Bottom-up Broadband Pilots in Europe (C4EU 5.1.2: Report on Selection of Opportunities and Projects - b)

Name Name, and Name Name

Abstract

This is the abstract

Index Terms

Bottom-up-Broadband (BuB), wifi, super-wifi, fiber, sensor networks

Affiliation

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This pilot is focused on deploying a sensor network which would gather real time data from the environment, such as air quality, noise pollution, etc. This information would be then uploaded to an open data portal to make it publicly available. The ultimate objective of this project is to let developers use this data to build applications that can improve the daily lives of the citizens.

At the time of writing some key decisions have been made. ZigBee is an open source protocol which focuses on low energy consumption and it will be used to establish the connection between the sensor nodes. Also, these nodes will be working on top of the open source prototyping platform Arduino which is commonly used to deploy wireless sensor networks nowadays.

V. The Free Europe Wifi Pilot

The Free Europe WiFi project is based in the original idea that our Italian colleagues are working on. It is called Provincia WiFi, and tries to offer free WiFi internet connection to any Italian citizen. By now it is only available in some regions of that country, so the idea is to extend it to whole Europe. So, our work is to start establishing a similar project in Spain, always having full interoperability with the original project. Thereby, we want to take the next step to extend it to Europe.

In summary, the final idea is: being a European citizen, it is possible to connect to any of the various access point of our network, in order to enjoy of a free internet connection, in every country that participates in the project.

Notice the complexity, not only technical of the project, but also on every European country telecommunication laws. Every region has its own laws in reference of telecommunication organizations, and in the way citizen use the service. From keeping data from the connected users, to meet the rules of the market it's just an example.

Because of this wide range of different possibilities, it is difficult to create a totally generic prototype, so in order to design it there are many factors to consider.

VI. The Northern Quarter Network Pilot

This project consists, roughly speaking, on the design, implementation and testing of an optical fiber network in the Northern Quarter (NQ) area of Manchester. This network will provide public free Wi-Fi in that area of the city. The project will be led by the Manchester Digital Development Agency (MDDA), and all the designs and implementations will follow a model they have already developed.

The NQ is home to a wide range of SMEs from many sectors and is a good place for starting businesses to begin their activity and have a trading presence on a centric place of an important city. Providing public WiFi to the NQ will allow businesses to increase their revenues by increasing the number of customers and will give them a way to promote a big range of activities and/or events taking place in the zone. In addition, it is likely that this facts help to support the economy of the NQ area and of the whole city. As mentioned, the NQ area is like a small village in the centre of Manchester where most of the small businesses know each other, and work together to strengthen the economy of the city. This is an important relationship that can be intensified by the implantation of that network, and so the economy will be boosted.

One of the most important aspects of the project, apart from designing and deploying the network, is defining a good pricing model for commercial use. It is a basic point, because it is crucial that the network becomes self-funding and sustainable after the conclusion of the C4EU project. It is, somehow, a critical aspect, and the success of the pilot will strongly depend on the success of the pricing definition.

VII. The Rubi Pilot

The Rubi pilot consists of the design, implementation, testing and documentation of optical fiber in Rubi, but by some troubles, it has occurred delays in the implementation of fiber in Rubi, therefore without leaving aside this pilot we will realize a project called FFTx. This project will consist to implement the optical fiber over Bottom-Up Broadband (BuB) model. The FFTx name is because the study includes the main fiber deployments -FFTH/FFTF/FFTP Fiber From The Home/Farm/Premises.

To begin the project, we will do a study the BuB model, an investigation of existing fiber types and the advantages that they have over others transmission media. We will do too a comprehensive study on how the optical fiber in Gurb was implemented -Gurb is a municipality where has been successfully implemented the optical fiber over BuB model. Finally we will look for the possibility to carry out the implementation of optical fiber over this model in different municipalities (eg Rubi).

VIII. Conclusion

And this is the conclusion.

Acknowledgment

This work has been partially funded by the European Commission (grant CIP-ICT PSP-2011-5). The views expressed in this technical report are solely those of the authors and do not represent the views of the European Commission.