Mobile Node Pilot Progress

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Abstract—**This short paper is focused on explaining the last advances and the future tasks planned within the Mobile Node Pilot.**

I. WHAT HAS BEEN DONE SO FAR

Currently, several tasks has been finished successfully:

- **Install QMP in the nodes and deploy a Mesh**: We got three nodes: Nanostation M5, Rocket M5 and Alix. This task consisted on flashing the nodes and installing the new firmware. Once the firmware was installed, the mesh network was deployed almost automatically when the three nodes were plugged.
- **Add a gateway and check Internet connectivity**: Once the mesh was deployed and working properly, the next step we took was to connect the Nanostation to an Internet gateway via its Wan interface. The node itself, detects it has access to the Internet and announces this fact throughout the mesh. That way, every single node that belongs to the network notices that there is a gateway and they will send any packet they receive with a request to an Internet service to this gateway. In other words, having just one gateway, all the nodes (and its clients) have Internet access.
- **Install Rocket M5 on Roc Boronat building's roof**: A qmp-based mesh network is currently being deployed on Poblenou neighborhood, and we have installed a node that will contribute to that mesh.
- **Test connection between Rocket and Mobile Node (alix)**: A connection test has been performed from the terrace on the 4th floor of Tanger building with the Mobile node. The connection between the rocket and the alix establishes without issues. The only thing that has to be revised is the channel, because the signal intensity is quite low.

II. CONTRIBUTION AND FUTURE TASKS

The contribution of this TFG is on the one hand, expanding the network being deployed in Poblenou neighborhood and on the other hand has to be decided yet. Some options has been already considered:

- Contribute on the dissemination of the whole project behind
- Develop an app that locate all the fixed qmp nodes on a map

And so, the future tasks are:

- Decide and implement the contribution
- Write up the thesis with the detailed information

Fig. 1: Rocket Roc Boronat