

IP for everything already today

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IP and internet is on all agendas today, most of us are already hooked users in one way or the other. But will everything run on IP soon? Let's answer that question in a three of steps.

1. Data

Most certainly! We already today see that most of our data is carried over intranet/extranet and internet. The IP protocol has become the de facto standard.

2. Entertainment, music and video

The development is moving fast and streaming media will be the future. Copyright and royalty issues might present some road bumps but the direction is clear.

3. VoIP or "IP telephony"

Here the picture is much more complex. IP telephony providers like Skype will drive the use of internet for ad-hoc voice communication as a complement to chat and email. Many people will still have a fixed line or a mobile phone as their base for telephony. In many areas IP telephony will be offered over the fixed network as a cheaper alternative to traditional telephony. The result is probably still that the PSTN (Public Switched Telephone Network) as we know it today will live for quite some years to come.

When we look at enterprise telephony the picture is different. The development of good IP network is strong and many enterprises have high quality LAN/WAN networks in place where VoIP can be transported at a low additional cost.

VoIP will however not come overnight even to enterprises with good networks. There is a certain hype today around VoIP, when that has calmed down, the deployment will be governed by business cases and pay-back times.

The first areas to use VoIP are most probable connection to remote offices and call centres where the cost advantage is obvious and the IP network is needed anyway. Many enterprises will connect their different sites over IP even if the traditional PBX is kept.

The "Big Bang" scenario where all telecommunication is switched over to IP over night will not be very common except for greenfield sites. VoIP can be deployed with a sensible and well prepared migration. Many PBXs today are, or can be upgraded to "IP enabled" meaning that a mix of traditional TDMA (Time Division Multiple Access) and IP telephony can be handled. With this approach users can migrate to IP where and when it fits into operations.

We will see more and more converged applications where voice is an integrated part of the application, like Net meeting and other "collaboration" products where the organisation can share information and use voice simultaneously. These are areas that will drive IP telephony inside enterprises.

How about mobility in the IP world?

Well, the concept of mobility has not been the top priority in the VoIP industry; today there are mainly three technologies that are suitable for IP mobility.

- GSM/3G
- WLAN (WiFi)
- IP-DECT

The wide area systems GSM/3G are still mostly traditional TDMA based but new concepts with VoIP clients on the portables are coming and will over time develop since converged applications pushes that demand. The majority of the calls will most probably be traditional cellular communication and SMS for quite some time.

The development on the WLAN side has however moved a lot the last year. Many vendors offer WiFi compatible portables for domestic and enterprise use. Many of the teething troubles have been corrected and the expanding use of the SIP protocol helps with the interoperability. Currently, there is also a lot of fuzz around the Dual-Mode device, with GSM/3G and WiFi in one unit.

The future will tell, but history shows that what is technically possible is not always commercially viable and there are many issues that have to be solved before this Dual-Mode device will be successful, amongst other security and roaming agreements.

The market for Single-Mode WiFi phones is today concentrated to the US. This is due to the fact that DECT was approved very late and the penetration of on-site mobility solutions is less than in Europe.

The very strong position of DECT in Europe will be further reinforced by the new development of IP-DECT. IP-DECT is very well suited for migration to VoIP, in many cases the already installed radio network can be kept and the system is converted to IP on a central point. This will allow very cost-efficient VoIP deployments. IP-DECT will most probably develop rapidly in the traditional on-site mobility segments.

The conclusion is that we cannot see a clear technology “winner” in the short run; all three technologies will take a certain share of the on-site mobility market.