2009

VERSO

ANR-09-VERS-014

ViPEER

Video Traffic Engineering in an Intra-Domain Context using **Peer**-to-Peer Paradigms

AGENCE NATIONALE DE LA RECHERCHE

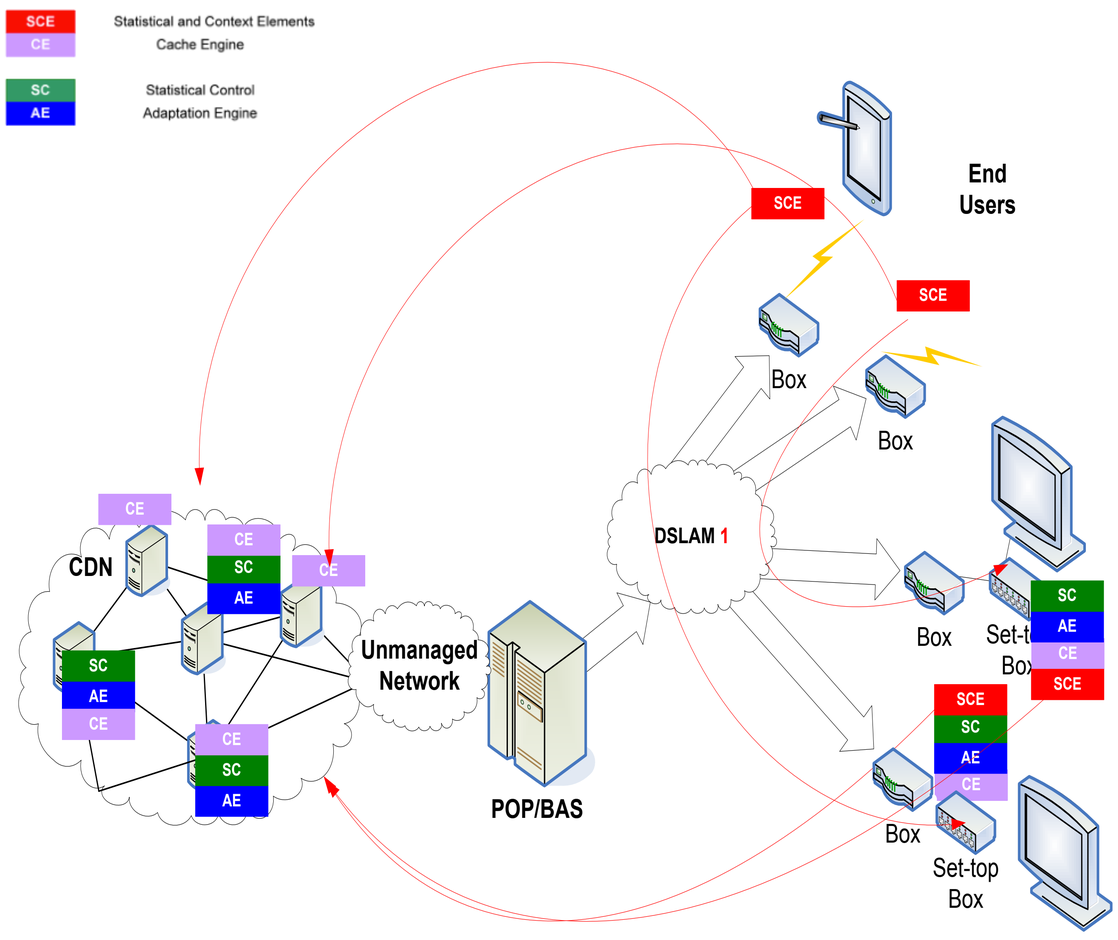
ANR

Objectives

- An architecture for controlling video distribution within a single ISP's domain
- A distributed Content Distribution Network (dCDN) relying on devices controlled by the ISP
- An ISP controlled implementation of Content Centric Networking and of a peer-assisted CDN
- A network design, as a cloud delivering video based services (Internet TV, Video on Demand, YouTube clips, etc.)

Technical Blocks

- WP1 : Functional architecture
- WP2 : Metrology tools to monitor network performance and control delivered QoE
- WP3 : Dynamic media handling (coding/decoding/transcoding) under network operator's control
- WP4 : Design of an ISP controlled « dCDN » that relies on popularity based policies to upload video objects
- WP5 : Demonstrations



Approaches explored in 2010

- Metrology
  - Local measurements (probes) sent to a central collector to obtain metrology indicators
  - QoE indicators and application detection
- Transcoding
  - Policy based transcoding applied to http streaming
- Distributed CDN
  - CCN : copy a subset of the contents on each router
  - Peer-assisted CDN, limiting the traffic sent by CDN

Duration: 36 months

T0: January 1st, 2010

Global budget: 3.22 M€

ANR Funding: 1.26 M€

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