

Broadband development in Europe and PLC contribution

AUTEL (Spanish association of Telecommunications users) as an active member of INTUG, European association guarding for the business associations interests in telecommunications, would like to state its position regarding broadband development in Europe and the development of the document *Working Document on Broadband communications through powerlines*, to be submitted to European bodies in the near future.

As shown by different studies, the EU broadband is still at an early stage of development as shown by an average penetration below 2% of EU households.

The lack of competition from alternative local access networks in most EU member states is one of the reasons why North American and Asian countries are more advanced than EU in terms of penetration and only EU countries with different networks/technologies competing have been capable of reducing this gap. Besides, and as a consequence of the network differences, broadband penetration is not homogeneous across the European Union either: those countries that have invested in the roll-out of several networks or technologies have a higher penetration of broadband access as a consequence of the associated increase in competition.

Broadband penetration is expected to grow significantly in the coming years (see "*White Paper on Powerline Telecommunications and its impact on the Development of Broadband in Europe*", 2000; developed by Arthur D. Little for the PLC Utilities Alliance). Although broadband demand has been initially driven by the corporate segment, in the coming years residential broadband connections are expected to grow faster than the business ones due to the bigger potential market size and the launch of high bandwidth entertainment applications.

Broadband evolution in Europe will be directly related to the way several key issues evolve in the coming years.

Nowadays there are many broadband access technologies commercially available or under development, but ADSL has a dominant position due to the current low coverage of other commercialised technologies. Thus, one of the main points to be considered is the control of European DSL networks by the incumbent telecom companies. Whilst Local Loop Unbundling (LLU) has been ordered throughout Europe, most incumbents have not been seriously challenged by unbundled CLEC operators. The incumbents' first mover advantage, and the unwillingness of financial institutions to finance new broadband companies, has meant that new operators have not been able to compete effectively.

In addition, this has created a dynamic with operators reducing their budget for infrastructure development even reconsidering their LLU strategies (i.e. preference to rent instead of develop own infrastructure).

Unless a new broadband access be successfully and widely launched in the short term, it is expected that ADSL (except some punctual exceptions for cable), will be the winning technology since it takes advantage of existing legacy infrastructure that only requires an upgrade, leading to important savings in terms of roll-out speed and investment.

PLC viability as access technology has been confirmed by several initiatives worldwide with experiences showing very positive results. These initiatives have created a vast know-how and have confirmed the important advantages that PLC provides when compared with competing infrastructures. Among those advantages one must consider the fast, selective and modular deployment, its ubiquity and speed as well as the possibility to offer multiple IP services at a competitive cost.

The main impact of PLC deployment will be on the acceleration of broadband penetration. Thus, PLC has the potential to become a catalyst of the Information Society development. It could increase residential EU broadband penetration up to over 20 million additional broadband connections throughout the European Union in 2005, if compared to the figures forecasted without local loop unbundling and infrastructure competition.

This effect will be the consequence of PLC meeting the challenges previously stated for broadband penetration (p.e. unbundling) such as a real introduction of a competitive environment through:

- More extensive broadband coverage in the short and medium terms.
- Lower retail prices as a consequence of the increased competition in access infrastructure; in many countries and regions PLC will guarantee this increase in competition and accelerate this process faster than other technologies, which involve higher investments and slower deployment processes.

Finally, the EU and National Authorities should work to remove the threat of a vicious circle that would slow down broadband development: the high broadband prices maintained by incumbent operators delay the take-off of broadband demand. This low growth in turn reduces the incentive for new entrants to deploy alternative infrastructure. The result of this is that the dominant position of the incumbents is reinforced, enabling them to maintain prices high.

PLC fits perfectly in a context where the EU and local governments should push to avoid this vicious circle for an increase in competition by supporting the deployment of alternative networks in the local loop. This competition would eventually lead to a

reduction in broadband prices, ideally to a level that enables market development while generating the sufficient value for various players to keep operating and investing. The second impact would be the development of more services and applications, which would facilitate the spread of broadband to all society.

Another direct impact of PLC deployment is the reduction of the digital divide thanks to PLC suitability for deployment and operation in low-density and less-developed areas. This positions PLC as the best technology to support the goal of avoiding a digital divide between more and less affluent citizens, and between more and less affluent regions, a phenomenon that is starting to develop and must be fought back.

If this should not happen, the broadband market might not develop as quickly as desirable and could remain a service for business and the upper-class section of the population in the medium term.

As a conclusion, AUTEL, as an association concerned about user's interests, strongly believes that for PLC to fully exploit its potential, **a clear and technology-neutral regulatory framework for PLC is needed**. Although an active work in regulation developed during the last three years has allowed commercial PLC deployments to be a reality, special attention must be paid to the evolution of regulation and standards, so that investments in PLC networks today are guaranteed in the future. Otherwise further advances risk to be deterred by established operators and manufacturers.

Current European leadership in PLC technology should be supported by the EU in order to maximise the benefits for the European industry through the promotion of real competition. The EU should ensure not only that PLC technology is neutrally treated versus other broadband technologies, but also that a **favourable and stable regulation** is established so that investors feel comfortable to strongly support the deployment of commercial PLC networks face to the dominant position of incumbents. The development of new telecom entrants in European countries has been made possible only through the positive impulse given by national authorities.

Power Utilities and manufacturers are ready to make PLC a mass-market technology: it is therefore the moment for authorities (National Authorities, European Commission and the European Council) to give the impulse that will make of it a definite success through the promotion of a real competition in broadband access and therefore acceleration of the process towards the achievement of eEurope objectives.

In Spain, there are several pilot local access networks using PLC technologies, being the most important established in the city of Zaragoza, with a coverage of more than 20,000 houses and 2100 customers using the broadband access.

The 9th of July a group of AUTEL members from different Spanish regions have visited these installations in Zaragoza, meeting users of this network as well as people

of the electricity company. We confirm that the results are fully satisfactory and the future plans of the provider are to open the commercial services next October 2003.