5GCity Newsletter #6 - Dec. 2019

5GCity: Developing and deploying 5G neutral hosts with municipalities, ICT-infrastructure owners, Telco for new 5G-powered Smart Cities.
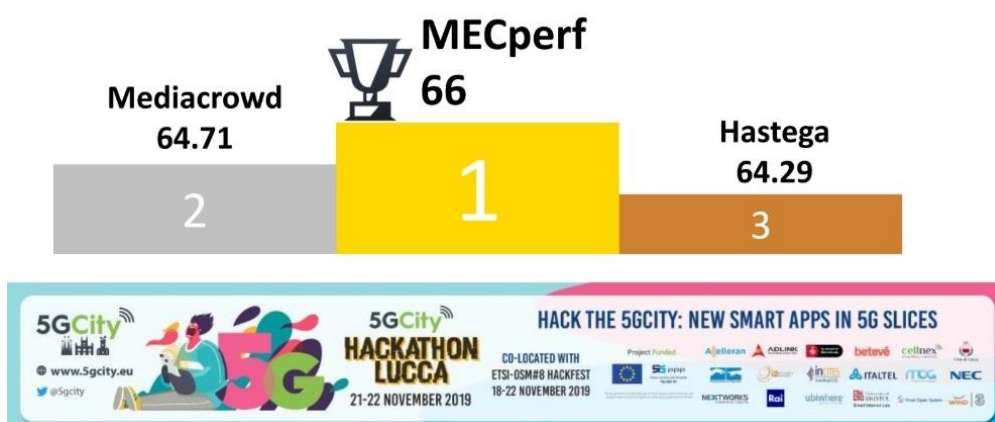

From 21-22 Nov. 2019, the **5GCity Consortium** has organized and run in Lucca, at the suggestive location of Real Collegio, its 2nd **5GCity Hackathon**. The 5GCity project, in its last year of execution, focuses on live demonstration of 5G services in three cities already going through digital transformation: Bristol, Barcelona, Lucca.

Source: CoDi

The purpose of the **5GCity Hackathon in Lucca** was to demonstrated in operational conditions, (using the 5GCity platform and the neutral host concept) to turn a city-infrastructure into a distributed and multi-tenant edge infrastructure by relying on the 5GCity orchestration platform, based on OSM, to manage and orchestrate (NFV + MEC) end-to-end services and creating programmable and on demand network slices.

And the **Winner of the 2nd 5GCity Hackathon** was...

Source: CoDi

Congratulation to All Participants!

Source: CoDi

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TECHNOLOGY NEWS

5GCity Orchestrator's final release is out there!

Source: Apostolos Papagiorgiou

By Apostolos Papagiorgiou

The final version of the 5GCity Orchestrator has been released in October 2019. All the components that were included in its conceptual architecture design have been implemented by our software developers in the 5GCity GitHub space, and various of them are being considered for open-sourcing to the broader public.

MORE

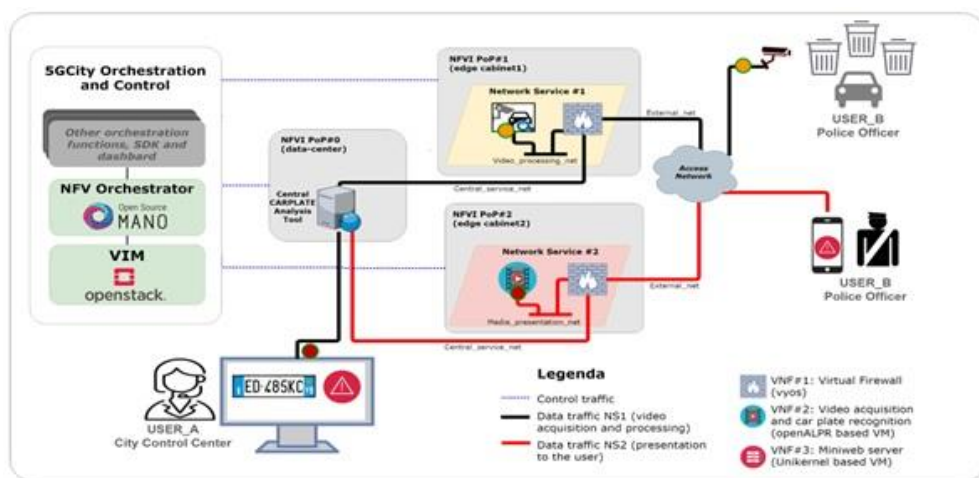## Virtualization at the Edge

Source: VoSys

By Michele Paolino, Gino Carrozzo, August Betzler, Carlos Colman-Meixner, Hamzeh Khalili, Shuaib Siddiqui, Teodora Sechkova and Dimitra Simeonidou.

In the 5GCity solution, security are enhanced by deploying a robust compute node authentication, monitoring, and geo-tagging.

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BLOG POST

Neutral Host Modelling in Lucca

By Maria Rita Spada, Stefan Guerra, Luca Vignaroli, Luca Falsiroli, Pamela Salvatore, Elian Kraja.

The project tested in Lucca the deployment of broadband services distributed on an experimental radio network infrastructure consisting of optical fibers and software / hardware control technologies and small cells operating with a low power (< 5 Watts) and authorized spectrum (2.6GHz LTE TDD, Band 38, currently used by 4G networks) to assess new models of services that are of interest of cities of the size of Lucca.

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HIGHLIGHTS ON PAST EVENTS

5GCity 7h F2F Final Meeting in Lucca

Source: CoDi

In Lucca, from 18 to 19 Nov. a final and intense 7th GA meeting took place at the Real Collegio. The last final laps to strength Consortium commitment and determination to achieve the project conclusive results!

Source: CoDi

From Nov. 18-22 hosted by 5GCity in Lucca, it was co-located the OSM#8 Meeting, 5GDay and #8 OSM HackFest; a great opportunity to share and learn with OSM developers and module leaders, to networking and explore opportunities for collaboration.

Source: CoDi

Presentation of the Study:
Densification and Rationalization
of 5G Mobile Networks in the Territory

Source: Institut Cerdà

Source: Institut Cerdà

Last 10 Oct. 2019 in Madrid, 5GCity partner Cellnex participated at the day-study presented by:

-Roberto Sánchez, General Director of Telecommunications and

Information Technology, of the Secretary of State for Digital Advance,

of Spanish Ministry of Economy and Business;

- Juan Carlos López, member of the Governing Board of the COIT and

- Lluis Inglada, Director of Territory and Public Sector of the Institut Cerdà.

He presented the main conclusions of the study:

"Strategy and Argumentation for the Densification and Rationalization of 5G Mobile Networks".

The event has also included two round tables with the participation of municipalities and the main companies in the telecommunications sector.

Cellnex presented the study: *Best Practices and Rationalisation in the 5G Mobile in the 5G Mobile Networks Deployment*.

The study was realized also with the contribution of other 5GCity partners.

MORE

Techno-economic analysis of a small cell network based on 5GCity platform

5GCity partner InCITES, has participated on Sept. 25-27 at the CTTE-FITCE Congress in Ghent, Belgium with a presentation on "**Assessment of CAPEX and OPEX for Media Services in Cloud Enabled 5G Networks**". The CTTE Conference is the major international event for the presentation of original and fundamental concepts and studies in the field of telecom, internet and media techno-economics.

Source: InCites

InCites performed a techno-economic analysis of a small cell network in Crowded Events (CE) offering immersive video services (IVS). The small cell network was deployed to offer connectivity and edge computing capabilities following the Neutral Host business model proposed by 5GCity project.

The analysis shows that investments for an IVS in a stadium relying on edge cloud resources are viable with an expected payback period of 6.5 years.

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UPCOMING EVENTS

5GCity Final Demos

The **MWC2020**, in Barcelona next 24-27 Feb. 2020 will be the last big event the 5GCity Project will be attending before it gets to its natural finalization on March 2020.

Several Final demos will be run during the event to test services and platform deployed in Barcelona:

- **Neutral Host Demo**

- **Mobile Backpack Demo**

- **HD Video Acquisition and Production Demo**

- **Waste Dumping Detection Demo**

Also a final series of communication activities are scheduled to take place during the event.

MORE NEWS HERE

We are very excited about the progress of **5GCity** project.

We will keep you informed of future results and innovations through our newsletters.

5GCity Consortium

5GCity project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 761508