AxxonNet mobile client on Android OS. User Guide

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1 General information about the AxxonNet mobile client on Android OS

The client app for mobile devices on the Android OS (version 5.0 and higher), Wear OS (version 2.0 and higher) and Android TV is available for free on Google Play.

> **Note**
>
> The app can be managed on Android TV only with the mouse.

The client for Android devices allows connecting to *Axxon Next* Server (version 4.2.1 and higher) and *Intellect* Server (version 4.10.4 and higher).
The Client features are displayed in the table.

Client features	Working with Intellect server	Working with Axxon Next server
HTTPS connection via SSL	+	+
Connection via AxxonNet	-	+
Viewing the list of cameras on the Server available for the current user	+	+
Live video monitoring	+	+
Live audio playback from cameras	+*	+*
Playback of recorded video (with audio)	+*	+*
Face search in archive	-	+**
Playback of Android device sound on Server speakers	+	-
Zoom in (with digital zoom)	+	+
Working with fisheye cameras	+	+
Managing cameras, relays and sensors	+	-
Control of PTZ cameras	+	+
Viewing the list of system events	+	+
Working with *Intellect* maps	+	-
Working with geomaps	+	+
Running macros	+	+
Receiving push notifications about camera alarms	+***	+
Receiving titles in the live and archive modes	+****	-

* Receiving the audio from the *Axxon Next* Server and *Intellect* Server is available only for the mp4 playback format and cameras with H.264 stream (see Viewing live video in AxxonNet client on Android OS). Moreover, receiving audio from the *Intellect* Server is available only for *Intellect* version 4.11.2.2576 and higher.
** To perform the face search on the *Axxon Next* Server, the face detection option should be pre-configured (see Face detection tool).
*** Receiving push notifications is available for *Intellect* Server version 4.11.2 and higher.
**** Receiving titles is available only for the mjpeg playback format (see Viewing live video in AxxonNet client on Android OS).

2 First launch of the AxxonNet client on Android OS

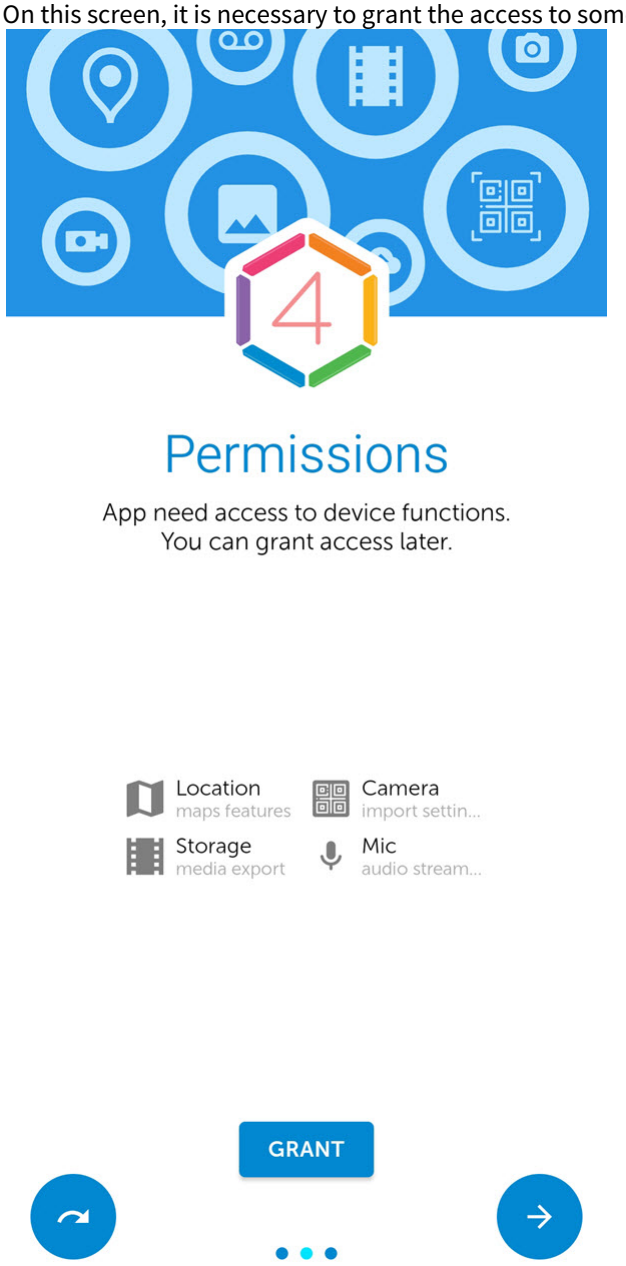
On the first launch, the mobile client is configured as follows:

1. When you open the mobile client for the first time, a welcome screen is displayed.

2. Click the button to go to the next screen and perform the initial setup.

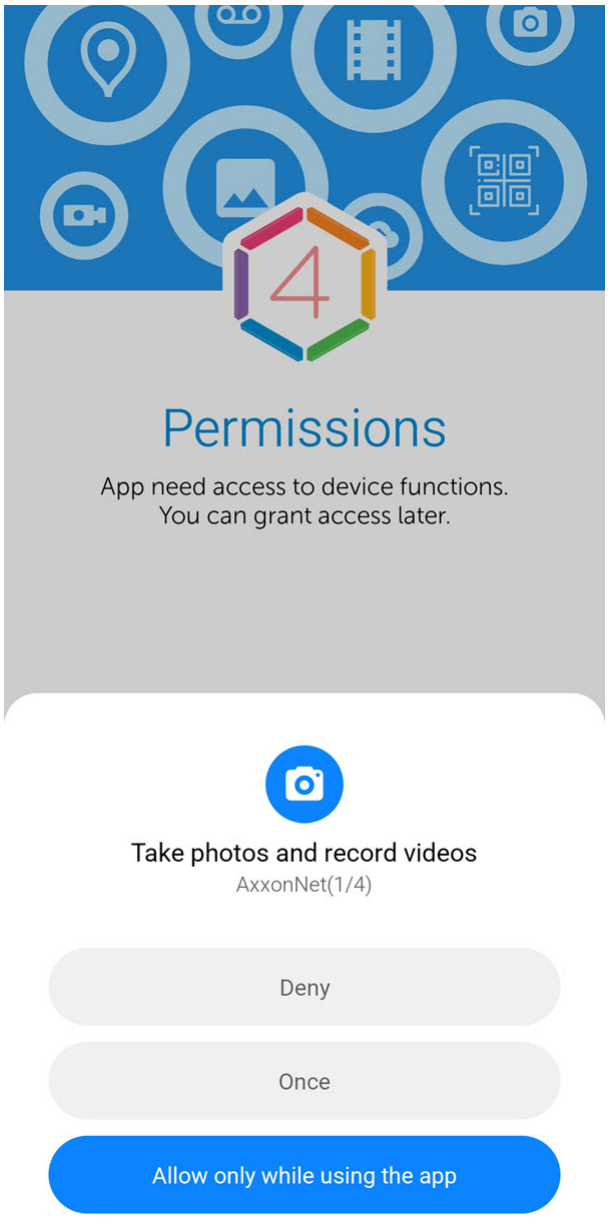
> **Note**
>
> To skip the initial setup, click the button.

3. On this screen, it is necessary to grant the access to some device functions.



4. Click **GRANT** to open a dialog box where you can provide the access to the mobile device functions.

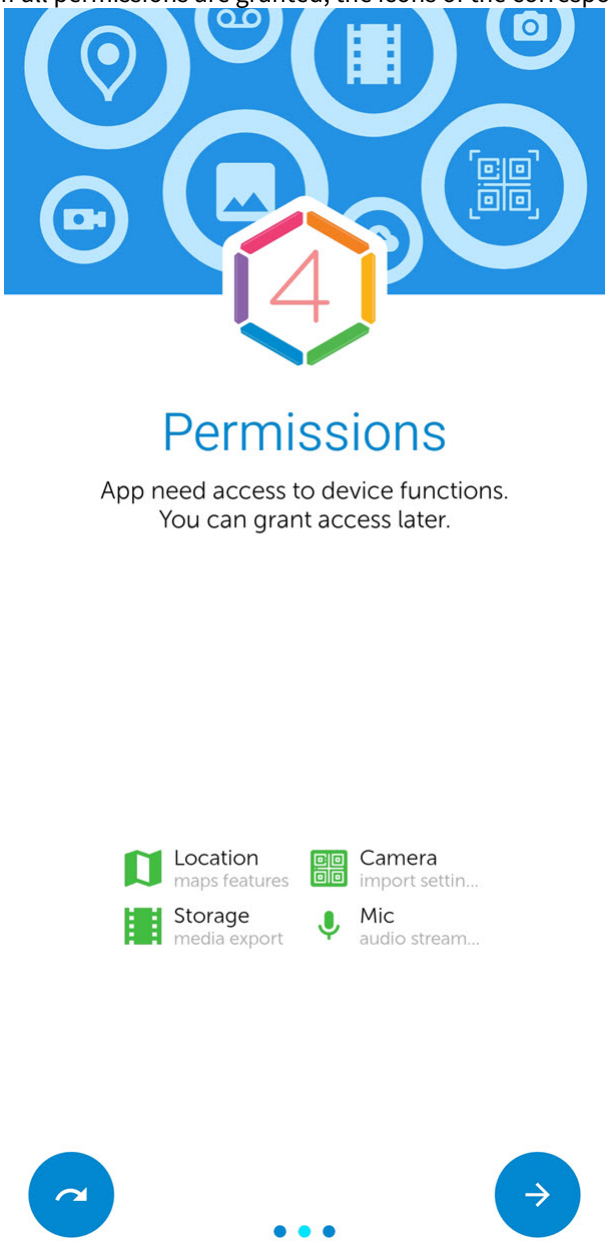
> **Note**
>
> If you skip this setting, then the access request messages will be displayed when you will try to use the corresponding mobile client functions.



Attention!

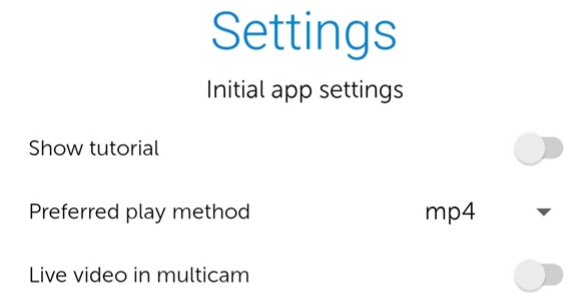
If you click **Deny**, then the access to this function will be permitted. In this case, the mobile client will operate incorrectly.

5. If all permissions are granted, the icons of the corresponding functions are green.



6. On the next screen, perform the initial app setup:
   - If it is necessary to display tips for working with a mobile client, set the **Show tutorial** checkbox.
   - In the **Preferred play method** drop-down list, select the preferred playback method for video streams. You can change playback method later (see Viewing live video in AxxonNet client on Android OS.

- If it is necessary to display live video in the multicam instead of still frames, set the **Live video in multicam** checkbox. You can change this setting later (see Configuring video in AxxonNet client on Android OS).



7. To complete the initial settings, click the button.

3 Servers list screen in AxxonNet client on Android OS

The server list screen displays a list of all added Servers. When you start the software for the first time you can connect to the *Intellect* and *Axxon Next* demo servers to see your Client's capabilities.

The **Cloud servers** group displays the Axxon domains connected to AxxonNet (see Connection via AxxonNet in AxxonNet client on Android OS).

The **Demo servers** group displays the demo Servers.

The **Local servers** group displays the Servers added directly (see Direct Server connection in AxxonNet client on Android OS).

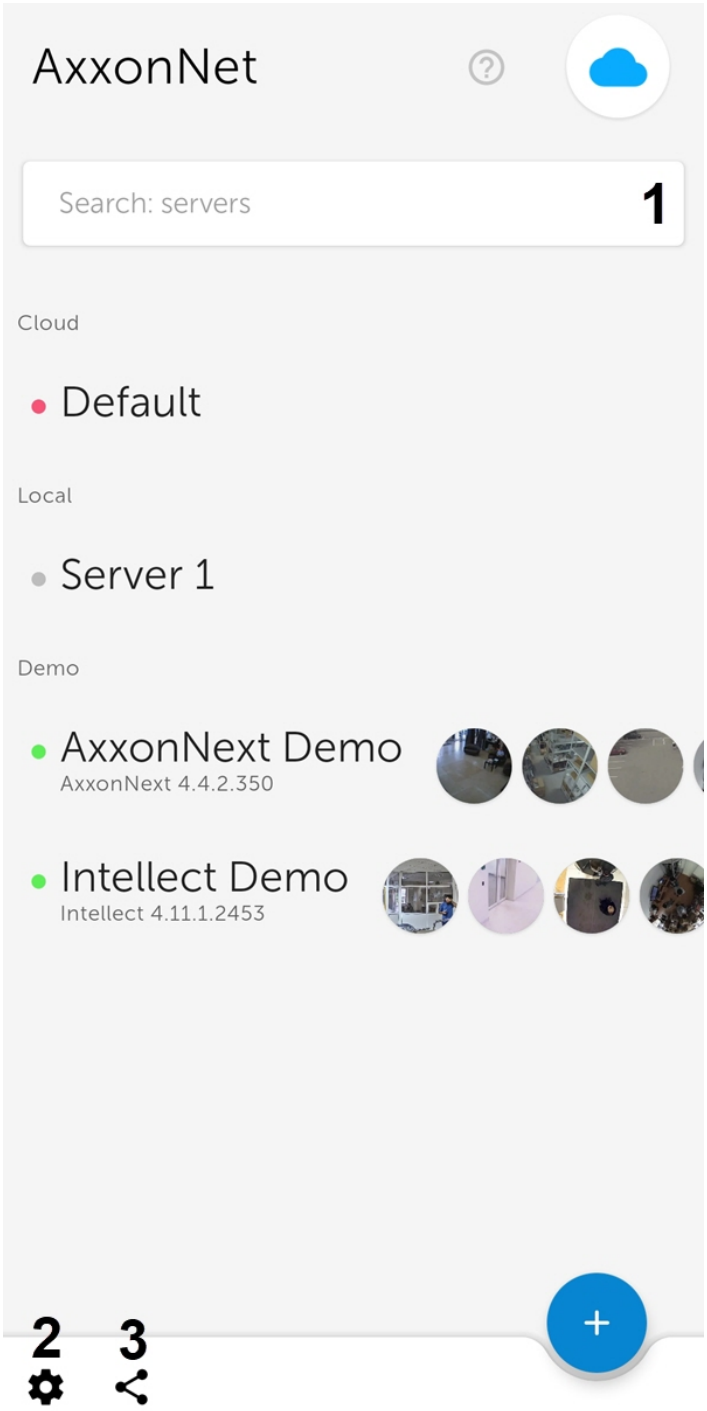
To connect to the Server, select it in the list. You can also use the search (**1**). If the Server has already been connected to earlier, then the preview frames of video cameras of this Server will be displayed next to the Server name.

To go to the app settings (see Settings of AxxonNet mobile client on Android OS), click the button (**2**).

To share the configuration of all Servers which were added directly, click the button (**3**) and select the appropriate way of sharing the configuration file.

> **Note**
>
> The configuration file is named *<Android device name>.connectionSettings*. To open the shared configuration file on another Android device, it is necessary to use a third-party file manager.

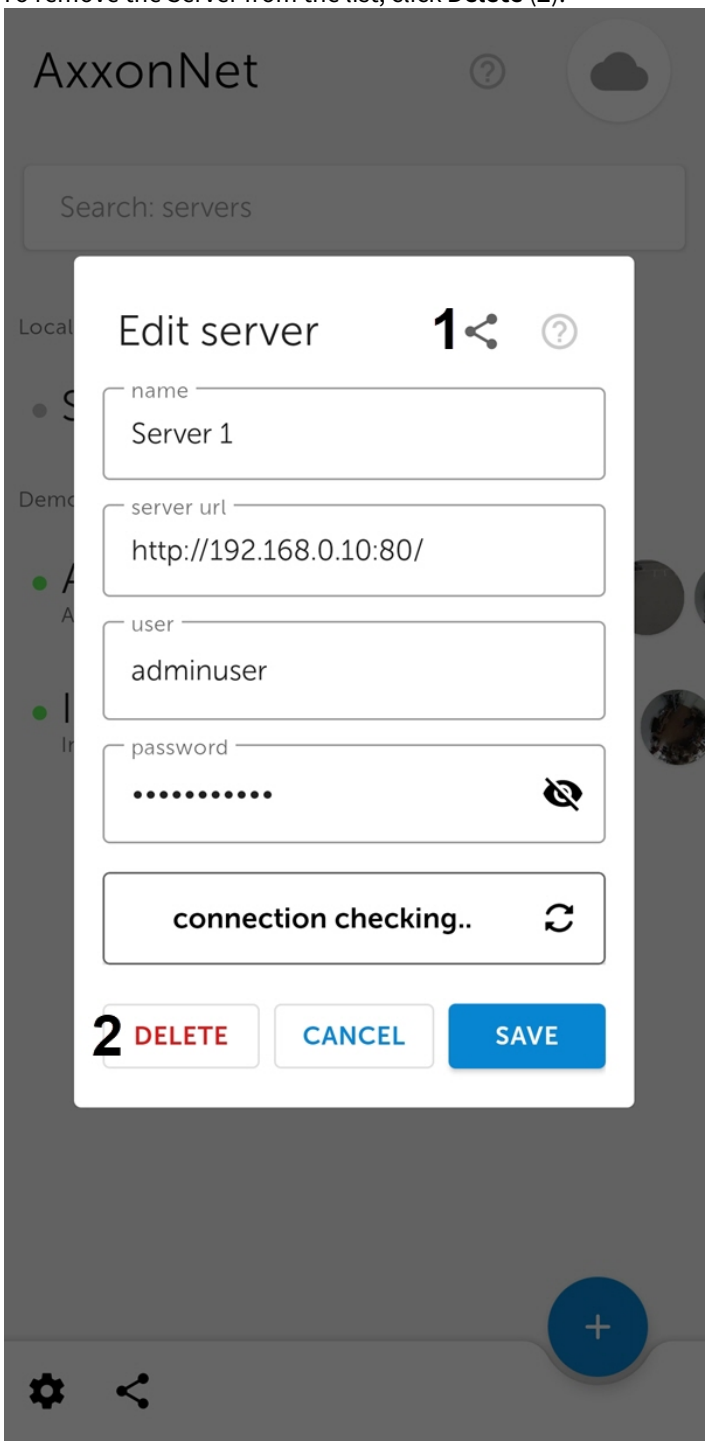
To manually update the Servers list, swipe down on the Servers list screen.



To remove or edit the Server, tap and hold on the necessary Server. As a result, a window similar to the one used for direct Server connection (see Direct Server connection in AxxonNet client on Android OS) will open and the **Edit** and **Delete** functions will become available.

- To share the Server settings using the QR code, click the button (**1**). As a result, a QR code with the Server settings will be displayed on the screen. To read these settings from another device, it is necessary to scan a QR code, as described in the Direct Server connection in AxxonNet client on Android OS section.

- To remove the Server from the list, click **Delete** (**2**).



4 Settings of AxxonNet mobile client on Android OS

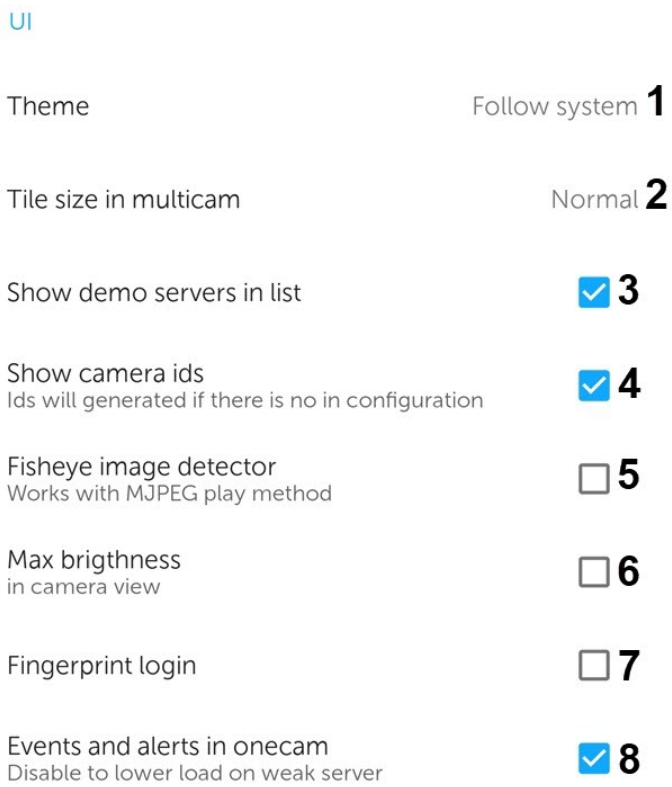
4.1 Opening the settings menu in AxxonNet client on Android OS

To go to the app settings, do the following:

1. Go to the Servers list screen (see Servers list screen in AxxonNet client on Android OS).
2. In the lower left corner, click the button. As a result, you will be redirected to the AxxonNet mobile client settings.

4.2 Configuring the interface of AxxonNet client on Android OS

The mobile client interface is configured in the **UI** section as follows:



1. In the **Theme** parameter (**1**), select the color skin of the app interface:
   - **Follow system** — the theme will depending on the theme of Android-device.
   - **Light theme** — the light colors interface.
   - **Dark theme** — the dark colors interface.
2. Select the tile size in multicam (**2**): **Small**, **Normal** or **Large**.

   Note

   If the live video playback in a multicam tile is enabled, then when you select the **Small** tile size, the app will ask you to disable the live video playback to optimize the performance.
3. Set the **Show demo servers in list** checkbox (**3**) to display the demo Servers in the servers list.
4. Set the **Show camera ids** checkbox (**4**) to display the camera IDs.

   Note

   For the *Axxon Next* Server, the displayed camera IDs are generated regardless of the Server configuration.

5. Set the **Fisheye image detector** checkbox (**5**) if it is necessary to recognize fish-eye cameras and hide the button for switching to the virtual telemetry mode for all non-fish-eye cameras.

   > **Note**
   >
   > If this parameter is enabled, then the video from the fish-eye camera will be displayed directly in the virtual telemetry mode.

6. Set the **Max brightness** checkbox (**6**) if it is necessary to enable maximum screen brightness when viewing live or archived video.
7. Set the **Fingerprint login** checkbox (**7**) if it is necessary to require fingerprint verification to login to the application. Restart the application to apply the setting. A fingerprint is requested only in case of an app cold startup (via an icon, push notification or camera widget). If the app was minimized and was not unloaded from memory by the Android system, then when the app is restarted, the fingerprint will not be requested.

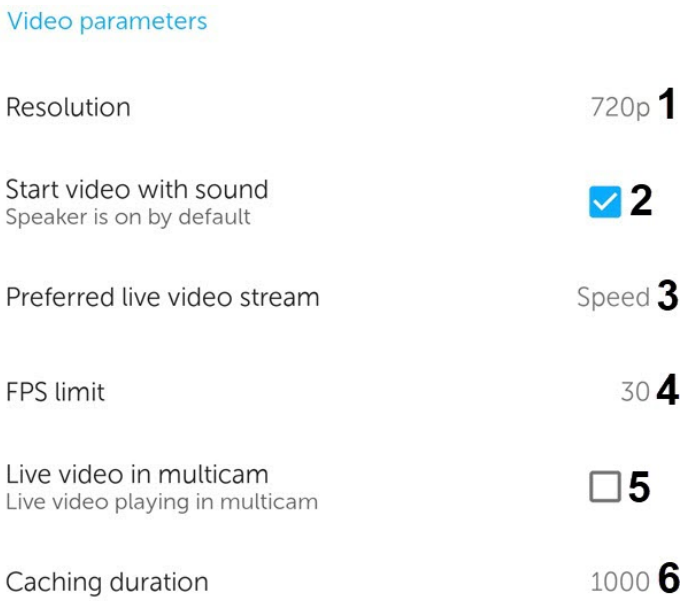
   > **Note**
   >
   > This parameter is available only for Android devices with a built-in fingerprint reader. Also, the fingerprint lock should be activated on Android device. Otherwise, there will be no such parameter.

8. Set the **Events and alerts in onecam** checkbox (**8**) if it is necessary to display events and alarms on the camera screen (see Viewing the camera info in AxxonNet client on Android OS). It is recommended to disable this parameter if the Server does not have enough computing resources.

The mobile client interface is now configured.

4.3 Configuring video in AxxonNet client on Android OS

The video parameters of the mobile client are configured in the **Video parameters** section as follows:



1. Select the default resolution of live and archive video (**1**):
   - **144p** - display video in a constant resolution of 256x144.
   - **360p** - display video in a constant resolution of 480x360.
   - **480p** - display video in a constant resolution of 858x480.
   - **720p** - display video in a constant resolution of 1280x720.
   - **1080p** - display video in 1920x1080 resolution.
   - **4K** - display video in 3860x2160 resolution.
2. Set the **Start video with sound** checkbox (**2**) to enable the sound during the video playback from the camera.

3. Select the preferred live video stream, which will be applied by default (**3**): **Speed** — low quality video stream; **Quality** — high quality video stream.

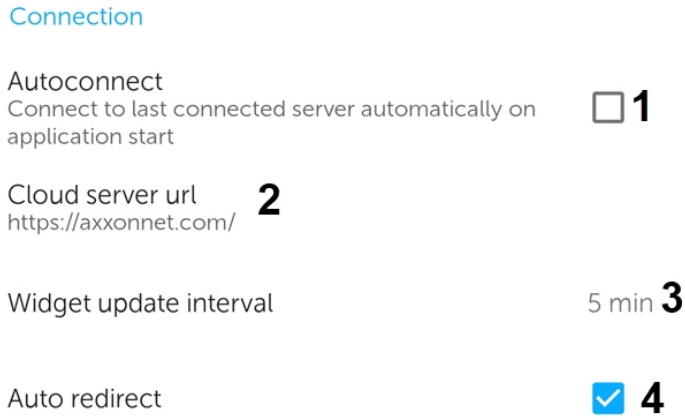
   > **Note**
   >
   > This option is available only for the *Axxon Next* Server connection.

4. Select the frame rate per second limit (**4**) for the video playback: from **0** to **60**.
5. Set the **Live video in multicam** checkbox (**5**) to display live video in the multicam instead of video frames at the time of the last multicam update.
6. Set the caching duration time in milliseconds (**6**).

The video parameters are now configured.

4.4 Configuring the connection in AxxonNet client on Android OS

The connection is configured in the **Connection** section as follows:



1. Set the **Autoconnect** checkbox (**1**) if it is necessary to automatically connect to the last previously connected Server at the app launch.
2. The **Cloud server url** parameter (**2**) displays the URL address of the AxxonNet Server.

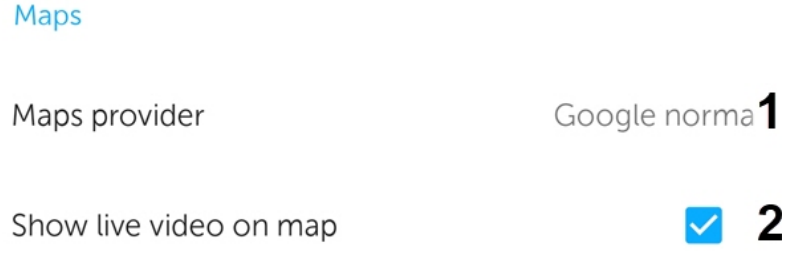
   > **Note**
   >
   > It is strongly recommended not to change this address without consulting AxxonSoft Support.

3. Select the interval for the video update on the widgets (**3**): **10 sec**, **1 min**, **5 min**, **10 min**, **1 hour**.
4. Set the **Auto redirect** checkbox (**4**) if it is necessary to enable the automatic redirect to HTTPS — if the HTTP protocol is specified in the *Axxon Next* Server connection URL address. Otherwise, when connected to the Server, you will be requested to automatically change the Server URL-address to HTTPS.

The connection is now configured.

4.5 Configuring geomaps in AxxonNet client on Android OS

The maps are configured in the **Maps** section as follows:

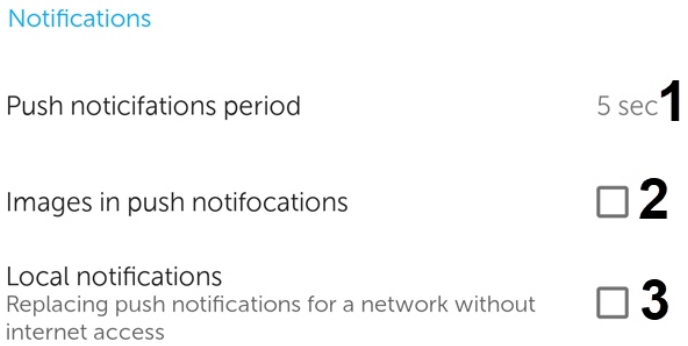


1. In the **Maps provider** parameter (**1**), select the default geomap provider: Google normal, Google satellite or Open street map.
2. Set the **Show live video on map** checkbox (**2**) to display live video in the lower left corner of the screen when you select a camera on the map.

4.6 Configuring the notifications in AxxonNet client on Android OS

4.6.1 Configuring the push notifications in AxxonNet client on Android OS

The push notifications are configured in the **Pushes** section as follows:



1. To enable the push notifications receiving, perform the following actions in the direct order:
   a. Connect to the required Server (to *Axxon Next* - only via AxxonNet, to *Intellect* - directly, see Connection and Server operations in AxxonNet client on Android OS).

      Attention!

      To receive push notifications from the *Axxon Next* Server, do the following:

      - Connect this Server to AxxonNet (see AxxonNet Setup and Operation).
      - To send push notifications automatically, it is necessary to configure the corresponding macro to initiate an alarm event on the detector (see Trigger an alarm). Manual alarm event initiation (see Manual Initiation) also initiates sending push notifications to mobile devices.

      To receive push notifications from the *Intellect* Server, it is necessary to activate and configure receiving push notifications in *Intellect* (see Configuring the Events filter for the Web-server 2.0 module).

   b. Subscribe to push notifications on the **Status** tab (see The Status tab in AxxonNet client on Android OS).
   c. Make sure the Android device has access to *AxxonNet* notifications.
2. In the **Notifications period** parameter (**1**), select the frequency of receiving notifications. Notifications will not come more often than specified in the period:
   - **No limit**;
   - **5 seconds**;
   - **10 seconds**;
   - **1 minute**.

   Note

   After changing the notifications period, it is necessary to restart the application.
3. Set the **Images in push notifications** checkbox (**2**) to display the camera images in push notifications.
4. Set the **Local notifications** checkbox (**3**) if it is necessary to enable the ability to receive local notifications (it is not recommended to enable this parameter, for details see Configuring the local notifications in AxxonNet client on Android OS).

4.6.2 Configuring the local notifications in AxxonNet client on Android OS

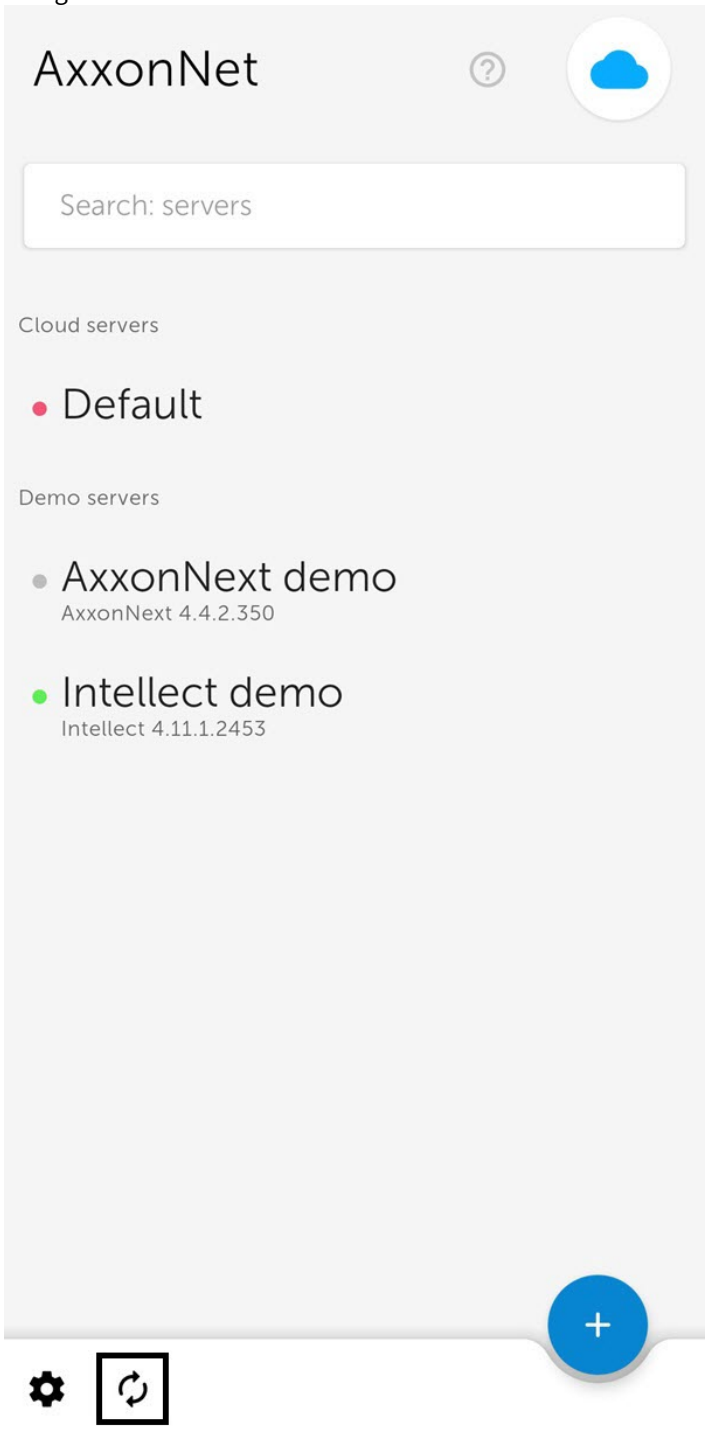
It is recommended to use push notifications (see Configuring the push notifications in AxxonNet client on Android OS). If for some reason it is not possible to use push notifications, you can receive notifications from the Server by periodically polling the Server directly.

> **Attention!**
>
> This method of receiving notifications consumes more of the Android device battery and loads the network. You should use this method of receiving notifications only when absolutely necessary.

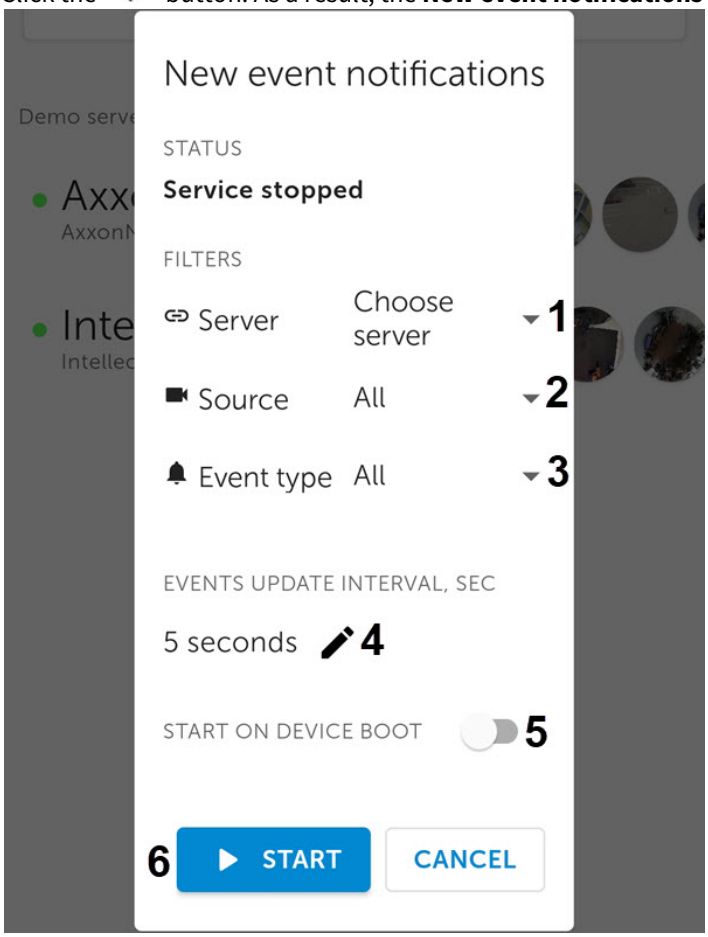
Configure receiving local notifications as follows:

1. In the **Notifications** settings section, set the **Local notifications** checkbox (see Configuring the push notifications in AxxonNet client on Android OS). As a result, a button will be displayed on the server list screen for configuring the

background notification service.



2. Click the button. As a result, the **New event notifications** window will open.



3. Select the Server to poll for new events (**1**).
4. If it is necessary to receive events only from certain cameras, select one or several required cameras (**2**).
5. If *Axxon Next* Server is selected as the polled Server and it is necessary to receive only certain types of events, select one or several required event types (**3**).

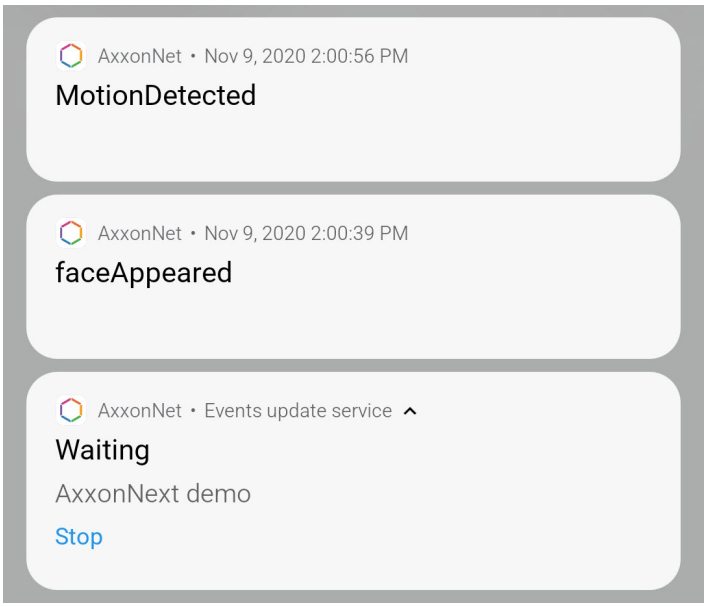
> **Note**
>
> The **Event type** parameter is not available if *Intellect* Server is selected.

6. Select the time interval for polling the Server (**4**). The default is 5 seconds.

> **Note**
>
> Events of the **Car number recognized** type enter the database with a delay of about 10 seconds. To receive events of this type, it is necessary to increase the polling interval to 10 seconds or more.

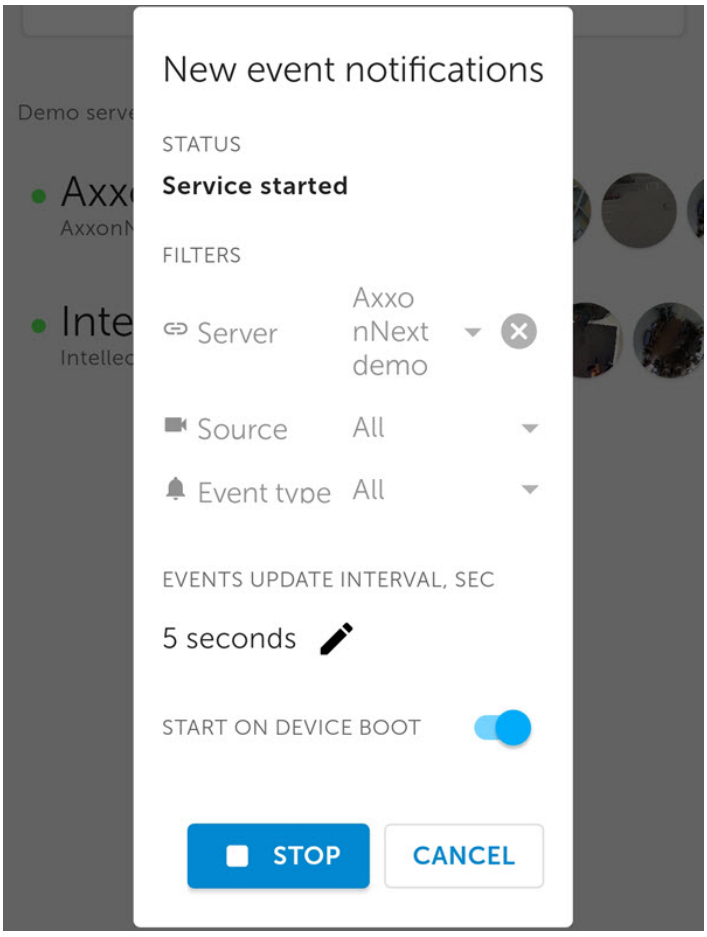
7. If it is necessary for the background notification service to turn on automatically after the Android device restart, enable the **START ON DEVICE BOOT** option (**5**).
8. Click the **START** button (**6**) to start the background notification service.

As a result, the notification from the background notification service will be displayed on the Android device notification panel. It will periodically poll the specified Server for new events.



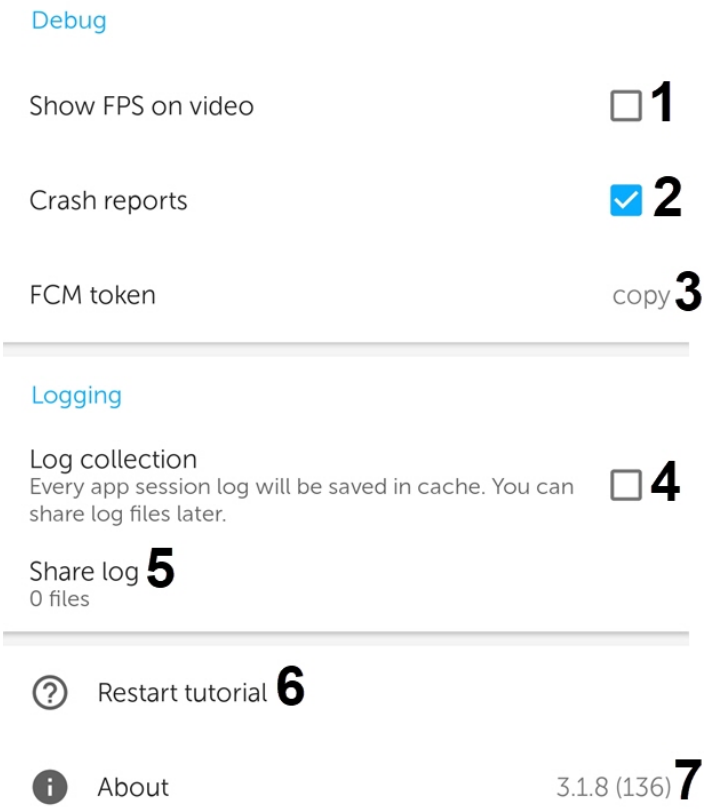
If you tap on the received event notification, you will switch to viewing the camera archive at the time of the start of this alarm event.

To stop the background notification service, click **Stop** in the notification or go to the service settings and click the **STOP** button.



4.7 Configuring debugging in AxxonNet client on Android OS

The debugging is configured in the **Debug** section as follows:

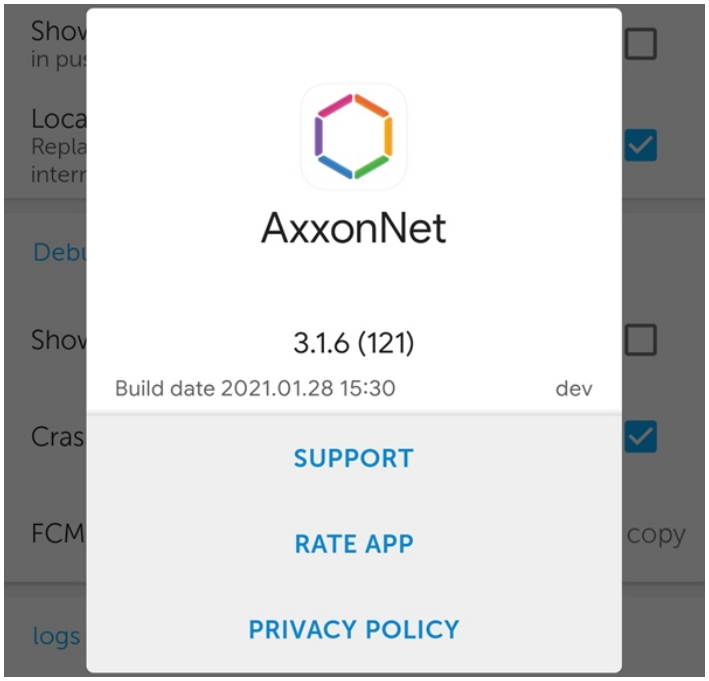


1. Set the **Show fps on video** checkbox (**1**) to display the fps rate on the top left corner of the video image.

   > **Note**
   >
   > If the **mjpeg** playback format is selected (see Viewing live video in AxxonNet client on Android OS) then the fps rate and the frame size are displayed. If the **mp4** playback format is selected, then the fps rate and the bitrate are displayed.

2. Set the **Crash reports** checkbox (**2**) to automatically send the crash report to AxxonSoft for analysis in case of an unexpected Android mobile client shutdown.
3. Click the **FCM token** parameter (**3**) to copy the Firebase Cloud Messaging token to the clipboard. You can also share the token.
4. Set the **Log collection** checkbox (**4**) if it is necessary to save a log of each app session. To apply the parameter, you need to restart the application.
5. Click on **share_log** (**5**), if it is necessary to send a previously collected log.
6. Click on the **Restart tutorial** parameter (**6**) if it is necessary to display the previously shown tutorials again when working with the mobile client.

7. The **About** parameter (**7**) displays the current version of the AxxonNet mobile client. Click on this parameter to display more details about the version and additional features:



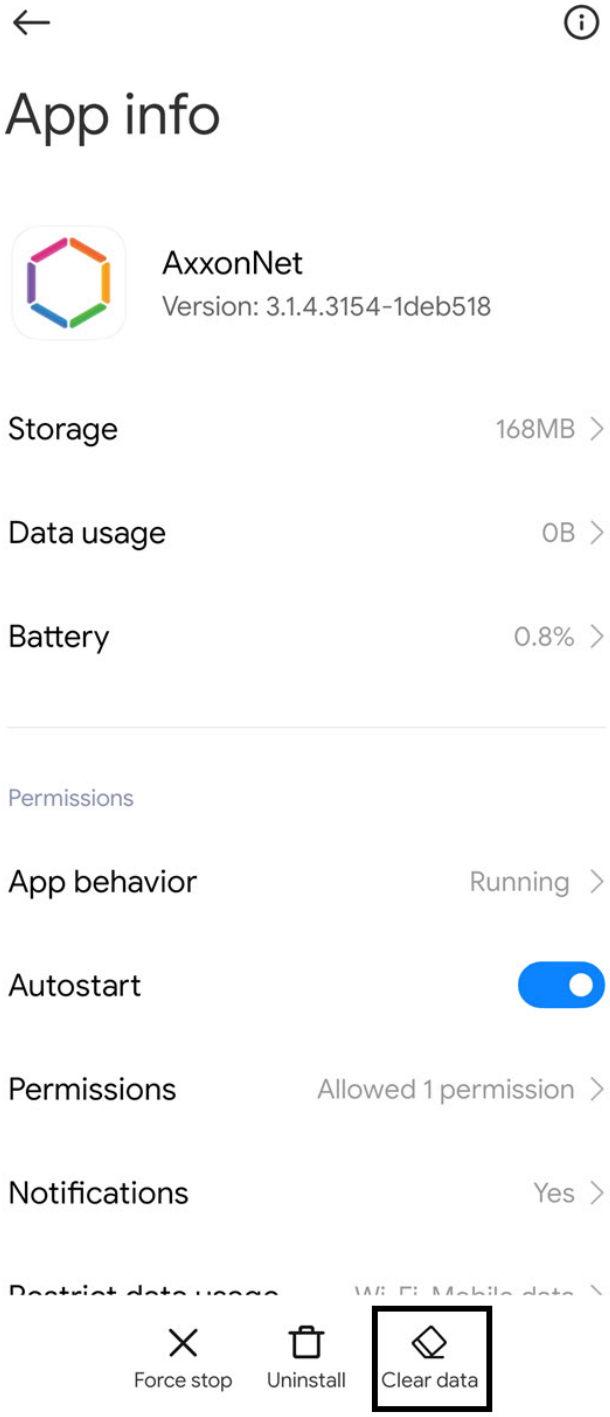
- **SUPPORT** - go to the website for technical support.
- **RATE APP** - go to Google Play to rate the app.
- **PRIVACY POLICY** - go to the website to read the privacy policy.

4.8 Resetting the settings and data of AxxonNet mobile client on Android OS

To reset the app settings to default and/or delete the temporary app files, do the following:

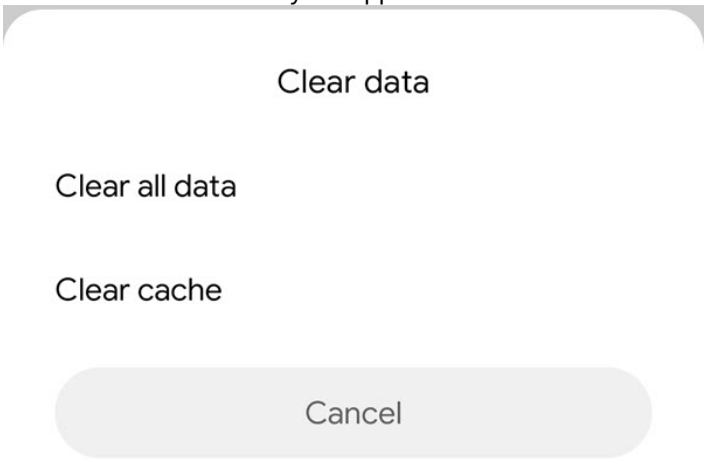
> **Note**
>
> The Android device interface and the names of the buttons may differ from those shown below.

1. In the Android device interface, go to the AxxonNet mobile app info.



2. Click the **Clear data** button.
3. In the window that opens, select one of the data clearing methods:
   - **Clear all data** — deletes all application data, settings, cache. The application will be reset to default.

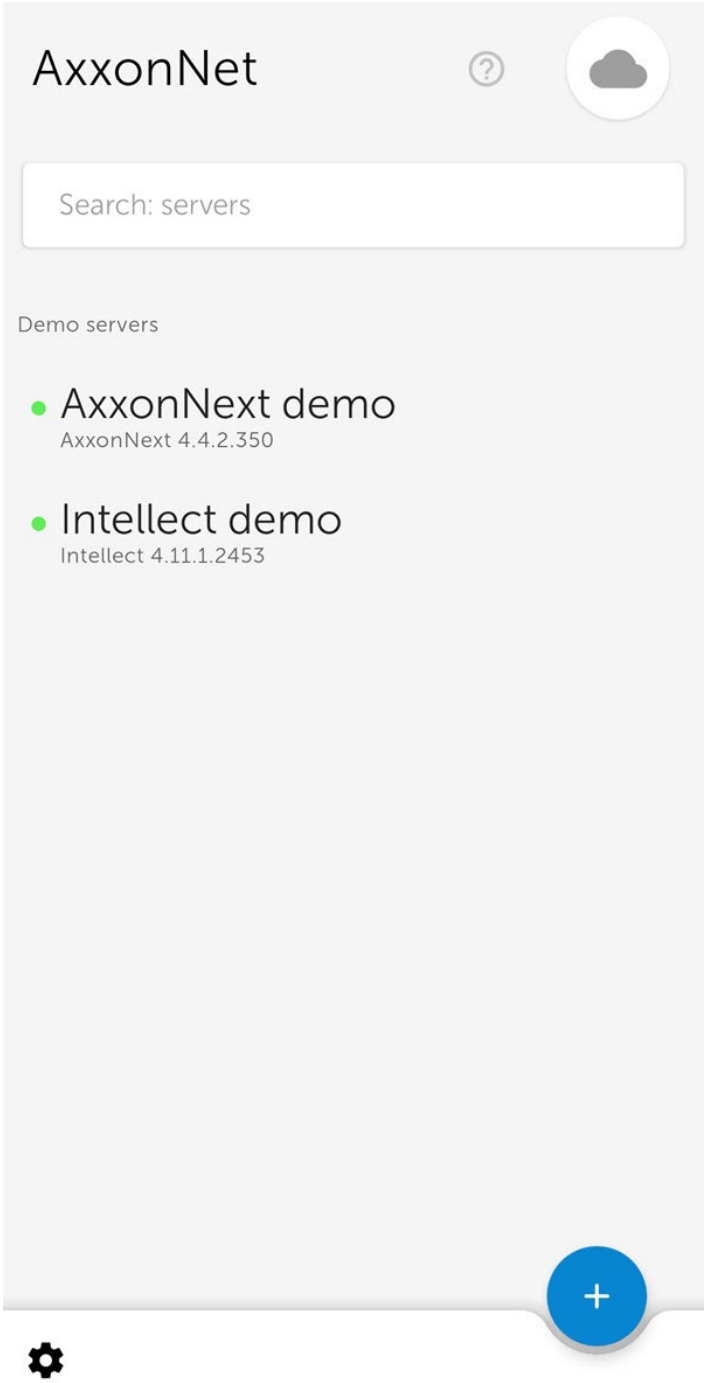
- **Clear cache** — deletes only the application's internal cache folder. Application settings will not be affected.



5 Connection and Server operations in AxxonNet client on Android OS

5.1 Direct Server connection in AxxonNet client on Android OS

Before connecting to the Server, configure the Web-server in the appropriate software package (see Configuring the web server for Axxon Next, see Configuring the Web-server module for Intellect).

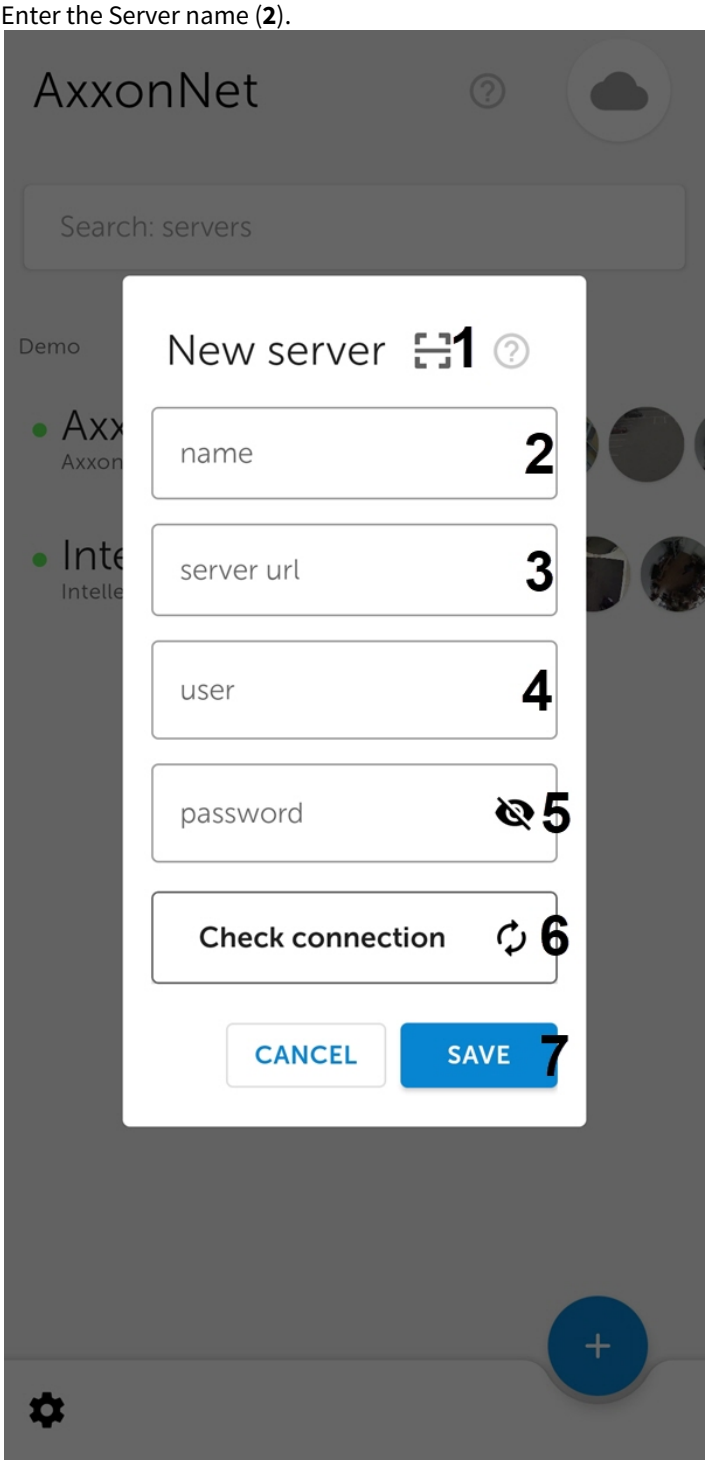


Add a new server as follows:

1. Click the button.
2. If there is a QR code containing the Server settings received from another application (see Servers list screen in AxxonNet client on Android OS), then to automatically add a new Server using the QR code, click the button (**1**). Point the

viewfinder that opens to the QR code. As a result of reading the QR code, the Server will be automatically added and displayed in the group of local servers.

3. Or set the Server connection parameters manually:
   a. Enter the Server name (**2**).



   b. Enter the Server URL address in the form of <Server IP address>:<Port>/<Prefix> (**3**).

> **Attention!**
>
> The URL server address is case-sensitive. It is necessary to enter the URL address with exactly the case of letters that is specified in the settings of the corresponding Web-server.

> **Note**
>
> Example URLs with standard Server settings for *Axxon Next* and *Intellect*:
>
> ***Axxon Next (3.6 and earlier)***: 192.168.0.10:8000/asip-api
>
> ***Axxon Next 4***: 192.168.0.10:80
>
> ***Intellect***: 192.168.0.10:8085/web2

c. Enter the user name and password for connecting (**4**, **5**).

> **Note**
>
> When you connect to *Intellect* Server, you can use the username and password of the user with Windows authorization rights in *Intellect* (see Assigning the rights and password to operators for authorization in the Intellect), in this case the username is to be specified as follows:
>
> **\\WorkPC\user** where WorkPC is the computer or domain name and user is the username. The username and password are case-sensitive.

> **Attention!**
>
> You cannot connect to *Intellect* and *Axxon Next* Servers directly using an LDAP user account.

4. To check the correctness of the entered data, click the **Check connection** button (**6**).

> **Note**
>
> To perform a basic check of the web server connection and operability, go to the Server's URL address in your mobile browser.

5. To save the Server, click **Save** (**7**).

As a result, the added Server will be displayed in the **Local servers** group (see Servers list screen in AxxonNet client on Android OS).

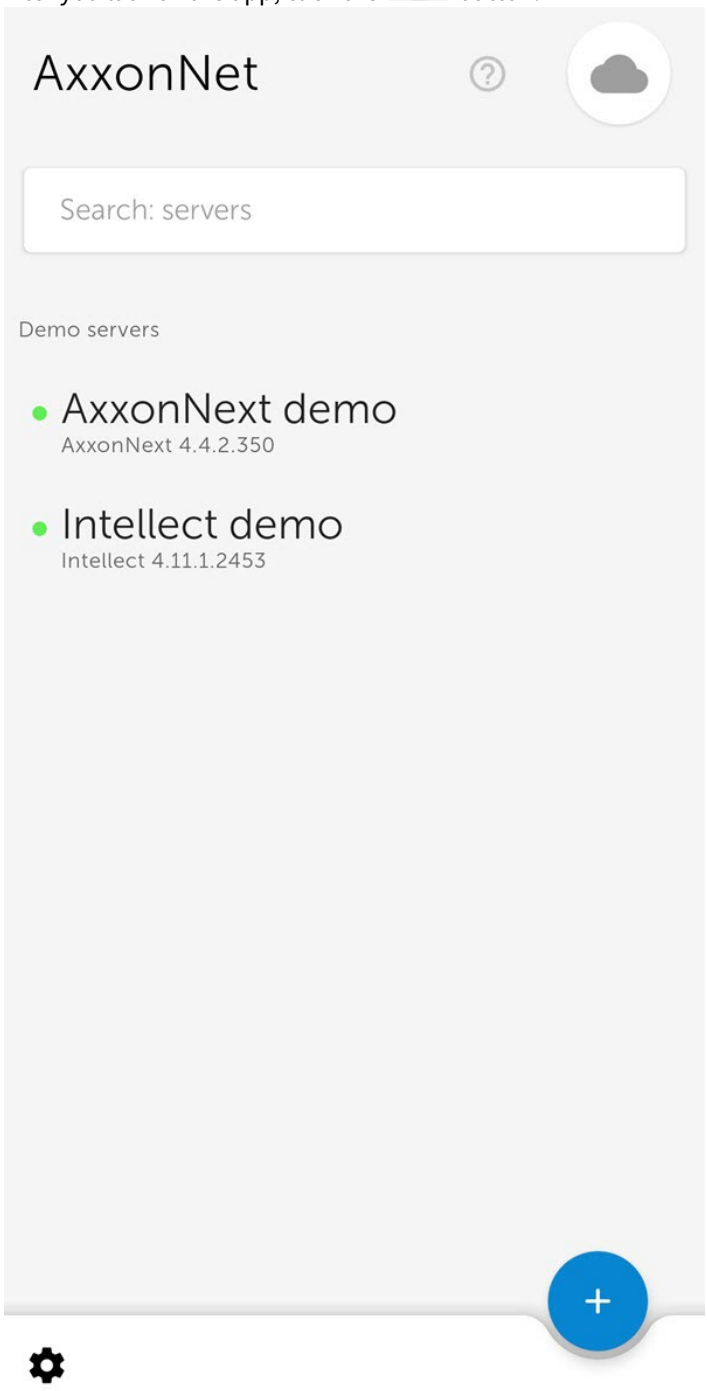
5.2 Connection via AxxonNet in AxxonNet client on Android OS

> For *Axxon Next* only

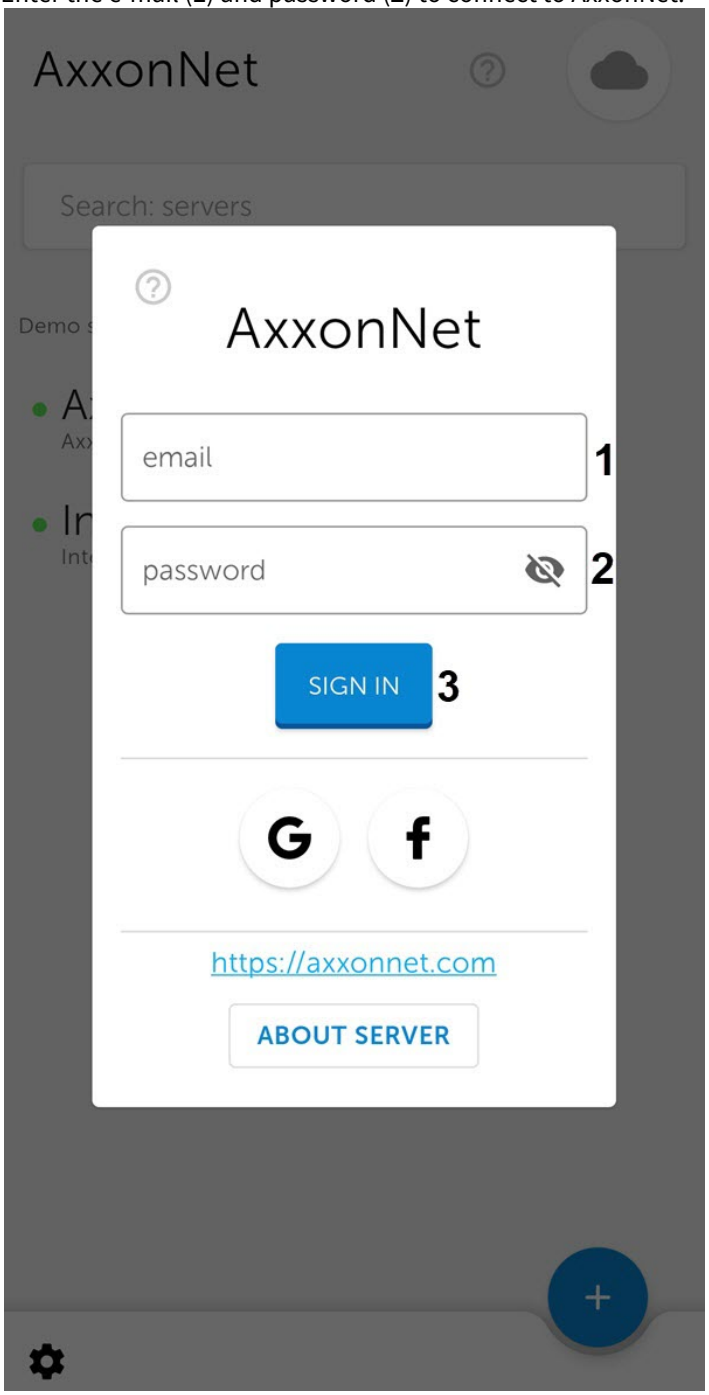
> **Attention!**
>
> Configure the cloud service in order to connect via AxxonNet (see AxxonNet Setup and Operation).

To work via AxxonNet, do the following:

1. After you launch the app, click the button.



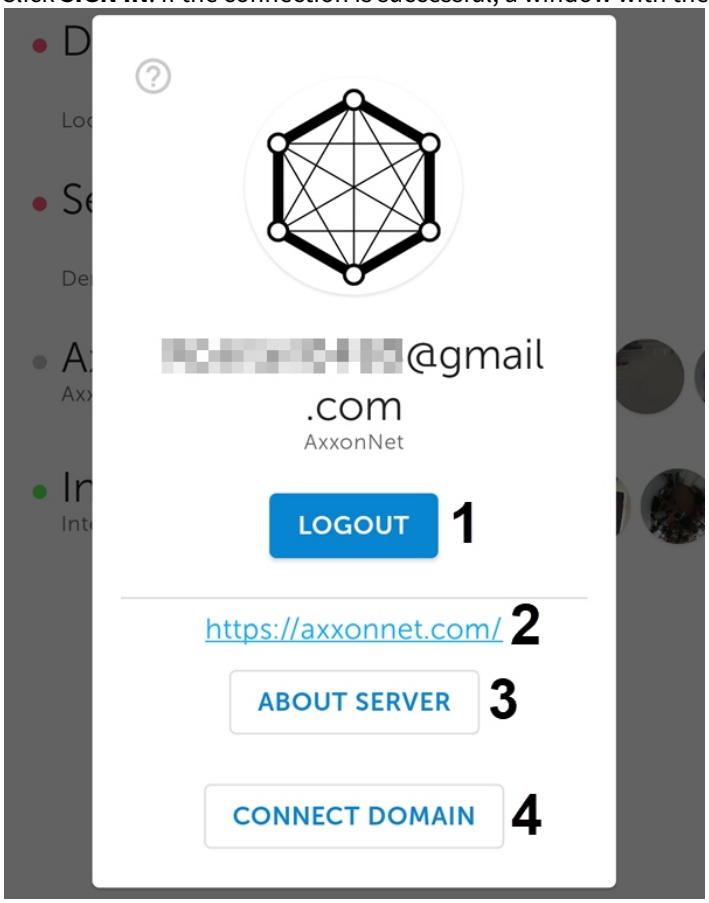
2. Enter the e-mail (**1**) and password (**2**) to connect to AxxonNet.



Note

Signing in to AxxonNet is also possible via Google and Facebook.

3. Click **SIGN IN**. If the connection is successful, a window with the AxxonNet email address will open.



Note

- To exit AxxonNet, click **LOGOUT** (**1**).
- To go to the AxxonNet cloud service website, click the https://axxonnet.com link (**2**).

4. If the Axxon domain is not connected to AxxonNet (see Connecting Axxon Domain to AxxonNet), the token necessary for connecting can be displayed by clicking the **CONNECT DOMAIN** button (**4**). To share the token, click the **SHARE** button (**1**). To close the window, click **OK** (**2**).

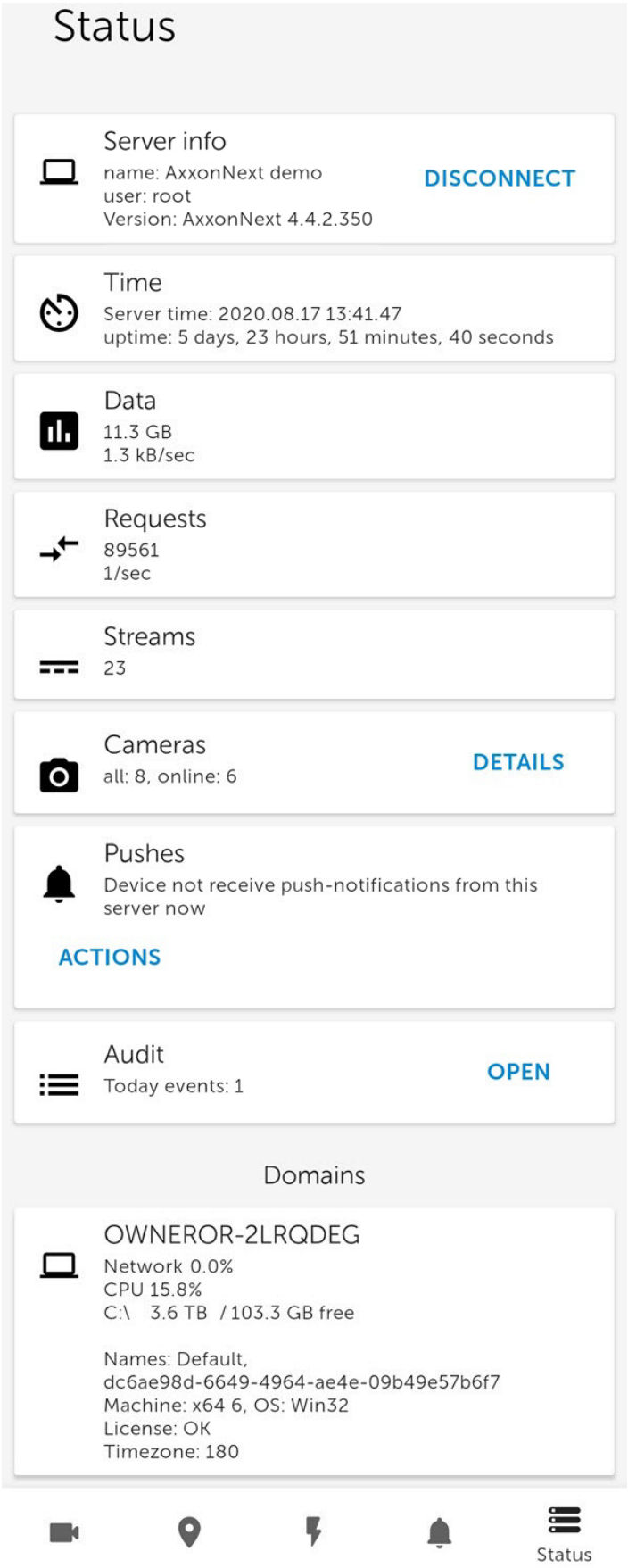
As a result, after successful authorization, the Axxon domains connected to AxxonNet will be displayed in the **Cloud servers** group (see Servers list screen in AxxonNet client on Android OS).

5.3 The Status tab in AxxonNet client on Android OS

The **Status** tab displays the statistics of the connected Server.

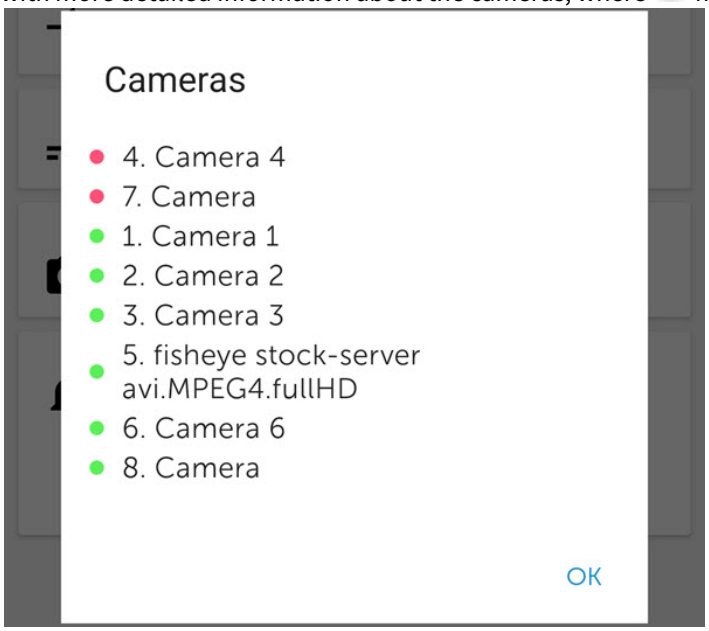
You can also go to the servers list screen from this tab. To do that, click the **DISCONNECT** button in the upper right corner (see Servers list screen in AxxonNet client on Android OS).

When connected to the *Axxon Next* Server, the following information is displayed:

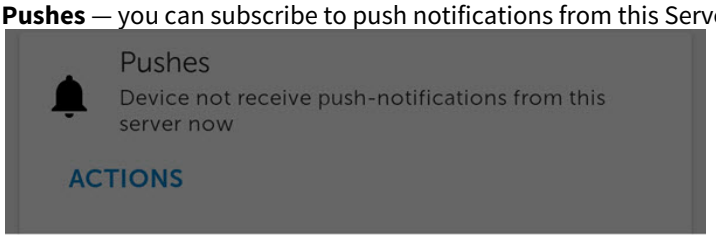


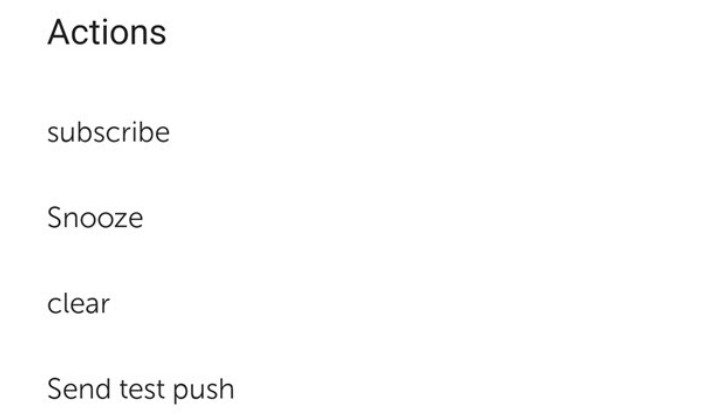
- **Server info** — the Server name and the user name used for connection.
- **Time** — the current Server time and the Server operating time.

- **Data** — the amount of data transferred and the transfer rate.
- **Requests** — the total number of requests to the Server and their rate.
- **Streams** — the number of active streams.
- **Cameras** — the number of cameras on the Server, both online and offline. Click the **DETAILS** button to open a window with more detailed information about the cameras, where 🟢 means online, and 🔴 - offline.



- **Pushes** — you can subscribe to push notifications from this Server. To do this, click the **SUBSCRIBE** button.





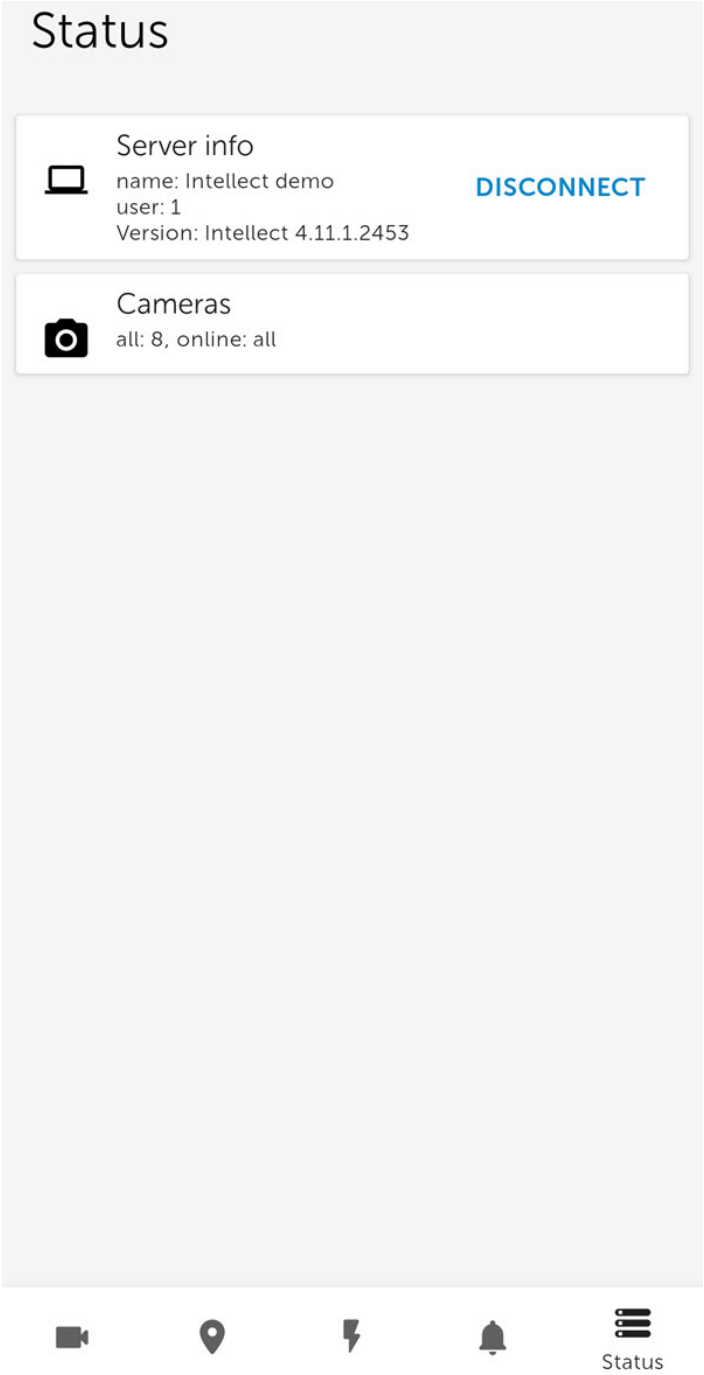
Note

To stop receiving push notifications from this Server, click the **UNSUBSCRIBE** button.

- **Audit**

- **Domains** — the percentage of network and Server CPU load, the amount of total and free disk space on the Server.

When connected to the *Intellect* Server, the following information is displayed:



- **Server info** — the Server name and the user name used for connection.
- **Cameras** — the number of cameras on the Server, both online and offline.

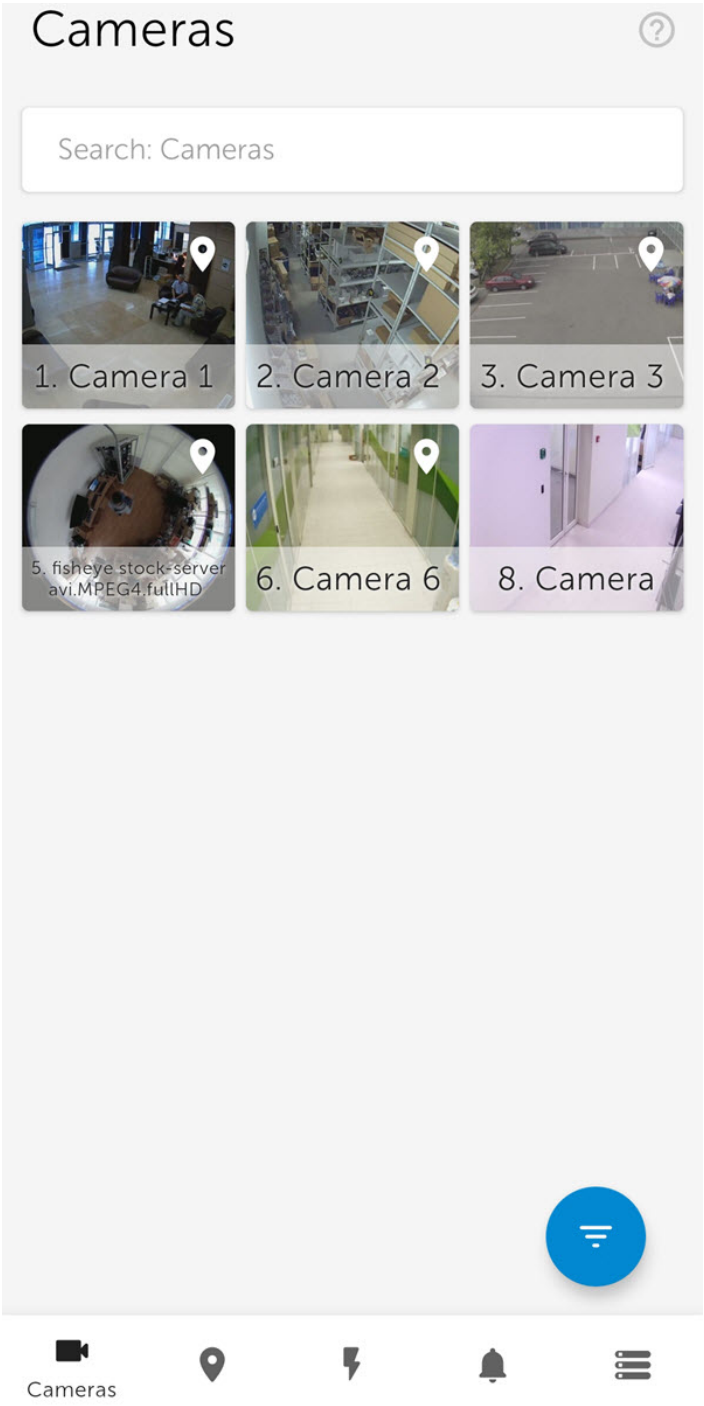
6 Working with video cameras in AxxonNet client on Android OS

6.1 Displaying and searching for cameras in AxxonNet client on Android OS

After the connection to the Server is established, all of the Server's video cameras are displayed on the **Cameras** tab.

> **Note**
>
> The size of the tiles in the multicam can be changed (see Configuring the interface of AxxonNet client on Android OS).

To update the list of video cameras, for example, if the Server configuration is changed, use the "swipe down" gesture. Also, if the display of live video on tiles is disabled in the app settings, then the preview frames will be updated in the multicam.

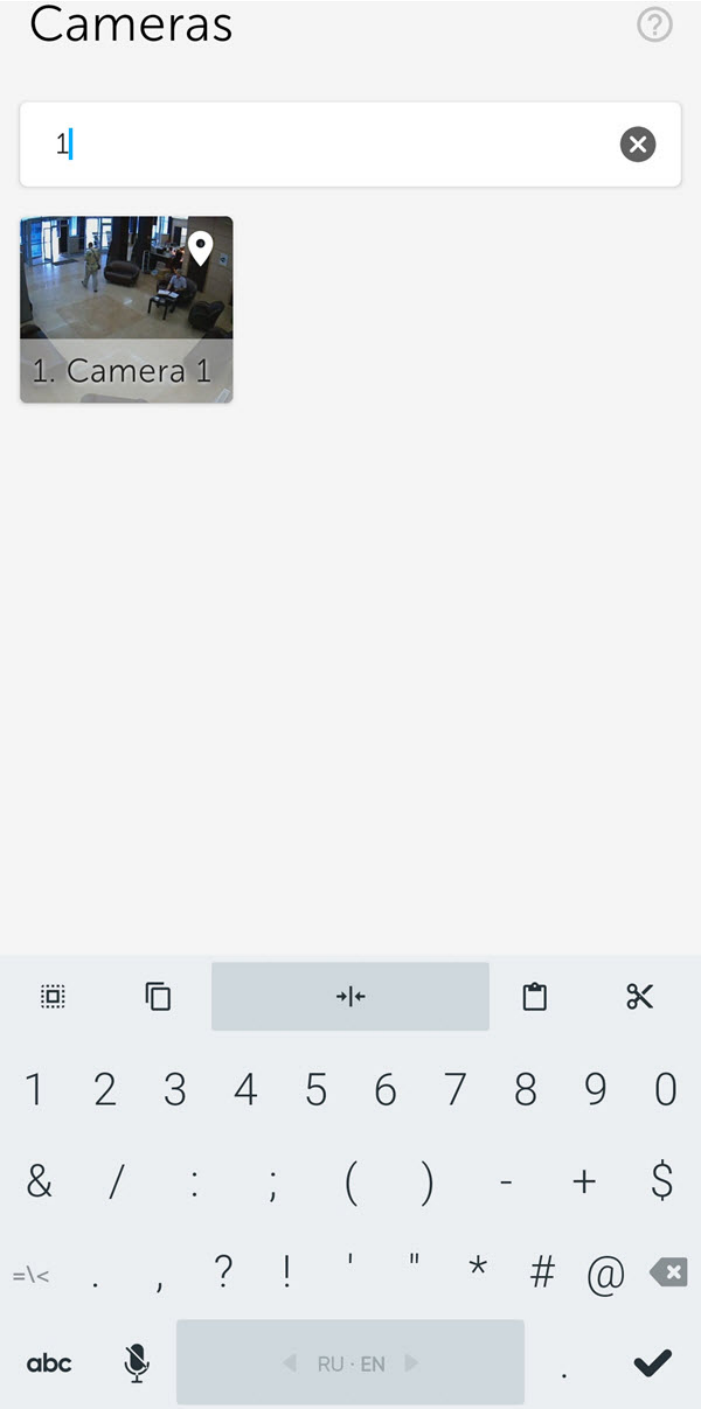


Note

When connecting to the *Axxon Next* Server, for the cameras with multistream support, the stream with the lowest resolution is displayed in the multicam by default.

When connecting to the *Intellect* Server, the video cameras display the video stream that is specified on the **Web-server** object settings panel in the **Video stream** setting (see Bulk selecting and configuring cameras for Web-server).

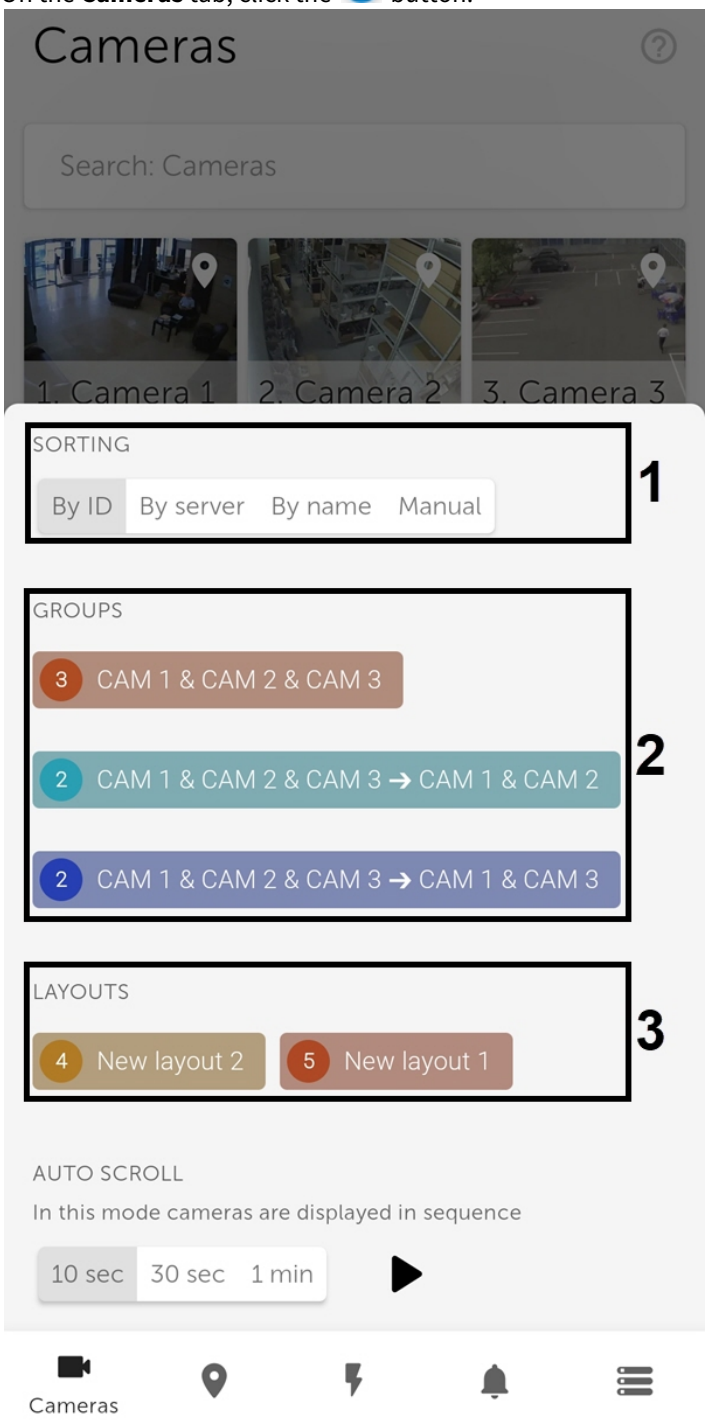
To search (filter) the cameras, enter the part or the full name of the camera in the **Search: Cameras** field.



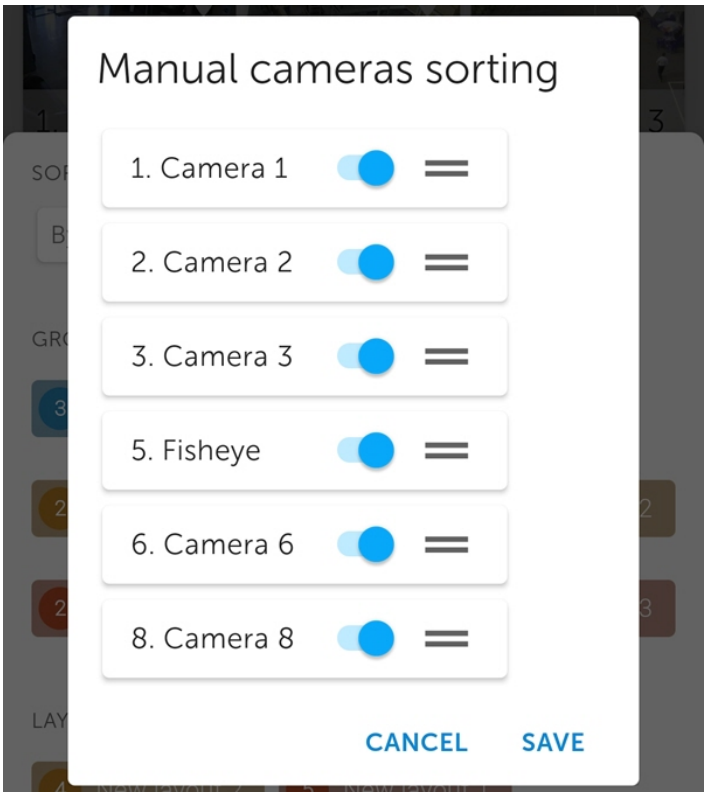
6.1.1 Sorting the cameras in AxxonNet client on Android OS

You can sort the cameras as follows:

1. On the **Cameras** tab, click the button.



2. Select the required way of camera sorting:
   a. **By ID**;
   b. **By server**;
   c. **By name**;
   d. **Manual** - when this item is selected, the button will be displayed next to it; clicking on it to open the **Manual cameras sorting** window.



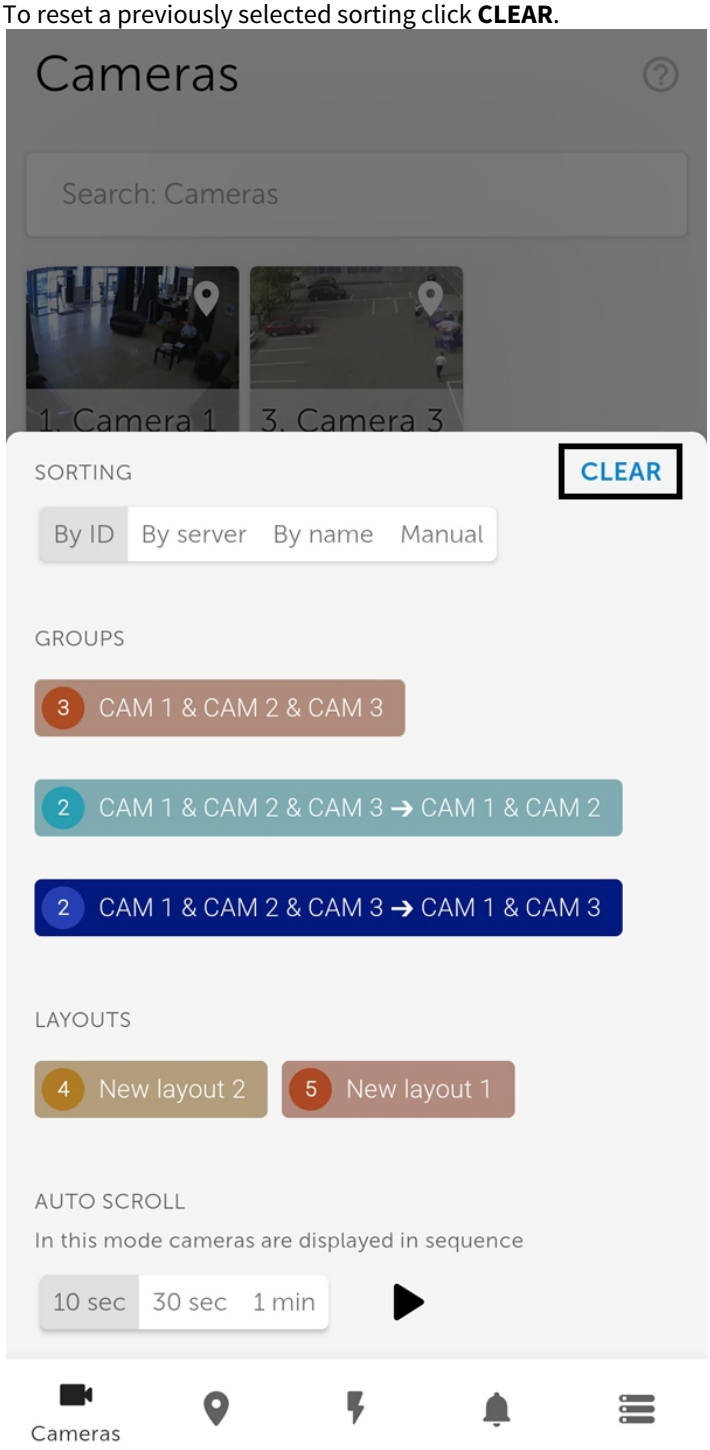
- To hide/show the video camera in the multicam, click on the slider next to it.
- To change the cameras order, click on the name of the corresponding camera and, without releasing it, drag it higher or lower in the cameras list.
- To save the sorting, click **SAVE**.

3. To display the cameras of a certain group (in *Axxon Next*, see Configuring video camera groups) or a region (in *Intellect*, see Examples of using areas and regions), select the required group or region (**2**).

> **Note**
>
> The arrow " → " denotes the hierarchy of the group on the Server.

4. To display the cameras of a certain layout (in *Axxon Next*, see Configuring Layouts) or a monitor (in *Intellect*, see Configuring video display on Video Surveillance Monitor), select the required layout or monitor (**3**).

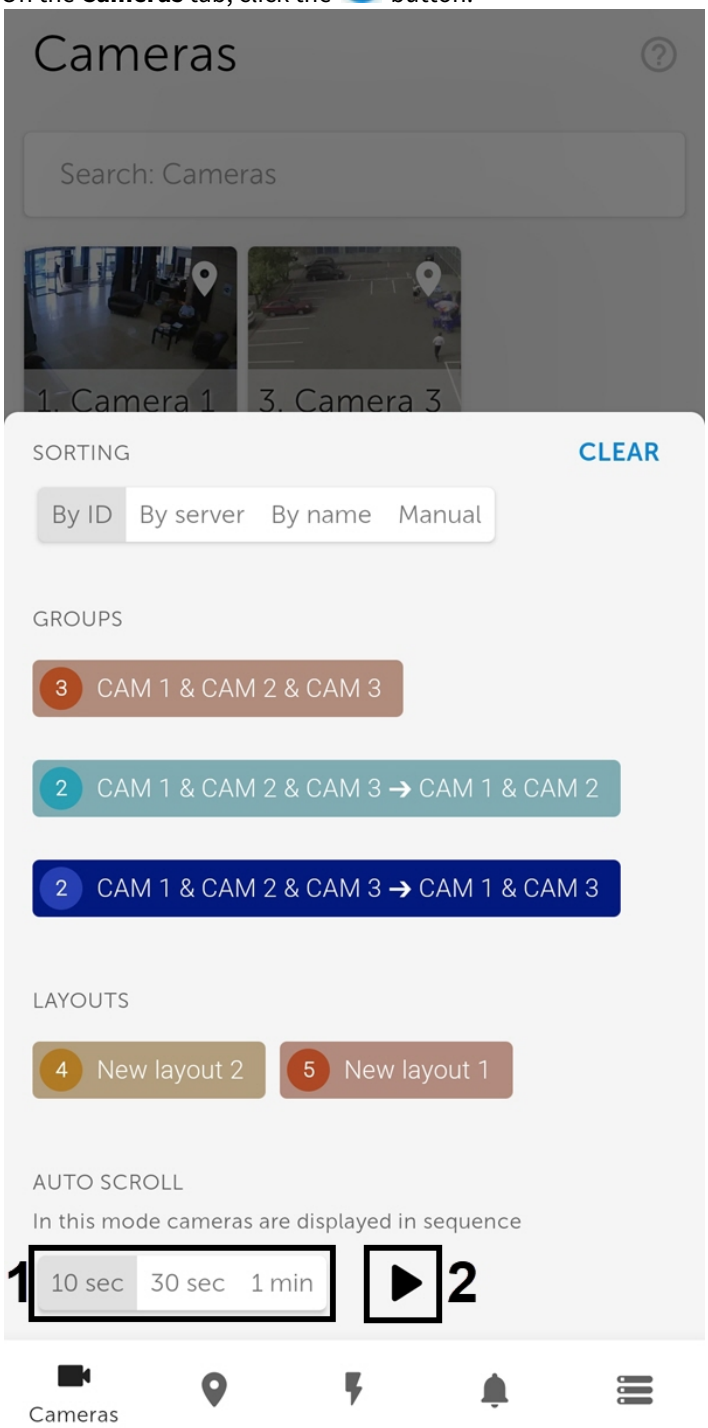
5. To reset a previously selected sorting click **CLEAR**.



6.1.2 Auto-scrolling of cameras

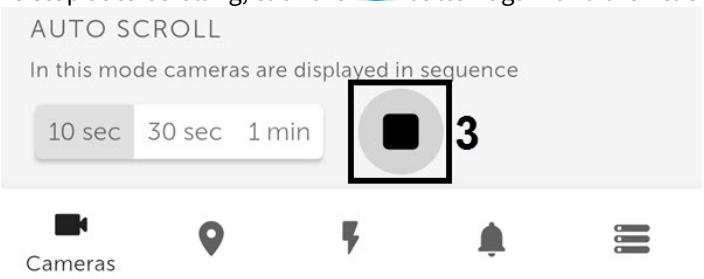
Configure the auto-scrolling of cameras as follows:

1. On the **Cameras** tab, click the button.



2. Select the period during which the camera will be displayed before switching to the next camera:
   - **10 sec**;
   - **30 sec**;
   - **1 min**.
3. Click the button (**2**) to start the auto-scrolling of the cameras.

4. To stop auto-scrolling, click the button again and then click the button (**3**).



6.2 Viewing live video in AxxonNet client on Android OS

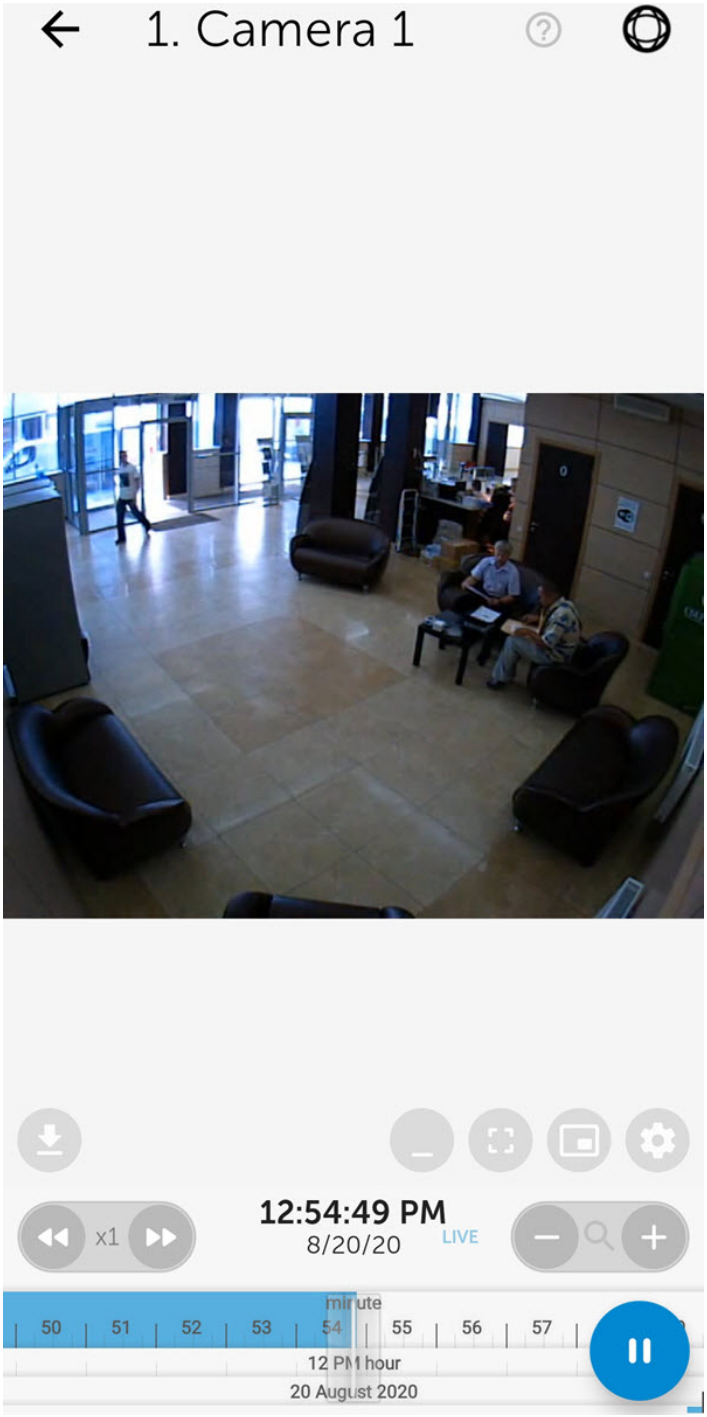
On this page:

- Overview
- Live video playback settings
- Live video controls

6.2.1 Overview

To view the live video, select the necessary camera.

As a result, a a viewing tile for the camera opens. You can switch to a neighboring camera by swiping left or right on the screen. The cameras are scrolled on a loop, taking into account their current sorting and filtering (see Displaying and searching for cameras in AxxonNet client on Android OS).

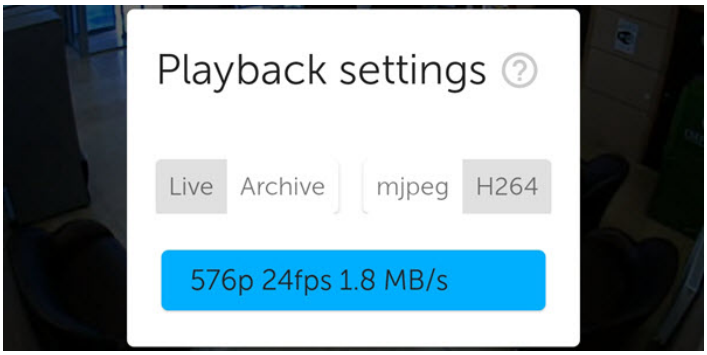


Note

If the **mjpeg** playback format is selected and the captioner is configured for a camera in *Intellect* (see The Captioner object setup), then the captions will be displayed over the video image on the screen. The captions can be scrolled if there are many of them and they all do not fit on the screen.

6.2.2 Live video playback settings

To select a playback format, video stream or video resolution, click the button. By default, the **Live** tab will be displayed for configuring live video playback.



The list of available playback formats depends on the Server configuration:

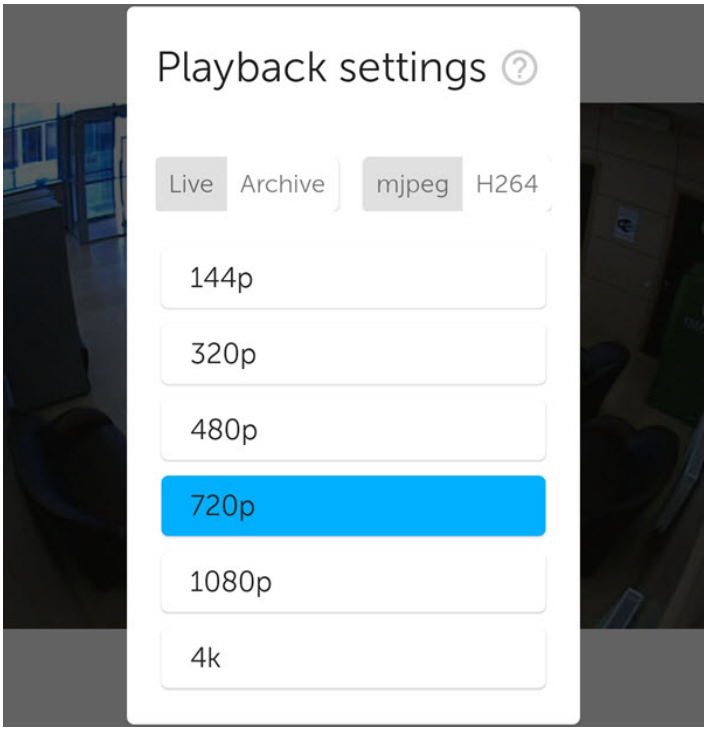
- **mjpeg** - always available, the most resource-intensive;
- **H.264**, **H.265** (mp4) - available only when connected to the *Axxon Next* Server. To ensure the operation of this playback format, it is necessary to configure the RTSP Server (see Configuring an RTSP Server).
- **RTSP** (mp4) - available only when connected to the *Intellect* Server. To ensure the operation of this playback format, it is necessary to configure the RTSP Server (see Configuring RTSP Server module).

> **Note**
>
> Switching the playback format on the *Intellect* Server takes 8-9 seconds. On the *Axxon Next* Server, the playback format switches without delay.

If the **H.264**, **H.265** (mp4) playback method is selected when connecting to the *Axxon Next* Server, then you can select the required video stream on the **Live** tab.

> **Attention!**
>
> Video stream selection is not available on the *Intellect* Server connection.

If the **mjpeg** playback format is selected, then you can select the required resolution on the **Live** tab.



6.2.3 Live video controls

If the camera has a microphone and a playback format other than **mjpeg** is selected, the audio from the camera will be played.

To disable audio from the camera, click the button, to enable it, click .

To view the video in full screen, click the button. To return, click anywhere on the screen.

To view the video in picture-in-picture mode, click the button. To return to viewing the video in normal mode, click on the floating window with the video.

To minimize the video controls, click the button. In this mode, you can view the archive (see Viewing the video archive in AxxonNet client on Android OS).

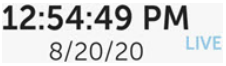
To return to the list of cameras, click the button or Back on the mobile device.

6.3 Viewing the video archive in AxxonNet client on Android OS

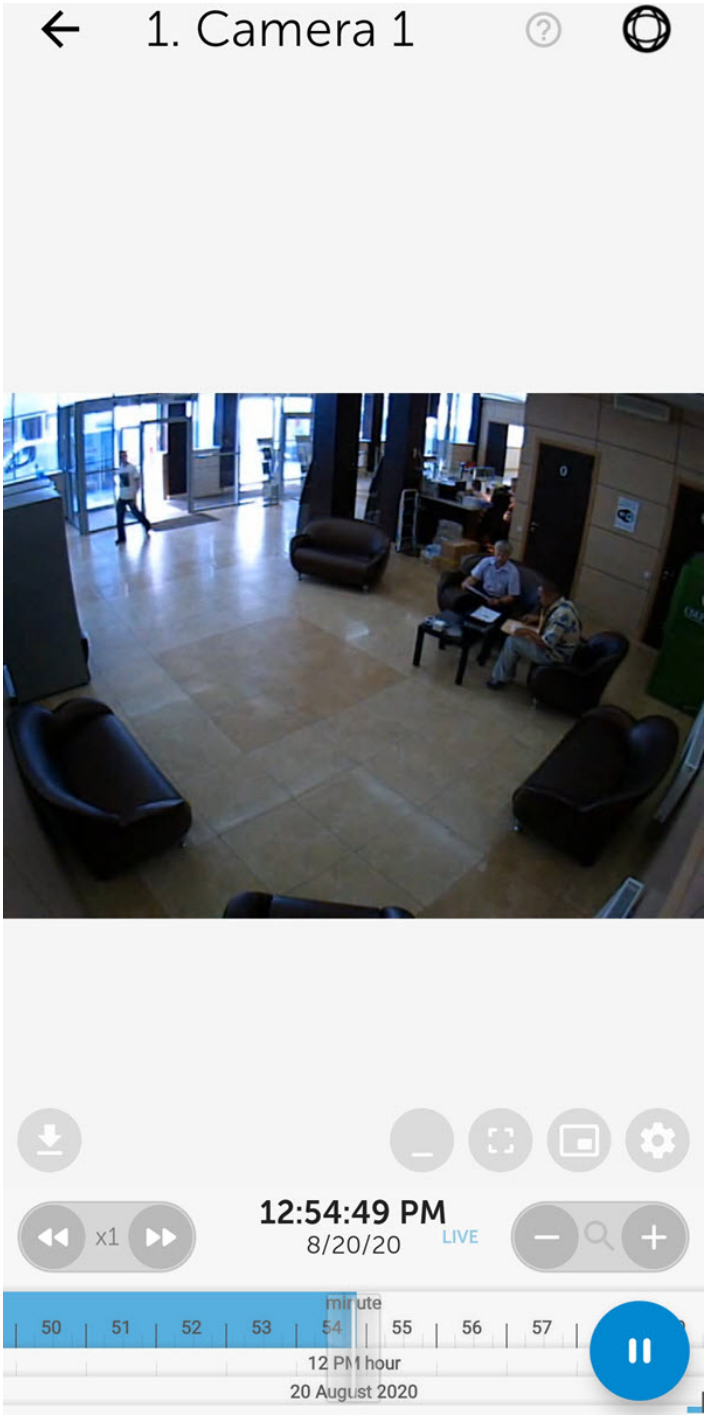
On this page:

- Overview
- Archive video playback settings
- Archive video controls

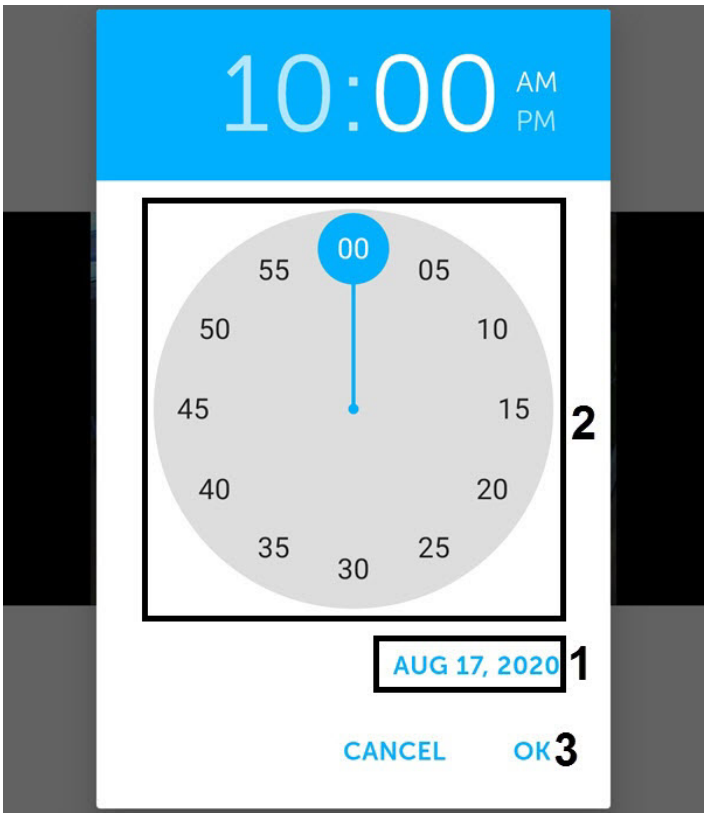
6.3.1 Overview

To go to the exact timestamp in the archive, click on the date and time in the live video 

.



As a result, a window will open. In this window, select the date (**1**) and the exact time (**2**). To go to the selected time, click the **OK** button (**3**).



Note

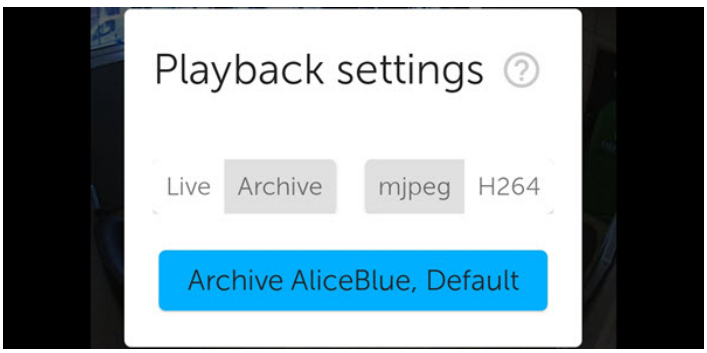
If there is no archive record for the specified point in time, you will be positioned to the nearest moment in the archive towards the increase in time.

6.3.2 Archive video playback settings

To select the playback format and the archive to view, click the 12:54:49 PM 8/20/20 LIVE button. Go to the **Archive** tab to configure archive video playback.

The **mjpeg** playback format can be used to view the archive from any Server. When connecting to *Axxon Next* Server version 4.2.0.7697 and higher, viewing the archive is also possible using the **H.264**, **H.265** (mp4) playback format. For details on playback formats, see Viewing live video in AxxonNet client on Android OS.

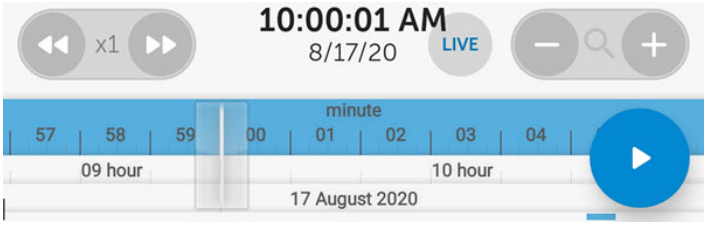
If the video from the camera is recorded to several archives, then on the **Archive** tab, you can select the required archive for viewing.



6.3.3 Archive video controls

Use the following buttons to control the playback: - pause, - play.

You can navigate through the archive using the timeline at the bottom of the screen. Do it by by swiping left and right on the timeline.



You can change the timeline scale by using the buttons or by using two fingers to pinch in/out the timeline. You can also zoom in on the timeline by double-tapping the timeline.

It is possible to speed up, slow down, and also change the direction (forward/reverse) of playback using the

buttons. The current playback speed is displayed between the buttons. During a reverse playback, a **-** sign is displayed before the speed rate.

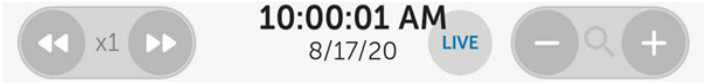
> **Note**
>
> Speeding up the playback is available only on the *Axxon Next* server connection and if the **mjpeg** video playback format is selected.

When you move to the next camera using the "swipe left" or "swipe right" gesture, the time in the archive will be set to the same time that was set on the previous camera.

To minimize the video controls, click the button. In this mode, the following archive management functions are available:

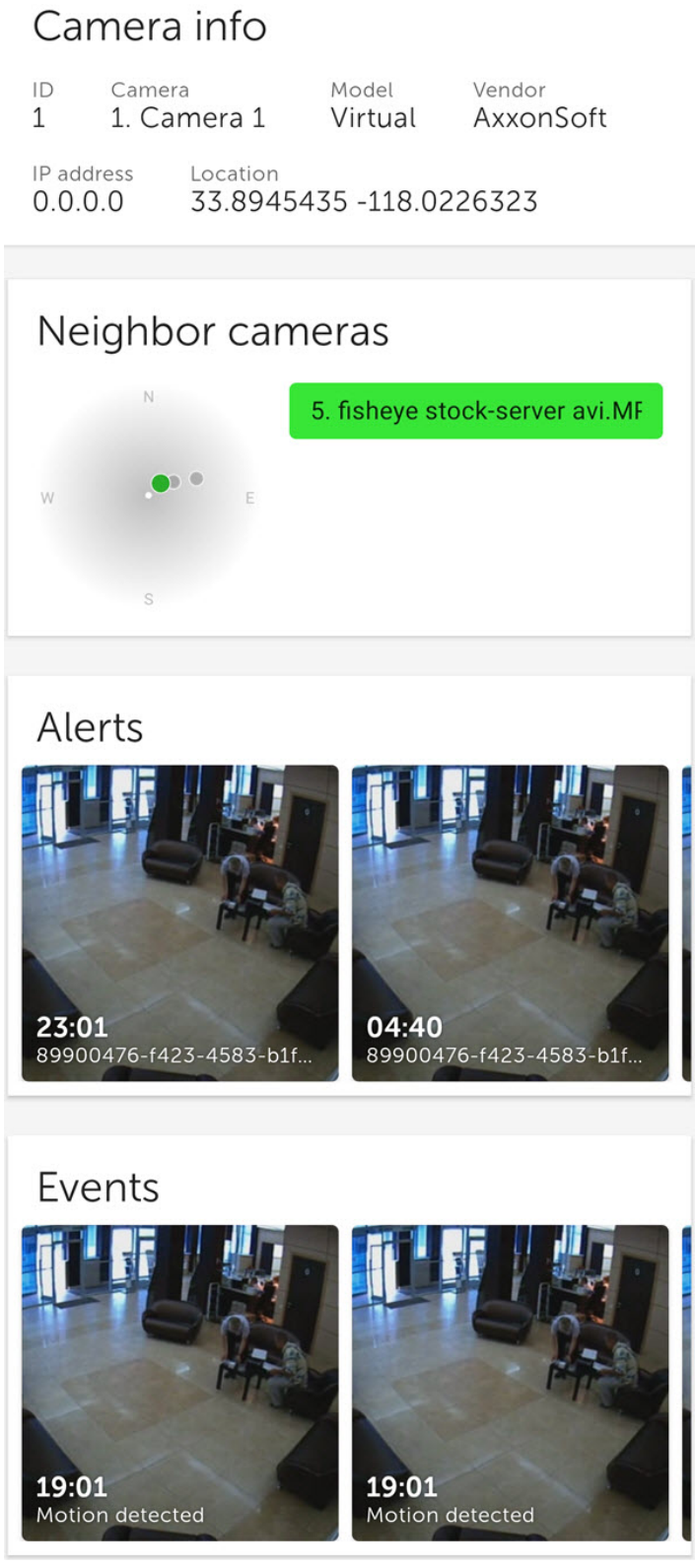
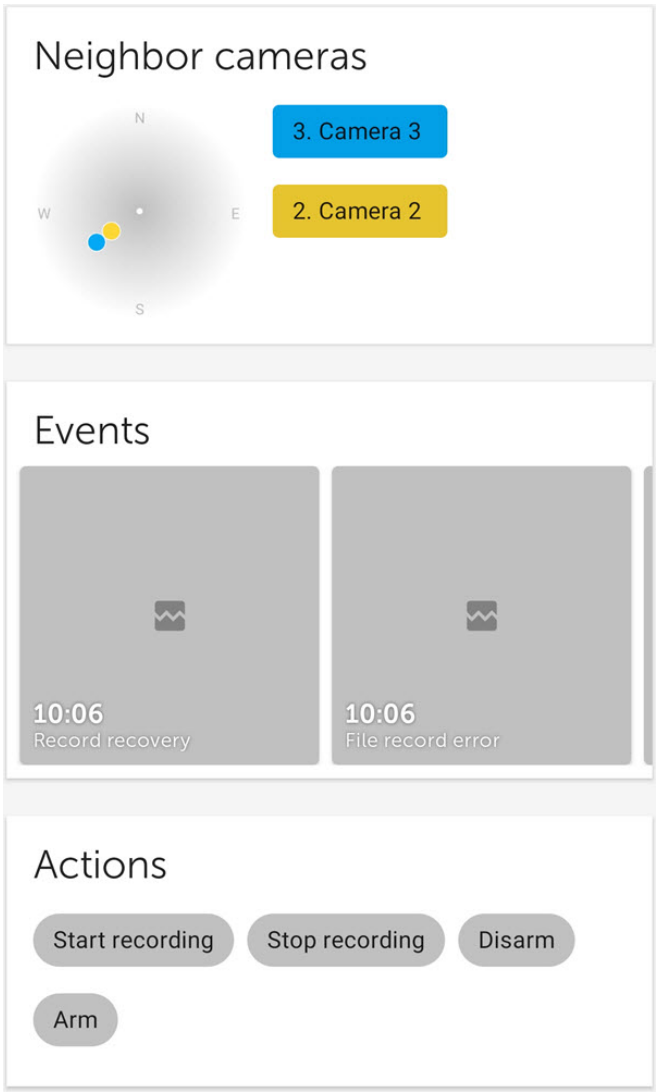
- **1** - go to the first archive record.
- **2** - move back 10 seconds.
- **3** - pause or start playback.
- **4** - move forward 10 seconds.
- **5** - go to the last archive record.
- **6** - time of the live or archive video.

To return to viewing live video, click the **LIVE** button.



6.4 Viewing the camera info in AxxonNet client on Android OS

To view the camera information, swipe up on the screen. As a result, the window with the video moves up and the following sections become available depending on the connected Server:

Axxon Next Server	*Intellect* Server
	

<table>
<tr><th>Axxon Next Server</th><th>Intellect Server</th></tr>
<tr><td>The following information is displayed the Camera info section:
Camera ID;
Camera name;
Camera model;
Vendor;
IP address;
Camera location.</td><td>The Actions section displays the macros available for this camera (see Executing macros in AxxonNet client on Android OS).</td></tr>
<tr><td colspan="2">The nearest cameras are displayed in the Nearby cameras section:
When you select a camera from the list of nearby cameras, it will switch to viewing live video from the corresponding camera (see Viewing live video in AxxonNet client on Android OS);
When you click on the micro-map, you will be redirected to the geo-map with the nearest cameras displayed on it (see Working with geomaps in AxxonNet client on Android OS).
Note
The dot color on the micro-map corresponds to the camera color in the list of nearby cameras. Gray dots on the micro-map indicate other cameras which get into the field of view.</td></tr>
<tr><td colspan="2">The Events section displays the last 60 events for this camera. When you scroll through the list of events, the new events will be loaded by a group of 20 events.
When you select the corresponding event, the event panel will be displayed (see Viewing the event in AxxonNet client on Android OS).</td></tr>
<tr><td>The Alerts section displays the last 60 alarms for this camera. When you scroll through the list of alarms, the new alarms will be loaded by a group of 20 alarms.
When you select the alarm, the event panel will be displayed (see Viewing the event in AxxonNet client on Android OS).</td><td></td></tr>
</table>

Note

The **Events** and **Alerts** sections are not displayed if the **Events and alerts in onecam** checkbox is not set in the settings (see Configuring debugging in AxxonNet client on Android OS).

6.5 Digital zoom in AxxonNet client on Android OS

You can use digital zoom in both live video and archive view modes.

To zoom in, pinch the video with two fingers.

Note

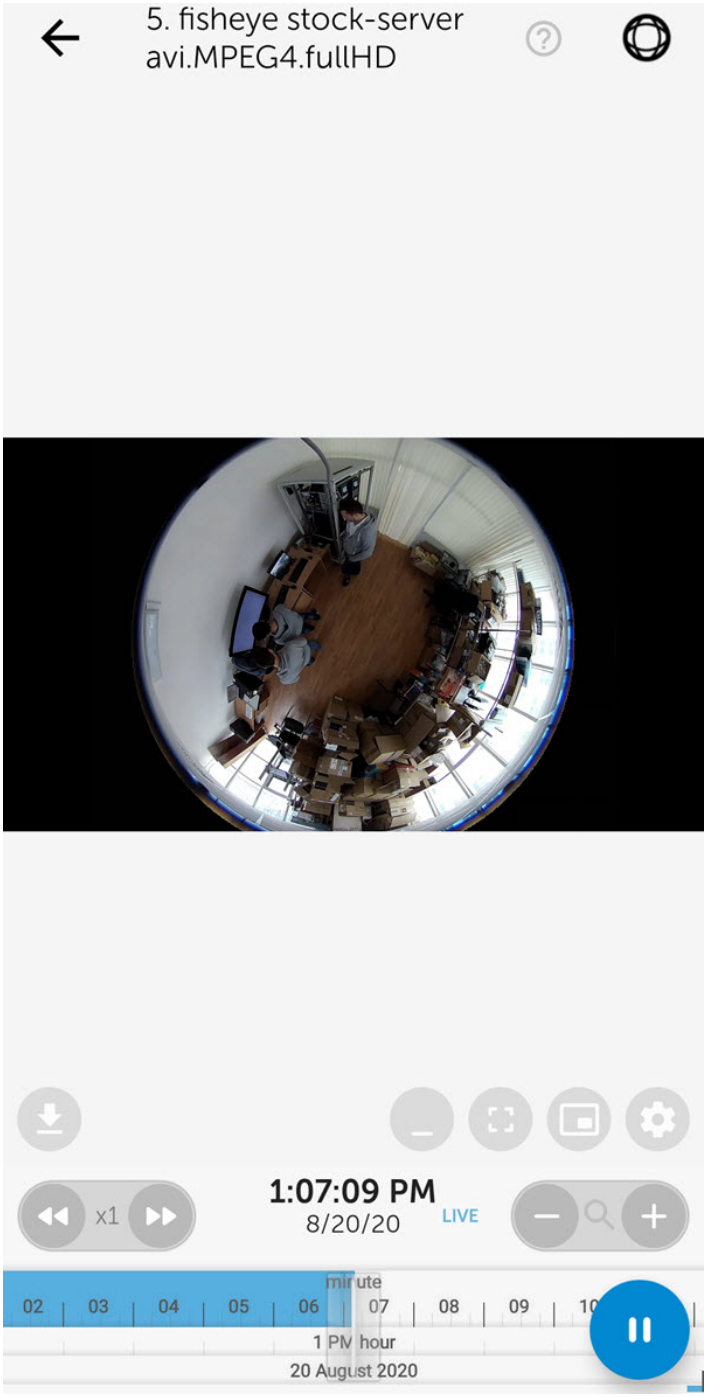
If it is not a PTZ camera, then you can also zoom in by double-tapping on the screen.

Video cannot be made smaller than its original size. You can zoom in up to 16x size.

To select the visible part of the frame when the video is zoomed in, move your finger beyond the video viewing area. The step and area of the image that is currently being viewed is displayed.

6.6 Working with fisheye cameras in AxxonNet client on Android OS

By default video from fisheye cameras is displayed as a 360^{0} panorama. To go to the virtual PTZ format, click the button.



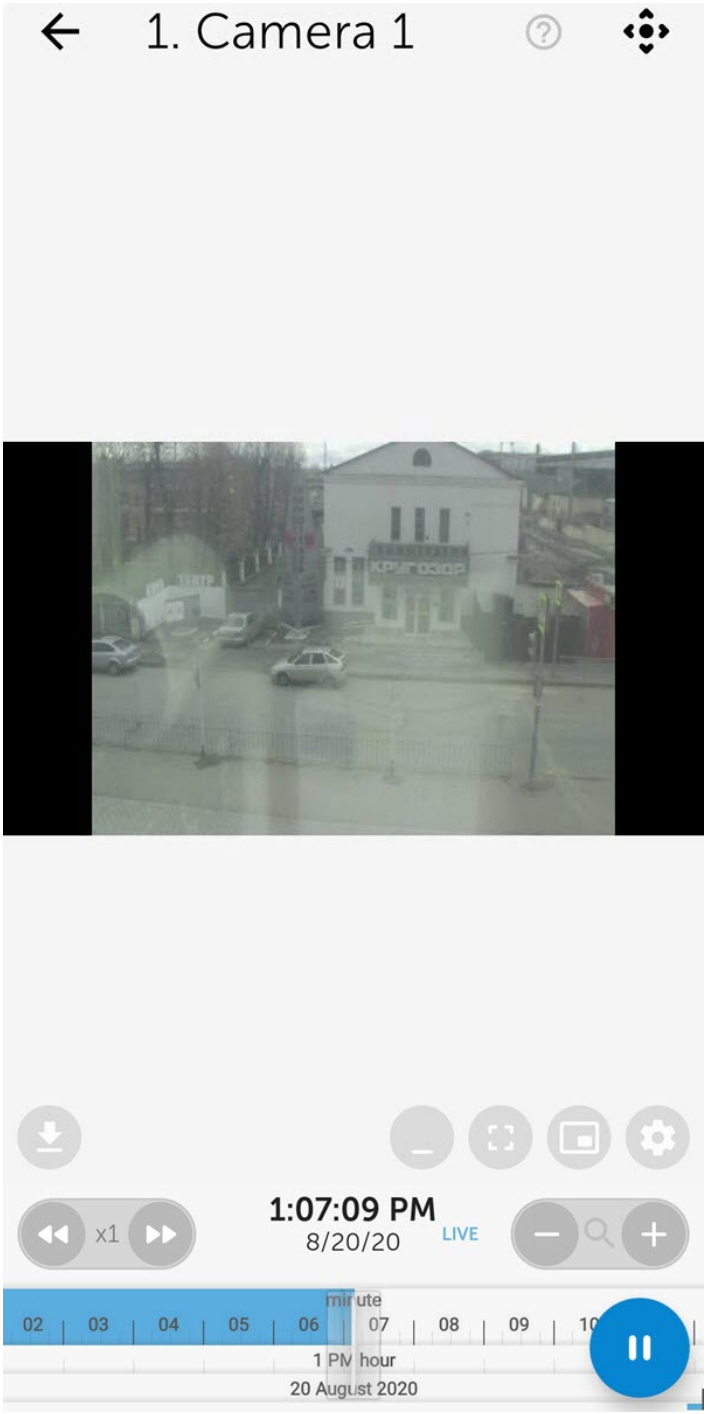
Zoom control in virtual telemetry mode is performed by stretching/pinching the image with two fingers.

To exit virtual telemetry mode, click the button.

6.7 Controlling PTZ cameras in AxxonNet client on Android OS

You can control PTZ cameras. To do this, go to viewing the video from the PTZ camera and click the button in the upper right corner.

> **Note**
>
> When you switch to PTZ camera control, the **mjpeg** playback format will be automatically selected and the video image quality will be reduced.



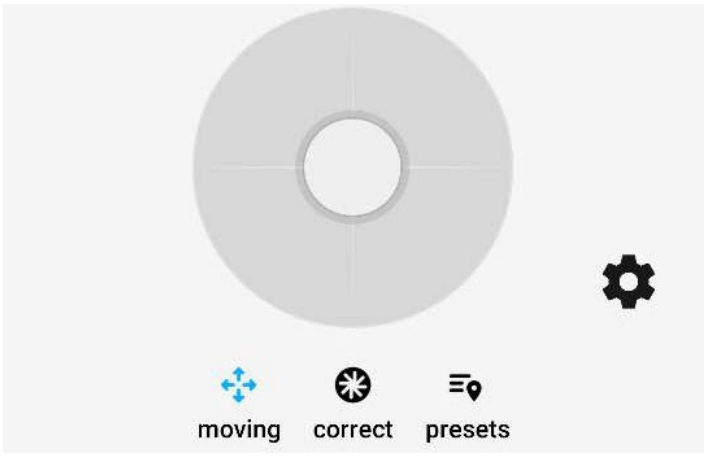
As a result, the PTZ control panel will be displayed at the bottom of the screen.

On this page

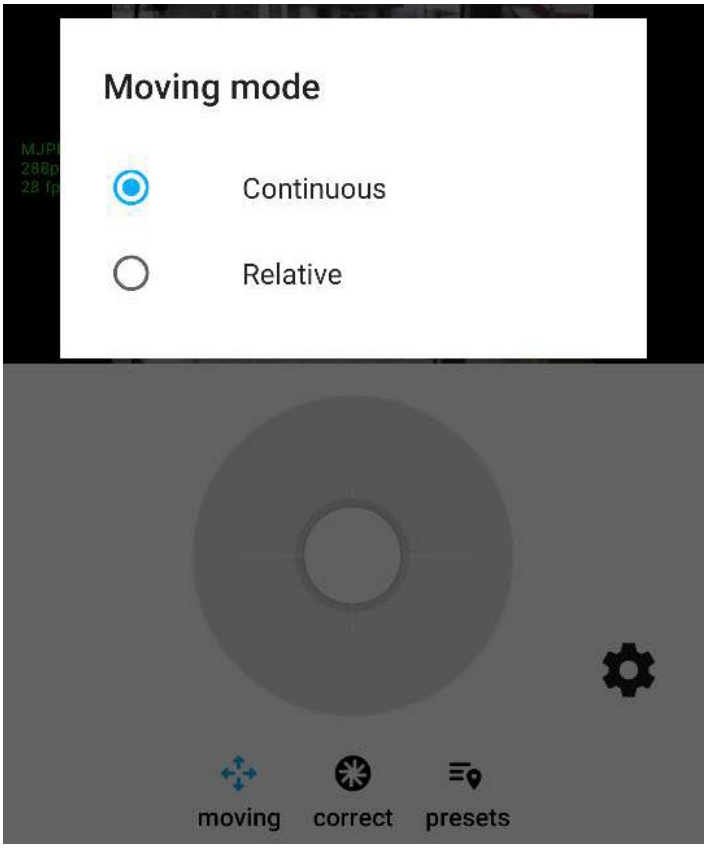
- Controlling the PTZ camera
- Scale correction
- Presets
- Exit the PTZ control

6.7.1 Controlling the PTZ camera

To control the camera, click the **Moving** button . Use the gray circle that simulates the movement of the joystick to point the camera lens to the required position.



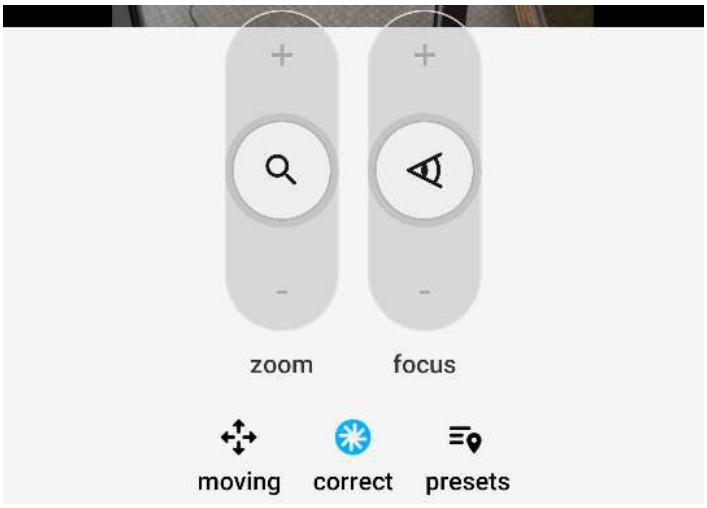
To change the control mode, click the button and select one of the modes:



- **Continuous** - continuous camera movement.
- **Relative** - relative camera movement.

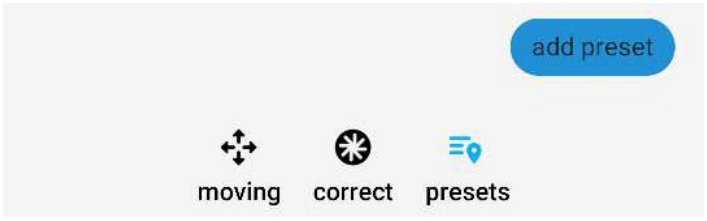
6.7.2 Scale correction

To zoom in/out the video, click the **Correct** button . Use the **Zoom** slider to zoom in or out on the video. Use the **Focus** slider to focus the video image.

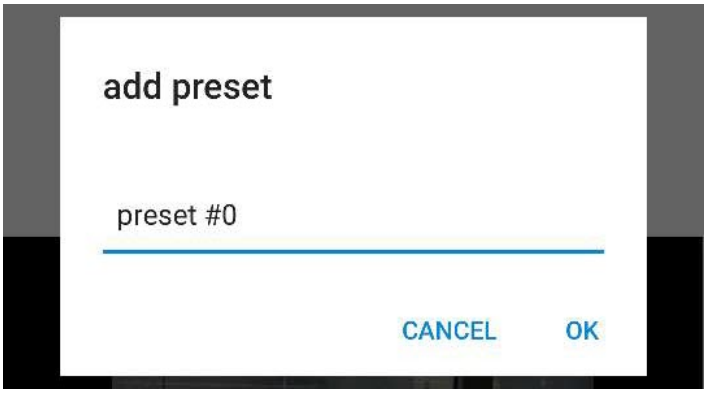


6.7.3 Presets

To go to the list of presets for the camera position, click the **Presets** button . If there are any presets, they will be displayed.



To save the current preset, click the **Add preset** button. In the window that opens, enter the name of the preset and click **OK**.



6.7.4 Exit the PTZ control

After you complete working with the PTZ camera, click the button. As a result, the PTZ control panel will be hidden.

6.8 Exporting an image or video in AxxonNet client on Android OS

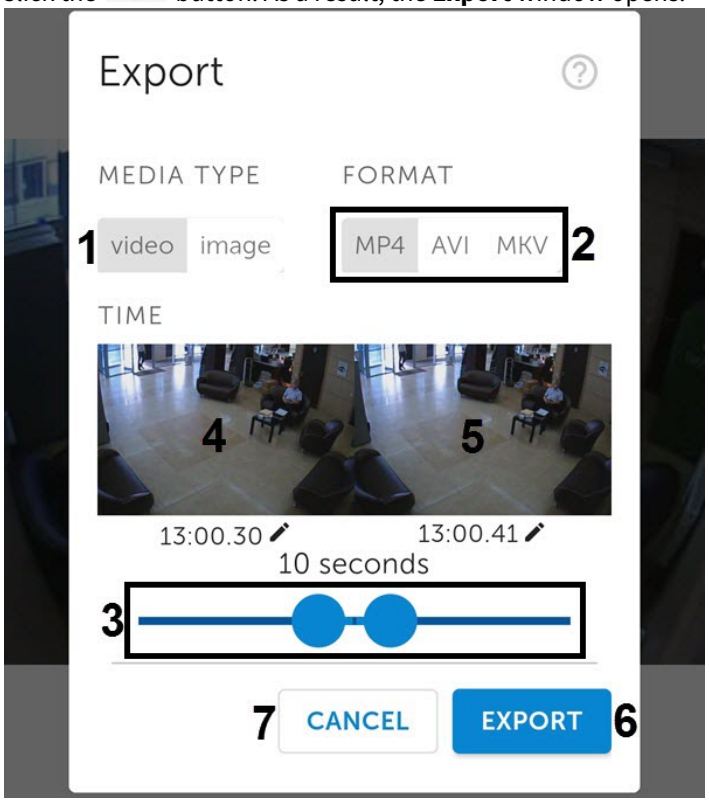
6.8.1 Exporting a video in AxxonNet client on Android OS

Attention!

The video export is only available when connected to the *Axxon Next* Server.

To export video, do the following in the live or archive viewing mode:

1. Click the button. As a result, the **Export** window opens.



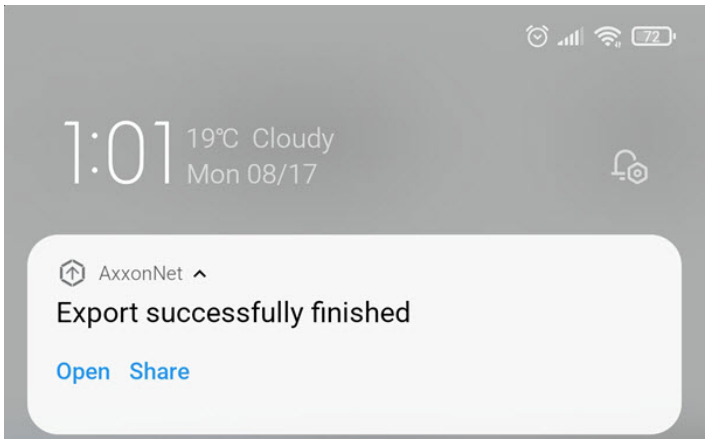
2. Click the **Video** button (**1**).
3. Using the slider (**2**), select the video fragment to be exported (using the slider, you can select a video fragment from no later than 2 minutes from the current time).
4. To select an arbitrary fragment, click on the video image (**3**) and select the video start time in the appeared window. Similarly, select the video end time by clicking on the image (**4**).

> **Note**
>
> If a long video fragment is selected, a message will appear that the export will take a long time. It is not recommended to export videos longer than 2 minutes.

5. Click the **Export** button (**5**) to start exporting the video.

> **Note**
>
> To cancel the video export, click **Cancel** (**6**).

6. As a result, the video export progress will be displayed in the notification panel. To cancel the video export, click **Cancel** on the **AxxonNet** notification.
   After the video has been exported, the export status will be displayed.



Attention!

The video is exported to the following path: /Internal memory/Movies/Axxon/. The information about the archive date, Server name and video camera name will be added to the video.

7. To view the video, click the **Open** button on the **AxxonNet** notification.
8. To share the video, click the **Share** button on the **AxxonNet** notification.

The video export is complete.

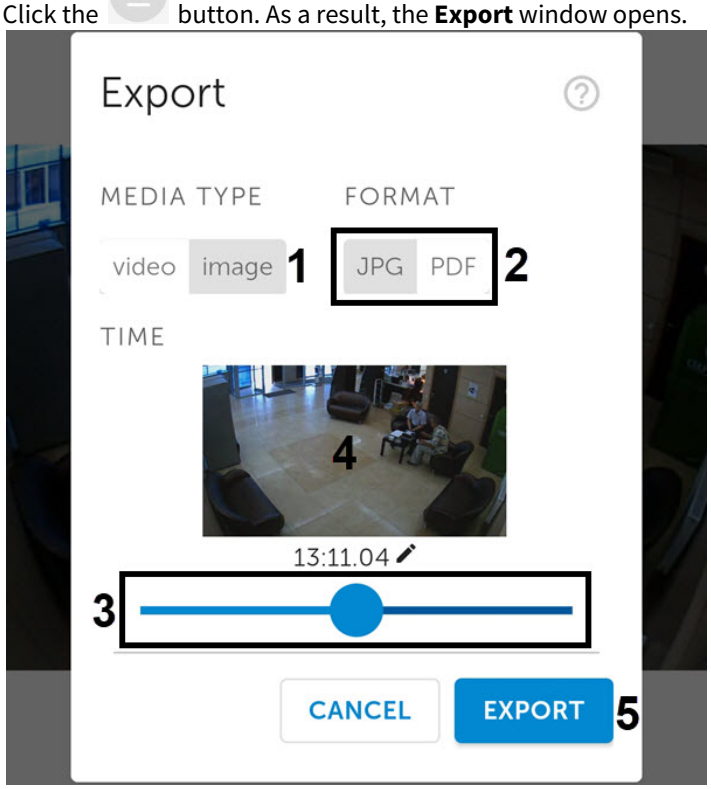
6.8.2 Exporting an image in AxxonNet client on Android OS

Attention!

The video export is only available when connected to the *Axxon Next* Server.

To export video, do the following in the live or archive viewing mode:

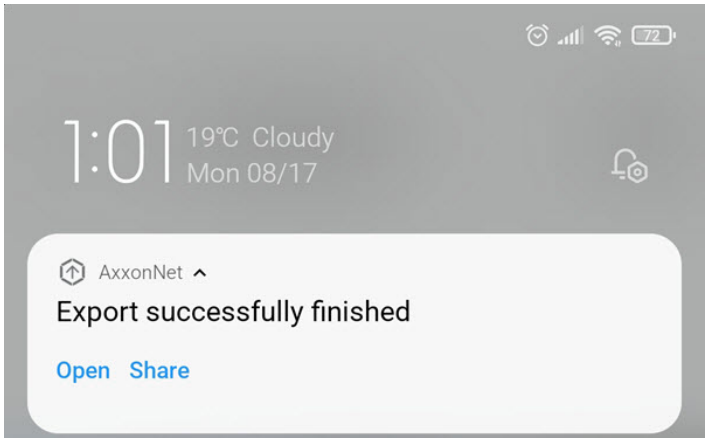
1. Click the button. As a result, the **Export** window opens.



2. Click on the **Image** button (**1**).
3. Using the slider (**2**), select the timepoint of the image to be exported (using the slider, you can select a timepoint from no later than 2 minutes from the current time).
4. To select an arbitrary timepoint, click on the image (**3**) and select the timepoint in the appeared window.
5. Click the **Export** button (**4**) to start exporting the image.

> **Note**
>
> To cancel the image export, click **Cancel** (**5**).

6. As a result, the image export progress will be displayed in the notification panel. To cancel the image export, click **Cancel** on the **AxxonNet** notification.
   After the image has been exported, the export status will be displayed.



Attention!

The image is exported to the following path: /Internal memory/Pictures/Axxon/. The information about the date (the current date if the image was exported in the live view mode, or the archive date), the Server name and the video camera name will be added to the image.

7. To view the image, click the **Open** button on the **AxxonNet** notification.
8. To share the image, click the **Share** button on the **AxxonNet** notification.

The image export is complete.

7 Working with maps in AxxonNet client on Android OS

The following maps are available in AxxonNet client on Android OS:

1. *Intellect* maps (see Configuring the interactive map for object state indication and controlling the objects).
2. Google and OpenStreetMap geomaps (see Configuring geomaps in AxxonNet client on Android OS).

7.1 Working with geomaps in AxxonNet client on Android OS

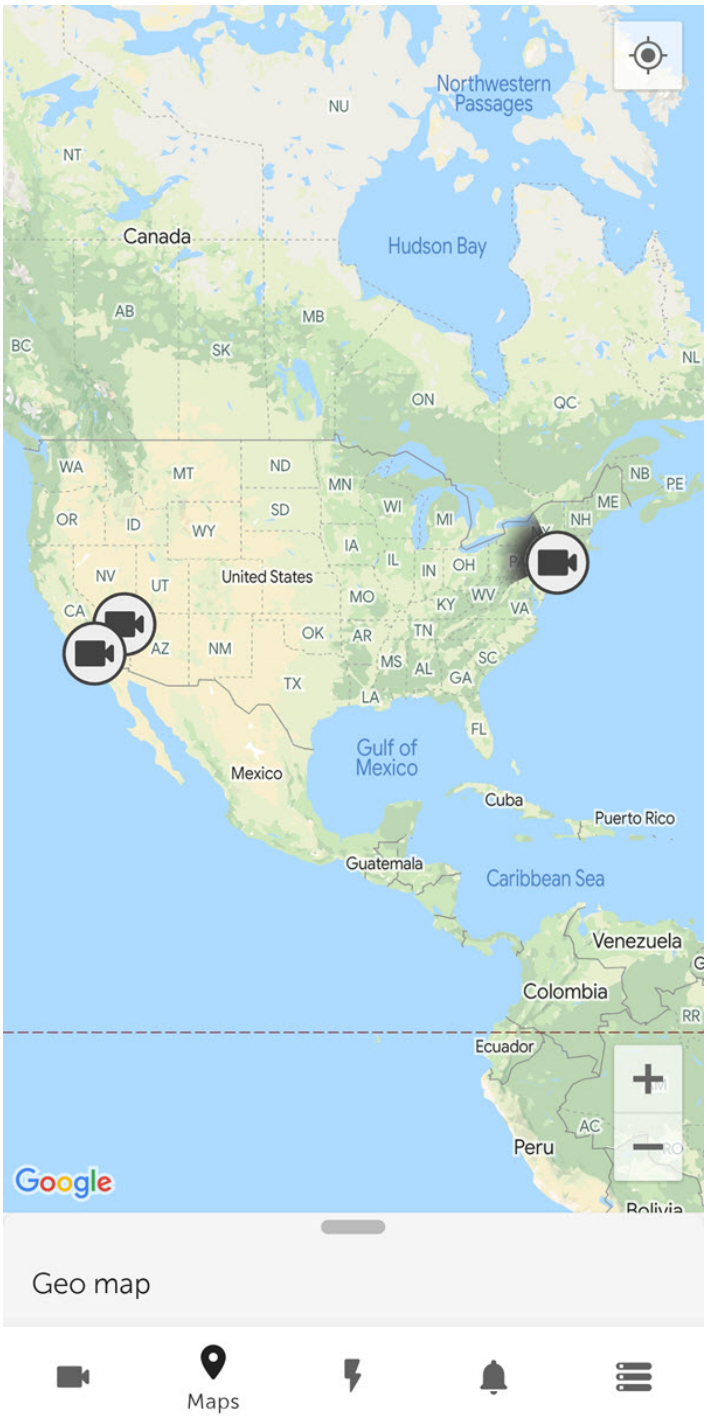
To view the geomap, go to the **Maps** tab. As a result, a map with camera icons will open.

Note

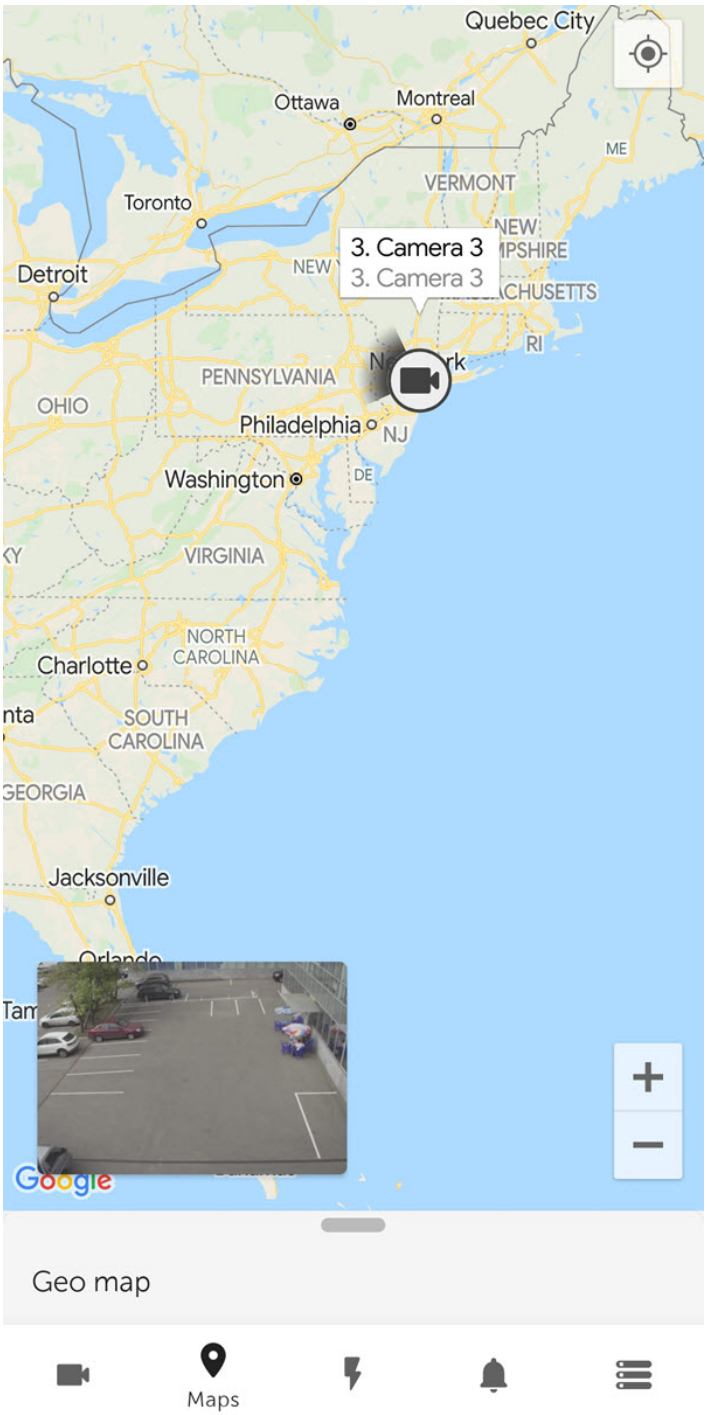
To display a video camera on a geomap, it is required that:

- In *Axxon Next* (see The Video Camera Object), in the **Geo location** parameters group, the geographic coordinates (latitude, longitude, azimuth) of the camera location should be specified.
- In *Intellect* (see The Settings panel of the Camera object), the camera name should contain the geographic coordinates of the camera location in the [X, Y, Z] format, where:
  - X is latitude;
  - Y is longitude;
  - Z is geodetic azimuth (camera rotation angle relative to the vertical axis), optional parameter.
    For example, a video camera with the name **[19.4578, 23.5637, 30]** will be displayed on the map at the point with coordinates 19.4578, 23.5637 with a camera rotation of 30 degrees.

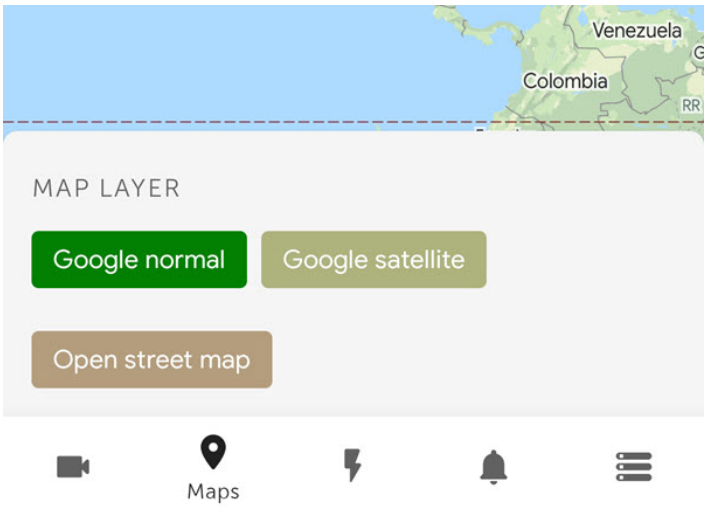
If the Server configuration does not contain any cameras with the specified coordinates, then the **No cameras with coordinates** message will be displayed when you go to the **Maps** tab, and there will be no camera icons.



When you click the camera icon on the map, live video from this camera will be displayed in the lower left corner of the screen. When you click on a video or on a camera's name, you will be redirected to viewing live video (see Viewing live video in AxxonNet client on Android OS).



You can select a map layer in the drop-down menu at the bottom of the screen: Google normal, Google satellite, or Open street map.



Note

If you zoom out, the cameras will be grouped into clusters. Each cluster is displayed on the map as a circular progress bar, showing active cameras in green, disabled cameras in gray, and disconnected cameras in red. The total number of cameras in the cluster is displayed in its center.

The location of the mobile device on the map is indicated by the icon.

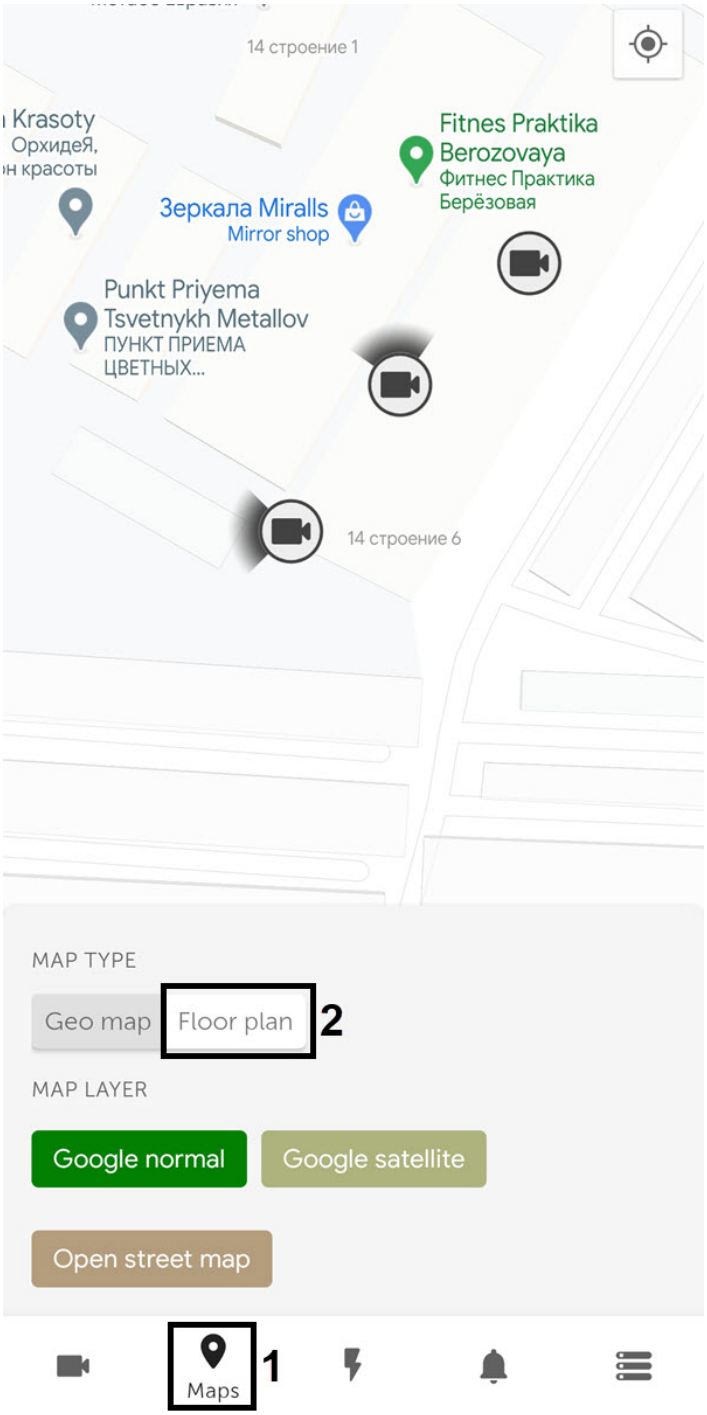
7.2 Working with Intellect maps in AxxonNet client on Android OS

7.2.1 General concept of working with Intellect maps in AxxonNet client on Android OS

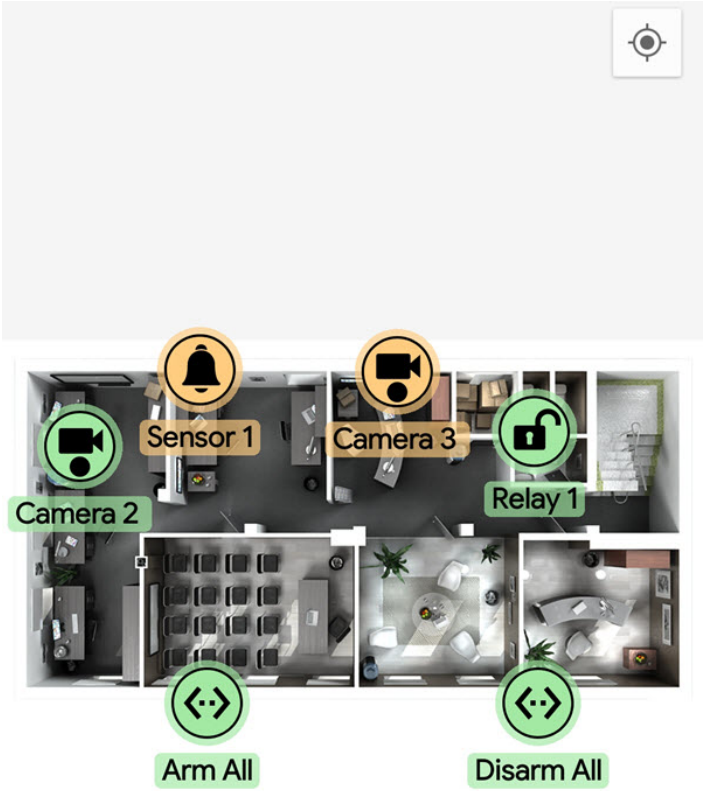
Attention!

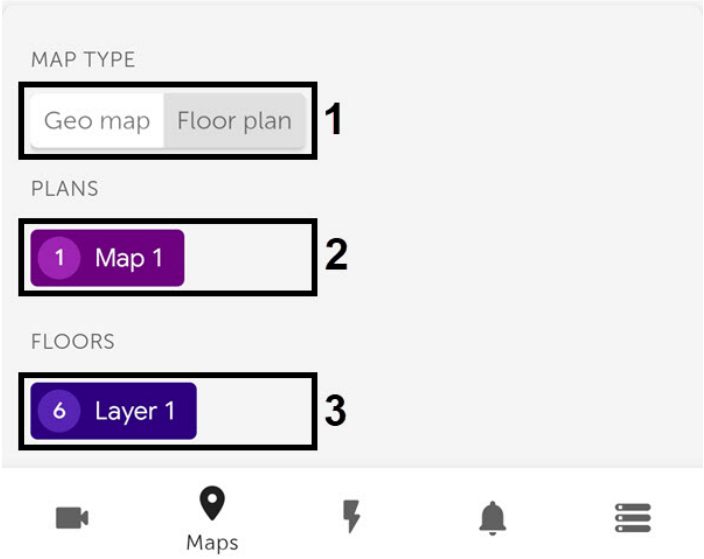
Working with *Intellect* maps is available only when connected to the *Intellect* Server.

To view the *Intellect* maps, go to the **Maps** tab (**1**). In the drop-down menu at the bottom of the screen, select the **Floor plan** map type (**2**).



As a result, the *Intellect* map opens.





The icons for the following devices can be displayed on the map: cameras, sensors, and relays. In addition, icons for macros can be displayed. Icons indicate the current status of devices and allow you to manage them.

In the drop-down menu at the bottom of the screen, you will be able to select a plan and floor in addition to the map type.

- **MAP TYPE** (**1**) - select the map type: **Geo map** or **Floor plan**. If you choose the **Geo map** type, the geomap will be displayed (see Working with geomaps in AxxonNet client on Android OS).
- **PLANS** (**2**) - select a plan.
- **FLOORS** (**3**) - select a floor.

You can adjust the scale of the map by stretching/pinching the screen with two fingers, or using the buttons.

7.2.2 Using cameras in AxxonNet client on Android OS

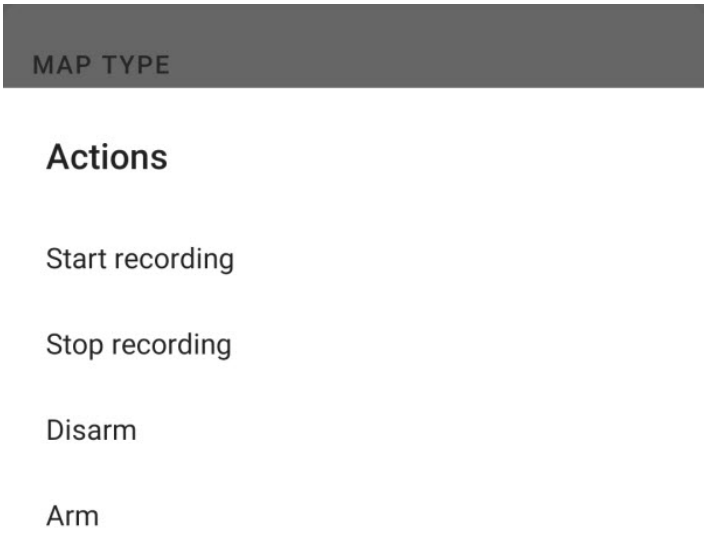
The icon of a camera on the map indicates its current state:

Icon	State
	Camera armed, recording disabled
	Camera connected to the System
	Camera disconnected
	Camera connection lost
	Recording enabled

Also, the current state of the camera is indicated by the icon background color:

Icon	State
Yellow	Camera armed
Green	Default
Red	Alarm on camera

To control a camera on the map, click its icon, and the context menu will appear:



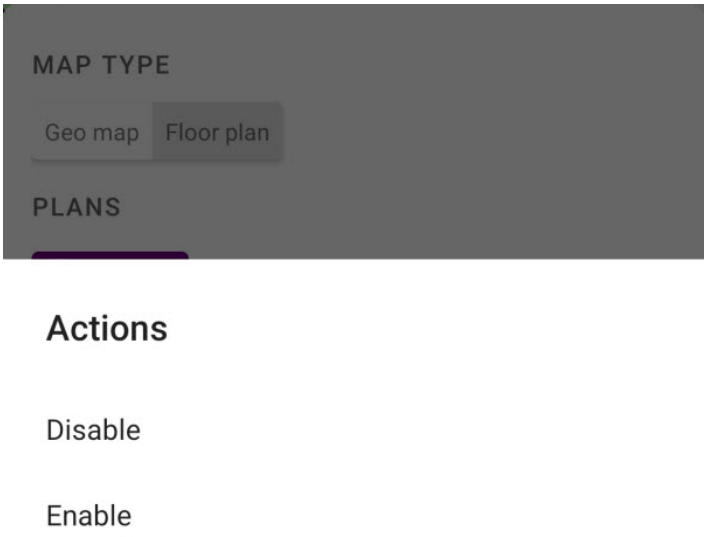
Select a command to perform a required action (see Operations with the cameras).

7.2.3 Using relays in AxxonNet client on Android OS

The icon of a relay on the map indicates its current state:

Icon	State
	Relay disabled in the System
	Relay connection lost
	Relay off
	Relay on

To control a relay on the map, click its icon, and the context menu will appear:



Select a command to perform a required action (see Operations with the relay).

7.2.4 Using sensors in AxxonNet client on Android OS

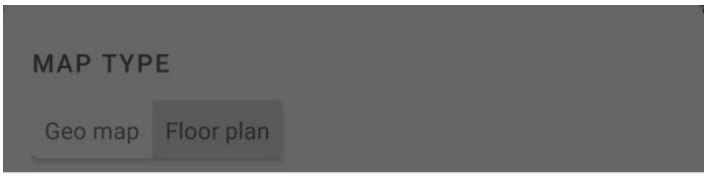
The icon of a sensor on the map indicates its current state:

	Sensor armed
	Alarm event confirmed
	Sensor connected to the System
	Sensor disconnected
	Sensor connection lost
Icon	State

Also, the current state of the sensor is indicated by the icon background color:

Yellow	Sensor armed
Green	Default
Red	Alarm event
Icon	State

To control a sensor on the map, click its icon, and the context menu will appear:



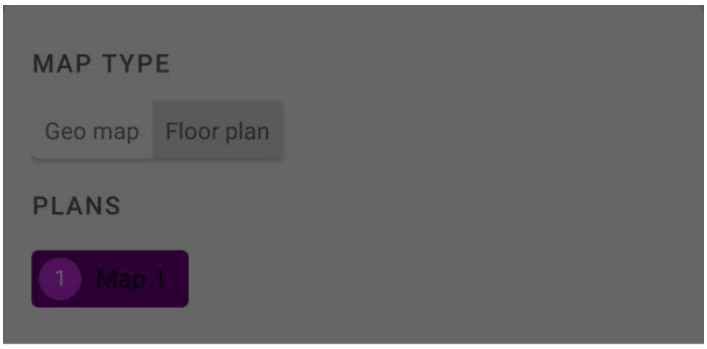
Select a command to perform a required action (see Operations with sensors).

7.2.5 Using macros in AxxonNet client on Android OS

The icon of a macro command on the map indicates its current state:

	Macro disabled
	Macro ok
Icon	State

To control a macro on the map, click its icon, and the context menu will appear:



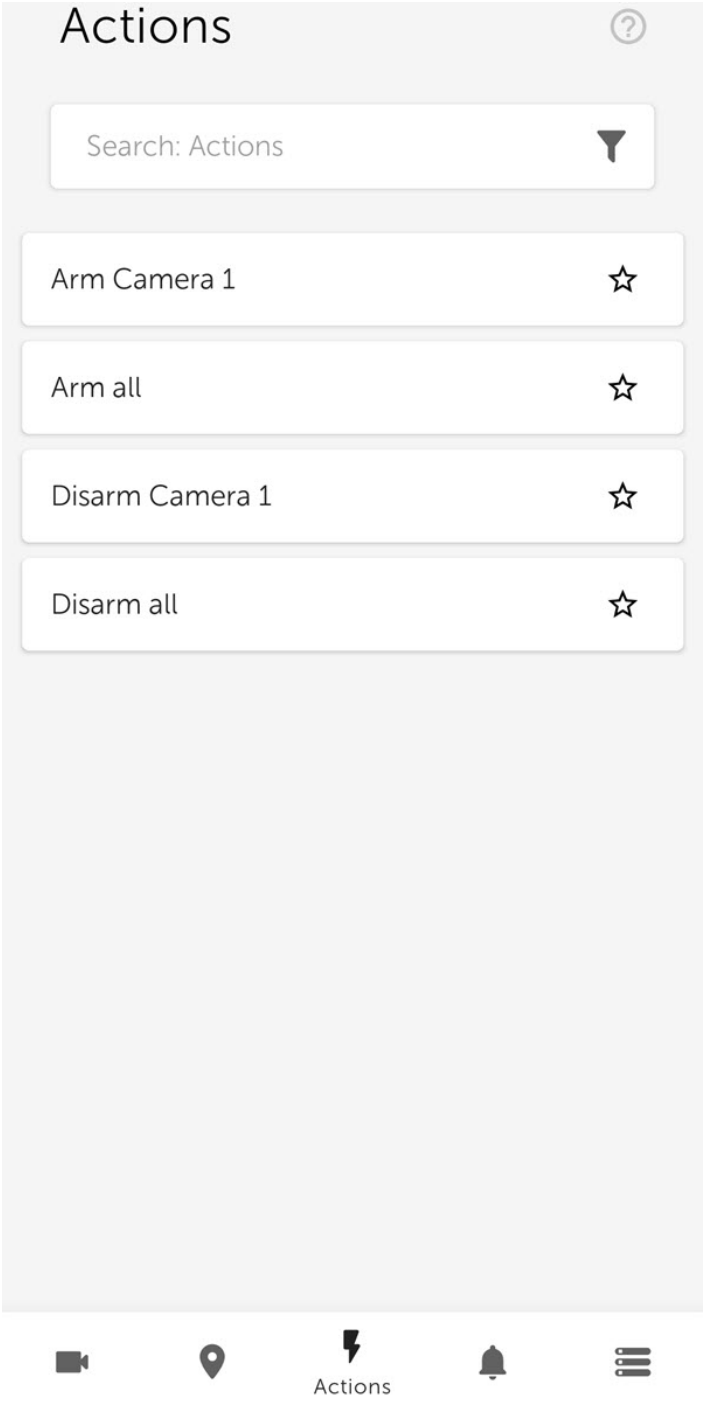
Select a command to perform a required action (see Macro commands operation).

8 Executing macros in AxxonNet client on Android OS

To execute a macro, go to the **Actions** tab and select the required macro from the list.

To search for a macro, enter the part or the full name of the macro in the **Search Actions** field.

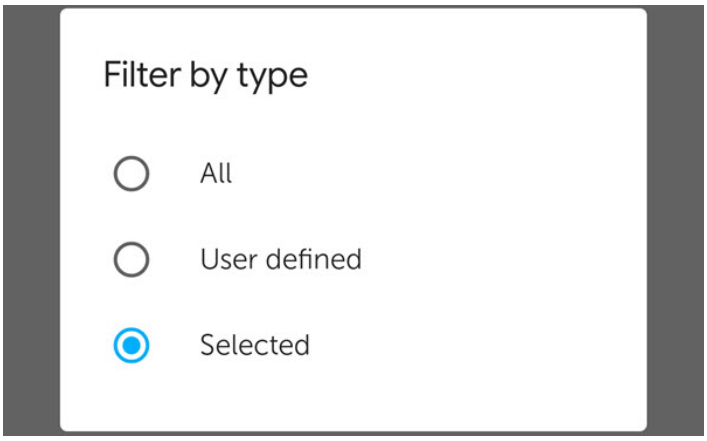
> **Note**
>
> The available macros in the list depend on the macros on the Server to which the mobile client is connected (for *Intellect*, see Creating and using macros, for *Axxon Next*, see Configuring Macros).



The macros in the list are sorted alphabetically as follows:

1. Special symbols;
2. Numbers;
3. Capital Latin letters;
4. Small Latin letters;
5. Capital Cyrillic letters;
6. Small Cyrillic letters.

The macros in the list can be filtered using the button. By default, only the macros created by the current user on the Server are displayed. Frequently used macros can be placed at the top of the list, or you can create a separate list with favorite macros. Use the button to mark the macros as favorite. To filter the macros, click the button and select the appropriate filter type:



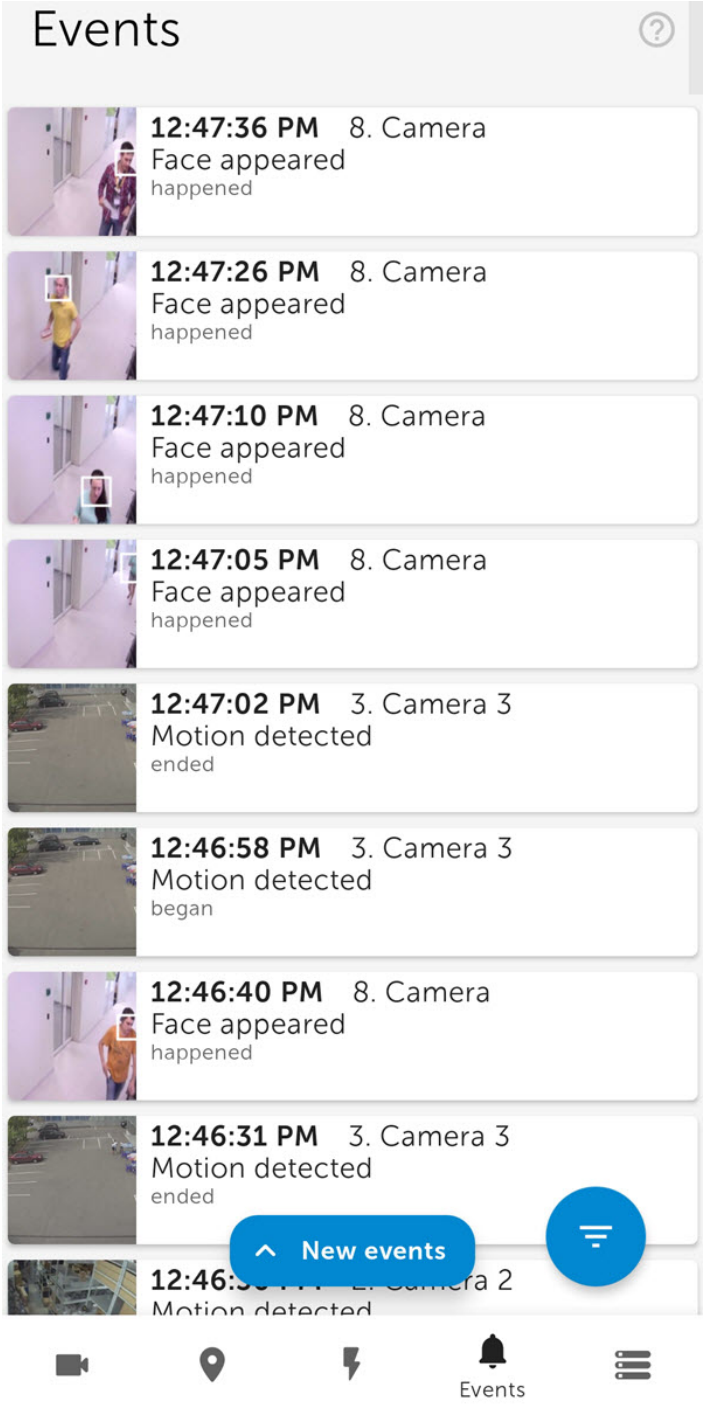
- **All** - all macros available on the Server are displayed. Favorite macros will be displayed at the top of the list;
- **User defined** - only the macros created by the current user on the Server are displayed. Favorite macros will be displayed at the top of the list;
- **Selected** - only favorite macros are displayed.

> **Note**
>
> You can also run macros from the *Intellect* map (see Working with Intellect maps in AxxonNet client on Android OS).

9 Working with events in AxxonNet client on Android OS

9.1 Viewing the events list in AxxonNet client on Android OS

To view the list of system events, go to the **Events** tab.



The list of events is displayed. By default, the latest events are displayed on top.

Note

If face recognition is configured on the *Intellect* Server, the person's full name and similarity percentage will be displayed in the corresponding events, and if license plate recognition is configured, then the recognized LP number is displayed in the event. However, there will be no images in these events. The person's full name and similarity percentage, as well as the recognized LP number, are not displayed in similar events from the *Axxon Next* Server, but the images will be present in these events.

When faces are detected on the *Axxon Next* Server, the detected faces are highlighted with a white frame in the event images, both in the events list and in the information window of this event (see Viewing the event in AxxonNet client on Android OS).

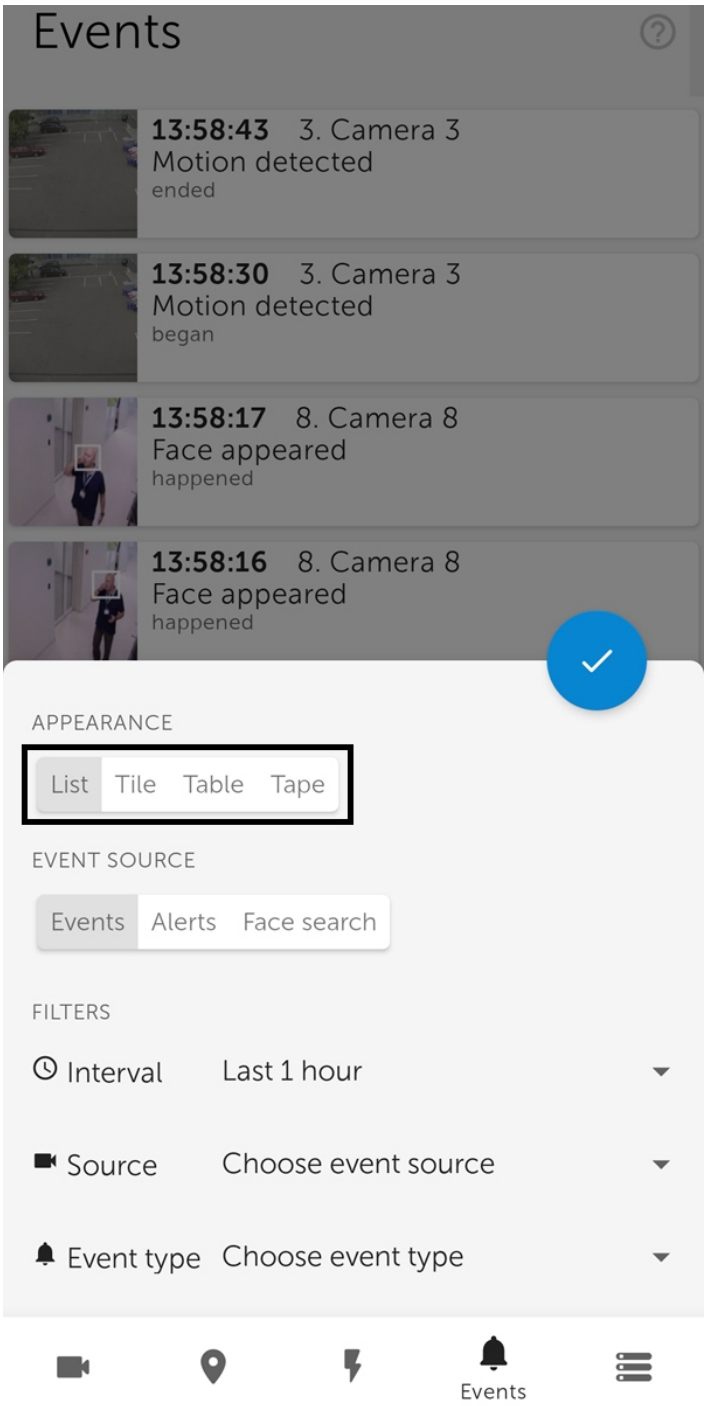
To update the list of events manually, swipe down on the screen or click the **New events** button if new events have appeared since the last time the list of events was opened.

Note

The auto update interval is set in the Configuring the push notifications in AxxonNet client on Android OS section.

9.2 Selecting the events list appearance in AxxonNet client on Android OS

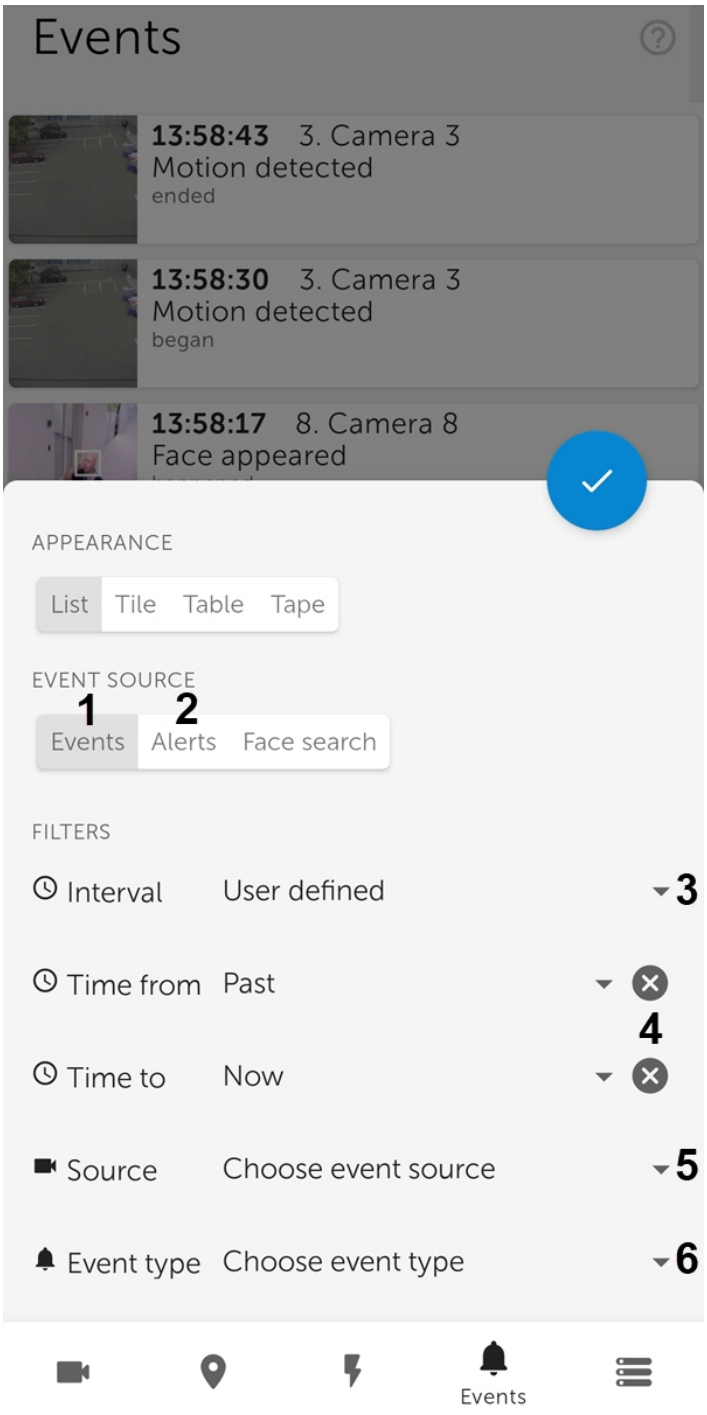
To go to the selection of the events list appearance, click the button.



1. Select the appearance:
   - **List** - events will be displayed as a list (by default).
   - **Tile** - events will be displayed as tiles.
   - **Table** - events will be displayed as a table.
   - **Tape** - events will be displayed as a tape.
2. Click the button to apply.

9.3 Events filtering in AxxonNet client on Android OS

To go to setting the event filters, click the button.



1. Select the event source (type):
   - **Events** (**1**);
   - **Alerts** (**2**).

   > **Note**
   >
   > Selecting the event source (type) is not available when connected to the *Intellect* Server.

2. Select one of the preset time intervals for the events displaying (**3**). To set the custom time interval, select the **User defined** value.
3. If the **User defined** time interval is selected, then in the **Time from** and **Time to** parameters, specify the custom time interval for the events displaying (**4**).

4. Select the event source camera by clicking on **Choose event source** (**5**).
5. Select the event type by clicking on **Choose event type** (**6**).

> **Note**
>
> Selecting the event type is not available when connected to the *Intellect* Server.

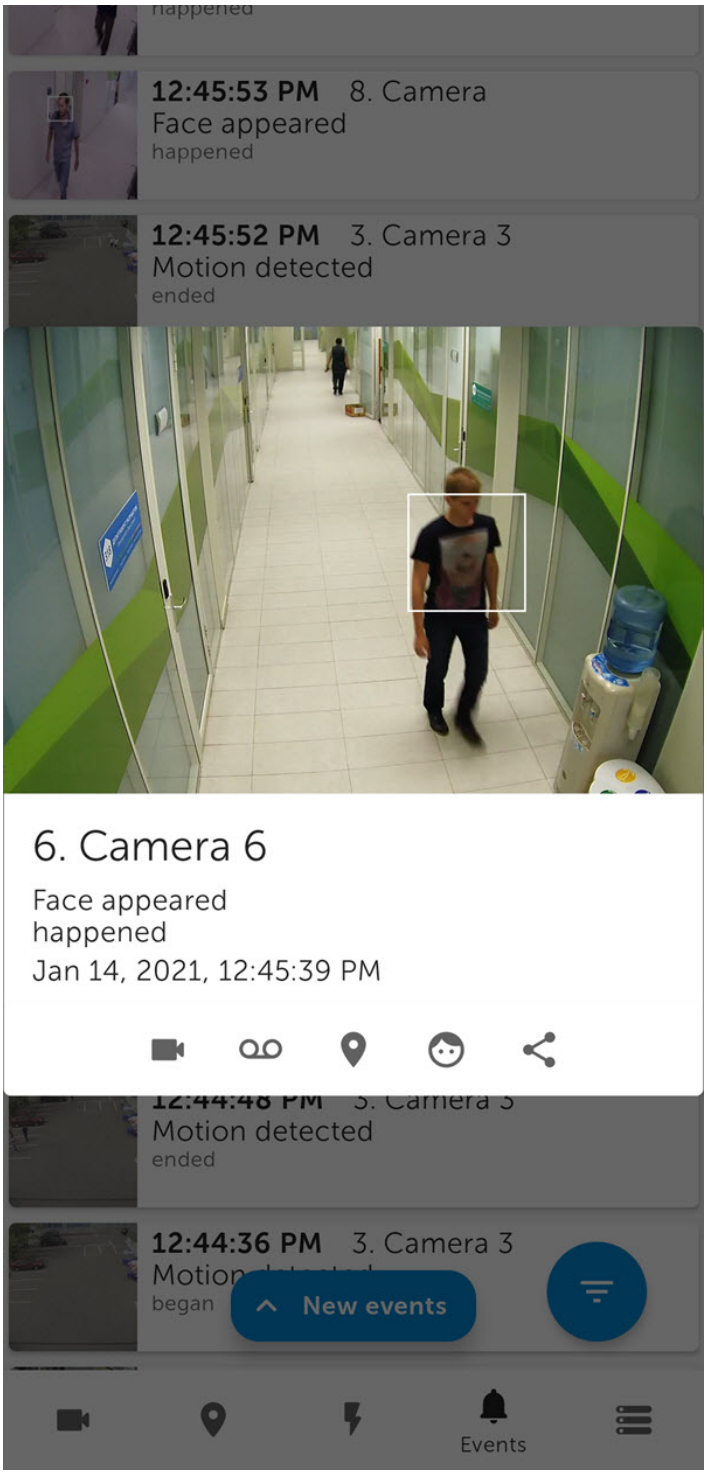
After you set all the necessary filters, click the button. As a result, a list of events corresponding to the specified filter is displayed.

To remove a filter, click the button next to the corresponding filter.

9.4 Viewing the event in AxxonNet client on Android OS

When you select an event in the event list, a window will appear with the following items:

- The image captured at the time the event occurred.
- Information about the event.
- Events panel.



You can enlarge the event image by dragging the image with two fingers. You can select the viewed part of the frame at a changed scale by moving your finger beyond the video viewing area.

The events panel is designed to quickly switch to viewing live video, archive, etc., associated with a given event or a camera. For the **Face detection** event, you can go to face search in the archive (see Face search in AxxonNet client on Android OS).

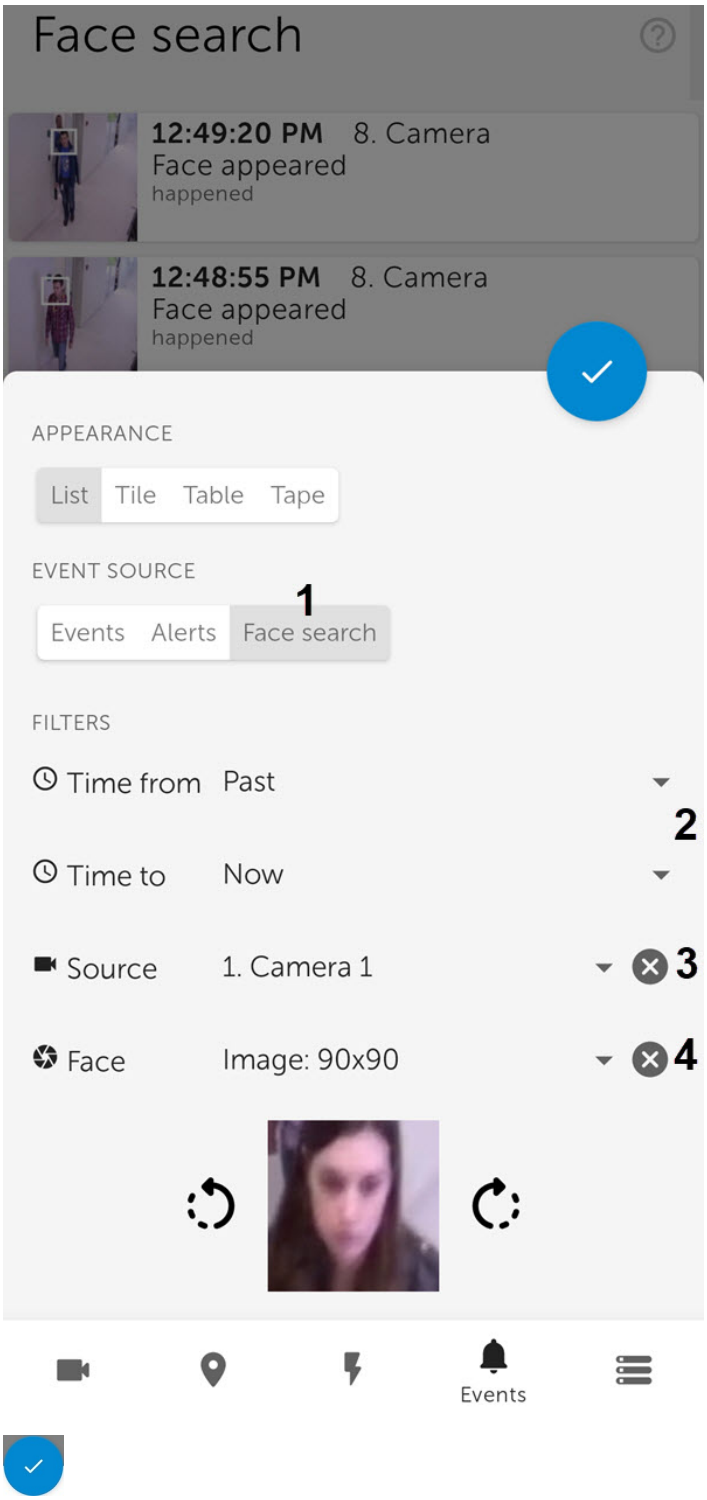
- Go to live video, - Go to archive, - Go to geomap, - Go to *Intellect* map (diagram), - Go to face search, - Share the event image.

Note

If face recognition is configured on the *Intellect* Server, the person's full name and similarity percentage will be displayed in the corresponding events, and if license plate recognition is configured, then the recognized LP number is displayed in the event. However, there will be no images in these events. The person's full name and similarity percentage, as well as the recognized LP number, are not displayed in similar events from the *Axxon Next* Server, but the images will be present in these events.

When faces are detected on the *Axxon Next* Server, the detected faces are highlighted with a white frame in the event images.

9.5 Face search in AxxonNet client on Android OS



9.6 Receiving push notifications in AxxonNet client on Android OS

You can receive push notifications from the Server when an alarm event occurs via a camera or when a Server/domain is disconnected/connected in AxxonNet.

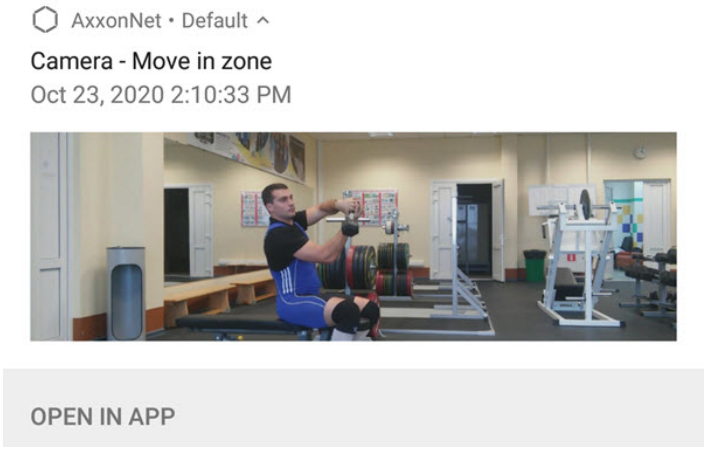
To receive push notifications, it is necessary to pre-configure this option (see Configuring the push notifications in AxxonNet client on Android OS).

If images display is enabled in push notifications, then push notifications will contain pictures taken at the time the event is triggered. Large images will be displayed via the Wi-Fi connection, and small images will be displayed via the mobile Internet connection.

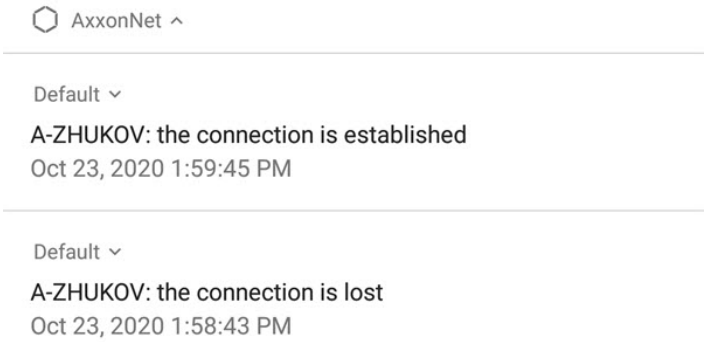
Attention!

The images in push notifications are displayed only if the AxxonNet app is running and active. If the application is minimized (inactive), then the images will not be displayed. This restriction is related to the Android OS features.

If you tap on the notification, you will switch to viewing the camera archive at the beginning of this alarm event.

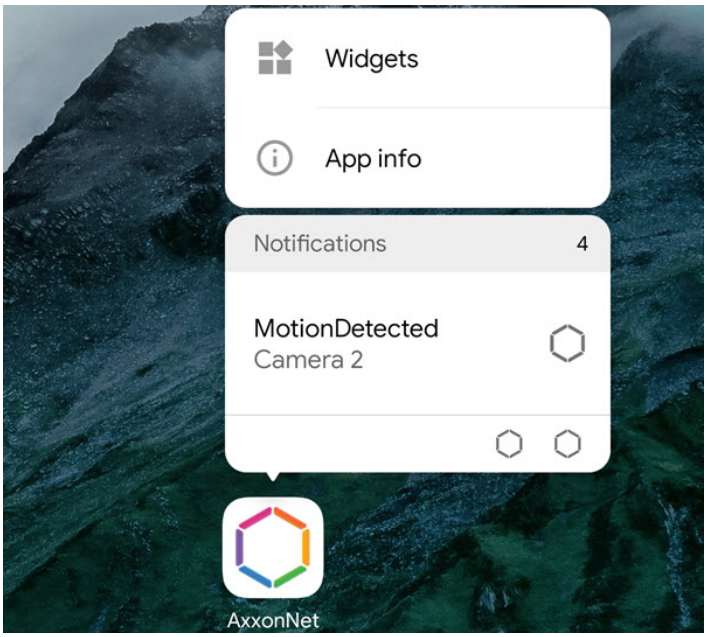


When a Server/domain is disconnected/connected, then the name of the Server/domain in AxxonNet, the event that occurred (connection or disconnection), and the date-time of the event are displayed.



For Android 8.0 and higher, the number of received push notifications is displayed on the AxxonNet application icon.

To open the notifications without opening the application, long press the application icon. As a result, the **Notifications** group will display the information on the last unread notification and their total number.



Note

Not all Android desktops (launchers) support viewing notifications by long pressing the app icon.

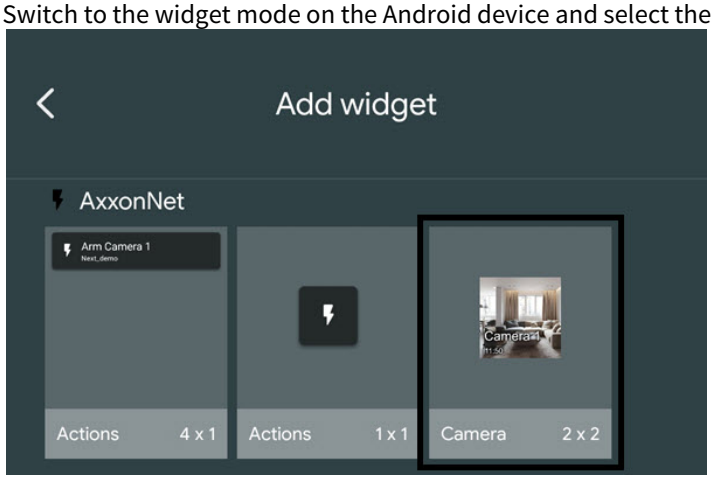
10 Working with widgets in AxxonNet client on Android OS

10.1 Adding a camera widget in AxxonNet client on Android OS

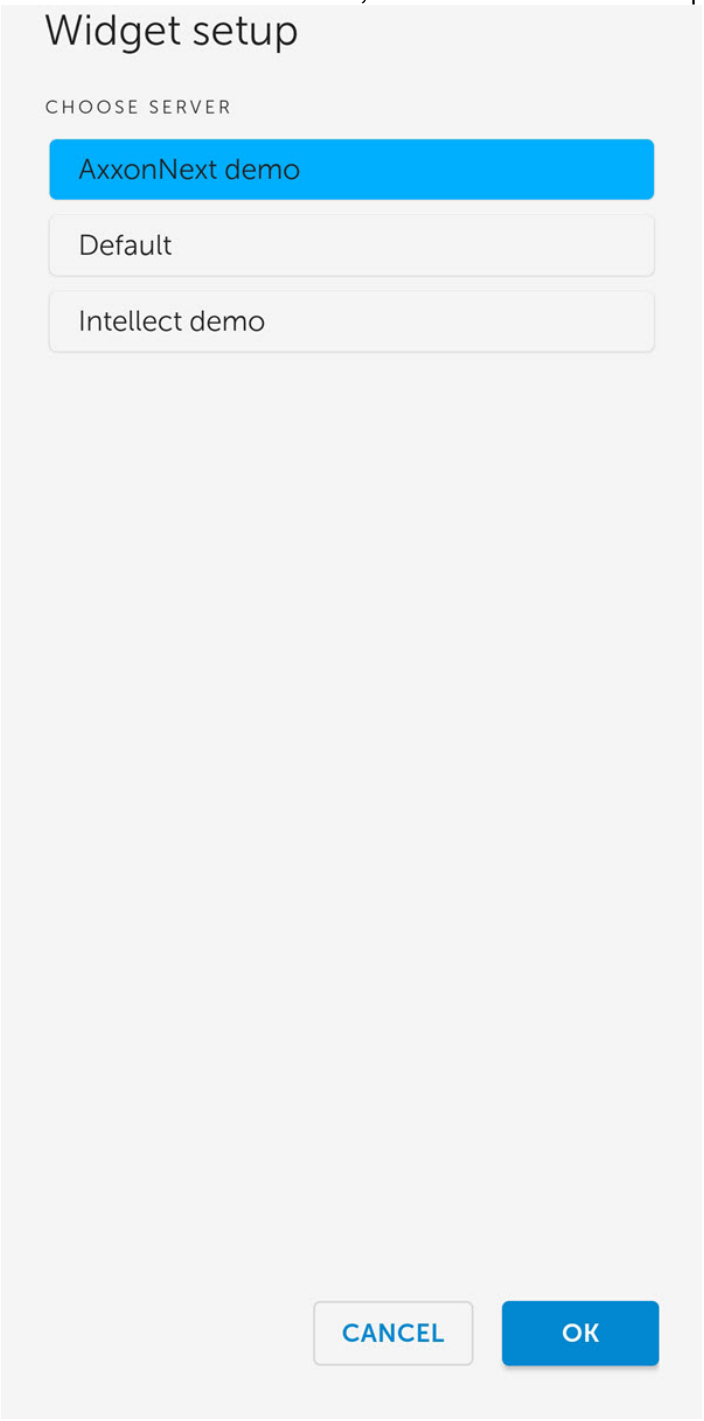
The camera widget allows you to display a static image from the camera on the Android device's screen, which is updated at the interval specified in the settings (see Configuring the connection in AxxonNet client on Android OS).

Add a camera widget to the screen in the following way:

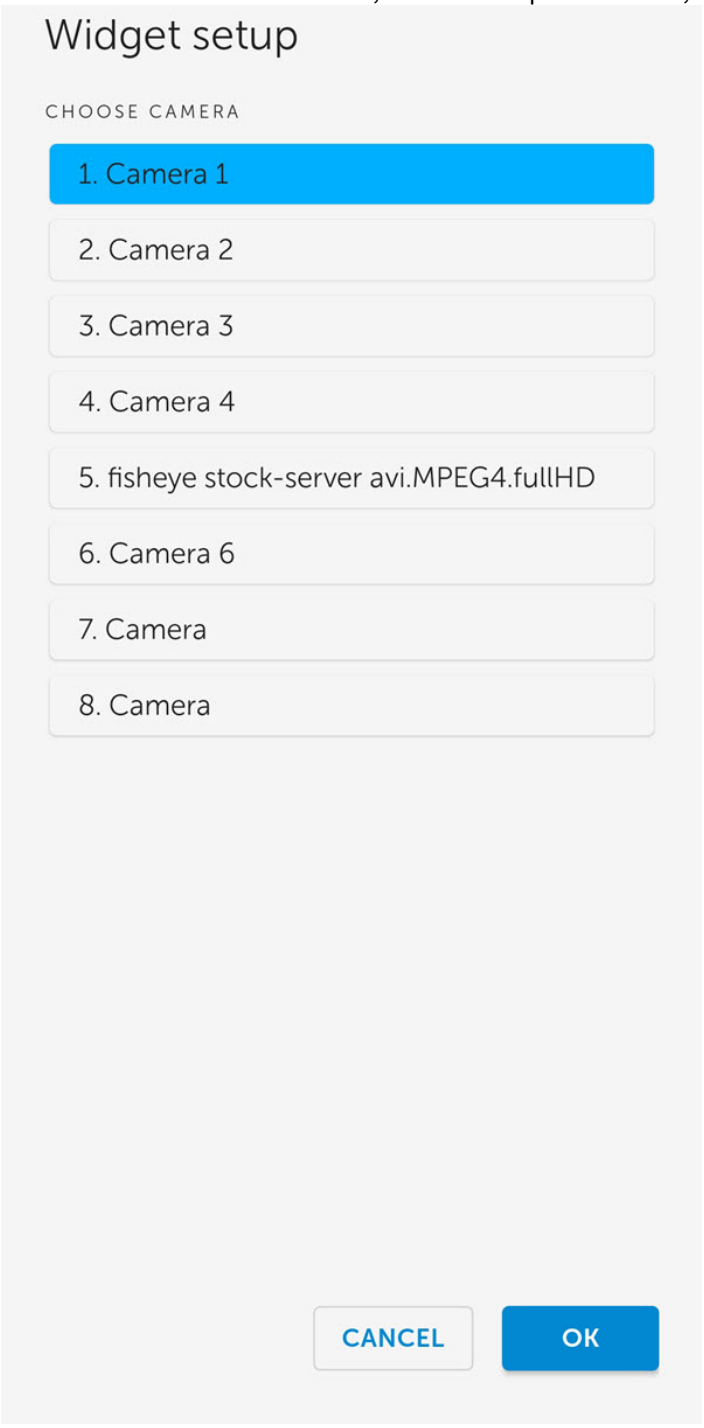
1. Switch to the widget mode on the Android device and select the **Camera** widget from the **AxxonNet** widget group.



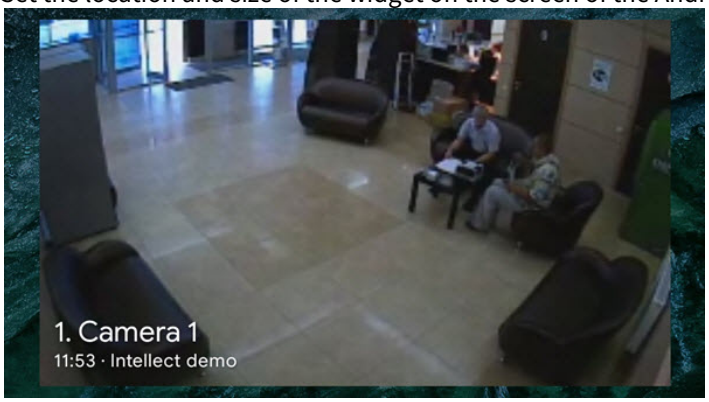
2. From the list of available Servers, select the Server with the required camera.



3. From the list of available cameras, select the required camera, the image from which will be displayed on the widget.



4. Set the location and size of the widget on the screen of the Android device.



The widget also displays the camera name and the time the image was last updated on top of the image, and if the Server is unavailable, a corresponding message.
If you click on the image on the widget, you will be redirected to viewing the live video (see Viewing live video in AxxonNet client on Android OS).

Adding a video camera widget to the AxxonNet mobile client is now complete.

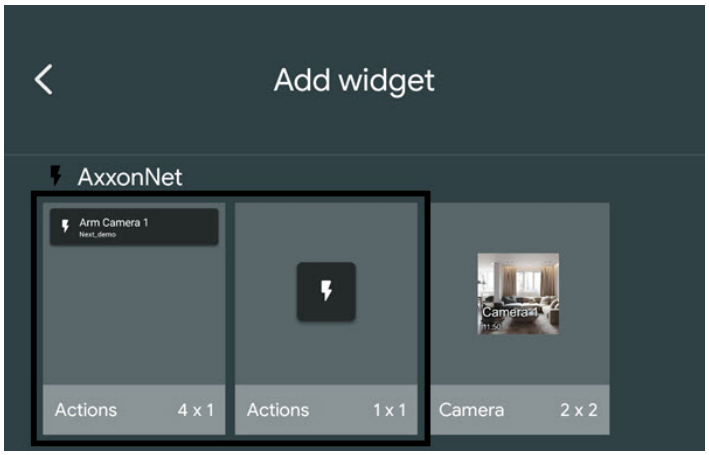
10.2 Adding a macro widget in AxxonNet client on Android OS

The macro widget on the screen of an Android device allows you to execute the necessary macro without opening the AxxonNet app.

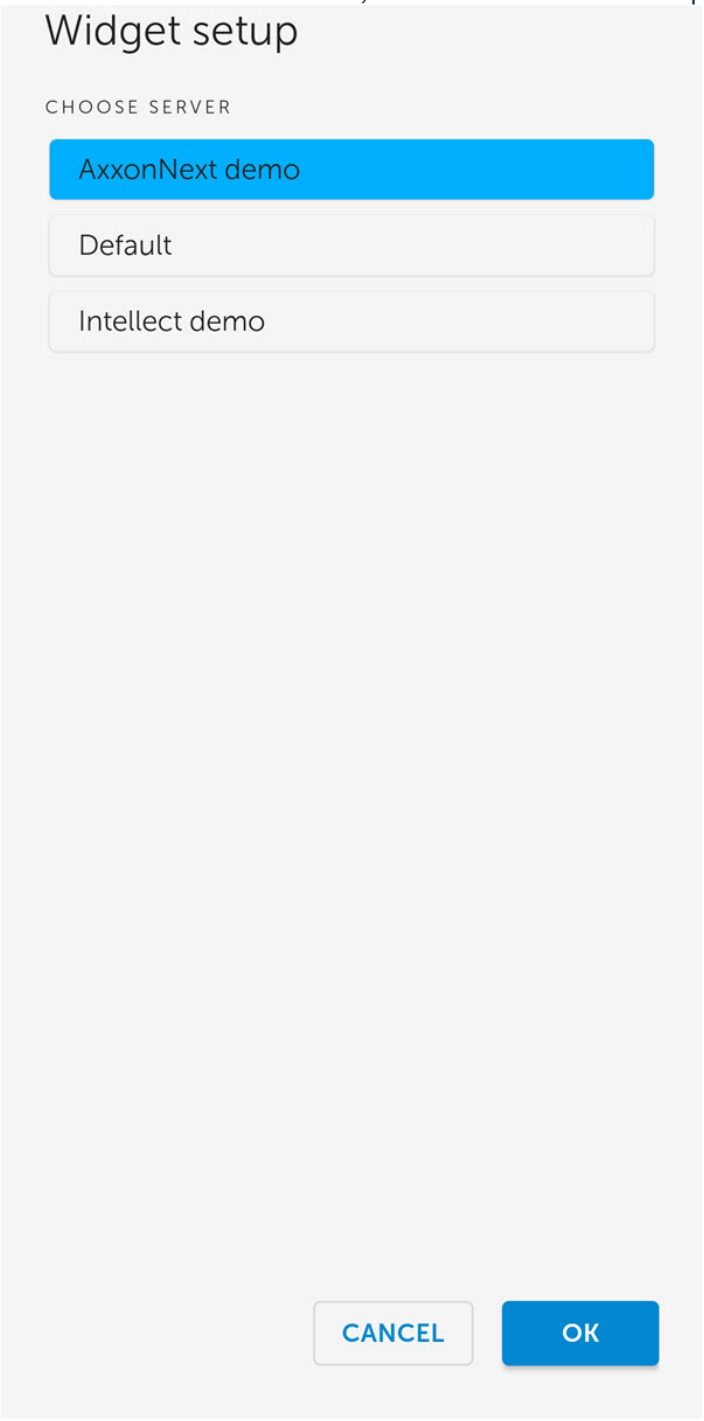
Add a macro widget to the screen in the following way:

1. Switch to the widget mode on the Android device and select the **Actions** widget of the required size from the **AxxonNet** widget group.

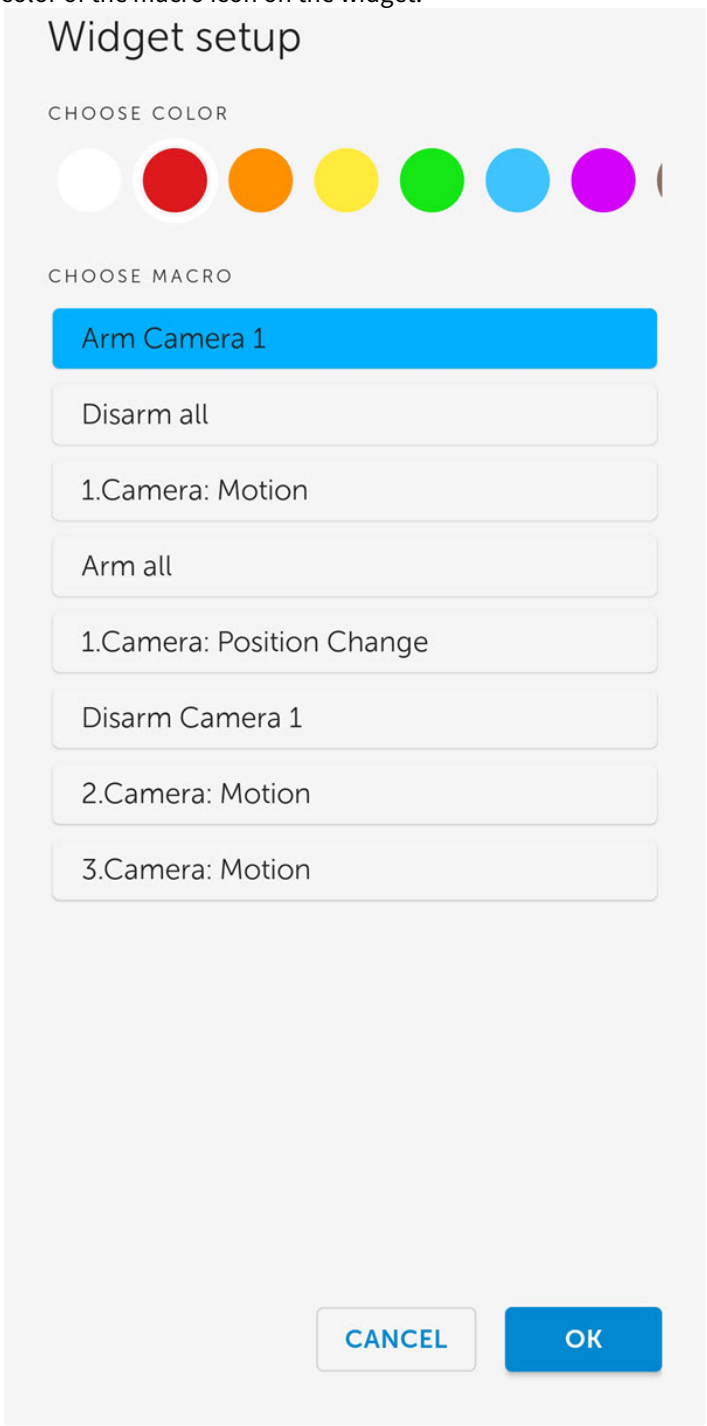
> **Note**
>
> The 4x1 widget displays the macro name and the Server name, while the 1x1 widget displays only the macro icon.



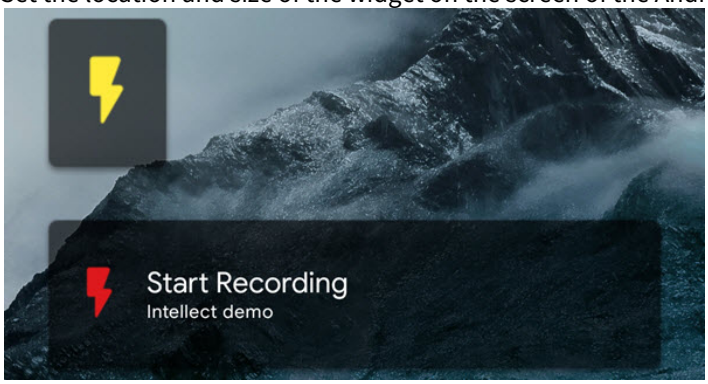
2. From the list of available Servers, select the Server with the required macro.



3. From the list of available macros, select the macro that will be executed when you click on the widget, and also select the color of the macro icon on the widget.



4. Set the location and size of the widget on the screen of the Android device.



If you click on the widget, the corresponding macro will be executed (see Executing macros in AxxonNet client on Android OS).

Adding a macro widget to the AxxonNet mobile client is now complete.

11 Release Notes for AxxonNet client on Android OS