

CAMARA

THE TELCO GLOBAL API ALLIANCE

5G New Calling API

- China Mobile
- Contacts: dushenxiu@chinamobile.com

The concept and terminology of 5G New Calling



CAMARA
THE TELCO GLOBAL API ALLIANCE

What is 5G New Calling

- 5G New Calling (5GNC) refers to the **SERVICE NAME** of calling services in **5G ERA** and **BEYOND**. It is not a technical concept and the **5G network is not sufficient condition to deploy those services**.
- 5G New Calling services is a series of services based on technical specifications developed by 3GPP and GSMA, including **IMS Data Channel, Video/Voice over IMS**, i.e. NG.134, NG.114, TS23.228 etc. AI will also be introduced to provide the interactive experience.

What' s **NEW** on 5G New Calling:

- **NEW experience**: enhanced from the pure voice and video communication to a new experience of “Ultra-high-definition, intelligent, and interactive” .
- **NEW capabilities**: on the basis of voice and video communication, media and data interaction capabilities are integrated, and rich applications can be expanded based on calls.
- **NEW ecosystem**: embeds new calling capabilities with various industries, and provides innovative services to various industry in the form of “New Calling MiniAPPs” .

5G New Calling API Overview

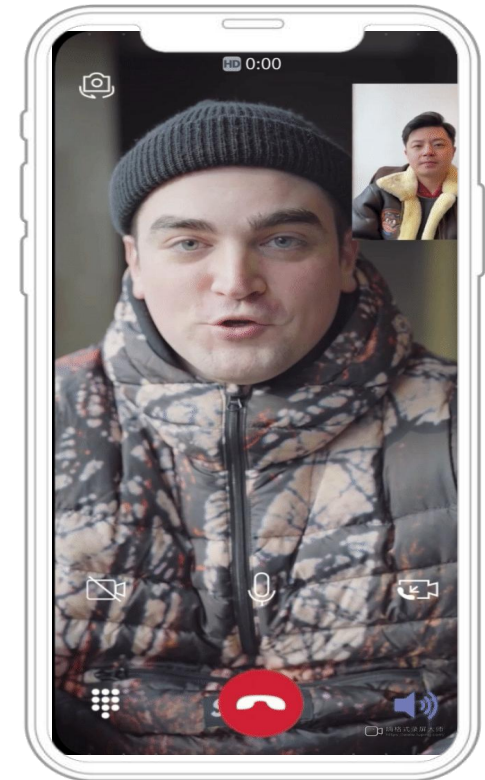


CAMARA
THE TELCO GLOBAL API ALLIANCE

Introduction

5G New Calling introduces a richer feature set beyond traditional voice and video calls. For example, it can convert spoken words into text and display it on the user's screen or directly send text to the user, etc. These features can be categorized based on their network requirements: those based on voice/video call and those requiring IMS Data Channel (DC, specified in 3GPP TS 26.114, TS 23.228 and GSMA NG.134), and the latter also necessitates terminal support for IMS DC. Although 5G New Calling could provide a rich variety of functions, at present, we hope to focus on a typical usage scenario first. Therefore, in this API family, we will focus on providing APIs for both voice/video call-based and IMS DC-based "AI Translation". Specifically, it mainly includes APIs for establishing a basic 5G New Calling connection and APIs for invoking the "AI translation" service.

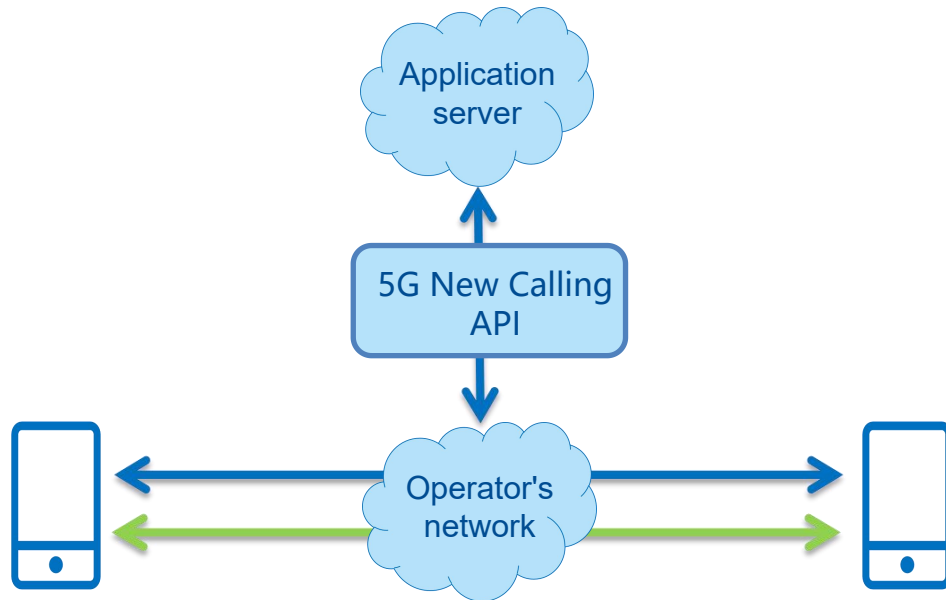
AI Translation



Provide cross-language translation to solve communication problems among people of different languages.



Workflow



5G New Calling API allows authorized application server to call specific capabilities of the operator's network to provide services for specified users. The following is a brief service scenario:

- The application server calls the API to subscribe to the call events of the specified users.
- After the subscription is completed, when these users make a call, the operator's network will inform the application server of this behavior.
- When the application server receives the notification, it will call the API to inform the operator's network that the "AI translation" function needs to be activated for this user.
- When the user actively stops the "AI translation" function or hangs up the call, the operator's network needs to call the API to inform the application server that the service for the current user has stopped.

API Family



CAMARA
THE TELCO GLOBAL API ALLIANCE

API name	API function
Call event subscription	The third-party server can subscribe to the call events of specified users from the operator's network through this API.
Call event notification	The operator's network notifies the third-party server of the call events of specified users through this API. Call events include: user initiates a call, user activates service and user closes service.
AI translation function invocation	The third-party server notifies the operator's network through this API to start the AI translation function for the specified user and indicates the relevant AI translation function settings for this user.
AI translation function termination	The third-party server notifies the operator's network through this API to stop the AI translation function for the specified user.

Appendix: What is 5G New Calling Mini-App



CAMARA
THE TELCO GLOBAL API ALLIANCE

The “New Calling Mini-App” is an application stored on the operator’s network and that is pushed to the user terminal during the call. Compared to regular applications, the New Calling Mini-App is more akin to WebApps currently being defined in the W3C Consortium. A New Calling Mini-App is generally invoked during a call or prior the completion of the call establishment to provide multiple features for users to improve their experience. The “New Calling Mini-Apps” rely on native features of the device, but unlike regular apps consumers are familiar with today, they do not require pre-installation, and are always up to date, secure, not tied to a specific ecosystem and make use of the binding between user identities and mobile number. In terms of security, the guidelines outlined in GSMA PRD NG.1344 are applicable to “New Calling Mini-Apps” that adhere to the IETF security framework and meet the necessary standards.

