Integration of 2N devices with Schneider Wiser for KNX controller

Content

1   Elementary configuration

This chapter describes configuration of Wiser for KNX and 2N devices for their elementary interoperability. At the end of this chapter you will be able to have consistent visualization displayed on Indoor Touch for SIP telephony and Room Control.

1.1   Configuration of Wiser for KNX

Before you start with configuration of Wiser for KNX related to 2N, check that following steps were done:

- Set of IP address
- Set of IP/TP mode
- Import of KNX objects

File archive delivered with this Application Note contains complete Demo project, which can be imported. This Demo project is based on virtual KNX addresses and serves as an illustration of graphical interface and sample of 2N API interoperability script.

1.2   Visualization configuration of Wiser for KNX

Custom font

Assigning of Roboto Regular like custom font will change graphic design of font in Visualization – consistent with 2N Indoor Touch. Change of custom font consists of two steps:

1) Import Roboto Regular font
2) Change custom font

Step 1: Import Roboto Regular font

a) Open your web browser
b) Connect to device, fill device's IP address (Default IP: 192.168.0.10)
c) Login to **Configurator** (Default login: admin, Default password: admin)
d) Click to **Vis. Graphics** and choose **Fonts** tab
e) Click to **Add font**
f) Choose **Roboto-Regular.ttf**
g) Click **Save**

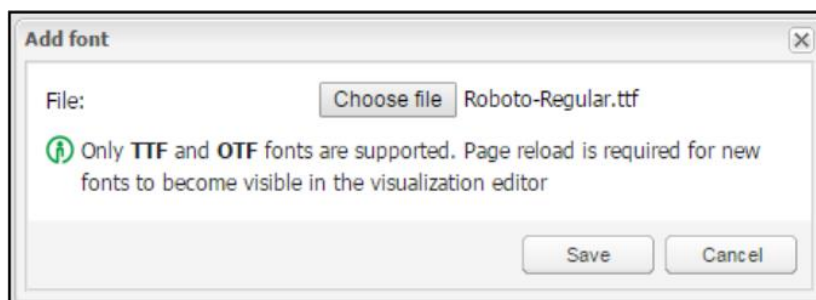*Figure 1 – Font*

Step 2: Change custom font:

a) Go to **Configurator**
b) Click to **Vis. Configuration** icon
c) Set **custom font** as Roboto-regular

Custom font:	Roboto	⌄

Figure 2 – Roboto

Custom font for Visualization is now changed.

PC/Tablet view

Change of PC/Tablet view:

a) Go to **Configurator**
b) Click to **Vis. Configuratio**n icon
c) Set **PC/Tablet view** as Align to top left

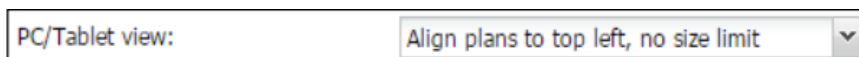| PC/Tablet view:	Align plans to top left, no size limit	⌄

Figure 3 – PC/Tablet view

Visualization can be now displayed without borders on Indoor Touch.

Use dark theme

Change of color theme for visualization:

a) Go to **Configurator**
b) Click to **Vis. Configuration** icon
c) Check **Use dark theme** as Align to top left

Visualization is now displayed in dark colors, which are more suitable for black touch panels.

Use dark theme:	✔

Figure 4 – Dark theme

How to move between plans

There are two possibilities how to navigate between created Plans.

- Via Swipe gesture – This feature have to be enabled in Vis. Configuration.
- Via Sidebar – We recommend to set sidebar as "Show as overlay (auto-hide)"

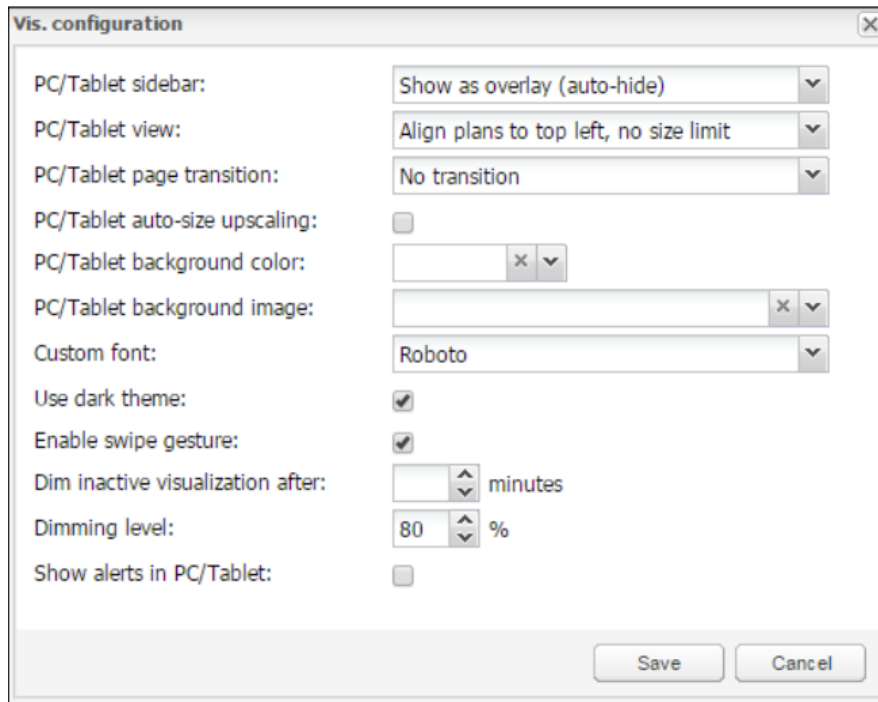Recommended setting of Vis. configuration

Figure 5 – Vis. configuration

Import of SE pre-made 2N graphic for visualization

Pre-made SE 2N graphic packages are useful for visualization, which will be displayed on 2N® Indoor Touch. Pre-made SE graphic and build-in 2N® Indoor Touch graphic have matching design.

Import of pre-made SE 2N graphic consists of two steps:

1) Import of Icons
2) Import of Images

Step 1: Import of Icons

a) Open your web browser
b) Connect to device, fill device's IP address (Default IP: 192.168.0.10)
c) Login to **Configurator** (Default login: admin, Default password: admin)
d) Click to **Vis. Graphics**
e) Click to **Icons** tab
f) Click to **Add icons**
g) Choose Icons_BB_Graphic_pack.zip
h) Click **Save**

Step 2: Import of Images

a) Go to **Configurator**
b) Click to **Vis. Graphics**
c) Click to **Images / Backgrounds** tab
d) Click to **Add images**
e) Choose Images_BB_Graphic_pack.zip
f) Click **Save**

SE 2N graphic is now available in the device.

1.3   Create visualization

Visualization suitable for 2N® Indoor Touch needs specific settings:

- **Resolution of the plan**:1024 x 534
- **Background color of the plan:** We recommend using Black as Background color, as SE 2N graphic packages are tuned for black background.
- **Recommendation Vis. Structure:** Sorted by rooms, we recommend creating plans, which have structure based on Rooms.
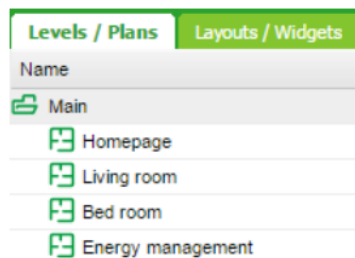

Figure 6 – Levels / Plans

Creation of Visualization

Creation of Visualization consists of two steps:

1) Create Vis. structure
2) Create Visualization

Step 1: Create Visualization structure

a) Open your web browser
b) Connect to device, fill device's IP address (Default IP: 192.168.0.10)
c) Login to **Configurator** (Default login: admin, Default password: admin)
d) Click to **"plus"** symbol and **add plan**
e) Edit setting to your needs, but take into consider points above (resolution, background)
 f) Click to **Save**
g) Repeat steps d)-f) if needed

Figure 7 – Plan

Step 2: Create Visualization

a) Go to **Visualization tab**
b) Select **Plan** you want to edit
c) Click to **Unlock current plan for editing**
d**) Add objects** you want to use in Visu
e) Click to **Save and reload plan**

Visualization for 2N® Indoor Touch is now prepared.

1.4 Home page examples

Figure 8 – home page example 1

Figure 9 – home page example 2
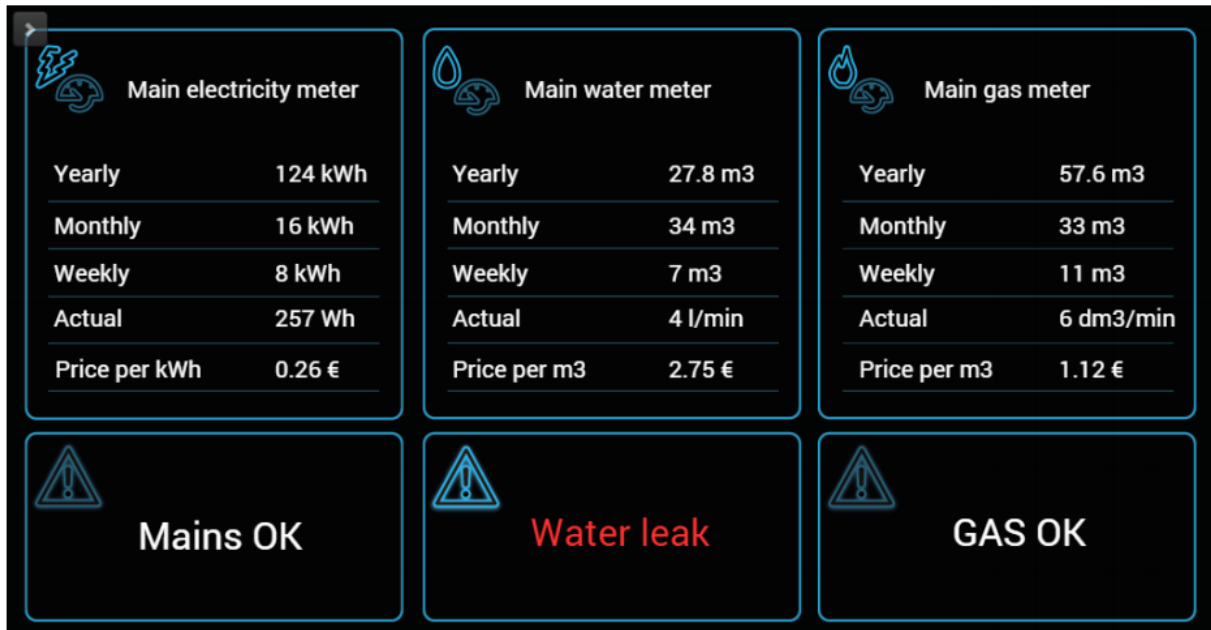
Figure 10 – home page example 3

2   Configuration of 2N devices

This section describes how to configure calls between 2N intercom and 2N® Indoor Touch.

2.1   How to configure 2N intercom

As a very first step go to the section 👥 "***Directory – Users***", create a new user and set the "***Phone Number***" to be dialed once you press an appropriate button of the intercom. If you want to call to the **2N® Indoor Touch 2.0** unit, the number has to be filled in a format: "**device:name**". In our example the device name "**IDT**" is being used, see the picture below.

Figure 11 - Directory
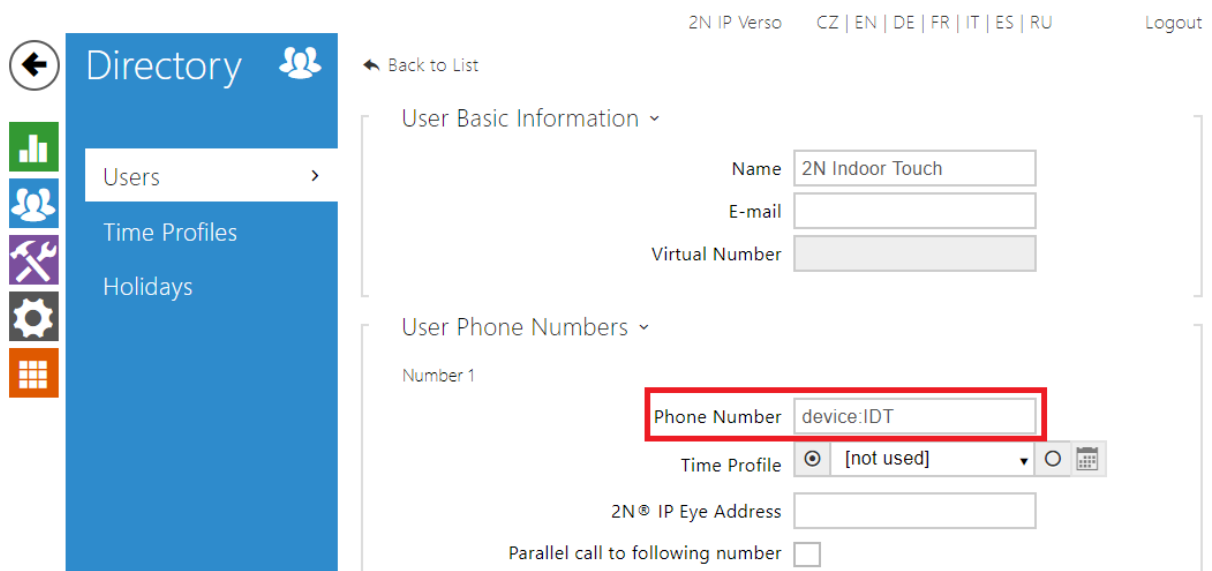
Figure 12 – Phone number settings

In the next step you can set the intercom to automatically pick up the incoming calls in order to easily reach it at any time. Go to the section 🛠 "***Services – Phone – Calls***" and enable ***Automatic Pickup*** for incoming calls for both SIP1 and SIP2, see the picture below.
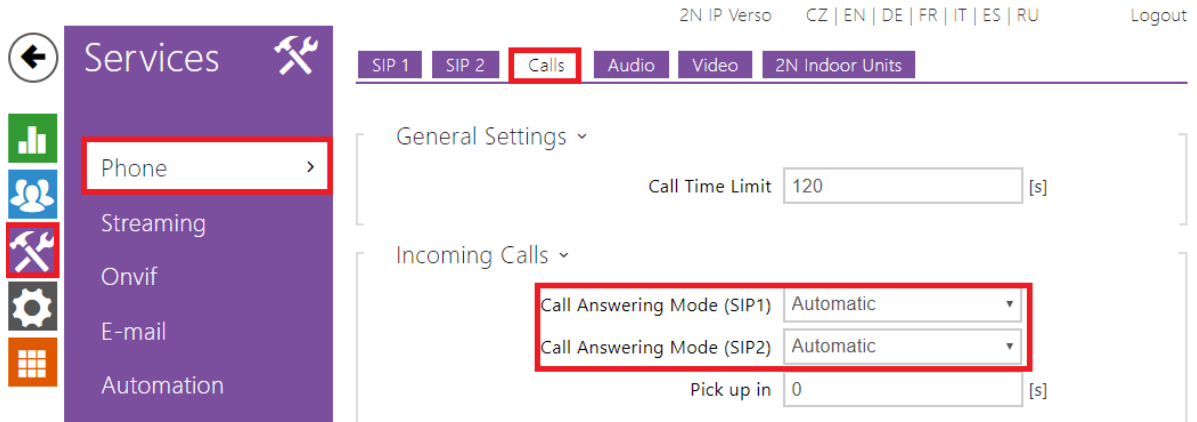
Figure 13 - Services

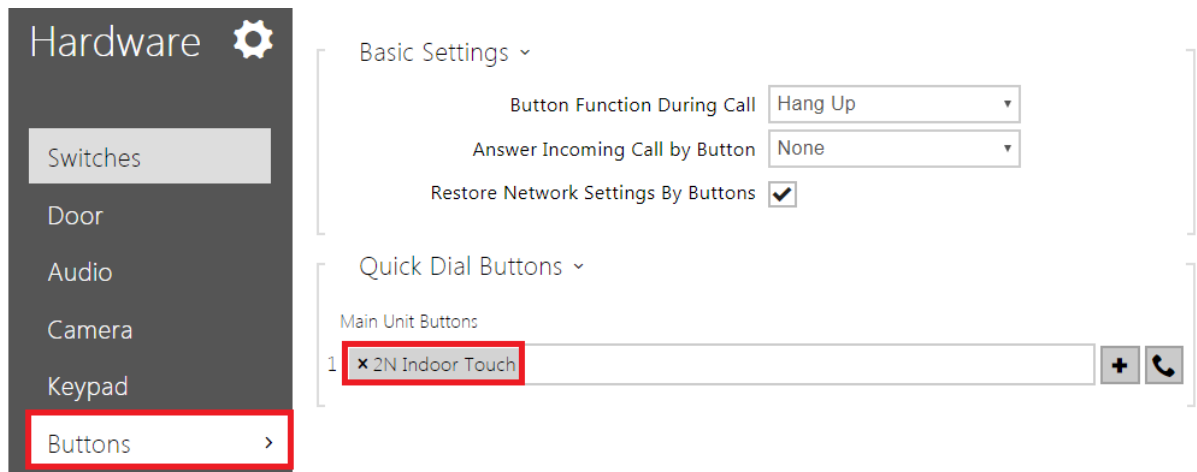Last step is to assign newly created contact to quick dial button.

Figure 14 - Button assignment

2.2   How to configure 2N® Indoor Touch

To be able to receive calls on the **2N® IP Mobile (Intercoms)** you need to set the device name first. The device name is used by the intercom for the call routing instead of the IP address. Go to the application Intercoms and then to the section "***Settings - Device name***" and set the desired name, in our example we use "IDT", see the pictures below.
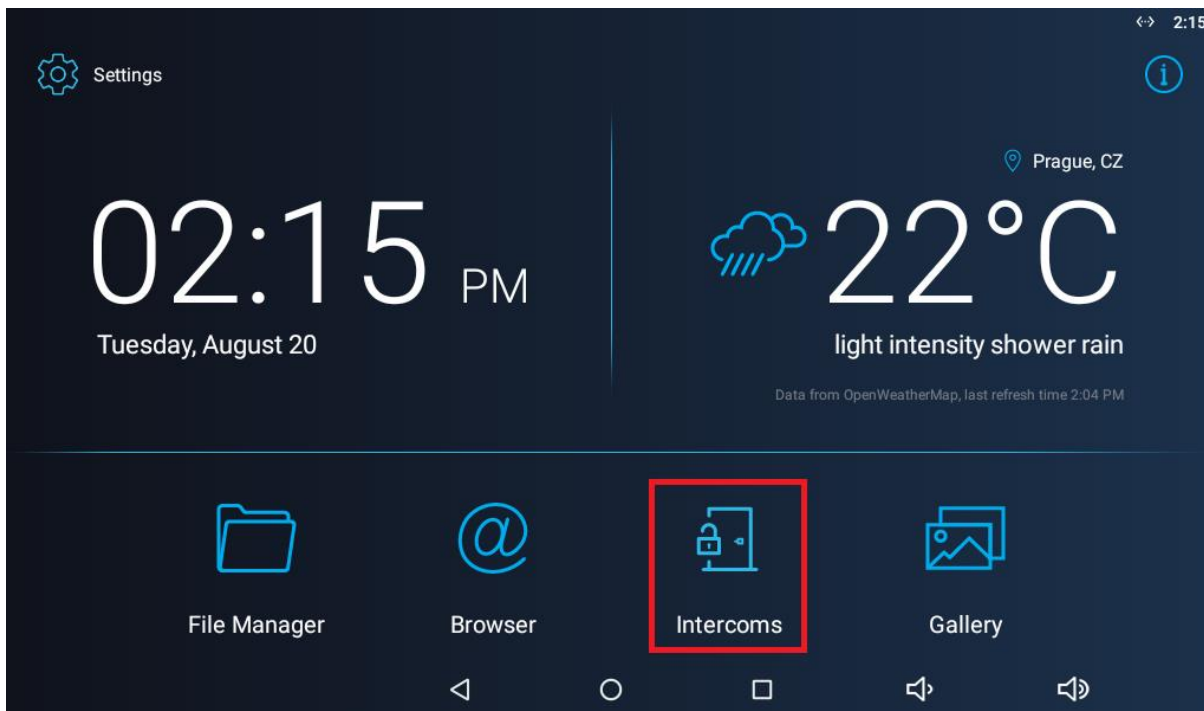
Figure 15 – Launcher
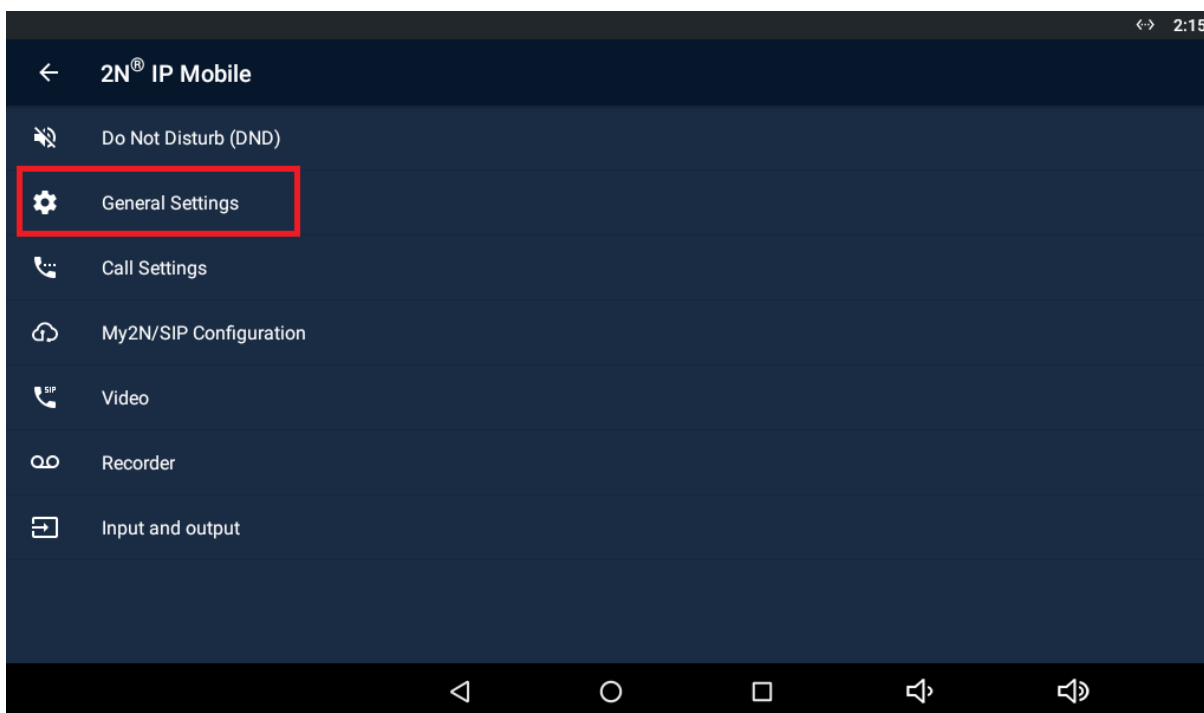
Figure 16 – General settings
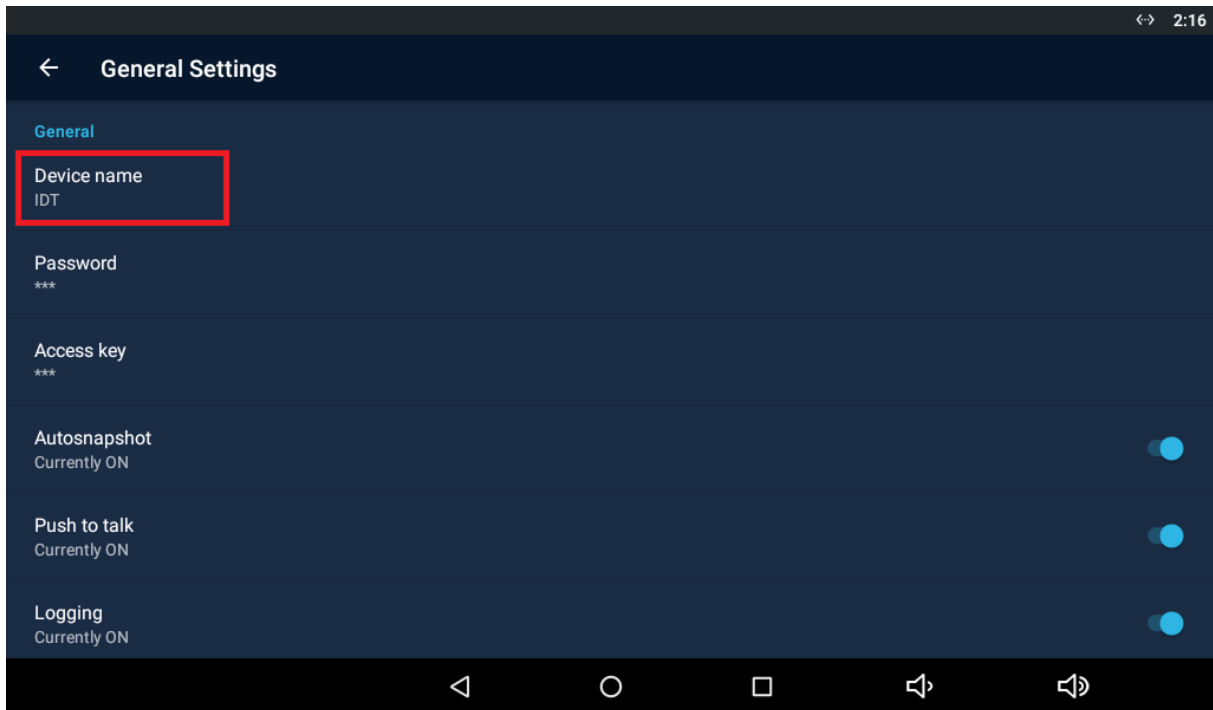
Figure 17 – Device name settings

The application automatically scans your LAN network and looks for all connected 2N IP intercoms. You can easily add them in the "*Devices*" section by clicking on the "*+*" button.
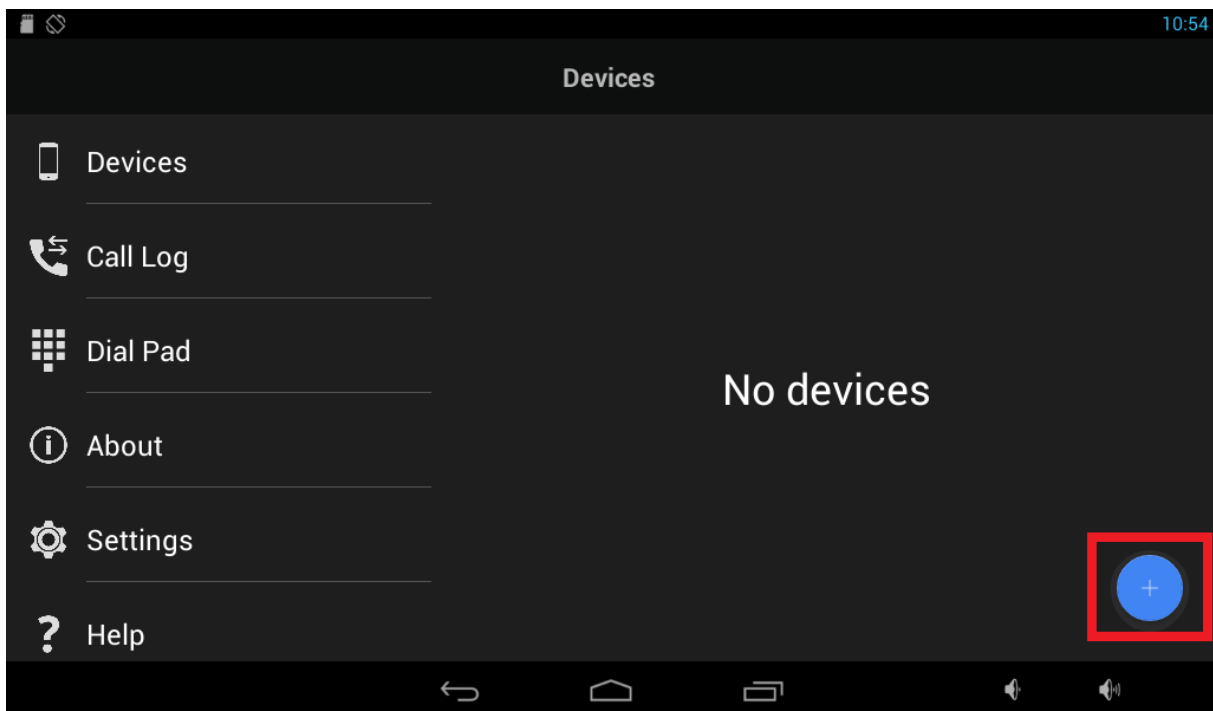

Figure 18 – Add intercoms to the phonebook

In the LAN devices list you can see all **2N® IP Intercoms** available. By clicking on the specific row you can add selected intercoms only, or by clicking on the checkbox in the right upper corner you can add all of them at once.
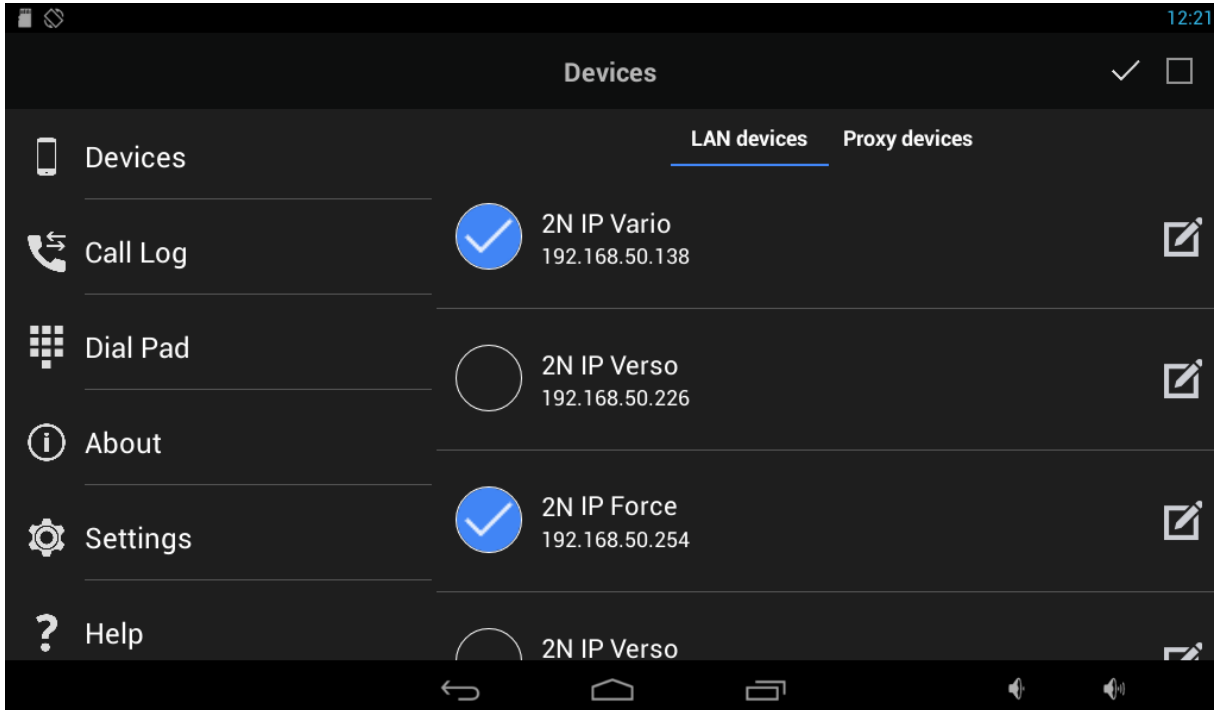

Figure 19 – Choose the intercom which should be a part of the phonebook

By clicking on the confirmation button ☑ you have just added the desired local devices to the list and the application is ready to call.
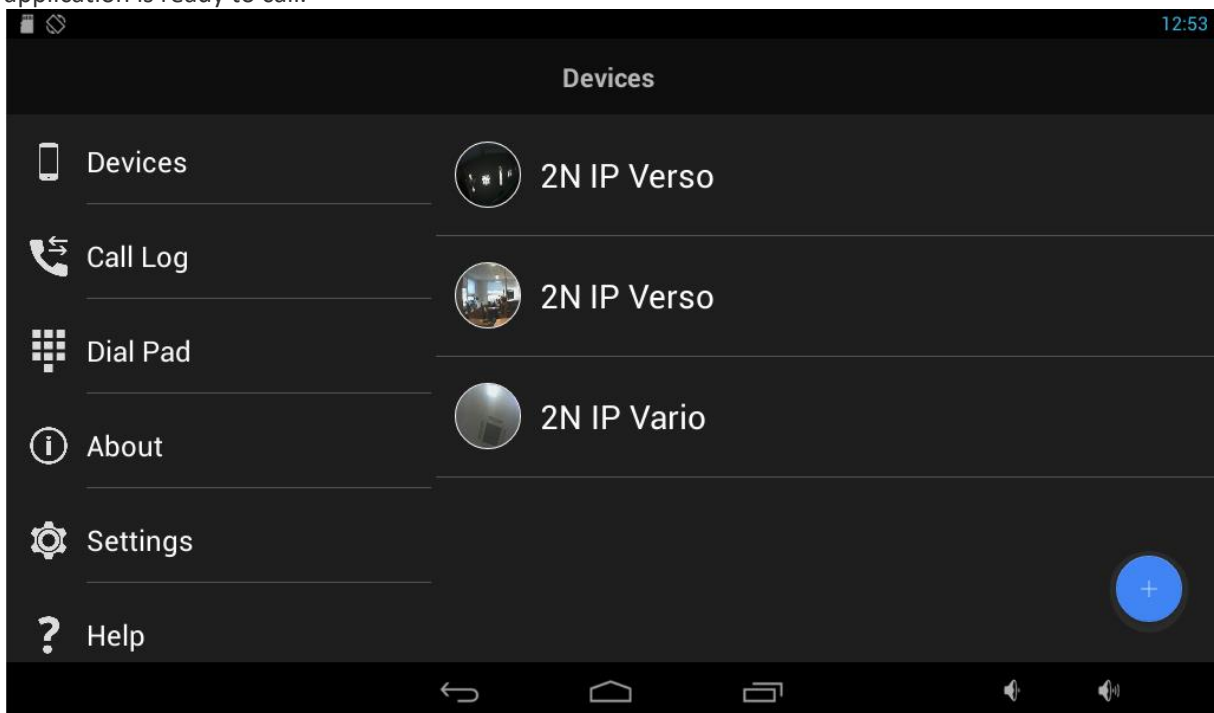

Figure 20 – Devices in phonebook

By selecting the desired **2N IP Intercom** in the list of Devices you can watch the video stream, place a call, open the door lock, listen to the audio stream preview and also make an instant screenshot.
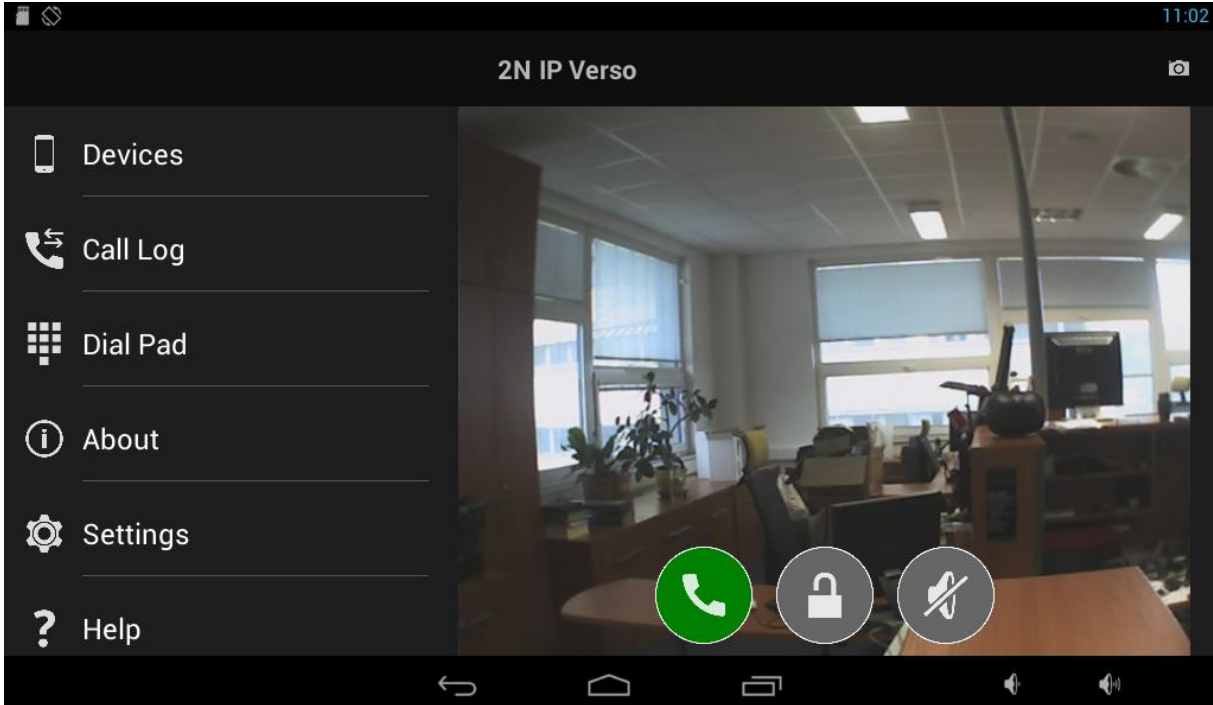

Figure 21 – Call to a specific intercom

2N® Indoor Touch can be also configured by using web interface of the unit. Device name can be specified in the section "*Application – Intercoms*"
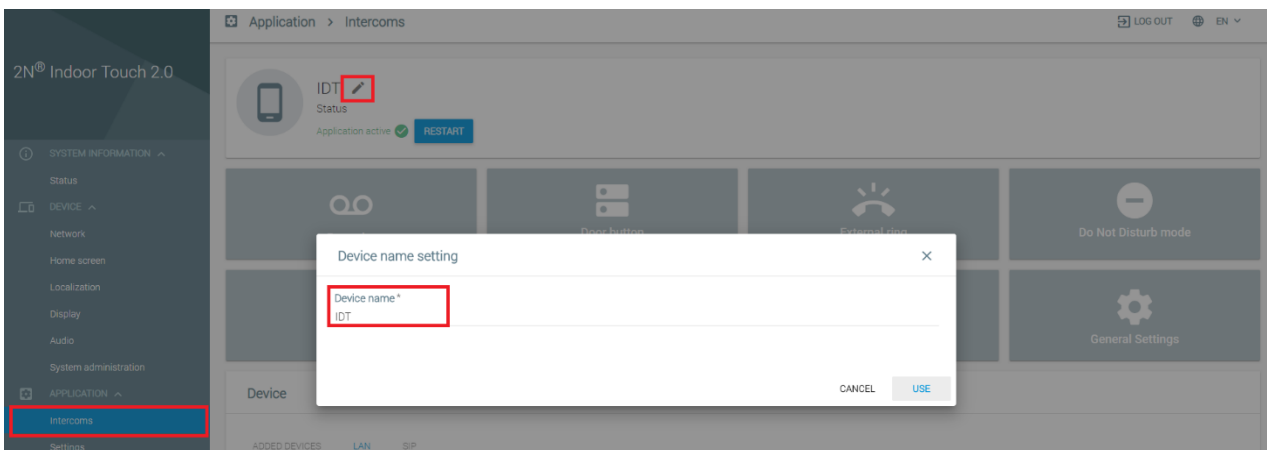

Figure 22 – Device name configuration by using web interface

2N IP Intercoms can be added to the phone book in the same section.
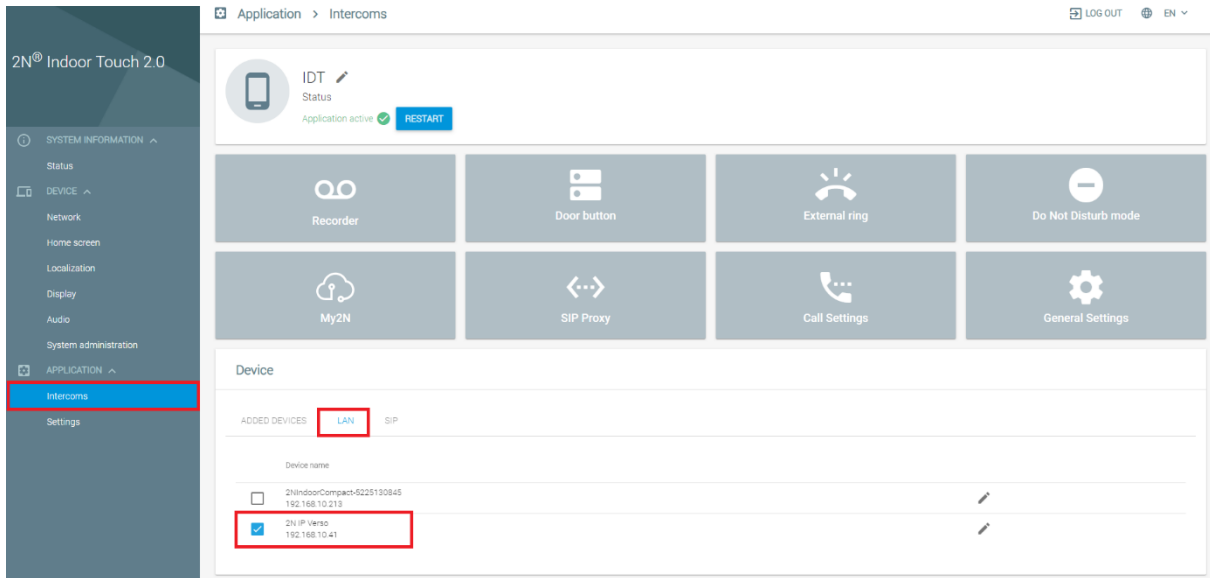

Figure 23 – *Add device to phonebook by using web interface*

For more details please refer to our FAQ websites

[faq.2n.cz](faq.2n.cz)

3 Interconnection between 2N® Indoor Touch and Wiser For KNX controller

You can access Wiser for KNX's web interface by using web browser of the 2N® Indoor Touch. Open browser and fill the IP address of the Wiser for KNX.
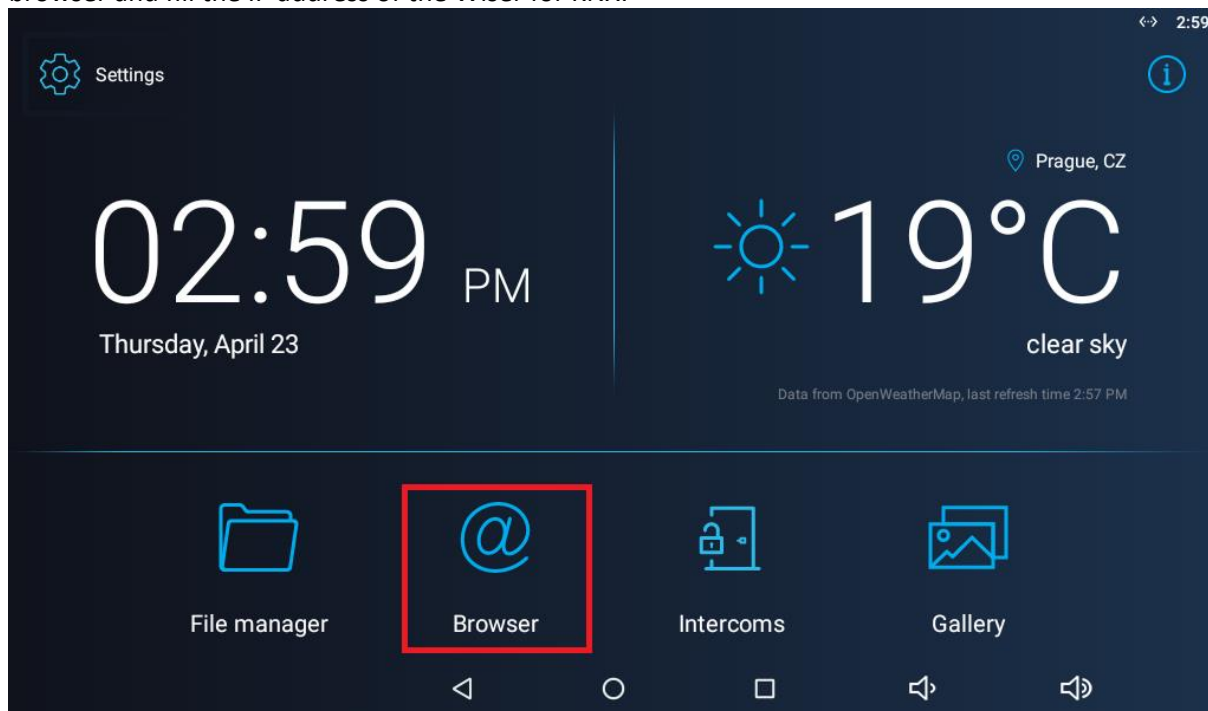

Figure 24 – Web browser

You can also adjust settings on 2N® Indoor Touch to make the access more user friendly. You can enable:

- Auto start of the browser with predefined IP address
- Enable web browser full screen view

Auto start of the browser can be enabled in "***Settings – Administrator mode – Advanced – URL to be opened on startup***".
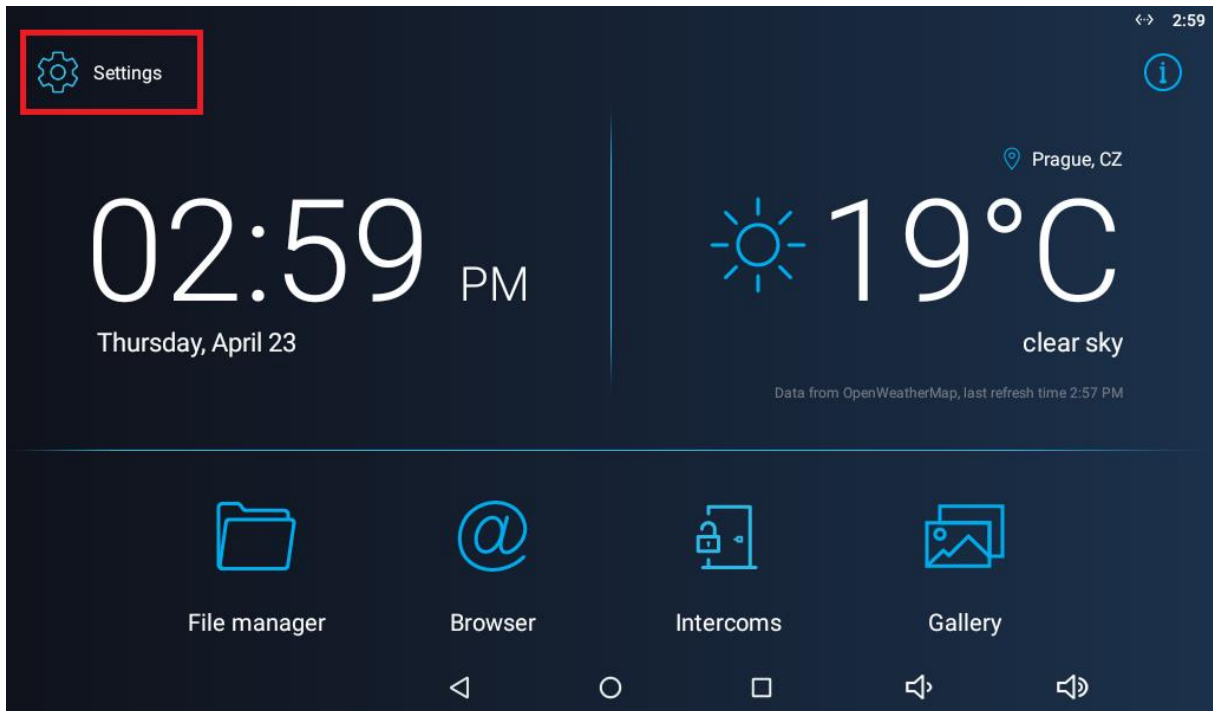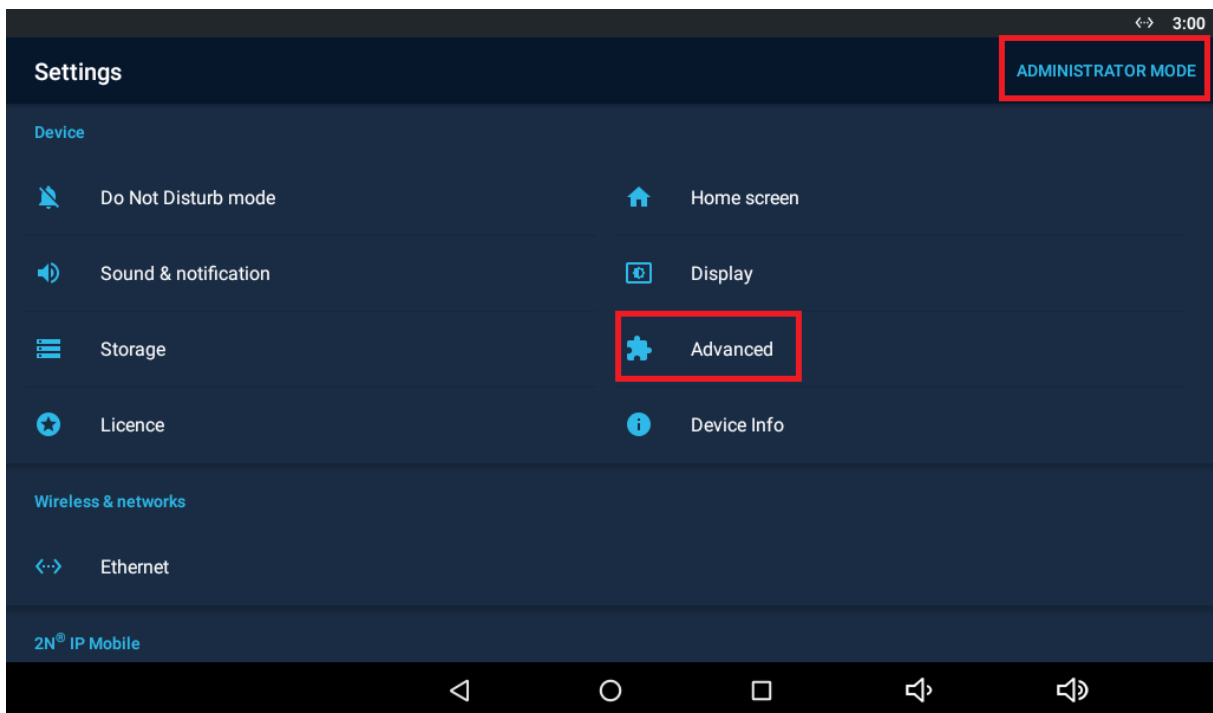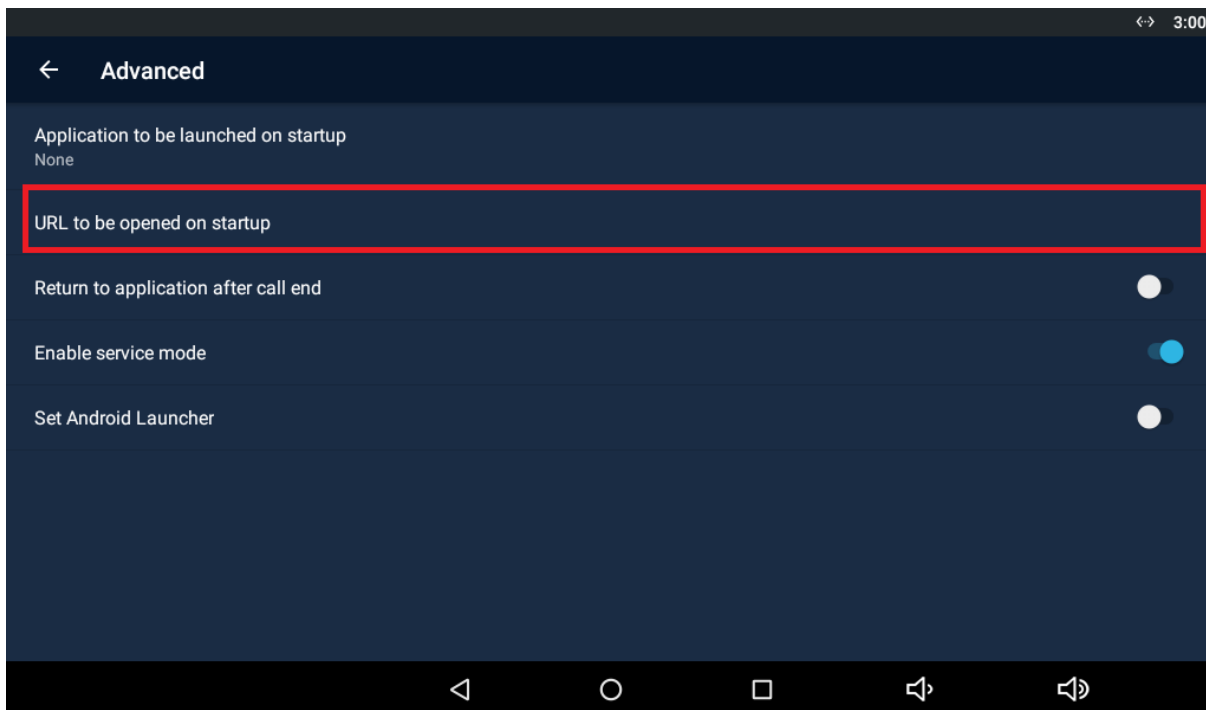
Figure 25 - Settings

Figure 26 – Advanced settings

Figure 27 – Startup web browser setting

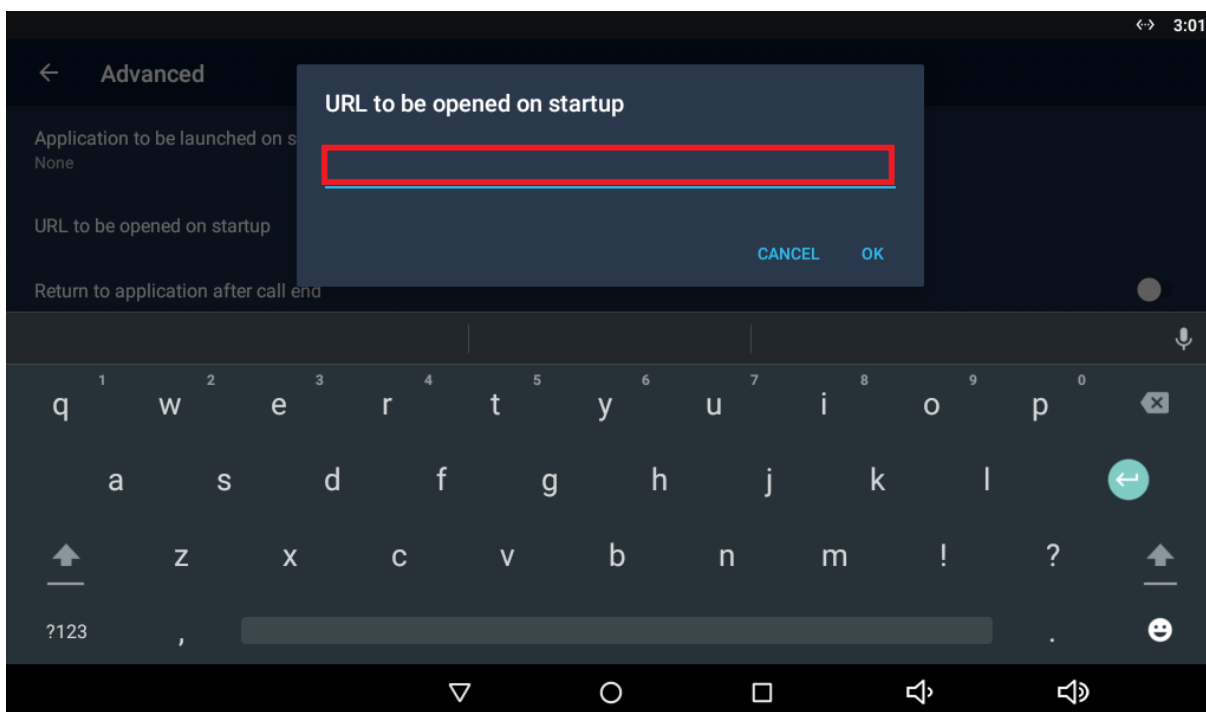Define the IP address of the Wiser for KNX controller.

Figure 28 – URL settings

You can switch the web browser to full screen view by enabling quick control in "**Browser – Settings – Labs – Quick controls**"
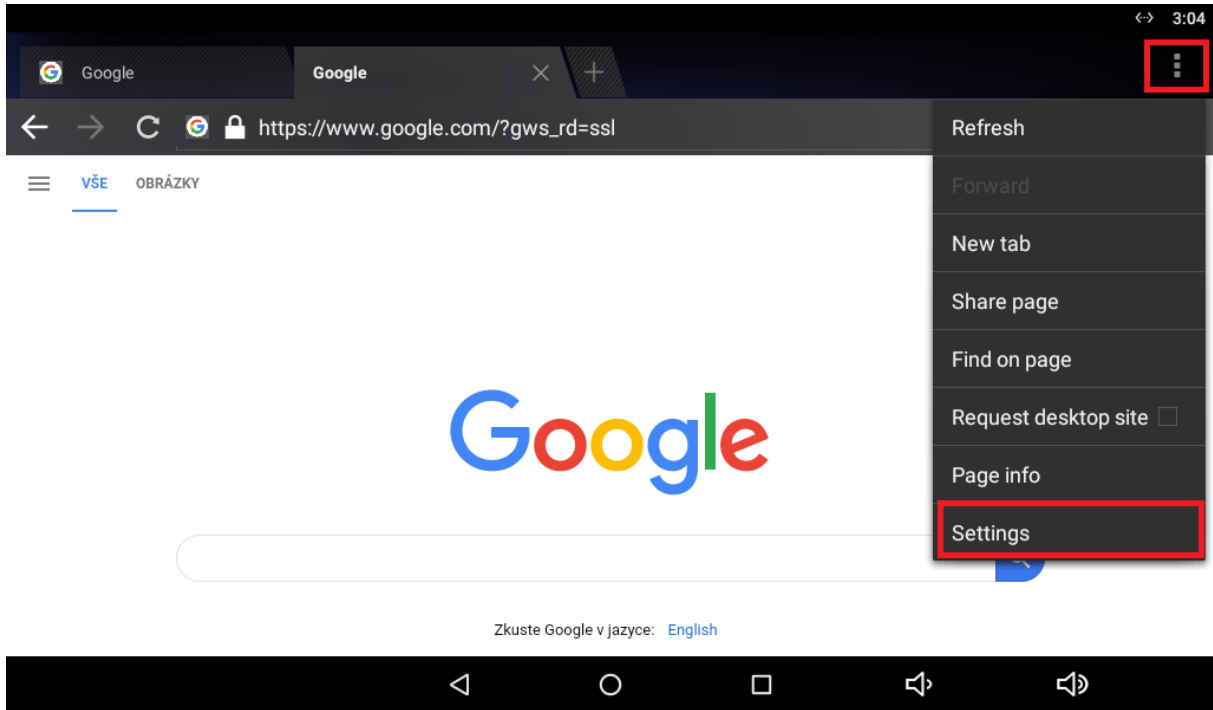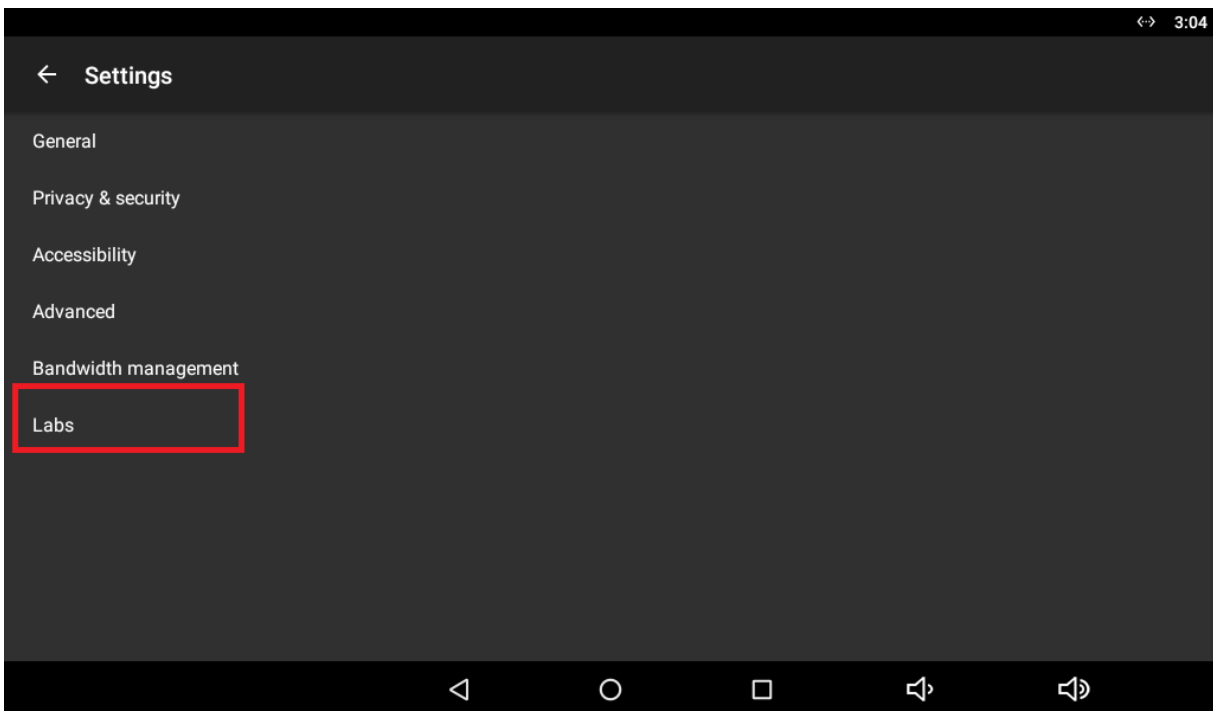

Figure 29 – Web browser settings

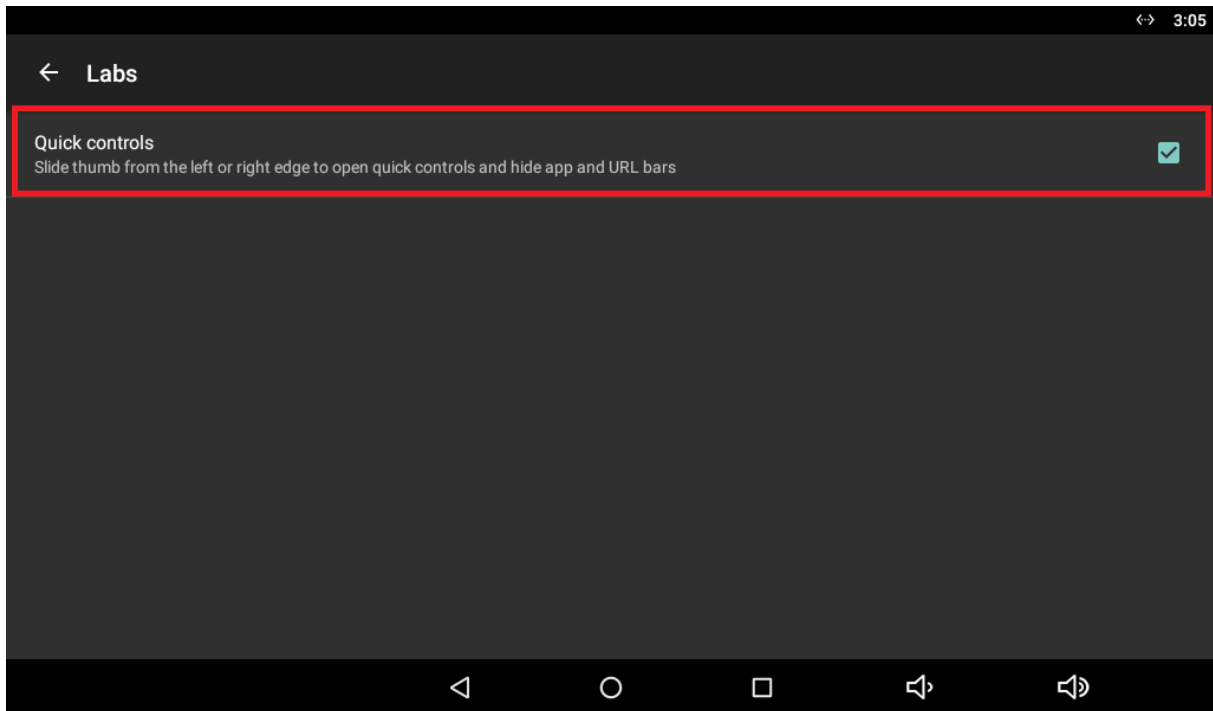*Figure 30 – Web browser settings - labs*

Figure 31 – Quick controls enabled

4   2N IP intercom API

HTTP API is an application interface designed for control of selected **2N IP intercoms** functions via the **HTTP**. It enables **2N IP intercoms** to be integrated easily with third party products, such as home automation, security and monitoring systems, etc.

HTTP API provides the following services:

- **System API** – provides intercom configuration changes, status info and upgrade.
- **Switch API** – provides switch status control and monitoring, e.g. door lock opening, etc.
- **I/O API** – provides intercom logic input/output control and monitoring.
- **Audio API** – provides audio playback control and microphone monitoring.
- **Camera API** – provides camera image control and monitoring.
- **Display API** – provides display control and user information display.
- **E-mail API** – provides sending of user e-mails.
- **Phone/Call API** – provides incoming/outgoing call control and monitoring.
- **Logging API** – provides reading of event records.

Set the transport protocol (**HTTP** or **HTTPS**) and way of authentication (**None**, **Basic** or **Digest**) for each function. Create up to five user accounts (with own username and password) in the **HTTP API** configuration for detailed access control of services and functions.

Use the configuration web interface on the **Services / HTTP API** tab to configure your **HTTP API**. Enable and configure all the available services and set the user account parameters. Refer to **http(s)://ip_intercom_address/apitest.html** for a special tool integrated in the intercom **HTTP** server for **HTTP API** demonstration and testing.

4.1   HTTP API Services Security

Set the security level for each **HTTP API** service via the **2N IP intercom** configuration web interface on the **Services / HTTP API** tab: disable/enable a service and select the required communication protocol and user authentication method.
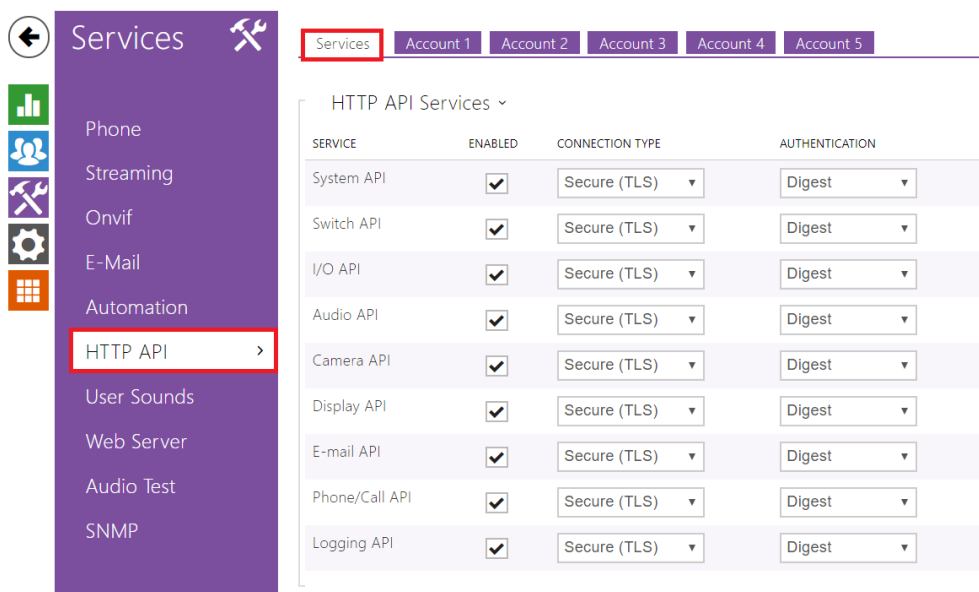
You can set the required transport protocol for each service separately:

- **HTTP** – send requests via **HTTP** or **HTTPS**. Both the protocols are enabled and the security level is defined by the protocol used.
- **HTTPS** – send requests via **HTTPS**. Any requests sent via the unsecured **HTTP** are rejected by the intercom. **HTTPS** secures that no unauthorised person may read the contents of sent/received messages.

Set authentication methods for the requests to be sent to the intercom for each service. If the required authentication is not executed, the request will be rejected. Requests are authenticated via a standard authentication protocol described in **RFC-2617**. The following three authentication methods are available:

- **None** – no authentication is required. In this case, this service is completely unsecure in the **LAN**.
- **Basic** – Basic authentication is required according to **RFC-2617**. In this case, the service is protected with a password transmitted in an open format. Thus, we recommend you to combine this option with **HTTPS** where possible.
- **Digest** – Digest authentication is required according to **RFC-2617**. This is the default and most secure option of the three above listed methods.

We recommend you to use the **HTTPS + Digest** combination for all the services to achieve the highest security and avoid misuse. If the other party does not support this combination, the selected service can be granted a dispensation and assigned a lower security level.

Figure   *32 – HTTP API*

4.2   User Acounts

With **2N IP intercom** you can manage up to five user accounts for access to the **HTTP API** services. The user account contains the user's name, password and **HTTP API** access privileges.

Figure 33 – HTTP API

For more details please refer to the HTTP API manual on our websites

wiki.2n.cz