

Feature Description Document

Configuring IXM Link for RS2 Technologies



Purpose

This document outlines the process of configuring IXM Link to sync users between Access It! by RS2 Technologies and IXM WEB.

Applies to

TITAN	TFACE	TOUCH 2	SENSE 2	MERGE 2	MYCRO
All Devices					

Description

IXM Link is a licensed module in IXM WEB that helps to synchronize the user database between IXM WEB (from where biometric enrollment for users is performed) and leading Access Control Panel Software (from where access rules for the users and the organization are managed).

This FDD will describe how to set up and configure IXM Link if you are using Access It! by RS2 Technologies to keep IXM WEB users in sync with Access It! by using its APIs to import and export users and their cards.



Requesting a License

1. From **Home** >> Expand the **Left Navigation Pane** >> Select the **License** tab >> Click on the **Access It! (RS2 Technologies)** icon.

A screenshot of a web-based application window titled "Access It! Activation". The window has a light gray background with a white content area. At the top left is a blue "X" icon for closing the window. Below it is a title bar with the text "Access It! Activation" and a small document icon. On the right side of the title bar is a small "X" icon. The main content area is divided into sections. The first section, "DEVICES", contains a grid of six radio button options for selecting the number of devices:

<input type="radio"/> Up to 5 (free)	<input checked="" type="radio"/> 6 to 20	<input type="radio"/> 21 to 50
<input type="radio"/> 51 to 100	<input type="radio"/> 101 to 200	<input type="radio"/> 201 to 300
<input type="radio"/> 301 to 500	<input type="radio"/> 501 to 1000	<input type="radio"/> Registered devices[6]

A blue "Request" button is located at the bottom of this section. Below this is a section for entering an "Activation Key" with a text input field and a blue "Activate" button. At the bottom center is a blue "Cancel" button. The entire window has a thin gray border.

2. Select the required license based on the number of devices and click **Request** to see the details and send them to Invixium support to request a license.



3. The details screen will vary based on whether [SMTP settings are configured](#) in the IXM WEB:

- a. If SMTP settings are not configured, a “Copy to Clipboard” icon will appear.

Request ×

Date Requested	06/21/2022
Time	4:39 PM
License Request	1 Devices
Machine Key	
Module	RS2
Version	2.2.250.0

Send above details to support@invixium.com

Click to copy the details and paste them in an email to support@invixium.com to start the licensing process.



- b. When SMTP settings are configured, a “Send” button and a “Copy to Clipboard” button will appear.

Request

Date Requested	06/21/2022
Time	4:39 PM
License Request	1 Devices
Machine Key	
Module	RS2
Version	2.2.250.0

Send above details to support@invixium.com

Click **Send** to directly email the details displayed to Invixium support to start the licensing process.



- Once you receive the license key from Invixium, go back to the same page where you requested the license and input the license key in the Key field as shown below.

Access It! Activation

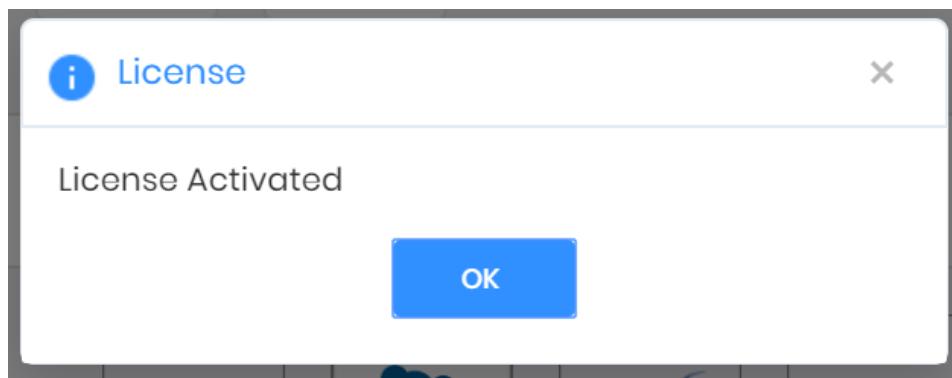
DEVICES

Up to 5 (free) 6 to 20 21 to 50
 51 to 100 101 to 200 201 to 300
 301 to 500 501 to 1000 Registered devices [6]

Request

Activation Key

- Click **Activate** to apply license.





Configuring Wiegand to Output RS2

1. Register all IXM devices.
2. From **Home** >> Click the **Devices** tab on the top.
3. Select any device.
4. Navigate to the **Access Control** tab for the selected device >> Click on **Wiegand**.

Wiegand Output

^

	ID Type	Duress	
Wiegand	User ID	None	
	Success	Fail	
Identification	None	None	
	Success	Fail	
Verification	None	None	
	Format	ID Value	
Anti-Shock	None	Device Serial Nu.	
	Format	ID Value	Interval (sec)
Heart Beat	None	Device ID	60
	Format		▲ ▼
User not found	None		
Pulse (μsec)			
Width	Interval		
40	2000		
<input type="button" value="Apply"/>	<input type="button" value="Reset"/>		



5. Toggle the switch on the right to enable Wiegand Output for the device.
6. Set ID Type of output Wiegand to Employee ID/Default/Actual Card as displayed:

Note: Invixium devices can have up to 512-bits customizable Wiegand format. The default output is Standard 26-bit. To change the output to a different Wiegand format, refer to the [Configuring Wiegand document](#).

EVENTS

ID Type	
Wiegand	Default Card
Identification	Employee ID
	Default Card
	Actual Card

7. Click **Apply**.
8. This will update the Wiegand Output settings of the device selected in step 3.
9. If you have more devices, then follow the next steps to copy all Wiegand settings to all devices simultaneously. *Note: This copies all Wiegand output settings.*
10. From **Home** >> Click the **Devices** tab on the top >> Select the device in step 3 >> Click on **Broadcast** on the right.

The screenshot shows the software interface with the 'Devices' tab selected. In the center, a device card is displayed for an 'IXMTEST' device. The card includes fields for Device ID (0 IXMTEST), Transactions (572191), Authentication types (Face Recognition, Fingerprint), Device Category (--), and Comm Mode (WiFi). Below the card, a navigation bar has 'Overview' selected. On the far right, there is a 'Broadcast' button, which is highlighted with a red box.



11. Select Wiegand Output as the setting that needs to be broadcasted to other devices as shown below.

A screenshot of a software interface titled "Broadcast". At the top, there is a "Select" button with a blue dot and a "Device(s)" button with a grey dot, followed by the number "2". Below this, there is a "Select All" checkbox. A scrollable list of device types follows, with "Wiegand Output" having a checked checkbox.

12. Click **Broadcast** and select the rest of the devices to which the setting needs to be copied as displayed. Click **OK** to copy all Wiegand output settings of the source device to all destination devices at once.

A screenshot of a software interface titled "Broadcast". At the top, there is a "Select" button with a blue checkmark and a "Device(s)" button with a grey dot. Below this, there is a "Select Device(s)" dropdown and a search bar with a "Search" button. A scrollable list of device groups is shown, with several checkboxes checked, including "Device Group", "Testing", "India", "MERGE FP22", "TITAN", "Tech Support Devices", "QADevice", and "RMA Devices". At the bottom right is an "OK" button.



Field Mappings

The following are the AI fields mapped with IXM WEB.

RS2 Field	IXM Field	Notes
Last name	Last Name	
First name	First Name	
Cardholder Status	Suspend User	IXM WEB has two values ACTIVE and INACTIVE while AI has three statuses Inactive, Active, and Date based. Active of AI is mapped to INACTIVE, Inactive of AI is mapped to ACTIVE as Suspend User in IXM WEB. The date field is mapped to Start Date & End Date of IXM WEB.
Cardholder status Date is Active (Cardholder status - Date based)	Start Date	AI doesn't allow a value less than 1/1/1970.
Cardholder status Date is Expire (Cardholder status - Date based)	End Date	AI doesn't allow a value greater than 31/12/2035.
Department	Department	
Card number	Prox ID	
Facility Code	Facility Code	
PIN Number	PIN	RS2 has a PIN at card level which is mapped to a PIN at user level since IXM WEB supports only one card per user. The rationale is that the user remembers their PIN which can be used on Invixium devices for authentication. In RS2, the default value for PIN Number is 0. If the PIN Number is 0 then it is considered as



		empty in IXM WEB.
Card status	“No equivalent”	Prox ID, Facility Code, and PIN are set when Card status is not Inactive. Inactive card statuses are not transferred to IXM WEB.
Active (Card status - Date based) & Expire (Card status - Date based)	“No equivalent”	If an active date is less than or equal to the current date and expiry date is greater than and equal to the current date then Prox ID, Facility Code, and PIN are transferred to IXM WEB.
Photo	User Image	Upon syncing, IXM WEB fetches all the user's profile pictures from the AccessIt. Users need to ensure that photos have a valid size (it should not be 0 bytes).



Configuring LINK for RS2

1. From **Home** >> Expand the **Left Navigation Pane** >> Select the **IXM Link** tab >> Click the **Access It! (RS2)** icon. By default, the Access It! configuration is turned OFF.

The screenshot shows the IXM Link configuration interface. At the top, there's a navigation bar with the IXM Technologies logo, the 'Link' tab selected, and the 'Access It!' icon. Below this, a 'Status' switch is shown in the 'OFF' position. The main configuration area includes fields for Authentication Mode (Windows), Server (empty), Database (AllUniversal), Interval (sec) (30), Sync Direction (IXM WEB ⇄ RS2), Auto Transfer (No), and Employee Group (Select value). At the bottom are 'Apply' and 'Reset' buttons.

2. Enable editing configuration by toggling the status switch next to the logo to **ON**. Data is not synced when the configuration is applied with this switch in the OFF position.

This screenshot shows the same configuration page as above, but with the 'Status' switch now turned ON. The rest of the configuration fields remain the same as in the previous screenshot.



3. Provide values for the Web Service URL, Instance Name, User, Password, interval, Sync Direction, Auto Transfer option, and Sync Card Number fields. Each configuration setting is explained below:

Authentication Mode: Windows or SQL Server as an authentication mode for login type.

Server: Name or IP of SQL Server Instance where RS2 database is installed.

User: User Name to log into SQL Server to access database.

Password: Password to log into SQL Server to access database.

Database: Select a database which contains RS2 users.

Interval: Latency acceptable between data transfers.

Sync Direction:

- a. Sync data from RS2 to IXM WEB.
- b. Sync data from IXM WEB to RS2.
- c. Sync data both ways. A link will update IXM WEB first and then RS2.

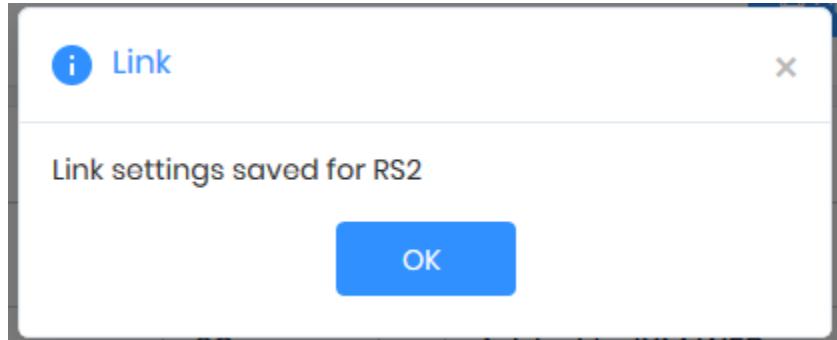
Auto Transfer:

- No: Employees synchronized from RS2 will not be automatically added to any of the employee groups present in IXM WEB.
- Yes: On selecting 'Yes' for Auto Transfer, the employee group selection dropdown enables, which displays all the employee groups present in IXM WEB. All the employees synchronized from RS2 will be automatically added to the employee group selected on the Link Configuration Page.

Employee Group: Selection of employee group needs to be done to use the Auto transfer functionality.



4. Click **Apply** to save the changes.



Visiting this view while the main switch is ON collapses the Configuration section and expands the Activity section.

Activities

Numbers	
Added	0
Updated	0
Deleted	0

Numbers	
Added to IXM WEB	90
Updated in IXM WEB	0
Deleted in IXM WEB	0

Times	
Last run at	11 Oct, 2019 4:05 PM
Next run at	11 Oct, 2019 4:05 PM

Sync Now

Here you can see some data pertaining to the last and next run times.

Clicking **Sync Now** immediately starts synchronizing pending data. This is useful when you don't want to wait until the next scheduled run which is shown in Next Run At.

When data is syncing at the given interval, the numbers on the view would change accordingly.

NOTE: When a user is deleted from the RS2, they also get deleted from IXM WEB as well.

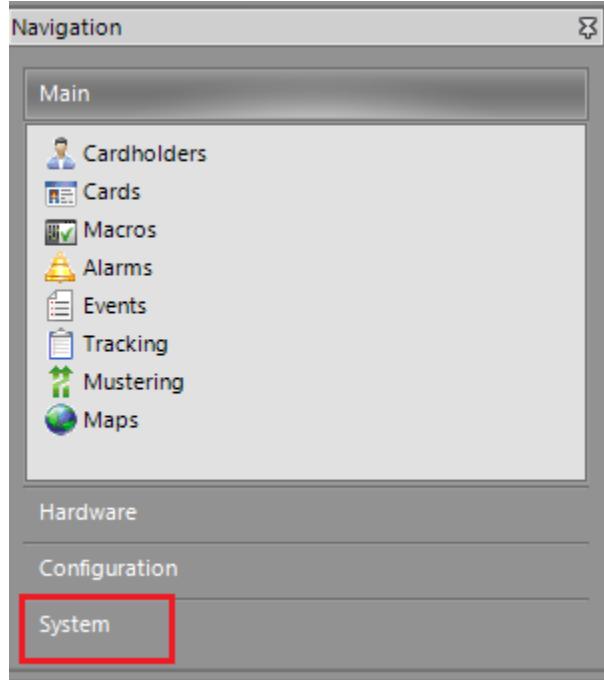


Multiple Cards

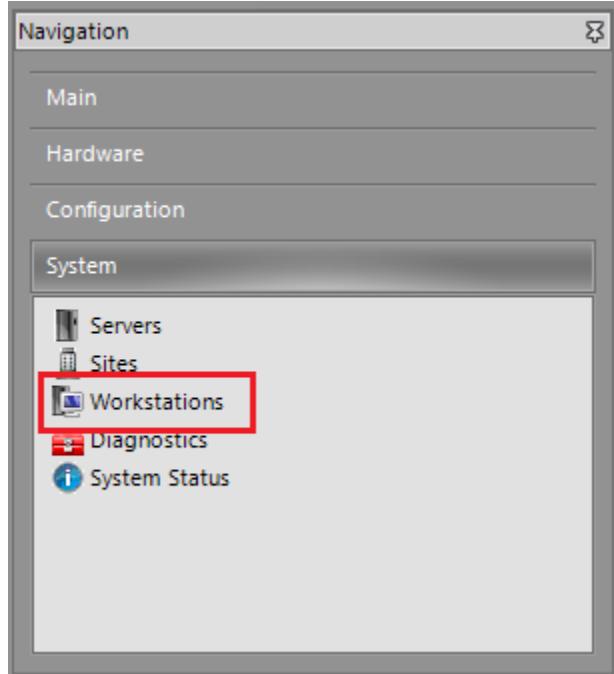
Access It! can have multiple cards for one cardholder, but IXM WEB supports only one card for one user.

Fingerprint Enrollment from RS2

1. Click the **System tab** on the left-hand menu.



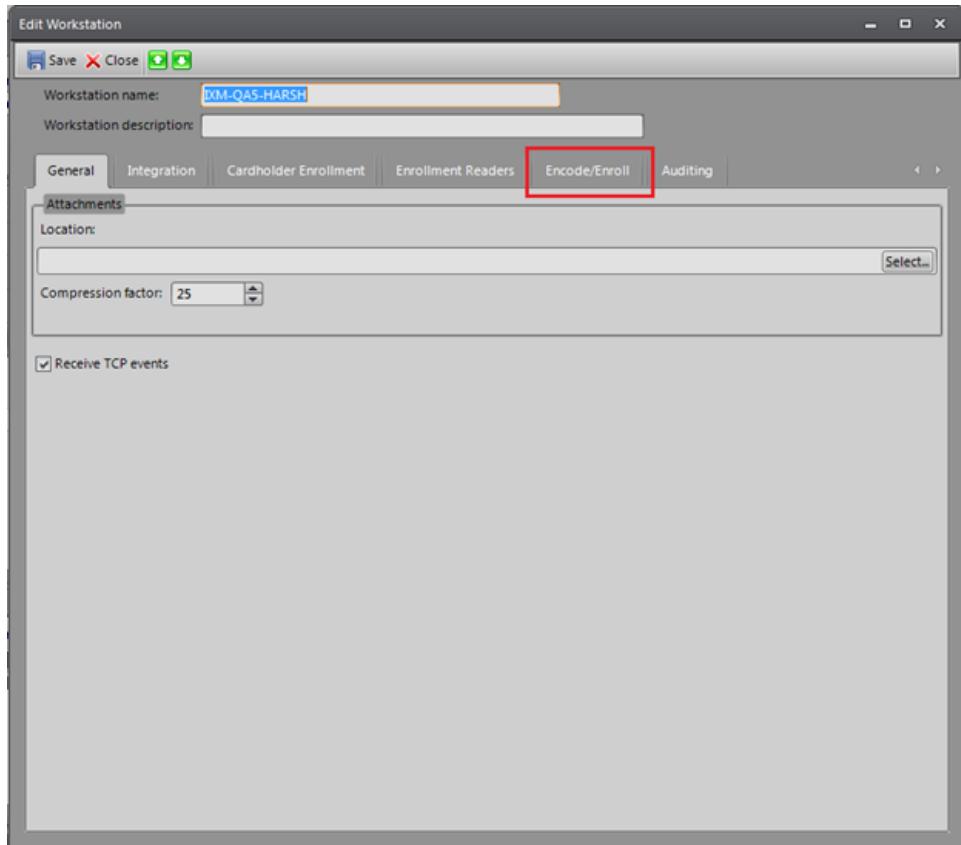
2. Select Workstations.



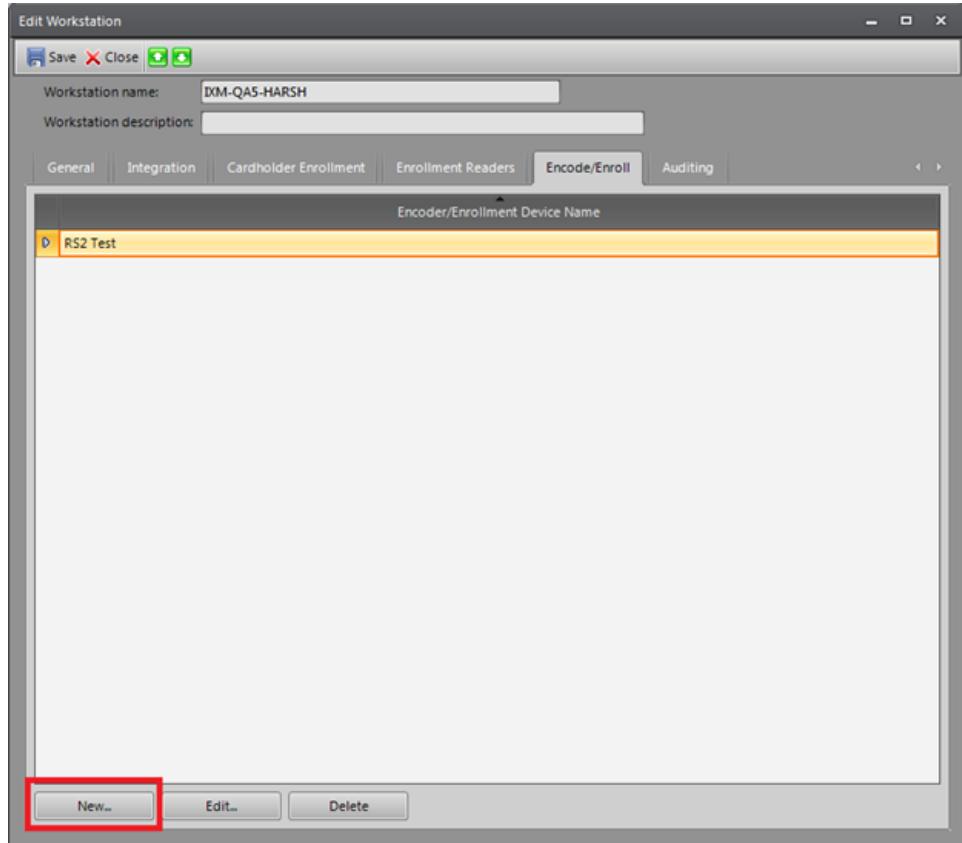
3. Edit the workstation you want to enable this on.

Query results: 6 items (1 currently selected)	
Workstation Name	Workstation Description
BHAVESH-PC	
DXM-BM-01	
IXM-QAS	
IXM-QAS-HARSH	
DXM-QAS-03	
QA-PC4	

4. Select **Encode/Enroll** tab.

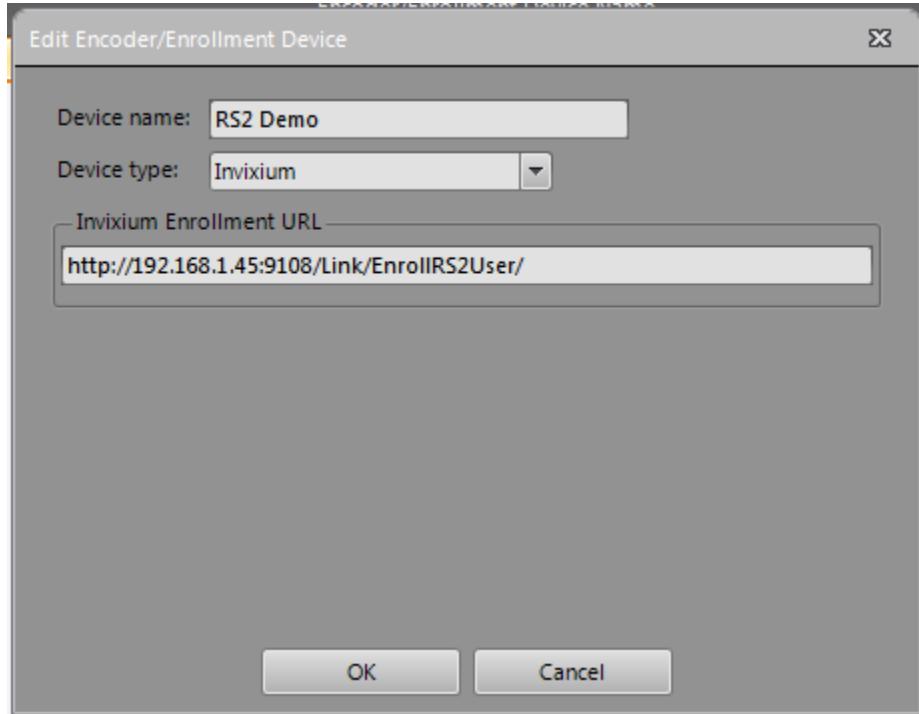


5. Click **New**.





6. Enter name.



7. Select Device Type as Invixium.

8. Enter **Error! Hyperlink reference not valid.** (for example:
<http://192.168.1.118:9108/Link/EnrollRS2User>) in the enrollment URL field.

9. Click **OK**.

10. Close and reopen the software.



11. Go to Main >> Cardholder >> Select user >> Click on card number. This will show a device name that was created previously in the menu bar.

The screenshot shows the Access BI UniversalNET interface. The top navigation bar includes 'File', 'Main', 'View', and various command icons like New, Edit, Delete, Copy, Paste, and Clipboard. A dropdown menu labeled 'RS2 Demo' is open, showing 'Commands'. The main area displays a list of cardholders with columns for Last Name, First Name, and Mobile Device. A specific row for a cardholder named 'Kumar' has its 'Card Number' field highlighted with a red box, showing the value '8'. The bottom part of the screen shows a timeline and search bar.

12. Click on the device name to launch IXM WEB using the “Invixium Enrollment URL” with the cardholder ID appended for enrollment.

The screenshot shows the IXM WEB application interface. The left sidebar has icons for Home, Groups, Employees, Devices, and Reports. The main header says 'IXM WEB'. The top navigation bar has tabs for Dashboard, Devices, and Employees, with 'Employees' being the active tab. A central modal window titled 'Edit Employee' is open, showing details for 'Jones Chris'. The 'Biometric data' section is active, with a 'Select Device' dropdown set to 'Fingerprints'. It shows two hand outlines for 'Left Hand' and 'Right Hand'. Below the hands, it says 'Enrollment mode: Quick' and 'Advanced'. At the bottom, there is a link to download drivers for fingerprint capture device and two 'Save' buttons.



Configuring Panel Feedback with RS2

1. Connect Wiegand Data D0 of the RS2 Panel with WDATA_OUT0 of the IXM device, Wiegand Data D1 of the RS2 Panel with WDATA_OUT1 and Wiegand Ground of the RS2 Panel with WGND of the IXM Device.
2. Connect LED of RS2 Panel with ACP_LED1 of the IXM device.
3. From **Home** >> Click on the **DEVICES** tab on top >> Select the required **device** >> Navigate to the **Access Control** tab >> Click **Panel Feedback**. By default, Panel Feedback is turned OFF.

Status	Event	On Time (msec)	Off Time (msec)
<input type="checkbox"/>	Authentication Success	100	100
<input type="checkbox"/>	Authentication Fail	200	200
<input type="checkbox"/>	Retrieve PIN	300	300
<input type="checkbox"/>	Door Open	400	400
<input type="checkbox"/>	Door Close	500	500
<input type="checkbox"/>	Restart Device	600	600
<input type="checkbox"/>	Release Alarm	700	700

LED Mode: Two LED
Timeout (msec): 3000

Buttons: **APPLY**, **RESET**



4. Toggle the Panel Feedback switch on the right to ON, then Enable LED Control by Panel & Select LED Mode as “One LED”.

Panel Feedback

LED Control By Panel

Enable Pulse Processing

LED Mode: Two LED

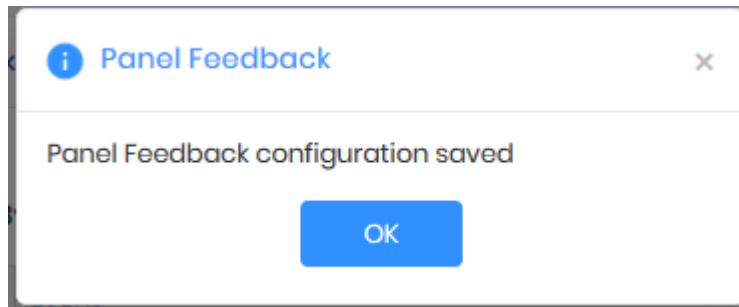
Timeout (msec): 3000

LED Driving Mode: Low

Pulse Processing Time (msec): 500

Status	Event	On Time (msec)	Off Time (msec)
<input type="checkbox"/>	Authentication Success	100	100
<input type="checkbox"/>	Authentication Fail	200	200
<input type="checkbox"/>	Retrieve PIN	300	300
<input type="checkbox"/>	Door Open	400	400
<input type="checkbox"/>	Door Close	500	500
<input type="checkbox"/>	Restart Device	600	600
<input type="checkbox"/>	Release Alarm	700	700

5. Click **Apply** to save the changes.





Support

For more information relating to this Feature Description document, please contact us at support@invixium.com

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