Why Telekom Malaysia chose Green Packet and GIPS to provide superior voice quality

Client: Telekom Malaysia

Products: Green Packet :
 SONbuddy Connect!

 Global IP Solutions (GIPS) :
 VoiceEngine™ PC
 VoiceEngine™ Mobile
 Voice MediationEngine

Introduction

Telekom Malaysia Berhad is the largest telecommunication company in Malaysia and the second largest in South East Asia. The company owns 'iTalk' - the number one pre-paid calling card in the country with over two million subscribers.

The 'iTalk Buddy' serves as a value added feature to iTalk, as it allows users to build and join online and offline community of buddies, families and friends. Users within this community are able to send messages, make PC-to-PC calls, share files and folders, share screens and Internet connections, produce and share blogs, upload and share photos and much more.

The platform on which "iTalk Buddy" runs is Green Packet's SONbuddy Connect!. It's a carrier-grade client-based solution that provides a whole new connectivity experience for consumers. It is specially designed for telecom operators and ISPs who are looking to offer additional services and value added benefits to their existing subscribers. The flexible platform can be tailor-made to suit the Telco's specific local needs, lifestyles and usage scenarios. The platform is also integrated into a Telco/ISP's billing server and application servers to allow billable premium services via the user's subscription account.
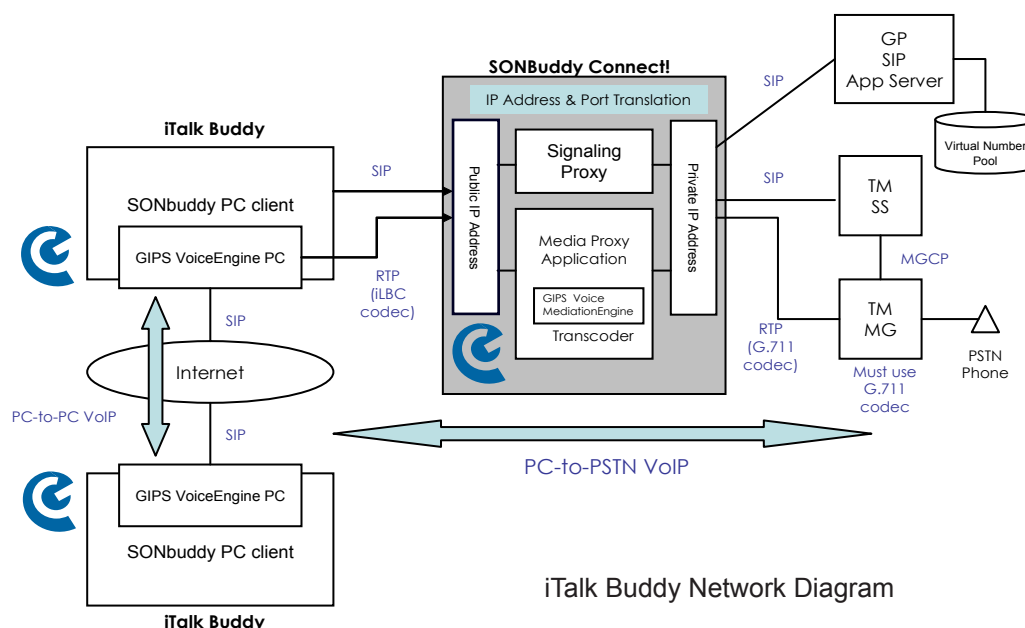
![gips GLOBAL IP SOLUTIONS logo]

![Greenpacket logo]

Telekom Malaysia is focused on retaining existing clients and growing its customer base by providing value added services like 'iTalk Buddy". Capturing elusive brand loyalty from the highly demanding youth market is a priority for the company.

Telekom Malaysia approached Green Packet, a Malaysian-based global developer of next generation mobile broadband network solutions, with the challenge of providing a carrier-grade solution for their existing pre-paid calling card targeting the youth market. *High quality voice*, *fast time-to-market*, and of course *price* were all critical benchmarks set by Telekom Malaysia.

To fulfill Telekom Malaysia's requirement Green Packet sought the help of GIPS for the voice quality. GIPS is the leading provider of IP multimedia processing technologies for real-time communications over packet networks.

Why Telecom Malaysia chose Green Packet and GIPS

GIPS and Green Packet had previously worked together to create solutions that were implemented into commercially successful product offerings. When Green Packet outlined Telekom Malaysia's need, GIPS was confident that its VoiceEngine familiy, both for PC and mobile in addition to its Voice MediationEngine, would meet the stringent requirements and benchmarks of Telekom Malaysia. Based on 'SONbuddy Connect!' Green Packet developed the 'iTalk Buddy' solution for Telekom Malaysia.
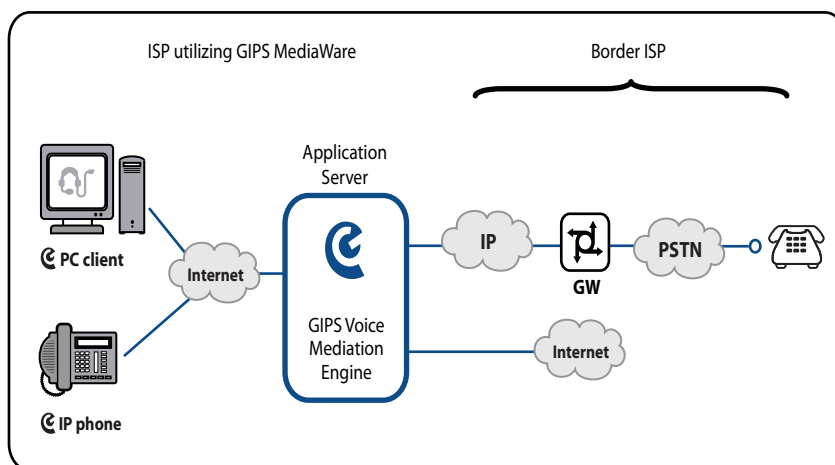

iTalk Buddy Network Diagram

Challenge

VoIP calls are only as good as the user's complete experience. However, quality habitually falls short at the stage between different networks, Malaysia's low Internet bandwidth makes this particularly problematic in connecting to the Public Switched Telephone Network (PSTN). In order for VoIP to be an effective solution that consumers are prepared to pay for, it is essential that voice quality is maintained throughout the entire communication chain. With GIPS Voice MediationEngine, a major difficulty in the communication chain is resolved by ensuring voice quality is improved when it travels over different networks. This has allowed Green Packet to maximize voice quality across both networks and platforms.

The Voice MediationEngine from GIPS is an advanced server based transcoding and dejittering solution that dramatically improves voice quality of VoIP calls terminated at the PSTN. It allows Telekom Malaysia's iTalk Buddy to provide consistent connectivity between networks, and enables high-quality conversation in both directions by maintaining call integrity over the IP network. Voice MediationEngine utilizes GIPS patented codecs, as well as 'NetEQ', its jitter buffer and error concealment module, while the call travels through the IP network. By managing jitter and delay on signals before they are transcoded and sent over the public Internet or PSTN, the solution greatly enhances the consumer's experience on the receiving side, even when a call is terminated in a border gateway or public narrowband network. Meanwhile, on the IP network side, users enjoy the same quality benefits gained by using high-quality GIPS codecs, rather than a standard such as G.729 or G.711.

Telekom Malaysia and its customers have an expectation of high standards when it comes to call quality, as the price for VoIP calls is only slightly lower than off-net calls. In addition, the feature of providing PSTN termination sets the iTalk Buddy solution apart from its competitors. By enabling a robust call capability, regardless of which network the customer is interacting with, GIPS enable both of these crucial elements to be resolved.
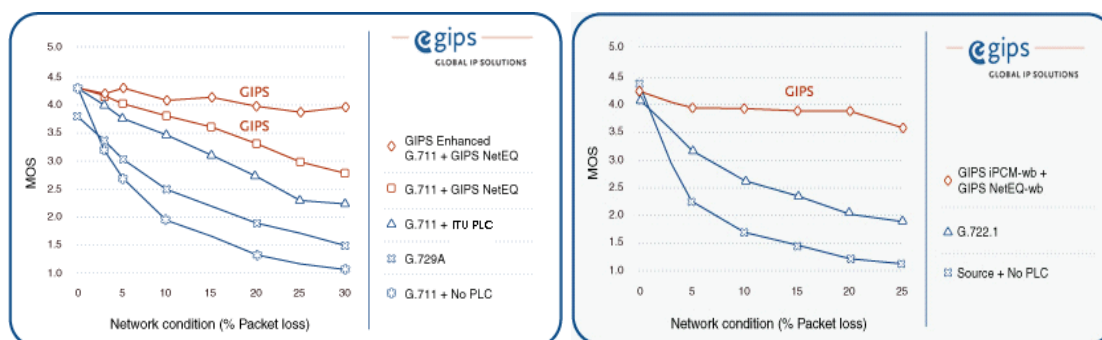
GIPS Voice MediationEngine, which supports all codecs and protocols, works in tandem with other GIPS products, such as VoiceEngine, to ensure that all parties in a VoIP call enjoy high-quality voice even when only one side is utilizing GIPS technology. The solution, which can be implemented on any standard server platform, is appropriate for mediation devices, gateways, or monitoring applications.

Results

Telekom Malaysia chose the iTalk Buddy solution and also added the iTalk pre-paid calling card. The company was happy with the excellent voice quality delivered and iTalk Buddy users have also shown satisfaction with the quality of service judging by the number of subscribers the service has attracted and continues to attract with a very low churn rate. GIPS and Green Packet have provided Telekom Malaysia with an effective solution to what appeared to be a potentially difficult problem.

With iTalk Buddy, Telekom Malaysia now has a tool to increase sales and expedite penetration into the targeted youth market segment. They can also increase margins from up-selling other complementary products, while differentiating themselves from competitors.

Comparison of voice quality under various network condition (upto 30% packet loss)

About Global IP Solutions

Global IP Solutions (GIPS) provides best-in-class voice and video processing in IP communications. GIPS enables its customers to deliver unmatched quality, with a faster time to market and less risk than alternative solutions. GIPS serves application developers, service providers, and network equipment vendors. Its customer list includes Nortel, Oracle, Samsung, WebEx, Yahoo!, AOL and other key players in the VoIP market. The company is headquartered in San Francisco with offices in Stockholm, Boston and Hong Kong. More information at www.gipscorp.com

For more information about Telekom Malaysia's iTalk Buddy please visit http://www.italkbuddy.com.my

For more information about Green Packet, visit http://www.greenpacket.com.