# – Session 1 –
# Public administrations' approach to IP-interconnection

## ARCEP

*French regulator for Telecommunications*

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ARCEP
www.arcep.fr
Autorité de régulation des communications électroniques et des postes

# 1- What is at stake?

- Understanding the central role of IP Interconnection in the Internet
  - Access to the Internet as a whole?
  - Quality of service and discrimination/innovation
  - Contribution of the different end-users to the financing of traffic flows and networks, and redistribution mechanisms along the value chain and in particular across interconnections

- Wise use of regulatory powers (or decision not to use)
  - **Is there a problem?**
  - Is there a need for symmetric/asymmetric regulation?
  - Get prepared in case of dispute settlement or complaint in front of the national Competition Authority

➔ Understanding a keystone of the Internet so as to use – or not use – powers wisely

# 1- What is at stake?

*ARCEP's policy on interconnection*

- ARCEP has been addressing net neutrality since 2010. Interconnection is one of the main work streams within this topic.
  - in its 10 proposals and recommendations for net neutrality (2010), proposal n° 8 deals with interconnection

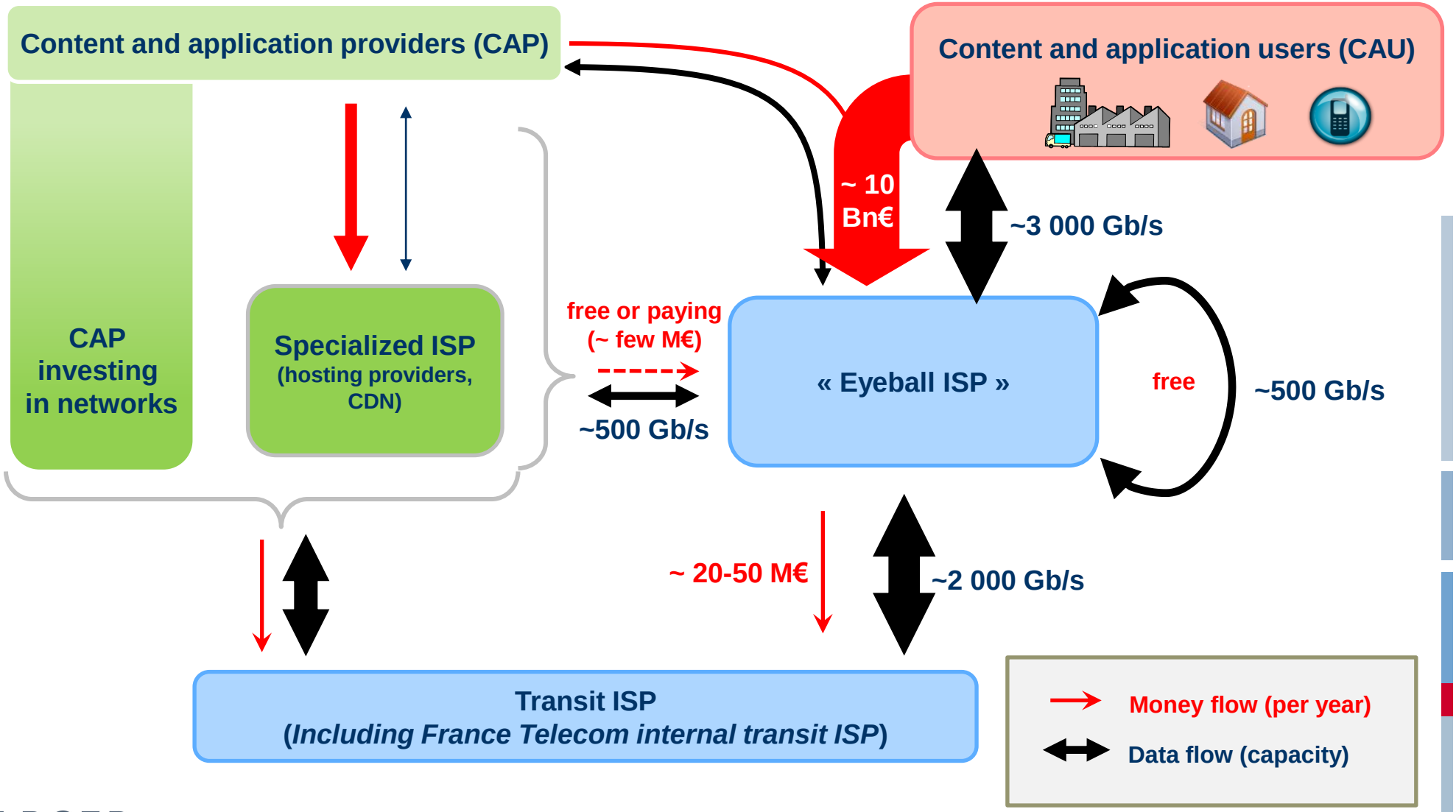
- As a regulator, ARCEP considers it is important to understand interconnection's trends and dynamics (*e.g.* growing concentration of traffic, increase of some ISPs' market power, debates around NGA networks funding, etc.).

- **ARCEP does not intend to regulate this market today and stated it in its recent decision** (cf. hereafter) : "*the situation in data conveyance and interconnection markets today does not appear to warrant the introduction of ex ante regulation at this stage*".

- However, when tensions arise, stakeholders can come and ask ARCEP to settle their dispute about interconnection and data conveyance conditions. ARCEP has already been informally contacted by some industry players. In case of a formal request, ARCEP will have to take a fair and well-informed decision to settle the dispute.

# 2- IP-interconnection in France

*Snapshot (1/2)*



# 2- IP-interconnection in France

*Snapshot (2/2)*

- Tensions arise between « eyeball ISP » and other operators
  - Interconnection with French ISPs occasionnaly resulted in tensions, as publicly reported in the media
    - FT – Cogent
    - Free – YouTube
    - SFR – OVH
    - …


**Connectivity alert**

*« Download speed is low ? Your ISP might throttle your access to part of the Internet.*

*Most of these problems come from **Orange** Internet access. If you are affected, contact Orange hotline and tell them you can't get access to sites hosted by **Cogent**… »*

- Observations
  - Quality of service is at stake
  - Relevance of *peering* ratio is questioned
  - French ISP are increasingly pushing towards paid peering agreements

➔ **French NRA and competition authority need to be watchful**

# 3- Regulatory framework

- Just like voice interconnection, IP interconnection - between operators - is covered by the Telecommunications Act (CPCE – L.34-8)
  - « *an interconnection request cannot be refused if it is justified by the solicitor's needs, on the one hand, and by the provider's capacity to fulfill it, on the other hand. Any interconnection refusal should be reasoned by the provider* »

- ARCEP has the task of ensuring (CPCE – L.32-1)
  - « *end users' ability to access and distribute information, and to access the applications and services of their choice* »

- Dispute settlement (CPCE – L.36-8)
  - ARCEP may be required to specify the technical and pricing terms contained in data conveyance and interconnection agreements between two operators, or between an operator and a CAP.

- Data gathering (CPCE – L.32-4)
  - ARCEP can gather information on interconnection (including IP interconnection) from operators and CAPs.

➔ **Regulatory powers covering both operators and CAPs.**

# 4- Trends and evolutions requiring some attention

- Trends
  - **Rapid growth** (and concentration) **of traffic** …
  - … that seem to be balanced by a **decrease in unit costs**

  ➔ ***No obvious cost explosion***
  - Competition: market consolidation and integration

- Evolutions requiring some attention
  - ISP try to monetize their interconnections
    - Targeted scope: traffic exceeding the *peering* ration (*cf. Cogent – France Telecom*)
    - Should incremental costs be borne by the sending party (as proposed by ETNO for the next ITU counsel)?
  - Vertical integration (1) – ISP and transit operators
    - International backbone and peering agreements ➔ closer control on the data conveyed on the network

    ➔ *French competition authority invited France Télécom to clarify its internal relationship between its « eyeball ISP » (Orange) and its transit (Open transit international) divisions [ongoing process]*
  - Vertical integration (2) – ISP and CAP
    - Risk of discrimination

## Open questions :

➔ **Is there an inbalanced market power between ISPs and CAPs?**

➔ **Is there undue discrimination between small and large players?**

# 5- ARCEP's decision on information gathering on IP interconnection

*Overview*

- Following a public consultation launched on 23 Dec. 2011, ARCEP published on 29 March 2012 a decision *"on the implementation of a process for gathering information on the technical and pricing terms governing data conveyance and interconnection".*
  - the decision takes effect immediately
  - the first set of data collected will relate to Q2 2012

- The corresponding questionnaire refers to *"data conveyance and interconnection relationships"*. It covers both *peering* and transit relationships.

- Each respondent is required to list its most significant relationships (in terms of capacity), and provide for each:
  - the partner's name (AS)
  - the type of relationship (peering, transit…)
  - the capacity
  - the actual incoming/out traffic over a period of time
  - the pricing conditions.

➔ A questionnaire about peering and transit relationships to better understand the market and monitor its evolutions

# 5- ARCEP's decision on information gathering on IP interconnection

*Which information is concerned?*

**Questionnaire on data conveyance and interconnection**

. Date:

. Respondent's name:

. Contact information for the person in charge of responding to the questionnaire (main contact):

- First name
- Last name
- Title
- e-mail address
- Phone number

. Individual agreements with other AS

- for each AS owned, please provide information on each point of interconnection/internet exchange point ("individual agreement") and on the cumulative value, with the 20 main partners and all partners after the 20 largest with AS marked "FR" or "EU" and sharing a total capacity of > 1 Gbit/s. Each point of interconnection/internet exchange point, and the cumulative value, must be given a separate row in the table.
- capacities entered into column H are bidirectional/duplex (i.e. the sum of incoming and outgoing traffic)
- you are free to choose the method used to calculate traffic streams entered in columns L and M, but ideally the 95th percentile for the period in question (please indicate the exact calculation method used at the end of the questionnaire;

| Identification No. | Name of AS #1/ASN | Name of AS #2/ASN | Start date | Partner's name & contact information | Type of relationship | Financial terms & conditions | Pricing scheme (and rates) | Capacity (Gbit/s) | Information on the point of int | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Country | City |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| TOTAL | | | | | | | | | | |
| *of which E:1* | | | | | | | | | | |
| *of which n:1* | | | | | | | | | | |
| *of which 1:1* | | | | | | | | | | |
| *of which 1:n* | | | | | | | | | | |
| *of which 1:E* | | | | | | | | | | |

. Agreements at an IXP

| Identification No. | Name of AS #1/ASN | Name of IX | Start date | IX contact information | Type of relationship | Financial terms & conditions | Pricing scheme (and rates) | Capacity (Gbit/s) | Information on the internet ex | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | Country | City |
| | | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |
| TOTAL | | | | | | | | | | |

# 5- ARCEP's decision on information gathering on IP interconnection

*Who is concerned? (1/2)*

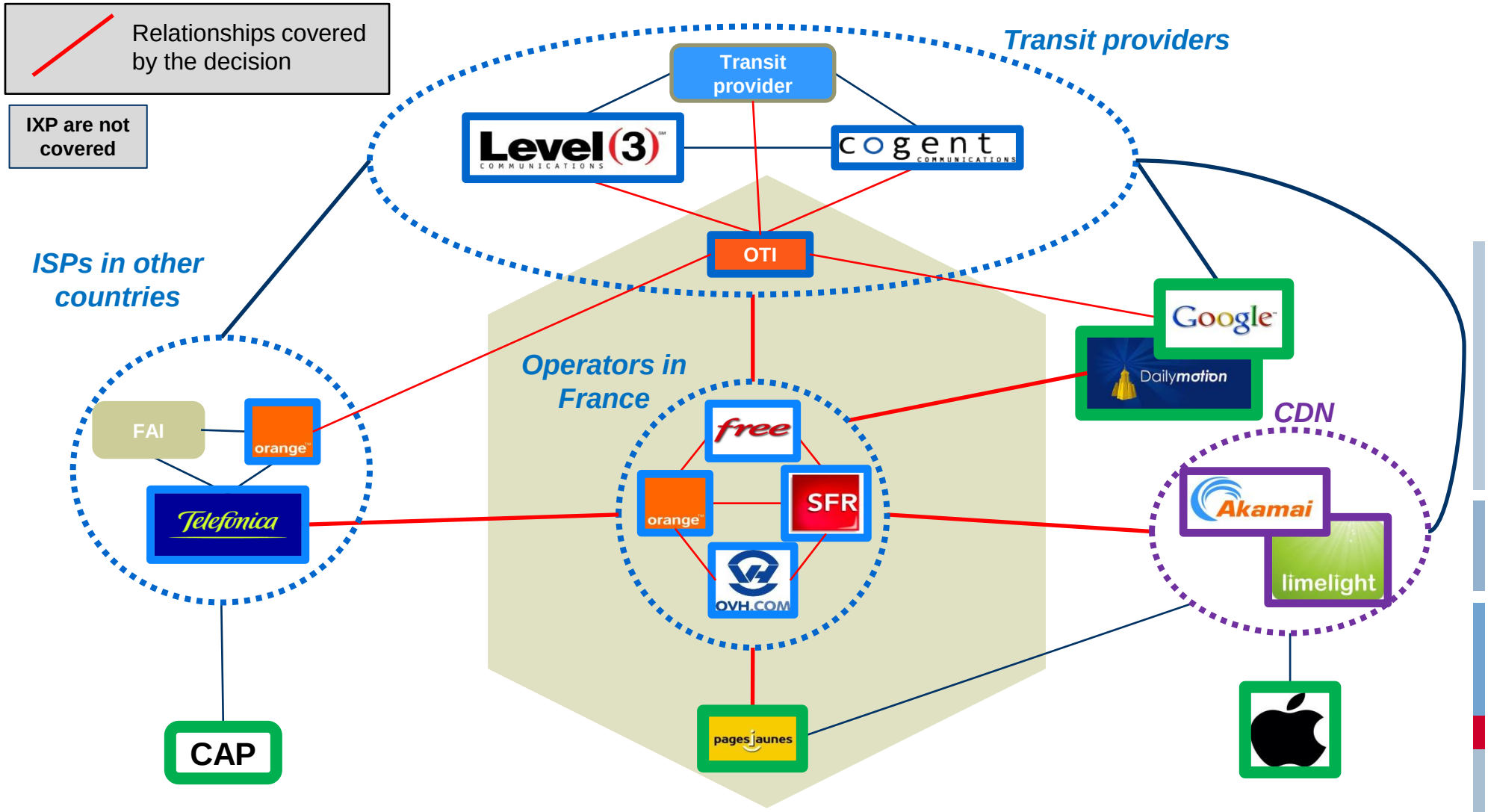
- **Category 1:** Operators of electronic communications which:
  - are required to be declared to ARCEP (*i.e.* which operate a network open to the public in France)
  - *and:* own one AS connected to two AS at least
  - → **must respond to the questionnaire every six months.**

- **Category 2:** Other stakeholders interconnected to a Cat. 1 operator, specifically:
  - operators of electronic communications
  - *or:* undertakings providing an online communication service to the public (CAPs) which have actively taken steps to have their services used by end users in France
  - → **may receive a specific request from ARCEP which aims at checking or completing information given by Cat. 1 respondents; in this case they will have to respond within two months.**

➔ Objective: getting a clear understanding of agreements having an impact on end users located in France and monitor their evolution

# 5- ARCEP's decision on information gathering on IP interconnection

*Who is concerned? (2/2)*




**Company names are <u>pure illustrations</u> displayed to make the diagram more explicit**

# 5- ARCEP's decision on information gathering on IP interconnection

*Reactions*

- "*Does ARCEP want to regulate IP Interconnection?*"
  - « *based on earlier work performed by the Authority (see above),* ***the situation in data conveyance and interconnection markets today does not appear to warrant the introduction of ex ante regulation at this stage***.»

- "*Will ARCEP spread the information received?*"
  - Obviously no. Trade secret must be respected. Only aggregated and anonymous data may be advertised, such as the graphics on main data flows on the French market displayed previously on slide n°4

- More communication towards stakeholders that are not traditionally covered by ARCEP regulation
  - RIPE NCC plenary meeting [17/04/2012]
  - LINX general assembly meeting [21-22/05/2012]
  - OECD/BEREC workshop [20/05/2012]
  - FrNOG meeting [29/06/2012]

- International cooperation must be fostered

➔ ARCEP always welcomes exchanges with stakeholders and is open to discussion and further (multilateral or bilateral) exchange of views

# Thank you for your attention!

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**Useful links on ARCEP's website**

- Press release
- Decision's translation
- Questionnaire to be filled in
- ARCEP project report on Net neutrality (French)