User Guide

VIVOCloud

**Cloud Monitoring Application for iPad®, iPod®, iPhone®
and Android® phones and tablets**

Rev. 2.10

VIVOTEK

About this Document

Rev. 1.0: Initial release.

Rev. 1.1: Corrected the description for PiP. VIVOCloud supports digital zoom.

Rev. 1.2: For rev. 2.5.x and later.

1. Added Announcement for important software notifications.
2. Updated the supported iOS and Android versions.
3. Added the Protection function using the authentication via a password, Face ID, Touch ID (iOS) or fingerprint (Android).
4. Supports the display of a full list of event notifications instead of event prompts.
5. Supports receiving notifications when a device is disconnected.

Rev. 1.3: For rev. 2.6.x and later.

1. Added a toggle switch for device disconnection notifications.
2. Provided access to change account password and delete account features.

Rev. 1.4: For rev. 2.7.x and later.

1. Added description for package v1 and v2 in terms of different methods for adding devices. The v2 package provides PCode as the device ID for secure connection. .
2. Added stream resolution table.

Rev. 2.10: For rev. 2.10.x and later.

1. Added the support for playback export.
2. Added the NVR alarm management feature for enabling or disabling alarm items.
3. Added the support for mute notification.
4. Added SD card setting for cyclic storage and automatic disk cleanup configuration.
5. Optimized the entry for NVR configuration.
6. Supports NVR firmware revision 3.3. or above.

I. Requirements

1-1. The prerequisites for using the VIVOCloud are as follows:

1. Download and install the VIVOCloud utility to your cell phone.
2. Both the NVR and your cell phone have access to the Internet.

With this utility, you do not need to configure IP port forwarding on router or set up a DDNS address for the NVR. You do not even need to know the IP address of the NVR. The VIVOCloud utility automatically manages the network parameters required for making the connection. The VIVOCloud comes with viewing and playback interfaces very similar to those in the iViewer utility.

1-2. Network cameras have already been configured or recruited by VIVOTEK's NVR station.

1-3. The network where the cameras reside **MUST have access to the Internet**.

The VIVOCloud does not support jailbroken and rooted devices.

1-4. Listed below are the supported devices and limitations:

Max. no. of devices per account	16 [individual cameras or NVR(s)]. Cameras managed by an NVR will not be counted. An NVR will be counted as one device. You can share the same devices with up to 4 accounts.
Max. no. of VIVOCloud instances	3, a user can install VIVOCloud on 3 phones or hand-held devices.
Supported cameras	* Please visit https://www.vivotek.com/vivocloud/support-list for the latest update to the supported models.
Supported NVRs	* Please visit https://www.vivotek.com/vivocloud/support-list for the latest update to the supported models. * Firmware v2.2.0.102 or above.
SD card	SD card is required for edge recording. VIVOCloud can retrieve past videos on SD card through the Internet. SD storage can also be used to store the VIVOCloud package. Some cameras' flash memory may be too small.

1-5. Unless you use the QR code to add a camera to your VIVOCloud configuration, you should connect your VIVOCloud device to the **same network section** where your network cameras reside. For example, connecting your smart phone to a wireless AP that is connected to the local nework where your cameras are installed.

1-6. The stream resolutions displayed on VIVOCloud are as follows:

- By default, the smallest resolution stream will be selected for display. In most cases, it is the #2 for 3 stream models, or #3 for 4 stream models.
- The VIVOCloud web portal will use #3 as the default stream. The VIVOCloud app on cell phones will use the smallest stream.

VIVOCloud Package v1

	1M	2M	3M	5M	Fisheye	Frame rate	Bit rate mode	Bit rate control	Dynamic intra frame	Smart codec
stream1	Unchanged									
stream2	1280x720	1920x1080	1600x1200	1600x1200	1536x1536	15	CBR	1Mbps	Enabled	Enabled
stream3	640x360	1280x720	1280x960	1280x960	1056x1056	15	CBR	512kbps	Enabled	Enabled
stream4	384x216	640x360	640x480	640x480	512x512	15	CBR	256kbps	Enabled	Enabled

VIVOCloud Package v2

	2M	4M	5M	Fisheye	Frame rate	Bit rate mode	Bit rate control	Dynamic intra frame	Smart codec
stream1	1920x1080	1600x904	1600x1200	1280x1280	15	CBR	1Mbps	Enabled	Enabled
stream2	1280x720	1280x720	1280x960	1056x1056	15	CBR	512kbps	Enabled	Enabled
stream3	640x360	640x360	640x480	512x512	15	CBR	256kbps	Enabled	Enabled
stream4	-	-	-	256x256	15	CBR	256kbps	Enabled	Enabled

1-7. This software release supports iOS 11.0 and above.

The VIVOCloud also supports mobile devices running Android 5.0 or later.

The VIVOCloud does not support jailbroken and rooted devices.

II-1. Installing VIVOCloud App to Mobile Devices

Open your mobile devices' app store application and search for "VIVOCloud." Download and install.

II-2. Installing VIVOCloud Package to Cameras

1. Download the VIVOCloud package from: http://www.vivotek.com/vivocloud/.
2. You should also upgrade your cameras' firmware. You can download the associated firmware from VIVOTEK's product page.
3. Use VIVOTEK's Shepherd utility to locate the cameras' IP addresses, and open a web console to the camera using the Google Chrome.

4. Enter **Configuration** > **Applications** > **Package management**. You can download the package to an SD card or the camera's flash memory. Note that some cameras may come with a small flash, and will need an SD card for storing the package.

5. Click **Browse** to locate the package file, and click **Upload** to proceed.
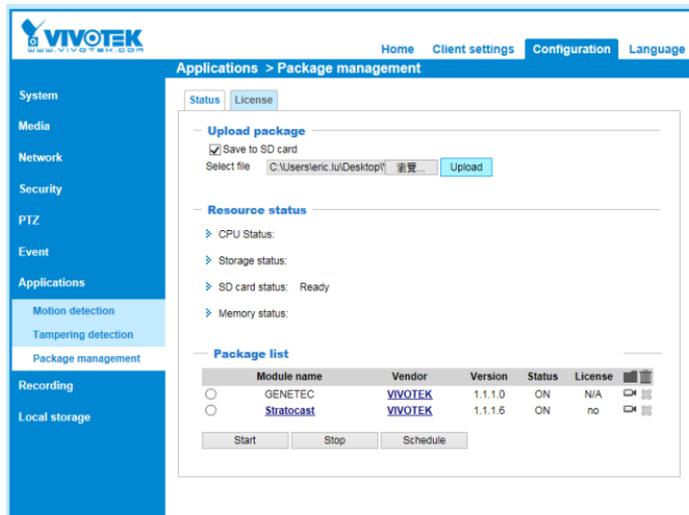
6. A progress window will prompt. Wait for the process to complete.
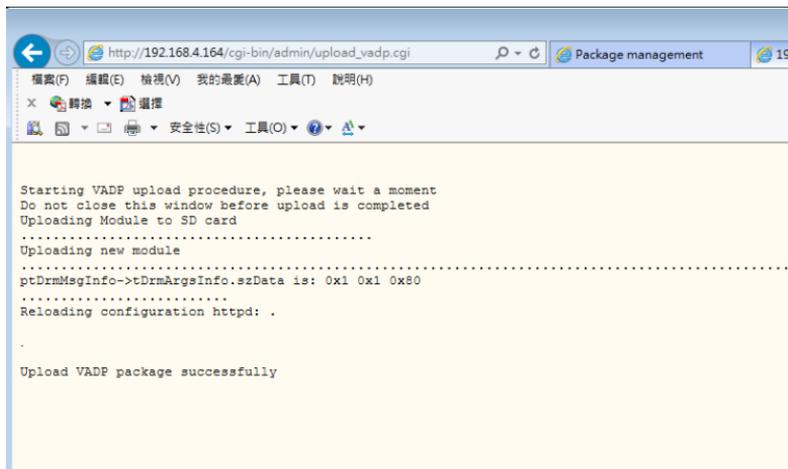
7. The Cloud package should be listed on the page. You are done with uploading the package.

III. Connecting Devices

1. Open the VIVOCloud application on your mobile.

2. The LOG IN page starts. If you have a VIVOTEK service account, Log in to use the application. If you do not have an account, click the SIGN UP button to proceed with applying for an account.

   The SIGN UP process only requires a valid Email address and a password.
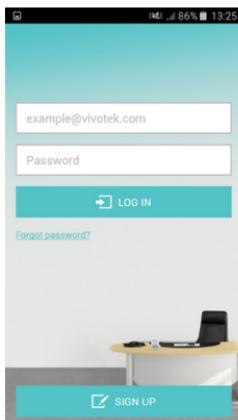
3. Click **ADD DEVICES**.
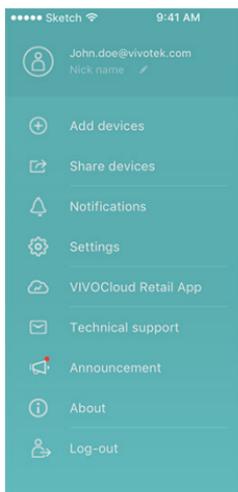
3-1. Add Devices by Scanning Network

3-1-1. Click **ADD FROM LIST** to search the local network for NVRs or network cameras.
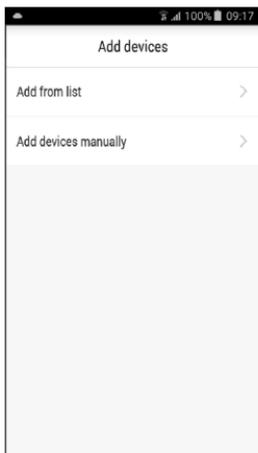
The search process may take several seconds. Note that the cameras must have access to the Internet.
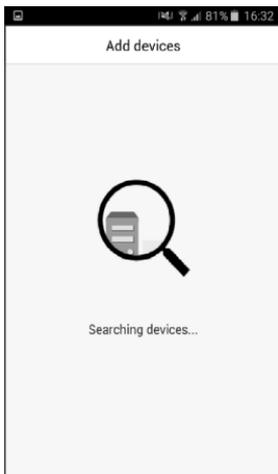
3-1-2. Once the search process is completed and devices are found, click the **NVR** or the **CAMERA** tab to locate your devices. Click to select one or multiple devices. Click the Add button below to recruit them into your configuration.
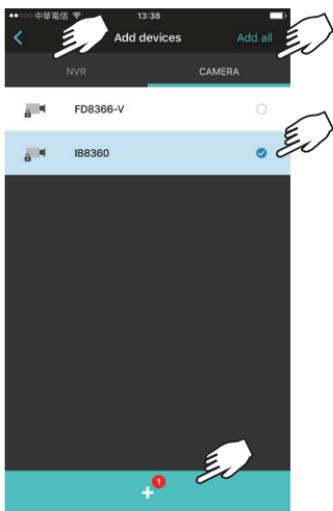
Skip to page 13 for the rest of the procedure.

3-2. Add Devices by Scanning QR Code

3-2-1. Click **ADD DEVICES MANUALLY**, if you want to scan the devices' QR code to add the devices to VIVOCloud.
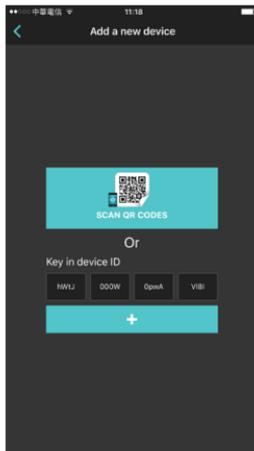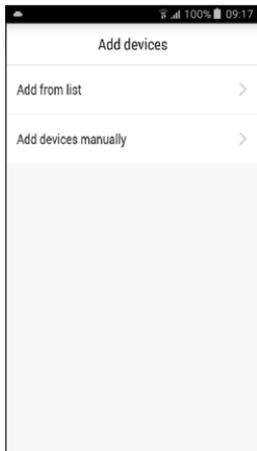
NVR QR code

An NVR's QR code is available with the initialization wizard or in the Settings > VIVOCloud Service.
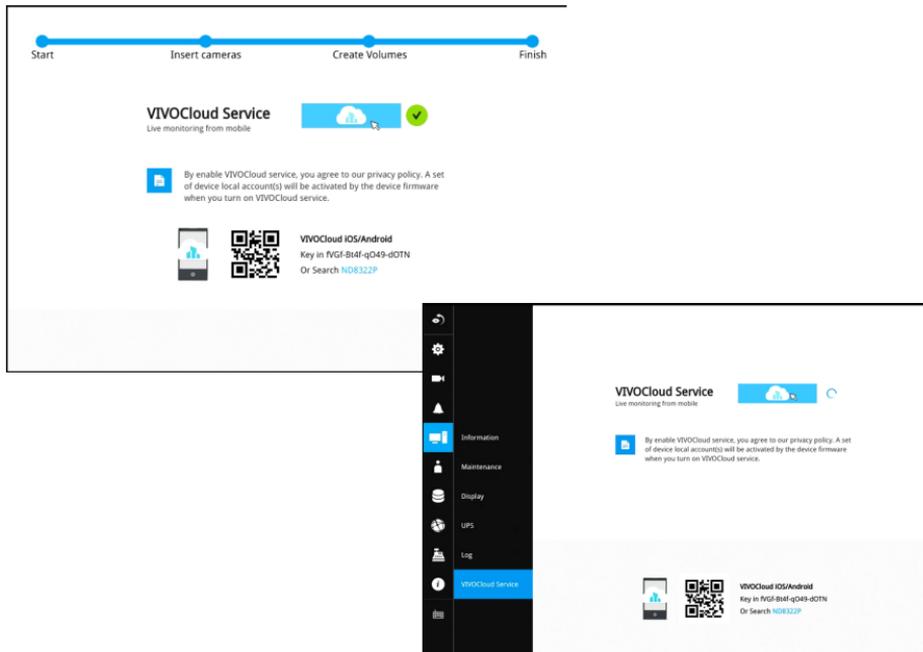
Camera QR code

3-2-2. A camera's QR code can be accessed from **Applications** > **Package management**. Click on the Cloud package. Click **ADD DEVICES MANUALLY**, if you want to scan the devices' QR code to add the devices to VIVOCloud.

3-2-3. A camera's QR code can be accessed from **Configuration** > **Applications** > **Package management**. Click on the **VIVOCloud** package. A VIVOCloud configuration window will appear.

Package v1

Package v2

Click Connect. Another web page will open allowing you to connect either from a computer or from a mobile device.
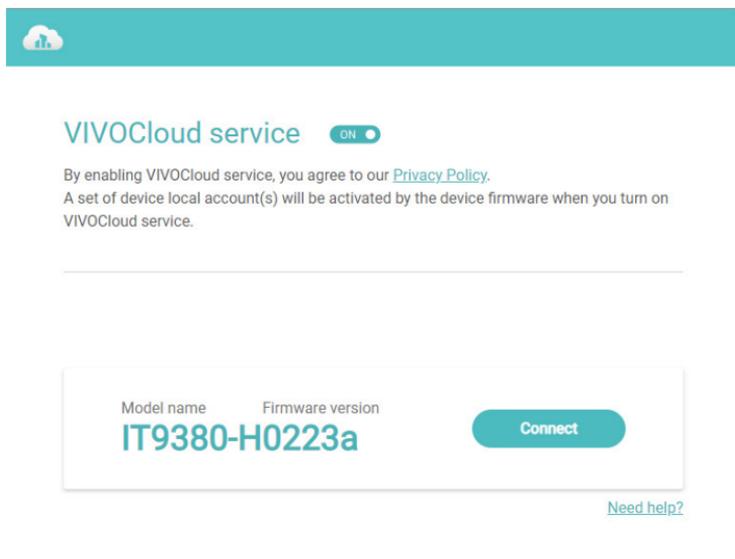
The newer v2 VIVOCloud package supports the connection from the VIVOCloud web portal. You can select Desktop, Laptop, copy the PCode.

For security reasons, this window only opens for 10 minutes.
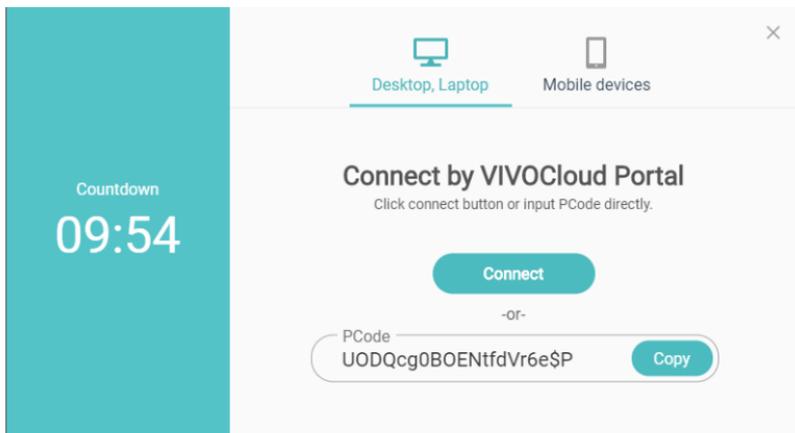
If you need to connect from the VIVOCLoud app, use your cell phone to scan the QR code.
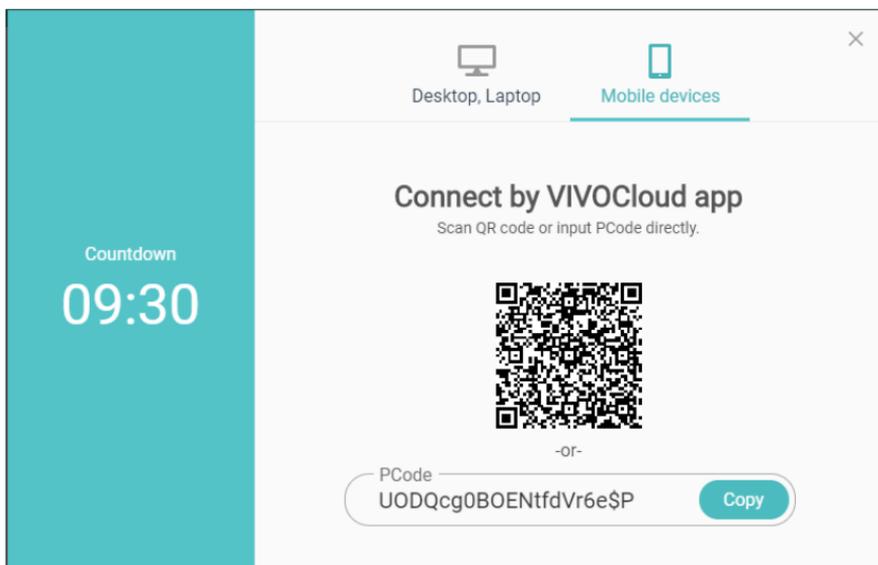
3-2-4. After you enable the VIVOCloud service, the QR code will appear, allowing you to scan the QR code and join the camera to your VIVOCloud configuration.
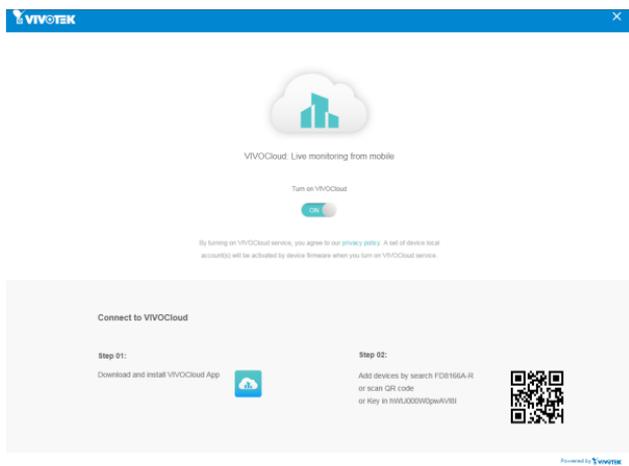
If you are not using the VIVOCloud web portal, skip this step.

If you are connecting a camera from a VIVOCloud web portal, click Device list > cameras. Click + Device, and enter the PCode you copied from the camera's VIVOCloud service.

The web portal is accessed through here: https://service.vivocloud.com/portal.html#!portal/portal_user_overview Use your VIVOCloud account to log in.
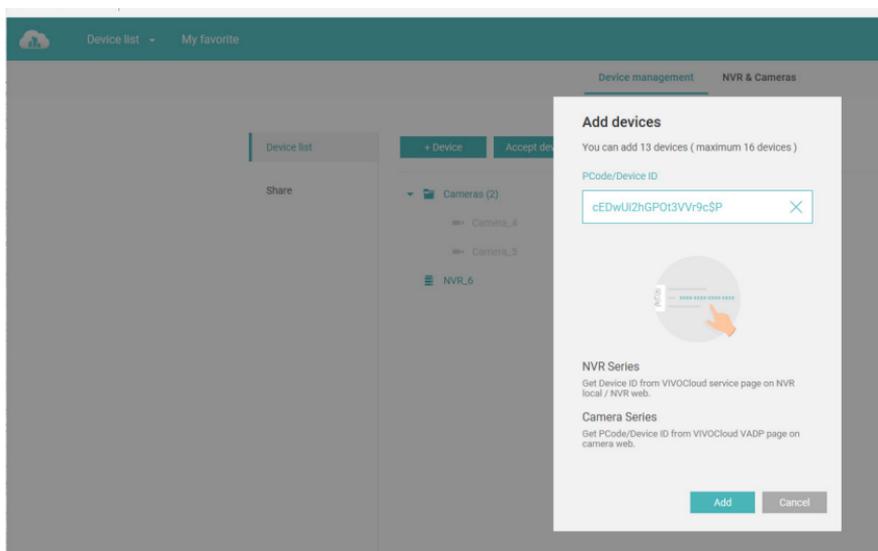
4. Provide the credentials for your network cameras. Click **APPLY** to proceed. If multiple devices are using the same credential, click the **APPLY TO ALL** button.

5. Click the **Done** button to proceed. The live views will automatically appear on screen filling the applicable view cells. Note that you can swipe the screen left or right to access multiple view cell layouts.
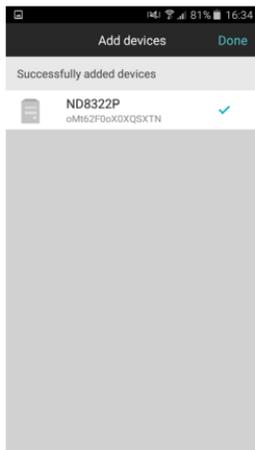
When an NVR is enlisted to your configuration, all cameras managed by the NVR will be automatically placed into multiple layout pages. You may manually change their positions on the layout later.

With multiple pages, your current position and the total number of pages will be indicated as follows:
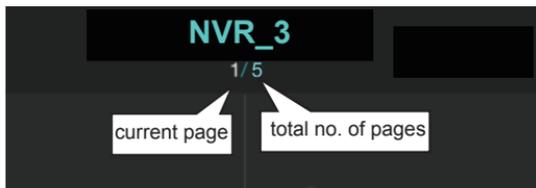
VIVOCloud retries the connection to any camera it fails to connect.

Cameras thus configured will be automatically added to the view cells on the Live view screen.

Knowing Buttons in the VIVOCloud

Icon	Name	Function	Location
☰	Side panel	Provides access to configuration functions. See later discussions for details.	Live
📹	Device list	Tap to display the device list, as cameras in list, or individual NVR stations.	Live
🗑	Trash can	Tap, hold, and move a camera view cell to this icon to delete a camera from the live view. Note that you can not delete an individual camera that is managed by an NVR.	Live
▦	Layout	Change the layout of view cells. Tap the lower left layout icon to bring out the available layouts for the 1x2, 2x3, and 3x4 options.	Live
❮	Back	Tap to return to the previous page (for iOS only).	Live or Add devices
❯	Page indicator	This indicator temporarily displays to show that there are multiple pages on the live view.	Live
↻	Refresh	When live view is displaying the snapshots only, use this button to manually refresh cameras's snapshots on screen.	Live
Tap to cancel	Tap to cancel	Allows you to stop a pending attempt to establish a connection, and move to the next camera/server group more quickly.	Live
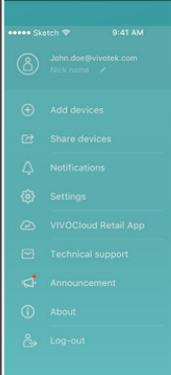
Icon	Name	Function	Location
▶	Playback	Opens the Playback roller selector.	Full view
▶	Playback	The video playback is taking place. Note that you can enter the dewarped mode during a playback.	Full view
⧉	Resolution	Allows to change the screen resolutions, e.g., from 2048x1536 to 1280x960.	Full view
ⓞ	Snapshot	Tap to take a snapshot of the current screen.	Full view
⧉→	Export Playback	Export a video clip from the previous recordings	Playback
🎤	Two way audio	Tap to communicate via the two way audio. (Note that this does not apply to cameras managed by a VAST server)	Full view
DO	DO	Allows you to manually trigger a digital output.	Full view
⚙	Configuration	Tap to enter the camera configuration screen.	Full view
✛	PTZ	Tap to enter the PTZ mode.	Full view
✛	PTZ	PTZ control is taking place. Tap again to disable PTZ control.	Full view
⊙	PTZ home	In the PTZ mode (PTZ camera), tap to return to the home position.	Full view
👁	Fisheye	Tap to enter the fisheye dewarped mode (1O, 1P, and 1R).	Full view
👁	Fisheye	The fisheye dewarped mode is taking place. Tap again to disable the dewarped mode.	Full view
🗓	Playback Time	This icon is shown when playing the past recording. Tap this to display the time selector.	Full view
🔄	Refresh	When in a singular full view, use this button to manually refresh the current connection.	Full view

Indicators	Name	Function	Location
🔒	Unauthorized	This appears on view cells when camera's password has been changed, or when users do not have the access rights to a camera. *	Live

* Note that this indicator will not appear if the very first connection failed. A disconnection sign appears instead.

	Full view
	Note that the software automatically detects the device type, and that some functions will be disabled if the camera does not come with a speaker connection, DO, or associated video codec, authorized access, etc.

⚠ IMPORTANT:

Since wireless connection and video streaming consume considerable power, you should leave the VIVOCloud app when you are not watching the live view. Press the Home button to leave the VIVOCloud.

IV. Basic Operation

1. Changing the cameras' positions on live view.
You can place your finger tip on one camera for **0.5 second** until it becomes afloat, and then drag it to a view cell you prefer.

You can also move a view cell to another page by dragging it near and across the border of the current layout. Note that you can only do so when you have a layout filled with multiple cameras across multiple layout pages.
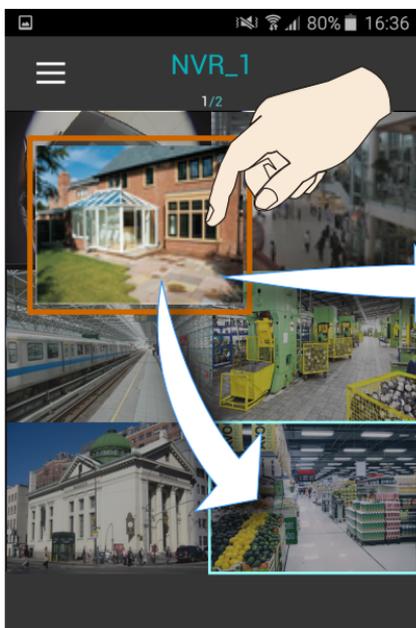
If you move a camera view cell to a view cell that is already populated, the two cameras will swap their positions.

Note that you can not move a camera to a different server/camera group.

When there are multiple camera groups (those managed by different VAST servers), you can swipe left or right to move across the layout pages of different camera groups.

When there are layouts pages not yet visited, a page flip ⟩ icon will apear on the left or right. A time lapse will occur when VIVOCloud is making a connection with servers.

2. Changing the layout of view cells.
Tap the lower left layout icon to bring out the available layouts for the 1x2, 2x3, and 3x4 options.
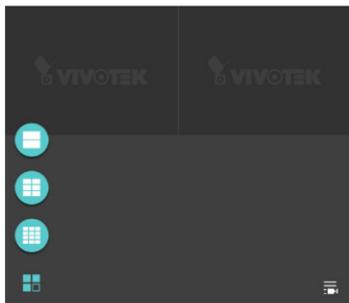
3. Deleting a camera from list.
Place your finger tip on one camera for **0.5 second** until it becomes afloat, and then drag it to the trash can.

Note the following with the functions:

1. You **can not delete** a camera under the NVR. The privilege for managing the cameras under NVR belongs to their administrators, and should be made via a console to those machines.

2. The trash can icon only appears when you select a camera and the camera's view cell becomes afloat.

If you delete a camera from live view, a confirm message will prompt. Tap **DELETE** to remove the camera.
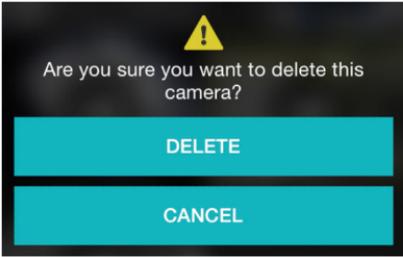
NOTE:

Cameras are added to view cells in the following order: upper left > upper right > middle left > middle right, and so on. They automatically fill sucessive pages when the current layout is full.

Once a camera/server is added, the software automatically displays the page where the most recently added camera resides.

4. PTZ control: Double tap on a camera view cell opens a full view window. Tap on the Back button on the upper left of screen to return to the Live view window.

Five functional buttons are available on the screen:

PTZ: provides zoom, pan and tilt control for cameras that come with PTZ mechanisms, such as a speed dome camera.

Tap on the button to enable the PTZ functions. The button will turn blue.

Tap on the button again to diable the PTZ functions.
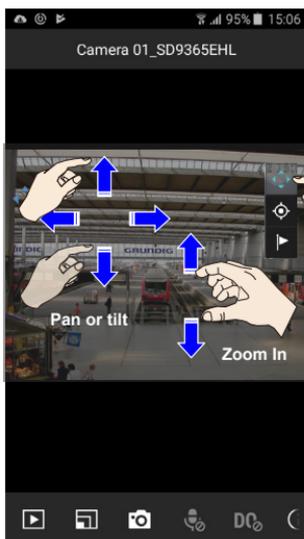
Use your fingers to exert PTZ control to move to a different field of view, or zoom in/out on a view. Swipe your finger to the opposite direction of your target to move to it.

When in the full view and when the PTZ mode is not activated, swipe left or right to access other cameras in the same camera/NVR group. To access other cameras in a different group, you need to go back to the live view, and then enter the display of a different group.

Tap on the **Home** button to return to a PTZ camera's home position.

📝 **NOTE:**

1. Not all user accounts have the rights to perform PTZ control. Make sure the credential you used to enlist the camera comes with such rights.

2. The iOS device does not enter auto-lock when running the iViewer or VIVOCloud.

3. The onscreen functions will not be available until the connection is established. Before the connection is made, the following indicator will display on the screen. The icon will also display on a function button when it is initializing, such as the two way audio.

Tap on the Preset ▶ button to reveal the preset positions pre-configured for the camera. Tap to select a position, and the camera lens will move to that position. Movement lags can occur depending on the performance of network connection.

📝 **NOTE:**

When in the Full camera view, you can swipe across the screen to move to the view of another camera. However, you can only access cameras within the same group.

---

5. Fisheye Control: For fisheye cameras, use the button to enable PTZ control in a Regional or Panoramic view.

When in the full view, the 1O, 1P, and 1R modes will be available at the lower screen.

View Type:

1O: The orignal circular view.

1R: The Regional view. You can perform PTZ functions in this mode using finger moves to move to a different view area, or zoom in/out on a view area.

1P: The Panoramic view displays a long stripe of an all round view. You can rotate the image horizontally using finger swipes.

When in a fisheye **Panoramic** view, swipe to the left or to the right to change the field of view.

When in a fisheye **Regional** view, put your finger tip on the screen for half a second, and then drag your finger across the screen in any direction to change the field of view.

6. ▶ **Playback**: searches and plays recorded video footages on an **NVR** station, or a camera's SD card. Use the time roller to select the time when the recording took place. Click on the **OK** button below to retrieve past videos.
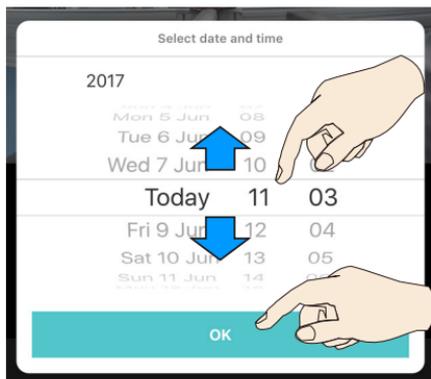
⚠ **IMPORTANT:**

- The presumption is that you already know a recorded video does exist for a specific point in time, and by a specific camera.

- The time roller selector is not available for Android users. .

If no recording data exists by the designated point in time, the software will start to play back the first available recording near the designated point in time. If there is no recording data at all, a disconnection icon is displayed.

If different time zones were set for the device and for the VIVOCloud, the recording data will be displayed using the time zone setting on the VIVOCloud.

The **Playback** window provides control over the selected video footage. You can tap on the control buttons to increase or decrease the playback speed. Note that Playback only retrieves recorded videos from the NVRs or a camera's SD card. Therefore, you **can not playback** on a camera that comes without an SD card. The default for the playback is 1 minute before the current time.

Tap on the **Back** button to return to the live view.

Camera name

Return to Live

Retrieving from camera/SD

Control buttons

Timeline

Recorded time of current playback

Color bar indicates the time span with existing recording
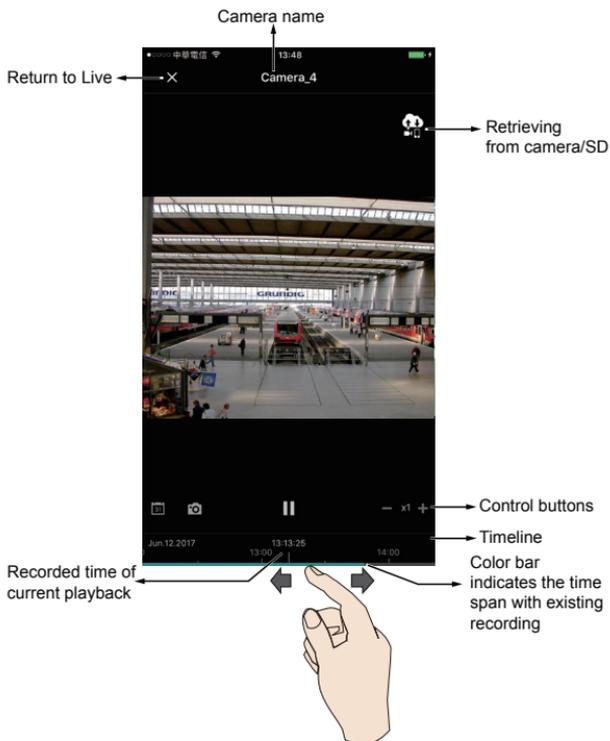
Note the following when using the Playback function:

1. You can also use your fingers to zoom in/out on the Playback screen.
2. For a fisheye camera, you can select a dewarp display mode during the playback, such as 1R or 1P.
3. The Snapshot function also applies in the Playback window. When playing back a video in a Regional view, the snapshots taken will also be the regional views.
4. You can move through the timeline by tapping and scrolling along the timeline to a point in time of your interest.
5. The playback speeds are configurable as 1X, 2X, 4X, or 8X.

Below is the Playback screen for a fisheye camera. During the playback, you can select a dewarp mode (1R or 1P mode only, due to the lack of decoding power on hand-held devices), click the fisheye exertion control icon, and then tap and swipe the screen to move to the field of view you prefer.

Return to Live   Camera name

Dewarp modes

Control buttons

Timeline

Recorded time of current playback
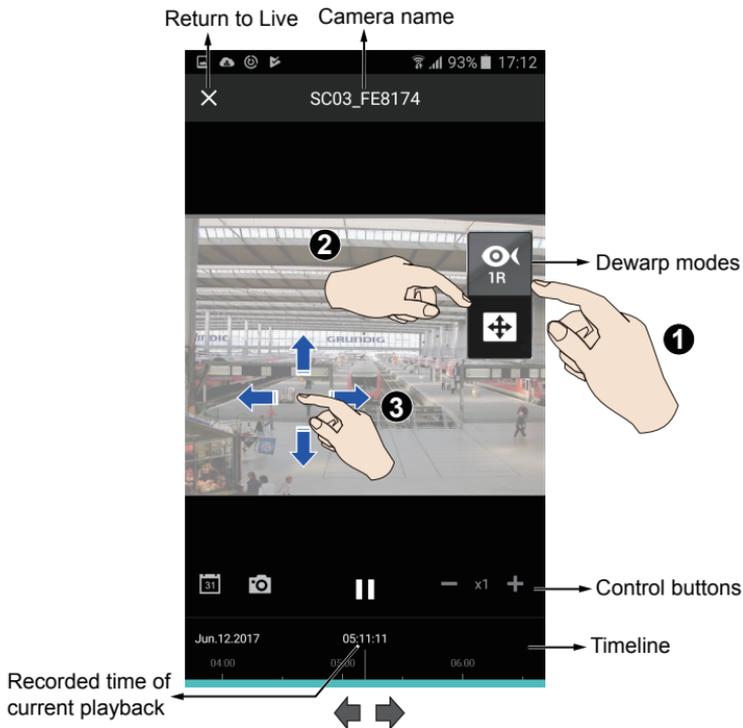
Snapshot: saves the current view as a jpeg. Tap OK to proceed.

"VIVOCloud" Would Like to
Access Your Photos
Save snapshot to your photo library

Don't Allow   OK
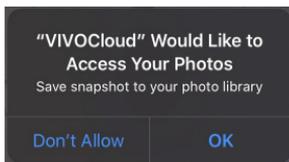
NOTE:

If a camera does not comply with ONVIF Profile-G, the summary of recordings on the timeline will not be available.

Playback Export:

Conditions:
1. Supports recordings on NVR running firmware rev. 3.3 or above. The export from videos on SD card is currently not supported.
2. MJPEG video is not supported.
3. G.726 audio codec is not supported on iOS platform.
4. Audio cannot be output with the default player on the Android platform. You can use 3rd-party player instead.
5. For a user viewing a shared device from another user, he cannot export the video recording.

To export playback:
1. Select a camera, and tap the Playback button.
2. Tap on the Export playback button.
3. Select the date and time of the occurrence, the length of the video, and press tthe EXPORT button.
4. The export process may take a few seconds. Please be noted that you **should not** close the VIVOCloud app when the export is taking place.
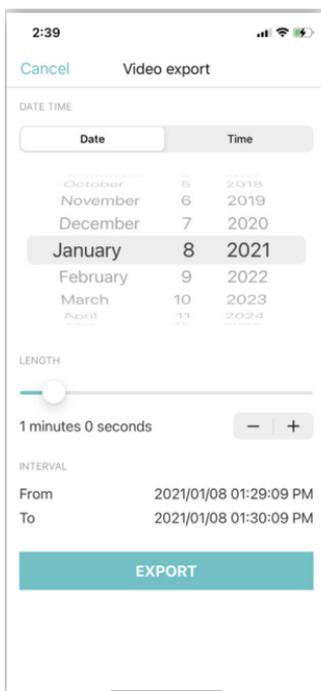
5. The export statuses are shown below.
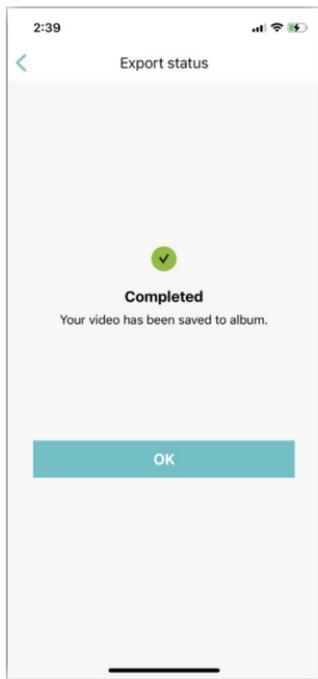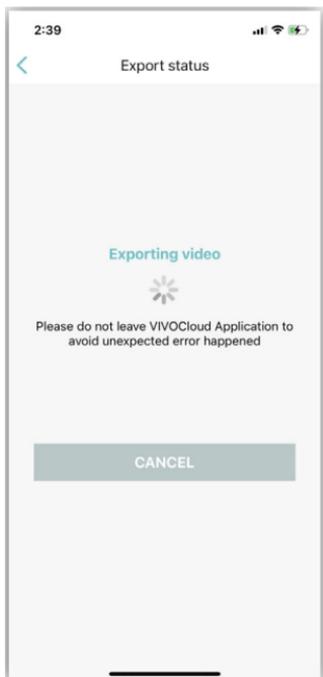
6. The exported video will be available at your cell phone's default album.
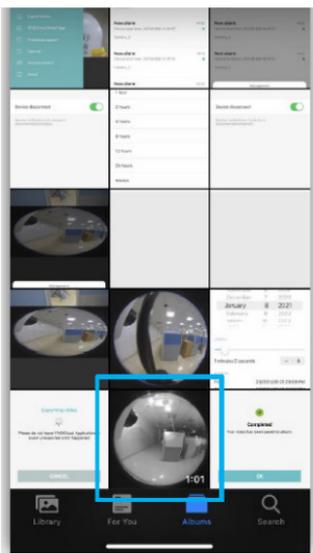
7. During the export, you can use the other functions in the VIVOCloud app. If you want to check the export status, you can enter Menu, and tap on the Export Status.
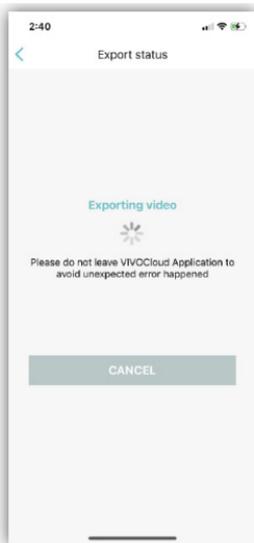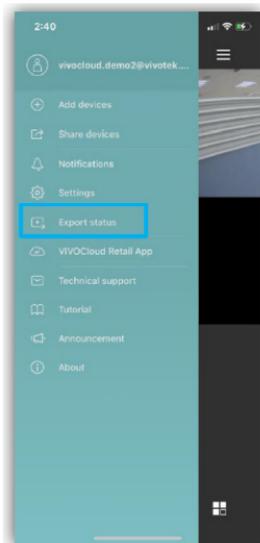
7. ⚙️ **Camera Configuration**: Click this button to change the camera parameters.
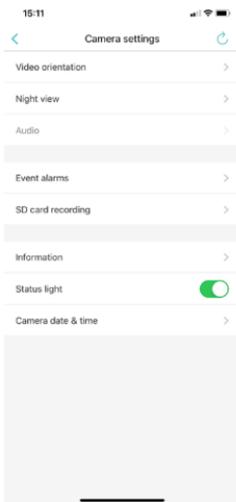
💡 Double-click on a camera's view cell to enter the full view to find this button at the bottom row.
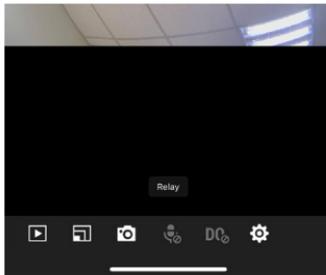
Item	Configurable parameters
Video orientation	Video Flip or Mirror
Night view	For the embedded IR light Auto, Always ON, Always OFF control.
Audio	Determines the audio input (microphone) gains.
Event alarms	In here you can configure VIVOCloud to be receiving different types of camera alarms, such as Motion detection, Audio detection, Tampering, DI, and select the associated actions as recording video or Push notification. Notifications also include device offline and online messages. When an NVR is disconnected from the VIVOCloud server for more than 130 seconds, VIVOCloud server will push notifications to user's mobile devices. In addition to this, you can configure camera event and let VIVOCloud receive instantaneous alarm via the Push notification. An example is shown below:
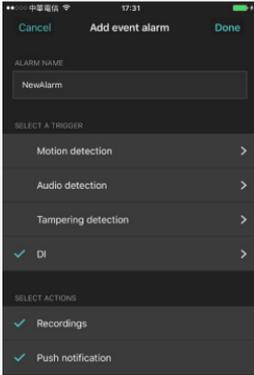
* Note that the Camera Configuration functions do not apply to cameras managed by an NVR.

You can configure an event on camera, such as the Sony SD card life expectancy alarm. (**Configuration** > **Event settings** window)
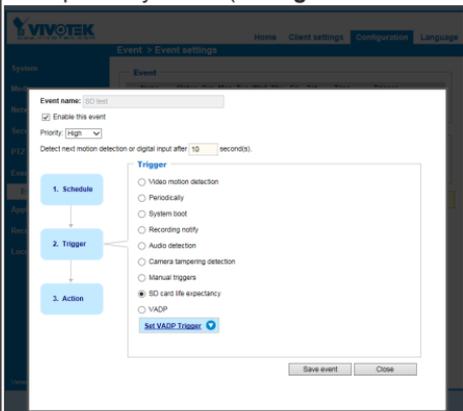
On the Action page, select the **Push notification** checkbox. Finish the rest of the event configuration procedure. Save your event settings for the configuration to take effect.
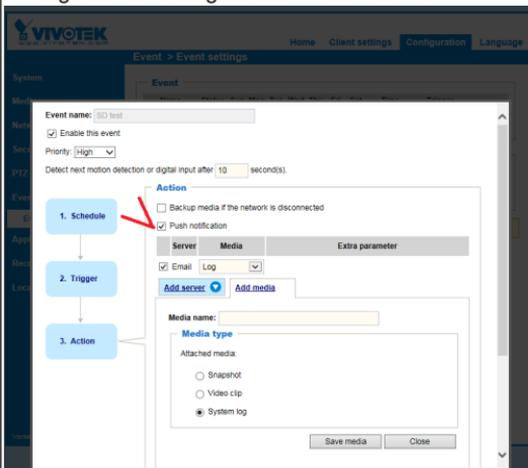
	On the occurrence of an SD card event, you will receive the message prompt. Such an instant alert allows you time to replace key components, such as a failing SD card. You can also respond instantly to alarms triggered by a DI (digital input) that may come from external devices, such as a glass break sensor, or a smoke sensor. If your camera is connected to external devices via the DO lines, e.g., an alarm or lighting equipment, you can toggle the Digital Output signals by turning on the DO buttons. Please remember to turn off the DO output once the intended action is fulfilled. Cameras managed through the NVR will not display the DO options.
SD card recording	From here you can configure SD card related settings such as Continuous recording, select the minimum cyclic storage, Cyclic storage, automatic disk cleanup, and the source of recording.
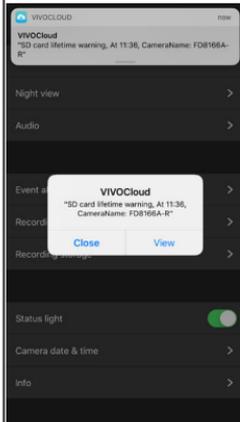
33
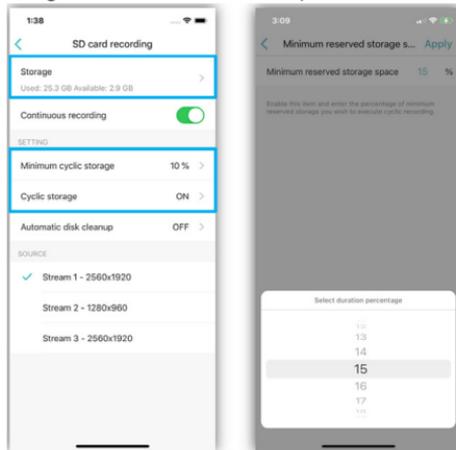
Information	You can change the name of the camera.
Status light	Allows you to turn off the onboard LED light. Some camera LEDs are visible from the outside.
Camera date & time	You can manually change the camera date and time and time zone. If set to automatic, the onboard realtime clock will function according to your previous configuration.

⚠ **IMPORTANT:**

1. The PTZ, Playback, Snapshot, and Configuration options discussed above only appear in a Full View window.
2. The PTZ function takes effect only if your cameras come with PTZ mechnical design, such as a speed dome camera.

8. 🔔 **Notification**: The device events are polled and listed here. Scroll up or down to view the event list. The events can include device statuses, triggered alarms, etc. Note that you need to configure event settings at Configuration > Event settings on a web console to a camera.

Notification Settings:

1. From the main page, enter the menu and select Notifications.
2. In the Notifications page, select the Advanced menu from the upper-right of the screen, and tap Notification Setting.
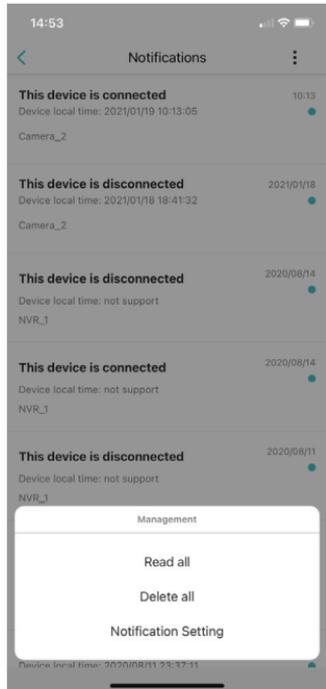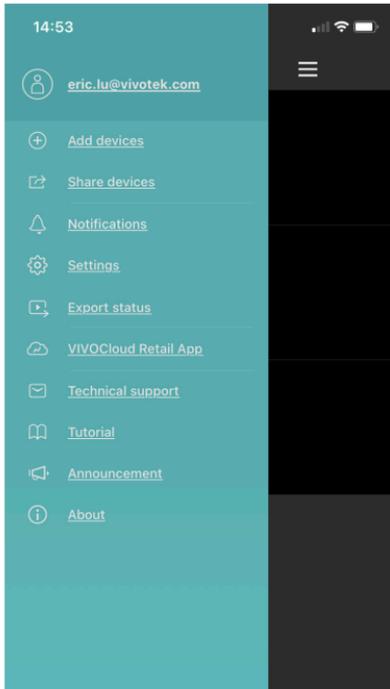
3. By default, the Mute Notifications option is OFF. You can select to mute the event notifications for a configurable period of time. Tap to select a time period.
4. Audio cannot be output with the default player on the Android platform. You can use 3rd-party player instead.
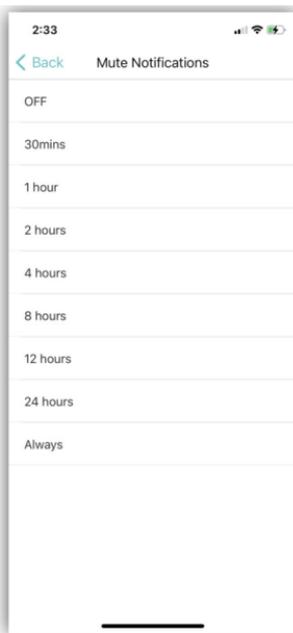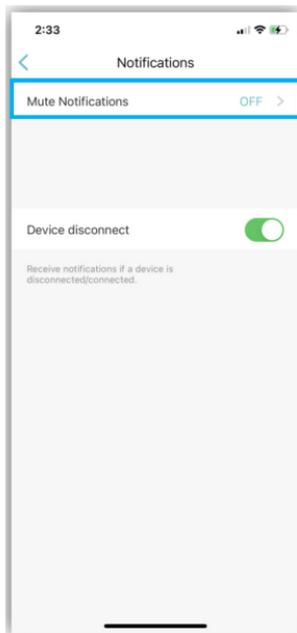
V. Other Functions

5-1. Share devices
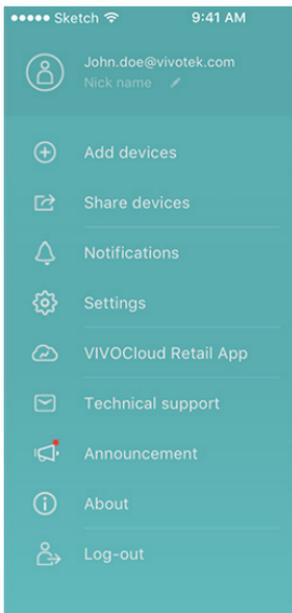
You can share your configured devices to other VIVOCloud accounts, e.g., your family members, running on other mobile devices.

You can share the same devices with up to 4 accounts.

To share devices,

1. Tap **SHARE DEVICES**. Tap **SHARE YOUR DEVICES** to proceed.
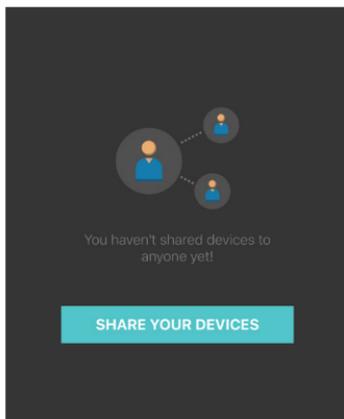
2. Enter the account Email address. You can configure the sharing first, and let others install the VIVOCloud and register to VIVOTEK's VIVOCloud server later.

Select devices
Each device can only be shared to 4 accounts

📄 NVR_5 ○

📷 Camera_3 ○

📷 Camera_4 ○

📄 NVR_1 ○
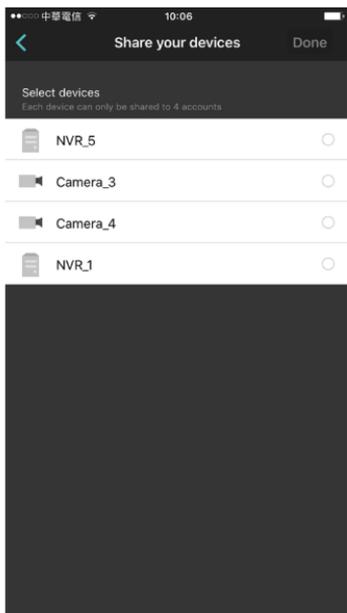
3. All of your configured devices will be listed. Select the devices to share using the check circles.

👤 shareuser@hotmail.com

4. Tap **Share** to share your configuration with more sharing accounts, or click ◀ to return to the live view.

5-2. SETTINGS
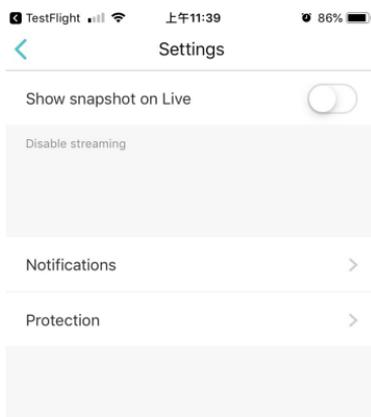
Open the Side panel ☰ menu.

Disable video streaming-

This option reduces the requirements for networking bandwidth. The **SETTINGS** page allows you to disable the realtime streaming and display snapshots on the live view instead. You can still acquire a live view streaming when you double-tap on a view cell for a full view.
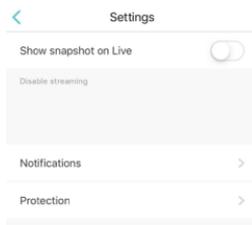
iOS
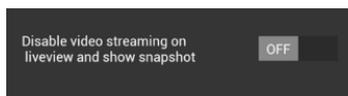
Android

When in this mode, use the refresh button at the top of the screen to acquire instant snapshots from your cameras.VIVOCloud does not automatically refresh the snapshots on screen.

Protection -

If enabled, password verification will be required every time you launch the VIVOCloud app. For iOS, Face ID, and Touch ID are supported. For Android, fingerprint is also supported.
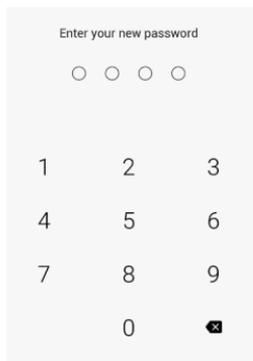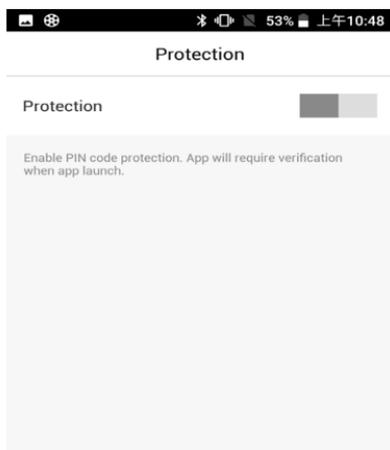
Notifications -

Select to enable or disable the device disconnection notifications.
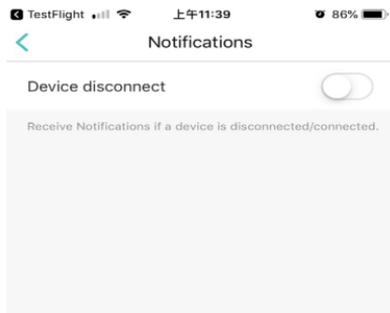
5-3. Technical Support
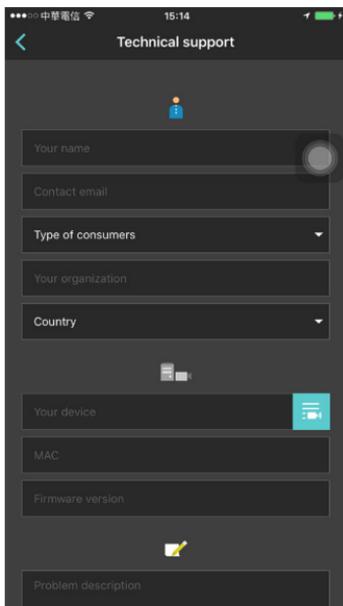
You can contact VIVOTEK's technical support through the Side panel ☰ link at the upper left of the Live view.
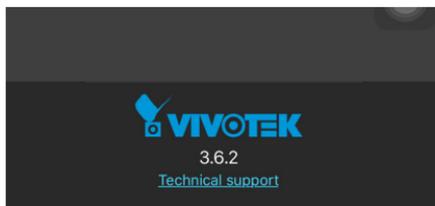
Enter your name (50 digits max.), Contact email, consumer type, organization, country, select a device, MAC address, firmware version, etc. Enter the description of your problem, and then tap **Send**.

You can skip the entries shown as N/A.

Note that if you select a server, no MAC address will display here.

5-4. Two Way Audio

NOTE: Two Way Audio is currently not supported with cameras managed by an NVR.
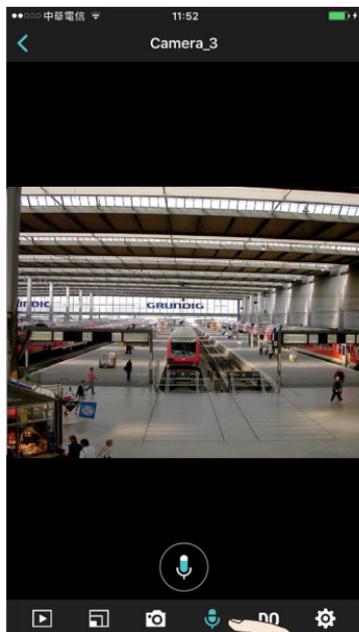
If you have a camera that supports two way audio, you can speak to the audience near the camera from your VIVOCloud device.

1. Make sure the camera audio setting is not muted on the camera. Also, make sure the camera audio output lines are connected to an amplified speaker.

2. Tap on the speaker button. Speak when the button turns blue. A speaker sign will appear on screen. Tap again to end the conversation.

The microphone button does not appear if your camera does not support Two Way Audio.

5-5. Alarm Management

To enable or disable the alarms from NVRs,
1. Go to the device's main page.
2. Select the advanced menu > Alarm Management.
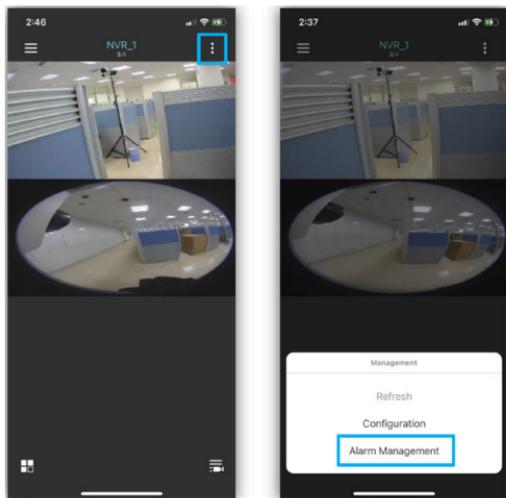
3. You can select to enable all alarm triggers and/or the new alarm configurations when they are created on the NVR.
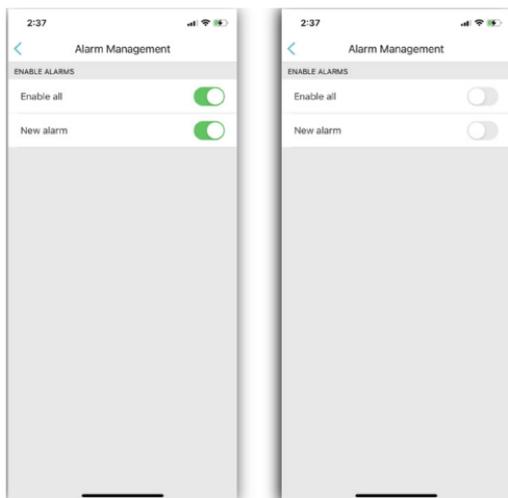
5-6. Announcement
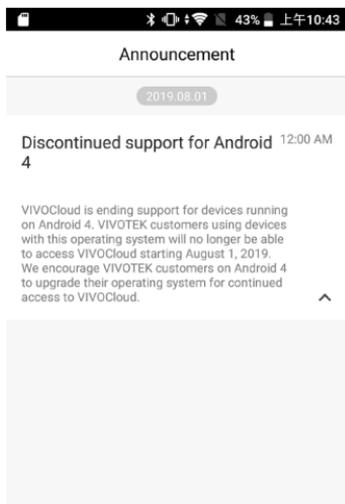
The announcement window displays important system update information for users.

5-7. Account Edit
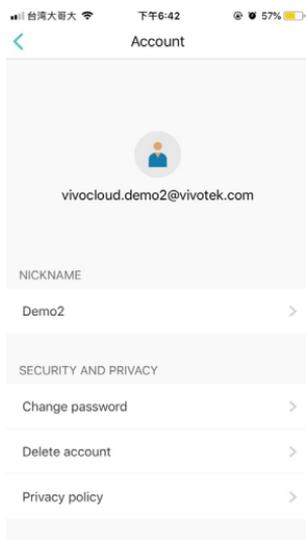
Tap the account name itself to edit the password or delete an account.