Abstract

The current theoretical approach to equipment authorisation (EA) regulation has proven problematic to resource-poor countries. EA is the technical and administrative process that all electronic communications equipment are subject to before sale and use. EA involves checking the technical characteristics of equipment, by dedicated test facilities, to national or international standards which are enforced by the regulatory authority. Initial research in the South African EA environment has revealed several real-world trends that show that the current approach to EA regulation has limitations when faced with a changing electronic communications (EC) landscape.

The general theories of public interest and the economic theory of regulation only broadly form the theoretical basis for EA regulation. The narrow focus of the thesis in developing an innovative approach to EA regulation, in the context of a developing country, required seeing beyond the existing theory surveyed in the literature. Using a Straussian approach to grounded theory, the epistemology of the EA environment is studied inductively via a post-modernistic interpretative framework. The research finds that the EA framework, applicable to efficiency driven and transitional countries with a relatively rich EA testing infrastructure, is predicated on a calculated concept of trust. The regulatory authority employs a tacit computational mechanism to determine the level of trust when dealing with EA applications. The rationale for such an approach is largely driven by sub-optimal decision heuristics available to the regulator, as a result of an inability to corroborate technical data associated with the EA process. The regulator thus applies a differential trust paradigm based on determining factors such as salience.

A future knowledge-based approach to EA regulation is theorised, in which technology innovation assimilated from other EA environments, is applied to the EA process to improve institutional efficiency. The goal of applying technology and innovation to the EA process is ultimately centred around increasing the trust value proposition.