

Construction of the System of Radio Communication Network Management

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Abstract – In the article the tasks and principles of construction of radio communication network management systems are considered. The distributions of between functions managing operational systems are briefly shown. The interfaces of interaction of radio network with other telecommunications elements networks are considered.

Keywords – System, Network management, Public telecommunication, Radio Communication, Radio networks.

As a result of the conducted researches the major tasks of management of radio communication processes are pointed out, which are solved by control centers and service. In the basis of centers construction the principle of a network management, in accordance with this for the system of radio communication network management (NMR) the following problems are defined:

1. The NMR system should provide interplay with existing of public communication systems and to be their natural prolongation.
2. The NMR system should be rather flexible to provide perspective development both radio networks, and terrestrial public telecommunication networks (PLMN), and also functions and services of network management
3. The NMR system should be so transparent for technologies, which will be used in existing PLMN, as far as it is possible.
4. The NMR system should have a module structure, that irrespective of the sizes of a network, where the control is implemented, to supply necessary functions.
5. The NMR system should not depend on the manufacturer, that is should provide transposability of the equipment.
6. Structure and the functions of NMR should not limit activity and selection of the operators and manufacturers,

and also capability of personal usage, for example, for organization of discharged local communication networks.

7. The NMR system should be stable, that is neither equipment failure, nor human factor should not result a system or communication network in a run-down state.

The listed problems are resolved by acceptance for radio communication networks of the open systems interconnection model (OSI) by International Standards Organization (ISO), by selection of the functional architecture of network management system, which take account for different physical fulfillment, accurate definition of connection of the standards and the report transmission protocols. The analysis of these problems is presented in the work.

CONCLUSION

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