take the faulty coffee machine. Sometimes there is a phone number on the machine for calling a service center, but honestly, did you ever pick up your phone and make that call? Probably not. But what if there instead was a simple “voice button” on the coffee machine labelled “Push here to call the service center”? Well, maybe that is something you would do if you reach the service center staff immediately, they instantly know which machine you are calling from, and you just need to state what the problem is.

This type of IoT voice button, enabled with Cat-M1 and VoLTE support could be integrated in all the coffee supplier’s machines. This is an example of improved business efficiency; the coffee supplier can quickly repair any broken machine and sell more coffee.

**The quality of a call**
When it comes to the quality of a call, the importance of a good quality microphone, loudspeaker, and audio processing is quite often underestimated and needs to be considered. With VoLTE the chances of good quality are high, if combined with good device quality, even though VoLTE over Cat-M1 supports only AMR-NB (narrowband voice, as in most mobile phones today that have not launched wideband HD voice [AMR-WB]) due to battery and bandwidth constraints.

**Industry players working together**
Key to enabling and monetizing these kinds of new use cases is widespread VoLTE coverage and the proliferation of cost-efficient IoT devices with Cat-M1 and VoLTE support, as well as other VoLTE-enabled devices such as tablets, wearables, and so on. In order to speed up this process, the industry players—operators, infrastructure suppliers, and device and chipset vendors—need to work together.

Key for success will be creation of new use cases for consumers and business users. The focus here will be use cases providing value through convenience. Some of these new use cases will require industry cooperation/ partnerships and some can be created by the Service Provider itself. Now, it is time to become creative both in terms of use cases as well as in business models. The technology is here, use it.
Are you aware of everything you can do with your VoLTE network?

**Improve voice quality for VoLTE enabled IoT devices**

IoT device enhanced with a Cat-M1 module that supports VoLTE and narrowband voice (AMR-NB). Example: device vendor Jabra, developing high-end loudspeakers and other devices. A commercial voice button could be used with vending machines, and coffee machines to place orders and call for service etc.  

*How to improve voice quality for VoLTE-enabled IoT devices*

*The VoLTE market and new devices to monetize*

**Voice communication in a long life-time device industry context**

Wide coverage, low battery, small form factor and low-price modules supporting VoLTE calls. Example: Telit, a global leader in IoT and their customer Safeline a company delivering elevator communication panels.  

*How to expand the device eco system for VoLTE over Cat-M1*

**Combining HD voice calls with intuitive browser-based visual interaction**

By combining VoLTE and WebRTC, a mobile operator could provide a mashup communication services to address small businesses with a better service they can utilize when communicating with their customers.  

Example: any flower shop, a bakery, or an on-call doctor  

*How to improve the voice service experience for small business*

**Connected devices to grow revenues**

As the smart speaker market has taken off – with millions of devices sold worldwide – regular voice calling could become a new mainstream service once service providers start introducing this in their networks.  

*Smart speakers could also be a way of modernizing fixed voice services* in homes, by introducing a modern home device that the whole family can receive calls on. An Ericsson consumer lab study last year revealed that 94% of the Smartphone users in UK, US, Denmark, Hongkong and Japan wanted to connect one or more additional devices to their primary subscription.  

**Interactive calling over 5G – how does it work?**

5G is being deployed, and new user values include higher data-speeds and low latency services for consumers, businesses and industries on smartphones and many other types of devices. But 5G also means that today’s mobile voice service could change radically. This is achieved with the Ericsson innovation concept ‘interactive calling’ which is built on IMS data channels. Find out how this works in a 5G network.  

**Customer case: Learn from a real case how to deploy VoLTE in weeks**

Deploying IMS for VoLTE in service provider networks has been a quite complex undertaking so far. Now you can deploy it in just weeks by using Ericsson’s industrialized cloud-based solutions, which reduce VoLTE deployment time considerably. And you can see an example of a detailed customer case where a deployment was done in just a few weeks.
Are you aware of everything you can do with your VoLTE network?

Cloud Communication to accelerate your business

To become the preferred partner for enterprises and business users, service providers need to quickly and proactively release compelling services on top of their network assets. Find out more how cloud communication to accelerate your business.

Making voice call on smart speakers

VoLTE rolled out in mobile operators’ network’s enabling multi-device voice-calling services

Example: use same phone number on your mobile phone also on your smart speaker, smart watch, etc.

How to make voice calls on smart speakers via VoLTE network

Use VoLTE for text-to-speech and speech-to-text capabilities

VoLTE rolled out in mobile operators’ network’s enabling multi-device voice-calling services

Example: send and receive SMS from smart speakers

Messaging via smart speakers

Multiple devices linked to a single phone number

VoLTE rolled out in mobile operators’ network’s enabling multi-SIM and Multi-device capable mobile devices. The same mobile phone number is used on all devices that include SIM cards (physical SIM or eSIM)

Example: Be reached on your smartphone, tablet and laptop using your mobile phone number. You can also transfer calls between these devices.

Example: Smartwatch which makes it possible to leave the smartphone behind for example while jogging.

Multi-SIM: One number, multiple devices

How to make voice calls on smart speakers and other devices via VoLTE network
How Ericsson can support you deploying VoLTE

People are changing the way they interact with technology as it becomes more intuitive. New services with voice communication are growing fast. Service providers can partner with Ericsson to simplify, expand, and scale their business, and address these new and fast-growing use cases for VoLTE based communication services.

**Be first to market with innovations through partnerships**
The Ericsson VoLTE offering enables evolved end-user communication using a multitude of innovations from eco-system partners on a great variety of devices, running over any access technology and dynamically using the mobile phone number identities that the user wants to be reachable on.

**Maximize the cloud potential**
The Ericsson VoLTE offering is fully optimized for cloud deployment, agnostic to the underlying infrastructure for both media and control plane and includes critical automation to simplify creation and maintenance of end user services.

**Deploy VoLTE in weeks**
VoLTE solutions can be deployed into a multi-vendor network in weeks through industrialized delivery and test capabilities.

**Expand service provider offerings**
Service providers can build on their Ericsson VoLTE network and expand with enterprise communication solutions, building on unified communication, WebRTC and Cat-M1 for IoT voice services, developed together with partners. Ericsson’s VoLTE solutions support 5G voice and future innovative communication services for consumers and enterprise users.

[Explore more on VoLTE](www.ericsson.com/VoLTE)
[Get in touch with Ericsson about VoLTE](www.ericsson.com/VoLTE)