

iMAK Equipment Complex


iMAK equipment complex is represented by 4 product lines, especially produced for NGN deployment.

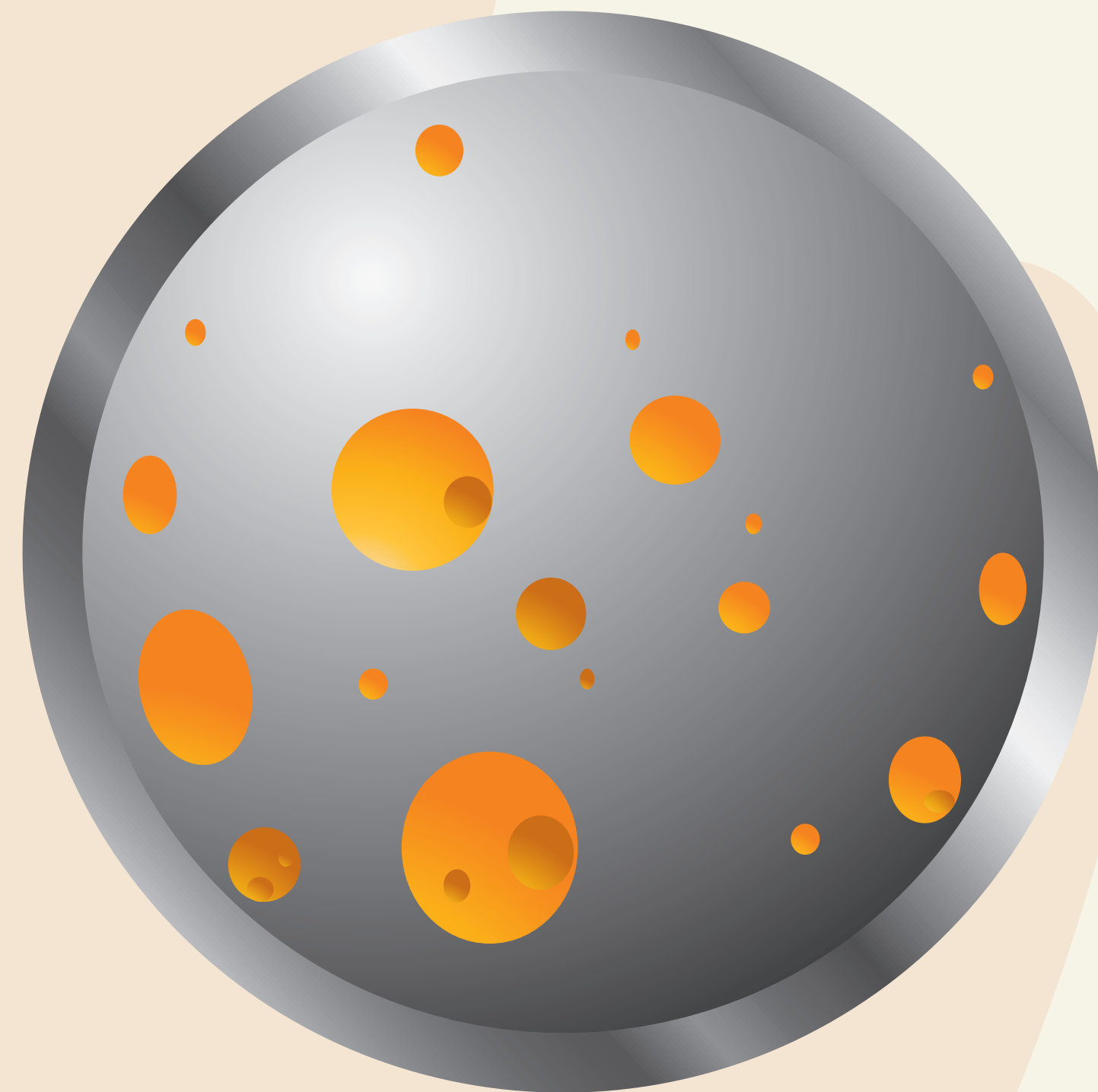
- **mAccess** – product line designed for multi-service access provision based on modern IP technologies.
mAccess product line is represented by following devices:
 - **mAccess.MAK** - multi-purpose scalable subscribers' access node
 - **mAccess.MTU** - universal subscriber gateway with a less capacity (8/16/24 ports) with subscriber's ADSL2+ interfaces.
 - **mAccess.DMUX** - scalable subscriber multiplexor. This device provides subscribers with an access to broadband data transmission and telephony services, using ADSL2+ technology.
- **mCore** – product line, designed for the functions execution of NGN Softswitch.
mCore line product is represented by following devices:
 - **mCore.MKD-4** transit Softswitch, supports flexible routing functions of VoIP calls.
 - **mCore.MKD-5** is a 5th class of Softswitch, functioned like control node in NGN
 - **mCore.CPBX** - is a Softswitch, specially developed to set up departmental multi-service communication networks.

- **mGate**- this product line is represented by main converters/gateways of Operator's class
This products line is used for interaction between

traditional telephone networks based on circuit switching and Next Generation Networks.

mGate product line is represented by the following devices:

- **mGate.ITG** - highly productive gateway, which has up to 16 E1 per one controller and used for signalling protocol conversion (DSS-1, SS7, SIP, H.323, H.248/MEGACO, SIGTRAN) and media streams.
- **mGate.CTG** – is a cluster solution for the large-scaled Operators. These types of devices are used for setting up large inter-working points with efficient production.
- **mGate CTG** – is a gateway with functions of traffic calculations and statistics gathering on PSTN and VoIP networks.
- **mStream** – this product line that was developed for realisation of transport network deployment solutions, based on existed or developing cable structures or radio channels.
mStream product family is represented by following devices:
 - **mStream.DSLM** – SHDSL modem, used for transparent transmission of E1 streams and Ethernet traffic between nodes via SHDSL channels.
 - **mStream.IMX** – inverse multiplexor is used for data transmission in a batch mode via E1 trunks.
 - **mStream.WILL** – modem for information transmission between transport network equipment via radio-channels. 



iMAK Solutions
Next Generation Networks deployment

NEXT GENERATION SOLUTIONS

Modern networks deployment is rather complicated process and nowadays for successful developing it is insufficient for an Operator to produce only traditional services.

Modern telecommunication Operator should provide subscribers with a great variety of services, including voice connection, data transmission, video broadcasting and expanded VAS package.

Application of current technologies and next generation networks deployment will allow an Operator to be beyond comparison, as well as to raise the profits due to an opportunity of new services inculcation.


From the point of view of modern Operator or departmental communication network owner, NGN – is turned to be an economic solution, which unites traditional and new multimedia services in one network. Such type of network is provided with all resources for the convergence of voice services, which are traditionally used in circuit-switched networks, based on a single network infrastructure.

Innovation and deployment of different services, with an opportunity of combining and total control of their functionality are realized in this type of telecommunication network.

All control functions of NGN networks are implemented by Softswitch which make interaction between different network segments available.

NGN building process is rather laborious; therefore one of the main tasks for an Operator is to find right way of starting next generation networks.

Protei Company suggests different solutions which could be suitable for an Operator in solving this problem with minimal expense and by a specified date. According to the requirements of the customers, our company proposes a great variety of unique NGN solutions for the networks with different use and structure.

Protei Company is striving to make developments using the most advanced manufacturing, to produce flexible and economical equipment, from the point of inculcation and exploitation, hardware-software complex and to provide permanent technical support. 

Application

Represented systems could be used for realisation of different NGN deployment solutions for urban, rural or enterprise-wide networks, as well as for building transit networks.

For urban network deployment the main functions of Equipment are calls' management in IP-network and provision of different services for a great number of subscribers. mCore Softswitch interacts with an access equipment from mAccess product line where all subscribers are connected, in this case SIP protocol is used for management function. mAccess equipment also could be controlled by the Softswitch of the other vendors by means of SIP and H/248 protocols.

Protei Equipment for building NGN networks are compatible with intellectual service Protei platform; this feature makes such services as telephone cards support, voice mail, Call-center realisation possible. mCore Equipment is compatible with the equipment of other vendors and make NGN deployment with different functionality, scale and complexity, available.

Building next generation networks for rural telephony provision - is very complex task. Protei Equipment has a lot of opportunities and therefore, we can suggest solutions with all necessary characteristics and minimal costs.

The Solutions for enterprise-wide networks are based on using multi-service network principles and enterprise-wide network interests. With all

this, subscribers get an opportunity of working with analogue and IP telephone sets, widely used in routine work, Centrex and intellectual services. Equipment management functions could be performed by the company which is using departmental communication services or by large-scaled Operator with a support of Hosted-PBX services.

All suggested solutions for building next generation networks will enable not only new NGN deployment, but also developing of already established networks or modernizing operational telephone networks.

Suggested variants of equipment usage and its expanded functionality will make multimedia services provision available to subscribers, including becoming popular "Triple play" service package. 