

A description of the nature of the research project being conducted.

France Telecom Research and Development, LLC wants to set up a wireless network limited to a few hundred yards in its facilities in South San Francisco for research purposes. This local wireless network will be connected to Orange's existing infrastructure in UK via a leased line.

For setting up this wireless network, two base stations would need to be installed (one GSM1800 and one WCDMA). The GSM1800 base station will use a maximum of four 200kHz channels in the lower part of the DCS1800 spectrum where it will not interfere with PCS1900 operators. The W-CDMA base station would use 1920-1925 MHz for mobile transmit and 2110-2115 MHz for base station transmit. The W-CDMA system requires the full 5MHz channel for mobile and base station transmit. Radiation will be kept to a maximum of a few hundred yards.

The purpose of the project is to build a local infrastructure allowing France Telecom Research and Development, LLC to develop and test mobile services that require an access to the existing France Telecom infrastructure in Europe. These services will be developed and tested by either company employees, or by USA startup companies. These services will include mobile games, productivity applications, etc. The GSM1800 and WCDMA base stations will have a coverage area limited to few hundred yards.

A showing that the communications facilities requested are necessary for the research project involved.

France Telecom Research and Development, LLC develops prototype wireless services. Setting up such a wireless network (GSM1800 and WCDMA base stations) would be the only way to testing services requiring a network access to the existing France Telecom's infrastructure in Europe. Also, USA startup companies willing to test their services using this infrastructure in Europe are currently not able to do so from the office of France Telecom Research and Development, LLC, and the requested communications facilities will be necessary to do so.

A showing that existing communications facilities are inadequate.

There is currently no existing communications facilities in place at France Telecom Research and Development, LLC allowing such a research project. In order to effectively test mobile services with network dependencies, we would need such a configuration.