

**Orange makes its network  
completely ready for ...**

**the future  
of the network**



**Internet is becoming more and more important. The fixed and mobile worlds are flowing into each other. And soon, all communication and applications will run through one single type of connection. It's known as an IP-based connection.**

**Orange is not just investing in the mobile network, we are also adapting the fixed network for this evolution. Orange clients will soon have access to a whole new series of possibilities. We would like to tell you about them.**





# 1

## What are IP services?

With IP services, everything is delivered using one single type of connection. VOIP telephony is a good example. Conversations run over a data network via the so-called IP (Internet Protocol) while you are using the Internet at the same time on another line. In other words: your conversation is turned into a series of zeros and ones across a network. You are using

just one network, for telephony and for your data traffic.

In reality, a huge number of services run across one single data network. Telephony, television and internet: nowadays, a company gets them all via one connection supplied by a provider.

## Which services will (soon) be possible?

On the one hand, IP services are future services that require higher bandwidths. On the other hand, they also include existing services that are becoming increasingly important, whether business or residential in nature:

- Voice Over IP telephony;
- Videoconferencing;
- IP payment terminals;
- IP security cameras;
- Audio streaming;
- The Internet of Things (drink machines, vehicles, all machines, etc.);
- Other future services such as patient and elderly care will be possible via IP.

## What is the impact for the Orange network?

To guarantee the necessary bandwidth and the working of the network, Orange needs to adapt its fixed network. We want to prepare our existing infrastructure for the expected explosion in data use and the related challenges. Old technologies such as ATM\*, PSTN\*\* and SDH\*\*\* will be phased out next year.

We replace our clients' connections with fast broadband connections (such as VDSL), based on the Ethernet network protocol. A lot of the new services demand bandwidth that can not be delivered using classic SDSL or ADSL services.

\*ATM or Asynchronous Transfer Mode: a type of network protocol.

\*\*PSTN or Public Switched Telephone Network: a telephony network.

\*\*\*SDH or Synchronous Digital Hierarchy: a technique transferring data across a digital backbone-network.

# 2

## Is it the fixed network or is it also the mobile network?

The adaption round focuses on the fixed network. Orange has already invested considerably in the mobile network over the past years, yet the move to IP-based connections will still have indirect consequences upon it: Orange will be fully integrating its fixed and mobile networks. We will also be continuing with our investment in 4G. For quite some time, we have been upgrading the network to make 4G data-traffic and applications

possible. This will also become the network that is used for the fixed network. It makes sense that the fixed network also gets to benefit from the successes of 4G.

The fixed network is crucial for the mobile network. It fits in with the trend of merging the fixed and mobile worlds. And this is why we are establishing both networks on IP.

## What are the benefits of these adjustments?

- The access speed of our network will receive a great boost from these adaptations: it increases to 1 Gbps.



**TO  
1 Gbps**

**FROM  
2 Mbps**

- Our backbone network will be increased to 100 Gbps.
- There is a solid foundation for new services at higher bandwidth and with better quality.
- The reliability is improved: all data traffic runs via IP, meaning fewer technologies need to be combined.
- Clients receive optimal services because there is just one technology being used.

**We are installing a network that forms the backbone of the entire Enterprise Mobility evolution where people, machines, applications and processes are quickly and efficiently connected with each other.**







# 3

## When is the evolution planned for?

At the moment, there are over 100,000 business and residential Orange clients switching to faster and future-oriented Ethernet technology. All companies that are linked via an ATM-based ADSL or SDSL connection will be transferred to the new technology.

This ensures the migration will take place before the end of 2015.

In turn, by 2016 ATM and by 2020 SDH will be completely phased out.

## What does this mean for you?

Orange is replacing the network technology of all our clients. At certain times, you won't notice anything going on in the network, at others, there may be small disruptions to services, for which we expect your cooperation.

In the cases where your cooperation is required, the disruption will be minimised to the greatest extent possible and you will be informed well in advance.

**Do you have any questions about this?  
Don't hesitate to contact your account manager.**

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