

5G impact on Media Production Workflow

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While previous generations of network technologies have been designed as general purpose connectivity platforms with limited ability of adaptation to different use cases, the situation changes in the definition of 5G networks.

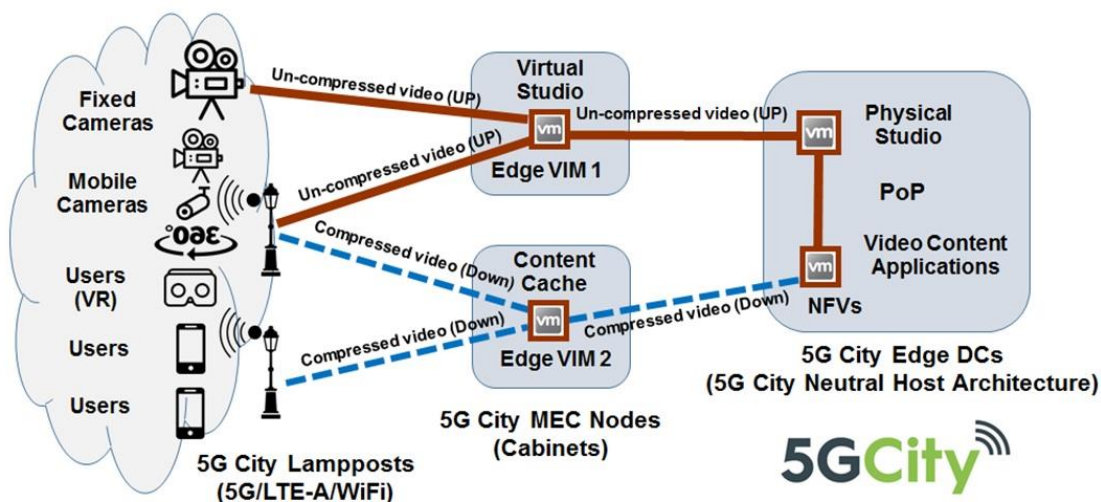
The 5G creates a new ecosystem that allows the involvement of vertical markets such as automotive, energy, food and agriculture, media, entertainment, city management, government, health, production , public transport and many others.

Media Companies are experimenting as vertical actors for the purpose of evaluating the impact that the new generation of network will have on the overall TV production workflow.



Media: sfruttamento architetture 5G

Multi-Access Edge Computing, neutral host,



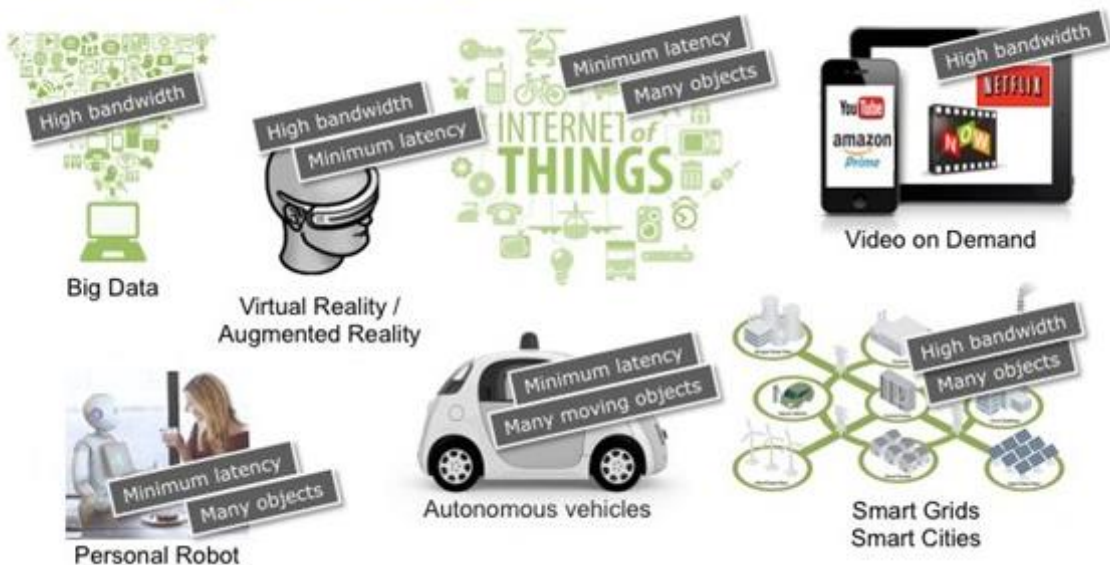
In this context the 5GCity project proposed a technical solution for the creation of an End-to-End platform with the dual functionality of supporting TV production and provision of services for the end user with the aim of exploiting the potential and performance of new generation 5G networks.

In order to exploit the potential of the 5G network for data transfer speed, low latency and high number of connected devices, but also for the virtualization and orchestration that the 5G ecosystem will make available, the technical solution is designed to cover the needs own of a media company both in production and in the field of the distribution of services, also enabling the possible feedback that could go back, from users to the media company, and that can be useful for marketing choices by closing the loop between production enabling the creation of new services based on the success of the services themselves.

The impact on the activities of the TV outdoor shootings is remarkable in order to improve the quality and efficiency of filming in multiple contexts, from news to live events, which can lead to decentralize part of the activities involved in the current TV production workflow.

Also on the side services and applications for end users, the broadcaster will be able to exploit a wide range of devices that are or are entering into the consumer market, connected televisions but also new generation smartphones, wearable devices up to the viewers for virtual / augmented / mixed reality to provide users with new experiences, difficult to predict today, that will constitute a technical, editorial and creative challenge to be faced in the coming years. All these devices will become part of the complex 5G ecosystem and the technical solution will support the experimentation of innovative applications, also exploiting the precious material that resides in archiving systems of the television world.

Technological developments



In this context, in collaboration with all Italian partner of the project we build a set of content productions specific for 5G network tests, audio-video shooting and recording was realized in June in Lucca and after a working period of postproduction we exhibited content during the Lucca Comics & Games 2018.

In particular:

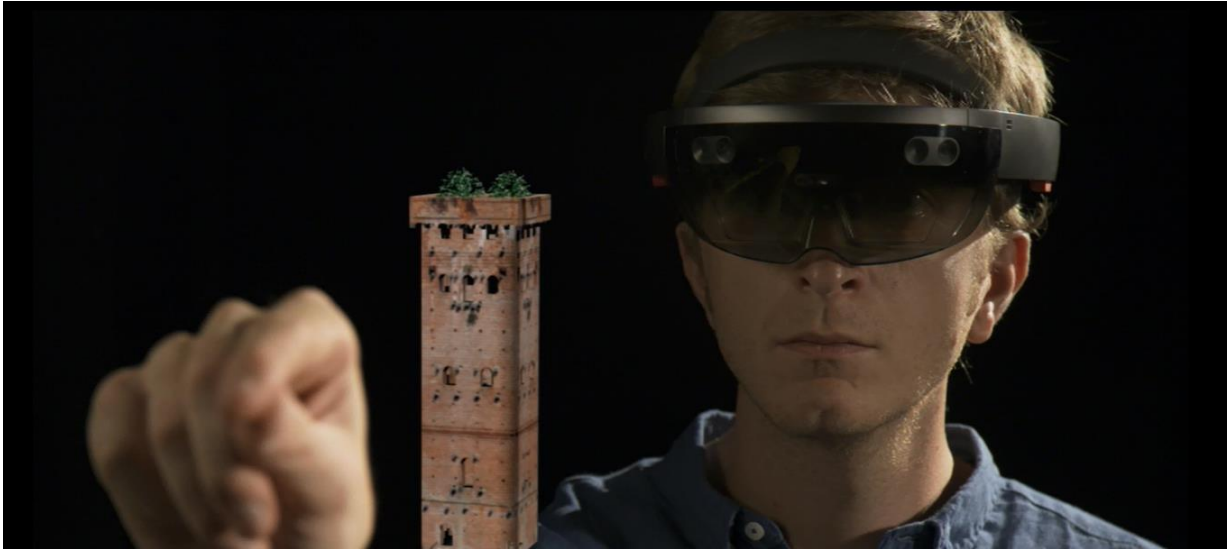
- An audio-video product in 4K-HDR used both for technical distribution tests on the 5G network and as a promotional / informative video of the project. This video product broadly explains the technical concepts underlying the research project and evokes the potential of future 5G networks, with the participation of Mario Cipollini.



- A 360 ° video audio product as an example of "immersive" experience at the Casa Puccini Museum, in which an unexpected guest, Giacomo Puccini, take the user to discover his birthplace. The binaural audio allow the user to follow voices and sounds to discover the ambient of the museum.



- 3D reconstruction of the Torre Guinigi and piazza Anfiteatro to be rendered with hololens wich allows to enrich the real vision with holographic models overlapped on the normal view of the user. This demonstration used the image recognition deployed as network service in the Data Center of the municipality.



All these demonstrations was visible at the 5GCity stand and transited on the new network infrastructure of the Municipality of Lucca specifically created within the project.

In this case the 5G network is exploited both for the production and management of the services provided, experience that will not be only video but a form of entertainment that will exploit the potential offered by new generation devices.

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