Gallagher

Mobile Connect Site Configuration Guide

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1 Introduction

1.1 Purpose

This document is intended for Gallagher site administrators and installers. This document provides configuration instruction for Gallagher Bluetooth® enabled readers to support the Gallagher Mobile Connect solution.

1.2 Supported readers

The following readers support the Gallagher Mobile Connect solution.

Reader	Product Codes
T11 Multi Tech Readers	C300430 and C300431
T12 Multi Tech Readers	C300440 and C300441
T15 Multi Tech Readers	C300480 and C300481
T20 Multi Tech Terminals	C300460 and C300461
T30 Multi Tech Keypad Readers	C300490 and C300491

Note: The reader must be connected to a system using Gallagher Command Centre vEL7.70 (or later). The reader must be connected to a Controller 6000 using vGR7.70 (or later). The reader must be connected as an HBUS device.

1.3 Connecting Command Centre to the cloud

Access to the Command Centre Cloud, used to issue mobile credentials to users, may need to be provided by the site's IT department. Instructions for connecting a Command Centre site to the Command Centre Cloud can be found in the topic *"Connecting to the Cloud"* in the Command Centre Configuration Client Online Help.

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2 User registration

2.1 Introduction

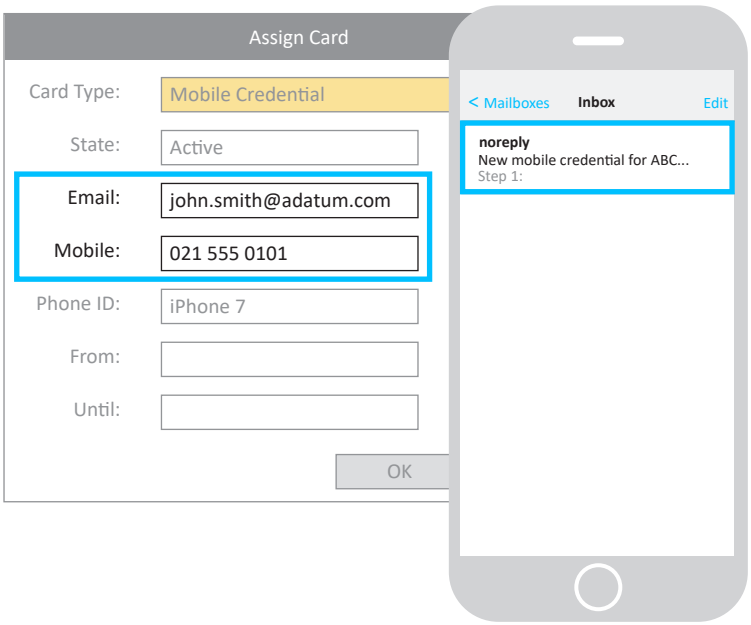
The Gallagher Mobile Connect App uses Bluetooth® low energy technology in a user's mobile device to request access to secure areas on site. The Gallagher Mobile Connect App is available on both iOS and Android devices. It can be downloaded from the App Store (for iOS devices) or Google Play (for Android devices). For details about device compatibility, refer to: https://security.gallagher.com/products/mobile-connect-app

The mobile device must have the Gallagher Mobile Connect App installed, and the user have accepted a valid mobile credential in order to request access at a Gallagher Bluetooth® enabled reader.

2.2 Registration procedure

1

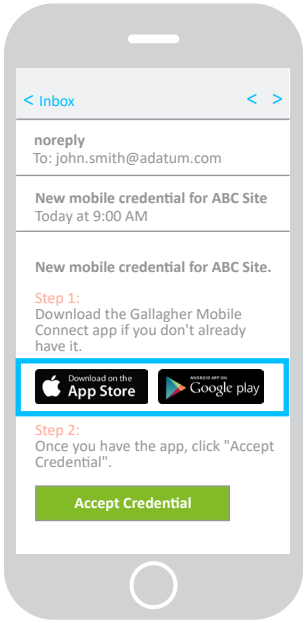
An operator registers a mobile credential to a user, using the Assign Card button within the Cardholder Cards tile in Command Centre. The user's email and mobile number must be entered. The user will receive an email invitation.



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2

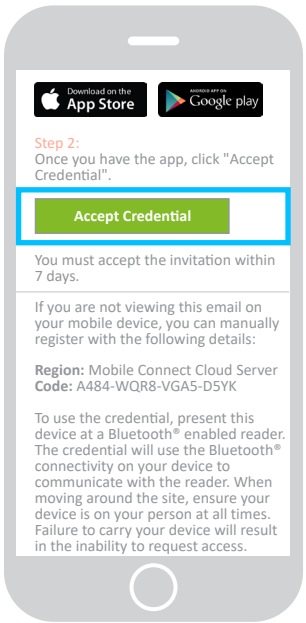
If not already installed, the user must download and install the Gallagher Mobile Connect App on their mobile device. The App is available on iOS and Android.

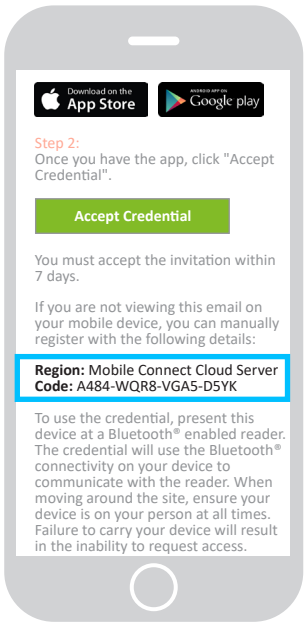




3

The user must click the "Accept Credential" button. If not on their mobile device, the user can manually accept the credential by entering the 16 character registration code (found in the email) into the Gallagher Mobile Connect App.

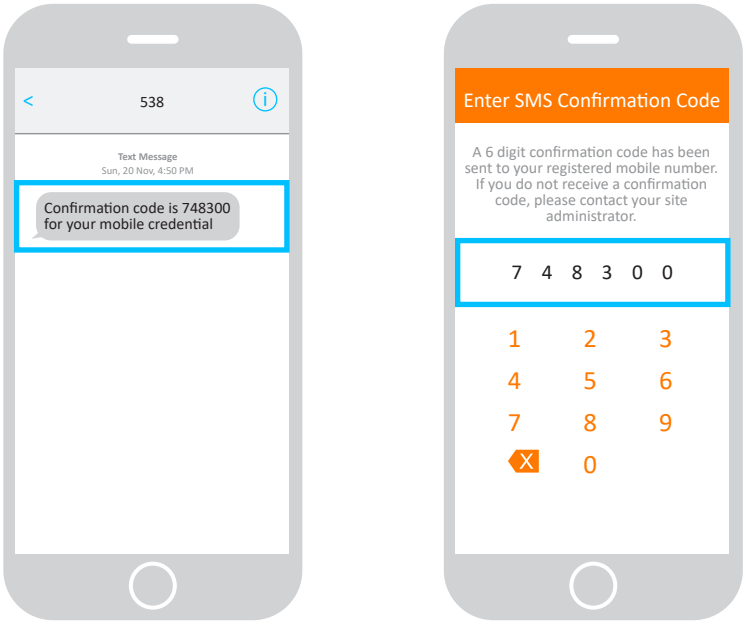




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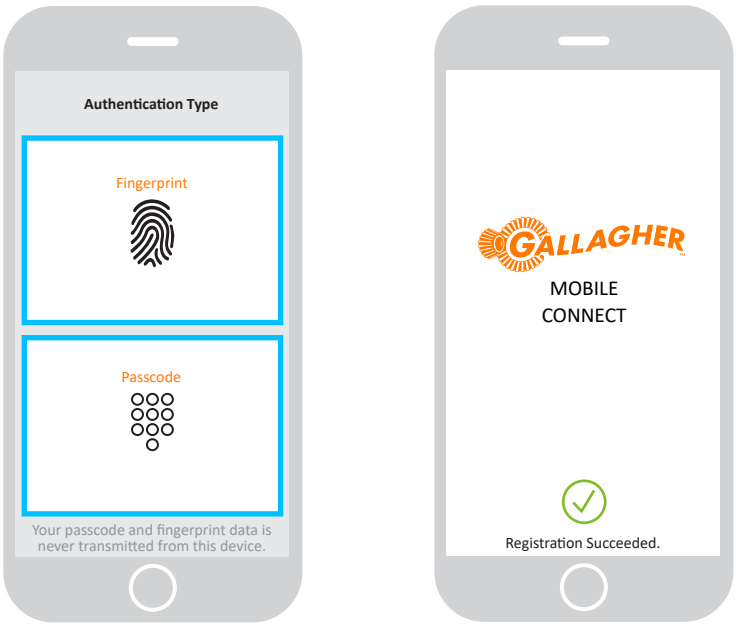
4

The user must enter the 6 digit confirmation code sent via text message into the Gallagher Mobile Connect App in order to verify the device.



5

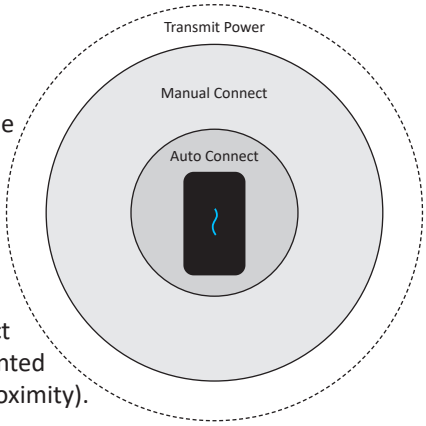
After the mobile credential has been accepted and the confirmation code entered, the user must specify the second authentication factor to be used (fingerprint or passcode). This may be used to identify the device's user when requesting access.



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3 Reader calibration

3.1 Transmit power and connection modes



The transmit power and connection distances for a reader are configured using the Gallagher Mobile Client App or the Gallagher Configuration Client. Increasing the transmit power will increase the reader's Bluetooth® read range.

Auto connect
If auto connect is enabled, the access request is automatically made when the user enters the auto connect field. Configure a low auto connect value to prevent unwanted reads, (e.g. when multiple readers are installed in close proximity).

Manual connect
If manual connect is enabled, the user will need to initiate the access request. The reader name is displayed in the App. If multiple readers are within transmission range, multiple reader names will be displayed. Select the reader for which you wish to initiate an access request. Use manual connect for readers located at a distance from the user, (e.g. readers at a boom gate or readers located away from the door opening).

3.2 Identifying readers

An operator can choose to display the reader's name within the App. If you choose not to display the reader's name, (i.e. for **privacy** reasons) a generic identifier incorporating the last five digits of the reader's HBUS serial number will be used, (e.g. Reader: 50030).

3.3 Connection distances

The following connection distances were observed across an open field, with a direct line of sight to the front of the reader.

T11/T12/T15/T20 Readers - Default values	
Transmit power:	-26 dBm
Auto connect range:	45 dBm
Manual connect range:	64 dBm
Auto connect distance:	**5-15 cm**
Manual connect distance:	**2-3 m**

T11/T12/T15 Readers - Maximum values	
Transmit power:	8 dBm
Manual connect range:	120 dBm
Manual connect distance:	**55 m**

T20 Reader - Maximum values	
Transmit power:	8 dBm
Manual connect range:	120 dBm
Manual connect distance:	**40 m**

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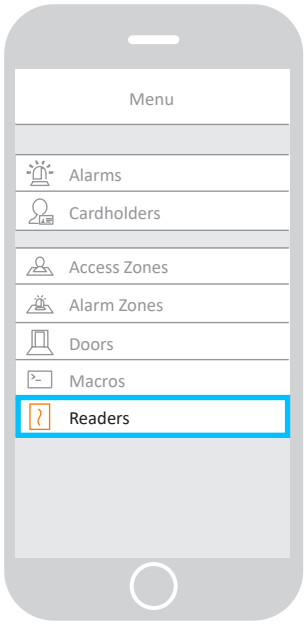
3.4 Mobile Client reader calibration procedure

This procedure describes how to configure the transmit power and connection distances for a reader, using the Mobile Client App. The Mobile Client user must have the appropriate Command Centre privileges to view and adjust the reader's settings.

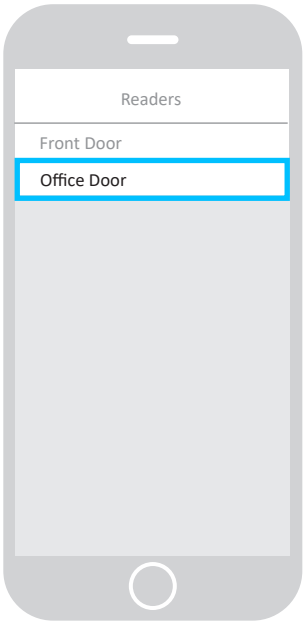
Note: The connection distances are approximate and will have a greater margin of error the farther you are from the reader.

1

Select Readers from the Menu.

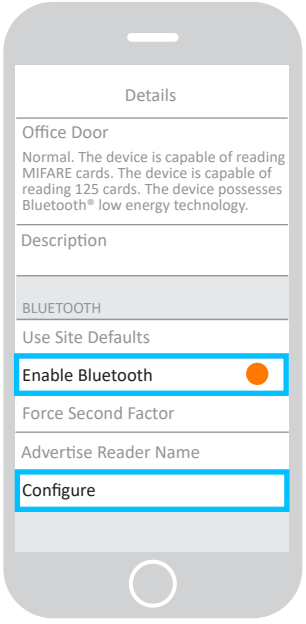


Select the reader to configure.

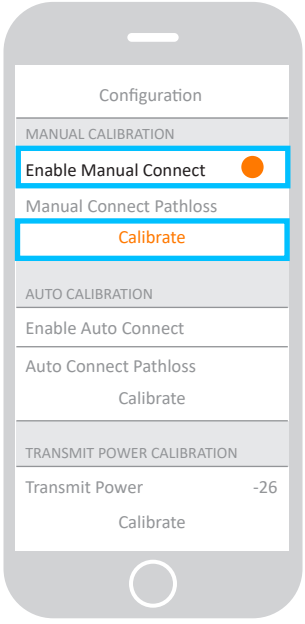


2

Enable Bluetooth® for the reader then select Configure.

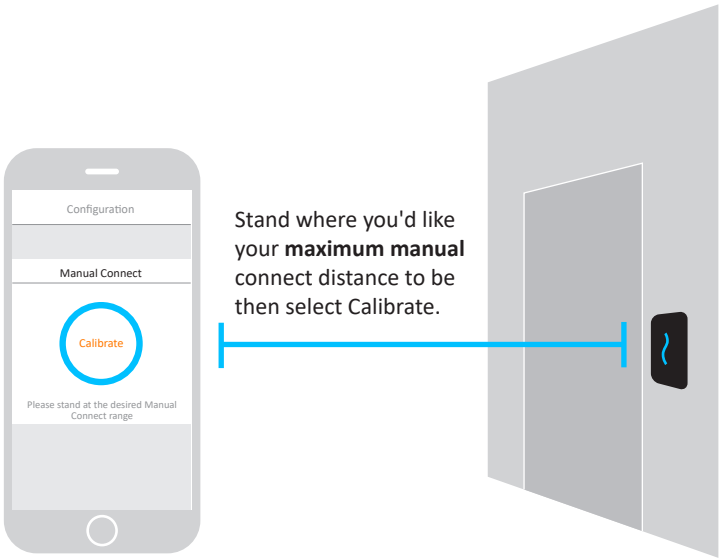


Enable Manual Connect for the reader then select Calibrate.



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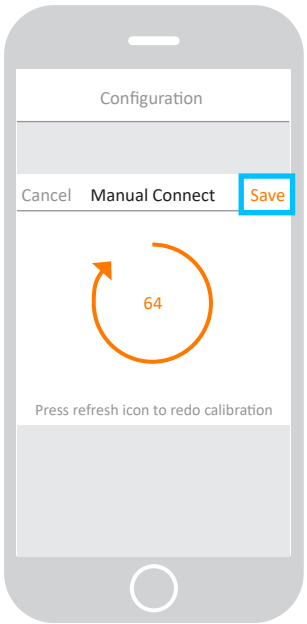
3



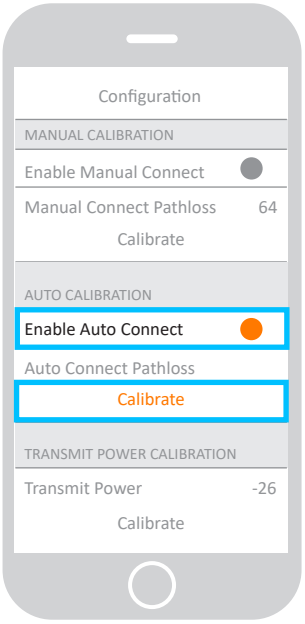
Note: Ensure there are no obstructions between the phone and the reader. If connection is unsuccessful, increase the transmit power or move closer to the reader.

4

The path loss (dB) value displays. Select Save.



Enable Auto Connect for the reader then select Calibrate.

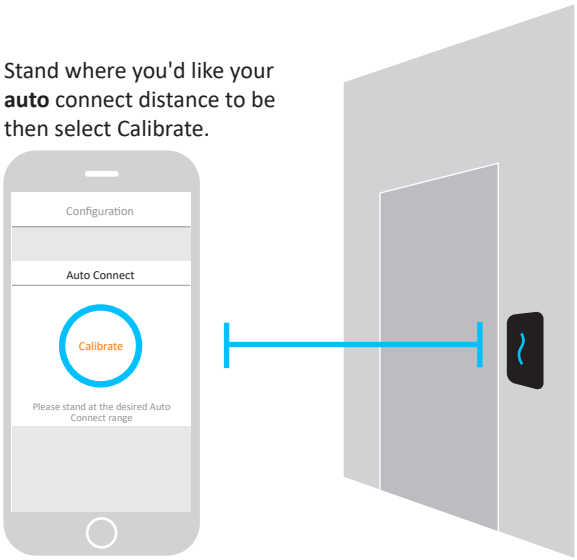


Note: The connect range is an approximate value. The higher the value the less accurate the connect range will be.

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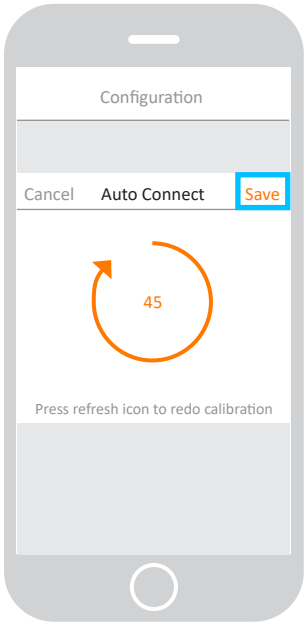
Stand where you'd like your **auto** connect distance to be then select Calibrate.



Note: Ensure there are no obstructions between the phone and the reader.

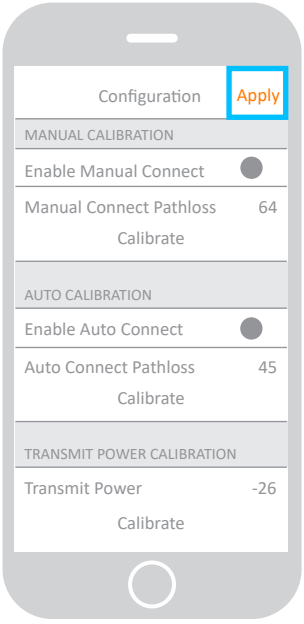
6

The path loss (dB) value displays. Select Save.



Note: The connect range is an approximate value. The higher the value the less accurate the connect range will be.

Select Apply to save the reader's configuration.



Note: If required, calibration can be performed manually be selecting Advanced Settings located at the bottom of the screen.

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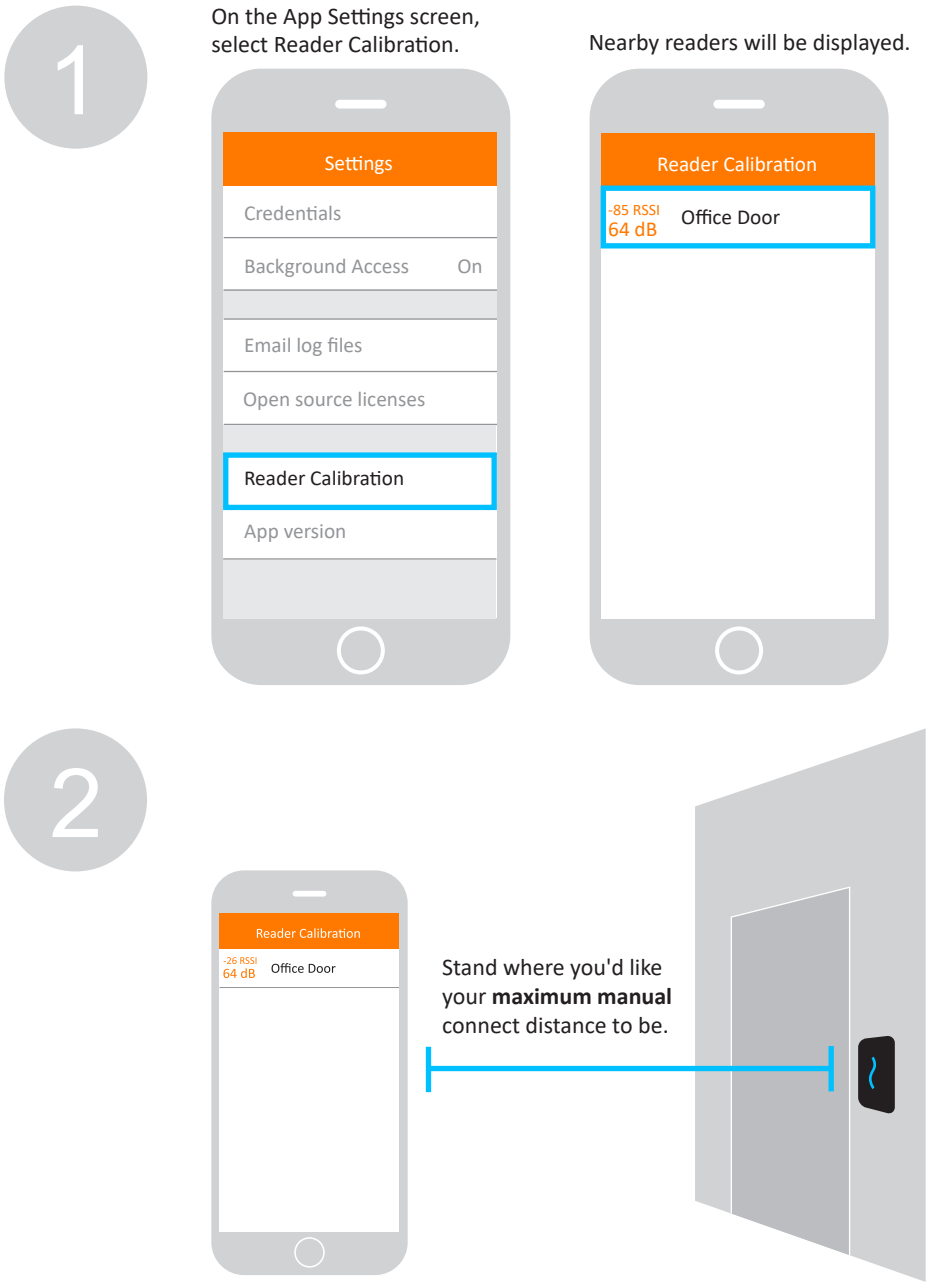
3.5 Configuration Client reader calibration procedure

This procedure describes how to configure the transmit power and connection distances for a reader, using the Configuration Client instead of the Mobile Client. You need to use both the Mobile Connect App and the Configuration Client. The Configuration Client operator must have the appropriate Command Centre privileges to adjust the reader's settings.

Notes:

- The calibration distances are approximate and will have a greater margin of error the farther you are from the reader.
- Access cannot be requested when the Reader Calibration screen is shown.

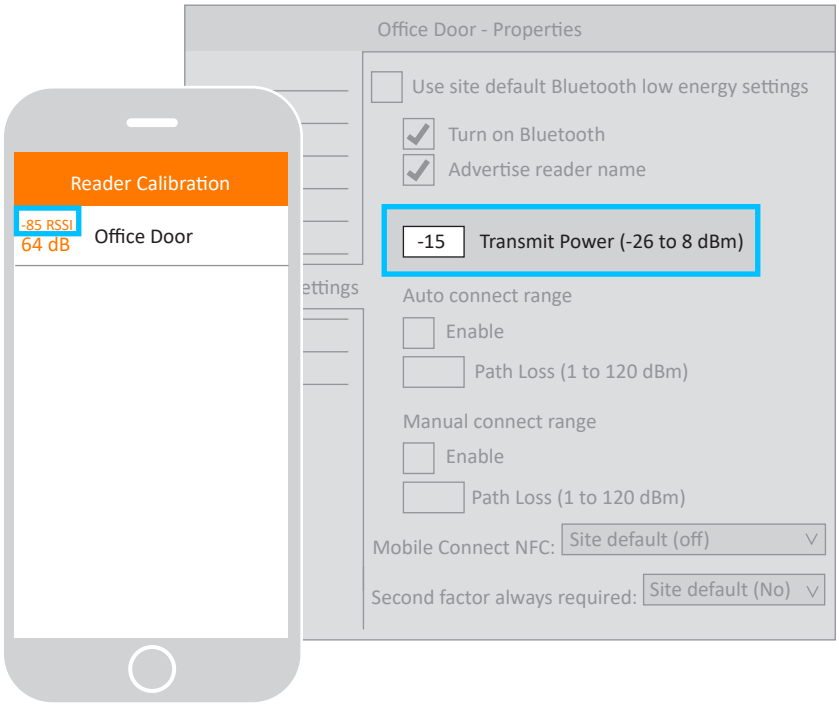
You will need to turn ON Bluetooth® within the reader's properties in the Configuration Client.



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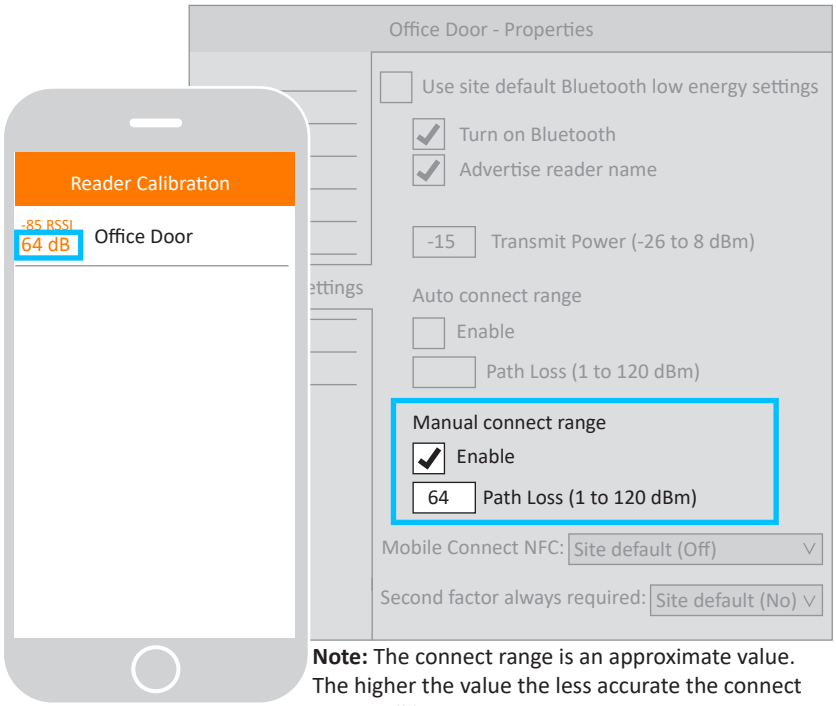
3

Adjust the Transmit Power value until the RSSI reading is near -85 (Mobile Access Settings tab in the Configuration Client).



4

Set the path loss (dB) value as your manual connect range

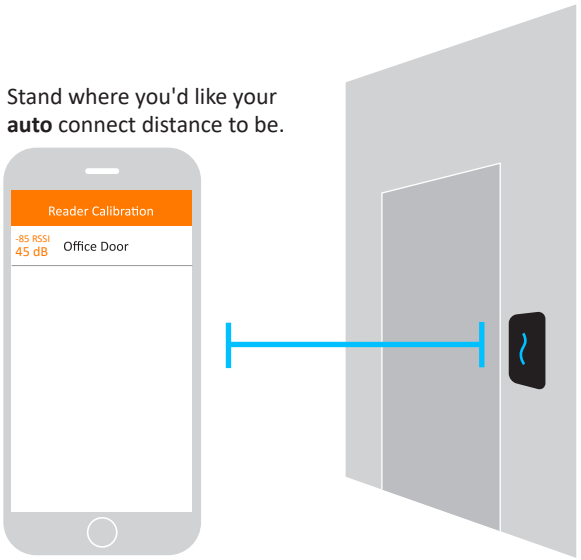


Note: The connect range is an approximate value. The higher the value the less accurate the connect range will be.

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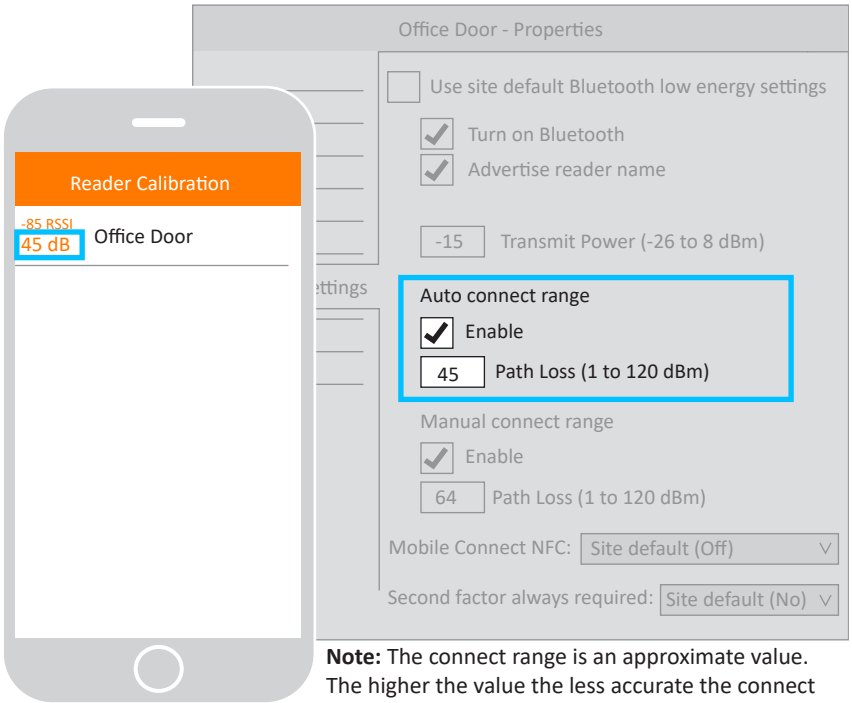
5

Stand where you'd like your **auto** connect distance to be.



6

Set the new path loss (dB) value as your auto connect range

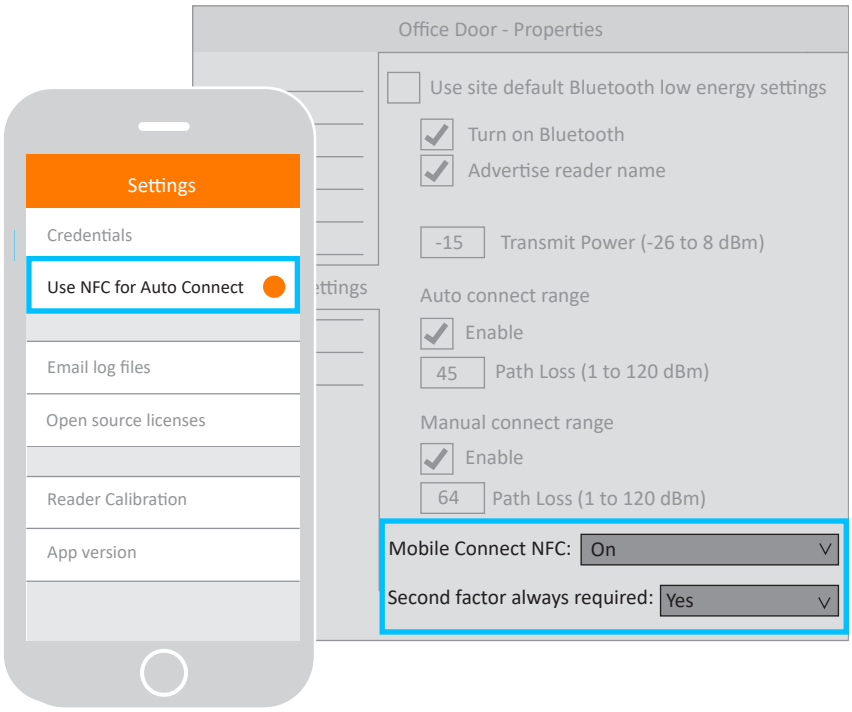


Note: The connect range is an approximate value. The higher the value the less accurate the connect range will be.

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7

Enable Mobile Connect NFC (On) on the App and on the reader.



Mobile Connect NFC

When enabled, Android devices will use NFC to request access at the readers instead of Bluetooth. NFC applies to Auto Connect only. If the user has NFC disabled on their device, their device will revert to Bluetooth® to make the access request. Default is OFF.

NFC works over a short range, hence a user may take their device out of range to provide their second factor. When this happens, the App displays an icon encouraging the user to re-enter the field.

For more details, refer to the following topics in the Configuration Client Online Help:

- Mobile Connect
- Configuring a reader for Mobile Connect
- Mobile Access Settings

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4 Troubleshooting

Issue	Analysis/Resolution
Delayed access.	Users must request access one at a time; multiple users cannot connect to the same reader at once. To manage multiple access requests, the system uses a back-off timer to ignore subsequent access requests for approximately 5 seconds after each transaction.
Only one Command Centre Cloud per site (per license serial number) can be created.	If a site wants to move Command Centre servers, they need to make sure they delete the old Command Centre Cloud item before trying to create a new Command Centre server with its own Command Centre Cloud item. If this is not done, Gallagher Technical Support will be required to re-establish connection between Command Centre and the Command Centre Cloud.
Variable connection distances.	The greater the connect range is the more likely there will be variation in the read range a user experiences. The Reader Calibration screen pathloss values are averaged. The reader sends 20 advertisements per second, Gallagher take a sample of these, delete the biggest and smallest and average the remainder, so the values are readable. To ensure the fastest access time, the Mobile Connect solution uses the absolute path loss values to determine when access can be requested. As the absolute values will fluctuate, a user may experience some variation in read range during an auto connect transaction, and readers may appear and disappear at the edge of the configured manual connect range.

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