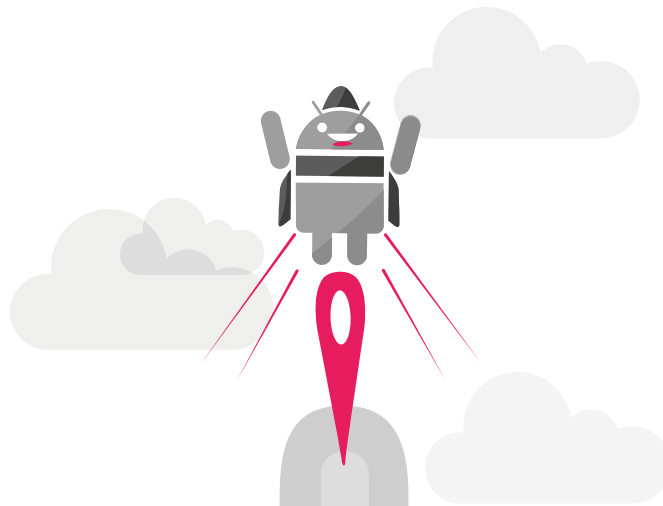


**GENY**MOTION<sup>oo</sup>  
cloud

# User Guide



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# Overview

Genymobile takes mobile application lifecycle to a whole new level with Genymotion Cloud. Genymotion Cloud is the first enterprise-grade Android SaaS allowing you, through its collaboration and automation features, to ease collaborative work between people from the same organization and optimize testing in a continuous integration environment.

This guide explains how to access Genymotion Cloud and use the various collaboration and automation features provided by the platform.

In this guide, the following instructional icons are used:



*Notes, tips or additional information.*



*Situations that could cause performance issues or data losses.*

# Requirements

This section lists the prerequisites for an optimal use of Genymotion Cloud.

## Web browser

In order to have Genymotion Cloud run smoothly, we recommend using Google Chrome.

## Communication

For Genymotion Cloud to communicate with our servers, make sure the following rules are allowed in your organization:

- Outgoing TCP port 443 on [cloud.geny.io](https://cloud.geny.io);
- Outgoing TCP port 443 on [api.geny.io](https://api.geny.io);
- Outgoing TCP/UDP port 443 on the IP range listed on <https://cloud.geny.io/ips-v4> (Genymotion Cloud Streamers).

If your company uses a HTTP proxy, make sure HTTP CONNECT on port 443 is allowed.

If the proxy is a SOCKS v5 proxy, make sure UDP ASSOCIATE is allowed.

## Android SDK tools


To use Genymotion Cloud automation features, Android SDK tools must be installed. We recommend installing ADB version 1.0.39 or above.

# Accessing Genymotion Cloud

Genymotion Cloud works as an add-on to Genymotion desktop software.

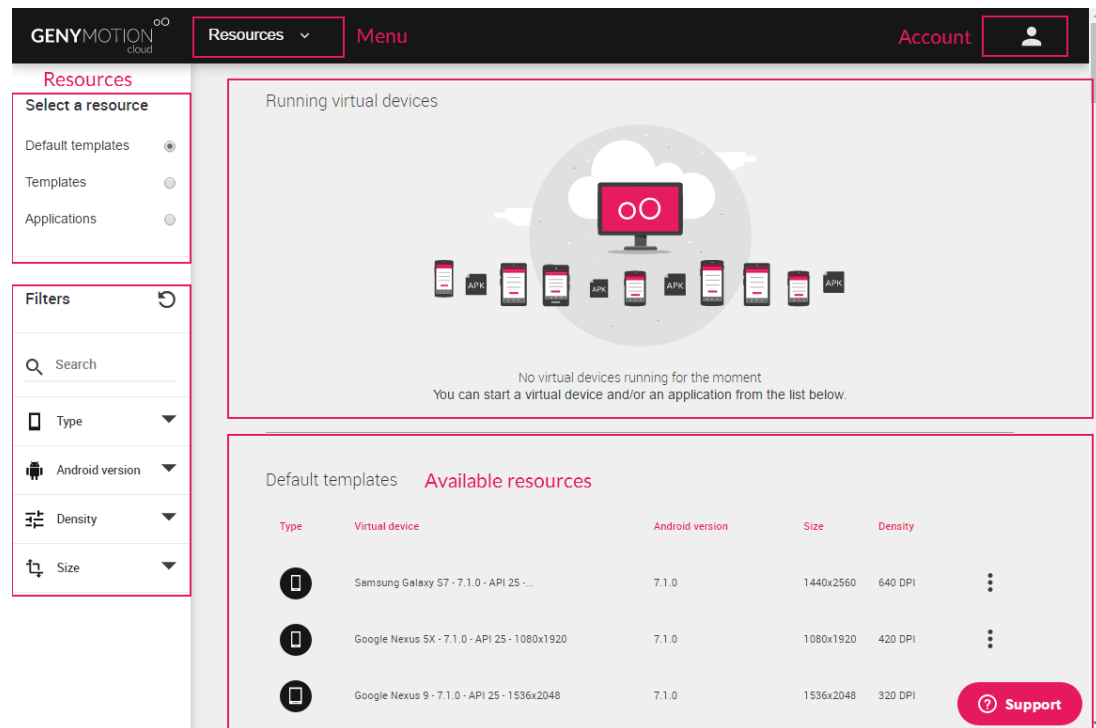
If you already have Genymotion desktop software installed, then your Genymotion Cloud account is synchronized with your Genymotion desktop account. You can thus sign in to Genymotion Cloud at <https://cloud.geny.io> using your Genymotion desktop software credentials.

If you do not already have Genymotion desktop software installed, you can download it from the [Genymotion website](#) and use the same credentials as the ones you created for Genymotion Cloud.

 **To use Genymotion Cloud, you must own an Enterprise license.**

# Graphical interface

This chapter presents the web interface of Genymotion Cloud that can be accessed from <https://cloud.geny.io>



## Resources

From this area, you can access different types of resources:

- **Default templates:** virtual device templates provided by Genymobile that can be run in your web browser.
- **Templates:** virtual devices that have been shared with you.
- **Applications:** applications that have been shared with you.

The selected resources are then listed in the bottom of the screen. You can then sort them by clicking their respective column titles.

## Filters

From this area, you can filter the virtual devices to display, per type, Android version, density or size.

## Menu

From this dropdown menu, you can access the following pages:


- **Resources:** list of your available resources.
- **Running device:** virtual device currently running in Genymotion Cloud.



*In case you have several virtual devices running, this displays the most recently started one.*

- **Liveshare:** demonstration mode of a virtual device or application that you have initiated or that you can join.

## Account

You can access your account details by clicking  and **Edit**. From this page, you can view which organization you are part of, the date you joined the organization in Genymotion Cloud and the administrator of your organization. You can also edit your personal details and change your password.



*If you change your Genymotion Cloud password, you must also change your Genymotion desktop software password.*

## Running virtual devices

This area lists the virtual devices currently running in Genymotion Cloud.



*A virtual device started from the Genymotion Cloud website that has remained inactive for one day is automatically stopped. However, if you started the virtual device from GMTTool, no timeout happens.*

## Available resources

This area lists the available resources depending on the type of resource you have chosen to display.

## Support form


If you encounter any problems while using Genymotion Cloud, you can send a request for assistance from any web page. To do so, click the **Support** button on the bottom of the page and enter your information and problem description. You can also attach a file to your request;

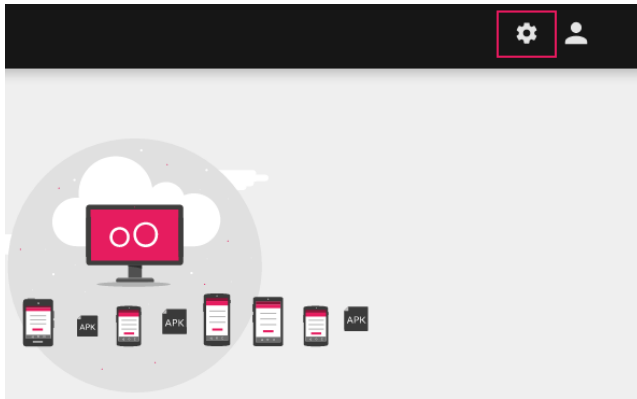


it must not exceed 20MB. Our customer service will do its best to solve your issue as quickly as possible.

# Administration interface

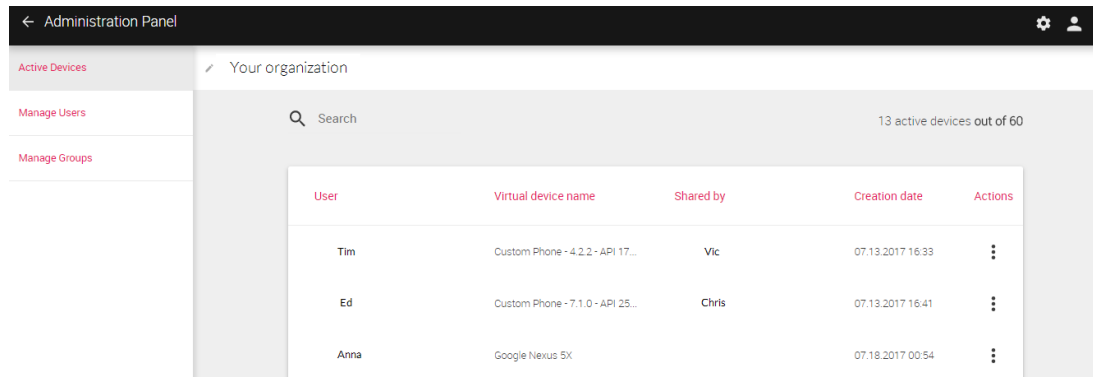
This chapter presents the administration interface of Genymotion Cloud, accessible by the administrator of the organization.

To open the administration interface, the administrator must click  next to his account settings.



## Active devices

From this area, you can view all virtual devices currently running in Genymotion Cloud for your organization. You can view which user has a virtual device active, the virtual device name, the person who shared the virtual device, and the date and time of creation of the virtual device. You can also sort those information by clicking the titles of each column.



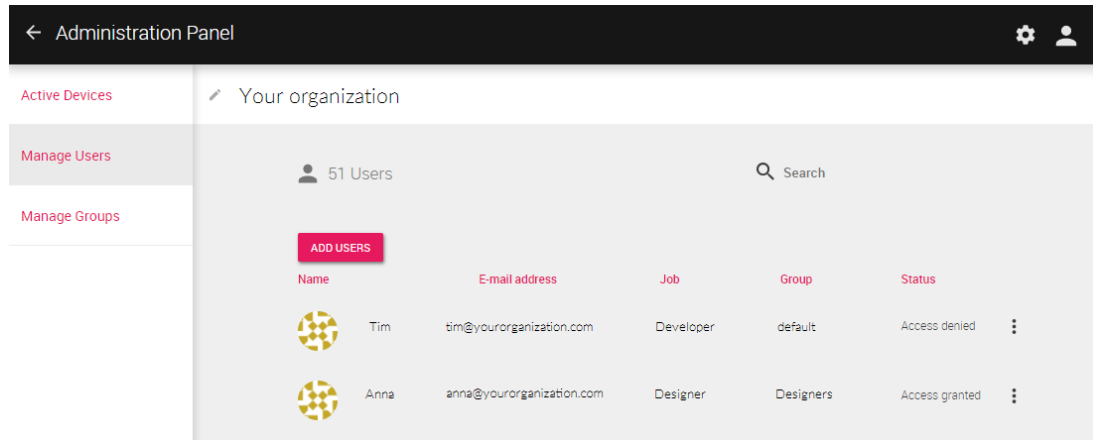
User	Virtual device name	Shared by	Creation date	Actions
Tim	Custom Phone - 4.2.2 - API 17...	Vic	07.13.2017 16:33	⋮
Ed	Custom Phone - 7.1.0 - API 25...	Chris	07.13.2017 16:41	⋮
Anna	Google Nexus 5X		07.18.2017 00:54	⋮

## Stopping a virtual device

As an administrator, you may need to stop a running virtual device for whatever reason. From the **Actions** column, click **Stop** on the line corresponding to the virtual device you wish to stop.


## Manage users

From this area, you can add new users to your organization, edit users' details (first name, last name, e-mail address and job). You can also grant or deny access to Genymotion Cloud.





### Adding users to your organization

To add a new user to your organization:




1. Click .
2. Enter the new user's e-mail address and press **Enter**.
3. Add a message that will be sent with the invitation (optional).
4. Click **Invite** and **Close**.

### Editing users' details

To edit a user's personal details:

1. Click  and  on the line of the user for whom you want to edit details.
2. Edit the user's details and click **Confirm**.

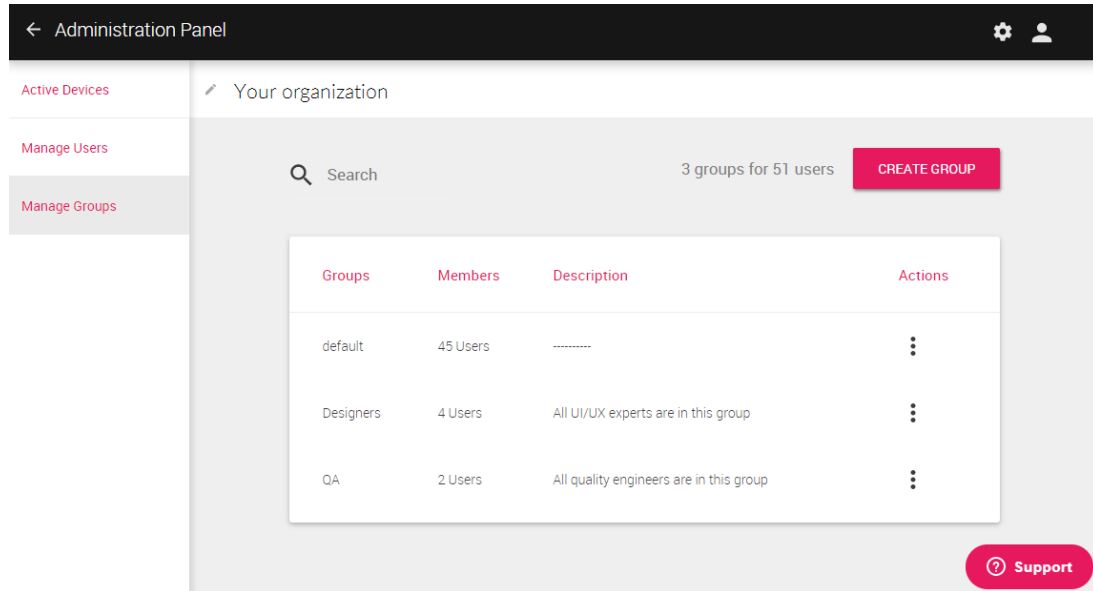
### Defining access to Genymotion Cloud

To grant or deny access to Genymotion Cloud to a user, click  and  or  on the line of the desired user.

## Manage groups

Groups allow you to manage your resources according to a specific set of users. From this area, you can create, edit or delete user groups.


 ***New users are automatically affected to group "default".***



### Creating a group

To create a new group:


1. Click **Create group**.
2. In **Name**, enter a name for the new group.
3. (Optional) In **Description**, enter a description about the purpose of the new group..
4. Click **Save**.
5. From section **Members**, click **Add users**.
6. Select users from the list.

 ***A user can be a member of one group only. Selecting a user removes him from his former group.***

7. Click **Add**.

## Moving users


To modify the group a user belongs to:


1. From **Actions**, click **Edit**.
2. In the **Members** section, select all or some users.
3. Click  and **Move**.
4. Select the new group to be associated with the user.
5. Click **Move**.



*A user can be a member of one group only. Selecting a user removes him from his former group.*

## Removing a group

To remove a group, you must first move all users belonging to the group to other groups. To move users, please refer to section [Moving users](#). Then, you can click  and **Delete**.

Alternatively, when clicking directly  and **Delete**, you are prompted to move all users into another group of your choice before deleting the group.

# Collaboration features

Genymotion Cloud offers collaboration features which enable teams to work more efficiently together from a same resource. Thus all people involved in the lifecycle of an application can contribute to its development thanks to the ability to share an application, a virtual device or even a live session for immediate feedback. This chapter explains how to use those collaboration features.


## Setting up a virtual device

Prior to sharing a virtual device with other Genymotion desktop software users, you must set it up with the environment you need. This section details the prerequisites for setting up a virtual device within Genymotion desktop software.

### Starting a virtual device

After having created one or several virtual devices, they are made available in the **Your virtual devices** list of the Genymotion main window.

To start a virtual device:

1. Select the virtual device you wish to run.
2. Click .

### Installing ARM translation libraries

If your application relies on ARM native code, you must install an ARM translation engine to make it work. The ARM translation engine must match your virtual device Android version. Once installed, shutdown and restart your virtual device.

## Installing Open GApps

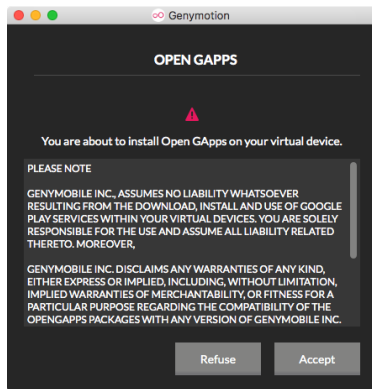


**Genymobile Inc. assumes no liability whatsoever resulting from the download, install and use of Google Play Services within your virtual devices. You are solely responsible for the use and assume all liability related thereto. Moreover, Genymobile Inc. disclaims any warranties of any kind, either express or implied, including, without limitation, implied warranties of merchantability, or fitness for a particular purpose regarding the compatibility of the Open GApps packages with any version of Genymotion. In no event shall Genymobile Inc. or its affiliates, or their respective officers, directors, employees, or agents be liable with respect to your download or use of the Google Play Services and you release Genymobile Inc. from any liability related thereto. You agree to defend, indemnify and hold harmless Genymobile Inc. for any claims or costs related to your use or download of the Google Play Services.**


The application you are developing or testing may require an interaction with Google Play Services (e.g.: in-app purchasing, advertising, etc.). The Open GApps widget available from Genymotion desktop software allows you to install a minimum package of those services, also containing an application store.



**Your virtual device must run Android 4.4 and above.**




To install the Open GApps package:

1. From Genymotion desktop software, click . At the end of the installation, you are redirected to the Open GApps website.
2. Reboot the virtual device.
3. (Optional) Open the Play Store and configure your account.



**In any case, do not drag and drop nor use the File upload feature directly from the virtual device hosted in Genymotion Cloud to install Open GApps**

 **or ARM translation files. They will be lost when you will be prompted to reboot the virtual device.**


## Deploying an application

To deploy an application to a virtual device, use either of the following methods:

- Drag and drop the application **APK** file into the virtual device window
- Run the following command: `adb install <application name>.apk.`

## Saving a virtual device

From a predefined template, once your setup is done, you can save your virtual device.

1. Within your virtual device, click  > **Save as**.
2. Name your virtual device.  
This creates a new template and redirects you to the **My Resources** page.


You can also overwrite an already customized virtual device using  > **Save**.

## Sharing a virtual device

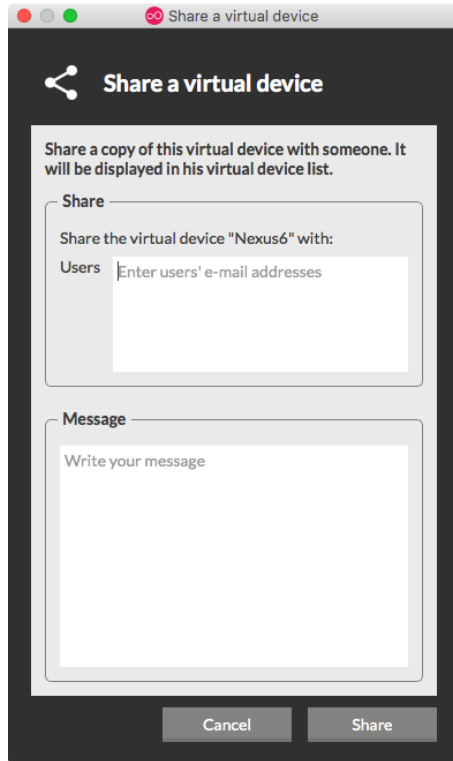
Sharing a virtual device allows you to send a virtual device containing all your settings and installed applications from Genymotion desktop software to other Genymotion desktop software or Genymotion Cloud users so they can use the exact same configuration as yours within minutes. This allows for example to test an application that needs some dependencies to run on a preconfigured virtual device.

### From Genymotion desktop software

To share a virtual device from Genymotion desktop software:

1. From Genymotion desktop software, select the virtual device you wish to share with other users.
2. Click .





3. In **Users**, enter the e-mail addresses of the people with whom you wish to share the virtual device.
4. (Optional) In the **Message** field, add the message of your choice to give information to users about the purpose of the shared virtual device.
5. Click **Share**.





This uploads the virtual device and makes it available to the users you have specified. In the meantime, a notification e-mail is sent to them. They can access the shared virtual device via that e-mail, via Genymotion desktop software, Genymotion Cloud or using the command line tool GMTool.

## From Genymotion Cloud

Sharing a virtual device is always initiated through Genymotion desktop software. However, once the virtual device has been uploaded to Genymotion Cloud, the sharing can then be updated from Genymotion Cloud in order to add or remove collaborators.

Members of your organization or guest users can be added to the sharing. Guests will only be able to access the shared resource while you (the owner) or members of your organization (collaborators) will be able to add or remove other people to the sharing.

To add or remove users to the virtual device sharing from Genymotion Cloud:

1. From **Templates**, click  and  on the shared virtual device. Shared virtual devices can be identified with the  icon.
2. Update users who can access the sharing:
  - In **Add users**, add e-mail addresses of the people you wish to share the virtual device with.
  - Click  to remove people from the sharing.
3. (Optional) Add the message of your choice to give information to users about the purpose of the shared virtual device.
4. Click **Save**.

The virtual device is now available to the new users you have specified. In the meantime, a notification e-mail is sent to them. They can access the shared virtual device via that e-mail, by signing in to Genymotion Cloud or by copy-pasting the share link in the address bar.


## Accessing a shared virtual device

This section aims at explaining users how to actually access a shared virtual device via Genymotion Cloud.

Once someone has shared a virtual device with you, you receive a notification e-mail from Genymotion Cloud.


To access the virtual device, follow the steps below:


1. Open the e-mail received from Genymotion Cloud stating that someone shared a virtual device with you.

 ***If not in your mailbox, check your spam folder and allow the sender for future sharings.***


2. Click **Run virtual device**.





You are automatically redirected to the virtual device within Genymotion Cloud.

 ***If you already have an account, you can also directly sign in to Genymotion Cloud.***

 ***If you do not have an account, you are first requested to create a password.***

To view the virtual devices that have been shared with you within Genymotion Cloud:

1. From the left-hand side panel, check **Templates**.  
Use the available filters to display only some virtual devices or sort them by clicking the column titles of the list. Shared virtual devices can be identified with the  icon.

2. If you want to view more details about the virtual device (file name, source, Android version, Genymotion version number, size, capacity, memory and CPU), click  and . The owner of the sharing may also have entered a description or comment about the purpose of the sharing.
3. To start the virtual device, click  and  from the corresponding line.

The virtual device is being started. You can now interact with it and use the available widgets. For more information about the widgets, please refer to section [Emulating sensors and features](#).

To quit the virtual device, click **Stop**.

To broadcast a stream of the virtual device to other people, click **Liveshare**. For more information about the liveshare feature, please refer to chapter [Sharing a live session](#).

## Sharing an application

You can share an application using Genymotion desktop software or by uploading it directly to Genymotion Cloud and specifying the users you want to grant access to the application. This section details both methods.

### From Genymotion desktop software

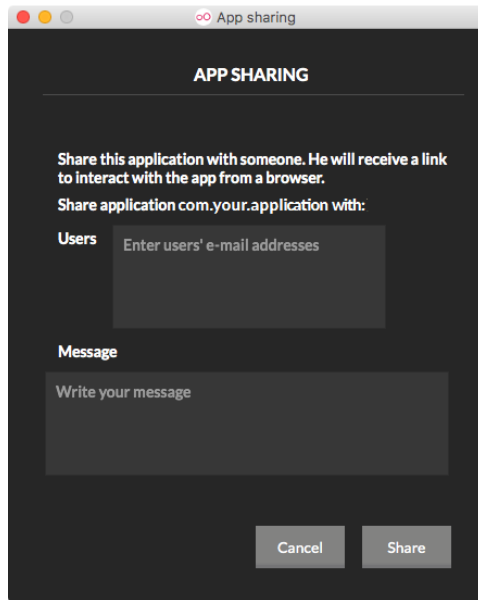
The App sharing feature of Genymotion desktop software allows you to share an application with other users via Genymotion Cloud so they can have access to the application within a web browser. As the shared application is being made accessible via a virtual machine running in Genymotion Cloud, designers, sales representatives or any stakeholders not having Genymotion desktop software installed on their workstation are able to see the application being developed or tested in order to give their feedback.

To share an application, you must have previously installed it in a virtual device of Genymotion desktop software using one of the following methods:

- Drag and drop the application **APK** file into the virtual device window.
- Run the following command: `adb install <application name>.apk`.
- Download and install the application directly from the virtual device using a web link.

The application must also be started and running in foreground. Then:

1. From your virtual device running in Genymotion desktop software, click .



2. In **Users**, enter the e-mail addresses of the users with whom you wish to share the application.
3. (Optional) In the **Message** field, add the message of your choice to give information to the users about the purpose of the shared application.
4. Click **Share**.

This uploads the application and makes it available to the users you have specified. In the meantime, a notification e-mail is sent to them. They can access the shared application via that e-mail or by signing in directly to Genymotion Cloud.





*An application shared from Genymotion desktop software to multiple users is not shared among all receivers but instead cloned individually into virtual devices with the said application running in Genymotion Cloud for each one of the receivers.*

## From Genymotion Cloud

You can share an application directly from Genymotion Cloud in order to collaborate on the application without requiring Genymotion desktop software. You can share an application with members of your organization or with guest users. Guests will only be able to access the shared resource while you (the owner) or members of your organization (collaborators) will be able to add or remove other people to the sharing.

To share an application from Genymotion Cloud:

1. Upload an application to Genymotion Cloud:
  1. From **Applications**, click **Add App**.
  2. Browse for the APK file of the application you wish to upload.
  3. Click **Add** and **Close**.
2. Click  and  on the application you wish to share with other people.
3. In **Add users**, add e-mail addresses of the people you wish to share the application with.
4. (Optional) Add the message of your choice to give information to users about the purpose of the shared application.
5. Click **Save**.


The application is now available to the users you have specified. In the meantime, a notification e-mail is sent to them. They can access the shared application via that e-mail, by signing in to Genymotion Cloud or by copy-pasting the share link in the address bar.

## Accessing a shared application


This section aims at explaining users how to actually access a shared application via Genymotion Cloud.


Once someone has shared an application with you, you receive a notification e-mail from Genymotion Cloud. To access the application, follow the steps below:

1. Open the e-mail received from Genymotion Cloud stating that someone shared an application with you.


 ***If not in your mailbox, check your spam folder and allow the sender for future sharings.***





2. Click **Run app**.  
You are automatically redirected to the application within Genymotion Cloud.

 ***If you already have an account, you can also directly sign in to Genymotion Cloud.***

 ***If you do not have an account, you are first requested to create a password.***

To view the applications that have been shared with you within Genymotion Cloud:

1. From the left-hand side panel, check **Applications**.  
Use the available filters to display only some applications or sort them by clicking the column titles of the list. Shared applications can be identified with the  icon.

2. If you want to view more details about the shared application (file name, source, virtual device Android version, Genymotion version number, virtual device size, capacity, memory and CPU, as well as the APK version of the application), click  and . The owner of the sharing may also have entered a description or comment about the purpose of the sharing.
3. To start the application, from the line of the shared application, click  and .




The virtual device containing the application is being started. The application shows up immediately when the virtual device is started. You can now interact with the application running in the virtual device and use the available widgets. For more information about the widgets, please refer to section [Emulating sensors and features](#).

To quit the virtual device, click **Stop**.

To broadcast a stream of the virtual device to other people and show them your application, click **Liveshare**. For more information about the liveshare feature, please refer to chapter [Sharing a live session](#).


## Sharing a live session

The Liveshare feature allows you to broadcast a stream of your virtual device or application running in Genymotion Cloud and share it with specific people with whom you need to collaborate. Users having access to the session can see all your actions on the virtual device (click, mouse or keyboard event) and can interact in real time with the displayed virtual device. The person who creates the live session is marked as the "owner" while other participants are marked as "viewers".

1. From the **Resources** page, click  and  to start the virtual device or application of your choice.
2. Click  > **Live session**.
3. Click **Add participants**.
4. Type the e-mail address of the users you want to share a live session with and press **Enter**.
5. Click **Confirm**.



***The maximum amount of users you can share a live session with is at the moment restricted to 5.***

To remove participants from a live session, the owner can hover over the user's e-mail address and click .

The owner can stop the session at any time by clicking **Stop**.

## Accessing a live session

Users with whom you wish to share a live session of your virtual device or application receive a notification e-mail from Genymotion Cloud.

- Users without a Genymotion Cloud account can view the live session as a guest. They must click on the link in the notification e-mail and create a Genymotion Cloud password to access the session.
- Users with a Genymotion Cloud account can click on the link and sign in to Genymotion Cloud. They are directly redirected to the live session. They can also sign in directly to Genymotion Cloud and join the session from the **Liveshare** page from the action dropdown menu.

When the live session is over, users are redirected to the Genymotion Cloud home page.

If a user joins the live session after it is over, users get a notification that the session has already ended and are redirected to the Genymotion Cloud home page.


## Emulating sensors and features

To simulate various behaviors of your application according to specific use cases, Genymotion provides easy-to-use widgets which emulate the following sensors and features: Sound volume, Rotate screen, Fullscreen, File upload, Camera, Battery, GPS, Capture, Identifiers, Network, Phone, Resolution.


### Sound volume

You can control the volume of the sound emitted by your virtual device by clicking  or .


### Rotate screen

You can rotate the screen of your virtual device by clicking .

### Full-screen

You can turn the full-screen mode on or off by clicking .


### File upload

You can upload files from your computer to the virtual device. To do so, click  and browse for the file you wish to upload.

## Camera

The Camera widget allows you to send a video stream from a virtual device to the Android system. With this widget, you can test an Android application that uses an Android built-in camera.

The video stream comes from a real physical webcam connected or integrated into your computer.

To use the Camera widget, click .




***Make sure your camera is allowed to access the virtual device.***

## Battery

The Battery widget allows you to test how your application reacts with different battery charge levels and states of charge.


To use the Battery widget:

1. Click .
2. Modify the charge level using the slider or enter a value in the **Charge level** field.
3. Modify the state of charge by checking the **State of charge** box:
  - Check to activate the **Charging** state.  
This simulates that the power supply is plugged in and the battery is charging.
  - Uncheck to activate the **Discharging** state.  
This simulates that the power supply is unplugged and the battery is discharging.

## GPS

The GPS widget allows real-time activation and modifications of a position, accuracy and bearing.

To use the GPS widget:

1. Click .
2. Set the latitude value you wish to simulate using the **Latitude** field.  
The latitude value must range from -90° to 90°.
3. Set the longitude value you wish to simulate using the **Longitude** field.  
The longitude value must range from -180° to 180°.
4. Set the altitude value you wish to simulate using the **Altitude** field.  
The altitude value must range from -10000m to 10000m.
5. Set an accuracy value using the slider or by entering a value in the **Accuracy** field.  
The accuracy value must range from 0m to 200m.



- Set a bearing value using the compass or by entering a value in the **Bearing** field. The bearing value must range from 0° to 359.99°.





*Many applications do not rely on the GPS orientation, but use the device accelerometer or gyroscope to determine the bearing of the device, which are not yet supported.*

You can also define a location using the **Map** button. Once a location selected, click **Capture** to retrieve its coordinates.

## Capture

The Capture widget allows you to take a screenshot of virtual devices. This way, you can broadcast images of your applications.

To take a screenshot of your virtual device, click  and .

## Identifiers

The Identifiers widget shows **Device ID** and **Android ID** numbers. You can view and edit these values at any time, without having to reboot your virtual device.

To use the Identifiers widget, click .

- Android ID**

An Android ID is a 64-bit number randomly generated when the user first sets up the device. It remains the same for the whole lifetime of the user's device. Android 4.2.2 and greater versions support multiple user accounts, each one having a unique Android ID.

When clicking **GENERATE**, a random Android identifier is generated. Valid Android ID numbers are 16-hexadecimal digits long.



*You are not allowed to set an empty Android ID.*

- Device ID / IMEI / MEID**


By default, a new virtual device is deployed with the default device ID number 0000000000000000 0. When clicking **GENERATE**, a random identifier is generated. As IMEI or MEID numbers are used as device ID, Genymotion generates numbers compliant with the GSM 02.16 standard and the 3GPP2 specification (14 digits or hexadecimal digits + a checksum digit).

Valid characters for setting device ID/IMEI/MEID are: lower-case and upper-case letters [a-z, A-Z], digits [0-9], dots [.] , dashes [-] and underscores [\_].

## Network

The Network widget allows you to test how your application reacts with different network quality and performance types.

To use the Network widget:

1. Click .
2. Select a network profile from the **Profile** drop-down list.




*When activating the widget for the first time, the profile network is automatically set to Native. It then takes the last network profile used.*

Network profiles and their corresponding values are listed in the table below.

	Upload speed	Download speed	Upload delay	Download delay	Upload packet loss	Download packet loss	DNS delay
No data	0Kb/s	0Kb/s	0ms	0ms	100%	100%	0ms
GPRS	40Kb/s	40Kb/s	500ms	500ms	0.01%	0.01%	1000ms
Edge	200Kb/s	240Kb/s	400ms	400ms	0.01%	0.01%	800ms
3G	1.5Mb/s	7.2Mb/s	100ms	100ms	0.01%	0.01%	200ms
4G	5.5Mb/s	17.9Mb/s	50ms	50ms	0.01%	0.01%	100ms
4G (high DNS delay)	5.5Mb/s	17.9Mb/s	50ms	50ms	0.01%	0.01%	3000ms
4G (high packet losses)	5.5Mb/s	17.9Mb/s	50ms	50ms	10%	10%	100ms
Wifi	33.0Mb/s	40.0Mb/s	0ms	0ms	0%	0%	0ms

## Phone

The Phone widget allows you to test applications relying on telephony features and observe their behavior when receiving a call or a text message.

To use the Phone widget, click .

To simulate an incoming call:


1. Enter an incoming phone number.
2. Click **Call**.

To simulate an incoming message:

1. Enter an incoming phone number.
2. Enter a text message.
3. Click **Send message**.

The text message is displayed in the virtual device via a notification and can also be read in the **Messaging** application.

## Resolution

The Resolution feature allows you to increase or decrease the resolution of the displayed content in your virtual device. To use this feature, click  and select a resolution between 240p, 360p, 480p, 720p and 1080p.

# Automation features

Genymotion Cloud offers automation features useful for automating tests and continuous integration, regardless of your test framework (Espresso, Robotium, Selenium, Appium) or continuous integration server (Jenkins, TeamCity, Travis or Bamboo). Those features must be used with the following development tools:

- **GMTool**, a command line tool specific to Genymotion that allows you to manage the lifecycle of your virtual devices;
- **adbtunnel**, a tool that sends each ADB call from your continuous integration environment directly to your virtual device hosted in the cloud;
- the **Gradle plugin for Genymotion**, with which you can integrate Genymotion Cloud into your Gradle configuration file.

This chapter details how to automate actions in Genymotion Cloud using GMTool and how to run instrumented tests in Genymotion Cloud using the Gradle plugin.

## Automating actions with GMTool

GMTool is a command line tool allowing you to automate your manual actions in Genymotion. It helps you automate the creation and start of virtual devices before running your instrumented tests.

### Prerequisites

GMTool is provided when installing Genymotion desktop software. No further installation is needed to use the command line tool. The tool is located:

- **Windows:** `C:\Program Files\Genymobile\Genymotion`
- **macOS:** `/Applications/Genymotion.app/Contents/MacOS`
- **Linux:** your Genymotion installation path

It can be started by running `gmtool` from a command prompt. To run GMTool from anywhere in a device, add GMTool path to your PATH environment.

GMTool relies on ADB from the Android SDK. Please make sure your version of ADB is 1.0.39 or above.

**⚠** *When using ADB, if you get : “adb server version (32) doesn't match this client (36); killing...”, it means that there is a conflict between the ADB version provided by Genymotion and the one from the Android SDK. You can set a specific ADB version using: `gmtool config use_custom_sdk=on sdk_path=<ANDROID_HOME>`*

To use GMTTool, you must be authenticated and your license must be registered. To do so:

1. Run `gmtool config username=<USERNAME> password=<PASSWORD>`
2. Run `gmtool license register <LICENSE_KEY>`

**!** *If you have different users on your machine, only use GMTTool for one user. It is a current limitation. If you have any problems after starting a virtual device, check that you have only one user with the process `genymotionadbttunnel` with the `ps` command for example on Mac and Linux.*

## Commands

Below is the list of actions you can perform using GMTTool:

- list available virtual device templates:

```
gmtool --cloud admin templates
```

- list the created virtual devices:

```
gmtool --cloud admin list
```



*You may get "0.0.0.0" for ADB Serial and "ON" for the state of the virtual device. This happens if you started a virtual device from the Genymotion Cloud website: the virtual device is not automatically connected to the workstation where you use GMTTool from. It can also happen if you shutdown your machine. Use `gmtool --cloud device adbconnect` to get the virtual devices back.*

- start a virtual device:

```
gmtool --cloud admin startdisposable <TEMPLATE_NAME> <VIRTUAL_DEVICE_NAME>
```

To set the connection on a specific port, you can define option `--adb-serial-port <PORT>` with a port comprised between 1024 and 65535. This can be useful for some testing frameworks such as Appium.

ADB automatically connects to the remote virtual device so you can communicate with it.

- stop a virtual device:

```
gmtool --cloud admin stopdisposable <VIRTUAL_DEVICE_NAME>
```

- stop all virtual devices:

```
gmtool --cloud admin stopall
```

If you start a virtual device from the Genymotion Cloud website, you might need to connect your virtual device to ADB. Use these commands to connect or disconnect from ADB:

- connect devices to ADB:

```
gmtool --cloud device adbconnect
```

- disconnect devices from ADB:

```
gmtool --cloud device adbdisconnect
```

## Running instrumented tests from your desktop

This section explains how to automate your instrumented tests from your desktop and run them locally or in Genymotion Cloud using the command line tool GMTTool or the Gradle plugin for Genymotion.

### Prerequisites

To run instrumented tests from your desktop, you must be authenticated on Genymotion desktop software. You can authenticate:

- using Genymotion desktop software: from **Settings > Accounts**
- using the command line tool GMTTool: `gmtool config username=<USERNAME> password=<PASSWORD>`

### Running local tests

You can create and start virtual devices locally and run tests against them using the Gradle plugin for Genymotion. For more information on how to implement the Gradle plugin into your project, please refer to the [official documentation](#) of the Gradle plugin for Genymotion.

### Running tests in Genymotion Cloud

You can run your instrumented tests in Genymotion Cloud, using GMTTool or the Gradle plugin for Genymotion, as detailed in this section.

#### Using GMTTool

1. Start your virtual device in Genymotion Cloud by running:

```
gmtool --cloud admin startdisposable <TEMPLATE_NAME> <VIRTUAL_DEVICE_NAME>
```

where `<TEMPLATE_NAME>` is a template available from Genymotion Cloud and `<VIRTUAL_DEVICE_NAME>` is the name you want to give to your virtual device.

The list of available templates can be retrieved using this command:

```
gmtool --cloud admin templates
```

ADB automatically connects to the remote virtual device so you can communicate with it.

2. Run your instrumented tests using:

- `./gradlew connectedAndroidTest`
- AndroidStudio in Gradle toolbox: **Tasks > verification > connectedAndroidTest**

You can view your tests running in the virtual device by signing in to Genymotion Cloud.

3. Once your tests have run, stop the virtual devices using:

```
gmtool --cloud admin stopdisposable <VIRTUAL_DEVICE_NAME>
```

where `<VIRTUAL_DEVICE_NAME>` is the name of the virtual device used for the test.  
All data generated on the virtual device during the tests are destroyed.

## Using the Gradle plugin

You can define the virtual devices you want to start directly within your `build.gradle` file.  
For more information, please refer to the [official documentation](#) of the Gradle plugin for Genymotion.

## Genymotion Java API

To run your instrumented tests, you can also use the Genymotion Java API in order to automate the modification of sensor values such as battery, GPS, ID, SMS, calls... For more information on the implementation of the Genymotion Java API, please refer to the [official documentation](#).

A sample project is available at <https://github.com/Genymobile/genymotion-binocle>.

## Running instrumented tests from Jenkins

This section explains how to automate your instrumented tests from your Jenkins continuous integration server using the Gradle plugin for Genymotion.

### Prerequisites

To run instrumented tests from Jenkins, you must have Genymotion desktop software installed.

### Configuring a Jenkins job

You can configure a Jenkins job using GMTTool or using the Gradle plugin.

#### Using GMTTool

1. To configure the Jenkins job that will run your instrumented test, from Jenkins, go to menu **Configure**.
2. In **Source Code Management**, enter the location of the application source code.

### Source Code Management

None  
 Git

Repositories

Repository URL

Credentials

Branches to build

Branch Specifier (blank for 'any')

Repository browser

Additional Behaviours

Subversion

### 3. From the **Build** section:

1. Add **Execute shell** to run GMTTool commands and add the following commands:
  - `<GMTOOL_PATH>/gmtool config username=<USERNAME> password=<PASSWORD>` where `<GMTOOL_PATH>` is the location of GMTTool on your Jenkins and `<USERNAME>/<PASSWORD>` are your credentials. This authenticates you to Genymotion.
  - `<GMTOOL_PATH>/gmtool --cloud admin startdisposable <TEMPLATE_NAME> <VIRTUAL_DEVICE_NAME>` where `<TEMPLATE_NAME>` is the device template name and `<VIRTUAL_DEVICE_NAME>` is the name of the virtual device you want to start.
2. Add **Invoke Gradle script** to run your instrumented test.
3. Tick **Root Build Script Dir**
4. To have more logs, in **Switches**, enter `--debug --stacktrace`



5. In **Tasks**, add `connectedAndroidTest` (cAT).

**Invoke Gradle script**

Invoke Gradle

Use Gradle Wrapper

Make gradlew executable

From Root Build Script Dir

Build step description

Switches

Tasks

Root Build script

Build File

Specify Gradle build file to run. Also, [some environment variables are available to the build script](#)

Force GRADLE\_USER\_HOME to use workspace

Pass job parameters as Gradle properties

Add build step

4. From the **Post Build** section:

1. Add **Publish JUnit test result report & Publish HTML reports** to get test reports.

**Publish HTML reports**

Reports

HTML directory to archive

Index page[s]

Report title

Publishing options...

Add

**Publish JUnit test result report**

Test report XMLs

[Fileset 'includes'](#) setting that specifies the generated raw XML report files, such as 'myproject/target/test-reports/\*.xml'. Basedir of the fileset is [the workspace root](#).

Retain long standard output/error

Health report amplification factor

1% failing tests scores as 99% health. 5% failing tests scores as 95% health

Advanced...

2. Add **Execute a set of scripts** to stop the device where the tests were run. In **Build** steps, add **Execute shell** section and add the following command:

```
<GMTOOL_PATH>/gmtool --cloud admin stopdisposable <VIRTUAL_DEVICE_NAME> where <VIRTUAL_DEVICE_NAME> is the name of the virtual device you created.
```

## Using the Gradle plugin

You can define the virtual devices you want to start directly within your `build.gradle` file. For more information, please refer to the [official documentation](#) of the Gradle plugin for Genymotion.

## Running the builds

You can run the builds manually by clicking **Build with Parameters** or have it automatically built by configuring a scheduled build.

## Viewing test reports

Once your tests have run, you can view your test reports from **Test Report**.