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RFgen Client
Install and Upgrade Guide for Windows Desktop

All Editions
RFgen 5.2

Table of Contents

Supported Versions and Download

Supported Versions

The Windows Desktop Client is support on all versions of Windows desktop systems.

RFgen Client and Server Versions

You must install the same version of the RFgen client as RFgen server. For example, if you have 5.2.2 installed, the client must be version 5.2.x as well.

Downloads

a. Go to https://www.rfgen.com/product-portal

b. Follow the prompts to log in. If you do not have a Product Portal user account, please register.

c. Select **Product Downloads** and navigate to the version 5.2.0.x

d. Select the RFgen Windows Desktop client. exe and download it.

For information on installing Desktop, see Installing the Windows Desktop Client.

Installing the Windows Desktop Client

Process Overview

- Install the Windows Desktop Client (RFgen Client). During the install you can choose to install the Windows Desktop executable files in the same location as the Windows DesktopClient database files (UserData.xdb) where everyone can access the files, or install the UserData.xdb files in a separate location and set user access.
- After install, the UserData.xdb file will not be created until the Windows Desktop Client is launched.
- To connect with the server, you will need to enter a server name or ip address in your first session. If successful, the server will provide a **Select Profile** screen.
- You select a Profile (i.e Thin or Batch) from the list and it is downloaded to the Windows system. Using Batch mode is an advanced feature and also requires a license to run in batch mode.
- Depending on how your Device Authorizations are setup, a successful connection will allow the user to login and select an app from a menu. For example, if **Thin Client Restrictions** are checked (enabled) in Configuration > Environment Settings, then the connection is denied until the RFgen administrator authorizes the connection.

Installation Steps

1. After you have downloaded the RFgen Windows Desktop program, click on it to installer it as you would any other Windows program.
2. The **Welcome to RFgen Desktop Client Setup** screen displays.

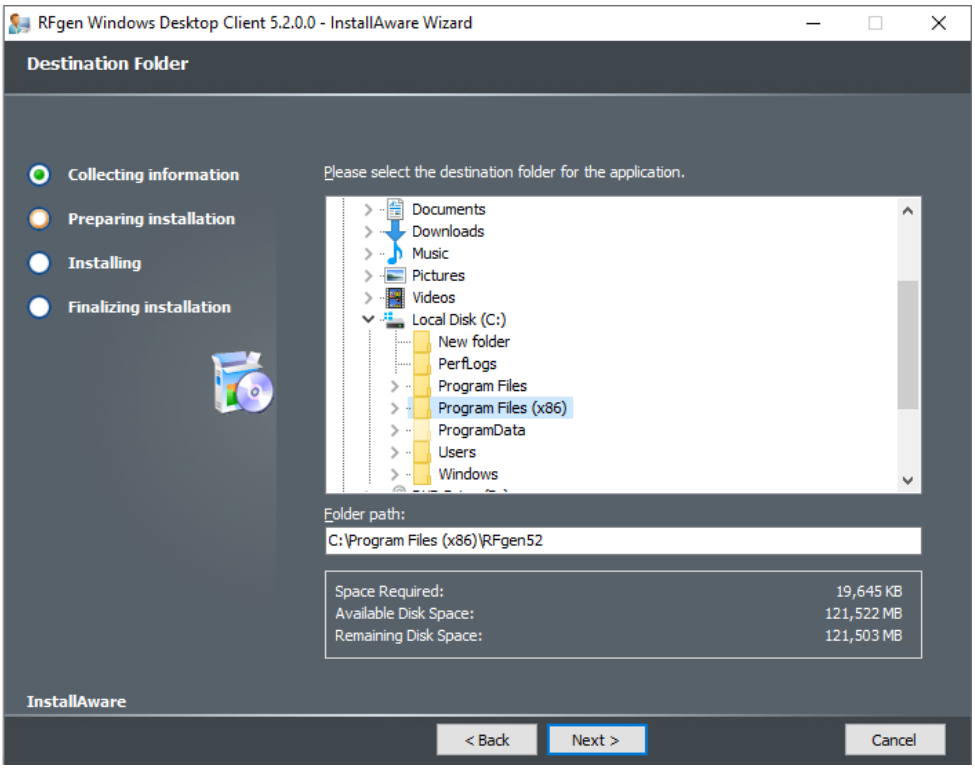
   Click **Next** to continue.

3. The **License Agreement** screen displays.
   Click the "**I accept the license agreement**" to continue.
4. The **Please select the type of setup you would like to perform** screen displays. Select **Minimal Setup**. The Personalized Setup has been deprecated and is no longer used.
5. The **Please select the destination folder for the application** displays. This specifies where the Client executable files are installed. Enter your own destination path or select a folder, then click **Next** to continue.

   - The Windows Desktop 32-bit default is: C:\Program Files(x86)\RFgen52 folder.

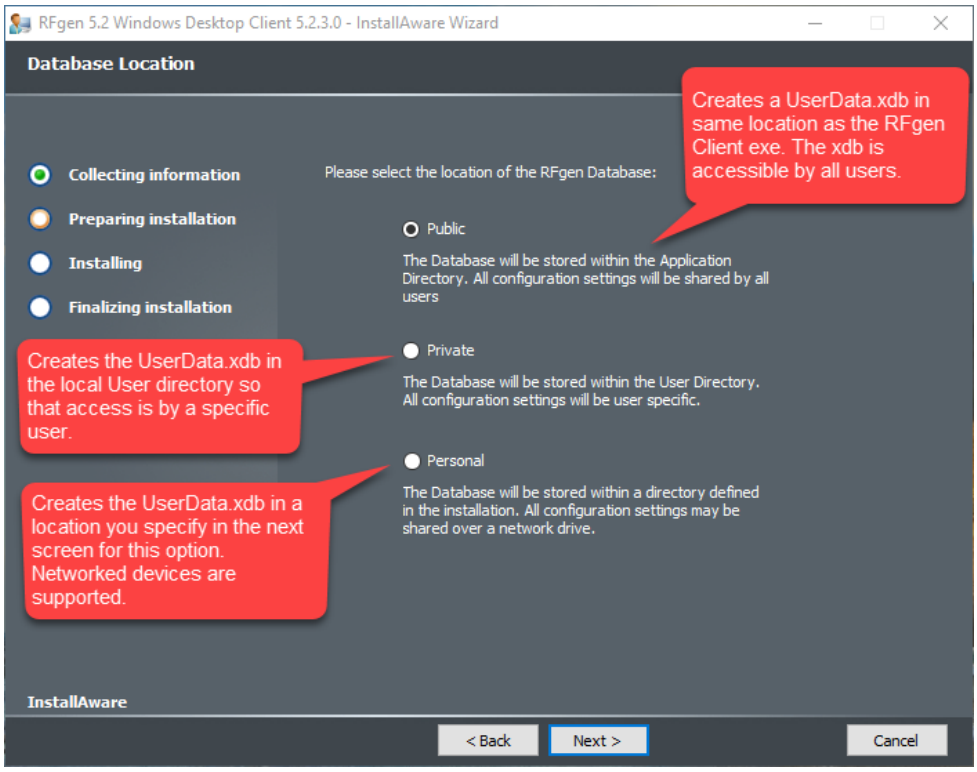
   - The Windows Desktop 64-bit default is: C:\Program Files\RFgen52 folder.

   Note: If you want this installed to a networked device or a different location, ensure there are no spaces in the path name.



Click **Next** to continue.

6. The **Select the location of the RFgen Database Database** screen displays.



Public will install the **User Database**, a .xdb file that is used by the RFgen Server to retain user and client settings (i.e. how the scanner is setup, how the client is to be reprovisioned upon connection), to the same location where you installed the RFgen client executable files. If you select this option, skip to step 8.

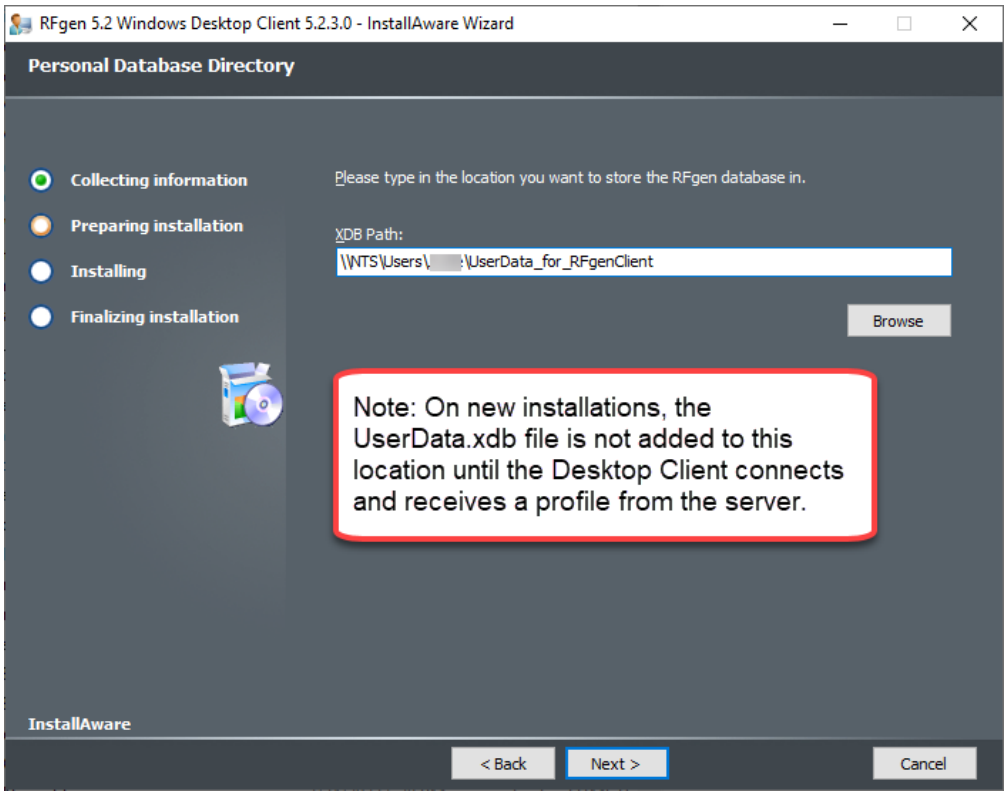
Private will install the **User Database** to the local Users\[user name]\AppData\Roaming\RFgen52 directory. If the system where the client is being installed has unique setups, the installation location may be different than shown here. Access should be restricted to the logged-in user. If you select this option, skip to step 8.

Personal will install the User Database to the location you specify in the following screen. For example, if you install to a NTS file location, your User Database will be installed to this location rather than the application location or a user directory. If you selection this option, see step 7.

Click **Next** to continue.

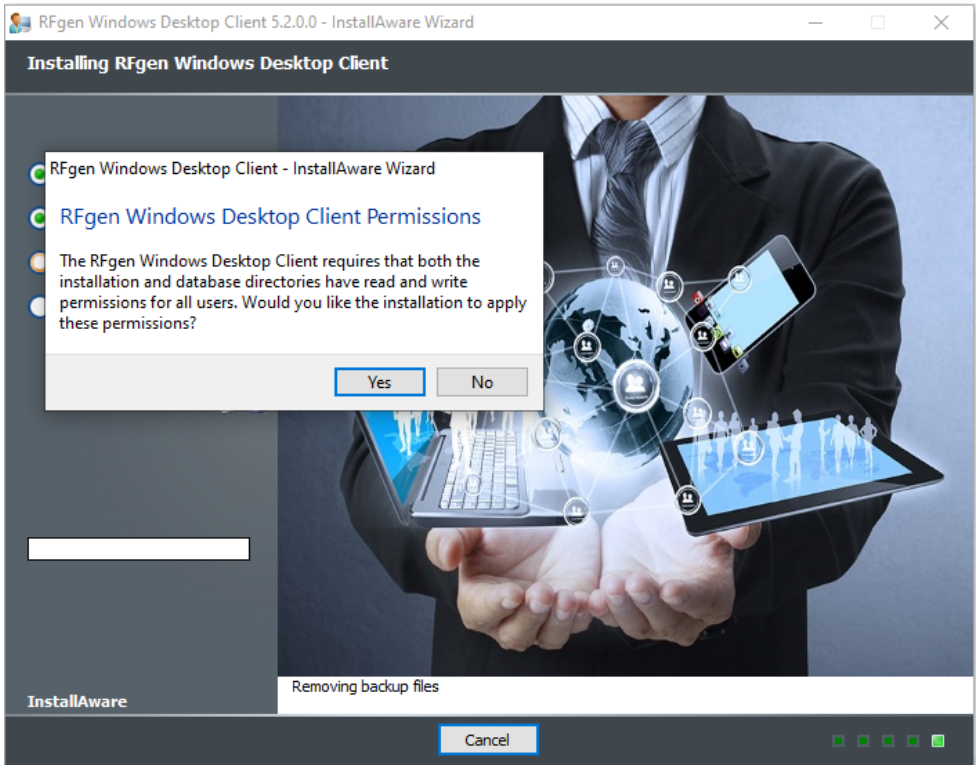
7. Skip to **step 8** if you had selected **Public** or **Private** in step 6.

   If you selected **Personal** in step 6, enter the location where you want your UserData.xdb files stored.

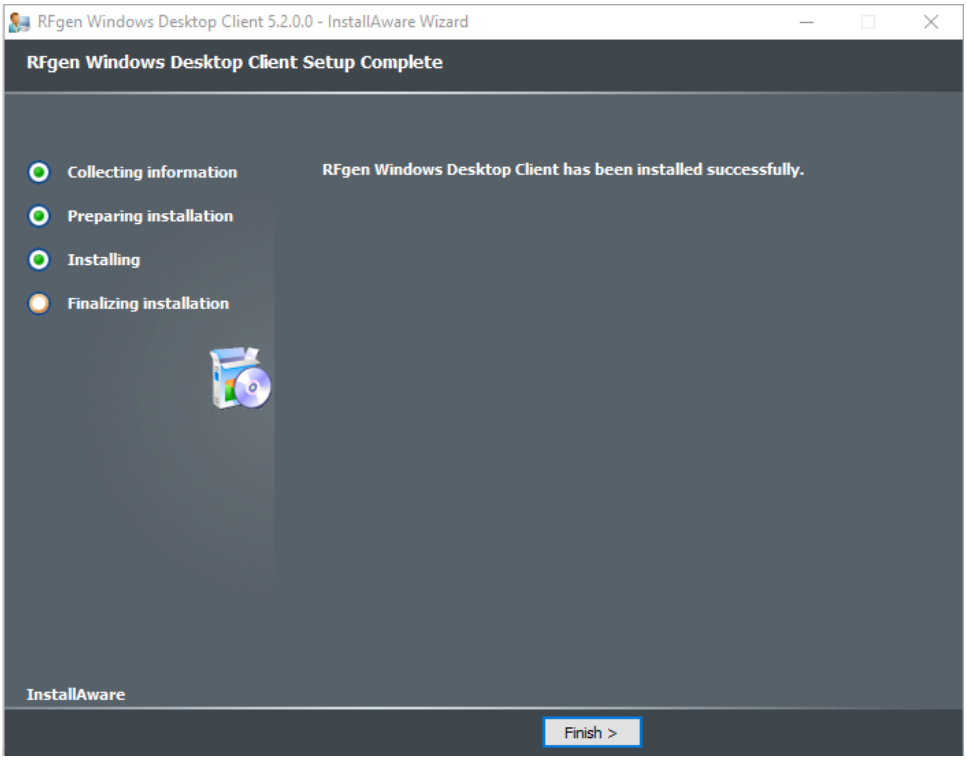


Click **Next** to continue.

8. The **Ready to Install screen** displays. Click **Next** to continue.
9. If the **RFgen 5.2 Windows Desktop Client Permission**s message displays, select **Yes** to continue. **No** will stop and cancel the installation.



10. The Setup Complete screen displays when the installation is done. Click on **Finish** to exit.



You are now ready to connect the client to the host.

For details, see Connect Desktop Client to Host.

For information on configuration, see the topic Configuring The Client.

RFgen Client Connection Process Overview

How it Works

1. The **RFgen Client software** enables communication between the server and client.

2. After its installed a screen prompts you enter the RFgen server IP (or host name) so the client may connect to the RFgen server.

3. Upon connection, a screen prompts you to select a profile. A profile is a collection of configuration settings that defines the behavior of the client. The administrator or end-user selects the profile contains information on device connection for download of mobile application, user-controlled parameters (i.e. ability to take pictures, print barcodes etc, use unique keypads etc), and change which language is used if the application was translated into other languages.

   Profiles names are customized by the developer. They are typically categorized as "Thin" or "Fat" clients, where Thin clients require a live connection to the server to process a transaction; Fat enables transactions to process while disconnected from the RFgen server and stores the changes until the user reconnects to the RFgen server.

4. Once the profile is received by the client, the user should be able to login, select an application from their menu, and work unless the administrator implemented the Authorized Devices feature.

   Note: If the user is unable to connect with the server, oftentimes the issue stems from a network/Wi-FI setup. Fat/Batch client require install of a license on the client to ensure it can be used.

Related Topics

Profiles Overview

To create a profile

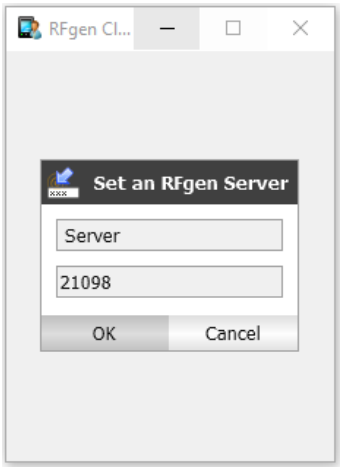
Profiles - To select an app in the Mobile Development Studio.

Connect RFgen Client to Server (Host)

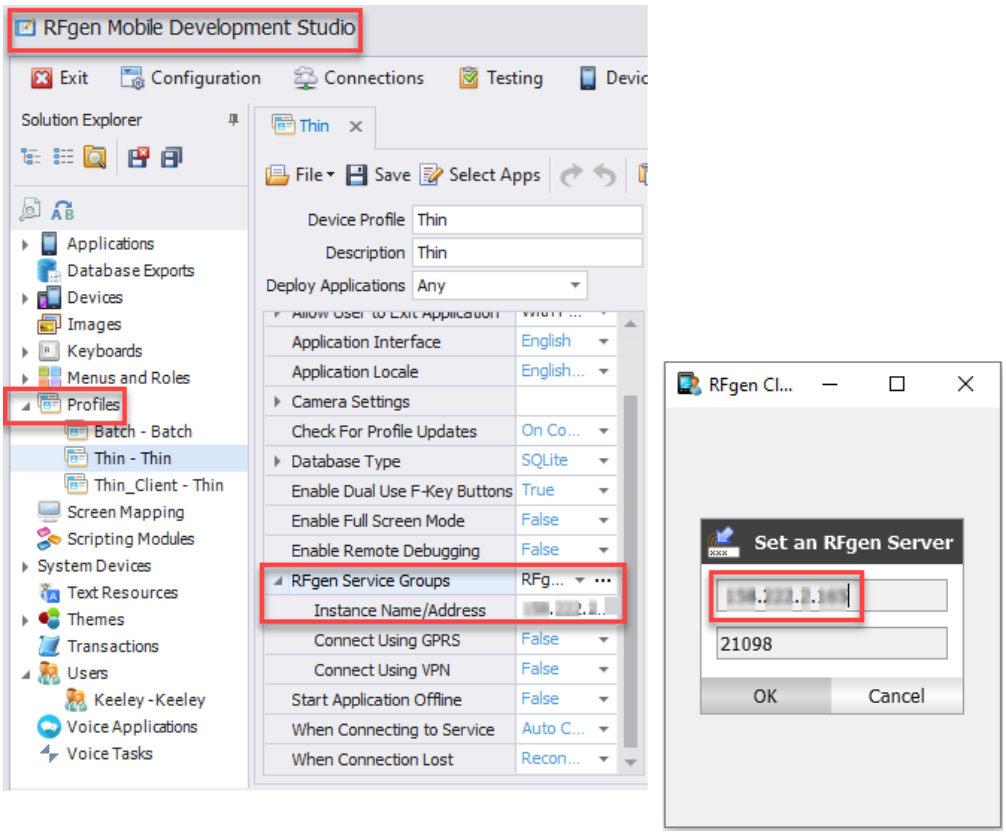
Before you start, make sure your RFgen Server Services are up and running, its licensed for client connections, your network is configured to allow communication between the server and the client, and your client profile on the RFgen Mobile Development Server is ready for deployment. If you plan on restricting which devices may connect, review Device Authorizations. If you have your Mobile Development Studio and Mobile Unity Platform on the same server, and you want to test a single connection, you can turn on the services running on the Mobile Unity Platform server and simply test a remote connection between the client and the Mobile Development Studio.

1. Launch the RFgen Client from your screen.

2. The Set an RFgen Server screen displays.



3. Enter the host name (DNS name) of the system that is hosting the RFgen server in the Server box. This should match the name setup in the RFgen Mobile Development Studio > Solution Explorer > Profiles > [name of the profile] > RFgen Service Group: Instance Name/Address.

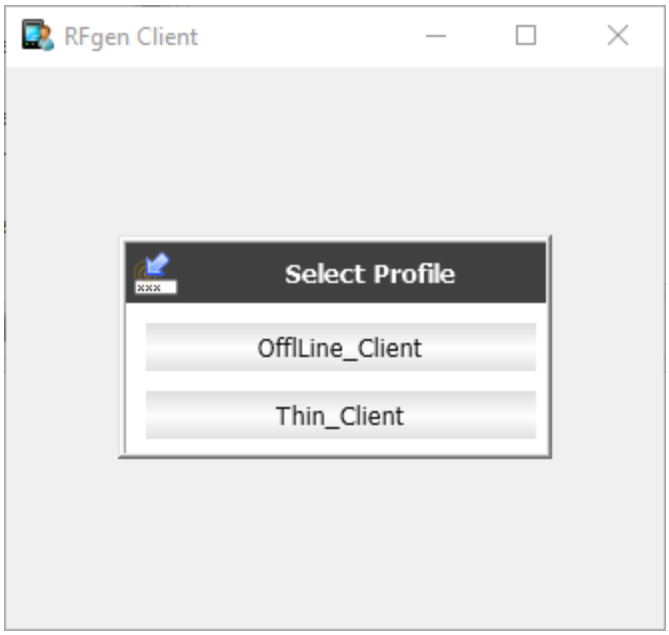


Left: Where you enter the Server Name/IP on server
Right: Where you enter the server name/IP on client

4. Port 21098 is the default for communication between the RFgen Client and Server. Leave this as "21098" unless its is already in use which case an alternate port number will need to be assigned. (Remember to configure the port number on the system where the RFgen Desktop Client is running.) Click **OK**.

5. A **Select Profile** screen displays if the client is able to connect with the server. (Your profile names may look different than the example shown below.)

   Select the profile to be installed to the client.

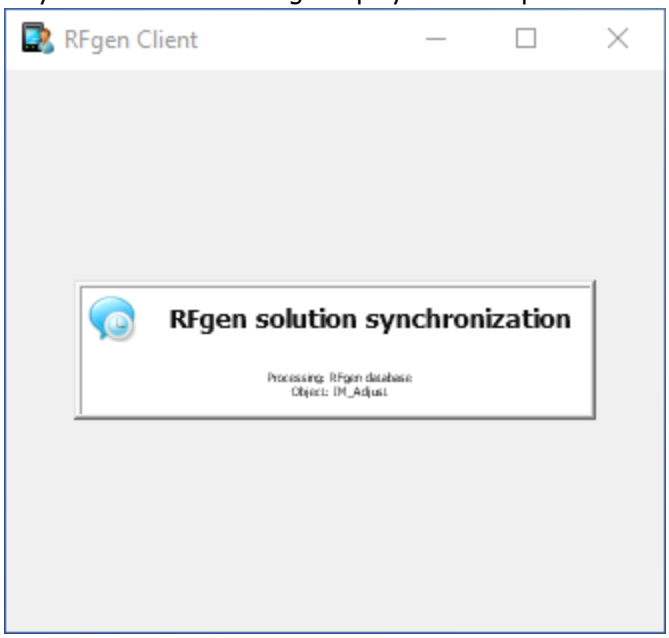


Note: If you instead see a message:

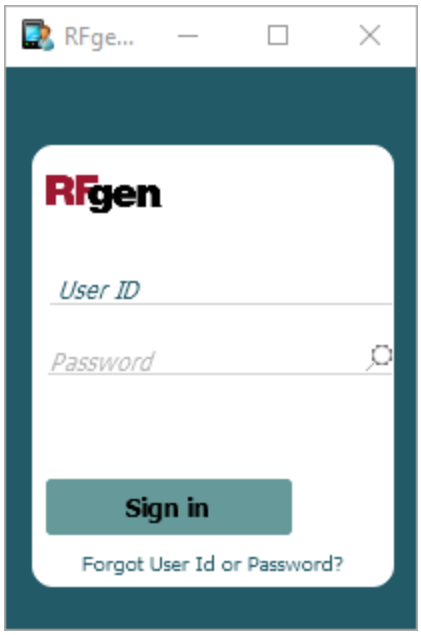
Set an RFgen Server
Cannot Connect to RFgen Server

See Set an RFgen Server Unable to Connect for a list of possible causes.

6. A synchronization message display while the profile downloads.



- Once the profile is downloaded, your client will proceed in accordance to the values that were set in the profile. For example, if the profile has the "Connect Automatically" enabled, your client may be taken to the login screen.



- Most solutions are setup to start with a Login, but your own client may be different.
- If your organization setup **Device Authorizations**, instead of a Login screen you may receive a message:

  "Your Connection Was Rejected by the Server"

  - If your server was setup for Device Authorizations, see the topic on Device Authorizations to allow the device to be connected.
  - If your server was not setup for Device Authorizations, see the Connection Was Rejected topic for a list of possible reasons.

Configuring the RFgen Client

When configuring the RFgen Client, the RFgen administrator creates the source Profile which is stored and maintained in the Mobile Development Studio > Profiles folder.

Once the Profile is deployed to the client, a copy of it is stored on the client. How often and when its updated depends on the values set in the profile on the client.

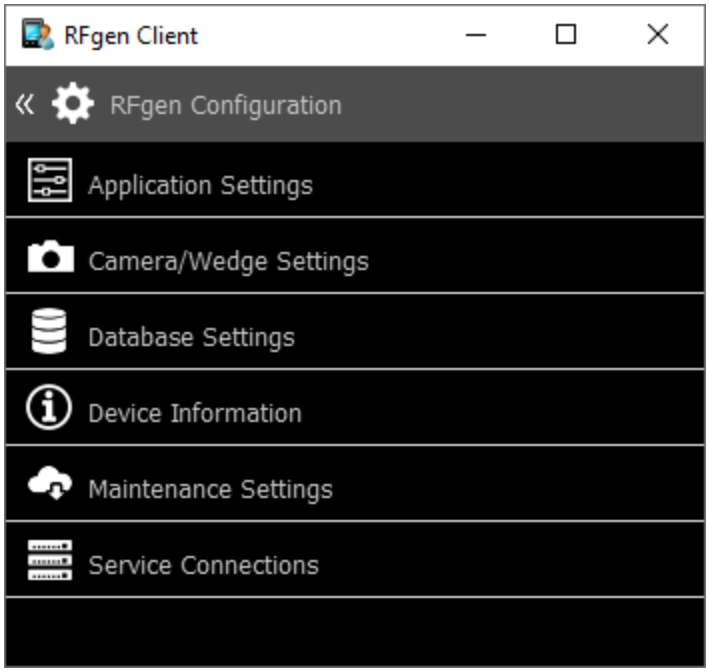
In versions of the RFgen 5.2 and higher is a feature where the settings can be locked or unlocked by the RFgen Administrator so the end-user such as the warehouse worker, picker, shipper, or manager can or cannot make any changes to the profile on the client. By default, the profile and ability to change it is locked. The lock is set via the use of a password in the source Profile in Dev Studio.

The options you can set for the client are extensive.

For information on the values that are set in Mobile Development Studio >Profiles see Profile Option Descriptions in the RFgen Users Guide.

For more information on setting options and descriptions that are on the Client, see Client Configuration Settings topic.

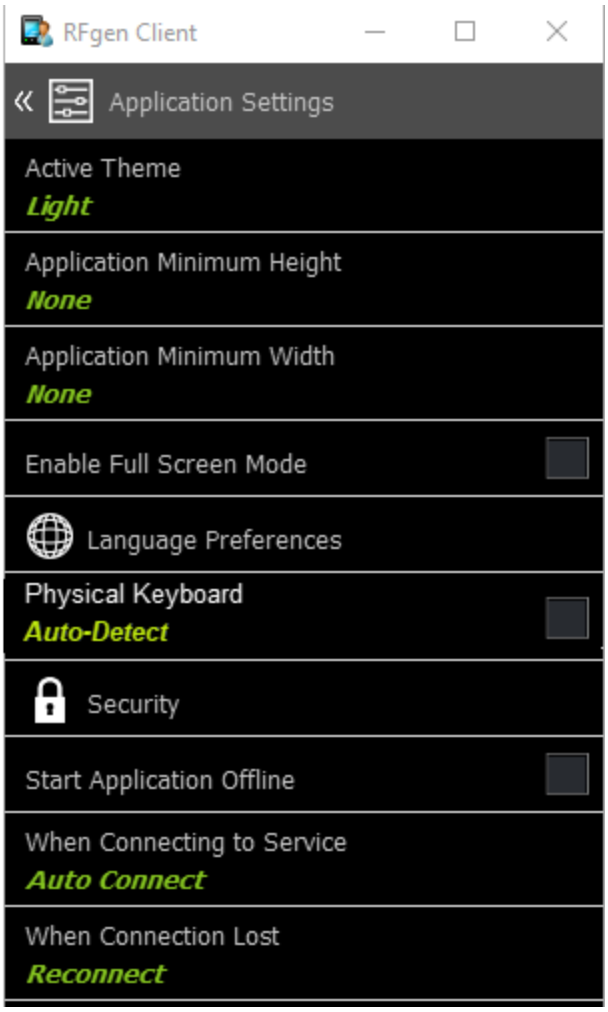
Client Configuration Settings



RFgen Configuration is a collection of status and settings that are used to change how a mobile client (Android, iOS, Windows Desktop, or Windows Mobile/CE) starts up, receives updates, and displays your application screens.

For more information, see the specific topics on Application Settings, Camera Settings, Database Settings, Device Information, Maintenance Settings, or Service Connections.

Client Configuration - Application Settings



Active Theme

This is the theme resource to be used on the device. It contains all the look-and-feel display options.

Application Minimum Height

This applies to the Desktop Client only. It is not present on Android, iOS, or Windows CE systems. An Application Minimum Height value helps restricts the screen from being resized below the values set here so the applications isn't "lost" because its too small to find. All values are in pixels.

Application Minimum Width

This applies to the Desktop Client only. It is not present on Android, iOS, or Windows CE systems. An Application Width value helps restricts the screen from being resized below the values set here so the applications isn't "lost" because its too small to find. All values are in pixels.

Enable Full Screen Mode

This option determines if the display on the mobile device is in a window (smaller) or if the application is maximized for the screen (larger). If checked, it will display at the maximum size.

Language Preferences

The default is English. Any language may be chosen from this menu.

Application Interface allows the user to change the configuration user interface from English into Arabic, Chinese, French, German, or Spanish. After a disconnect, the user interface reverts back to English.

Application Locale allows the user to change the mobile application into any of the locales listed in the list. If the application was developed with localized / translated terms, these will be presented in the mobile application. Otherwise the application will default to the language it was developed in (i.e English).

Physical Keyboard

If this is checked, the client will automatically check first if the device has a physical keyboard instead of displaying a virtual, soft keyboard.

Security

- *Allow Configuration* allows the user to change the configuration on the client.
- *Allow Exit Session* allows the user to control when to exist a session with the server.
- *Allow Screen Capture* (available only for Android, not Windows Desktop, iOS or WinCE) - If checked, the device can be used to capture an application screen while in Thin or Batch mode. Refer to your device manufacturer's instructions for snapping a screen capture. (i.e. Holding the Volume button and Lock Button down).

Start Application Offline

If this is checked, the client will start applications when the client is offline, and is disconnected from the server.

When Connecting to Service

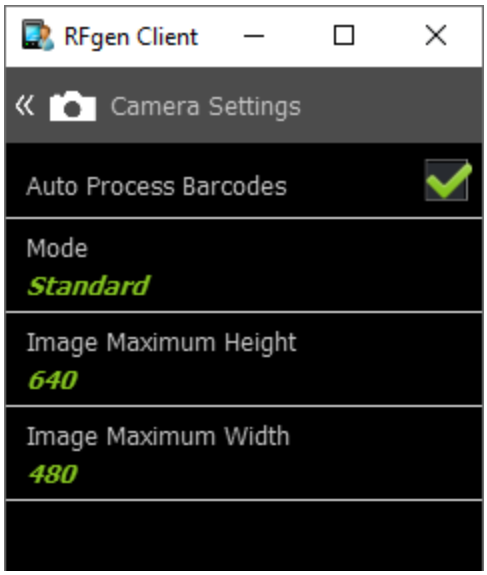
AutoConnect will connect the client to the server that is listed in the RFgen Services group. If however, you have multiple RFgen Servers setup, you can enable the user on the client to choose which server he/she connects with if you select the *Select Service* option. (See details on the RFgen Services Group.)

When Connection Lost

Reconnect will automatically connect the client to the server listed in the RFgen Services group. If the first one on the list doesn't connect, then the client attempts a connection with the next one on the list.

Go Offline is for clients that are licensed to work in batch mode and are licensed to work offline.

Client Configuration - Camera Settings



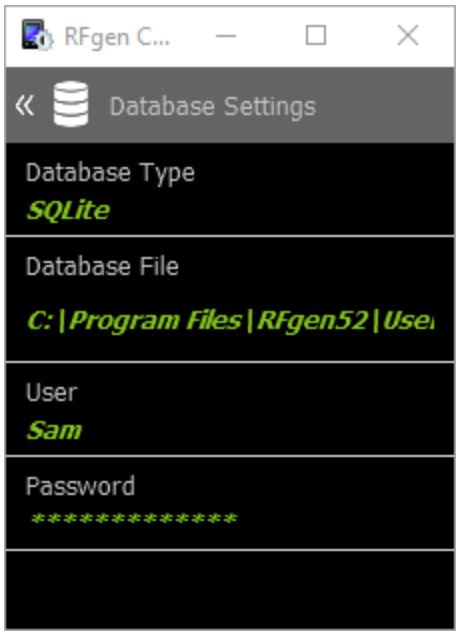
Auto Process Barcodes - In RFgen 5.1, this setting was called "Return After Scan." Set this value to True if you want the cursor to move automatically to the next field after scanning a barcode with your device's camera. For devices with cameras (not scanners), RFgen appends a Return/Enter (post-amble) after the scanned characters. If set to False, the cursor will remain in the same location and the user will need to tap the Return/ Enter key to continue to the next field.

Camera Modes - If Auto Process Barcode is enabled, Native *Native Wedge* will append two Return characters to a scanned transaction. *Standard* will append one Return character to a scanned transaction. *None* - Return is not appended at the end of a scan transaction. (Return is disabled.)

The *Scanner Intent Action* option is available for Android devices ONLY. It provides an alternate method of scanning barcodes when using a Honeywell or Zebra device (Android OS). Ordinarily, the normal scan process with a wedge reads the barcode and converts the scanned images into keystrokes. If however scan data is being omitted or isn't appearing quickly, set the Camera Settings Scanner Intent Action, and use the default value "com.RFgen.OnScan".

Maximum Picture Width and **Maximum Picture Height** These values are preset to a height 640 pixels and a width of 480 pixels. If you are taking pictures, and the device starts to slow down (i.e. its slow when you try to do an upload or the performance is slow), you can reduce the height or the width to reduce the number of pixels used by the picture. You only need to change one or the other as RFgen will scale the picture accordingly.

Client Configuration - Database Settings



Database Settings is used store data on the client if the Profile had this enabled/setup for the client.

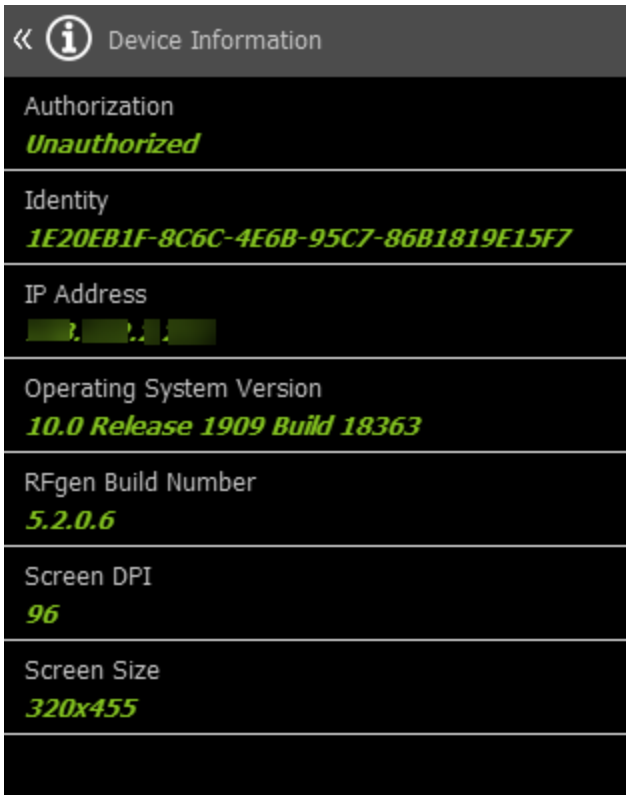
Database Type - If the Profile had included a database, to process data/transactions off-line, select the database type to be used. If the client is to process transactions only when its connected (in a session with the RFgen server), then select None.

Database File (Storage Location) - Enter the storage location (path) for the database. Locations are unique for Android, iOS, Windows desktop/Windows CE).

User - Use this interface to enter the user login information that the database requires for access.

Password - Use this interface to enter the password that the database requires for access.

Client Configuration - Device Information Settings



Device Information is used to help the user see the client-access rights and its graphical user identification on the mobile client (Android, iOS, Windows Desktop, or Windows Mobile/CE).

Authorization

If the device was authorized for connection by the server, its status is "Authorized." If its not, its status is "Unauthorized."

Authorization Code

The authorization code applies to the unique license that is required if the client is used in offline mode. This field is not provided/used if the client profiles is set to only be active when connected to the server.

Identity

The Identity is the graphical user identifier (GUID) generated by the RFgen Client software. When a device connects to the server, each device uses the GUID as its unique identifier. This GUID is visible in the Mobile Unity Management Platform > Device Authorization screen or the Mobile Development Studio Devices > Authorized Devices screen.

IP Address - the IP address of the device if its connected to a network.

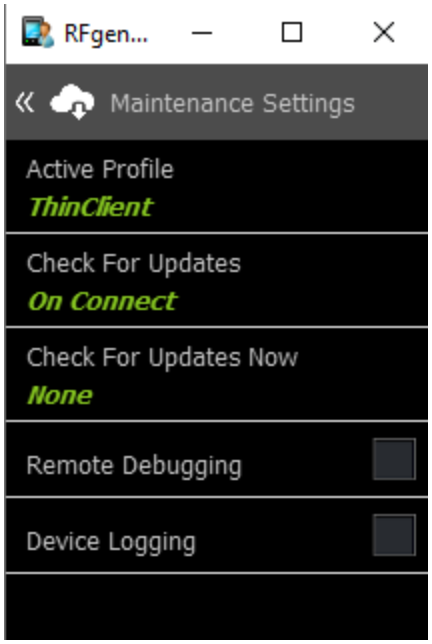
Operating System Version - The version number of the Android, iOS, Windows CE or Windows operating system.

RFgen Build Number - The RFgen Client software release and build version.

Screen DPI - The dots per inch value used by the client.

Screen Size - The size of the screen used by the client.

Client Configuration - Maintenance Settings



Maintenance Settings is display information a RFgen administrator needs to ensure the client's profile is up-to-date and if needed, debug the client remotely.

Active Profile

Shows which Profile was installed to a client

Check for Updates

This sets the method and how often the client will check the server for a Profile and compare if there are differences. If differences exist, the client profile would be updated. This can be set to *Manual* (when the user requests it), *On Connect* (only checks for profile updates when the client connects to the server), or *Daily* (checks are performed even if the client is never disconnected from the server).

Check for Updates Now

If the Check for Updates is set to Manual, the user can choose to **Reprovision the Device** or **Resynchronize (Resync.) Applications**. Reprovision a device if you want to wipe out the user settings and applications on the device and refresh it with the one from the server. Resync Applications will only refresh the applications on the existing profile with those in the server. To use either, select yes and click on the << Check on Updates Now until you reach the main menu to retrieve the update. Tap **None** if you don't want to make any changes, then tap the << Check for Updates Now to exit this screen.

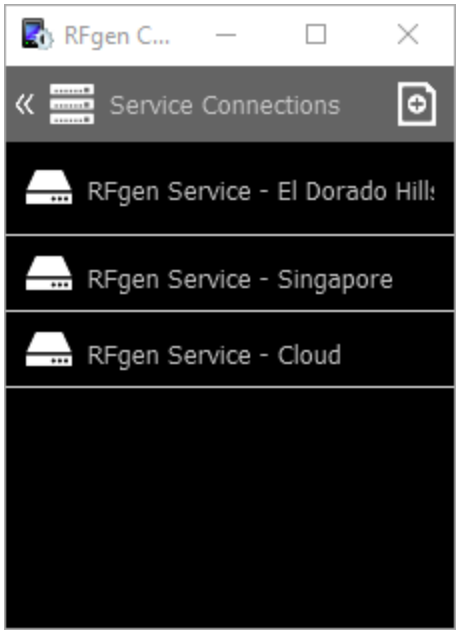
Remote Debugging

This simply enables another RFgen server to initiate a remote session via the port that is listed in the Client Configuration - Maintenance Settings screen.

Device Logging

Creates a log on the device for troubleshooting purposes.

Client Configuration - Service Connections



Service Connections is used to add, delete, and change the information on the RFgen server providing client services.

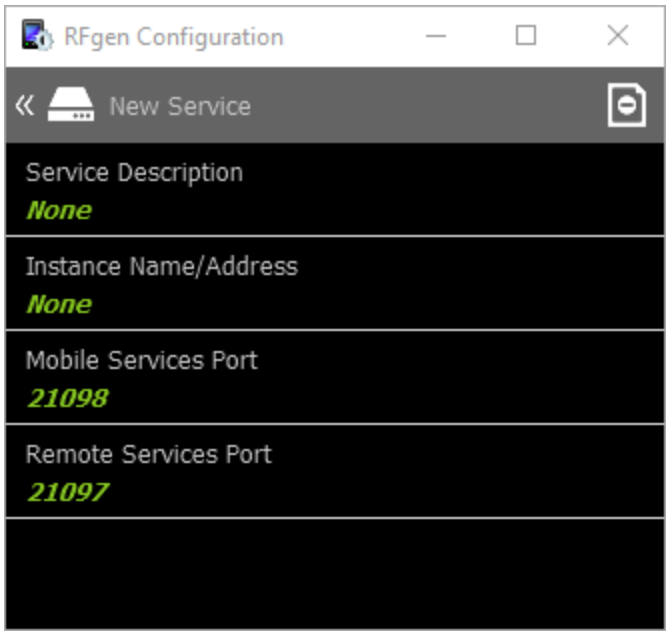
To add a new service connection, tap the "+" plus icon in the upper right corner. Complete the information in the New Service screen.

To modify an existing service, tap the Service that you want to modify.

To remove a service, tap the service you want to remove. When the Service Description screen displays, tap the name of the service and delete the name from the pop up box and tap **OK**. "None" will display in its place. Tap the << icon at the top to return to the prior screen.

For more details on the properties, see Client Configuration - New Service details.

Client Configuration - New Service



New Service is used to setup a connection to a server, or change the ports for a server, or remove the entire server from the profile. The information here (on the client) should match the server name or IP address described in the source Profile stored in the Mobile Development Studio Profiles folder.

Service Description

Enter the server name of the RFgen server.

Instance Name/Address

Instance Name/Address Enter the IP address or unique server name. The Instance Name/Address can be the server's name, address, or a substitute Fully Qualified Domain Name (%FQDN%). This is the server(s) including Load Balancing servers that provide the client profiles and services for the mobile client. The %FQDN% can be used in the event the source application database is moved to a different server and will help resolve the client locate the new Name/Address of the server that now has the application database (including profiles) that client needs in order to work.

Mobile Services Port

Port 21098 is the default port which is used on the client and on the server for communication purposes. If you cannot use the default port, remember to make the port number (id) must be the same on the client and the server.

Remote Services Port

Port 21097 is the default port that a manager or administrator can use to remotely log onto the client if the user on the client needs help. This can be changed, but will also need to changed on the server as well.

Updates versus Upgrades

"**Updates**" refers to the process of updating the solution elements which are deployed by the server (or physical transfer). This may include updates to your mobile applications, mobile profile settings, data etc. once the client software has been installed. As long as your client has the same major version of the server, for example if the client has 5.1.17 installed, and the server has 5.1.17 or higher installed, these versions are compatible, and solution updates are supported.

"**Upgrades**" refers to the process of installing a newer major version of the RFgen client software or the RFgen server software. For example,if you are moving from RFgen **5.1** and **5.2** this is called a software upgrade.

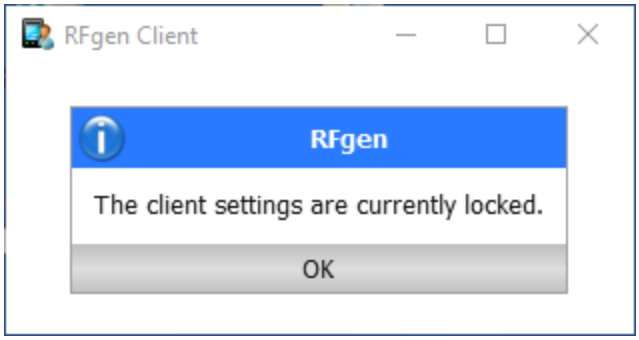
Version Compatibility With the Server

- If you **upgrade the server**, your client software must also be upgraded. RFgen Server software is not backward compatible with older, major versions. (For example RFgen 5.2.x server is not compatible with a 5.1.x client.)
- The RFgen server does NOT automatically upgrade client software when it connects to the client. You will need to installation the RFgen client software of the same major version as the server to ensure they are compatible.
- If your RFgen client is unable to connect due to a version mismatch, an error message stating an upgrade is needed will display.
- Minor versions between the server and client are supported, as long as the server has the newer version. For example, if the server has 5.1.27 installed, and the client has 5.1.20 installed, the client is supported. If the server is 5.1.17 but the client version was higher (i.e. 5.1.27), this combination would not be a recommended install -- especially if the client is set to download the profile from the server automatically.
- While its possible to have two different major versions of RFgen installed on the same device, **this is not recommended** as the end user won't know which version to launch AND if you were storing data on the client, this could cause issues with the database.

Client Dialogs and Messages

Depending on the state of you connection, your RFgen client will display a message in the event it is unable to find and connect to the server, or, was able to find the server but the server rejected its connection, or while connecting to the server, a mismatch in versions was detected. The following topics describe the possible causes for each type of dialog.

Client Configuration Locked Message



The Client settings are currently locked.

[OK]

Symptom:

Message displays "The Client configuration has been locked and cannot be edited." or "The client settings are currently locked." and does not let you view or access the RFgen Client Configuration settings.

Possible Reasons

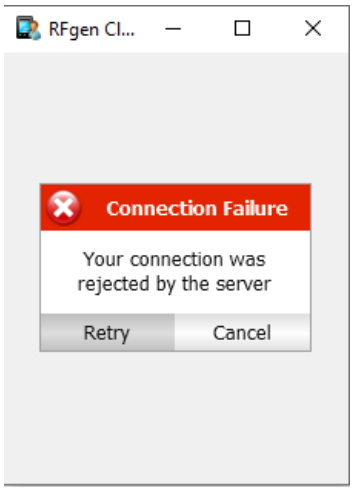
- When you launch the mobile client or the RFgen Desktop Windows Client, it connects with the RFgen server and obtains the device configuration settings called a *profile* from the RFgen server. If the client profile setting *Allow User to Configure Device* is set to "Never" then the user on the client will be prevented from changing the configuration settings.

Solution

The RFgen Administrator needs to change the Profile settings to a value other than "Never" in the "Allow User to Configure Device" and re-deploy the updates to the client.

User access to RFgen client configuration settings should be restricted for obvious security and client management reasons.

Connection Failure Message



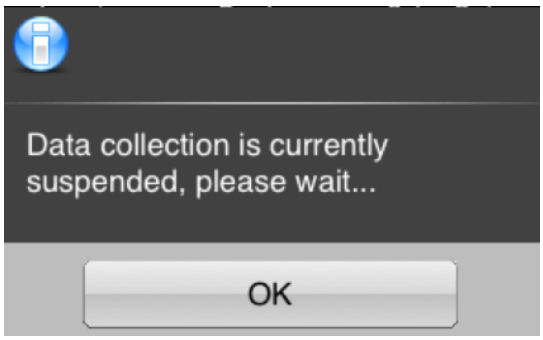
Connection Failure Your connection was rejected by the server

Description The server received the client connection request, but rejected the request for reasons related to device licensing and/or authorization status.

- **Insufficient Licenses.**
  Your client has requested a connected to the server, but the server that lacks a sufficient number of licenses to allocate to it, and therefore rejects the client's connection request.
- **Device Not Authorized.**
  Your client has requested a connection to the server, but the server rejected the request because this specific device (tracked by a graphical user identification on the server) is not authorized for connection and therefore rejects the client's connection request.
  For more details on how to authorize a device, click here.

If you have shortage of available device licenses, consider requesting more from your RFgen Sales Representative, or you can release/remove authorized devices that have been assigned a license from Device Management > Access / Authorized Devices > RFgen - Device Authorization to free up a license.

You data collection was suspended

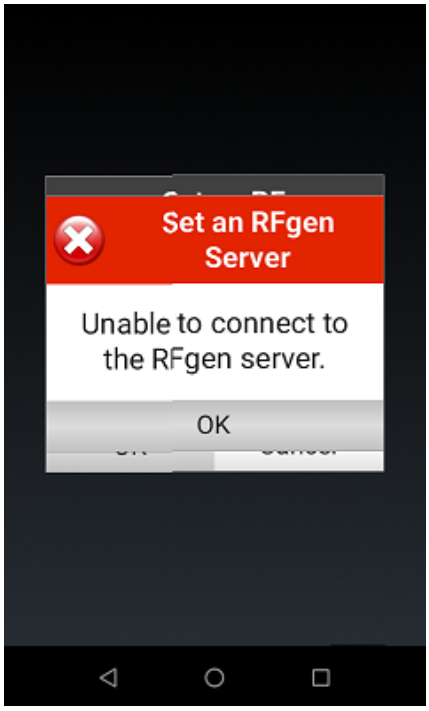


Data collection is currently suspended, please wait.

This message displays on the screens of connected clients (Thin Clients) when the RFgen Server service is suspended.

For example, if the RFgen Administrator is on the RFgen Mobile Unity Management Platform console and clicks the Suspend Services button, this is the message the clients will see.

Set an RFgen Server - Unable to connect to the RFgen Server Message



Description: This message displays after you are asked to enter the server (host) name or IP address. If the client is unable to connect using the name or IP address entered, the message "Set an RFgen Server" "Unable to connect to the RFgen server." displays.

Possible Reasons Client is Unable to Connect to the RFgen Server

Security Block

The clients connection request is being clocked by a firewall or virus detection system.

- Check with your network or system administrator on how to enable communication in a secure manner.

Bi-Directional Comm Not Setup Correctly

Either the client network or the server network is not set up for bi-directional communication.

- Check with your network or system administrator to setup bi-directional communication.

Server Services Are Not Running

Server unable to accept connection if services are down.

- Verify if the Server Services (RFSVR510.exe) is running through the Mobile Unity Platform Server console or Windows Task Manager.

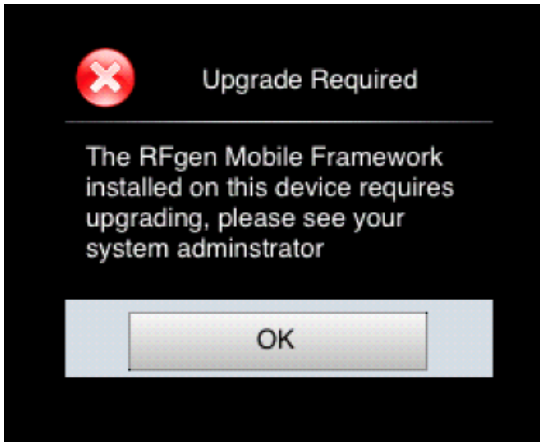
Network Connection Disabled

- Make sure the client's wi-fi is on and is on the intended network.
- make sure the server is connected to the network intended for connection to the devices.

Mismatch RFgen Server Name/IP

When setting the RFgen server, make sure the server name and IP address you entered on the client matches the RFgen server name/IP address configured in the RFgen Mobile Development Studio > Profiles [Profile Name] > RFgen Service Groups

Upgrade Required Message



Upgrade Required

The RFgen Mobile Framework installed on this device requires upgrading, please see your system administrator.

What This Message Means

This message displays when there's a major version difference between the version installed on the RFgen Mobile Unity Platform Server and your RFgen Client.

For example if the Server is 5.1.8, the client is supported from 5.1.0 to 5.1.8. But if the server was 5.2 and the client was 5.1 they are not compatible.

You can have multiple versions of the RFgen software client installed on the device, but when you launch the application, the major versions need to match (i.e. 5.2.x to 5.2.x but not 5.1.x to 5.2.x).