

MECaNO

Enabling efficient, decentralized media (post)production by developing the world's first wide area network (WAN) that guarantees 100% quality of service and in-time delivery of IP-media content

"In order to have media companies switch to more cost-effective IP-based WAN approaches to support decentralized video (post)production, a number of WAN's shortcomings needed to be addressed. That's what we achieved with MECaNO: we came up with the building blocks that allow for the creation of one big network which could extend to the whole of the Flemish creative media industry. As such, existing content owners, production companies and broadcasters could work together more efficiently and cost-effectively, while new players could more easily find new collaboration opportunities – thus fostering the whole industry's further growth." says Luc Andries, CTO of SDNsquare, and MECaNO's project lead.

Wide area network (WAN) technology comes closest to answering those needs, but current WAN solutions still suffer from a number of shortcomings (such as distance, QoS and operational efficiency limitations). MECaNO addressed those shortcomings, resulting in the building blocks for the world's first WAN that guarantees 100% QoS. It uses the network's full capacity (with zero loss) and guarantees the delivery of IP-media content within deadlines, at any distance.

The cost-efficiency and flexibility of the Internet Protocol (IP) to connect devices and exchange data is being leveraged in an increasing number of industries. Yet, media companies' world of tight deadlines and their need for a guaranteed QoS makes IP's best-effort nature less suited for their specific needs. Thus, today they still use dedicated (expensive) leased lines or microwave technology to share content at a distance; or they resort to traditional, 20th century approaches – such as physically sharing video material via tapes and disks.



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The outcomes

- The foundation for the world's first wide area network with 100% QoS and in-time delivery guarantees
- New algorithms to operate wide area networks more efficiently and use their full capacity at all times
- A wide area network that guarantees zero packet loss, independent of the distance covered
- Techno-economic research quantifies cost-savings and identifies new collaboration opportunities

MECaNO Leaflet

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MECaNO (MEdia Contribution Network Optimization) is an imec.icon research project.

It ran from 01.01.2014 until 31.12.2015.

Project information

Industry

- Alcatel-Lucent
- iLab.t
- Limecraft
- Nokia
- SDNsquare
- Videohouse
- VRT

Research

- imec - IBCN - UGent
- imec - MOSAIC - UAntwerpen
- imec Technical Testing Center

Contact

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