



# Video Calls Speed Up Damage Assessment

Enhanced video calls streamline the processing of insurance claims in China

## Highlights

- Auto insurers are beginning to use video calling to speed up damage assessment
- The process can be reduced from two hours to five minutes, cutting costs in half
- Concept could also benefit transportation, e-commerce, logistics and manufacturing
- The new functionality is underpinned by Huawei's cloud-native New Calling platform

In the wake of a road accident, auto insurers need a clear picture of what happened and how much damage was done. Historically, insurance companies have sent out an expert to assess the damage in person, which costs an average of US\$50 for each assessment in China.

To reduce the time it takes to assess the damage, and the costs involved, China's insurance providers are beginning to harness the capabilities of China Mobile's video calling service (launched in July 2022) to speed up the assessment process. The operator's advanced video calling service is underpinned by Huawei's cloud-native New Calling platform.

Jingyou Technology and Huawei have developed a system that enables an insurance company to directly initiate a video call to a customer who has been involved in an incident. After the customer answers the video call, the system can guide them to take photos of the damaged areas, upload certificates, and generate quotations for the repair costs. In this way, the insurance damage assessment process can be reduced from two hours to five minutes, cutting costs in half and improving efficiency, according to Feng Han, executive director of Jingyou Technology.

## Remote Vehicle Damage Assessment: Closed-loop services during calls, reducing costs and increasing efficiency

### Requirements and pain points for damage assessment



Vehicle insurance reporting orders

**70M** orders/year in China

**Cost \$50 /order**

Traditional method (On-site) :  
more than **10 steps** and **2 hours**

APP/Applet method have not seen wide uptake by users



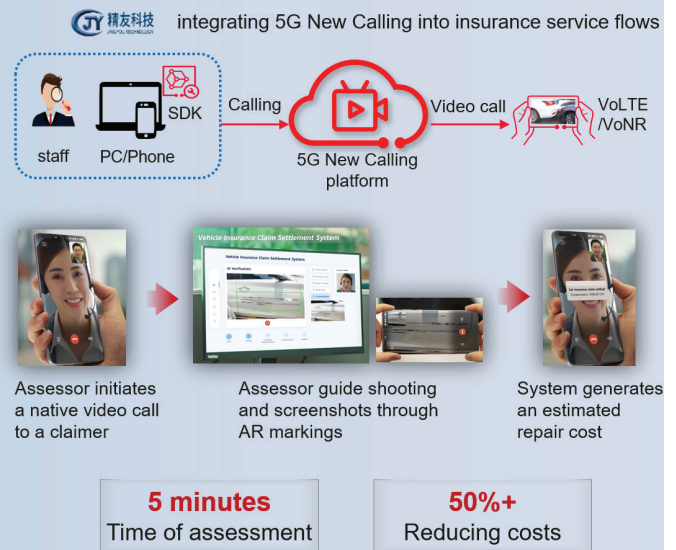
**Complicated procedure**

**Low credibility**

**Privacy concerns**

Most assessments still require onsite physical inspection

### Remote damage assessment improving efficiency



China Mobile and other operators could earn revenues by charging the insurance company for a premium video call, supported by high-bandwidth connectivity and a data channel that can be used for value-added features, such as augmented reality labels and marking, as well as digital signatures.

There is potentially a large market for this kind of service. In China, 70 million car damage assessment claims are submitted each year. Huawei says some insurance companies are now using the new solution commercially, albeit at small scale. It expects adoption to rise as the network and video are optimised for this kind of use case, which requires crisp images to enable automated image recognition systems to accurately assess the damage.

Although insurance companies have previously tried to streamline the assessment process by rolling out apps and mini-programmes that customers can use to report damage, Huawei says these solutions have not seen wide uptake. They tend to involve complex submission procedures, in which the customer needs to download software, register, and add friends. The result is low levels of reliability, as well as the risk of data leakages, according to Huawei, meaning many insurance providers still rely on in-person assessments by their own staff.

More broadly, a wide range of enterprises may benefit from being able to seamlessly complete an entire transaction process over a video call. They don't want their customers to have to download various apps and go through long and complex processes, such as registration and authentication, which impede service efficiency.

Huawei believes enhanced video calls could also be used by equipment and appliance vendors to provide remote installation and maintenance guidance, helping them reduce costs and improve efficiency. Enhanced video calls could be used, for example, to support the remote assembly of furniture and remote maintenance of electrical appliances. China Mobile has tested the technology to help customers maintain and adjust their home broadband connection, for example. There are also potential use cases in transportation, e-commerce, logistics and manufacturing.

During a roundtable discussion at MWC Shanghai, Feng Han, executive director of Jingyou Technology, said his company intends to promote the use of the technology in legal cases, financial services for identity authentication, and other scenarios. The video of the aftermath of an accident could be used in court, for example to help establish responsibility.

### Integrating enhanced video calls into business processes

An insurance company can use the New Calling software development kit (SDK) to integrate enhanced video calling into its vehicle loss assessment software. The New Calling platform is specifically designed to support ultra HD video and interactive features via a dedicated data channel. During the video call with the customer, the



insurance company can use the data channel to deliver digital labels (a form of augmented reality) that can guide the claimant through the process by indicating what to film and photograph, and how to complete the insurance loss assessment service process.

To use the service, the end customer needs a ViLTE/ViNR-capable device. ViLTE (video over LTE) is an extension of VoLTE (voice over LTE) technology. China Mobile estimates that about 80% of its customers have a compatible device. Although Apple's iPhones don't yet support telcos' video calling services, Android-based smartphones generally support these capabilities.

China's three leading operators all launched 5G ultra-HD video calling in May 2022. The trio have included video calling services in their service packages, so that video calling shares the minutes-of-use quota in the service packages with audio calling and is not separately charged.

Huawei says that other Chinese operators also have plans to use video calling to support the processing of insurance claims. Many operators outside China are also very interested in rolling out a similar service, once they have completed the necessary interworking and a related ecosystem is in place, according to Hugh Wang, the Vice President of CS & IMS domain of Huawei. "There was a lot of interest from operators at both MWC Barcelona and MWC Shanghai and we are likely to see deployments in 2024," he adds.

Globally, VoLTE penetration is rising rapidly. GSMA Intelligence forecasts that there will be nearly 400 operators offering commercial VoLTE services by the end of 2025. Together, VoLTE and Vo5G will

reach more than 5 billion connections globally by 2025, up from 2.2 billion in 2019, according to GSMA researchers. That would represent nearly 60% of mobile connections (excluding licensed cellular IoT), compared to around 30% in 2019.

## 5G brings new enhancements to IMS

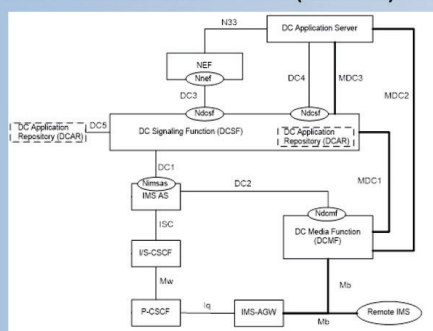
While New Calling services could be deployed on 4G VoLTE networks, China Mobile is taking advantage of 5G enhancements to the IP multimedia subsystem (IMS) to enrich the user experience. China Mobile and Huawei say they have made a host of improvements in the IMS network architecture and systematically optimised network indicators, such as latency and resolution.

"5G New Calling is now one of China Mobile's strategic products," says Sun Shiwei, Deputy General Manager of Marketing Operations for China Mobile Group. "5G New Calling upgrades the traditional calling services by providing richer media and real-time in-call interaction, which brings a brand new user experience. We will enhance the collaboration with industry partners to accelerate the development of 5G New Calling in 2023."

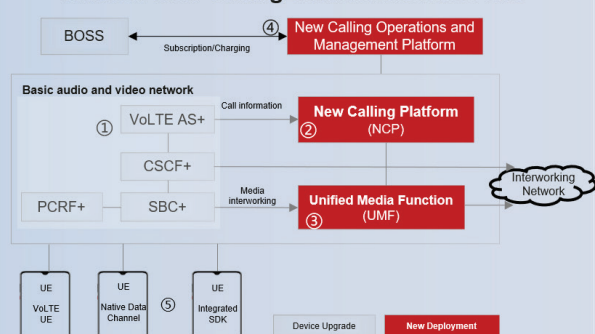
Huawei built a Unified Media Function (UMF), the New Calling Platform (NCP), and corresponding operations support systems on top of IMS (see chart). Huawei says the UMF provides media rendering and composing capabilities, empowering service innovation.

## New Calling Enables a Seamless Service Transition and Rapid Service Rollout

3GPP TR 23.700-87 V1.0.0 (2022-09) TR



Huawei New Calling Solution Architecture



### (1) Upgrading existing IMS NEs:

- The CSCF, SBC, PCRF, and VoLTE AS need to be upgraded to support DC registration, call, and QoS bearer.

### (2) NCP (New Calling Platform):

- NCP serves as a DCSF, DCAR and Exposure platform.
- Communication-based basic service platform
- Audio, video, and DC media channel control and management

### (3) UMF (Unified Media Function):

- DCMF manages (creates, deletes, copies, synthesizes, etc.) the media resources.
- Intelligence enhancement: image recognition, video synthesis, rendering...

### (4) New Calling Operations and Management Platform:

- Management platform for value-added services such as fun calling etc.
- Third-party value-added application management

### (5) New calling terminal:

- Native DC-capable terminal: The chip is upgraded.
- The integrated SDK provides the Web view framework and supports DC-related signaling and media protocol stacks.

Building a Fully Connected, Intelligent World





Telcos' IMS-based video calling services could have advantages over so-called over-the-top (OTT) alternatives. "OTT applications have several shortcomings such as unstable service quality and complex installation and registration processes," says Huawei. "In contrast, operators provide services based on user numbers, freeing users from complex installation and registration processes. In addition, operators use dedicated channels on IMS to provide services. As such, users can enjoy services with a determined service quality."

For Huawei, the speed of development of its New Calling services will rely on two aspects: the popularity of VoLTE/VoNR networks and the maturity of the ecosystem, which is comprised of chips, terminals, networks, services and industries. The company says New Calling services would benefit from broad availability of devices that are compatible with 3GPP TS 26.114, which defines a new IMS Data Channel architecture, and was standardised in March 2020. This architecture overlays a data channel upon existing IMS voice and video channels to meet data apps' requirements in terms of latency, bandwidth, and reliability.

Huawei says some leading operators are promoting this approach, and it expects the first compatible devices to become available during 2023, paving the way for new features. "Basic interaction functions, such as screen sharing and AR marking, will enrich service scenarios and remotely instruct the customer to install the device or rectify faults," Huawei adds. "This service effectively improves user satisfaction and service efficiency."

## Building a new architecture for telcos' communications services

In 2021, China Mobile and Huawei jointly proposed the establishment of the New Calling work group. At the 5G World Congress in August 2021, this work group was formally established and now has more than 10 members, including China Mobile, Huawei, Ericsson, Vivo, Xiaomi, and Zhanrui.

In December 2021, 3GPP initiated NG\_RTC in R18, which is conducting in-depth research on how to optimise the IMS data channel architecture and deploy IMS media plane as a service. The project clarifies that the media and control planes must be separated and a unified media plane must be adopted in the IMS data channel architecture, thereby simplifying the IMS media network architecture. Also in December 2021, the GSMA released a white paper describing the IMS data channel technology and its industry vision, and proposing requirements for IMS data channel-based communication services.

The new approach is designed to address issues that have held back telcos' video calling propositions in the past, such as cost, a lack of interoperability and network coverage, and limited device support. "In 4G, operators' ViLTE services are not widely used," says Huawei. "However, 5G brings great opportunities for operators to develop video calling services as essential services. Terminals that support video calls are becoming commonplace...Moreover, VoLTE roaming and cross-network interworking are gradually deployed. All of these changes lay a solid foundation for the large-scale commercial use of video calling."

Huawei says Vo5G facilitates stable, smooth, and crystal-clear video calling, while 5G UHD video calling outperforms OTT services by using dedicated channels to ensure optimal user experience. "Leading operators are looking for ways to innovate with voice and video, which has been a long time without innovation," concludes Hugh Wang. "New Calling gives end users a good chance to have a better experience."

All of these changes lay a solid foundation for the large-scale commercial use of video calling

**Sun Shiwei** - Deputy General Manager of Marketing Operations for China Mobile Group

## About the GSMA

The GSMA is a global organisation unifying the mobile ecosystem to discover, develop and deliver innovation foundational to positive business environments and societal change. Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. Representing mobile operators and organisations across the mobile ecosystem and adjacent industries, the GSMA delivers for its members across three broad pillars: Connectivity for Good, Industry Services and Solutions, and Outreach. This activity includes advancing policy, tackling today's biggest societal challenges, underpinning the technology and interoperability that make mobile work, and providing the world's largest platform to convene the mobile ecosystem at the MWC and M360 series of events.

GSMA is a membership-led organisation where members collaborate with industry peers and stakeholders, engage in influential discussions, and drive industry-wide initiatives that address the most pressing industry challenges and opportunities. As a GSMA Member, you'll have a seat at the table where decisions are made, specifications are developed, and the future of mobile telecommunications is shaped. Join a global community of like-minded professionals and organizations who share a common goal of advancing the mobile ecosystem for the benefit of billions of people worldwide.

Find out more: [gsma.com/membership](https://gsma.com/membership)

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Our vision is to unlock the full power of connectivity so that people, industry, and society thrive. This enables the mobile industry's mission: to connect everyone and everything to a better future.

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## About Huawei



Founded in 1987, Huawei is a leading global provider of information and communications technology (ICT) infrastructure and smart devices. We have 207,000 employees and operate in over 170 countries and regions, serving more than three billion people around the world. We are committed to bringing digital to every person, home and organization for a fully connected, intelligent world.

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