

# NetWorkS! – sets standards of services for radio networks

Last year was the 5-th anniversary of the NetWorkS! company, which has been founded by Orange and T-Mobile for the purpose of modernisation of networks owned by both MNOs. The project began in 2011 and lasted almost 3 years. Today, after 3 years since the modernisation completion it is possible to describe and summarise the project.

In 2010 the cellular networks have already had many of years of operations and it became apparent that their modernisation is necessary. In effect the two aforementioned Network Operators began consultations, and they concluded that investments in their networks should be increased and the project of modernisation has to be started. Due to this conclusion the NetWorkS! Company was established. Planning, construction, and maintenance of the network facilities were transferred to the new company, together with engaged engineers and managers.

Primarily, modernisation of the network was planned for three years, and this optimistic prediction turned out to be feasible due to a perfect scheduling of tasks. Clusters consisting of dozens of base stations were modernized in a short period of time to minimize impact on service. Then the strict acceptance examinations and check-ups were performed. During the project lifetime the greatest emphasis was put on maintenance processes. The quality acceptance of each cluster made by Main Network Operators was the final accent of network modernisation procedure. This in turn resulted in the acknowledgement of perfect performance in the national cellular networks audit ordered by Polish Office of Electronic Communications.

It wouldn't be feasible to perform such an enormous and complicated project without the staff of NetWorkS!, assembled of highly qualified specialists. The units of experts consist of a variety of specialisations like: planning, designing and building, maintenance, optimisation, monitoring and supervision of the network. Employment of specialists in many different expertise and intervention groups located in more than thirty towns is a characteristic of our countrywide dispersed structure.

It turned out that in order to guarantee smooth running of processes, an integrated computing system supporting all operational and business fields is necessary. Taking into consideration that on the market there is no satisfactory solutions covering such an amount of users and various processes, the company has made a decision to develop an in-house solution called SPIN. The system processes the whole path, from planning, through construction, legalization, parametrisation, up to technical acceptance and maintenance, also supports workflow management in the entire enterprise. The platform also cooperates with other specialised systems for network monitoring, collects alarm and inventory information, automatizes many tasks which are necessary to the proper maintenance of the network. It supports network incident management, as well as the management of assets needed for problem solving. There is no big investment necessary in order to apply the SPIN system for an organisation which needs process automation. A so called "black-box" security mechanism is applied both in realised processes and the entire platform. The mechanism assures confidentiality of the data of all users, despite same processes, systems and applications used for various services.

N!Box - an original monitoring system for base stations that constitutes a significant support for daily maintenance. This product is genuinely designed by NetWorkS! taking into consideration over 20 years of our engineers' experience in the exploitation of vast telecommunication networks. Thanks to

this the solution is much better suited for operators of infrastructural networks than typical SCADA systems.

A large contribution of labour into the network consolidation process allowed us to gain not only an experience, but also gave us the possibility to run high quality services for other infrastructural operators. The quality of applied and realised processes has been positively assessed by certification units. As an effect we obtained ISO 9001 certificate, together with ISO 14001 and 2700 in the field of environmental management and information security management.

## *Mariusz Kaniecki*

**Biography:** Mariusz Kaniecki is an electronic and computer science engineer, an expert at the Network Management Department of the NetWorkS! Ltd. He started his career in 1996 at the Radio and Electronics Department in TP S.A. (currently Orange Polska S.A.). Since 1998 he has been participated in development of mobile network for the ERA network operator (currently T-mobile Polska S.A.). From the very beginning the NetWorkS! was established, he took part in the Mobile Network Modernisation Project, ran for Orange and T-mobile.