

In the past two years, VoIP (Voice over Internet Protocol) has migrated from a topic discussed only by computer nerds in online chatrooms to an item on the agenda in the boardrooms of multinationals. In the aftermath of Hurricane Katrina, it was shown that victims of the New Orleans disaster and their relatives were able to communicate much better via the Internet than through landlines, which were largely out of commission.

VoIP, which started off as an obscure technology allowing phone calls to be made through the Internet, has come of age. Thanks to clever software such as Skype, VoIP is now easily and widely used among the people of the western world, many of whom normally shun the use of new tech stuff. It is catching on like wildfire in Asia. Koreans are embracing it with gusto. And in five years China is set to become the biggest VoIP user nation on earth.

Consumers love VoIP because it is cheap, free even. Businesses have realised they ignore VoIP to their peril. VoIP offers them an edge over rivals that are still stuck to landlines, dedicated PABX and other old forms of interacting with the outside world.

Because phone calls are carried by VoIP over the Internet as data, just as e-mail is, companies can now give up the expensive habit of maintaining an infrastructure for their analogue phones. Switching to the digitalised VoIP reduces cost and increases productivity. This is great for any company, but crucial for those who spend a large sum keeping their mobile workers all over the world connected with headquarters.

VoIP is the forerunner of the convergence between IT and communication. Its potential is only just beginning to be realised. One of its benefits is allowing small businesses to offer voice and multimedia services to customers—something that until recently was so expensive it could only be undertaken by large firms.

The Internet was developed during the Cold War era to facilitate military communications amidst the disruptions and destruction of a wartime scenario. Its rigour is a boon to companies who must ensure their business operations do not come to a halt in times of man-made or natural disasters, from 9/11 to Sars to hurricanes, typhoons and tsunamis.

In a disaster, physical locations might have been rendered inaccessible, but communications with affected areas and remote stations could carry on in a VoIP environment. Today, VoIP has become an essential part of many companies' contingency plans.

VoIP-ing Out the Competition

Businesses would do well to switch to VoIP. DANIEL ANG counts the joys of Internet calling.

VoIP at a glance

WHAT IT IS

A way to communicate cheaply, or even free, over the Internet.

WHAT IT CAN DO TODAY

Phone calls. E-mail. Text messages (SMS), instant messaging (IM), video, movies. All virtually free between computer to computer with VoIP software, such as Skype. Very low charges between computers and landlines. New services have been offered for mobile phones.

WHY BUSINESSES WANT TO USE VOIP

Cost saving (lower charges), productivity gains (faster and real-time communication, even for field personnel), efficiency (two to 10 people can go into electronic conference without leaving their desks), better customer service (always on-call through instant messaging), reduce overheads (drastic drop in cost of help desk, fewer staff and fewer branch offices).

WHY GOVERNMENTS (AND MULTINATIONAL CORPORATIONS) WANT TO USE VOIP

It is the most reliable form of communication in a crisis. In the aftermath of Hurricane Katrina, dedicated voice lines were down, but communication through the Internet continued uninterrupted.

WHAT VOIP CAN DO IN THE FUTURE

Multimedia services delivered on the go, through the mobile phone or PDA. Instant communication becomes a way of life in the office and between vendors and customers. Real time collaboration among large groups of people regardless of geographical location is possible.

On the Internet, voice and data have merged. IP (Internet Protocol) communications now include not only VoIP, but also text messaging, instant messaging (IM), video calls, conference calls and collaborative tools such as 'white boarding'. This allows for greater operational efficiencies as information can be both accessed and updated anywhere, anytime which is critical to organisations that have offices worldwide.

This opens up new ways for companies to wow and woo their customers. CRM, customer relationship management, has taken on a whole new dimension. In the past, companies found it necessary to set up branch offices to be close to key customers. Today, all that is required is a VoIP phone placed right at the customer's location which gives them direct access to the service provider. Alternatively, IM is also another VoIP application which gives customers remote access and direct connectivity to the service provider regardless of different locations and time zones. Imagine going onto a website and clicking a button to talk to a person online or choosing to communicate via IM!

IM has immense potential as a productivity tool. In some firms, a login to the IM server now equates to clocking in at work. The "presence" feature also allows fellow colleagues or partners to not only collaborate in real-time but also exchange files and information across borders with minimal fuss. And for busy executives, IM also allows a virtual meeting or conference in cyberspace to be conducted simultaneously with a real-time meeting.

Besides the commercial gains, technical support, customer care and helpdesks are areas that benefit from adoption of such a scalable technol-

ogy. The user stands to gain from obtaining customer care from practically anywhere in any location where the cost is lowest (at that given time zone). Increasingly, as businesses operate with more sophistication, they will demand more than just pure communication.

In moving forward, new VoIP applications and services will continue to help enterprises provide customers with more choices and greater flexibility, which in turn will generate more businesses and profits. Not only will technological advancements change the way customers are serviced, companies which deploy these applications will experience greater internal efficiencies. VoIP has changed and will continue to change the way enterprises operate and will lead businesses to move beyond the boundaries and

explore new options to revolutionise their business operations.

Looking into the future we can expect revolutionary developments in the VoIP arena where user interface becomes simpler with more extensive offerings in choice and better cost benefits. For example, soon users will not be restricted to using their own service provider when making a mobile call or Internet call but ultimately have the option of selecting from a range of service providers.

Progressively, voice calls will no doubt become cheaper and perhaps one day, they may be completely free.

Today the ability to communicate is limited only by the imagination of the user, and with technology, the stuff of science fiction is now very much a reality. ☐

Growth of VoIP users in the US and China						
	2005	2006	2007	2008	2009	2010
US	3,000	6,000	12,000	19,000	27,000	35,000
China	0	2,000	7,000	15,000	25,000	40,000



Above: In Taipei, chatting on a Skype Internet phone plugged into a laptop is on the rise. Taiwanese telephone handset makers hope to ride the extraordinary success of the free Internet call service, offering users plug-in phones for their PCs and other Skype-compatible devices; President and CEO of eBay, Meg Whitman (left), with Niklas Zennstrom, CEO and co-founder of Skype. In September last year, eBay announced its intention to acquire Skype for about \$2.6 billion.