

The democratic revolution starts from the nextgen network and unfolds through it, Alfredo Bregni , abregni@iperv.it , +39 335 7164402

Every day there's a convention to discuss the Digital Agenda and the next generation, optical fiber based, broadband network. "Too repeated" words. On the contrary, too much silence – broken only by Ing. Dino Bortolotto, President of Assoprovider, and Prof. Giuseppe Attardi of the Information Technology Department of the University of Pisa – about the true alternative to the " operators' " network. With various names, the solution is called 'Customer ownership of the local loop', 'To everybody his/her own fiber', 'Homes / offices with tail', 'Citizens' access network', and it allows to deploy the nextgen network in the best way:

- In a short time frame.
- With full country coverage.
- Without any Government spending.

As long as we stubbornly think of the " operators' " network, all the problems remain:

- Regulation: how should other operators be granted access to the local loop?
- Economics: how could the investment return?
- Strategy: which new broadband services should be invented?
- Finance: where could the investment money be found?

Giving each user his/her own fiber makes these fake problems suddenly "evaporate" (and allows to free the building roofs from antennas, and the environment from the TV spectrum):

- The regulatory issue disappears, and competition improves: each user will choose which operator(s) to link to, by evaluating the offered services against their costs.
- The computations about the return of investment become meaningless, given that no investment by any operator is required.
- The strategic issue of inventing new services becomes trivially competitive: they will be offered and evolved according to the users' needs.

For the financial problem, a solution is readily available: investing the present local loop fixed fee, net of the maintenance costs. It's citizens' money, and they have the right to spend it how they deem best. Instead of "leasing copper", in 4 years they can become "fiber owners". The computation is straightforward. In the phone bill, 15 Euros/month pay for:

- Maintenance (3 Euro/month = 36 Euro/year; with the fiber they become 2,5 Euro/month = 30 Euro/year).
- The copper local loop fee (12 Euro/ month = 144 Euro/year; with the reduced maintenance cost, they become 12,5 Euro/ month = 150 Euro/year).

With 12,5 Euro/month the fiber can be deployed for everybody: $12,5 \text{ Euro/month} \times 12 \text{ months} \times 20 \text{ million users} \times 4 \text{ years} = \underline{12 \text{ billion Euros}}$.

In this scenario, politics and public administration should assume an "organizing" role:

1. Explaining the opportunity to the citizens (a forced switch-off from analog to digital TV is under deployment, organized since somebody was interested in it; equally, a forced switch-off from copper to fiber may be organized, if the future of the country is of interest). If this were not done, we would lose a historical opportunity, putting our future at stake.
2. Organizing the territory: duct register; rule simplification; shared access points location; coordinated management of duct accesses / excavations; transparent bids. If this were not done, deployment would be at risk.
3. Equalizing the costs, among the privileged and disadvantaged areas of the country (fiber deployment must be performed together by everybody). If this were not done, the digital divide would perpetuate and the copper switch-off would never materialize (it's one of those cases in which the public hand must really intervene).
4. Managing the financial aspects. The "normal" idea would be to find a lender (with a public and transparent bid), which advances the costs of intervention and is gradually repaid by the former local loop fixed fees, no longer given to the telecom operator. But there's an improvement opportunity. By starting – as it happens today, but for different reasons – from the privileged areas of the country, where the intervention costs less than the country average, when later on the fiber deployment happens in the disadvantaged areas a cash surplus will be available, thereby reducing the interest expenses.

5. Liberalizing the utilization, by allowing to:

- a) Convey also the TV signal on the fiber, thereby freeing the TV spectrum (and, at the same time, the building roofs from the antennas).
- b) Open the private wi-fi's to a free external utilization (with obvious priority given to the primary user), thereby obtaining a full wireless coverage too.
- c) Build any type of services on the fiber (e.g. – but the future may be richer of good ideas... – payments of limited amount among users, to be cleared through the bills of the connectivity supplier).

The expected revolution will impact directly on four today privileged sectors, mono / duo / oligopolies which exploits infrastructures which should be of everybody and provided for free:

- Telecommunications;
- Television;
- Mobile telephony;
- Payment services.

The dawn of a new world!

The proposal has been sent to the new Minister of Economic Development, Corrado Passera, with these accompanying words:

- There are 12 billion Euros in 4 years to be spent, much better than today, to deploy the next-generation, optical fiber based, access network, with full country coverage and no Government spending.
- We need "only" to change perspective, by realizing that the ownership of the local loop should be rather given to the users than to a telecom operator; by doing so, all the problems which are being discussed since too long really "evaporate"...
- And it's needed "only" that politics and Public Administration put themselves in the mood of "organizing things" in an effective way.
- It's crystal clear that the interests of many players – including the creditor banks of the telecom operators... – will fiercely oppose the initiative, and therefore the deployment will encounter significant difficulties.
- But somebody, sooner or later, will need to understand that – by keeping stuck to the present approach, all focused to the operators – we really risk to put our future at stake.
- It's desirable therefore that the vested interests involved, once in a while, may be valued for what they are: just obstacles; this time to be overcome.
- If the new Government really wants to do what the country needs, the nextgen network, "done well", is a crucial component.

It was asked to the "Stati Generali dell'Innovazione" too, with all the strength of the associations which participate to them, to engage in deploying the real revolution, in the nextgen network and through it, which we need for our future.

The thorniest problem is that innovation "entails changes" – the more profound the more "real" innovation is – in two areas:

- People's mindsets and working methods.
- Power relationships, economic in the first place.

In this way, good ideas risk to shatter against the people's inability to change, or to get lost in a maze of opposing interests, enrolled with thousand trickles of money by those who exploit the system: e.g., it's unlikely that media may want to forsake the massive advertising of telecom operators. In this way, however, democracy dies...

With "their" nextgen network, citizens have the opportunity to join in defending democracy and to revolutionize it for the better.

English links:

- pb.freeshell.org/interconnect.pdf
- pb.freeshell.org/newown.pdf

Italian links:

- www.caosmanagement.it/art52_07.html
- www.assoprovider.it/index.php?option=com_content&task=view&id=233&Itemid=46
- www.di.unipi.it/~attardi/Paper/GARR11.pdf
- www.radio24.ilsole24ore.com/radio24_audio/2011/111126-2024.mp3