

5G City Project Overview

SHUAIB SIDDIQUI (FUNDACIÓ I2CAT)

5G PPP PHASE 2 KICK-OFF AND COLLABORATION MEETING

BRUSSELS, 01/06/2017

5GCity



Main Goal

- *5GCity's main aim is to build and deploy a common, multi-tenant, open platform that extends the (centralized) cloud model to the extreme edge of the network, with a demonstration in three different cities, Barcelona, Bristol and Lucca.*

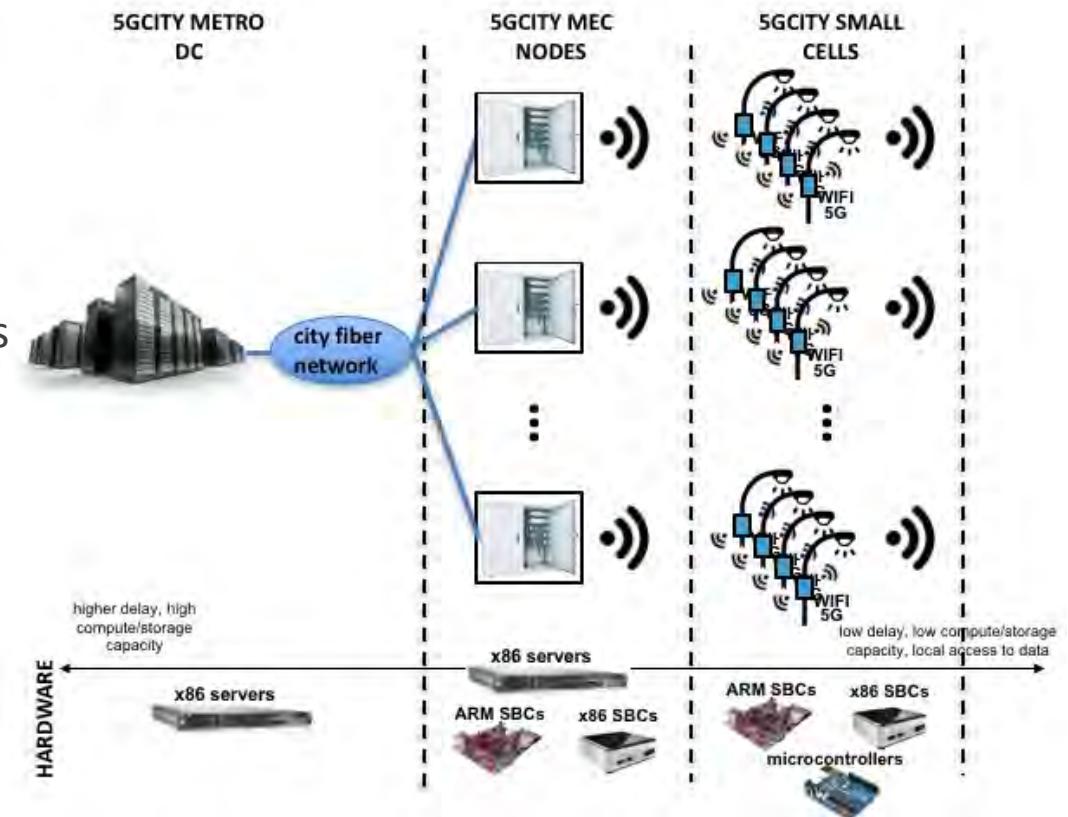
Objectives

- Distributed, 3-tier architecture implementing network sharing, slicing, and MEC capabilities.
- MEC node virtualization platform and guest optimizations
- Network virtualization
- Scalable edge management & orchestration and service programming models
- City-wide pilots' deployment and validation

Technical Challenges



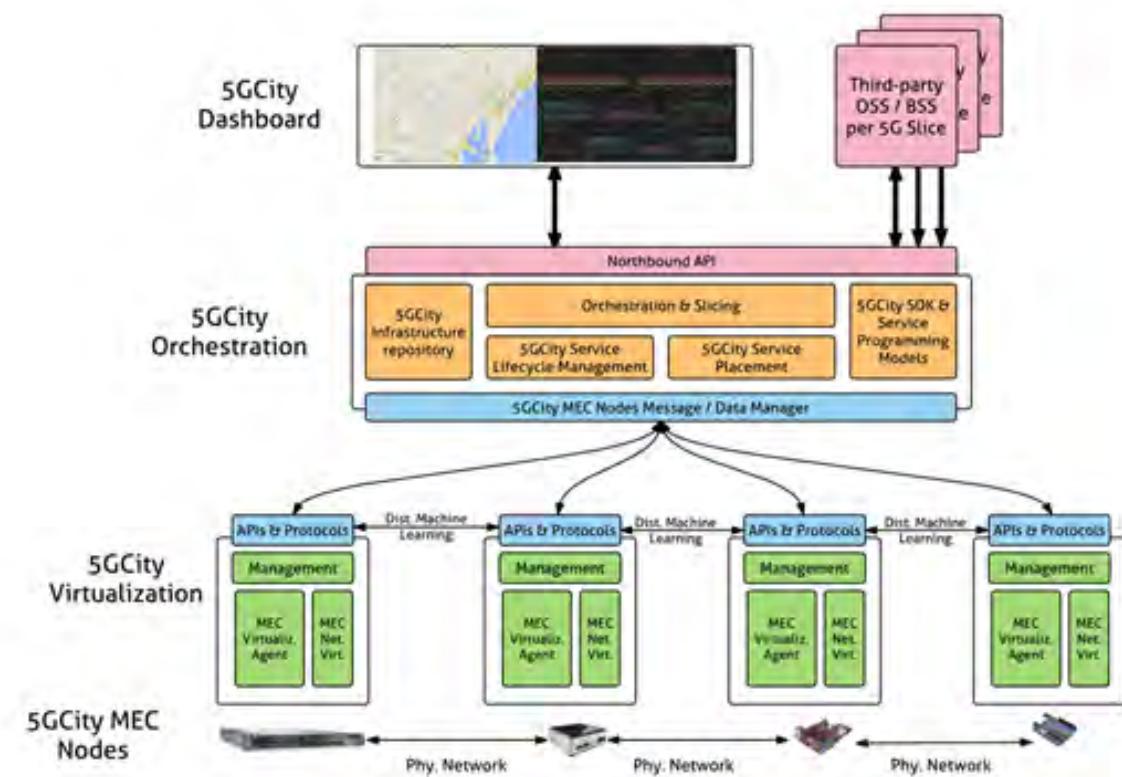
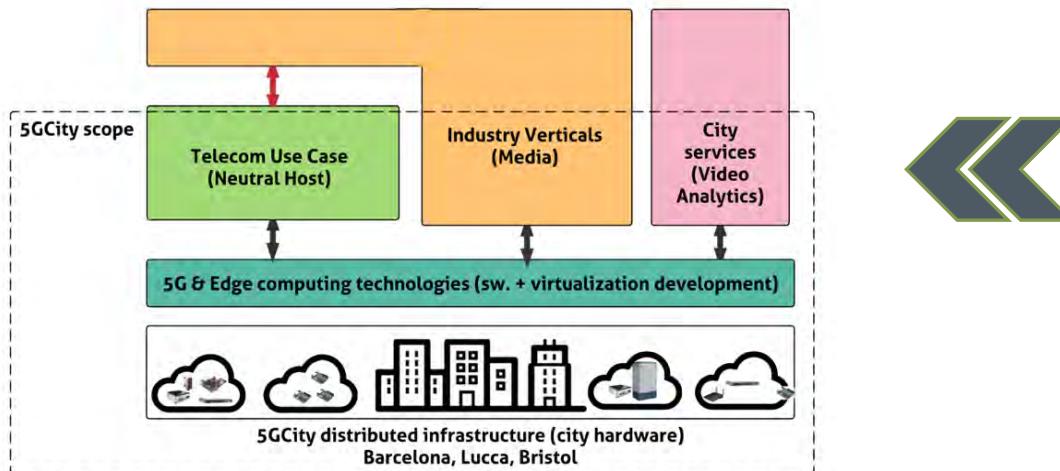
- Virtualization Platform on constrained devices
 - Virtualization on SBCs (x86 and ARM)
- Edge network virtualization
 - Software switch for resource constrained devices
- Slicing and neutral hosting



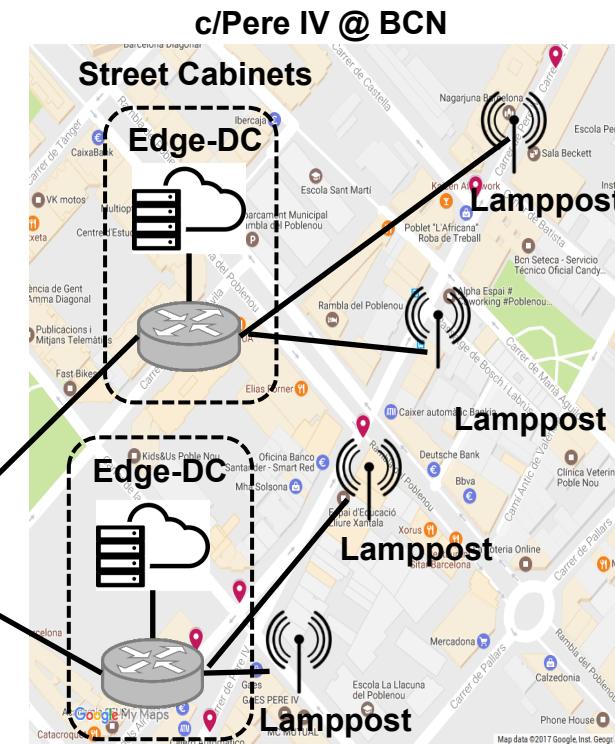
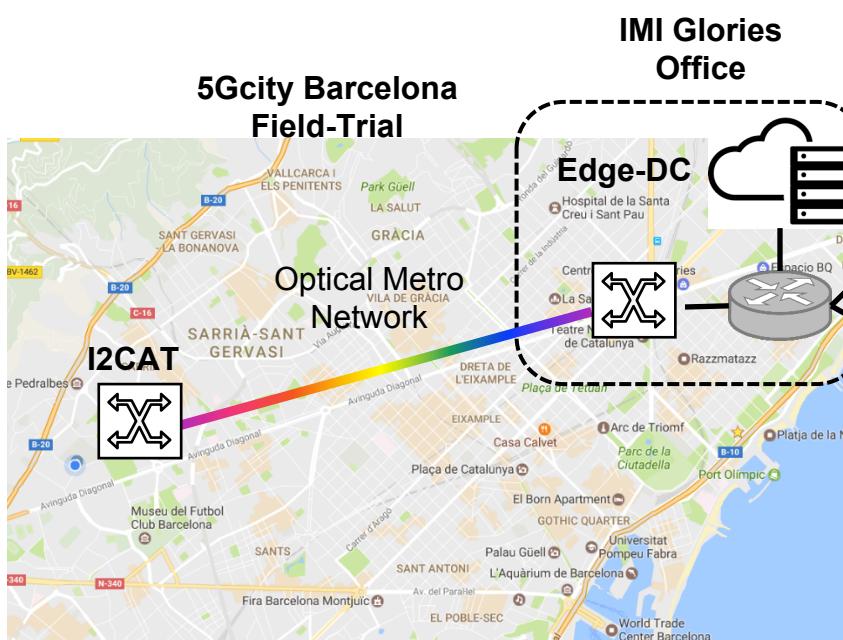
Technical Challenges



- Edge management and orchestration
- 5GCity service framework



5GCity: Barcelona Example



Interactions with 5G PPP Projects and WGs



5G PPP WGs

- SDN/NFV (Software Networks) WG
- Trials WG
- 5G Architecture WG
- NetMgmt & QoS WG

5G PPP Projects

- Virtualization on resource-constrained devices
- End to end service management and orchestration over distributed and heterogeneous edge infrastructure
- Network Slicing and security
- 5G service programming models

5GCity at a Glance



Quick Facts

- Innovation Action
- i2CAT (PC) & NEC (TM)
- 30 months Duration
- 18 partners

