An elastic Platform as a Service (PaaS) cloud for interactive social multimedia

http://www.nubomedia.eu
Problem statement: interactive multimedia development is hard

Wow, I've got an innovative idea for an interactive media app. Can I develop it?

No way. It's too complex. I don't have the required time and resources.
With NUBOMEDIA developing is just a Lego game

Hey, with NUBOMEDIA I can create applications just connecting pieces of a toolbox.

It's simpler and faster. I don't need to understand the low level details.
NUBOMEDIA provides a rich toolbox of innovative capabilities.

The toolbox is very rich and provides elements implementing latest trends in multimedia.
NUBOMEDIA applications are just pipelines of toolbox elements

I can freely choose the toolbox elements I connect to create applications

Choose the elements you want and connect them
NUBOMEDIA really shines as a scalable deployment platform

Powerful idea, I develop thinking in the small, but deploy thinking in the large.

1. Develop your app using a simple API
2. Deploy into the NUBOMEDIA cloud
3. Scale
How do the pieces fit together?
This looks interesting. How can I access NUBOMEDIA technologies?

**NUBOMEDIA is Open Source Software**

[![LGPL
Free as in Freedom](https://www.nubomedia.eu)](https://www.nubomedia.eu)

- Use NUBOMEDIA freely
- Fork NUBOMEDIA freely
- Extend NUBOMEDIA freely
- Distribute NUBOMEDIA freely
- Experiment with NUBOMEDIA freely
- Access NUBOMEDIA source code freely
- Add your media capabilities to NUBOMEDIA using the licensing scheme of your preference

FP7-ICT-2013-1.6, GA-610576 – http://www.nubomedia.eu
NUBOMEDIA: research challenges

But does NUBOMEDIA really go beyond current state-of-the-art?

Research challenges on media capabilities and APIs

- Multisensory multimedia
- Really social group communications
- Computer Vision simple integration
- Augmented reality integration
- 5G ready media framework
- Structured group communications
- Multimedia communication security
- Zero documentation APIs
- Integrated multflow synchronization
- Visual development of services
- Intelligent media mixing

Research challenges on media infrastructures.

- Software defined Networks for QoS
- Social topology aware infrastructures
- Intelligent cloud placement
- Content aware networks
- Unlimited group sizes
- Seamless IMS integration
- Unlimited content storage
- Event driven architecture
- Self-reconfiguration / management
- Plug & play hardware architecture
- End-to-end infrastructure
NUBOMEDIA: interactive communications for the long tail

In which application areas can NUBOMEDIA be exploited?

NUBOMEDIA exploitation plan is targeted to long-tail vertical markets having special communication requirements

- e-Health
- Security
- Defense
- Insurance
- e-Learning
- Emergencies
- Logistics
- Games
- TV
- etc.
Why is this important?

Explicit augmentation with target information

Implicit augmentation with external knowledge

WebRTC convergence with Telco
Why don’t converge with Content?

Why do you communicate?
To see other’s face?
NUBOMEDIA roadmap

02/2014
- Project startup

09/2014
- Architecture
- Definition of advanced media features (CVA, AR)

01/2015
- First operational version of the platform
- Connectivity manager

01/2016
- Release of development APIs for WWW and smartphone platforms.
- Release of NUBOMEDIA developer portal.

09/2015
- Stable operational version of the platform
- PaaS manager

09/2016
- Project closing
- Final reports

05/2016
- Release of business oriented demonstrators
- Launch of FOSS community
Thanks

NUBOMEDIA: the multimedia cloud