



Feature Description Document

Configuring IXM Link for S2 Security



Purpose

This document outlines the process of configuring IXM Link to sync users between IXM WEB and S2 Security's access control system - S2 NetBox.

Applies to

TITAN	TFACE	TOUCH 2	SENSE 2	MERGE 2	MYCRO
All Devices	All Devices	All Devices	All Devices	All Devices	All Devices

Description

IXM Link for S2 is designed to sync cardholders and their cards between S2 Security's S2 NetBox software and Invixium's IXM WEB. IXM Link is a license-based module and requires a separate license to function.



Requesting a License

1. From **Home** >> Expand the **Left Navigation Pane** >> Select the **License** tab >> Click on the **NetBox (S2 Security)** icon.

A screenshot of a web application dialog box titled "NetBox Activation". The dialog has a close button (X) in the top right corner. Under the heading "DEVICES", there are nine radio button options arranged in a 3x3 grid: "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", and "Registered devices[3]". The "Up to 5 (free)" option is selected. Below the radio buttons is a blue "Request" button with a checkmark icon. Underneath is a text input field labeled "Activation Key" and a blue "Activate" button with a checkmark icon. At the bottom center is a "Cancel" button with an 'X' icon.

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	5:35 PM
License Request	1 Devices
Machine Key	
Module	S2
Version	2.2.250.0

Send above details to support@invixium.com

Send Cancel

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	5:35 PM
License Request	1 Devices
Machine Key	
Module	S2
Version	2.2.250.0

Send above details to support@invixium.com

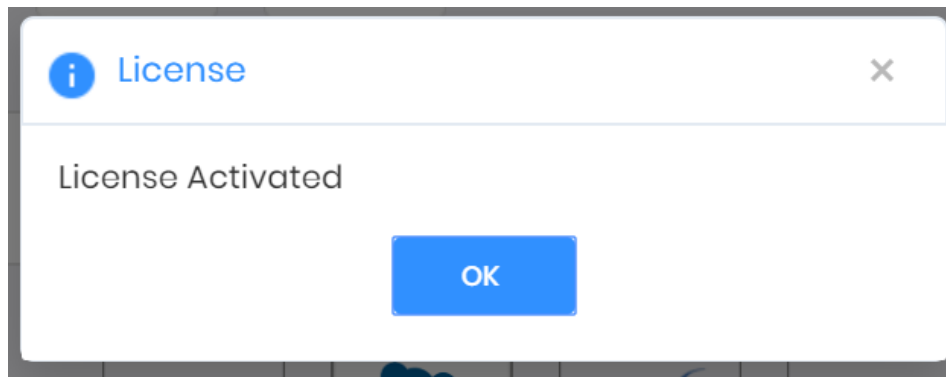
Click **Send** to directly email the details displayed to Invixium support to start the licensing process.



- 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 **Activation Key** field as shown below:

A screenshot of the 'NetBox Activation' dialog box. The title bar reads 'NetBox Activation' with a close button. Below the title bar is a section titled 'DEVICES' containing nine radio button options: 'Up to 5 (free)' (selected), '6 to 20', '21 to 50', '51 to 100', '101 to 200', '201 to 300', '301 to 500', '501 to 1000', and 'Registered devices[3]'. A 'Request' button is located below these options. Below the 'DEVICES' section is an 'Activation Key' label and a text input field containing a blacked-out key. To the right of the input field is an 'Activate' button. At the bottom center is a 'Cancel' button.

- Click **Activate** to apply for a license.





Configuring Wiegand to Output S2

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 Output**.

Wiegand Output [Toggle] [Up Arrow]

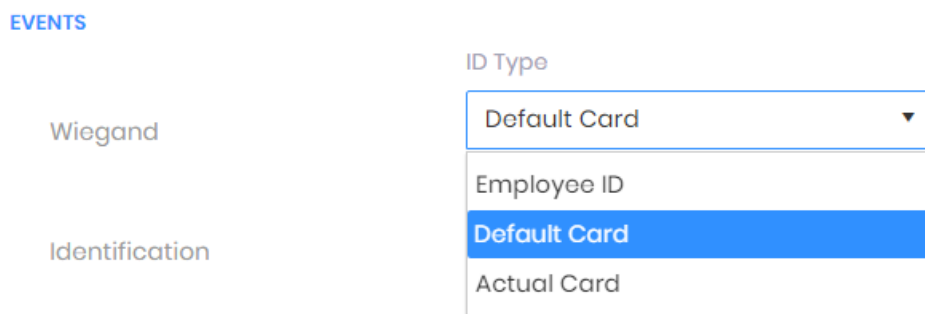
Wiegand	ID Type User ID ▼	Duress None ▼	
Identification	Success None ▼	Fail None ▼	
Verification	Success None ▼	Fail None ▼	
Anti-Shock	Format None ▼	ID Value Device Serial Nu. ▼	
Heart Beat	Format None ▼	ID Value Device ID ▼	Interval (sec) 60 [Up/Down]
User not found	Format None ▼		
Pulse (µsec)			
Width	40 [Up/Down]	Interval	2000 [Up/Down]

Apply Reset

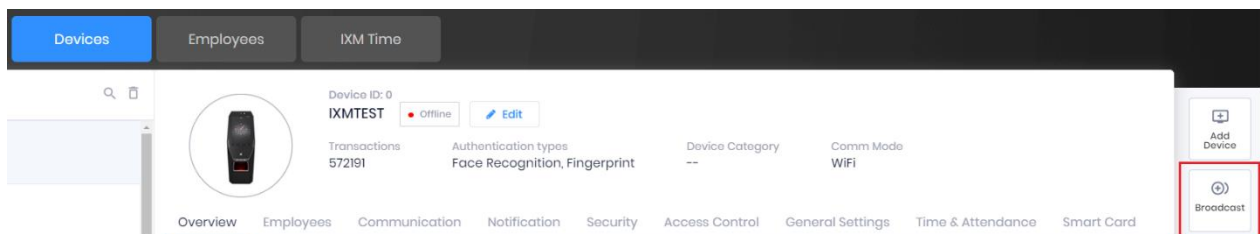


5. Toggle the switch on the right to enable Wiegand Output for the device.
6. Set ID Type of output Wiegand to Employee ID/Default/Actual Card as displayed:

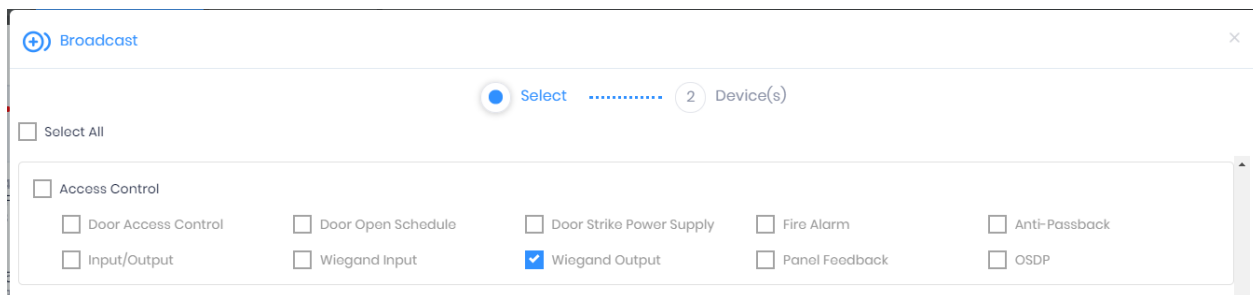
Note: Invixium devices can have up to 512-bits customizable Wiegand format. The default output is Standard 26-bit. To change the output to a different Wiegand format, refer to the [Configuring Wiegand document](#).



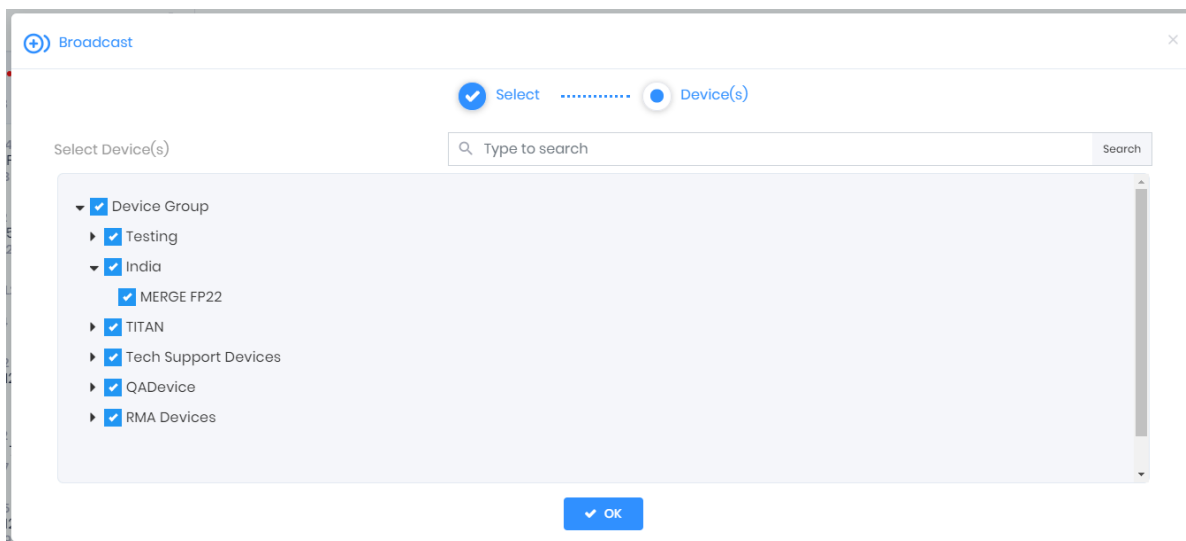
7. Click **Apply**.
8. This will update the Wiegand Output settings of the device selected in step 3.
9. If you have more devices, then follow the next steps to copy all Wiegand settings to all devices simultaneously. *Note: This copies all Wiegand output settings.*
10. From **Home** >> Click the **Devices**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



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



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.





Field Mappings

The following are the NetBox fields mapped with IXM WEB.

NetBox Field	IXM Field	Notes
ID#	User ID	NetBox allows alphanumeric & special characters in ID# while IXM WEB allows only alphanumeric. Hence, IXM WEB will sync only those users whose ID# value is compatible with IXM WEB.
First Name	First Name	
Last Name	Last Name	
Telephone2 (Another Contact tab)	Home Phone	
Telephone (Another Contact tab)	Office Phone	
Phone (Contact tab)	Mobile	
Email (Contact tab)	Email	
Activation Date/Time & Expiration Date/Time	Start Date & End Date	If both Activation and Expiration Date times are specified, then they are synced from NetBox to IXM WEB
PIN	PIN	
Hot Stamp	Prox ID	
Photo	Photo	
Location (Contact tab)	Location	
Deleted	Suspend User	NetBox does not delete users, so records deleted in IXM WEB are flagged as deleted in NetBox.



Configuring the LINK for S2

1. Click the **Link** icon from the Left Navigation Panel >> **S2 Security** app. By default, the S2 configuration is turned OFF.

The screenshot shows the 'Link NetBox' configuration interface. At the top left, there is a logo for 'LENEL-S2' and 'Link NetBox' with a 'Status' toggle switch that is currently turned OFF. The main configuration area contains several fields: 'Web Service URL' (empty), 'Web Service User' (empty), 'Web Service Password' (empty), 'Card Format' (dropdown menu), 'Interval (sec)' (set to 30), 'Sync Direction' (dropdown menu showing 'IXM WEB ⇌ Lenel-S2'), and 'Auto Transfer' (dropdown menu showing 'No'). There is also an 'Employee Group' dropdown menu with 'Select value' selected. At the bottom right, there are 'Apply' and 'Reset' buttons.

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

The screenshot shows the 'Link NetBox' configuration interface with the 'Status' toggle switch turned ON. The configuration fields are now populated: 'Web Service URL' is 'http://192.168.1.111/goforms/nbapi', 'Web Service User' is 'admin', 'Web Service Password' is masked with '.....', 'Card Format' is '26 bit Wiegand', 'Interval (sec)' is '30', 'Sync Direction' is 'IXM WEB ⇌ Lenel-S2', and 'Auto Transfer' is 'No'. The 'Employee Group' dropdown menu remains 'Select value'. The 'Apply' and 'Reset' buttons are still present at the bottom right.



3. Each configuration setting is explained below:

Web Service URL: NetBox API URL.

Web Service User: Name to log in to NetBox.

Web Service Password: Password to log in to NetBox.

Card Format: Valid Card format which allows syncing of cards between NetBox and IXM WEB.

Interval: Latency acceptable between data transfers.

Sync Hot stamp with: IXM WEB allows end-user to sync Prox ID, Smart Card ID, or both.

Sync Direction:

- Sync data from NetBox to IXM WEB.
- Sync data from IXM WEB to NetBox.
- Sync data both ways. A link will update IXM WEB first and then NetBox.

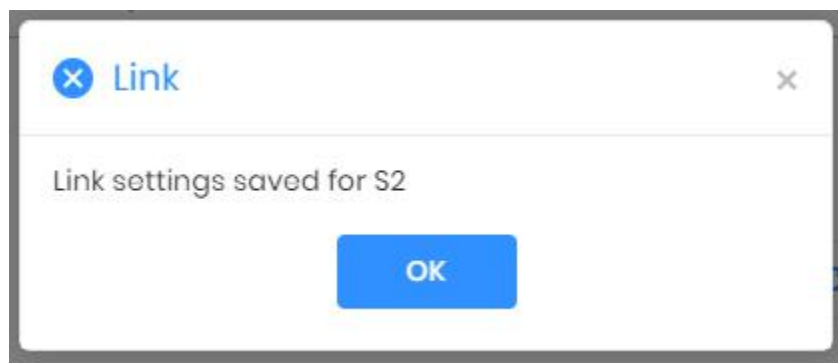
Auto Transfer:

- No: Employees synchronized from NetBox 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 NetBox 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.

Sync All: If sync direction is selected as NetBox to IXM WEB (One-way sync) then the sync all button will get displayed. The Sync All feature allows Re-Sync of the database from NetBox to IXM WEB. This will re-import missing cardholders or updated cardholders from NetBox to IXM WEB. Also, it will delete IXM WEB employee records according to cardholders available in GCC.

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



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

ACTIVITIES					
Numbers		Numbers		Times	
Added	1716	Added to IXM WEB	5	Last run at	18 Jul, 2019 4:40 PM
Updated	0	Updated in IXM WEB	449	Next run at	18 Jul, 2019 4:40 PM
Deleted	0	Deleted in IXM WEB	0		
<input type="button" value="Sync Now"/>					

Here you can see some data of last and next run times.

Clicking **Sync Now** immediately starts synchronizing pending data. This is useful when you do not want to wait until the next scheduled run which is shown in the **Next run at**.



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



Multiple Cards

NetBox can have multiple cards per user but IXM WEB supports only one Prox card. Link selects one of the cards with the CARD FORMAT specified in configuration and one which is active/temporary and not expired.



Support

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

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