



nanoCDN™

Network optimization for multiscreen
experience with the nanoCDN™
technology

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Live web TV: the conundrum

Opportunities



Tablets

Smartphones

Connected TV

Adaptive streaming

Popular live events:
Sports, news, live shows



Fears



No network capacity

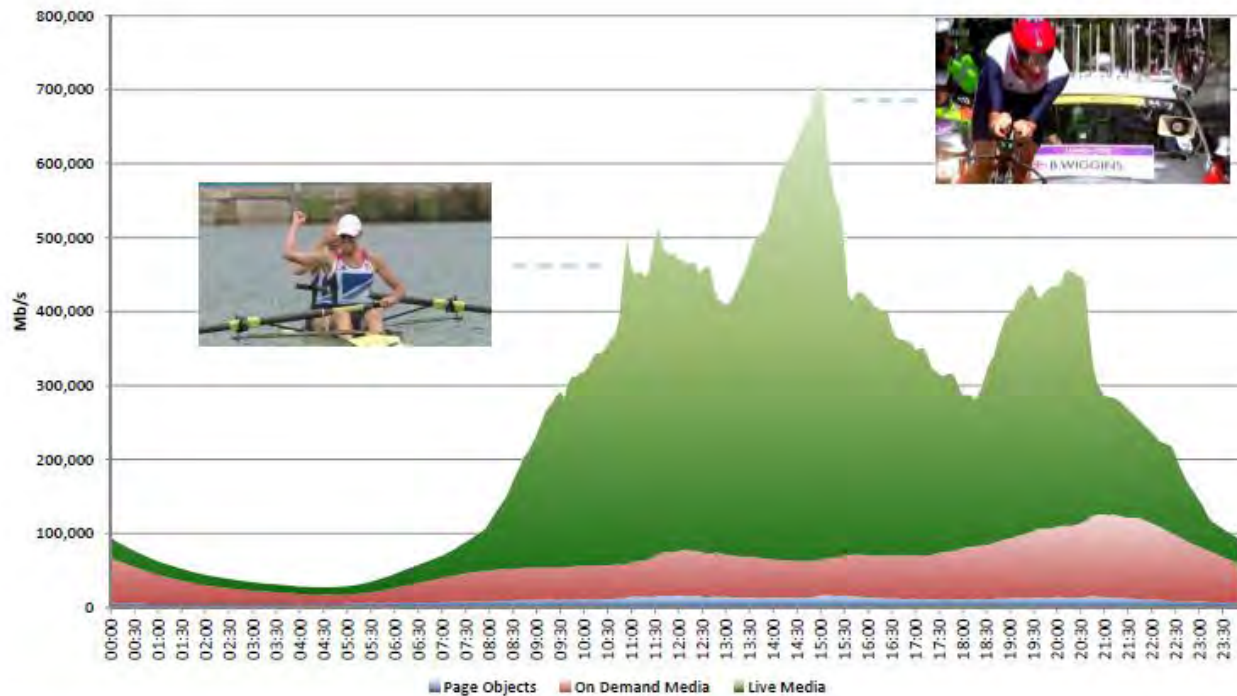
No scalability

« Peak » effect

No return on investment

No quality of service

Peak traffic: what it looks like



BBC Future Media

© BBC MMXII

Live peak traffic during London 2012 Olympics (Source: BBC)

700 Gbps at peak time during London Olympics!

Average traffic **x 7**

What needs to be addressed

Constraints



Limited cost for competitive services



Secured delivery

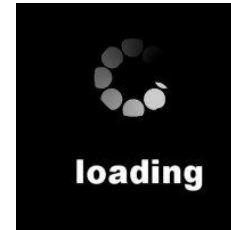


Multiscreen with existing devices

User experience



Short start-up time



Service continuity



Time-shifting support



Low latency



Quality of service

nanoCDN™: the principle

What do you have that others don't



A managed network with
multicast capabilities



The control of CPEs deployed in
the home network

What the

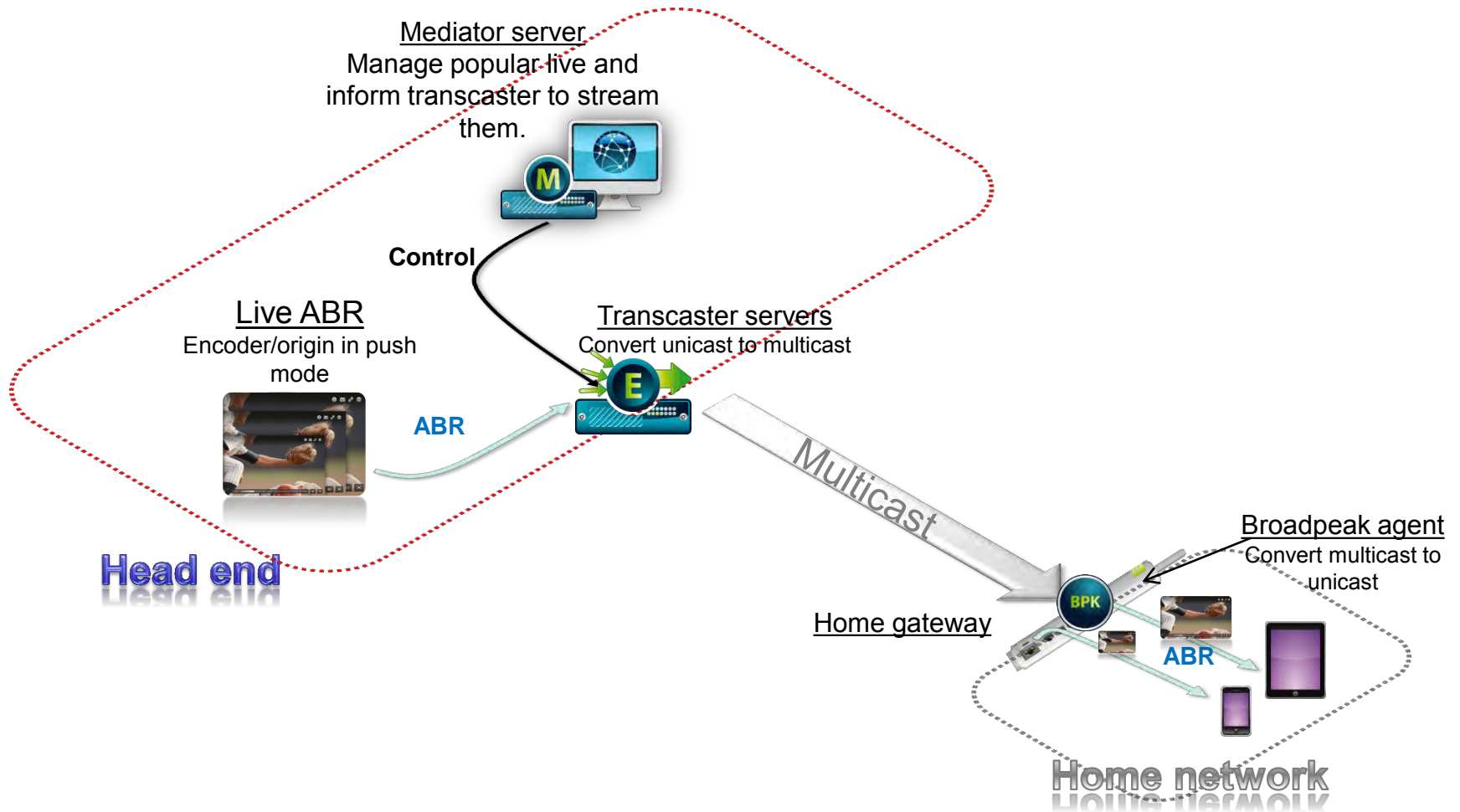


allows you to
do



- Turn your CPE into a nano data center
- Make it a component of the CDN
- **First application addressed: live web TV**

nanoCDN: workflow



nanoCDN: the perfect fit

Constraints



Limited cost for competitive services



Secured delivery



Multiscreen with existing devices



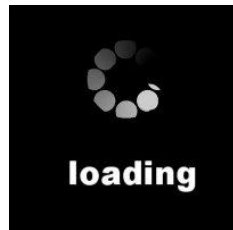
- Reuse already deployed **home gateways or STB**
 - Reuse the existing **multicast capabilities** of managed IPTV & cable networks
 - Master your costs: **no « peak » effect**
-
- Fully compliant with **any DRM system**
 - **No specific implementation** required at device level
-
- Fully compliant with streaming standards: HLS, SS, MPEG-DASH, hence with **standard encoders**
 - Fully compliant with **standard players**

nanoCDN: the perfect fit

User experience



Short start-up
time



Service
continuity



Time-shifting
support



Low latency



Quality of
service



- No extra buffering at start up
- Full benefits of **adaptive streaming**
- Leverage home gateway or STB **local storage** or switch back to unicast for time-shifting
- **No extra delay** introduced in the system
- **Contention points reduction** hence more frequent presence on top layers

How the nanoCDN changes the game



Which devices we address

▶ **New devices**

- Smartphone
- Tabs
- ConnectedTV
- HDMI stick



▶ **Make legacy TV connected with smardTV CAM module.**

SMAR TV



Thank you

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