

PSTN network consolidation based on NGN technology.

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General features of NGN:

- 1) **Heterogeneous network services convergence** based on packet technology, supporting voice traffic, data traffic, and multimedia traffic in packet core network.
- 2) **Wider service range**, making NGN being an infocommunication network, rather than just communication network, thus facilitating network profitability, eliminating burden investments for new services introduction.
- 3) **Reduction network CAPEX and OPEX** estimated as 60%, for 50-70% less trunks for present telephone traffic.
- 4) **Component network construction**, instead of duplicating the same functional modules in every TDM switch, NGN uses functional components for the whole network, making network construction and maintenance simpler, cheaper and more flexible.
- 5) **Open application program interface (API) for 3rd party application service providers (ASPs)** makes carrier profit base wider, attracts more users into the network.

At present, optimization of existing PSTN is rather urgent task for Russia and CEE market telecom market, from the one hand, and NGN now is not a distant future, from the other hand, Russian operators now are in a difficult situation – what way to choose?

Network optimization based on digital TDM switches requires spending, with so short lifetime minding NGN in the future.

Network consolidation, based on NGN technology is more future-oriented, but requires even greater expense with indefinite feasibility.

As a transitional stage to NGN when IP bearer is not mature, we propose “NGN-oriented switch” solution based on Universal Media Gateway (UMG). This solution inherits 100% of PSTN services and prepare the technological background for fast and investment-safe transition to NGN in the future, so the carrier become ready to transition to NGN. This also permits simpler and wider service introduction like PPS or Centrex.