Self-Dimensioning and Planning of Small Cell Capacity in Multi-Tenant 5G Networks

ABSTRACT

- This paper proposes a new framework for automated cell planning in multi-tenant S mall Cell networks.
- In particular, taking advantage of the available network data, a set of detailed planning specifications over time and space domains are generated in order to meet the contracted capacity by each tenant.
- Then, the network infrastructure and configuration are updated according to an algorithm that considers different actions such as adding/removing channels and adding or relocating small cells.

EXISTING SYSTEM

- An important concept in the 5 the generation of mobile networks is multi-tenancy, which allows diverse operators sharing the same wireless infrastructure.
- To support this feature in conjunction with the challenging performance requirements of future networks, more automated and faster planning of the required radio capacity is needed.

• Likewise, installing S mall Cells is an effective resource to provide greater performance and capacity to both indoor and outdoor places.

PROPOSED SYSTEM

- The proposed framework has been evaluated in a scenario in which a new tenant is added in the network.
- To derive the set of planning specifications of the new tenant, different methods are considered depending on the expected correlation with the actual traffic demand in the network and the spatial resolution of the traffic measurements.
- Results show that the detailed planning specifications based on correlated distribution with a spatial resolution at the SC-level employ the least amount of network resources.

HARDWARE REQUIREMENTS Intel core 13 Processor RAM 2B• 20 GF Hard Disk

SOFTWARE REQUIREMENTS

: LINUX

• Operating System

- Tool
- Front End

- : Network Simulator-2
- : OTCL (Object Oriented Tool Command Language)

REFERENCE

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