



Product Catalogue



About us

We are a leading European company engaged in the development and manufacture of products in the field of ICT and physical security. We offer our customers customised products with added value, at just the right time with regard to the latest trends and current requirements. This means that we can satisfy even the highest demands, thereby strengthening our position as a leader and innovator in our field.

Our IP intercoms for door communication and emergency calls, IP public address systems and M2M products reflect the latest trends in the area of security. We are number one on the IP intercom market, complying with the most stringent international standards (ISO, TÜV, UL, CE) and our products are compatible with third party systems (Onvif, Milestone, Cisco, Bosch, Avaya, Alcatel-Lucent and many more).

We are at the full disposal of our customers in all phases of the sales process, also providing subsequent technical assistance, not forgetting of course support in communications, marketing and customer care. Thanks to our independent development, we are ready to quickly respond to customers' requirements and to adapt our products to their specific needs.

Our mission

We provide the best solutions to make your life easier.

2N is the right choice

- We are a European development and manufacturing company that produces technically advanced telecommunications products, secure intercoms, IP audio systems, M2M and telecommunication solutions.
- We have our own R&D capability with fast, flexible production.
- Our IP intercom systems for door communication and emergency calls, IP public address systems and M2M product reflect the latest trends in the security field.
- We provide high-quality service and technical support for our customers.

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Intercom systems

The 2N® Helios IP intercom range not only provides convenient and sophisticated two-way communication, but also a comprehensive security solution for firms and individuals.



As we all know, there has been an increasing emphasis on security in recent years, and we encounter various security measures at virtually every step. At 2N, we take security very seriously, and we are sure that we can meet all your needs in this area. Regardless of whether your primary interest is a system for building security, monitoring people at the entrance to your premises or connecting your attendance system, all these areas require

a high level of security and protection. And intercoms in the 2N® Helios IP range, which are equipped with a whole range of security functions, can help you in all these areas.

For clarity and easy comprehension, we have created a simple system of symbols called the **2N 360° SECURITY SHIELD®**, which encompasses all these security functions. This new form of intercom communication works on the principle that the customer's needs come first, complemented by an understanding of the customer's field of business. This is followed by a resolution of the customer's needs through appropriate security functions, all capped off with a proposed solution for a specific intercom installation. The simple system of symbols and distinct colour characteristics are complemented by the cutting-edge technology itself, which is the very best the global IP intercom market can offer today. We believe this new form of communication will give you a significant competitive advantage and help you stay ahead of the competition.

We offer

IP Intercoms:

- 2N® Helios IP Verso
- 2N® Helios IP Force
- 2N® Helios IP Safety
- 2N® Helios IP Uni
- 2N® Helios IP Vario

Analogue Intercoms:

- 2N® Helios Vario
- 2N® Helios Force
- 2N® Helios Safety
- 2N® Helios Uni

2N® Helios IP Verso

The 2N® Helios IP Verso is a SIP-based security intercom. Thanks to its **modularity**, it can be used everywhere you need a specific function and purpose of use. For example, you can add an **HD camera** with an infrared light and night vision or a smart card reader. The freedom to select functionalities, the degree of **security** and durability are the main building blocks for **demanding customers**.

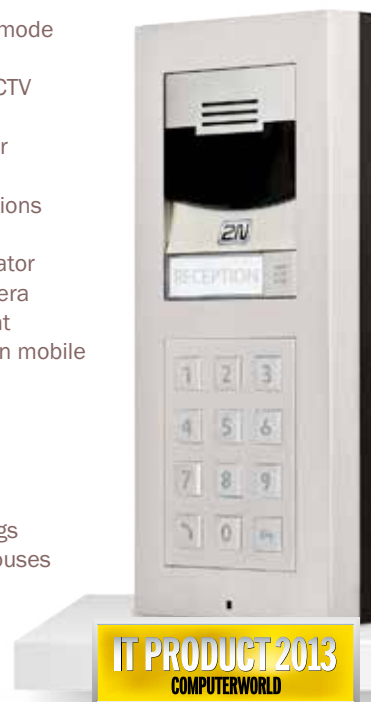


Main benefits

- HD camera with a day/night mode and infrared light
- Integration with third-party CCTV systems with ONVIF support
- 13.56 MHz smart card reader with NFC support
- Programmable scripts for actions and reactions
- NextGen html5 web configurator
- Connectable external IP camera
- Weather and tamper resistant
- Support of video and audio on mobile telephones and tablets

Area of use

- Offices and office complexes
- Schools
- Public administration buildings
- Apartment complexes and houses
- Educational institutions



2N® Helios IP Force



A robust intercom to securely handle your video door communication under even the most demanding conditions.

Main benefits

- Weather and tamper resistant
- High-quality audio and video communication
- Simple remote administration
- Access control – by call, code, RFID card etc.
- Adaptor/PoE power supply
- Wide range of interface and installation options
- SIP/IP features for excellent system integration
- Cover rating – IP69K and UL50 (selected models)
- Camera with a night mode

Area of use

- Industrial zones
- Government institutions
- Prisons
- Educational facilities
- Airports
- Parking lots

**Special model
for disabled people**



www.2n.cz/helios-ip-force

2N® Helios IP Safety



A modern emergency IP intercom that will reliably help you when needed. Designed to withstand harsh conditions and work reliably.

Main benefits

- Great durability
- Striking orange colour
- Illuminated emergency button
- High-quality audio
- Easy to use with remote administration
- Adaptor/PoE power supply
- SIP/IP features for excellent system integration
- Cover rating – IP69K and UL50 (selected models)
- Weather and tamper resistant

Area of use

- Parking lots
- Train stations
- Airports
- Motorways
- Industrial zones



www.2n.cz/helios-ip-safety

2N® Helios IP Uni



A simple, yet fully functional and affordable door communication solution.

Main benefits

- Simple installation
- Universal switch output
- Uses your existing LAN/WAN network
- Web interface for configuration
- Central administration tool
- SIP/IP features for excellent system integration
- Weather and tamper resistant

Area of use

- Educational facilities
- Office buildings
- Residential complexes
- Hospitals
- Public areas



IT PRODUCT 2012
COMPUTERWORLD

Special model for disabled people



www.2n.cz/helios-ip-uni

2N® Helios IP Vario



An advanced, SIP-based IP video door entry solution, the 2N® Helios IP Vario combines modern design with advanced technology features, excellent audio and video quality and, of course, compatibility with 3rd party products and easy deployment.

The 2N® Helios IP Vario supports real-time video, full duplex audio and RTSP streaming in high quality and has been certified or tested by leading PBX and phone retailers worldwide.

Main benefits

- Voice, video, keypad and RFID card access control system in one box
- Simple installation
- Remote access control
- Web based configuration
- Calling via IP network
- Time scheduling
- Variety of models
- Weather and tamper resistant

Area of use

- Office buildings
- Residential complexes
- Airports
- Government institutions
- Educational facilities
- Hospitals



AVAYA



www.2n.cz/helios-ip-vario

2N® Indoor Touch

Touch panel is suitable for all 2N® Helios IP intercoms. The panel's display not shows you who is at the door, but you can also start a conversation with the visitor, unlock the door or turn on the light in the entrance hall.

Main benefits

- Luxury solution to door communication
- Simple control
- Simple configuration
- Comprehensive door communication system



2N® 2Wire

The converter allows you to use existing wiring (2 wires) from your original door bell or door intercom to connect any IP device.

Main benefits

- Utilisation of existing infrastructure
- Single cable for power and data transfer
- Power for connected IP devices over PoE up to a range of 220m
- Simple, fast installation
- Low costs



2N® Helios IP Accessories

Card Readers

An additional reading module enabling control of access to the premises, as well as recording attendance. The reader uses non-contact chip cards and key fobs for identification.

Main benefits

- Additional output relays
- Connection to external readers for biometric identification
- **125kHz EM and HID Prox**
 - 2N® Helios IP Vario,
 - 2N® Helios IP Force
- **13.56MHz smart cards** (Mifare, iClass, DESFire)
 - 2N® Helios IP Verso,
 - 2N® Helios IP Force



Security Relay

A handy add-on that significantly enhances the door lock.

Main benefits

- Does not require an additional power supply
- Installed between the intercom and the electric lock
- Only a valid opening code from the intercom can open the door



2N® Helios IP Software Applications

2N® Helios IP Manager

Manage all your door intercoms from one place

The 2N® Helios IP Manager is a software tool for the collective administration of all intercoms in the network. It will be particularly appreciated by those managing large installations, as it allows you to collectively set up user access rights, create virtual user groups and access zones. The application is an invaluable aid in creating more complex access systems. At the same time, it enables you to back-up intercom settings and copy settings between entry units.



Another advantage of the 2N® Helios IP Manager is the ability to adjust display settings for 2N® Helios IP Vario models equipped with a display. You can run the 2N® Helios IP Manager from any PC, so you can remotely adjust network settings from any location.

2N® Helios IP Eye

Video without a video telephone

The 2N® Helios IP Eye is a freely available application that not only functions as a videophone, but also provides video surveillance at your entrance. All you need is a door intercom with a camera to have video without the need for a videophone. When someone rings your bell, a video window pops up automatically and you can immediately see who is standing at the door. You can also unlock the door or turn on the light, directly from the application window. Of course, you can also have video display from several intercom units at once.



2N® Helios IP Mobile

Take a call from your door anywhere

The 2N® Helios IP Mobile application enables you to see images from a door intercom camera on the display of your mobile device and find out who's at your door. You can also communicate with the visitor at the door without complicated set-up. The application is available for mobile phones and tablets with an Android 2.3 operating system or higher, as well as iPhones and iPads.



2N® Helios IP Network Scanner

Don't search for intercoms in the network, let machines do the work

The 2N® Helios IP Network Scanner is a simple, freely available application for locating 2N® Helios IP intercoms in the network. After searching the network, the application shows the type, firmware version and IP address of all intercoms found on a chart. This simplifies the administration and installation of intercom systems. Simply run the easy-to-use software to get immediate results.



IP Intercom Glossary

IP Network security

At 2N, we understand the importance of the security of your company's computer network. Not only is highly sensitive and often top secret data kept on the network, but today's computer network is the communications backbone of the entire firm and its surroundings. For this reason we place strong emphasis on the security of our intercoms, which bring the computer network to the external face of the building. With the functions we've built into our intercoms, you can rest assured your network is safe and secure.



Extreme mechanical resilience

An intercom is a device that is exposed to the toughest conditions outside the building it is protecting. From unbearable heat in direct sunlight, storms with heavy downpours, all the way to freezing temperatures in winter.

In addition to the elements, an intercom can be the target of attacks by vandals or thieves.

No, we don't want to scare you. You can relax in the comfort of your office or living room, because the 2N® Helios IP is ready to face all these challenges, while maintaining full functionality to reliably protect your door.



Thief protection system

Thieves come through the door. According to research by the Ministry of the Interior, a thief uses the door to break into a building in fifty percent of cases. That's why we developed a system for our intercoms to protect your door from unauthorised entry or misuse. The door is protected using a secured lock control and thanks to accessories such as the open door detector, the 2N® Helios IP can set off an alarm if, for example, the door is opened by force.



Emergency response system

There are situations none of us want to get into; a building fire, an armed assailant at school or an attack at the door of your home or office. But because the world is not perfect and these situations occur, our intercoms are prepared to tackle these situations and give you a helping hand when you need it most.



24/7 HD surveillance

Camera systems are a standard part of today's security systems for protecting people and property. For a camera system to be effective, the use of HD cameras with the ability to record in complete darkness is now standard.

We designed the 2N® Helios IP so that it provides a camera system with HD images, and as the only one on the market, even in complete darkness. You thus have quality video evidence under any conditions.



An IP intercom is a device that uses all the benefits of IP technology to give the customer the best solution. Analogue intercoms from 2N provide an excellent solution that uses this technology to its limits to give the best value and modern technology possible. Since there are still areas where analog communication has its benefits, 2N provides a solution in this area that is the best available on the market.

Main benefits

- Modularity
- Remote door opening
- Calling via an analogue line
- Back-light

Use

- Door entry communication
- Access control device
- Wireless GSM solution
(In combination with 2N® EasyGate)

Area of use

- Blocks of flats
- Small & large companies
- Large residential complexes
- The public sector
- Hospitals
- Universities



2N® Helios Force



2N® Helios Uni



2N® Helios Safety

Lift phones

2N lift phones enable emergency communication between the lift cabin and important technical support stations such as a hot line, control room or non-stop service provider. In addition, our lift phones can be a very important aid when carrying out regular or emergency service maintenance.

We offer

- 2N® Lift8
- 2N® SingleTalk
- 2N® Floor Annunciator

Lift phones are used as

- Lift emergency voice communication

2N® Lift8

An emergency communication system for lifts – complies with European Union standard EN 81-28.

Main benefits

- Two wire bus
- Up to 8 lifts on one telephone line
- Up to 5 audio units in one shaft
- Conference call in each shaft
- Simple installation
- Intercom and Fireman feature
- Easy to set up locally or remotely by phone using a voice menu
- Ability to use PC for local (USB) or remote (IP) configuration
- Option to use SW for lift management, checking control calls included.
- Module integration: GSM/UMTS/PSTN/VoIP
- CPC & P100 protocols supported
- EU standards EN 81-28 and EN 81-70



Area of use

- Office buildings
- Residential buildings
- Shopping centres



Mini Case Study:

This system is used for larger lift installations and provides two-way communication in the event of emergency situations such as people trapped inside the cabin.

2N® Lift8

Software Applications

2N® Lift8 Control Panel

The 2N® Lift8 Control Panel enables complete system set-up and administration. With the help of this software, you can set up detailed information on individual communicators, their addresses, the method of answering alarm/control calls, etc. It also allows you to establish new users and administer their rights to access or control 2N® Lift8 Control Panel and 2N® Lift8 Communicator software applications (e.g. technicians' rights to service a group of lifts).

The software also provides a complete overview of alarm and control calls. There is also the option of exporting data for further processing. A condition for operation is the installation of 2N® Lift8 Server software on any computer and connection to the same network as the 2N® Lift8 Control Panel.



2N® Lift8 Server

The 2N® Lift8 Server is a service that runs in the background in Windows. All information about the system, users and control and alarm calls is stored in the database on the server. The 2N® Lift8 Communicator and 2N® Control Panel applications then connect to the server to obtain the necessary data.



2N® Lift8 Service Tool

The 2N® Lift8 Service Tool is software used for local (USB) or remote (IP) configuration of one complete 2N® Lift8 communication system (audio messages, additional modules, splitters and I/O modules). It can also display an online diagram of all connected units, which enables you to perform a rapid check. In addition, it offers the option of uploading your own user messages and logging 2N® Lift8 system operations for simpler and faster technical support, if necessary.



2N® Lift8 Communicator

The 2N® Lift8 Communicator is a user application for the administration of alarm calls. In the event of an incoming emergency call, all data about the lift is displayed, including a map with information on the location of the lift and the option of making notes. This is a VoIP client. A condition for operation is the installation of 2N® Lift8 Server software on any computer and connection to the same network as the 2N® Lift8 Communicator.



2N® Floor Annunciator

Informs lift passengers of the floor number, direction of movement, etc.

Main benefits

- Floor announcement
- Gong simulation
- Easy set-up
- Excellent voice quality
- Option of recording own messages
- Types of announcements:
 - “Door closing”,
 - “Next direction of movement”,
 - “Cabin is overloaded”,
 - “Lift in fire service”, etc.
- Announcements in several languages
- Record your own message/s using a PC



2N® SingleTalk

An emergency communication system for lifts – complies with European Union standard EN 81-28.

Main benefits

- Powered from a phone line
- Voice menu for easy programming
- Can be connected via PSTN/GSM/PBX
- Hands-free functionality
- Fully-automatic function
- Easy installation
- 2N® Call Connect – communication from the machine room to the cabin unit
- EU standards EN 81-28 and EN 81-70

Area of use

- Office buildings



Mini Case Study:

This system is used in lifts, where it provides two-way emergency communication in the event of people being trapped in the cabin.

IP Public Address Systems

IP public address systems in the 2N portfolio enable audio distribution via IP protocol over great distances or even wirelessly. They are tools for broadcasting public announcements and advertising messages, whether this involves live speech and recorded messages, playing background music, internet radio or other audio streams in a certain area, with the option of playing various messages in different zones. They are primarily used to address, inform and alert a wide range of people such as customers, employees and visitors to public spaces. They are the ideal solution for hotels, schools, shopping centres, restaurants, airports, stations, office buildings or sports and cultural facilities.

We offer

IP Audio Systems:

- 2N® NetSpeaker
- 2N® NetSpeaker Lite
- 2N® SIP Speaker
- 2N® NetMic
- 2N® Mobile Audio Gateway

IP Public Address Systems are used as

- In-store audio
- Background music
- Public announcement system
- Third Party Integration
- VoIP/SIP interface for analog paging systems
- SIP alerting

2N® NetSpeaker

The 2N® IP Audio System with central management software is designed for audio broadcasting to multiple destinations from different sources. The system consists of an IP Audio Matrix, network audio adaptors (2N® NetSpeaker) and network paging microphones (2N® NetMic). The system can easily meet the needs of a small internet café to a multinational retail chain.

Main benefits

- Easy to install and maintain
- Broadcasting from a PC, microphone, phone, RTP stream
- Internet Radio
- Interconnection with IP PBX systems
- Easy 3rd party system integration via API

Area of use

- Shopping centres
- Amusement parks
- Schools, University Campuses
- Public Transport
- Office buildings
- Hospitals
- Government agencies
- Hotels



- Network-Audio adaptor
- MicroSD card slot
- Integrated 14W power amplifier
- Logic input and output

2N® NetSpeaker also available in Lite version



- Without power amplifier
- Without PoE powering
- Ideal for interconnection with 100V power amplifier via line-out

www.2n.cz/netspeaker
www.2n.cz/netspeaker-lite

2N® SIP Speaker

An ideal, cost effective solution for Public Address Systems and IP Paging. Offers high quality audio communication, IP paging and intercom capabilities combined with access control.

Main benefits

- Effective public address system
- Simple integration
- Powerful built-in amplifier
- Input for external microphone
- Utilisation of existing LAN/WAN network
- Web interface for configuration

Area of use

- Large Multinational Corporations
- Offices and stores
- Government offices
- Shopping centres
- Sports grounds
- Parking lots and secured areas



2N® NetMic

The 2N® NetMic hardware console, with microphone, enables you to make live announcements or broadcast pre-prepared files to different zones. It's a hardware alternative to the 2N® NetSpeaker Console software application.

Main benefits

- Audio broadcasts to different zones
- Playing pre-recorded messages to zone(s)
- Listening in on audio being played in different zones
- Option of connecting anywhere in the network (IP solution)
- Easy and comfortable operation

Area of use

- Schools
- Courts
- Bus/train stations and airports
- Medical facilities
- Amusement parks, sport facilities, outdoor swimming pools



2N IP Audio Software Applications

2N® NetSpeaker Console

- Tool designed for ON-LINE paging
- Jingles and on-line playback of messages
- Zone selection based on user rights



2N® NetSpeaker Virtual Sound Card

- Fastest way to broadcast your songs
- Quick selection of zones
- Streaming any audio from your PC



2N® NetSpeaker Control Panel

- Sound mixer style admin tool
- Creation of users, user rights, zones
- Input and zone management
- Internet Radio and Playlist administration
- Scheduling On-line and Off-line events



2N® Mobile Audio Gateway

With the 2N® Mobile Audio Gateway you have the opportunity to make live announcements, simply and easily, from any telephone, even in places where there is no landline.

You can thus use this intelligent audio system to make immediate live announcements, in particular at chain stores, in large production halls and complexes or local PA systems.

Main benefits

- Announcements from anywhere in the world
- Ability to set top priority (override mode)
- Secure access
- Battery back-up
- Plug&Play installation
- Cost savings

Use

- Public announcements over GSM/3G

Area of use

- Retail chains
- Production plants
- Office buildings
- Municipal PA systems



M2M

When developing M2M products, our goal was to bring a modular and user friendly solution to the market covering the most significant customer needs. The 2N® SmartCom PRO is a complex and scalable solution for centralised management of endpoint devices, specifically designed for multi-utility energy management and smart metering purposes, such as energy meters (electricity, gas, water, heat), environmental sensors, switches, smart plugs, energy consumption display, etc. In addition, the system allows the secure storage of data acquired from endpoint devices and can act autonomously according to predefined scenarios.

Customers have a great advantage in being able to choose specific interfaces, so they can define the unit according to their individual needs.

In addition to this, the 2N® SmartCom PRO is fully prepared for integration with third party energy management software solutions or platforms. No matter how large your project, we provide technical support and professional assistance for the integration of non-standard endpoints.

We offer:

- 2N® SmartCom
- 2N® SmartCom PRO
- 2N® SmartCom PRO for EnergyWise

We offer solutions in these areas:

- Smart Metering & Energy Systems
- Retail/Building/Industrial Automation Systems
- Intelligent Traffic Systems
- Line Construction Monitoring

We have the right solution for:

- Utilities
- Mobile operators
- System integrators
- Lift companies

2N® SmartCom PRO

The 2N® SmartCom PRO supports a comprehensive range of cable and wireless communication interfaces and standards for endpoint devices. Remote control of integrated switching relays, reading digital/analogue input values and the management of external rechargeable battery backup comes as standard. The 2N® M2M solution also enables the complete central management of all devices via 2N® SmartCom Server software platforms.

Main benefits

- Quad band GSM/GPRS/UMTS
- RS232/RS485/M-Bus/Ethernet interfaces
- Wireless M-Bus, ZigBee, 6LoWPAN or KNX-RF
- Built-in relays & inputs for sensors
- Protocol independent
- Secured communication
- Data logging
- Back-up battery management
- Management Server Software
- Customisable functionality

Use

- Smart Metering & Energy Systems
- Vending machines
- Lift monitoring
- Remote control of building automation
- Critical application remote control
- Traffic control and monitoring systems
- Sensors area remote control



2N® SmartCom PRO for Cisco EnergyWise

2N® SmartCom PRO for Cisco EnergyWise is a new generation of M2M (Machine-to-Machine) solutions developed specifically for Cisco EnergyWise enabled smart connected networks.

Our smart energy solution supports the centralised management of wired and wireless connected endpoint non-IP devices (such as energy meters, sensors, switches) and non-IP systems in building environments such as vending machines, HVAC, power circuits and office equipment such as computers, printers or copy machines.

Central Management and administration is ensured by 2N® SmartCom PRO for Cisco EnergyWise with the Cisco EnergyWise Suite, which provides monitoring, analytics and management of energy usage for all network connected devices and non IP endpoints via 2N® SmartCom PRO for Cisco EnergyWise.



Main benefits

- RS232/RS485/M-Bus/Ethernet interfaces
- Wireless M-Bus, ZigBee, 6LoWPAN or KNX-RF
- Built-in relays & inputs for sensors
- Reduce Operating Costs
- Lower Maintenance Costs & Extended Equipment Life
- Monitor and control energy consumption
- Monitor and control all devices: IP and non-IP
- Reduce Carbon Footprint
- Improve energy security
- Monitor rising energy prices

Use

- Cisco EnergyWise enabled smart connected network

2N® SmartCom

2N® SmartCom is an intelligent device that allows you to communicate and monitor your assets. 2N® SmartCom uses GPRS technology for data transfer, and you can connect it to pretty much anything with the same interface, such as meters, vending machines, elevators, etc. without the need to install any drivers, software/firmware or anything else.

Main benefits

- Wireless IP monitoring & maintenance over GPRS
- Central management of thousands of terminals
- Protocol independent
- Transparent communication
- Modem emulation mode
- Secured communication
- Management software

Use

- Smart metering systems
- Vending machines
- Lift monitoring
- Building automation remote control
- Small power generation units control
- Critical applications remote control
- Traffic control and monitoring systems



GSM Gateways

GSM Gateways are a cost saving device for calls from the PRI/BRI/VoIP interface to GSM networks. GSM Gateways always choose the cheapest route for each call.

We offer

Analogue GSM Gateways

- 2N® EasyGate
- 2N® EasyGate PRO
- 2N® SmartGate

Analogue/VoIP GSM Gateways

- 2N® VoiceBlue MAX

BRI/VoIP GSM Gateways

- 2N® BRI Lite
- 2N® BRI Enterprise

VoIP GSM Gateways

- 2N® VoiceBlue Next

PRI/VoIP GSM Gateways

- 2N® StarGate
- 2N® BlueTower

GSM Gateways are used as

- Cost saving tools
- Call (GSM) termination equipment
- Tools for sending/receiving SMS

2N® EasyGate

An analogue GSM Gateway for calling, faxing, data and Internet connection.

Main benefits

- FXS phone line interface
- Analogue faxing
- Data connection (GPRS/CSD)
- Sending/receiving SMS
- Baby Call function
- Identification of calling party (FSK CLIP)
- Remote monitoring
- Black and white list for outgoing calls

Use

- GSM Gateway (FCT)
- Fixed line replacement
- Connection of one analogue phone or external PBX line
- Data connection in remote areas
- Modem data



**EXCELLENT
money saver**

Mini Case Study:

The **2N® EasyGate** is used as a replacement for fixed lines. The gateway can significantly reduce telecommunication costs for companies calling from office phones to mobiles.

2N® EasyGate Pro

2N® EasyGate Pro offers internal battery back-up. If you're looking for a reliable solution resistant to power failure then this is the gateway for you.

Main benefits

- Internal battery back-up
- USB connector
- GSM signal indicator
- SMS alerts of power failure/restoration
- Plus all the popular features of 2N® EasyGate

Use

- GSM Gateway (FCT)
- Fixed line replacement
- Connection of one analogue phone or external PBX line
- Data connection in remote areas
- Modem data



2N® SmartGate

2N® SmartGate is excellent for routing purposes. Users can define their own routing structure for all incoming and outgoing calls. In addition, online time can be extended with the 2N® Energy Bank.

Main benefits

- 2N® Mobility Extension feature
- FXS and FXO phone line interface
- Analogue faxing
- Data connection (GPRS/CSD)
- Sending/receiving SMS
- CallBack (to FXS port)
- DialThru function (FXO, FXS)
- Remote monitoring & Remote setup
- Black and white list for all incoming/outgoing numbers on each interface

Use

- GSM Gateway (FCT)
- Fixed line features in a mobile phone
- Data transfer Gateway
- SMS Gateway
- Connection to any PBX



Mini Case Study:

2N® EasyGate Pro is widely used with lift intercoms, where it provides reliable connection for emergency calls.

Mini Case Study:

When connecting via the DialThru function, users can save money on outgoing calls. Calls terminated in a fixed network will have originated in the same network. The same applies to mobile communication.

2N® BRI Lite

Digital GSM Gateways (BRI) are used to cut costs on calls to GSM from fixed lines by cleverly directing calls to two different operators (2 SIM cards inside the gateway). BRI gateways are very common among PBX users who have ISDN BRI connections.

Main benefits

- Least Cost Routing
- Web interface (English/Spanish/Czech)
- SNMP monitoring
- Saving CDR and SDR (Call and SMS Data Records)
- Free minute counter
- 2 GSM/UMTS channels and VoIP (optional)
- CallBack
- Mobility Extension
- Auto CLIP Routing
- SMS at no answer
- Sending/receiving SMS
- Email to SMS/SMS to email
- SMPP
- ISDN line monitoring with SMS alert

Use

- As a GSM Gateway
- As a VoIP Gateway
- As an SMS Gateway

Area of use

- Customers using PBX with a free digital port (BRI)



2N® BRI Enterprise

The 2N® BRI Enterprise offers the same features as the 2N® BRI Lite. In addition, you don't need an extra port on your PBX with the DialThru function. You can use the gateway as a cost saving solution or as an ISDN back-up line. If an ISDN connection to the operator is lost, then the 2N® BRI Enterprise can reroute calls to GSM, UMTS or VoIP networks.

Main benefits

- DialThru function
- Web interface (English/Spanish/Czech)
- SNMP monitoring
- Saving CDR and SDR (Call and SMS Data Records)
- Least Cost Routing
- Free minute counter
- 2 GSM/UMTS channels and VoIP (optional)
- CallBack
- Mobility Extension
- Auto CLIP Routing
- SMS at no answer
- Sending/receiving SMS
- Email to SMS/SMS to email
- SMPP
- ISDN line monitoring with SMS alert

Use

- As a GSM Gateway
- As VoIP Gateway
- As ISDN line back-up
- As an SMS Gateway



Area of use

- Customers using ISDN BRI lines
- Customers using PBX with no spare digital port

Mini case study:

BRI gateways allow access to VoIP and mobile networks without the need of PBX replacement. Get better calling rates with VoIP and mobile operators.

2N® VoiceBlue Next

This VoIP GSM 2/4 channel Gateway is a complementary product to any SIP - based IP PBX, connecting the user to a GSM network. The gateway is designed to reduce the costs of GSM calls.



AVAYA

2 or 4 GSM/UMTS channels

Main benefits

- Excellent voice quality
- Least Cost Routing
- 2N® Mobility Extension feature
- Sending/receiving SMS
- Email to SMS/SMS to email
- SMPP
- SMS at no answer
- Web interface (English/Spanish/Czech)
- CallBack
- Saving CDR and SDR (Call and SMS Data Records)
- SNMP monitoring
- PoE
- Voice detection (number portability)
- 2N® SIM Star server support

Use

- As a GSM Gateway (expand your IP PBX to include a GSM Gateway)
- For termination/origination



Mini Case Study:

The **2N® VoiceBlue Next** VoIP GSM Gateway is widely-used by Cisco Unified Communications Manager, Avaya, MS Lync and Asterisk users for cost-effective GSM calling.

You will find many other supported PBXs on our website <http://www.2n.cz>

2N® VoiceBlue MAX

With one gateway, you can connect up to four analogue trunk lines from a PBX or four analogue phones. 2N® VoiceBlue MAX significantly expands your options for cheaper calling. Get access to mobile and VoIP networks at the same time.

Main benefits

- 4 FXS ports, 4 GSM/UMTS channels and VoIP (optional)
- Least Cost Routing
- Sending/receiving SMS
- Email to SMS/SMS to email
- SMPP
- SMS at no answer
- Web interface (English/Spanish/Czech)
- CallBack
- SNMP monitoring
- Free minute counter
- Auto CLIP Routing
- Voice detection (number portability)
- 2N® SIM Star server support

Use

- As a GSM Gateway
- As a VoIP Gateway

Area of use

- Customers using an old analogue PBX



Mini Case Study:

You can also use the gateway's VoIP interface for the interconnection of two branches. Use your Internet connection and call for free within your company.

2N® StarGate/2N® BlueTower

2N® StarGate
up to 30+2 channels



AVAYA

2N® BlueTower
up to 8 channels



A multi-channel GSM Gateway that connects ISDN PRI or VoIP to a GSM network. Companies of any size can make significant savings on calls from fixed lines to mobile phones using this product.

Main benefits

- Least Cost Routing – Voice/SMS (Up to 8 SIM cards per channel)
- VoIP and PRI ISDN interface available in one chassis
- Modularity
- SMS to e-mail/e-mail to SMS
- SMPP
- SMS at no answer
- Web interface (English/Spanish/Czech)
- CallBack
- Saving CDR and SDR (Call and SMS data records)
- SNMP monitoring
- Multiple free minute counters
- Auto CLIP Routing
- Antenna splitter
- Number Portability solution
- Voice detection (number portability)
- 2N® SIM Star support

Use

- GSM Gateways
- Termination/Origination device – Voice/SMS
- PSTN/VoIP line back-up solution
- DialThru function
- CallBack Gateway

Mini Case Study #1:

An ideal product for call centres where calls are made to GSM networks; reduces call costs by 40-70%!

Mini Case Study #2:

High-end bulk SMS solution with cutting edge performance of up to 10 SMS/module/minute.

www.2n.cz/stargate
www.2n.cz/bluetower

We have a branch in...

Miami



UMTS Gateways

UMTS gateways represent a complete alternative to fixed lines. You can make calls and be connected to the internet at the same time. You can save on calls to mobile networks, while utilising the other advanced functions of UMTS networks in the form of high-speed Internet connection, transmission of text messages and much more.

We offer

Voice & data products:

- 2N® OfficeRoute
- 2N® EasyGate UMTS USB
- 2N® SmartGate UMTS

GSM Gateways with UMTS support:

- 2N® BRI Lite UMTS
- 2N® BRI Enterprise UMTS
- 2N® VoiceBlue Next UMTS
- 2N® VoiceBlue MAX UMTS
- 2N® StarGate UMTS
- 2N® BlueTower UMTS

UMTS gateways are used as

- Cost saving tools
- Mobile office solutions
- Fixed line replacements
- High-speed data connection
- Data connection back-up
- Data connection in remote areas
- Back-up solutions in case of PSTN line failure
- SMS Gateways

2N® OfficeRoute

A single-box telecommunications solution combining VoIP technology, analogue faxing, SMS and high-speed data.

Main benefits

- All telco devices in one box
- PBX features
(AutoAttendant/IVR, VoiceMail, etc.)
- HSPA router (VRRP support)
- SIP Proxy
- SIP and H.323 support
- 2N® Mobility Extension feature
- SMS to e-mail, e-mail to SMS
- Analogue port for FAX or phone
- Faxing via GSM or T.38
- Internal GSM modules
- Remote monitoring (SNMP) and management
- Web interface

Use

- IP PBX with GSM Gateway
- Complete solution for your office (data, voice, FAX, SMS) in one box
- High-speed data HSPA router
- Back-up router

Area of use

- **SOHO** and **SME** offices with IP telephony
- Offices on the move
- Offices looking to reduce costs
- Newly-established offices
- Offices looking for a wireless solution
- Companies with international branches

For simultaneous
data, voice
& FAX



2N® EasyGate UMTS USB

Main benefits

- Up to 7.2 Mbps UMTS data connection
- Data via USB interface
- One FXS interface (for an analogue phone or external PBX line)
- Simultaneous voice and data
- Same call features as 2N® EasyGate GSM

Use

- ADSL line replacement – high-speed data via USB interface
- UMTS/GSM data and voice gateway

Area of use

- SOHO (Small or home offices)

For voice & data communication

2N® SmartGate UMTS

Main benefits

- Up to 3.6 Mbps UMTS data connection
- Data via USB Interface
- FXS and FXO phone line interface
- Internal battery backup
- Rechargeable batteries in package (optional)
- Simultaneous voice and data
- Same call features as 2N® SmartGate GSM

Use

- ADSL line replacement – high-speed data via USB interface
- UMTS/GSM data and voice gateway

Area of use

- SOHO (Small or home offices)

For voice & data communication

Look at our offer of GSM gateways, they all have UMTS versions.



2N® EasyGate Pro



2N® BlueTower



2N® StarGate



2N® VoiceBlue Next



2N® BRI Lite



2N® VoiceBlue MAX

2N® BRI Enterprise

www.2n.cz/easygate-umts-usb
www.2n.cz/smartgate-umts

2N GSM/UMTS Gateway Accessories

2N® EnergyBank

2N® EnergyBank is designed as a back-up for accidental power outages for equipment requiring a 12 V DC supply with peak current drain of 1A. The back-up power supply works as a pass-through system. During a power failure, the **2N® EnergyBank** will automatically switch to back-up mode.



- Standby mode (70 mA)
 - approx. 20 hours
- GSM in connection (200–300 mA)
 - approx. 6 hours

Supported products

- Analogue GSM Gateways
- Analogue UMTS Gateways

Antennas

We can provide you with a wide range of GSM antennas required for GSM Gateways (Fixed Wireless Terminals). Antennas are available with various connectors, depending on your specific needs.



Main benefits

- High-gain
- Great compatibility
- Best quality and price
- Immediate availability
- Widest range

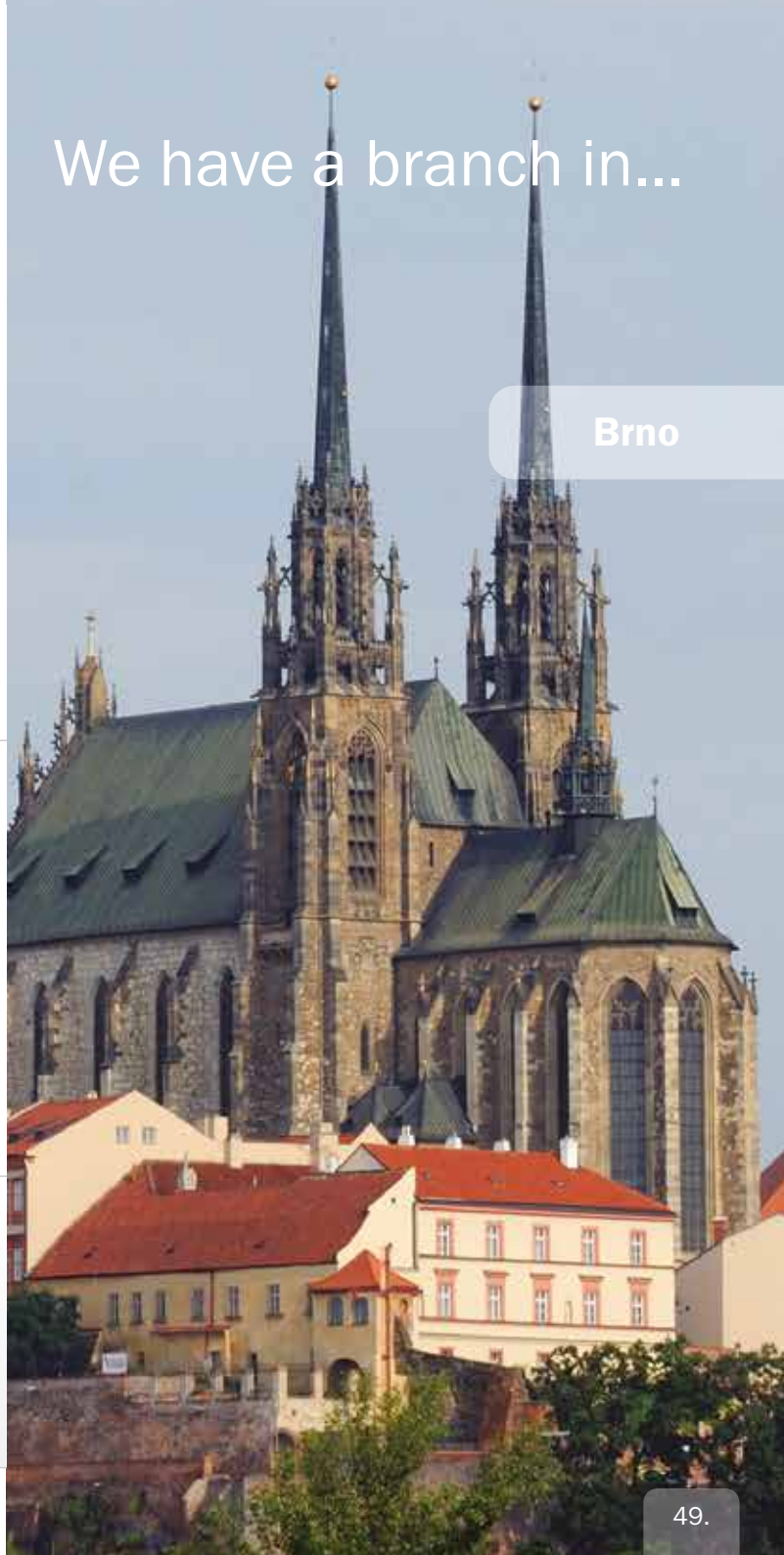
Splitters

Antenna splitters (or antenna combiners) can combine all GSM channels on 2N GSM Gateways with up to 8 high-gain outdoor or indoor GSM antennas.



We have a branch in...

Brno



PBXs

Modern 2N PBXs combine all available networks – ISDN, GSM, VoIP and UMTS with a wide range of functions for users.

We offer

- 2N® NetStar as a communication system
- 2N® NetStar as a PBX Booster
- 2N® NetStar as an IP PBX
- 2N® OfficeRoute
- 2N® Contact Centre Solution

2N PBXs are used as

- Standard PBX
- Mobile PBX
- Virtual PBX
- IP PBX
- Intercom server
- 2N® Mobility Extension feature

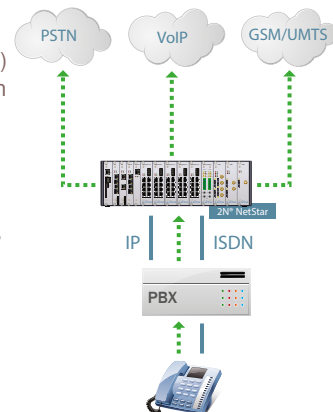
2N® NetStar PBX Booster

A PBX Booster is a device that can be connected to any existing private branch exchange via ISDN, analogue or VoIP interface.

The PBX Booster can not only fulfill the function of a gateway, but has many other useful features.

Main benefits

- Simple expansion of your current PBX
- Insert a PBX Booster between a PSTN and current PBX and you obtain new connectivity (ISDN, VoIP, analogue, UMTS, GSM)
- New services and applications with no complicated installation (Mobility Extension, CallBack, IVR, VoiceMail, sending SMS, virtual conference rooms, etc.)
- Reduction in communication costs
- Call recording support



Use

- GSM/ UMTS/ VoIP Gateway
- Keep an existing PBX and simply expand it with a PBX Booster
- PRI back-up
- Availability of new services in a simple way

Area of use

- SME or Enterprise PBX
- Companies with external co-workers
- International companies with several branches

2N® NetStar Communication system

A PBX that has evolved into a new generation IP multimedia communication system, which natively supports VoIP technology and all types of network connections (ISDN BRI & PRI, analogue, GSM, UMTS).

Main benefits

- Connection to all networks (GSM/UMTS/VoIP/ISDN/analogue)
- Highly sophisticated LCR
- Call Recording in the same box
- IVR for 64 simultaneous calls
- VoiceMail to e-mail
- Web interface for detailed summary of calls and managing user settings
- Conference calls (web based management)
- CallBack (voice, SMS and e-mail)
- SMS from/to e-mail support
- Video (H.264) support
- Auto CLIP Routing (ISDN, GSM, UMTS, analogue, VoIP)
- SMART CLIR
- Port status reporting (SMS, e-mail, SNMP)
- Time based profiles
- I/O card for universal use (security, GSM switch etc.)
- Remote monitoring (SNMP) and management (IP, ISDN modem)
- CDR and statistics
- Modularity
- LDAP support
- SMPP support

2N® NetStar IP PBX

A modern SIP-based communication system supporting up to 500 IP phones.

Main benefits

- Up to 500 SIP phones (VoIP)
- Video (H.264) support
- Provisioning of SIP phones
- Indication of line status (BLF), also for IP phones
- Intercom, Call Pickup, DnD
- FAX over T.38
- User-friendly web interface to set up client phones
- Availability of new services (Mobility Extension, CallBack, etc.)
- Recording phone calls
- GSM Gateway with LCR
- Voice-Mail
- Virtual conference room
- Helios IP provisioning support

Area of use

- SME
- Banks, Logistics companies
- Hotels
- Contact Centres
- Companies without fixed line connection



2N® NetStar Communicator



2N® Contact Centre Solution

The Smallest Contact Centre in the World

The **2N® Contact Centre Solution** is an ideal contact centre solution for small and medium enterprises with two or more operators, comprising a software application and hardware on the **2N® NetStar** platform. The 2N contact centre can be used not only by companies with customer lines, but also by any service and contact departments, help desks and dispatching centres, i.e. everywhere the distribution and monitoring of incoming calls is needed.

Main benefits

- Monitoring of calls, operators and campaigns
- Accessible from anywhere on a notebook, a tablet or a smartphone
- Installations from up to two operators
- Transparent statistics for assessing operators
- Easy one-time installation



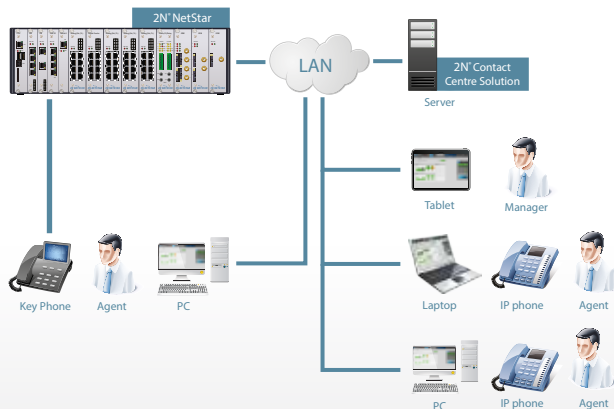
IT PRODUCT 2013
COMPUTERWORLD

Use

- Inbound Contact Centres
- Customer lines
- Help desks
- Dispatching centres
- Service departments

HW specification

- 2N® NetStar hardware platform
- 64b processor
- Min. 4GB RAM (operating memory)
- Min 100GB HDD (hard disk)



2N® NetStar Software Applications

- **2N® NetStar Operator**
 - attendant console
- **2N® NetStar Communicator**
 - CTI and SIP phone supporting voice, video, messaging, etc.
- **2N® NetStar Assistant**
 - personal web interface
- **Tray icon**
 - CTI console
- **2N® Mobility Extension application for mobile phones**
 - to be in contact whenever and wherever
- **Outlook plug-in**
- **TAPI driver for integration with external SW**
- **2N® NetStar Records Manager**
 - simple management of recorded calls
- **2N® Contact Centre Solution**
 - software application to monitor and supervise the contact centre



Use

- SME or Enterprise PBX
- Trunking PBX
- Voice router
- VoIP expansion device for old-fashioned TDM PBX
- GSM gateway with Mobility
- Extension feature
- 2N® Contact Centre Solution

Mini Case Study:

A brokering company has branches connected by a VoIP network. The accuracy and reliability of information is of paramount importance to their business. The **2N® NetStar** PBX uses back-up communication through ISDN lines, or GSM, so that even if the VoIP connection or ISDN line were to fail, the company would still be able to communicate. Productivity levels are significantly increased by the Unified Communications platform.

2N® OfficeRoute Mobile PBX

If you are looking for a single box communication solution for your office, **2N® OfficeRoute** is the perfect product for you.

Main benefits

- All classic PBX functionality
- AutoAttendant/IVR, VoiceMail
- VoIP interface (SIP/H.323)
- FAX over T.38 or GSM
- SMS to e-mail, e-mail to SMS
- 2N® Mobility Extension feature
- Internal GSM trunks
- Remote monitoring (SNMP) and management
- Web interface

Use

- IP PBX with GSM trunks
- Complete solution for your office (data, voice, FAX, SMS) in one box
- High-speed data HSPA router
- Back-up router (supports VRRP)

Area of use

- **SOHO** and **SME** offices with IP telephony
- Offices on the move
- Offices looking to reduce their costs
- Newly established offices
- Offices looking for wireless solutions
- Companies with international branches

For simultaneous
data, voice & FAX



2N PBX Accessories

Supported IP Telephones



- **2N® StarPoint IP T20**

The VoIP IP T20 telephone has a two-line display. By simply rotating the base, the telephone can be put on a table or hung on the wall.



- **2N® StarPoint IP T22**

The VoIP IP T22 telephone has a backlit LCD graphic display with a definition of 132x64 pixels that allows simple operation. Support for short text messages.



- **2N® StarPoint IP T26**

The IP T26 VoIP telephone has a backlit LCD graphic display with a definition of 132x64 pixels that allows simple operation. Support for short text messages.



- **2N® StarPoint IP T28**

The IP T28 VoIP telephone is equipped with a large backlit graphic display with a definition of 320x160 pixels that allows simple operation. Support for short text messages.



- **2N® StarPoint IP VP530**

The WELL VP530 is equipped with a TI DaVinci chipset. It is distinguished by a 7" LCD touch screen with a sensitive 2 Mpix CMOS camera that allows live video calls.

Supported System Telephones

- **2N® OpenStage 15 T lava**

Graphic display with two lines, single colour (not configurable). 3 fixed buttons with red LEDs, 8 freely programmable buttons with red LEDs (can be expanded using the buttons module).



- **2N® OpenStage 20 T lava**

Graphic display with 2 lines, single colour, configurable. 5 fixed function buttons (equipped in part with red LEDs). Connection for earpiece or headset.



- **2N® OpenStage 30 T lava**

Graphic display with two lines, single colour (not configurable). 8 fixed function buttons (equipped in part with red LEDs), 8 freely programmable touch-sensitive buttons (illuminated) with red LEDs (function buttons, abbreviated dialling or lines). Connection for call headset.



- **2N® OpenStage 40 T lava**

Configurable, graphic display with 6 lines, single colour, backlit. Optical call signalling. 8 fixed function buttons (equipped in part with red LEDs), 6 freely programmable touch-sensitive buttons (illuminated) with red LEDs (function buttons, abbreviated dialling or lines). 5-way navigator.



PBX & Gateways Glossary

Antenna splitter

Also known as an antenna combiner, it connects antenna outputs from a GSM device into one antenna (in order to reduce the number of antennas required for one device).

It is primarily used for rack sets to reduce the number of cables leading to server rooms.

Auto CLIP Routing

The GSM Gateway automatically stores information on outgoing calls. If somebody calls back, they are automatically routed to the extension the previous call was made from.

Baby Call function

Automatic calling without dialling the number, primarily intended for children and the elderly or disabled in the event of an emergency.

CallBack

A function for reducing call costs (particularly when roaming); when the employee of a given company calls the firm's PBX from abroad, the call is not connected and the PBX calls him back – the employee can then dial any number and it is as if he called from his company (when roaming, an incoming call is always cheaper than an outgoing call).

CDR (Call Data Record)

Information on the duration of calls, called number, caller, time of call, etc.

DialThru function

If a GSM Gateway has two ports, it is possible to connect it between a PBX and fixed line network without the need to re-program the PBX (change settings).

Internal VoiceMail

An internal PBX function enabling recording of voice messages for the called person during their absence.

Interactive Voice Response (IVR)

A primary navigation tool for the caller that enables their call to be directed to the right department using assigned codes (often used in banks, contact centers).

FXO

An FXO port designates a phone interface that receives POTS or "plain old telephone service" – e.g. an analogue phone has an FXO port.

FXS

FXS ports supply battery power, provide dial tones, and generate ringing voltage – you can plug an analogue phone or a fax machine into an FXS port.

Least Cost Routing (LCR)

LCR is a gateway/PBX function that selects the cheapest possible route for calls (e.g. a call from a fixed line to a mobile phone is sent via the GSM network to avoid the higher call charges of using the fixed line network).

2N® Mobility Extension

This transforms the fixed office line into a mobile phone, thus providing the user with maximum flexibility. In practical terms, this means the user does not have to be in the office when waiting for an important call, and it eliminates the worry of missing a call that could result in a significant business deal for you/your company. The user can be reached on his way to work, or at home - if home is their chosen workplace. The user's mobile phone fully replaces the fixed line, and rings simultaneously with it. It is entirely up to the user which phone is picked up.

Modularity

An attribute of a product that enables the product to be expanded or modified in response to the growth of the company (number of users, functional requirements).

SMS notification

This is notification sent to a mobile phone via SMS in which you can be informed: a) of the failure of Internet connection, b) the disconnection of a device from the Internet, c) a switch from landline connection to a backup connection and vice versa.

SNMP monitoring

Online monitoring of a telecommunication device via TCP/IP protocol (LAN/Internet).

SMPP

Short Message Peer to Peer protocol in an Internet protocol that enables high volumes of SMS messages to be sent or received. It is very suitable for bulk SMS sending and SMS termination.

VRRP (Virtual Router Redundancy Protocol)

Virtual Router Redundancy Protocol (VRRP) is used to switch to a back-up router in the event of failure. If the primary router fails, connection to a back-up router is automatically enabled, leaving network users unaffected.

SIM Management & Number Portability Solution

2N offers much more than just hardware for telecommunication solutions. We can also provide you with a comprehensive solution for SIM card management and number portability. With such a solution your SIM cards and phone bills will be under your full control all the time.

We offer

SIM Management:

With the 2N® SIM Star – SIM Server you can manage all your SIM cards from one interface; for example, from the comfort of your office. This solution is designed for both operators, who can use it to test their network, and for companies that administer a large number of gateways. By using the 2N® SIM Star – SIM Server, these companies can reduce costs on visits by service technicians. A major advantage is also the protection of SIM cards from misuse, as they all remain safely stored in one location.

Number portability solution:

The 2N® ERM will provide you with unlimited space for outgoing and incoming call routing tables. Thanks to this, and the ability to use external database tables, the 2N® ERM is the ideal tool for handling the problem of number portability.

Expansion involves an essentially unlimited number of rows for routing tables/groups for outgoing calls. It is therefore the ideal tool to provide a number portability solution, and a solution for systems with a large number of entries for call routing.

2N® SIM Star SIM Management

A SIM card management tool that allows you to remotely control and manage all SIM cards from one interface.

Main benefits

- Web based interface
- Up to 300 GSM gateways for one 2N® SIM Star Server
- Up to 20,000 SIM cards for one 2N® SIM Star Server
- Easy 3rd party system integration via API
- Central SIM card management
- SIM card security
- Cost savings on management and maintenance
- Easily scalable
- Pure IP solution
- Hot SIMStar server back-up
- Automatic credit checking/recharging
- Automatic SIM card activation



Area of use

- SIM card providers & operators
- Companies managing a large number of GSM Gateways (SIM cards)

Supported Gateways

- 2N® StarGate
- 2N® BlueTower
- 2N® VoiceBlue Next
- 2N® VoiceBlue MAX



Mini Case Study:

An alternative operator, with a large number of GSM/UMTS Gateways deployed in several locations. SIM cards for all Gateways can be managed from several places remotely. There is no need to visit each installation site to manage SIM cards in each gateway.

2N® ERM

Number Portability Solution

Have your phone calls under full control – cut your phone bill to a minimum!
The 2N® External Routing Machine is a product that expands the routing options of all supported gateways.

Main benefits

- Up to 100 GSM Gateways (NS) for one 2N® ERM system
- Unlimited number of LCR entries
- Pure IP solution
- Reduced calling costs (number portability database)
- Prime call routing through a specific GSM/UMTS module
- Routing on the basis of the called/calling number
- Connection to external database
- Dynamic Black&White list

Supported Gateways

- **2N® StarGate**
- **2N® BlueTower**
- **2N® VoiceBlue Next**
- **2N® VoiceBlue MAX**
- **2N® BRI Lite/BRI Enterprise**
- **2N® NetStar** (phonebook feature only)



Mini Case Study:

The 2N® External Routing Machine, in combination with 2N® StarGate/ 2N® BlueTower or 2N® NetStar, enables you to minimise your calling costs to GSM networks. It primarily works by being able to recognise numbers migrated to other operators or the use of specific SIM cards/GSM modules to route calls. This means you can directly specify a specific GSM module/SIM card through which an outgoing call will be made.

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