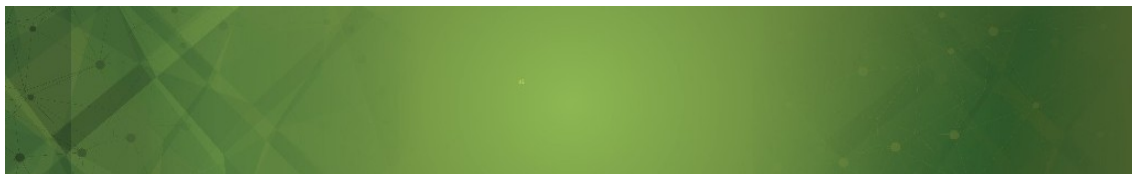




## 5GCity Newsletter

*5GCity developing and deploying a virtualized neutral host platform for interested parties to deploy smart city services.*

---



The [EU H2020 5GCity](#) project aims to introduce the novel concept of a **neutral host** to smart cities, whereby providers (i.e., municipalities) deploy basic infrastructure that then other parties or municipalities themselves, can use or rent out to implement novel use cases at a fraction of the cost and time.

To do so, **5GCity** is busy developing and deploying a virtualized **neutral host** platform that will allow interested parties to deploy smart city (virtualized) services much like in the cloud domain. In order to cater to the widest possible range of use cases and potential clients, the platform itself will be deployed in a distributed manner, going from the very edge of a network in street-side cabinets running resource-constrained devices all the way to clusters using standard, off-the-shelf x86 servers. 5GCity targets deployment will take place in

three different municipalities: **Barcelona**, **Bristol** and **Lucca**.

## TECHNOLOGY NEWS

### Unikraft - Specialized Operating Systems and Virtual Machines

#### Unikraft – Crafting Unikernels

One of the main achievements of this period has been the design, early implementation and open source release of **Unikraft**, a tool that allows us to *automatically* build tiny, specialized operating systems and virtual machines targeting specific applications that can boot in milliseconds, consume only a few MBs of memory (ideal for edge deployments) and allows us to potentially run thousands of concurrent instances on an x86 server.

Unikraft is there to plug that gap, is already a Xen incubation project under the auspices of the **Linux Foundation**, and constitutes one of the core components of the 5GCity architecture. Unikraft has already been presented at *FOSDEM* in Brussels this month (the large open-source conference in the world) and will be presented at **QCon London** and **Cambridge University** in **March**; further events are also coming down the pipeline. [More information](#).

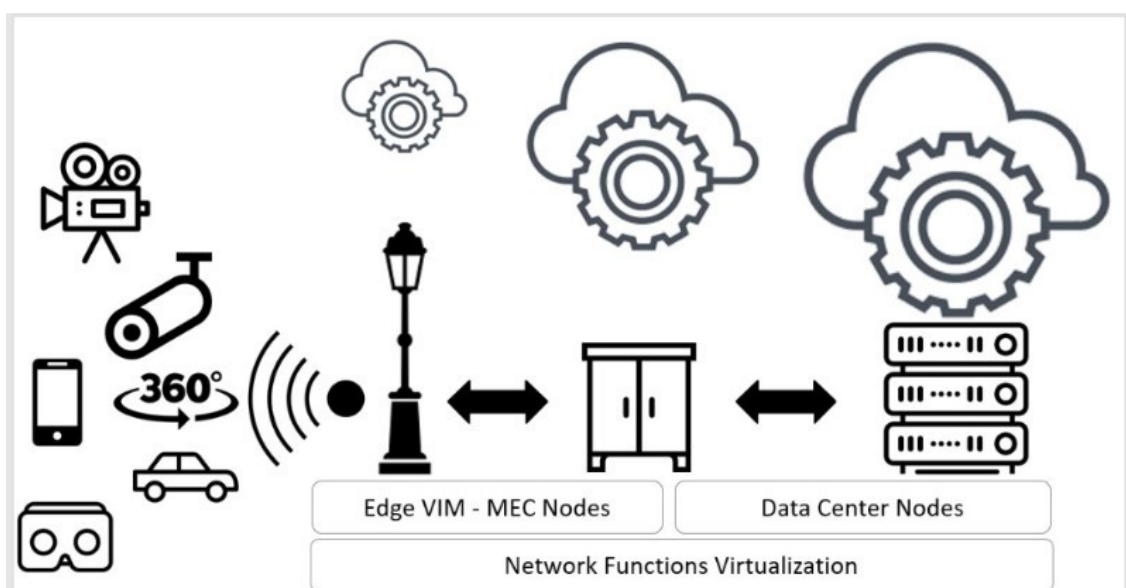
### The Run of the Neutral Host in the Cities



5GCity has been busy implementing also the equipment deployment phase, installing the necessary hardware in the cities to run the neutral host, virtualized platform on top.

5GCity partners have already deployed a small cell in the city of Barcelona that operates live in the commercial LTE 3.5GHz spectrum, streaming content from a local edge server towards LTE 3.5GHz smartphones; a demo of such equipment was presented at the **Smart City Expo World Congress 2017** in November (18,000 visitors from 700 different cities) and will be presented at the upcoming **Mobile World Congress 2018**.

### Lucca 5GCity - High Resolution Cameras



**5GCity** has been working on defining its architecture, which will be finalized before the end of the project's first year, as well as its use cases. For instance,

in the city of **Lucca 5GCity** is deploying high resolution cameras to monitor and capture illegal dumping, which is critical to that city's municipality since it hosts multiple large yearly events.

---

## PAST EVENTS

**Project's kick-off meeting took place in June 2017 in Barcelona.**

Presentation of the 5GCity project at [EuCNC 2017](#)'s 5G PPP Phase 2 Session (**June 2017 Oulu, Finland**)

Presentation of the 5GCity project at the Visions for [Future Communications Summit](#), **Portugal**, organized by Networld2020 with the support of 5G Infrastructure Association, European Commission, IEEE and National Science Foundation.

Presentation of 5GCity and its media related use cases at [BiT Experience 2017](#) (**Madrid, 4 – 5 October, 2017**), including participation in a panel on "5G and new challenges of AV and Media" along with 5GMEDIA project.

## COMING EVENTS

Upcoming presentation of 5GCity activities at the next **Embedded Linux Conference + OpenIoT Summit North America summit (March 12-14, 2018 - Portland, OR)**, with a speech entitled "Mixed Critical IoT Edge Systems Through Virtualization". Of the 100+ sessions which will be held during the event, the 5GCity speech has been promoted by the [Linux.com](#).

Presentation of 5GCity first year achievements on media related use cases during the [15th European Digital Forum](#) (**June 14-15, 2018 – Lucca, Italy**)

Participation of 5GCity delegates at the joint Workshop during [EUCNC 2018](#) (**June 18-21 - Ljubljana, Slovenia**)

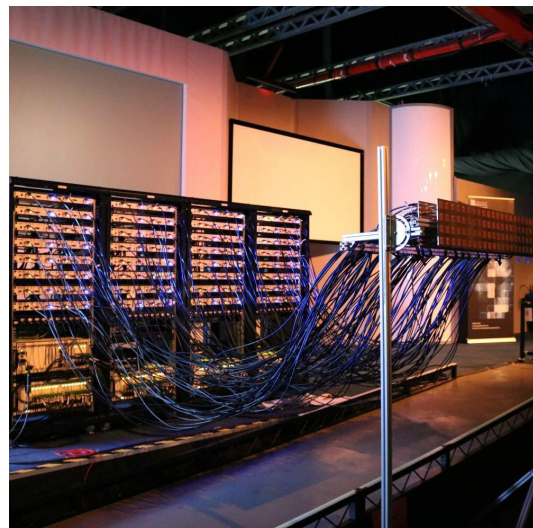
---

## SOCIAL NEWS

## 5G partners at MWC 2018



Acceleran, I2CAT, Italtel, Cellnex/Retevisión are taking part at the [Barcelona's Mobile World Congress 2018](#). An important opportunity to meet some of the prestigious partners, especially for more information and details on the 5G CITY project.





## 5G City use cases for Smart Cities at IEEE 5G Summit in Trento



The 5G Summit will take place in **Trento, Italy, on March 6, 2018**. It will be the first time the event is organized in Italy. [IEEE 5G Summits](#) are organized by [IEEE Communication Society](#) within a strategic framework based on the principles that embrace Industry's interests and priorities.

## 5G:bold and brainy in Bristol



Source: University of Bristol

In **March** this year, **Bristol** will host the UK's first, public 5G trial. The two-day live-trial – with Nokia and BT – will involve up to 5,000 people and is set to put the UK, and this city in the west of England, at the forefront of next-generation telecommunications.

**MORE NEWS HERE**



We are very excited about the progress of **5GCity** project. We will keep informing on future results and innovations through our newsletters.

---

*Copyright © 2018 5g City, All rights reserved.*

**Our mailing address is:**

[info@5gcity.com](mailto:info@5gcity.com)

Visit our website:

[www.5gcity.eu](http://www.5gcity.eu)