



HUAWEI

System Provider Customer



Carrier Customer

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SPiRiT's IMS-ready Voice Engine Brings Superior Voice Quality to China Mobile's Enterprise Customers within Huawei's Unified Communications Solutions

INTRODUCTION

Presently, the necessity for transition to All-IP (NGN) network architecture has been widely accepted in the telecom world. Strategies of world leading carriers imply introduction of next-generation IP-based services and their integration with existing wireless and wireline services, to keep subscribers satisfied and ARPU on the float.

For operators planning to offer value-added IP services, IP Multimedia Subsystem (IMS) delivers long-term core networking efficiencies. IMS technology enables merging the mobile and Internet worlds and thus powers Unified Communications (UC). We are now on the verge of widespread Mobile UC technology adoption with IMS at the core, providing an ever-present access and allowing for even more attractive services. End users will be able to enjoy new services, anywhere, anytime; using whatever access devices they have available, whether they are on the move, at home or in the office.

IMS introduction is a significant step towards NGN All-IP networks. According to several research and advisory companies, IMS will become the dominant architecture to deliver VoIP by 2010. IMS is expected to provide mobile telephone operators with a forecasted \$300 billion in extra revenue over the next five years, according to ABI Research.

TeamSpirit® 3.0 Voice Engine PC, successfully integrated into Huawei's IMS/NGN-ready Unified Communications solution and deployed by the world's largest mobile carrier China Mobile, secured the best voice quality and enjoyed by millions of people worldwide.



CARRIER CUSTOMER

Since its official establishment in 2000 as a China Telecom spin-off, China Mobile Communications Corporation (CMCC or China Mobile for short) has become the largest mobile phone operator in China. It is also ranked the first in the world in terms of the network scale and the customer base with its 415 million customers (as of June 30, 2008). Besides the basic mobile services, the carrier provides value-added data, multimedia and IP telephony services. To keep the pace of the service offering extension and infrastructure development, China Mobile consistently implements the All-IP migration strategy. This enables CMCC to introduce various next-generation services in next-generation networks in a most manageable and cost-efficient manner.

SYSTEM PROVIDER CUSTOMER

Global telecom solutions provider Huawei Technologies is one of the fastest growing suppliers of mainstream Next Generation Network (NGN) solutions in the world, serving 31 of the world's top 50 operators. Huawei's products and solutions are deployed in over 100 countries and serve more than one billion users worldwide. Huawei's IMS-ready voice, video and data Unified Communication (UC) solutions are highly demanded by wireless and wireline operators currently migrating to IP networks, and play a critical role in helping them develop and deploy new services, while reducing operational costs.

CHALLENGES

To enable a Unified Communication service supporting PC-to-PC, PC-to-PSTN and PC-to-mobile calls within next-generation networks of China Mobile and its other carrier customers, Huawei needed to develop a range of IMS solutions. That constituted a new technological challenge for Huawei. First, the solution had to secure the highest voice quality to meet strict engineering and business requirements of the world's largest carrier, as well as to satisfy end users' expectation of tasty communication experience. It is especially crucial for Chinese networks where packet loss is a burning issue. Second, the voice solution was to support IMS to power numerous new multimedia services, such as blogs, social networks, and multiplayer online games.

SOLUTION

After considering several competitive solutions in the market, Huawei selected SPIRIT DSP, a globally recognized expert in voice and video processing, to address these challenges. SPIRIT’s IMS-ready solution, TeamSpirit® 3.0 Voice Engine PC, providing superior voice quality and supporting a broad range of IMS features and services successfully met all Huawei’s requirements based on the quality level set by its telecom customer.

The quality of speech is ensured by SPIRIT’s proprietary IP-MR™ codec that is highly scalable and can adapt to any bandwidth connection without transcoding. Its unique features allow operators to build different applications around it, while maintaining high speech quality and channel robustness.

TeamSpirit® successfully solves all the issues typically encountered in VoIP, such as packet loss and voice/video lip sync. This solution with its unique value-added features – including Windows-independent volume control for VoIP calls, call recording and playback, background music playback during VoIP calls – helped to meet the acceptance criteria of China Mobile and significantly contributed to general market success of Huawei’s Unified Communications solution.

RESULTS

TeamSpirit® 3.0 Voice Engine PC has been seamlessly integrated into eSpace, Huawei’s Unified Communications solution, in 2007 and then shortly deployed by China Mobile to provide a complete convergence service (PC-to-PC, PC-to-mobile and mobile-to-PC calling) to their business customers.

Huawei and SPIRIT-powered eSpace service provides enterprises with convergent communication and information services, including VoIP calls and instant conference via a PC client that shares the same number with a mobile phone. A subscriber can make calls or conferences with up to 20 participants, send SMS or MMS using the PC client in the same way as using a mobile phone.

eSpace customers benefit from the cutting-edge value-added services, and the service is rapidly gaining popularity: e.g. one of CCMC’s regional subsidiaries – Shanghai Mobile – already serves about 200K enterprise eSpace users by now.

Huawei’s UC solution encourages carriers to introduce new advanced IP services and new business models, and generate additional revenues on the enterprise market.

So, besides China Mobile, eSpace solution was deployed by other carriers: e.g. AIS in Thailand, Cell C in South Africa, MTN (Cote d’Ivoire), Orange (Madagascar), and more.

Huawei has named SPIRIT one of its key partners for future projects.

SUMMARY

CUSTOMER	CHALLENGE	SOLUTION	RESULTS
<p>Carrier: China Mobile</p> <p>System Provider: Huawei Technologies</p>	<p>Ensuring the highest voice quality for Huawei’s IMS-ready Unified Communications solution.</p>	<p>TeamSpirit® 3.0 Voice&Video Engine PC</p>	<p>TeamSpirit® 3.0 Voice&Video Engine PC secures world’s best voice quality in Huawei’s IMS/NGN-ready Unified Communications solutions, deployed, for instance, in China Mobile’s Unified Communication service.</p>