## IP technology provides an immediate advantage

## Alejandro Fuster

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**IP (Internet Protocol)** technology is a "solutions facilitator" related to communications over the Internet, which stands out due to the vast number of applications and services it offers: voice and data transmission, audio, network television, remote control, telemetry and computer-aided surveillance, among others. IP networks are based on voice and content transmission by packets or datagrams, regardless of the content of the information (voice, data, multimedia) and can therefore integrate them.

The cost saving can be up to 40% in comparison with traditional telephony, depending on the environment. The advantages of IP network platforms, which enable employees to communicate with each other and access the data they need, regardless of where they are located, makes this an indispensable management tool for companies.



- Alejandro Fuster was born in Madrid on 9th October 1969. He has held a higher degree in Telecommunications since 1992, awarded by the Universidad Politécnica de Madrid.
- In July 1994 he joined Alcatel to work in the field of pure engineering. Since then, he has been with Phillips as a pre-sales and support engineer, from where he is promoted to product manager. He worked on the introduction of DECT technology, on wireless connections for companies.
- Two years later he joined BT (British Telecom). The deregulation of telecommunications began in 1998, which produced many business opportunities. He joined COLT Telecom España in 2001 as Telco (telecommunications services) manager, and rose to Market Manager, combining the responsibilities of service and market management.



### What is IP (Internet Protocol) technology?

It is an exciting world. It offers present and future benefits, but what is more, immediate ones. It is a communications protocol: the Internet uses IP for its communications. That is what has made it so well-known and widespread. The Internet has universalised it, made it the communications standard, not only for companies but also for individuals. The difference between the residential and corporate worlds is the quality of the network on which the IP service itself is offered. Although an Internet IP service -which is a public network without defined and guaranteed quality parameters- is not the same thing as proprietary IP on an appropriately dimensioned, constantly updated and professional managed network.

### Should companies migrate to IP telephony?

Virtually all companies have IP, because they have access to the Internet. But frequently, communications are not standardised. A dual system exists where they still have telephone lines, for telephone traffic, and Internet lines for Internet traffic. Each service goes its own way and that is precisely one of the major advantages of IP technology. You can have all services using a single line and a single infrastructure. You can use Internet access, voice services, communicate with your offices to share information and business management, in other words all the company's communications converge into a single infrastructure, which is IP, hence its great value. Advantages: simplicity, quality, cost savings.

### And what does a service company dedicated to IP technology do?

We prepare the client, we design the solution, we implement it, we manage it and we maintain it. Ultimately we try to provide the client with a complete turnkey solution.

### And what about other major national telecommunications companies as competitors?

Yes, there is a lot of competition, especially because the window of opportunity for change is opening now. Most communications managers are already thinking that they are going to have to make changes at some point, if not this year then next year or the following year, but it is a reality which is there.

We have to start from the basis that companies will adopt IP because it is the best technology currently available, in addition to the fact that it makes

management costs much cheaper. I usually give an example: why do we use digital cameras? Because there is nothing else available today, although we know that this will change. It is the same thing with IP telephony. Frequently a company acquires IP technology because it is changing head office, building, or because it needs to remodel its facilities because there is no room for more lines using traditional technology. Sometimes the reason for the change is more mundane, the switchboard is too small.

### Can telecommunications and IT be integrated in the corporate world?

We are working towards it. For that you need to have a very well prepared Data Centre to accommodate IT environments. The corporate world is highly polarised on this. The installation of a data centre coincides with cities where centres are available, where the business model can be exploited to the full.





There are two ways of locating equipment associated with IP telephony; in the companies' own data processing centres or outsourcing the service to specialist companies. What are the advantages and disadvantages so that one can make a decision in that regard?

Everything depends on the level of externalisation that the company wants to achieve. Locating yourself in a data centre has one very clear advantage. Outsourcing to a specialist company means that you assume they will do it better, because they have the vocation, knowledge, means, professionals and ability to be on the lookout for new

opportunities or threats which may arise if there is a problem. They can react in real time and this is an obvious advantage. Now, if the company prefers to use its own resources, that is another option.

### Doesn't outsourcing services involve a risk, perhaps a loss of confidentiality of information?

Precisely the opposite occurs. When you outsource services is when you really guarantee the confidentiality of your company's information, because all information management processes and procedures are assured and standardised. In addition, there is a

question of approach: the telecommunications company is dedicated to telecommunications, while the client is dedicated to his business, to increasing his volume of business and his returns... One of the advantages is the merger between communications, the world of the data centre and IP technologies, because in the end everything converges. Ultimately you need a technology that is robust, reliable and secure. What we are seeing is a trend towards outsourcing.

## IP telephony services are still not very widespread. What is the projection for the next few years?

You are right, they are more advanced in other countries. The USA is a typical example because it has put much store by "call centres" which have acted as a driving force when it comes to adopting many new technologies. The English speaking world is a little ahead of the Latin world. In Spain, the development of broadband also arrived a little late and is one of the major catalysts of IP, as a broadband service.

# What advantages do applications associated with IP telephone have? Does IP telephony have an immediate impact on the way in which companies work?

IP provides convergence of services. In one and the same environment, you can operate multimedia and any application that combines audio, video, voice, data or archiving factors that you need. In reality, thanks to IP, you can do things you could not do before. For example, a call centre where the operators are working from home. These people work their stipulated hours and can work remotely. Imagine the cost saving this

means, both in terms of facilities and size of the work centre, as well as workload, because when there are traffic peaks, you can have more operators working thanks to the flexibility that this system provides. For example, with call recorder I can record all the calls received by those operators, regardless of where they are located, in their work centre or at home or even if they are taking the call on their mobile. One of the very useful applications that IP telephony provides is that of presence indicator. Whether the client is connected to the system or not, whether you want the calls forwarded to your mobile or not. In other words, you are connected all the time. On a production line, with a system like this, if you need someone because the line has stopped for some reason, you can always find them in real time and via the communication channel that has been stipulated and identified as a priority for their location (instantaneous messaging, fixed telephone, mobile, email, SMS) and that is vital for the business.

IP technology has a dual advantage. It

offers efficiency to the individual, the employee, the person and provides a profit to the organisation in all its processes. In the world of IP, you can integrate mobile telephony with fixed technology. I can now link my mobile to my fixed telephone and receive calls anywhere. The choice of which phone I use to answer is mine. It provides a productivity gain.

Any company can have its client base integrated with its telephony system very easily. When a call comes in from a client, you automatically see on the screen all his present and past interactions with you, the service contracted, whether he is happy or not, the type of policy, what risks it covers and whether he has received compensation, for example.

### Are service providers prepared for setting up IP connections for telephony services?

The technology has been available for a while, but its take-up has been slow, due to the fact that broadband access technologies were not fully developed. There was no broadband, or if there was, it was selective in terms of roll-out by area. Its development has been gradual and right now we can say that we have real broadband for the user and for the company. There are existing fibre networks. Also, via a copper loop (ordinary telephone line) we can offer broadband of up to 40 megabits per second, symmetrical, for corporate communications. We are ready and able to bring these services to users.

### Is a special effort required on the part of companies in order to adopt this type of technology?

To a certain extent, because, for example, in many companies it is often common to find two separate departments: the IT Department that deals with the computer infrastructure and the department that deals with telephony. The effort to coordinate both of them may be an issue to be resolved,

### **COLT Telecom**

With a business idea based on the roll-out and management of a latest generation fibre network within the City of London, in order to service financial companies, COLT Telecom (City of London Telecommunications) was created in 1992. COLT Telecom is currently a leading corporate telecommunications services operator with more than 50,000 customers.

It offers a full range of end to end communications services including voice, data and managed services. It has its own network in excess of 20,000 kilometres, which connects the metropolitan areas of 32 European cities, in 13 countries. Ongoing improvement, the Anglo Saxon legacy and being a global telecommunications player has meant that out of a total workforce of more than 4,000, it now has 600 employees in India.

COLT Telecom is listed on the London Stock Exchange. Its capital and reserves are in excess of 675 million Euros and its total billing in the region of 1,800 million Euros. It set up in Spain in 1998.

although in some companies the result can be fantastic. IP is a convergent technology which covers both services, providing efficiency, advantages and huge cost savings.

Is it not safer to have two networks, one traditional telephony and the other IP? Do you know to what extent these services are installed in the financial and insurance sectors?

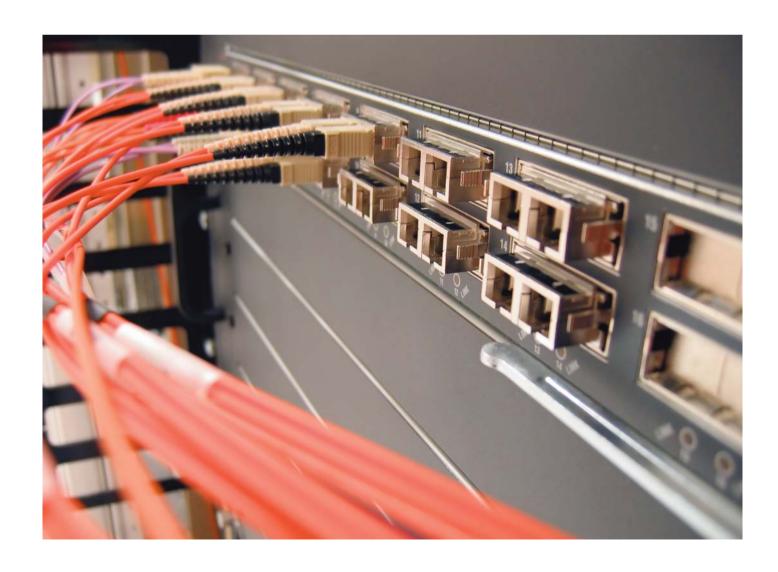
At the present time, it is not better to have two separate networks. IP technology is well enough developed to have all services on a single network. We are currently installing telephony systems connected directly to the

computer, which offer all kinds of services and advantages. With regard to the second question, there are major financial institutions in this country, such as the Banco de Santander and Caja Madrid and many others, which operate IP technology and therefore the advantages it brings are beyond all doubt. The financial and insurance sectors are among those that waited longest to incorporate this technology, but when they did adopt it, they did so in a massive way because the advantages it provides are essential to them.

As usually happens when the use of a technology is rolled out, the technology that will replace it already exists. In this regard, what technology

### will take over from IP telephony? What will it consist of?

That's usually the case. We are talking about the Ethernet, which has been widely used since the 80s within the LAN environment (within an office) connecting computers in a local area network. And what happened was that this technology, which was only used within the office, spread outside the office with the result that you now use the same technology to link two offices as if they were one and the same. It is a very simple, reliable, dynamic, easily managed microenvironment, because it is based on a well-known and above all very cheap technology. There are many Ethernet





### IP, an integrated communication technology forging ahead

Due to its great flexibility in terms of uses and applications, IP (Internet Protocol) is the technology of the moment. Remote control, telemetry, computer-aided surveillance, data and file management, etc. are possible thanks to this communication protocol that uses the Internet. Voice transmission, known as Voice over IP, or VoIP, is about to replace traditional telephony. It is based on a technology that began experimentally in 1973, as an Experimental Voice Protocol Network, developed by ARPANET, although IP telephony, as it is known today, dates back to 1996, when the first standard (H.323), was published by the ITU-T (International Telecommunications Union). The success of VoIP basically lies in the fact that it is free or cheap. The maintenance and management cost savings that can be achieved by combining voice and data networks into a single network are obvious, as well as facilitating mobility.

According to studies carried out by various consultants, predictions on the increase of IP technology are very positive. Gartner Group expects sales of IP telephones to increase by about 40% over the next few years, while in Spain IDC believes that 2007 equipment sales could have been in excess of 15 million Euros. Deloitte highlights cost reduction and reliability as reasons why companies are adopting this technology.

cards throughout the world that will supplement IP technology. You can have IP communications on lines that work under Ethernet, which will provide flexibility that the existing technologies do not offer. That is already being marketed and is the business line that has been growing fastest in our company over the last few years. I previously mentioned the convergence of IP and communications environments because it is precisely that technology that will enable you to combine those two worlds.

If you had to place Spain among the technologically advanced countries in terms of communications, where would we be compared to our European partners?

There are still clear differences between the countries of Northern and Southern Europe. You only need to look at statistics for Internet penetration in Spanish society or the number of PCs per inhabitant to realise that we still have a long way to go.

Obviously, there are other countries behind us, but we still have much room for improvement.

Progressive regulatory harmonisation,

as well as technological development itself, is clearly making the situations in various European countries converge. But we still have work in front of us. Undoubtedly.

