



# Application Note APN052017

## Internet connection

### 1. Features

- It works over public Internet
- Integration of the iBell program into the public IP telephone network
- Supports standard SIP servers
- Video from the entrance communicator camera over the Internet during a call
- Pop-up function
- Remote door opening

### 2. Applications

- Connecting parts of large companies
- Control of entry into remote buildings
- Customer support for remote self-service devices (petrol stations, kiosks, etc.)

### 3. Description

The program iBell allows you to connect to an IP telephone network running on the public Internet.

It supports standard SIP servers such as Asterisk, 3CX, FritzBox etc.

The program iBell allows you to see video from the entrance communicator camera during the call over Internet.

The program runs in the background of Windows and will be displayed on the desktop if there is an incoming call.

The iBell allows remote door opening using DTMF code.





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## 4. Entrance Communicator settings

- The “NAT policy” section must be set to “NAT address” mode.
- The “NAT address” section must contain public static IP address of this Entrance Communicator (see your Internet router settings).
- The sections “Network gateway” and “DNS server 1” must be set according to the actual parameters of this local net.

The screenshot shows the 'Network' configuration page. On the left is a navigation menu with options: Current status, Network setting, SIP parameters, Web server, Basic settings, Extended settings, Service, and Video camera. The main content area is titled 'Network' and includes the following fields:

- Setup via DHCP:
- IP address: 192.168.1.250
- Network mask: 255.255.0.0
- Network gateway: 192.168.1.1
- DNS server 1: 192.168.1.1
- DNS server 2: [empty]
- NAT policy: NAT address (dropdown)
- NAT address: 48.14.120.41
- STUN address: stun.org

- The page “SIP parameters” must be filled in according to the parameters provided by the provider of public IP telephony.

The screenshot shows the 'SIP parameters' configuration page. The navigation menu on the left is the same as in the previous screenshot. The main content area is titled 'SIP parameters' and includes the following fields:

- SIP mode: SIP server (dropdown)
- Display name: IP DoorPhone
- SIP User Agent: IP BOLD
- Account: natum\_c
- Auth. Id: natum\_c
- Password: [masked]
- Send register:
- Registration server: sip.linphone.org
- Port: 5060
- Expiration [sec]: 600
- Registrate after restart:
- SIP server: sip.linphone.org
- Port: 5060
- Outbound proxy: [empty]
- Port: 5060
- SIP Transport: TCP & UDP (dropdown)
- Provisional code: 180 Ringing (dropdown)
- Enable Symmetric RTP:

Registration successful

The screenshot shows the 'Phonebook' configuration page. The navigation menu on the left includes: Current status, Network setting, Basic settings, Phonebook, Relay, Door sensors, Setting SNMP, Timetable, Time setting, and E-mail. The main content area is titled 'Phonebook' and includes the following fields:

- Title: iBell
- Email: [empty]
- Enabled:
- 1. call number: natum\_s
- Timetable: None (dropdown)
- Calling: Sequential (dropdown)
- 2. call number: [empty]
- Timetable: None (dropdown)
- Calling: Sequential (dropdown)



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## 5. iBell settings

- The sections “SIP Server User Name”, “SIP Server User Password” and “SIP Server IP Address” must be filled in according to the parameters provided by your provider of public IP telephony.
- The section “NAT and Firewall settings” must be set to “Public IP Address” and your public static IP address must be filled in. (see your Internet router settings).
- The section “Communicator Phone Number” contains Entrance Communicator phone number in IP telephony.

The screenshot shows the 'Settings' window for the iBell application. It is divided into several sections:

- SIP Server Connection:** Fields for SIP Server User Name (natum\_s), SIP Server User Password (#####), Authentication ID, SIP Server IP Address (sip.linphone.org), SIP Server Network Port (5060), Registration Server IP Address, Registration Server Port (5060), SIP Proxy Server IP Address, and SIP Proxy Server Network Port (5060).
- NAT and Firewall settings:** Radio buttons for Local Network, Public IP Address (selected, with IP 46.14.120.41), and STUN Server IP Address.
- User Settings:** Checkboxes for 'Run this program automatically when Windows starts' and 'The program automatically minimize after its launch'. A dropdown for 'Ringing tone' (sound1.wav) and a 'Language selection' dropdown (en).
- Entrance Communicators Settings:** A list of four communicators. Each has a lock icon, a 'DTMF code to switch' field, an 'Auxiliary Camera IP Address or Domain' field, and 'User Name' and 'Password' fields. The first communicator is named 'Entrance'.

At the bottom, there are buttons for 'Default settings', 'Documentation', 'Save and Restart', and 'Back'. A note at the bottom left says '@ For example: http://192.168.1.250/video.mjpg'.

**That is all. Now we can try to call :-)**