Note: This is a translation into English. For all legal purposes, only the French version is valid.

Electronic Communications and Postal Regulatory Authority
Decision No. 2010-1312
of 14 December 2010

specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas

The Electronic Communications and Postal Regulatory Authority, ARCEP, hereinafter referred to as "the Authority",

Pursuant to Directive No. 2002/21/EC of the European Parliament and Council, dated 7 March 2002, concerning the common regulatory framework for electronic communications networks and services (Framework Directive), and notably its Articles 6, 7 and 12, modified by Directive No. 2009/140/EC of the European Parliament and Council, dated 25 November 2009;

Pursuant to Directive No. 2002/19/EC of the European Parliament and Council, dated 7 March 2002, concerning access to electronic communications networks and associated resources, and their interconnection (Access Directive), and notably its Article 5, modified by Directive No. 2009/140/EC of the European Parliament and Council, dated 25 November 2009;

Pursuant to the Commission recommendation on regulated access to next generation access networks (hereinafter "NGA recommendation"), dated 20 September 2010;

Pursuant to the French Postal and electronic communications code, hereinafter referred to as "CPCE", notably its Articles L. 32-1, L. 33-6, L. 34-8, L. 34-8-3, L. 36-6, L. 36-10 and R. 9-2 to R. 9-4;

Pursuant to the Building and occupancy code, notably its Articles L. 111-5-1, R. 111-1 and R. 111-14;

Pursuant to Law No. 65-557, dated 10 July 1965, setting the co-ownership status for existing buildings, notably its Article 24-2;

Pursuant to Decision No. 2009-0527, dated 11 June 2009, bringing changes to the Authority's rules of procedure;

Pursuant to Decision No. 2009-1106, dated 22 December 2009, specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines and the instances in which the concentration point can be located on private property, in application of Articles L. 34-8 and L. 34-8-3 of the French Postal and electronic communications code;

Pursuant to the Competition Authority Opinion No. 08-A-06, dated 6 May 2008, concerning a draft legislative provision for the development of ultra-fast broadband optical fibre networks;

Pursuant to the public consultation on the national « ultra-fast broadband » programme, which ran from 18 January to 26 February 2010;

Pursuant to the ARCEP public consultation on the draft decision specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas, which ran from 11 June to 13 July 2010;

Pursuant to the responses to this public consultation;

Pursuant to the Competition Authority Opinion No. 10-A-18, dated 27 September 2010, concerning a draft ARCEP decision specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas ;

Pursuant to the ARCEP public consultation on the draft decision specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas, which ran from 25 October to 26 November 2010;

Pursuant to the responses to this public consultation;

Pursuant to the notification to the European Commission and to the competent regulatory authorities in the other European Community Member States of the Authority's draft decision specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas, on 26 October 2010;

Pursuant to the European Commission commentary, dated 26 November 2010;

Pursuant to the consultation with the Electronic communications advisory committee (*Commission consultative des communications électroniques*), hereinafter referred to as "CCCE", on 10 December 2010;

After the discussions held on 14 December 2010;

Introduction

The increasing development of the uses being made of the Internet, the ongoing enhancement of audiovisual content and the arrival of new individual or collective services are spurring the demand for ultra-fast broadband optical fibre networks.

The deployment of new generation access networks on the whole territory is therefore an essential challenge for the French economic and social development.

Operators have already significantly deployed for several months ultra-fast broadband fibre-to-the-home (FttH) networks in the country's main metropolitan areas. Deployment on the last drop (inside the buildings) will intensify during the next months.

In addition, the government has adopted the "national ultra-fast broadband programme" in June 2010, endowed with a specific fund, amounting to €2 billion. The implementation of this programme in the next months should speed up the rollout of ultra-fast broadband networks, in particular FttH networks, on the whole territory, to make them accessible to all homes and offices.

In accordance with the CPCE provisions derived in particular from Law of 4 August 2008 on Modernising the Economy (hereinafter LME) and from Law no. 2009-1572 of 17 December 2009, concerning efforts to bridge the digital divide, ARCEP has established a first regulatory framework for these rollouts with the adoption of Decision no. 2009-1106 of 22 December 2009, specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines and the instances in which the concentration point can be located on private property. On the one hand, this first decision sets out rules which apply to the whole territory, and, on the other hand, it sets out rules which apply only to very high-density areas.

Outside very high-density areas, FttH networks rollouts must comply with specific economic and technical constraints that require a greater degree of network sharing. This decision aims at specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines outside very high-density areas.

Section I Goal of Decision

1°) Applicable legal framework

ARCEP's competence

Article L. 36-6 of the CPCE stipulates that:

> "*In accordance with the provisions of the present code and its implementing regulation […], the Electronic Communications and Postal Regulatory Authority will specify regulation concerning:*
>
> *[…]*
>
> *(2) The prescriptions that apply to the technical and financial terms governing interconnection and access, in accordance with Article L. 34-8 […] and to the technical and financial terms governing access, in accordance with Article L. 34-8-3;*
>
> *[…]*
>
> *The decisions made in application of the present article will be published in the Official Gazette, after having been approved by order of the Minister responsible for electronic communications."*

Article L. 32 of the CPCE defines the term "access":

> « […] *8) Access. The term access refers to the supply of resources, equipment, software or services, in order to allow the recipient to provide electronic communication services (…)".*

Paragraph I of CPCE Article L. 34-8, derived from Law no 2009-1572 of 17 December 2009 concerning efforts to bridge the digital divide, stipulates that:

> " […] *To achieve the objectives defined in Article L. 32-1, the Authority may impose, in an objective, transparent, non-discriminatory and proportionate manner, the terms governing access and interconnection:*
>
> *a) Either on its own initiative, after having solicited the opinion of the Competition Authority, public consultation and notification to the European Commission and the competent national regulatory authorities in European Community Member States; the decision will be adopted in accordance with procedural conditions published previously by the Authority; […]*
>
> *Decisions adopted in application of a) and b) are justified and specify the fair technical and financial terms governing interconnection and access. "*

CPCE Article L. 34-8-3 derived from Law of 17 December 2009, specifies that:

> *"Any entity that has established or is operating an optical fibre ultra-fast broadband electronic communications line in an existing building which makes it possible to serve an end user must satisfy all reasonable requests from operators for access to that line, in view of providing this end user with electronic communications services.*
>
> *Access will be provided under transparent and non-discriminatory conditions from a point located outside the limits of the private property, except in cases defined by the Electronic Communications and Postal Regulatory Authority, and which allows third-party operators to connect to it under reasonable economic, technical and accessibility conditions. In the instances defined by the Electronic Communications and Postal Regulatory Authority, access can consist of supplying network installations and specific elements that are requested by a third-party operator prior to the installation of ultrafast broadband optical fibre electronic communications lines in the building, in exchange for which the requesting operator will assume a fair share of the costs. Any refusal to grant access must be justified*
>
> *It requires an agreement between the concerned parties, which sets the technical and financial conditions governing access. This agreement is provided to ARCEP on its demand.*
>
> *The disputes related to the conclusion or the fulfilment of the agreement provided for in the present article are brought to ARCEP in accordance with Article L. 36-8.*
>
> *To achieve the objectives defined in Article L. 32-1, and particularly with a view to ensuring consistency in the deployments and homogeneous coverage in the areas being served, the Authority can specify the terms and conditions governing access, as provided for in this article, in an objective, transparent, non-discriminatory and proportionate manner".*

When adopting Law no 2009-1572 of 17 December 2009, the legislator clearly intended, through the last paragraph of Article L. 34-8-3, to bridge the digital divide, especially by allowing ARCEP to set rules ensuring a consistency in the deployments and homogeneous coverage in the areas being served.

In Decision no 2009-1106, ARCEP has already specified some of the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines and the instances in which the concentration point can be located on private property.

In the present Decision, ARCEP aims at completing these rules in the case of rollouts outside very high-density areas.

Consistency with the European legal framework

Article L. 34-8-3 is drawn from the Law on modernising the economy No. 2008-776 of 4 August 2008, and from Law no 2009-1572 of 17 December 2009 concerning efforts to bridge the digital divide, which was adopted in accordance with Article 12 of the Framework Directive 2002/21/EC.

The European legal framework for electronic communications networks has been reviewed in 2009. Thus, Article 12 of the Framework Directive, as modified by Directive 2009/140/EC of 25 November 2009, stipulates that:

« 1. Where an undertaking providing electronic communications networks has the right under national legislation to install facilities on, over or under public or private property, or may take advantage of a procedure for the expropriation or use of property, national regulatory authorities shall, taking full account of the principle of proportionality, be able to impose the sharing of such facilities or property, including buildings, entries to buildings, building wiring, masts, antennae, towers and other supporting constructions, ducts, conduits, manholes, cabinets.

[…]

3. Member States shall ensure that national authorities, after an appropriate period of public consultation during which all interested parties are given the opportunity to state their views, also have the power to impose obligations in relation to the sharing of wiring inside buildings or up to the first concentration or distribution point where this is located outside the building, on the holders of the rights referred to in paragraph 1 and/or on the owner of such wiring, where this is justified on the grounds that duplication of such infrastructure would be economically inefficient or physically impracticable. Such sharing or coordination arrangements may include rules for apportioning the costs of facility or property sharing adjusted for risk where appropriate.

[…] »

Paragraph 5 of Article 8 (Framework Directive) stipulates that:

"The national regulatory authorities shall, in pursuit of the policy objectives referred to in paragraphs 2, 3 and 4, apply objective, transparent, non-discriminatory and proportionate regulatory principles by, inter alia:

[…]

d) promoting efficient investment and innovation in new and enhanced infrastructures, including by ensuring that any access obligation takes appropriate account of the risk incurred by the investing undertakings and by permitting various cooperative arrangements between investors and parties seeking access to diversify the risk of investment, whilst ensuring that competition in the market and the principle of non-discrimination are preserved;"

Moreover, the European Commission published on 20 September 2010 the NGA recommendation on regulated access to next generation access networks. The fourth recital of this recommendation specifies that:

« Where it is justified on the grounds that duplication of infrastructure is economically inefficient or physically impracticable, Member States may also impose obligations of reciprocal sharing of facilities on undertakings operating an electronic communications network in accordance with Article 12 of that Directive which would be appropriate to overcome bottlenecks in the civil engineering infrastructure and terminating segments »

Article 7 of this recommendation stipulates that:

« When applying symmetric measures under Article 12 of Directive 2002/21/EC granting access to an undertaking's civil engineering infrastructure and terminating segment, NRAs should take implementing measures under Article 5 of Directive 2002/19/EC. »

The above shows that the European legal framework has explicitly acknowledged the increasing role of symmetric regulation to set up the regulatory framework concerning the rollouts of next generation access networks and that, in accordance with the national law, and the European legal framework, it is up to ARCEP to specify the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines in an objective, transparent, non-discriminatory and proportionate manner, in particular to promote efficient investment and innovation, and to ensure consistency in the deployments and homogeneous coverage in the areas being served.

Procedure applicable the present decision

The present decision is made in application of Article L. 36-6, Paragraph I of Article L. 34-8 and Article L. 34-8-3 of the CPCE.

It complies with the procedural rules stipulated in subparagraph (a) of Paragraph I of Article L. 34-8 and published in ARCEP Decision No. 2009-0527 amending its rules of procedure.

As a result, and in accordance with Paragraph III of Article L. 32-1 of the CPCE and subparagraph (a) of Paragraph I of Article L. 34-8, the Authority submitted a draft of the present decision to public consultation. For the sake of transparency, the Authority published all of the contributions to this public consultation on 27 September 2010, except those protected by business secrecy.

After having taken into account the responses to this public consultation, ARCEP requested opinion from the Competition Authority, in accordance with Paragraph I of Article L. 34-8.

After having received and taken into account the opinion of the Competition Authority, ARCEP notified the document to the European Commission and to the competent NRAs in the other European Union Member States, in accordance with subparagraph (a) of Paragraph I of Article L. 34-8. It was submitted in parallel to public consultation from 25 October to 26 November 2010.

The Authority also consulted with the CCCE.

Finally, the decision was adopted by ARCEP on 14 December 2010 and submitted to the Minister responsible for electronic communications for approval.

2°) Work performed by the Authority

Following the works that led to the adoption of Decision no 2009-1106, ARCEP has conducted works with the involved stakeholders on the issues related to fibre rollout outside very high-density areas.

Three workgroups have met regularly and addressed several issues related to the deployment of fibre on the whole territory:

- the « operational aspects and sharing process » workgroup : this group pursued its works related to very high-density areas and progressively focused on the operational aspects of sharing outside very high-density areas ;

- the « territorial organization of rollouts » workgroup, later replaced by the « ultra-fast broadband » workgroup, which is one of the exchange workgroup between ARCEP, local

authorities and operators (GRACO) ; this group addressed, with local authorities, public institutions and the *"Caisse des dépôts et consignations"*, the different aspects of fibre rollouts in less dense areas ;

- the optical fibre expert Committee which has analysed the technical specifications of the equipment to be installed at the concentration point, the maximal fading of lines and the appropriateness of the concentration point equipment depending on the number of lines downstream.

Operators and local authorities carried out rollouts and trials before and in parallel to the adoption of the present decision. The three main operators have established an agreement on fixed ultra-fast broadband, to conduct trials in three cities located outside very high-density areas. Moreover, several cities have been equipped with ultra-fast broadband optical fibre lines thanks to public initiative ultra-fast broadband networks rolled out by local authorities.

Lastly, work on very high-density areas has continued meanwhile. This work dealt in particular with operational aspects of sharing, and aspects related to wholesale sharing offers. The result of some of this work contributed to the preparation of the present decision.

3°) Scope and application of the decision

The present decision specifies the technical and financial terms governing access to ultra-fast broadband optical fibre electronic communications lines as a complement to ARCEP Decision no 2009-1106, with respect to the following:

- access to the lines and the associated resources;
- characteristics of the concentration point;
- terms, in particular financial terms, governing access;
- transparency of the terms of access;
- geographical consistency in the deployments.

The present decision applies to the whole Metropolitan France and to the overseas *départements* and territories which are governed by the CPCE, except in very high-density areas defined by ARCEP Decision no 2009-1106.

In its observations, the European Commission *"calls upon ARCEP to promptly finalise its market analysis of the wholesale broadband markets and ensure consistency among the obligations imposed under the notified measure, the symmetric measures introduced in densely populated areas and the SMP remedies imposed in relation to markets 4 and 5 as well as any obligation imposed under a public funding scheme in order to give regulatory clarity and safeguard the investment decisions made by operators."* The Competition Authority shares the wish of the European Commission that « *the choice between symmetric or asymmetric regulation, even if it can be justified by arguments of balance and incentive to invest, should not lead eventually to a regulatory framework that would be incomplete or less suitable to competition* ».

In accordance with CPCE Article L. 34-8-3, the present decision aims at specifying the rules imposed on any operator deploying an FttH network, in a symmetric and general way. The objective of this symmetric regulation is in particular to define a set of rules in order to promote efficient investment in next generation access networks, and in a preventive way, to

avoid the development of market situations that could lead to the emergence of structural competition issues. This symmetric regulation will complete in a consistent way asymmetric regulation, with market analyses that aim at imposing, in a curative way, remedies to the SMP operator to tackle structural existing or predictable competition failures. In particular, should ARCEP, when monitoring the market, notice major failures in implementing the objectives of the present decision regarding symmetric regulation, and the emergence of structural competition issues related to the market power of one or several operators on one or several relevant markets, ARCEP may impose complementary remedies with broadband and ultra-fast broadband market analyses.

In addition, considering the ongoing work with all the relevant stakeholders, and the emergent nature of rollouts outside very high-density areas, ARCEP will re-examine, specify and complete, if needed, the present decision by the yardstick of the technological evolutions and market conditions, as soon as possible and no later than the end of year 2013.

Section II Definition of the terms used in the present decision

1°) Ultra-fast broadband optical fibre electronic communications lines

CPCE Article L. 34-8-3, drawn from the Law on modernising the economy stipulates that, *"any entity that has established or is operating an optical fibre ultra-fast broadband electronic communications line in an existing building which makes it possible to serve an end user must satisfy all reasonable requests from operators for access to that line, in view of providing this end user with electronic communications services"*.

The line refers to the portion of the network that makes it possible to provide an end user with ultra-fast broadband services over optical fibre. It is therefore the portion of the network nearest the customer, and to which all operators need to have access to be able to deliver services to residents. The obligation to provide access imposed by the present decision concerns the portion of the line between the optical network unit located inside the customer premises and the concentration point (see definition below).

It can be composed of several continuous optical paths per household, for instance in the case of a multi-fibre deployment. Lastly, the lines are not located solely on private property, notably when the concentration point is situated outside the building, as in the present decision.

2°) Building operator

In principle, the building operator is the operator who has established the lines, or plans on doing so, notably under the terms of an agreement signed in accordance with CPCE Article L. 33-6, after having been appointed by the owner of the property to equip their building with optical fibre. Should an operator, in the case of a dedicated rollout, connect exclusively and selectively business customers with a dedicated and specific optical fibre local loop, to provide these customers with leased lines services, this operator would not qualify as a building operator as per this decision's definition.

In cases where the party who is establishing or has established the lines will not be responsible for managing the network – for instance in the case of a property developer or social housing manager – it must nevertheless be possible for this party to select a building operator to manage the lines, and to satisfy other operators' requests for access. Requiring operators to negotiate access agreements with every property developer or owner who has taken upon themselves to install an optical fibre network in their building would not appear to be a viable solution.

By the same token, if a building operator is not itself an access-sharing operator and does not use the optical fibre for its own ends, it could appoint another operator to be in charge of satisfying access requests from third-party operators.

It should be noted that a building operator is not necessarily an operator as defined in CPCE Article L. 33-1. In particular, it could be a neutral manager providing operators with passive access offers to the lines, and not activating the network itself.

3°) Concentration point

The concentration point refers to the location where the party establishing or having established in an existing building or operating ultra-fast broadband optical fibre electronic communications lines provides other operators with access to the lines. The location of the concentration point is governed by CPCE Article L. 34-8-3 which stipulates that:

> *"Access will be provided under transparent and non-discriminatory conditions from a point located outside the limits of the private property, except in cases defined by the Electronic Communications and Postal Regulatory Authority, and which allows third-party operators to connect to it under reasonable economic, technical and access conditions. […] Any refusal to grant this access must be justified."*

The party having established in an existing building or operating an ultra-fast broadband optical fibre electronic communications line can provide access to its network from several locations. Among these locations, the concentration point is the main point of delivery for passive access, in accordance with CPCE Article L. 34-8-3.

The concentration point is therefore the "logical" point of separation between the building operator's network and a third-party's network.

Access can also be provided at locations other than the concentration point, as stipulated in the commercial agreements that operators establish with one another.

4°) Very-high density areas and less dense areas

Very high-density areas are defined in ARCEP Decision no 2009-1106. The whole territory, except very high-density areas, is referred to as less dense areas.

5°) Service area of the concentration point

Outside very high-density areas, concentration points are always located outside the limits of the private property and they group ultra-fast broadband optical fibre lines of existing buildings. All the existing buildings, actually or potentially connected to this concentration point, form a continuous geographical area. This geographical area is referred to as the service area of the concentration point.

6°) Transport portion of France Telecom's civil engineering infrastructure network

The transport segment of France Telecom's civil engineering infrastructure network is the local loop segment between the main distribution frame (MDF) and the copper sub-loop street cabinets, located in most cases on public space.

Section III Regulation concerning the concentration point

1°) Accessibility of the concentration point

CPCE Article L. 34-8-3 stipulates that access to ultra-fast broadband optical fibre electronic communications lines, which make it possible to provide services to an end user, must be provided by the party who has established them from a point located outside the limits of the private property, except in cases defined by the Electronic Communications and Postal Regulatory Authority, and which allows third-party operators to connect to it under reasonable economic, technical and access conditions. This article also specifies that with a view to ensuring consistency in the deployments and homogeneous coverage in the areas being served, ARCEP can specify the terms and conditions governing access, in an objective, transparent, non-discriminatory and proportionate manner.

With regard to the less dense areas, ARCEP intends to give a set of details to make sure that, in these areas, concentration points satisfy the terms of this article and in particular that they are accessible to third party operators under economic and technical conditions that are reasonable and non-discriminatory.

It is essential that the concentration point is connected to civil engineering infrastructure, so that third party operator can access it with their own optical fibre cable. Nevertheless, the potential saturation of this infrastructure needs to be foreseen, mainly near the concentration point.

ARCEP points out that, in very high-density areas, Decision no 2009-1106 stipulates that the building operator must guarantee third-party operators' ability to connect to the concentration point, in particular in instances when the supply duct is saturated, when conveyance is through an aerial installation or when buildings are outfitted with optical cable up the façade.

In the same vein, in less dense areas, where the concentration points should gather a greater number of lines, the party who establishes the concentration point, in accordance with Article L.34-8-3, must guarantee third-party operators' ability to connect to the concentration point under reasonable conditions, in particular regarding the risk of saturation of the infrastructure that enables to connect to it.

In practice, this implies that the building operator shall install the concentration point so that third-party operators can perform connection operations at the concentration point, with timeframe and costs not being unreasonable or discriminatory compared to the building operator's.

The location of the concentration point must therefore satisfy three constraints regarding its accessibility:

- Its hosting infrastructure has to be designed to make it possible for several operators to connect to the concentration point. ARCEP notes in this respect that the transport segment of France Telecom's civil engineering infrastructure, because of its own characteristics and because of the regulation governing it - regulation that aims at making it possible for several operators to deploy new optical fibre local loops - has characteristics that make it possible to satisfy this constraint. ARCEP expresses the view that the location of the concentration point on such a portion is a first guarantee that third-party operators can connect to the concentration point under reasonable economic, technical and accessibility conditions.
- In order to reduce the risk of saturation of existing infrastructure, ARCEP expresses the view that the location of the concentration point must also contribute to reducing the overlapping between the shared network rolled out downstream from this point and the different networks rolled out upstream by operators willing to connect to this point. In practice, the purpose is to avoid the instances in which one or several operators would have to rollout their own optical fibre networks to connect the concentration point on the same portion on which the shared downstream network is rolled out to serve end users' buildings. To satisfy this objective, ARCEP expresses the view that the concentration point must be located, whenever possible, on a node or relevant interconnection point of the civil engineering infrastructure in question. It seems therefore inappropriate that the concentration point be located on the distribution segment of France Telecom's civil engineering infrastructure network, which connects the sub-loop street cabinets to the subscribers' dwellings.
- Lastly, when conveyance of the optical fibre cables is through an aerial installation, it does not seem technically and/or operationally possible to rollout several cables successively on the existing infrastructure, in other words on poles. Therefore, except in specific instances that must be justified, particularly regarding the structure of the housing and the networks, the concentration point needs to be located in this case higher up in the network from this aerial installation zone, to allow third-party operators to connect to the concentration point under satisfactory conditions. When the specific conditions justify that the concentration point is located in an aerial installation zone, the building operator will have to provide a backhaul offer to connect to this concentration point under reasonable technical and economic conditions.

These three constraints do not necessarily imply that the concentration points are systematically located regarding France Telecom's local loop infrastructure. ARCEP simply notes that the transport segment of France Telecom's civil engineering infrastructure has characteristics that make it possible, in principle, to satisfy the obligations that govern

accessibility. A similar analysis applies to alternative infrastructure, that belong in particular to local authorities or to other operators, designed to host electronic communications networks and offering the same access conditions, i.e. that allow concentration points to be located under the constraints described above and make it possible for third-party operators to connect under reasonable economic, technical and accessibility conditions.

2°) Service area of the concentration point

General principles concerning the size of the concentration point

CPCE Article L. 34-8-3 stipulates that the building operator has to provide access to the network rolled out inside a building "*from a point located outside the limits of the private property, except in cases defined by the Electronic Communications and Postal Regulatory Authority, and which allows third-party operators to connect to it under reasonable economic, technical and accessibility conditions.*"

ARCEP has defined the instances in which the concentration point can be located inside the limits of private property in Decision no 2009-1106. This decision stipulates that :

> "*Notwithstanding the principle established in Article L. 34-8-3 of the CPCE, by virtue of which the concentration point will be located outside the limits of private property, this access point can be situated within these limits in the case of existing buildings in very high-density areas that have at least 12 residential or office units, or which are connected to a visitable public sewage network through a supply tunnel which is also visitable.*"

Therefore, outside very dense areas, the concentration point must be located outside the limits of private property. Moreover, pursuant to CPCE Article L. 34-8-3, the characteristics of the concentration point must allow third-party operators to connect to it under reasonable economic conditions.

In its Opinion No. 10-A-18, the Competition Authority reminds that "*unlike the copper network, which was already installed when it was opened to competition through unbundling, the fibre network architecture is an ex ante regulatory issue. The operator deploying the fibre network could indeed be tempted to make choices regarding the architecture that could limit the possibilities for the competitors to provide end users with electronic communications services. These choices happen to be generally non-reversible at a reasonable cost, particularly in less dense areas. It is therefore essential that ex ante regulation can control them.*" The European Commission adds in its comments that NRAs "*should take into account the fact that any distribution point will need to host a sufficient number of end-user connections to be commercially viable for the access seekers. In this regard, the Commission stresses that the investment incentives for all operators will critically depend on the size of the concentration point (the location of which is defined by the building operator) and the access conditions. In this context, the Commission asks ARCEP to assess in the course of the implementation of the access obligation if the size of the proposed concentration points is adequate to ensure co-investment in less densely populated areas, and, should this not be the case, to modify the minimum size threshold.*"

In practice, reasonable economic conditions to connect to the concentration point are equivalent to a reasonable deployment cost per home or office unit equipped with optical fibre. This cost is made of the shared deployment cost of the network located downstream from the concentration point, and the cost for each third-party operator to connect to the

concentration point, with a deployment in parallel upstream from the concentration point. The main parameters of the evaluation of this economically reasonable characteristic are, on the one hand, the distance to be covered by the operators from their local point of presence (where their backhaul equipment are installed) to connect to the concentration point by deploying their own optical fibre network upstream, and, on the other hand, the number of lines potentially accessible from this concentration point (its "size"). The number of linear meters of public roads per household (i.e. the average distance to reach a household using the public roads network) is a relevant measurement of the deployment cost to serve a home or office unit in a given area, as the optical fibre cables are deployed along the public roads that serve this area. The deployment is thus made of a shared portion, downstream from the concentration point, and a non-shared portion, upstream from the concentration point. The existence of a shared backhaul offer upstream from the concentration point, e.g. through a dark fibre offer, is a key parameter in the calculation of the cost of third-party operators to rollout the network located upstream from the concentration point.

In its Decision no 2009-1006, ARCEP defines very high-density areas as the communes, or municipalities, in which *"in a significant portion of these municipalities, it is economically viable for several operators to deploy their own infrastructure, namely their optical fibre network, in proximity to customer premises"*. The number of linear meters of public road per household is significantly greater in less dense areas than in very high-density areas, because of two factors: the greater distances between housing areas, and a smaller average number of homes per existing building. The location and the size of the concentration point should compensate for this effect, thanks to the sharing of larger parts of the network. That way, the economic equation of an operator can be equivalent in the two following cases:

- connecting to a concentration point far from the local point of presence of this operator, if it makes it possible to serve a great number of lines downstream ;
- connecting to a small concentration point, if it is located close to a local point of presence of this operator, or if there is a shared backhaul offer to connect the concentration point to this local point of presence.

Therefore, the minimum size of the concentration point has to be determined in a different way whether the building operator provides, or not, a shared backhaul offer upstream from the concentration point.

Minimum size of the concentration point (when there is no backhaul offer)

The trials performed by France Telecom, Free and SFR in cities of Palaiseau, Meaux and Bondy, taking notably into account the constraints related to town-planning and hosting of concentration points, led to concentration points that regroup between 300 and 2 000 lines. Moreover, in the projects carried out by local authorities in less dense areas, the size of the concentration point is generally over 1 000 homes, sometimes even with a backhaul offer upstream.

Besides, in their responses to the preparatory public consultation on the present decision, many players have expressed the desire that the concentration point regroup at least 1 000 homes or unit offices. AVICCA expresses the view that the minimum size of the service area of the concentration point should regroup 1 000 to 1 500 homes. Free estimates this minimum size to 1 000 lines, whereas Bouygues Telecom estimates it to 2 000 lines. Moreover, the Competition Authority establishes a parallel with unbundling economics, and highlights the

fact that *"very few exchanges that regroup less than 2 000 lines have been unbundled so far by alternative operators"*.

It emerges from the technical and economic studies carried out by ARCEP and stakeholders who replied to the public consultation that the total cost to connect to an optical network unit (including the "customer connection" inside the customer premises) decreases only slightly between a 300 houses size concentration point and a 2 000 houses size concentration point (about 5 to 10 %).

Yet, this analysis highlights that the total cost per optical network unit increases significantly when the size of the concentration point is lower than 300 homes.

Furthermore, all the players agree on the fact that too large a size of the concentration point would create significant constraints regarding the saturation of the civil engineering, due to the deployment of a point-to-point network upper in the network for all the lines located in the service area of the concentration point. These constraints could generate additional costs. Therefore, the comments made by the players in the public consultations are in favour of a minimum size lower than 2 000 homes or office units.

However, the smaller the concentration points are, the greater the length between the concentration point and the point of presence of third-party operators and the related costs are. The average backhaul cost can double between 300 homes size and 2 000 homes size concentration points. Therefore, the deployment cost per optical network unit including the backhaul costs is significantly higher when the size of the concentration point is small.

Besides, should the minimum size of the concentration point be small, the operators would have to connect to a mass of concentration points. The increase in the number of concentration points leads to an increase of the operating costs, in particular for the operations that require the intervention of technical experts. In its reply to the public consultation, Free evaluates that concentration points that regroup about 1 000 homes lead to optimised maintenance costs.

As a conclusion, a minimum size of 1 000 homes or office units makes it possible to guarantee a reasonable deployment cost per line, and to limit the number of points to connect to and to operate. Therefore, when there is no backhaul offer, the concentration point must regroup at least 1 000 homes or office units.

Minimum size of the concentration point (when there is a backhaul offer)

The concentration point should gather at least 1 000 homes or office units to allow several alternative operators to connect to it under reasonable economic and technical conditions. However, maintaining this threshold regardless of the characteristics of the area could turn out not to be optimal. Indeed, in some instances, deploying with concentration points that regroup less than 1 000 homes or office units could turn out to be more efficient and less costly, because of the great heterogeneity of the territory. This efficiency objective, that can lead to a reduction of the rollout costs (born *in fine* by the subscriber) needs to be conciliated with the obligation to allow several third-party operators to connect to the concentration point under reasonable economic conditions. To this end, a network architecture with concentration points grouping less than 1 000 homes or office units coupled with a shared backhaul offer at a point located higher up in the network and grouping more than 1 000 homes, could, in some instances, appear to be relevant. The backhaul offer should make it possible to collect the

lines in question at a point that respects the same rules regarding location and accessibility as any concentration point (see *supra*).

Nevertheless, the increase in the number of too small concentration points could restrict the ability for third-party operators to connect to them, even if there is a shared backhaul offer. Therefore, it is necessary to control the size of the concentration point even when a backhaul offer is provided.

First, in light of the constraints related to the location of the concentration point regarding its accessibility, and in accordance with the above, the concentration points need to be located on the transport segment of France Telecom's civil engineering infrastructure network, or on an infrastructure that offers similar characteristics. However, if the building operator installs the concentration points systematically at France Telecom's sub-loop street cabinets, it requires for third-party operators to rollout their network upstream from the concentration point on the whole transport segment. It emerges from the analysis of the location of the sub-loop street cabinets that this solution would make it possible to cover a very small portion of the less dense areas under reasonable economic conditions, in light of the excessive number of linear meters of ducts per home in the transport segment to reach some of the sub-loop street cabinets. Therefore, this solution cannot be applied to the whole territory, particularly outside urban areas. Part of the rollout of optical fibre network also needs to be shared on the transport segment, or equivalent.

Besides, because of the fixed costs related to the installation of a concentration point, there is a minimum number of lines necessary to make the connection to it economically reasonable, regardless of the number of linear meters of public roads per home. The first evaluations of building operators in cities of the very high-density areas state that the cost of a concentration point located at the foot of the building, with mono-fibre, is between 30 and 40 Euros per home. It is reasonable that the installation of a concentration point does not lead to a significantly higher cost on the whole territory, except very high-density areas. Yet, according to the market data, the installation of a street cabinet costs between 9 000 and 10 000 Euros. In light of these elements, a minimum threshold of 300 homes or office units needs to be respected for the size of the concentration point.

It has emerged from the preparatory work of the present decision on the sharing in less dense areas that most of the players express the view that the service area of the concentration point should not gather less than 300 lines. This figure also corresponds to the average size of the copper sub-loop street cabinets in less dense areas, downstream from which it would not seem reasonable to install concentration points.

The Competition Authority underscores in its Opinion no 09-A-57 of 22 December 2009 related to a request of opinion from ARCEP on sub-loop unbundling, *"that the alternative operators that have already invested in the unbundling of the original exchange will seldom be able to reinvest in the network, this time, at the sub-loop level"*. A fortiori, the investment of an alternative operator in a network down to a concentration point located downstream from the sub-loop street cabinets would not seem economically possible.

Lastly, in its Opinion no 10-A-18, the Competition Authority *« calls on ARCEP to be highly vigilant concerning the size of the concentration points. Too small concentration points could compromise durably competition and it is the role of ARCEP to verify that the constraints mentioned by PON operators to limit the size of the concentration points are based on solid and perennial hypotheses"*.

Supposing that at the scale of a concentration point's service area, the FttH penetration rate will eventually converge towards the current broadband penetration rate, namely about 60%,

the value of 300 homes or office units seems to be a minimum in relation to the constraints of operators having a 25% market share, regardless of their technological choice.

A point-to-point operator wishing to install active equipment at the concentration point, in particular because of the great distance between the concentration point and the homes, needs to do so for a sufficient number of subscribers, because of both the fixed installation cost and the recurrent operating and maintenance cost. For a PON (Passive optical network) operator having a 25% market share with the same target FttH penetration rate, wishing to optimise the occupancy rate of its network, 45 subscribers at a concentration point with 300 homes or office units allow him, with splitters with a 1*32 ratio, to install very few optical fibre cables upstream and to reach an acceptable occupancy rate.

Therefore, it seems that the minimum size of 300 homes or office units does not impose disproportionate constraints, regardless of the FttH technology being used.

It is thus necessary to set at 300 homes or office units the minimum size of the concentration point when the building operator provides a shared backhaul offer.

Finally, in isolated housing areas, the range of active equipment can be a limiting factor and force operators to install small concentration points with active equipment. In this case, it is legitimate to introduce a strict restriction to the lower threshold of 300 homes or office units, related to the layout of housing. Should the building operator wish to use this exception, it should first request the opinion of other operators on the opportunity to install the concentration point lower down in the network, and it should be able to justify this choice, in particular by the local housing layout. The building operator must then provide a backhaul offer that allows connecting to the concentration point under reasonable economic conditions.

Characteristics of the backhaul offer

In its opinion no 10-A-18, the Competition Authority underscores that *"if the existence of a backhaul offer can be a palliative, this presupposes at the very least that the existence of such an offer is guaranteed and that its terms are controlled by regulation"*. Many players, in particular AVICCA, Free, Bouygues Telecom and SFR have also stressed in the public consultation the necessity to specify the terms of the backhaul offer.

The backhaul offer being necessary to exceptionally establish a small concentration point (with less than 1 000 homes), the relevance of its juridical, technical and financial terms will be examined in light of the requirements related to the concentration point mentioned in the present decision. This backhaul offer is provided between a point gathering at least 300 lines and a point higher up in the network, which has the same characteristics as a concentration point which would be installed without a backhaul offer. In particular, this point must fulfil the same accessibility conditions as any concentration point, and is consequently located at immediate vicinity of France Telecom's civil engineering infrastructure, or of an alternative civil engineering infrastructure that offers equivalent access conditions. The backhaul offer is therefore a passive optical fibre offer between the concentration point and another point located higher up in the access network that enables third-party operators to connect to the concentration point under reasonable economic conditions when the concentration point is small.

First, to guarantee that the connection to the concentration point can be performed under reasonable economic conditions, the financial terms of this offer need to respect the pricing principles specified by ARCEP Decision no 2009-1106, and the savings related to the sharing

of the cable need to be shared fairly between the operator that deploys this backhaul link and the operators using it.

Second, as underscored by the Competition Authority in its Opinion no 10-A-18, *"the provisions concerning the long term right of use should also apply to the backhaul portion"*. To guarantee the sustainability of the backhaul offer as a palliative solution, the building operator should provide third-party operators long term rights of use on the infrastructure. Moreover, to design adequately the number of fibres in the backhaul cable, the operator that deploys it should usefully, before the rollout, consult with third-party operators about their needs concerning the backhaul link.

Maximum size of the concentration point

Some operators have stressed the need to specify a maximum size for the concentration point, in particular to avoid jeopardizing the optimization of PON networks.

The size of the concentration point should indeed be limited. First, the location of the concentration points should meet the objective of infrastructure-based competition, and should therefore not be located too high up in the network when there is an economic area for third-party operators to deploy a network to a lower point.

Moreover, locating the concentration point higher up in the network implies an increase of the length of the shared network deployed downstream, and reduces the advantages, with PON technology, related to a smaller cable on the portion located upstream from the concentration point.

However, it seems not necessary to specify a strict maximal size of the concentration point in less dense areas, as it is already naturally limited by several factors:

- on the one hand, locating the point-to-point network higher up in the network could require a desaturation of the civil engineering network if it has to be done for too many lines ;

- on the other hand, the cost of acquisition and operation of great capacity premises, divided by the number of lines, can be higher than that of premises of more moderate size like cabinets or shelters.

Consequently, the building operator already seems to be given in practice an incentive to limit the maximum size of the concentration point. It seems therefore unnecessary to specify an upper limit for this size in this decision. Nevertheless, ARCEP will carefully monitor the evolution of the size of the installed concentration points and could consider bringing more details to the present decision if necessary.

Conclusion on the size of the concentration point

As a matter of conclusion, the heterogeneity of local characteristics in less dense areas leads to give priority to a certain flexibility concerning the size of the concentration point, to allow the building operator to choose a rollout architecture that enables to conciliate the objective of efficiency in the rollout costs and the obligation to provide third-party operators access at the concentration point, in a passive form, under reasonable economic conditions. The building operator must be able to justify that its choices related to the location and the size of the concentration point and to the existence of a backhaul offer enable third-party operators to connect to it under reasonable economic conditions. These arguments must be available, should ARCEP ask for them.

In light of the available elements, when the building operator does not provide a backhaul offer satisfying the above-mentioned conditions, the concentration point must regroup at least 1000 homes or office units. Besides, when the building operator provides a satisfying backhaul offer, the concentration point must regroup at least 300 homes or office units, except under particular conditions that must be justified, related in particular to the housing and networks structure.

Completeness of the deployment

The contributions to the public consultation underscored that several pitfalls have to be avoided. First, it would not be fair to impose to the building operator to equip all homes or office units located in the service area of the concentration point, as the owners may not allow this operator to equip their building or may choose another building operator. But, conversely, if there was no such obligation, the building operator could declare service areas of concentration points with large sizes, whereas, in practice, it would limit the equipment of the service area to part of these homes or office units, for example to the more profitable ones. The inhabitants located in the service area would then risk to be deprived of ultra-fast broadband FttH access for a long time. Moreover, the economic equation of third-party operators wishing to connect to the concentration point would become complex, or even impossible, because they would then have access to a restricted number of lines, with fixed costs to connect to the concentration point. It is therefore relevant to demand:

- that the building operator rolls out, within a reasonable timeframe, a large enough horizontal network between this concentration point and the immediate vicinity of the housing located in the service area. A deployment period of two to five years at most would seem a reasonable time, depending on the local characteristics. Within this period, this deployment should allow the building operator to connect all homes and office units located in the service area of the concentration point, and the latter should aim at connecting almost all of them, unless the owners concerned refuse;
- moreover, to complete the coverage of this area, the building operator should provide an offer to equip the buildings located in the service area of the concentration point and that are not yet equipped with optical fibre. This offer allows to connect to the horizontal network and to equip the indoor portion of the building with a riser. This offer could be provided in particular to third-party operators that wish to direct the deployment towards specific buildings or towards private individuals that want to make sure that their building will be equipped.

These obligations are necessary to ensure eventually a complete and homogeneous coverage of the territory with optical fibre networks and to guarantee that the number of subscribers that can be addressed is sufficient to allow third-party operators to connect to the concentration point under reasonable economic conditions.

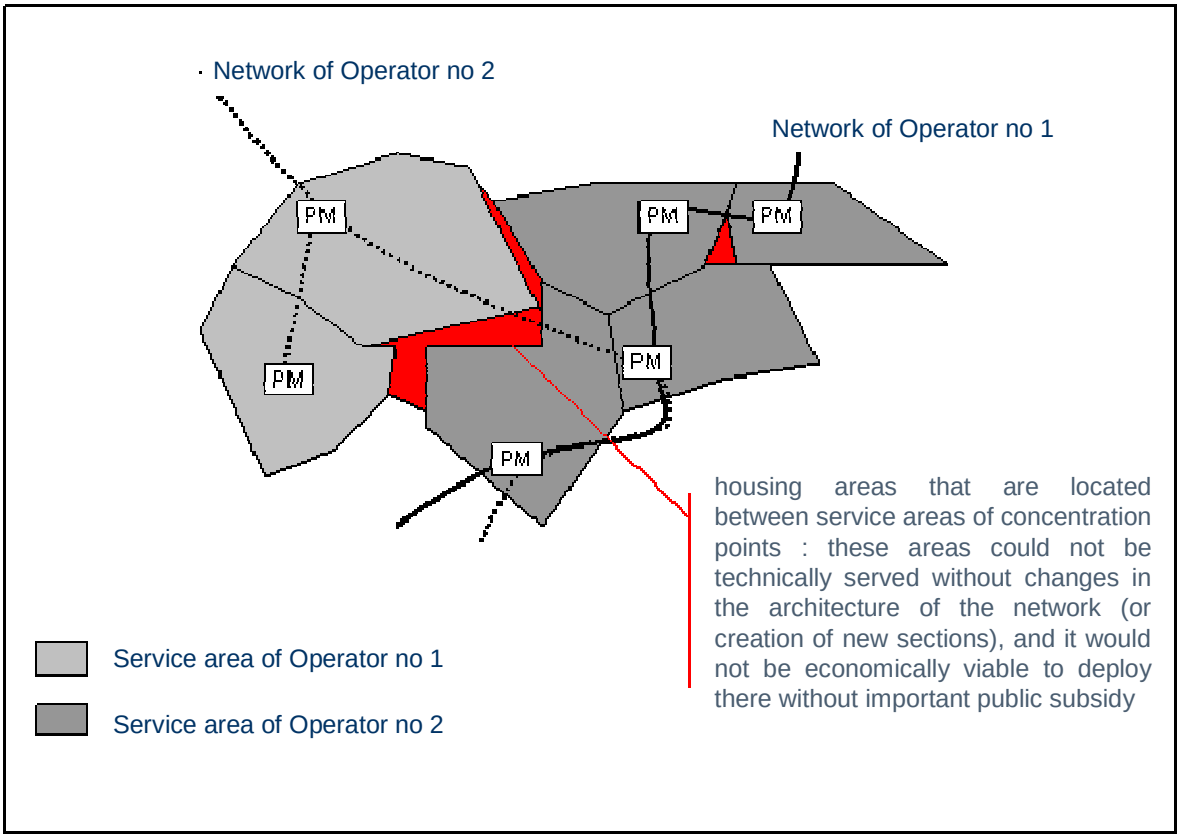
3°) Geographical mesh to ensure consistency in the deployments

Geographical consistency in the deployments

In order to meet the objectives of coverage of the territory specified in CPCE Article L. 32-1, and of economic efficiency, the service areas of the concentration points need to connect to each other to allow a progressive, consistent, and potentially complete coverage of the territory with optical fibre.

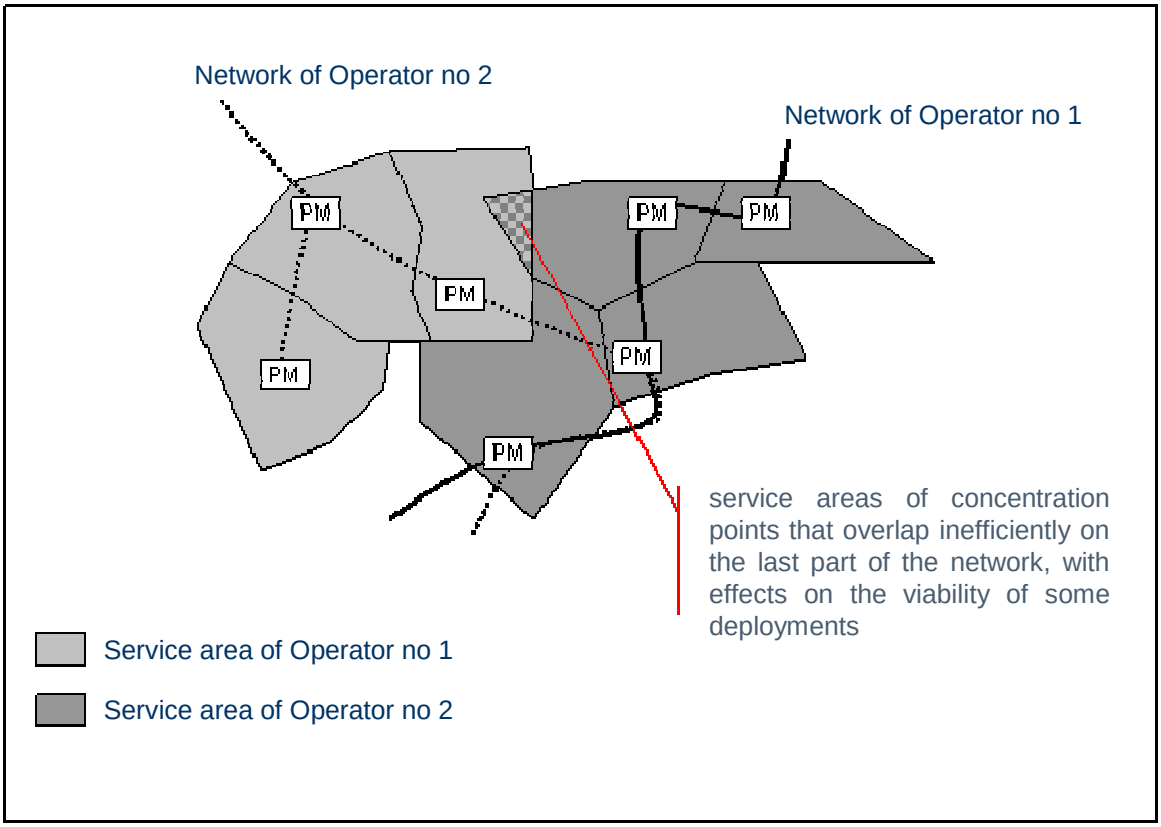
The spontaneous and not concerted deployments of several operators that have their own approach, technology, existing situation, and rollout plans, could lead to the two following situations:

- existence of lasting gaps in coverage, i.e. housing areas that are located between service areas of concentration points : these areas could not be technically served without changes in the architecture of the network (or creation of new sections), and it would not be economically viable to deploy there without important public subsidy;



Example of deployment resulting in lasting gaps in coverage

- existence of service areas of concentration points that overlap inefficiently on the last part of the network, with effects on the viability of some deployments.

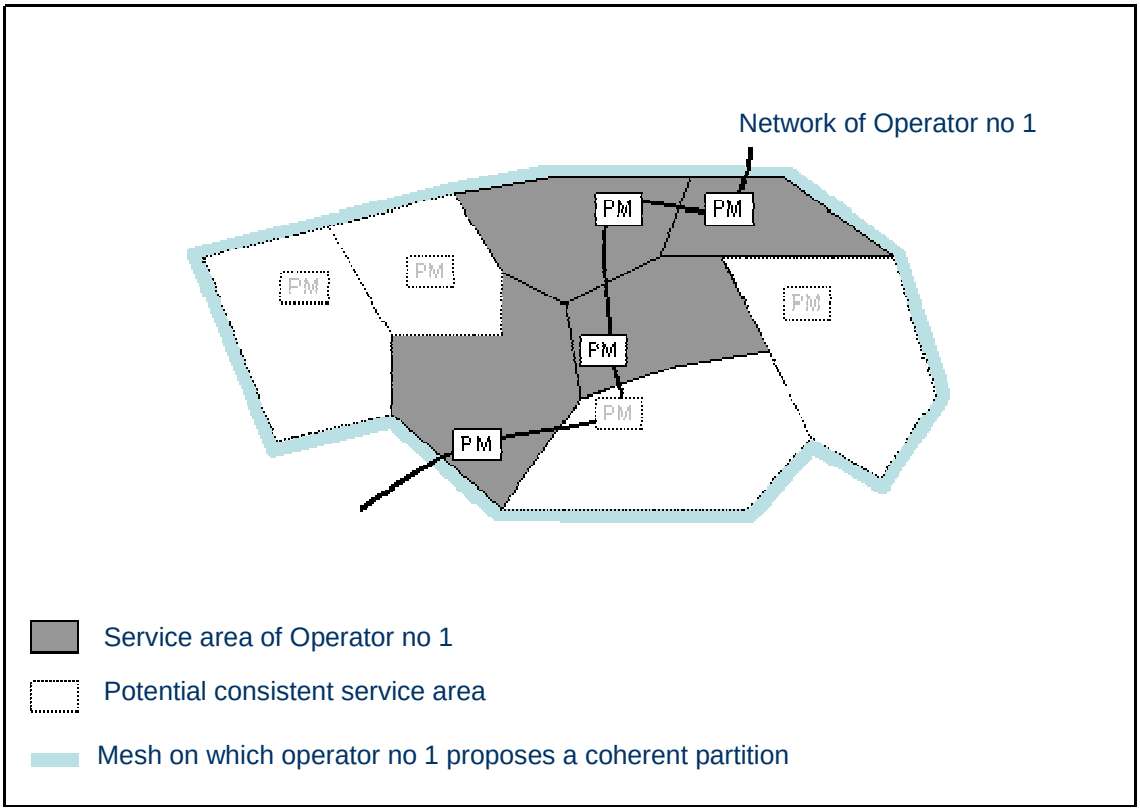


Example of deployment with inefficient overlap

To avoid situations resulting in inefficiency in the rollouts, to guarantee consistency in the deployments and to make it *in fine* possible to cover the largest possible area in the territory, the building operator deploying in the service area of a concentration point should make sure that its rollout plan, with its service areas of concentration points, makes it possible to cover later the homes and offices units located in an adjacent zone. The homes and office units that would be taken into account would be located in a larger territorial mesh that would make it possible to guarantee consistency in the deployment at a relevant scale. Moreover, before the beginning of its rollout, the operator needs to take into account the rules governing town planning, in particular to set the size of its concentration points.

To guarantee consistency in the deployments, the building operator needs to delimit the service areas of the concentration points in this larger mesh and to propose a partition of this mesh in potential service areas of concentration points that respect the conditions specified in part III. The operator proposing this partition is not forced to install all the concentration points in question or to deploy the downstream network in all the proposed service areas.

This mesh would make it possible to guarantee that deployments can occur later under reasonable economic conditions in the service areas that would not be equipped by this operator.



Example of a proposition of a larger mesh of service areas of concentration points

A need for dialogue between the concerned parties

It is necessary, first, to specify the geographical larger mesh on which the building operator proposes a coherent partition, and, second, to verify that the proposed partition is relevant.

Following the work performed with the players, ARCEP considers several potential meshes:

- the commune's geographical definition:

  From an operational point of view, the commune's definition is a relevant rollout echelon. The commune can have recognized staff having the required skills to enable the deployments of the networks by operators, in particular concerning the public road network or the installation of street furniture. At this local level, it is also possible to obtain the programmes related to the local town planning, to the evolution of housing and to the works planning.

  However, the communes can pass on all these elements and the related skills to an "EPCI" (public institution for cooperation between communes). In such a case, a larger mesh could be proposed.

  The main drawback of the commune is that it is not necessarily the best echelon from a technical point of view. Indeed the housing structure is not always consistent with the communes' limits: for example, some consistent housing areas, like residential areas, can be located on two adjacent communes, which could make the rollout of a network that would stop at the limit of the commune inefficient. Besides, in most cases, the civil engineering infrastructure allowing the rollout of FttH networks has not been built according to the commune's geographical limits.

- The MDF's service area :

  The MDF's service area has the advantage of being structured according to France Telecom's civil engineering infrastructure network. Given that the operators intend to use mostly France Telecom's civil engineering infrastructure network to rollout their FttH network, the structure of their deployments will have the same limits as the copper network. Moreover, the infrastructure networks rolled out by local authorities have also been structured according to this MDF's service area, as they usually are intended to make the deployment of backhaul networks for these MDFs possible.

  The MDF's service areas cover generally a set of communes, according to a network rollout logic, and have taken into account the evolution of housing, with successive additions of new portions to the existing network.

Imposing to the building operator to propose a mesh of concentration points' service areas on a larger scale, that would be the MDF's service area, the commune or a group of communes ("*intercommunalité*"), seems to be a reasonable constraint. First, when the operators begin to rollout their network in a given area, they generally do it on a larger scale than the concentration point's service area. Indeed, deploying on a given area involves fixed costs, related in particular to the installation of the ODF and to the mobilization of a rollout team on the area, which make it not necessarily profitable to deploy in a single concentration point's service area. Besides, the sales and marketing of operators do not generally target a housing area as small as a concentration point's service area. Therefore, one can reasonably assume that a building operator would have designed such a mesh on a larger scale for its own needs.

Partition into concentration points' service areas could be considered even on a larger scale, such as the level of the *département* or the *région.* However, the cost of the survey and the partition could represent on these meshes a significant cost overrun that would not be justified, as the consistency in the deployment is already guaranteed at the level of the commune's geographical definition, the *intercommunalité* or the MDF's service area. It seems therefore proportionate to establish a mesh at the level of the MDF's service area, the commune or the *intercommunalité.*

In order to specify the relevant mesh and its partition, and to guarantee that the applicable regulation concerning town planning is respected, the building operator will have to consult with the concerned parties, i.e. at least*:*

- the operators on the list specified in CPCE Article R. 9-2;
- the communes served by the concentration point's service area ;
- the local authority or the grouping of local authorities that carry out a *schéma directeur territorial d'aménagement numérique* as defined in CGCT (general code of local authorities) Article L. 1425-2, when there is one;
- if applicable, the competent grouping of local authorities as specified in CGCT Article L. 1425-1.

Operators have mentioned that they would take the utmost account of the discussions with the local authorities on these rollout schemes. Should there be a disagreement with one of these parties on the proposed partition, the operator would have to justify its choice with relevant factors proving that its scheme also allows a potential coverage of the whole territory, under satisfying competition conditions.

Should there be no reply from the consulted parties, and to guarantee a consistent coverage, the recommended option for the mesh would be the MDF's service area, as the structure of France Telecom's civil engineering infrastructure network shows the technical consistency that enables a potential coverage of the whole territory.

Section IV Regulation concerning the terms governing access to ultra-fast broadband optical fibre electronic communications lines

1°) Reasonable or unreasonable nature of a request to install additional fibres

Article 5 of ARCEP's Decision no 2009-1106 specifies that the building operator shall grant reasonable requests from operators to benefit from access to a dedicated optical fibre for each home or office unit. A request being qualified as reasonable has therefore to be granted by the building operator which often results in a multi-fibre infrastructure being rolled out in very high-density areas. The latter are defined as the set of communes in which *"in a significant portion of that municipality, it is economically viable for several operators to deploy their own infrastructure, namely their optical fibre network, in proximity to customer premises"*

Outside very high-density areas, the characteristics of housing, the population density, the availability of civil engineering infrastructure and the viability of the rolling out of several parallel networks by operators are heterogeneous. Therefore, the reasonable nature of a multi-fibre scheme would be difficult to establish in a general way, and would have to be examined on a case by case basis depending on the local characteristics. The first surveys or deployments that have been conducted show that when the concentration point gathers several hundred to several thousand lines, with a point-to-point network rolled out downstream, overloading issues can appear in the civil engineering infrastructure. Besides, the rollout of a multi-fibre network downstream the concentration point has also an impact on the volume of the concentration point, which leads therefore to additional constraints regarding the local installation of this equipment, for the same housing service area.

Moreover, the preparatory work conducted before the adoption of this decision made it possible to determine that, unlike in very high-density areas, none of the parties expressed the will to benefit from access to a dedicated additional fibre at this stage in less dense areas. Therefore, describing a request to benefit from a dedicated fibre as reasonable would not be relevant.

As a result, the present decision does not consider that the building operator is obliged to grant requests from third-party operators to enjoy access to a dedicated fibre.

This lack of obligation does not question a multi-fibre deployment scheme, if it was the choice of the building operator. In particular, if the architecture used by a public initiative network provides for several fibres per home, the access obligations of the present decision would apply to one of the fibres and would not question the rollout of additional fibres.

Lastly, as specified in Decision no 2009-1006, the list of communes of very high-density areas could *"be expanded following the adoption of a future ARCEP decision, chiefly as a result of changes in population data or the housing structure of certain communes, which are brought to the Authority's attention."*

2°) Terms governing access

CPCE Article L.34-8-3, as drawn from Law no. 2009-1572 of 17 December 2009, concerning efforts to bridge the digital divide, stipulates that *"In the instances defined by the Electronic Communications and Postal Regulatory Authority, access can consist of supplying network installations and specific elements that are requested by a third-party operator prior to the installation of ultra-fast broadband optical fibre electronic communications lines in the building, in exchange for which the requesting operator will assume a fair share of the costs."*

ARCEP specified in its Decision no 2009-1106 that the building operator must provide third-party operators with access encompassing a sharing mechanism between operators. Moreover, the decision stipulates that *"when operators enter the market after the lines have been installed, their contribution to cost-sharing will be determined by using a rate of return on investments that takes account of the risks incurred, and which extends a risk premium to the building operator"*(p. 29 and 30 of the decision).

In accordance with CPCE Article L. 34-8-3 and with the ARCEP aforementioned decision, all the building operators that have published a sharing offer for the very high-density areas have provided an initial co-financing scheme with cost-sharing in exchange for long-term rights on the deployed infrastructure. Most of them have also provided for a later investment scheme allowing operators that have not helped finance the installation of optical fibre lines from the outset to be able to benefit from a long-term access offer that could be inserted into their own balance sheet (namely usufruct or IRU).

General principles related to access offers

Outside very high-density areas, it seems necessary that the building operator provides third-party operators with terms and conditions of access that guarantee a long-term access under non-discriminatory conditions and that allow them to climb the ladder of investment.

As pointed out by the Competition Authority, *"thanks to co-investment, not only is there a reasonable guarantee that the access conditions of alternative operators to the network are not damaged, but also these conditions could be better than those of the copper local loop unbundling: (i) from an economic standpoint, by replacing variable costs with fixed costs; (ii) from a technical standpoint, through a "right to check" the operational terms (access delivery and after-sales process) and a better access to information"* (Competition Authority Opinion no 10-A-07 dated 17 March 2010, point 144).

The concentration point is located at the boundary between the portion of the network that can economically and technically be rolled out by each operator, and the portion that needs to be shared. Hence, the Competition Authority underscores in its opinion that outside very high-density areas, *"the fibre optical local loop has the characteristics of a natural monopoly, which means that when an operator deploys a fibre network, it is not likely that a competitor would roll out another one"*. Owning and operating the shared network, that is not replicable, on a market whose provisions are essential to provide services on the downstream retail market can lead to anticompetitive and economically suboptimal behaviours.

On the one hand, the owner of this non-replicable portion can be involved in operational abuses, namely by setting an access price to its infrastructure much higher than the equilibrium price, in order to obtain a monopoly profit that can distort competition on other markets. In addition, such behaviour will automatically increase the prices supported *in fine*

by the end users. On the other hand, the owner of this non-replicable portion can be involved in eviction abuses on the downstream market by favouring its own company or subsidiary company when providing upstream services, both on a financial and on an operational level, in order to supplant or disadvantage its competitors.

Symmetric regulation makes it possible to impose remedies to correct the aforementioned problems. However, in the context of the deployment of new networks, and of the building of new electronic communications local loop portions that are not economically replicable, it seems proportionate, at this stage, to opt for an incentive regulation that relies on the market dynamics and to resort to asymmetric regulation only if the symmetric regulation had proven insufficient.

In its opinion no 09-A-57 dated 22 March 2209 and no 10-1-07 dated 17 March 2010, the Competition Authority highlights about FttH networks that *"the rollout of these networks is a decisive step in the competition dynamics of the French electronic communications market. The opportunity for alternative operators to progressively be self-sufficient regarding France Telecom's infrastructures could lead, in the long run, to reduce the scope of sectoral regulation, namely ex ante, and to replace it with a single ex post regulation with the common competition rules"*.

The sharing of the costs and risks related to investment between the different operators using the shared infrastructure can be a sufficient answer to the risks described above. Regarding the risks of operating abuse, the cost-sharing enables to reduce the risk to constitute a monopoly profit as the co-investors have long-term rights of use paid on the basis of an objective sharing of the costs, that allow them not to depend over time on the rental offers prices set by the owner of the infrastructure. As for the risks of eviction abuse on the downstream market, the discrimination risks are much reduced because the operators benefit, in the long run, from the same rights of use of the infrastructure as the owner.

Moreover, the building operator has to provide access offers that also make it possible for the balance sheet structures of the owner of the infrastructure and of its third-party users to be similar. The classical rental access offer is indeed an operational expenditure (OPEX) that does not create any financial value, namely from an accounting standpoint. On the contrary, the owner of the infrastructure can amortize the cost of this infrastructure and therefore increase the value of its balance sheet with the capital expenditure (CAPEX).

Thus, the sharing mechanism of the rollout costs, already stated in Article 3 of ARCEP Decision no 2009-1106, seems to be the solution to the main risks related to the owning and the operating of the economically non replicable portion of the network, and it reduces therefore the need for asymmetric regulation.

In addition, a consultation prior to the deployment aims at enabling third-party operators wishing to have long-term rights of use on the rolled out infrastructure to express their specific needs, in particular with regard to the hosting of active equipment at the concentration point and backhaul links (*cf infra*).

The access offers allowing operators to have a long-term use of the infrastructure should not be only available when the infrastructure is under construction. As the objective is to allow third-party operators to benefit from protective long-term rights of use, it is necessary to define the entry conditions, not only for the current third-party operators, but also for the potential and future third-party operators. Should there be no *a posteriori* access offers, only a few of stakeholders able to help finance the installation from the outset would have protective and long-term rights, and not the others. The lack of a relevant access offer *a posteriori* could lead to a closed and restricted oligopoly that would cancel out the incentive of operators

involved from the outset to provide competitive wholesale offers. The lack of regulatory opportunity for third-party operators to access the infrastructure under similar conditions allows operators having helped finance the infrastructure from the outset to be entirely free to control the entry conditions of third-party operators. These co-investors from the outset could form an oligopoly that could lead to collusive behaviours on the downstream market, by reserving discriminatory advantages on the infrastructure upstream market. The risks described above of operating abuse and, above all, of eviction, in case of monopoly could threaten the play of competition on the retail market.

It appears that in less dense areas, some operators will not be able at this stage to help finance the different co-financing projects, either because they have more limited financial capacity, or because they need time to rollout their horizontal network. It seems therefore essential that the access offers make it possible, at any moment, to benefit from a long-term use of the infrastructure, so that the competition structure will not be determined, during the next decades, by the third-party operators' capacity to help finance the infrastructure from the outset.

Moreover, the building operator should provide an access offer allowing third-party operators, at any moment, to include their long-term rights of use in their balance sheets, as the owner of the infrastructure does, so that all the operators can benefit from the same advantages regarding the financial structure of their expenditure. The Competition Authority, in its Opinion no 10-A-18, expresses the view that *"ARCEP proposal to set a principle of long-term right of use, that allows third-party operators to help finance the investment in the fibre network, from the outset or at any moment, with a flat fare, is in line with the European recommendations and the sectoral practices. The Competition Authority fully subscribes to this proposal which enables to conciliate investment and competition protection."* The *a posteriori* access offer could have a specific price-setting (in particular with a risk premium), as described below.

A ladder of investment in the access offers

As pointed out by the Competition Authority in its opinion, *« the conditions to contribute to the co-investment should not create artificial barriers; in order to take into account the heterogeneous capacities of the stakeholders, the latter should be able to adapt their level of involvement, at least to some extent."* Terms and conditions of the access offers should therefore make it possible to adjust the level of involvement and that the access offer is adapted to third-party operators. The European Commission underscores in the recital 3 of the NGA recommendation that "*The appropriate array of remedies imposed by an NRA should reflect a proportionate application of the ladder of investment principle."* This requires the existence of several levels of involvement and of investment in the access offers, which should be adapted to smaller operators or new entrants, and allow them to climb the ladder of investment. In its opinion no 10-A-18, the Competition Authority "*expresses the view that the obligation to provide a wholesale offer, like an offer for individual line rental, is an essential guarantee to allow smaller operators or new entrants to provide services on the ultra-fast broadband market in the less dense areas, and should therefore be one of the regulated offers."*

In addition, in the NGA recommendation, the European Commission specifies that "*Access prices adjusted for risk based on volume discounts reflect the fact that investment risk decreases with the total number of fibre loops already sold in a given area. Investment risk is closely tied to the number of fibre loops which remain unused. The higher the share of used fibre loops, the lower the risk. Access prices could therefore vary in accordance with the*

volume purchased. A single level of discount should be authorised, available at a uniform price per line to all qualifying operators. NRAs should identify the volume of lines which should be purchased to get access to such volume discount, taking into account the estimated minimum operating scale necessary for an access seeker efficiently to compete in the market and the need to maintain a market structure with a sufficient number of qualifying operators to ensure effective competition. The volume discount should only reflect the reduction of risk for the investor and therefore cannot result in access prices which are lower than the cost-oriented price to which no higher risk premium reflecting the systematic risk of the investment is added."

Therefore, the access offers outside very high-density areas should allow third-party operators with limited investment capacities to take a reduced share of the deployment risks. In practice, this implies the existence in these areas of a long-term right of use on a limited number of accessible lines on the investment mesh. The pricing of these offers could reflect, in line with the European recommendations, the fact that the risk incurred by the co-financing operator depends on the volume of lines for which it contributes to the cost-sharing. *A minima*, to guarantee that operators with reduced investment capacities and limited ability to support risks will be able to enter the market, the building operator has to provide a passive rental line offer, the tariff of which includes a rate of return on investments with a premium reflecting the risk incurred.

In its observations dated 26 November 2010, the European Commission invites ARCEP to *"either specify in its final measure further details on the pricing and conditions of access, or to require operators to submit for approval their co-investment agreements and wholesale line rental access offers prior to their publication"*. ARCEP pursues the work performed with the stakeholders on the implementation of the cost-sharing terms and conditions. This work will lead, if needed and after a relevant consultation process including in particular the European Commission, to the adoption of a decision or a further recommendation that will provide the necessary details on the implementation of these cost-sharing terms and conditions.

Lastly, some local authorities or organisations representing local authorities have requested that the co-investment mesh could be the same as the one used for the public initiative networks projects. In very high-density areas, ARCEP recommended that the consultation process to enter a co-investment scheme should be held at the commune's level. Outside very high-density areas, the objective of consistency in the rollout requires that in principle, the call for co-investment is held at least at the commune level, or at the intermunicipal level. Yet, if the mesh used for the call for co-investment is too large, it could lead to a significant barrier to entry for operators with more limited financial capacities. A call for investment at a whole *département* level, for instance, could threaten the ability for small operators to participate in the co-investment and could favour unduly the largest operators.

Characteristics of the pricing of a posteriori access offers

It seems essential that the building operator provides, at any moment, an access offer to the third-party operators. However, as ARCEP points out in Decision no 2009-1106 (page 28), *"to encourage market players to equip buildings with optical fibre, and in accordance with the work being done in Europe which is tending to favour risk sharing and giving a risk premium to operators who invest, it is also advisable to include a provision that, when operators enter the market after the lines have been installed, their contribution to cost-sharing will be determined by using a rate of return on investments that takes account of the risks incurred, and which extends a risk premium to the building operator."* Besides, the

European Commission calls on "*ARCEP to consider applying cost-oriented prices for access to the fibre optical lines in the terminating segment and to associated facilities, including an appropriate remuneration for risk*". Therefore, in accordance with Article 3 of Decision no 2009-1106, the rate of return on investment used by the building operator to determine the pricing terms and conditions of the access offers can extend a risk premium to the building operator, taking account of the risks incurred. The calculation of this risk premium will take into account the specific conditions of less dense areas. It could lead, if necessary, to a different rate from the one used in very high-density areas.

Access offers provided in the case of public initiative networks

About public initiative FttH networks projects, the Competition Authority, in its opinion, "*invites (…) ARCEP to take into account the specificity of public initiative projects to govern the terms and conditions of the implementation of the long-term right of use, so that they remain fair and do not arbitrarily discourage local authorities from intervening*".

The present decision aims at imposing obligations on any building operator rolling out a network, should it be in the context of a public initiative project or not. It is indeed essential that no specific nor exceptional rules related to rollout develops for the public initiative projects. However, ARCEP considers that it is essential to make sure that, as far as possible, the general applicable regulation imposed on any building operator does not specifically obstruct the public initiative projects.

The terms and conditions of the sharing of deployment costs described above allow operators seeking access to benefit from a long-term right of use, on a limited number of lines. These terms bring flexibility, in particular for a public initiative project, and make it possible to adapt to local market structure, in particular in case of a private operator holding locally the highest market shares.

Moreover, as an access offer can translate into the sale to third-party operators of long-term rights of use and into passive rental line access offers, the scheme seems in line with the practices in public initiative networks.

In particular, concerning the terms of the rights of use, it would be legitimate and in line with the practices in public initiative networks that the cost-sharing results in granting rights of use with longer terms than the term of the contract between the local authority and the operator having established and/or operating the network, as it is already the case for the high-speed broadband public initiative networks. In the case of a public initiative network, the local authority can indeed, during the lifespan of the network, have a new operator operating the network, i.e. have a new building operator; it would be legitimate, considering that third-party operators support the costs and risks related to the deployment, that this change does not result in a limitation of the rights of use's terms granted to the third-party operators that have shared the network rollout costs and invested in long-term rights of use. When implementing Article 8 related to the terms of the rights of use granted, it would therefore be undesirable to limit the terms of the rights granted to third-party operators to the terms of the contract between the operator in charge of the rollout and/or the operating of the network and the local authority.

Lastly, in the public consultation, some local authorities or organisations representing local authorities have requested that another characteristic of public initiative networks should be taken into account, pointing out that they are often limited to a wholesale operator trading, and generally not allowed to intervene on the retail market. Therefore, the economics of these networks relies often on an exclusive operating of the wholesale market. However, it appears,

on the one hand, that the obligations related to co-investment have to be imposed since the competition risks (namely the operating abuses) are structural and, on the other hand, that the closing of the wholesale market (namely the rental lines offers) implies competition problems that can only be solved by a deep analysis and a sufficient amount of experience and feedback. ARCEP will work with the Competition Authority on this issue promptly.

3°) Hosting of passive and active equipment

It is necessary, to respect the principle of technological neutrality, to make it possible to host passive and active equipment at the concentration point

Depending on the technologies used to deploy optical fibre networks, the optimal location of passive and active equipment can be at a variable height in the network, and can, in particular, be located at the concentration point. The ability for a third-party operator to host its passive and active equipment has a significant impact in the economics of its rollout in less dense areas.

In particular, point-to-point technology requires at this stage, to be rolled out under good economic conditions, that active equipment is located closer to the premises than in PON technology. On the other hand, the location of passive equipment required in PON technology (i.e. the splitters) is a key parameter for the operators having chosen this technology to optimise the economic conditions for their deployment. Therefore, the deployment rationale for two operators that would have chosen different technologies is likely to lead to different constraints regarding the location of passive and active equipment.

As for a third-party operator using PON technology, it should be able to have flexibility points to optimise the occupancy of its active equipment (ports on PON cards located upstream at the ODF) apace with the steady increase in load of the network.

Such an operator will generally want to have splitters installed at the concentration point, to be able to perform the cross-connection operations needed for its active equipment located upstream. The ability to host passive equipment at the concentration point seems therefore to be a necessary condition to allow third-party PON operators to access the last part of the optical fibre network under reasonable economic conditions.

As for an operator using point-to-point technology, it is necessary to compare, for a concentration point with a given service area, the difference between the cost of rolling out the network upstream from the concentration point, and the installation of active equipment at the concentration point. In some cases, the cost related to the rolling out of a significant number of lines upstream from the concentration point, including the costs of cables and civil works, does not allow such an operator to access to the concentration point under reasonable conditions. The additional cost related to the deployment of 1 000 lines in point-to-point technology from the ODF to the transport segment of the civil engineering infrastructure is estimated by the market players to about 20 Euros per linear meter of cable, i.e. between 5 and 50 Euros of additional cost per line depending on the local characteristics of the transport segment, aside from the possible desaturation of the civil engineering network and from the cost of the ODF. The monthly charge related to the civil engineering should also be added, as well as the costs related to the desaturation of the civil engineering. These additional costs could jeopardize the economic feasibility of a connection to the concentration point with a point-to-point technology. In addition, the hosting of active equipment, if it is not done at the concentration point, has to be done at an optical distribution frame located in a unit or a

shelter higher up in the network, with, in principle, a comparable cost per line for the active equipment, but with difficulties and specific additional costs related to the hosting unit of the ODF, that has usually to be bought and equipped. In the end, the ability to host active equipment at the concentration point can eliminate the considerable additional cost related to the deployment of a point-to-point network up to a point located very high in the network and the economic feasibility of the connection to the concentration point for a third-party point-to-point operator can therefore depend on it.

Moreover, the hosting of passive or active equipment at the concentration point makes it possible to limit the saturation of the transport networks, in particular France Telecom's ducts, as each operator, regardless of its technology, can collect with a limited number of optical fibres the traffic at the concentration point. Furthermore, like with unbundling, this ability allows each operator to retain control over its technological choice, its capacity scaling, its deployment schedule and the nature of passive or active equipment located at the concentration point.

As the building operator deploys the network, the chosen concentration point can be, for a given third-party operator, the optimal location to install its passive or active equipment. Admittedly this location is restricted by the present decision, but it is still the choice of the building operator, and not that of the third-party operator. As this location is chosen by the building operator, if third-party operators cannot host their passive or active equipment in the vicinity of the concentration point, this could have serious consequences on the economic access conditions to the last part of the network and may lead to a barrier to entry for some operators. The obligation to host passive or active equipment is therefore, in general, a necessary condition to provide third-party operators with reasonable conditions to connect their lines to the concentration point.

The request for hosting passive and active equipment at the concentration point is reasonable under certain conditions

Some players, in particular point-to-point operators, have requested to host passive and active equipment. As for PON operators, the installation of splitters at the concentration point does not seem to imply specific constraints. On the contrary, at this stage, the hosting of active equipment at the concentration point represents a constraint (need to comply with specific conditions of temperature, hygrometry and provision of electrical energy). However, these constraints are generally reasonable because:

- in case of hosting in a shelter or technical unit, they are limited, and moreover, it is easier than in very high-density areas to find a convenient site to host concentration points as land is more available;
- in case of hosting in a street cabinet, the existing deployments and the equipment actually available on the market show that it is possible to have such hosting under reasonable conditions. For example, active equipment is already installed in street cabinets within the framework of France Telecom's NRA-ZO and NRA-HD solutions in the vicinity of the sub-loop street cabinets, and within the framework of unbundling with distant location used by third-party operators; in both cases, the MDFs are hosted in street cabinets, with the active equipment of one or several operators;
- given the technical specifications provided at this stage by operators and discussed in the expert Committee, the hosting of active equipment at the concentration point does not require, in general, the installation of air-conditioning nor excessive space.

The constraints related to the hosting of passive and active equipment at the concentration point have to be evaluated in the light of the necessity to allow third-party operators to connect their lines to the concentration point under reasonable economic conditions and in a technologically neutral scheme. The request to host active equipment cannot be refused if it is justified in view of both the need of the requesting operator and the ability of the building operator to fulfil such a request. In particular, the date of the request can change the assessment of the reasonable nature of the request and of the ability of the operator to fulfil it. A hosting request expressed from the outset should be judged, in principle and all others things being equal, as reasonable, as the building operator is able to take it into account from the beginning to specify the characteristics of its concentration point. On the contrary, if a request is expressed later and requires for the building operator to change the type of hosting at the concentration point, this constraint could be judged as excessive. Alternative solutions should in this case be considered, as for example the installation of active equipment in the immediate vicinity of the concentration point.

For the sake of technological neutrality, in its Opinion no 10-A-18, the Competition Authority "*invites ARCEP to take more into account the characteristics of point-to-point technology regarding the hosting of active equipment*", and recalls in addition that "*it is in order to take into account the characteristics of PON technology that ARCEP plans to allow operators choosing [PON technology] to install concentration points significantly smaller than the main distribution frames in telephony, despite the significant issues regarding competition*".

As a conclusion, when this request is reasonable, the obligation to host passive and active equipment is a necessary condition to allow all operators, whichever technology they use, to access the last part of the optical fibre network under reasonable economic conditions. The building operator should consult, prior to the installation of the concentration point, third-party operators about their will to host passive and active equipment.

Any refusal to grant a reasonable request to host passive and active equipment must be duly justified. When the building operator can justify its inability to host passive or active equipment of a third-party operator, it will have to provide this third-party operator with a backhaul offer at a relevant point higher up in the network, to make it possible for him to have access to the last part of the optical fibre network under reasonable conditions.

4°) Information concerning the lines and the concentration point

CPCE Article R. 9-2 stipulates that the building operator must inform third-party operators when it has received permission to equip a building with optical fibre:

> *"In the month following signature of the agreement, the signatory operator will inform the other operators on the list that is maintained by the Electronic Communications and Postal Regulatory Authority, and will provide them with any information that is useful to the implementation of access to the lines provided for in Article L. 34-8-3, and to connecting the lines established under this agreement to electronic communication networks that are open to the public. This information will include:*

- *the address of the building in question;*
- *the name and address of the owner of the property or the condominium board representing the co-owners;*
- *the number of residential or office units in the building;*
- *the person whom other operators must contact to submit their request for access, in accordance with Article L. 34-8-3."*

Moreover, ARCEP Decision no 2009-1106 stipulates that the building operator must provide other operators with information concerning the concentration point, information needed to operate the lines, and specify the information system used, notably for processing orders, subscriptions and cancellations, maintenance, requests for repair, management of slamming, tracking orders and requests for repair, billing.

Outside very high-density areas, service areas of concentration points regroup, in accordance with the present decision, ultra-fast broadband optical fibre lines of a certain number of existing buildings. The buildings located in the service area of a given concentration point will be connected by the building operator operating this concentration point. The fact that a building is located in the service area of a concentration point, without a building operator having received permission to equip it with optical fibre, does not imply that the building operator makes it available in accordance with ARCEP Decision no 2009-1106 or CPCE Article R. 9-2.

Yet, the service areas of concentration points are the areas where a building operator rolls out a horizontal network in order to connect the buildings located in this area to the concentration point. Any given existing building located in the service area of a given concentration point, should the owners have, or not, given the permission to equip it at the time of the exchange of information, must be taken into account in the provisioning when the horizontal network is deployed by the building operator. The limited economic space for the deployment of optical fibre networks outside very high-density areas implies that several building operators will not have, in principle, the financial capacity to duplicate the deployments in progress and that, in any case, such a situation generates global economic inefficiencies. To avoid the duplication of the last part of the network downstream from the concentration point, it seems therefore necessary that each building operator makes available the information concerning the whole service area of the concentration point.

In addition, in accordance with Article 5 of the present decision, building operators can use, when defining the service area of the concentration point, an existing rollout plan or propose a partition of a relevant geographical mesh in service areas of concentration points. To ensure a consistency in the deployments made by operators and in order to allow a third-party building operator to reuse later a partition of a geographical relevant mesh, it seems necessary that the building operators should give this partition to third-party operators and makes it available on request to the concerned local authorities.

Making available the information concerning the service area of a concentration point and the partition of a relevant geographical mesh in service areas of concentration points has to be done, under reasonable and non-discriminatory conditions, for third-party operators on the list maintained by ARCEP, in accordance with CPCE Article R. 9-2 or for the concerned local authorities on request. This information needs to be made available with a minimum advance notice period of three months before the concentration point becomes operational, in other words before the date when end users are actually able to connect to this concentration point. The information shall be provided in a machine-readable format for a geographical information system. The building operator should also transmit this information to ARCEP,

under the same conditions. Moreover, the recipients of this information should be able to use it under conditions that allow them to conduct the necessary analyses to assess if this partition is relevant and in line with their potential own constraints.

The obligation to transmit prior information in addition to those stipulated in ARCEP Decision no 2009-1106 is an essential condition to ensure the consistency in the deployments outside very high-density areas. It meets the objective stated in 7°, Paragraph II of Article L. 32-1 of the CPCE, notably *"that the interests of all regions and users, […], will be taken into account in the supply of services and equipment"*.

Section V Opinion of the Competition Authority

In accordance with Article L.34-8 of the CPCE, ARCEP asked the Competition Authority for its opinion on a draft decision concerning the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas. In response to this request, the Competition Authority issued on 27 September 2010 Opinion No. 10-A-18, notably pointing out the following issues:

1°) <u>On the specificity of less dense areas</u>

The Competition Authority expresses the view that *« in comparison with very high-density areas where ARCEP has already defined the applicable regulation to allow each operator to deploy its own optical fibre network, the players have a far less incentive to invest in less dense areas. The latter should therefore tend to provide ultra-fast broadband services by using the same optical fibre local loop. As ARCEP, the Competition Authority considers that these specificities call for an adapted regulatory framework, aiming to conciliate incentive to invest and protection of competition"*.

2°) <u>On the necessity to adopt a framework that provides incentive to invest</u>

The Competition Authority *« invites ARCEP to specify or clarify some of the obligations that are going to be imposed to keep the incentive of the system, and more precisely : (i) to limit the legal risk related to the coverage obligations that would be unspecified; (ii) to take into account the specificities of local authorities projects; (iii) to examine the possibility that the operator initiating a deployment is not, in case of co-investment, the only one to bear the access obligations."*

3°) <u>On the terms and conditions governing access</u>

The Competition Authority "*fully [supports] ARCEP in its will to promote risk sharing, allowing a greater number of operators to take part in the investment. Co-investment, as the provision of long-term rights of use, makes it possible to foster investment and to bring guarantees to operators concerning their access conditions to the network*".

In addition, the Competition Authority considers that "*it is essential that adapted wholesale offers are available to allow smaller operators and new entrants that have not the sufficient size or financial power to invest or co-invest in the fibre network, to provide service on the ultra-fast broadband market. In less dense areas, it is not much plausible that such wholesale offers will emerge spontaneously*".

The Competition Authority concludes that "*the existence of a regulated wholesale offer, as "an offer for individual line rental", seems essential, with a tariff that can include a fair rate of return to maintain an incentive to invest*".

4°) <u>On the regulation concerning the concentration point and the hosting of active and passive equipment</u>

The Competition Authority points out that "*unlike the copper network, which was already installed when it had been opened to competition through unbundling, the fibre network architecture is an ex ante regulatory issue. The operator deploying the fibre network could indeed be tempted to make choices regarding the architecture that could limit the possibilities for the competitors to provide end users with electronic communications services. These choices happen to be generally non-reversible at a reasonable cost, particularly in less dense areas. It is therefore essential that ex ante regulation can control them.*"

Therefore the Competition Authority "*calls on ARCEP to be highly vigilant concerning the size of the concentration points. Too small concentration points could compromise durably competition and it is the role of ARCEP to verify that the constraints mentioned by PON operators to limit the size of the concentration points are based on solid and perennial hypotheses. Moreover, if the existence of a backhaul offer can be a palliative, this presupposes at the very least that the existence of such an offer is guaranteed and that its terms are controlled by regulation*".

Lastly, the Competition Authority "*invites ARCEP to take more into account the characteristics of point-to-point technology regarding the hosting of active equipment*",

ARCEP amended its draft decision to take into account the observations issued in the Competition Authority's opinion, notably by considering explicitly an offer for individual line rental, by reinforcing the obligations concerning the backhaul offer to ensure the relevance of the minimum size of the concentration point and by consolidating the obligations related to the hosting of active equipment. In addition, ARCEP completed its decision to ensure that it does not obstruct the projects of local authorities, taking into account their specificities.

Section VI European Commission Opinion

In application of Article 7 of the Framework Directive 2002/21/EC, ARCEP notified on 26 October 2010 the European Commission and the competent national regulatory authorities in the other European Union Member States of its draft decision specifying the terms and conditions for accessing ultra-fast broadband optical fibre electronic communications lines on the whole territory except very high-density areas. In response to this notification, the European Commission published its comments on the document on 26 November 2010.

1°) <u>On the conditions for accessing the FttH lines on the terminating segment</u>

About the terms and conditions governing access, the European Commission *"considers it unsatisfactory that some key aspects of the proposed measure have neither been defined nor specified in detail and may raise concern for a proper implementation of the proposed measure. In particular, with regard to the conditions of the risk premium and volume discounts, ARCEP intends to intervene only ex post in case of disputes and to eventually issue a decision specifying the implementing details in case of long-lasting disagreement between operators. Furthermore, the terms and conditions of the shared backhaul offer and of the co-location for active and passive equipment, which, according to ARCEP, are essential in order for third party operators to access the terminating segment at reasonable economic conditions, are not properly specified either."*

About the need for regulatory predictability, the European Commission "*invites ARCEP to either specify in its final measure further details on the pricing and conditions of access, or to require operators to submit for approval their co-investment agreements and wholesale line rental access offers prior to their publication. In this regard, the Commission invites ARCEP to consider applying cost-oriented prices for access to the fibre optical lines in the terminating segment and to associated facilities, including an appropriate remuneration for risk."*

Lastly, the Commission "*reminds ARCEP that remedies imposed under the notified draft must be consistent with access pricing imposed under the forthcoming review of markets 4 and 5, and that the NGA Recommendation proposes cost-orientation for access to the SMP operator's terminating segment including an adequate risk premium."*

On these points, ARCEP will ensure that the ongoing works performed with the operators concerning the details of the terms and conditions (notably the financial conditions) to implement the present decision will promptly lead to results and, if needed, that these details will be specified in an additional document to provide economic players with a sufficient visibility.

2°) <u>On the access to the concentration point and the provision of a backhaul offer</u>

On the regulation concerning the concentration point, the European Commission *"acknowledges ARCEP's objectives to foster co-investment in the rollout of FttH lines in less densely populated areas, the Commission is, however, strongly concerned that certain*

proposed symmetric measures may go beyond what is foreseen in the EU Regulatory Framework. The Commission recalls that, in line with Article 12(3) of the Framework Directive, and in accordance with Recital 4 of the NGA Recommendation, NRAs may mandate the sharing of civil engineering infrastructures and terminating segments where this is justified on the grounds that duplication of such infrastructure would be economically inefficient or physically impracticable.

In addition, NRAs should take into account the fact that any distribution point will need to host a sufficient number of end-user connections to be commercially viable for the access seekers. In this regard, the Commission stresses that the investment incentives for all operators will critically depend on the size of the concentration point (the location of which is defined by the building operator) and the access conditions. In this context, the Commission asks ARCEP to assess in the course of the implementation of the access obligation if the size of the proposed concentration points is adequate to ensure co-investment in less densely populated areas, and, should this not be the case, to modify the minimum size threshold."

Lastly, on the obligation of providing a backhaul offer, the European Commission "*recalls that such access and backhaul remedies should, in principle, be implemented by a NRA only after a market analysis and a finding of SMP and should address all necessary technical and pricing conditions. Moreover, the Commission reminds ARCEP that Article 12(3) of the amended Framework Directive and Recital 4 of the NGA Recommendation only allow reciprocal sharing of network elements in the terminating segment and up to the first concentration point and not beyond. Therefore, the proposed backhaul obligation seems to rely on an undue application of the above provisions. Such an extensive use of a symmetric regulatory instrument by ARCEP may put disproportionate burden on non-SMP operators and ultimately deter investment by alternative operators."*

On these points, ARCEP amended its draft decision to take into account the observations of the European Commission.

3°) <u>On the connection between the market analysis decisions and the symmetric regulation measures</u>

The European Commission points out that "*obligations currently imposed on the SMP operator in markets 4 and 5 do not cover fibre networks, because ARCEP considered that the civil works access offer of France Telecom coupled with the symmetric obligation of access to the terminal segment of fibre networks would allow for the rollout of fibre networks in the most densely populated areas where rollout was predicted to happen during the ongoing review period. The Commission also notes that the review of the wholesale broadband markets in France is currently ongoing.*

To this end, the Commission invites ARCEP to closely monitor the development of NGA investment and competition both in the densely populated and in the less densely populated areas with view to evaluate whether the symmetric regulation scheme remains sufficient to ensure competition, and whether the proposed symmetric regulatory instruments are justified and proportionate in light of the objectives of Article 8 and Article 12 of the Framework Directive. Should this not be the case and an operator was found to hold SMP in the relevant broadband markets, additional asymmetric forms of access to the fibre infrastructures of the SMP operator, imposed in line with the NGA Recommendation, such as local loop

unbundling, wholesale broadband access and associated remedies (e.g. backhaul) may be necessary to achieve the above objectives.

The Commission calls upon ARCEP to promptly finalise its market analysis of the wholesale broadband markets and ensure consistency among the obligations imposed under the notified measure, the symmetric measures introduced in densely populated areas and the SMP remedies imposed in relation to markets 4 and 5 as well as any obligation imposed under a public funding scheme in order to give regulatory clarity and safeguard the investment decisions made by operators."

On these points, ARCEP specifies that the review of the broadband markets analysis will be completed in the next months and that the corresponding projects will be notified to the European Commission, in principle, before the end of the first quarter of 2011. ARCEP will ensure that the considered obligations will be complementary and consistent with the present decision, in the context of asymmetric regulation.

Section VII Stakeholders' contributions to the public consultation

ARCEP has received many responses to the public consultation that have been published and synthesized. ARCEP amended its draft decision on several points to take into account the observations made.

In particular, ARCEP amended its initial draft decision to explicitly consider an obligation to provide an offer to connect the homes located in the service area, in order to guarantee the completeness of the deployments on the service areas of the concentration points.

Moreover, to answer the concerns related to the terms and conditions of co-investment in the case of public initiative networks, the draft decision clarifies that co-investors do not necessarily pay an equal part (as it is the case in very high-density areas).

In addition, ARCEP ensured that third-party operators can connect to small concentration points under reasonable technical and economic conditions by reinforcing the rules concerning the backhaul offer.

It is decided that:

Article 1 ***[application of the decision]***

The present decision applies to less dense areas, in other words to the whole territory, except for very high-density areas defined by ARCEP Decision no 2009-1106 of 22 December 2009. Articles 1, 2 (first and third paragraph), 3 and 4 of ARCEP Decision no 2009-1106 also apply to less dense areas.

Article 2 ***[definitions]***

In accordance with Article 1 of ARCEP Decision no 2009-1106:

- the term "*ultra-fast broadband optical fibre electronic communications line*" or "*line*" refers to a passive link from an ultra high-speed local loop network comprised of one or several continuous optical paths and which make it possible to provide services to an end user;

- the term "*concentration point*" refers to the end point of one or several lines at which the party establishing or having established in an existing building or operating ultra-fast broadband optical fibre electronic communications lines provides other operators with access to these lines, with a view to providing the corresponding end users with electronic communications services, in accordance with Article L. 34-8-3 of the CPCE;

- the term "*building operator*" refers to all entities responsible for establishing or managing one or several lines in an existing building, particularly under the terms of a contract with the property owner or manager for the installation, maintenance, replacement or management of the lines, in application of Article L. 33-6 the CPCE. The building operator is not necessarily an operator as defined in Article L. 33-1 of this same code.

Moreover, the term *"service area of the concentration point"* refers to a continuous geographical zone in which the existing buildings are meant to be connected to the corresponding concentration point. An existing building located in the service area of a concentration point may be connected to this concentration point.

Lastly, the term *"transport segment of France Telecom's civil engineering infrastructure»* refers to the local loop segment between the local exchange and the copper street cabinets.

Article 3 ***[size of the service area of the concentration point]***

The design and the location of the concentration point will be chosen by the building operator in order to allow several third-party operators to connect to it under reasonable economic and technical conditions, taking into account in particular the characteristics of the local housing and the available existing backhaul links.

When the building operator does not provide a backhaul offer, the service area of the concentration point will regroup at least 1000 existing homes or office units at the day of its installation.

When the building operator provides a backhaul offer that respects the financial conditions specified in Article 9 of the present decision, and except in exceptional situations that will have to be proven by the building operator, the service area of the concentration point will regroup at least 300 existing homes or office units at the day of its installation.

The building operator will install a concentration point that is designed to serve all the homes or office units located in the corresponding service area. From this concentration point, the building operator will roll out a horizontal network towards the homes or office units, within a reasonable timeframe after the notification of the service area of the concentration point, that will make it possible to connect all the homes or office units located in the service area of the concentration point to a point located in their immediate vicinity.

Article 4 ***[accessibility of the concentration point]***

The building operator will provide access at a concentration point, under reasonable and non-discriminatory conditions, located in the immediate vicinity of the transport segment of France Telecom's civil engineering infrastructure, or of another civil engineering infrastructure that provides similar access conditions.

Article 5 ***[geographical mesh to ensure consistency in the deployments]***

To ensure that the service area of the concentration point is part of a larger geographical mesh in a consistent way, the building operator will specify such a larger geographical mesh and its partition in different service areas of concentration points, taking the utmost account of the opinions expressed in the prior consultation of the concerned local authorities or grouping of local authorities and of the operators on the list established in accordance with ARCEP Decision no 2009-0169 of 3 March 2009.

The building operator will provide, under reasonable and non-discriminatory conditions, the concerned local authorities or grouping of local authorities and operators, with the information concerning the service areas of the concentration points resulting from the partition of the larger geographical mesh. This information will be provided in a machine-readable format for a geographical information system. Any change in this information will require that the building operator provides this information again to the aforementioned stakeholders.

Article 6 ***[passive access obligation principle at the concentration point]***

In accordance with Article 2 of ARCEP Decision no 2009-1106, the building operator will provide other operators with access to the lines at the concentration point, in passive form, under reasonable, objective, transparent and non-discriminatory conditions.

In addition to providing access to the lines, operators will be given access to the resources needed to implement a network connection under reasonable and non-discriminatory conditions, notably those stipulated in Annex II of ARCEP Decision no 2009-1106.

Article 7 ***[obligation to host passive and active equipment]***

The building operator will grant reasonable requests to host passive and active equipment at the concentration point, as long as it is reasonable and justified in view of both the need of the requesting operator and the ability of the building operator to fulfil such a request.

Article 8 ***[form of access]***

The building operator will provide other operators with access to the lines at the concentration point, allowing them to help finance the installation from the outset or later, as well as an offer for individual line rental, in a passive form.

The offer for *ab initio* co-investment will allow the building operator, prior to the installation of the concentration point, to identify the requests for hosting passive and active equipment.

The terms and conditions governing the price of the *a posteriori* access offer may take account of the risk incurred under the conditions specified in Article 9 of the present decision.

Article 9 ***[terms and conditions governing the price of access]***

In accordance with Article 3 of ARCEP Decision no 2009-1106, the terms and conditions governing the price of access must be reasonable and comply with the principles of non-discrimination, objectivity, relevance and efficiency.

The terms and conditions governing the price of access at the concentration point must ensure that the operators support a fair portion of the costs related to the installation of the lines and the associated resources.

The rate of return on investment used to determine the pricing terms and conditions of the access offers must take account of the risk incurred and extend a risk premium to the building operator.

Article 10 ***[publication]***

In accordance with Article 4 of ARCEP Decision no 2009-1106, the building operator will publish, prior the installation of the concentration point, the offers for *ab initio* and *a posteriori* co-investment, as well as an offer for individual line rental, in a passive form. These offers must namely specify the access conditions at the concentration point to the lines and the associated resources. Moreover, they must specify the terms and conditions for hosting passive and active equipment at the concentration point, the access conditions to the backhaul link and the terms and conditions to build the terminating segments for all homes and office units located in the service area of the concentration point.

For each of the services mentioned in the above paragraph, the offer will specify, in particular, terms and conditions of subscription and cancellation, prior information, technical characteristics, delivery processes and after-sales service, timetables and advance notice, quality of service and pricing terms and conditions. The building operator will establish and keep up to date information on costs, tracing the expenditures made and containing a

sufficient degree of detail that enables the Authority to perform an audit, in accordance with the provisions related to the terms and conditions of access.

Article 11 ***[execution of the decision]***

The Director General of the Authority is responsible for the execution of the present decision which will be published in the Official Gazette of the French Republic, after having been approved by the Minister responsible for electronic communications.

Paris, 14 December 2010

Jean-Ludovic SILICANI

Chairman