

The complete program of research and experimentation proposed including description of equipment and theory of operation.

The Interwave GSM 1800 system provides our development and test team with the capability to test specific vendor hardware with our software development products that are utilized in European and Asian markets. This system is a "network-in-a-box" which provide voice and data coverage within our facility to facilitate debugging of software drivers associated with the GSM implementations for voice/data. This includes circuit switched data as well as circuit switch voice calls. The system is operated to provide in-building test environments to provide an accurate representation of a "production" network without incurring or effecting the operation of a true production network. In effect, this installation will be used to "certify" our software and vendor hardware works to specification and will not impact a production network.

The specific objectives sought to be accomplished.

- Provide environment to validate our software products against a 1800MHZ GSM based network and radio equipment provided by our partners and vendors.
- Provide an environment which accurately emulates a production system in the European and Asian marketplace
- Provide capability for development and test teams to debug and test drivers and associated radio interfaces when problems occur during the devleopment and test process.

How the program of experimentation has a reasonable promise of contribution to the development, extension, expansion or utilization of the radio art, or is along line not already investigated.

-Allows development of next generation data services that will push the implementation of 3G and 2G networks by increasing demand for those services. These include real-time media, voice and data applications, and multi-modal service integration. By providing an environment where we can facilitate development and debugging of application issues quickly, we further contributions towards solving implementation issues surrounding the adoption of this technology by reducing time to solve application latency and improving the user's experience thus driving demand higher for richer applications and content.