

THIS MONTH BROADBAND **PROJECT**

## Fibre optic deployment in Nièvre - An innovative experience

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Speaking of the rising discussions about high and very high speed Internet for everybody in the near future means first trying to solve the problems of “tubes” (infrastructures).

Local authorities and especially those in charge of public high speed networks, must find out a solution both economical viable and effective so as urban and rural population can get Internet offers.

**F**or that reason, Niverlan (joint association of local authorities, created by the General Council of Nièvre county and Nevers area), which is in charge of the Internet development for the whole county chose this way of thinking.

The construction of an optic fiber backbone needs initial investments. “So as to better control the costs at the prospects of strengthen the capillarity of our local optic network, we had to club together all the supporting means able to receive optic fiber”, said Jean-Louis Rollot, President of Niverlan.

Thus, a strong support could have been mobilized:

- Wires belonging either to local authorities or to the State.
- B high tension electric network (HT-B) for which RTE is liable (RTE = Réseau de Transport Electrique, French Electric company). So an optic fiber wire could have

been winded around 130 km electric cables.

The idea then was to go on like that and Niverlan asked to its service supplier, NiverTel (subsidiary company of Axione/ETDE) to think over the opportunity to use the A-high-tension electric network (HT-A). That meant, using the electric pylons of those electric infrastructures as optic fiber supporting means. So the matter was the deployment of overhead optic fiber wires.

### A dynamic partnership for an innovating project

NiverTel got in touch with ERDF Company (French electric company in charge of the working of the electric network). All the questions were concerned: technology, safety, working, impact. Meanwhile, the “Syndicat intercommunal ...” (SIEEEN) owner of those local infrastructures, contributed a lot for the project to be successful.

As ERDF, Niverlan, NiverTel and SIEEEN could work together, a partnership convention could have been signed up on the 29 of May 2008.

**The advantage of the project: being a useful experience for other States**

600 000 km long spread on all the French territory, the



A-high tension electric network concerns a very important rural area. Its loop-like architecture can guarantee an electric supply for every customer.

This infrastructure is particularly suitable for the deployment of an optic fiber network.

### The Nièvre experimentation:

NiverTel chose to replace a former scheduled electromagnetic wave link by a HT-A technology i.e. using the electric high tension network between two towns: Saint-Pierre-le-Moutier and Chantennay-Saint-Imbert. This could increase the capillarity of the optic network for a future development.

The chosen technology was ADSS (all dielectric self supporting cable) that consists in hanging up the optic wire under the electric cables using the electric pylons. The electric supply remains under tension meanwhile the optic cable is hanged up. A kind of safety “umbrella” allows the workers to go on deploying the optic wire without any danger.

This very conclusive experimentation is to be continued and new programs must be start up in the coming year.



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