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Smart meters in UK: a technological challenge for Telefónica

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United Kingdom has taken a technological leap in its smart meter management infrastructure. There are a lot of important benefits (environmental, economical, social ones), but technological implications are also very interesting.

The nationwide smart meter tender was divided into three regions (Northern, Central and Southern). Each one of these areas have different geographical and demographic characteristics, and the companies which offered their services put diverse technologies forward.

Finally the communications for the Central and Southern regions, awarded to Telefónica UK, will be based upon the public O2 2G/3G networks. A low bandwidth radio network will be deployed in the Northern region for this project.

The main difference between the Northern region and the rest of regions is its complicated orography and a greater dispersion of its population which results in an inferior mobile coverage.

The use of public networks for M2M as opposed to private networks will be an important issue in the upcoming years. The outcome of this confrontation is hard to foresee and there will probably be mixed solutions. Due to the virtues and and defects of both kinds of network, either a private or a public one will be used depending on the needs of each case. Telefónica UK's offer is in fact not only based on the 2G/3G network.



Mobile communications are produced by specific hardwares called CHs (Communication Hubs) which have a SIM card. However, the final transition to smart meters is made possible by using low bandwidth radio technologies which can also use dynamic routing (mesh) whenever it is necessary to alternate between various CHs to reach the meters.

The SMART M2M service by Telefónica is responsible for the provision of communication systems for mobile lines and Communication Hubs. It manages the lifecycle of the lines and it supervises its correct performance with the use of DMM (Device Management and Monitoring) capacities which apply to the Communication Hubs.

The analysis of M2M communication technologies from an economic and functional point of view is a very interesting aspect which will influence how fast the evolution of M2M deployments in the world will be. We'll have to wait and see.



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