Integration with Gallagher Command Centre

TORUS

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Document details

Title	Integration with Gallagher Command Centre
Description	This document explains the steps to create integration between Torus and Gallagher Command Centre 8.0 and above.

Document Revision History

Version	Date	Author	Comments
V.1.0	August 20, 2020	AA	First Draft
V.1.1	October 16, 2020	AA	Information added, 1 - Details for Gallagher Command Centre API port. 2 - New Feature to import Access Groups from Command Centre. 3 - Updated configuration of User Synchronisation. 4 - Updated configuration for Alarm and Events.
V.1.2	August 13, 2021	AA	Information added, 1 - Integration overview 2 - URL and ports details of Torus Exchange
V.1.3	April 15, 2022	AA	Information for new feature added. • Integration of REST API Alarms & Events • Subscription of card holders related events using REST API Alarms and Events

Abbreviation list

Abbreviation	Description
TORUS	Term used to describe overall EKC which includes the hardware, software, and integration plugin.
Torus Software	Torus is a cloud application hosted on Microsoft Azure. This software is accessible through any connected browser.
Torus Cabinet	Hardware product which is provided to secure the items/keys.
Torus Exchange	A windows plugin used for Torus integration with 3rd party systems.
Torus REST API	A generic developer interface which enables HLIs with 3rd Party software.
HLI	High Level Integration, a term used to describe the connectivity between Torus and other 3rd party Access control systems or software.
Azure	Microsoft Azure cloud platform (azure.microsoft.com)
EKC	Electronic Key Cabinet.
IOT	Internet of things.
HTTPS	Hypertext transfer protocol secure.

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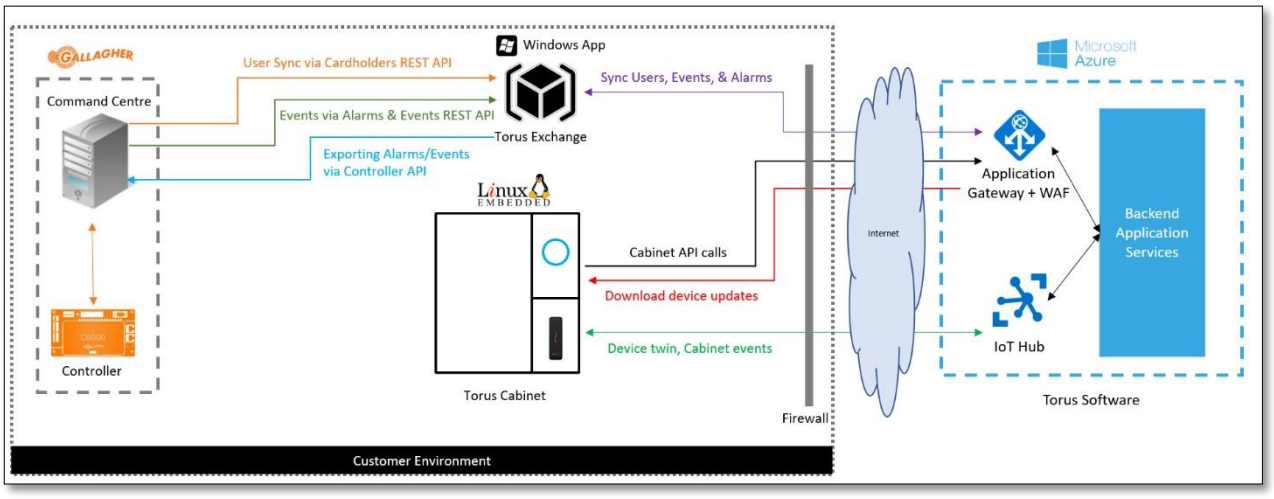
GALLAGHER COMMAND CENTRE HLI

For Gallagher command centre integration CIC Technology has developed a custom middleware application which is called Torus Exchange. This application is a Windows plugin which provides integration (HLI) with Gallagher Command Centre Version 8.0 and above. This plugin is installed on Gallagher Command Centre server, and it utilises Command Centre's Controller API and REST API Cardholder. Customers need to include REST APIs in command centre license as per listed in Integration Prerequisites.

Integration prerequisites

- Gallagher Command Centre licences should include following features
  - REST API - Cardholder (Gallagher SKU/part number: C12784)
  - Controller API (to export events and alarms from Torus to Command centre through Gallagher Controller)
  - Optional - REST API – Alarms & Events (Gallagher SKU/Part number: C12772) To subscribe events from Gallagher controller when card reader mounted on Torus cabinet is connected with Gallagher Controller. For more details, *please see page 32.*
- Correct configurations for the 'Gallagher API Key of the Gallagher instance' and 'URL of the Gallagher REST API' are saved in the Torus integration record.
- Hardware, access zones, alarm zones and doors are correctly setup in Gallagher Command Centre.
- Install Cardax API in the same PC where the Torus Exchange middleware service is installed.
- The hardware (controller) should be functioning properly in Gallagher Command Centre (Go to Configure > Hardware > right click Properties > Status and overrides and verify that status is 'Normal')
- Torus Exchange must be allowed to access required URL & port through client's network firewall.
  - URL= https://hliapi-au.torus-technology.com
  - Port: 443 over HTTPS

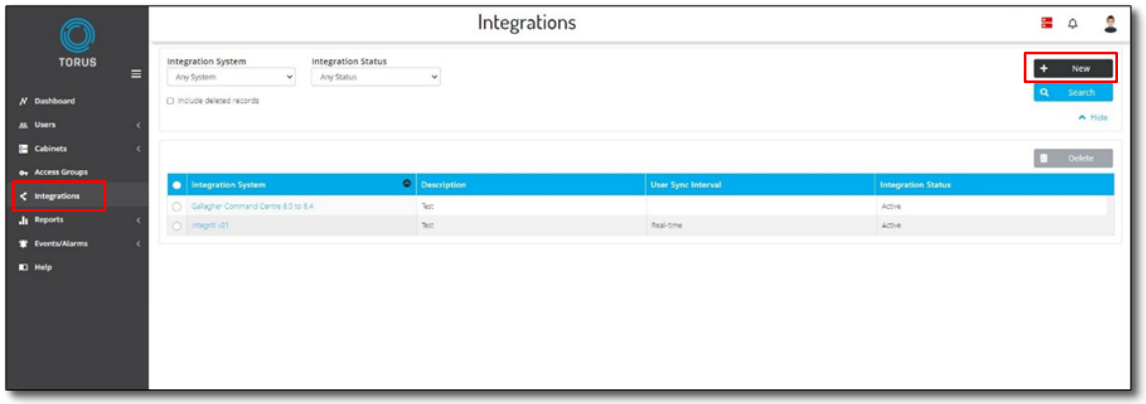
Integration overview



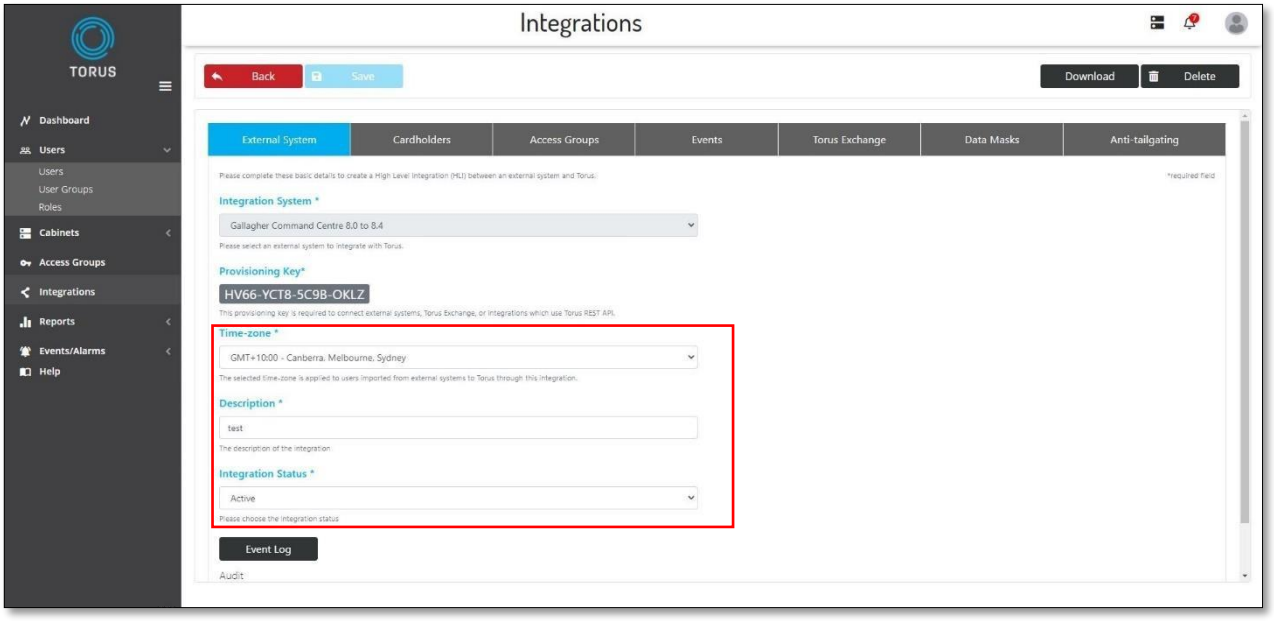
STEPS FOR INTEGRATION

1 – CREATE INTEGRATION RECORD

- Login to Torus Software
- Go to Integrations and select New

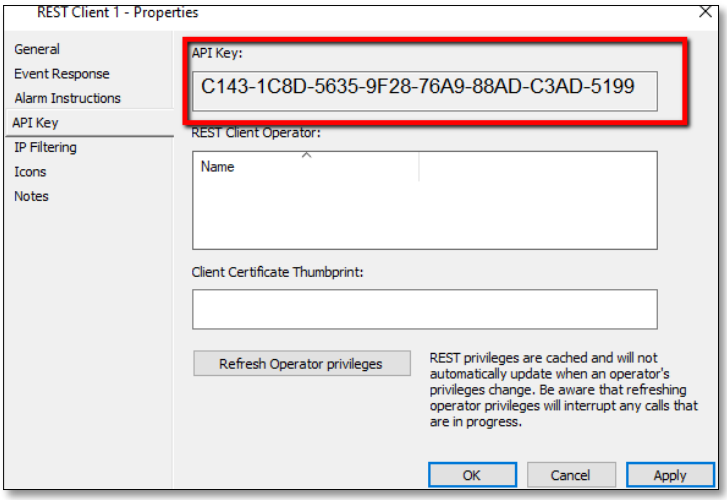


- Complete the details for new External system details.
- Select Gallagher Command Centre from Integration systems Drop down field and provide a description of this integration.
- Select the time zone which is applied to users imported from external system.

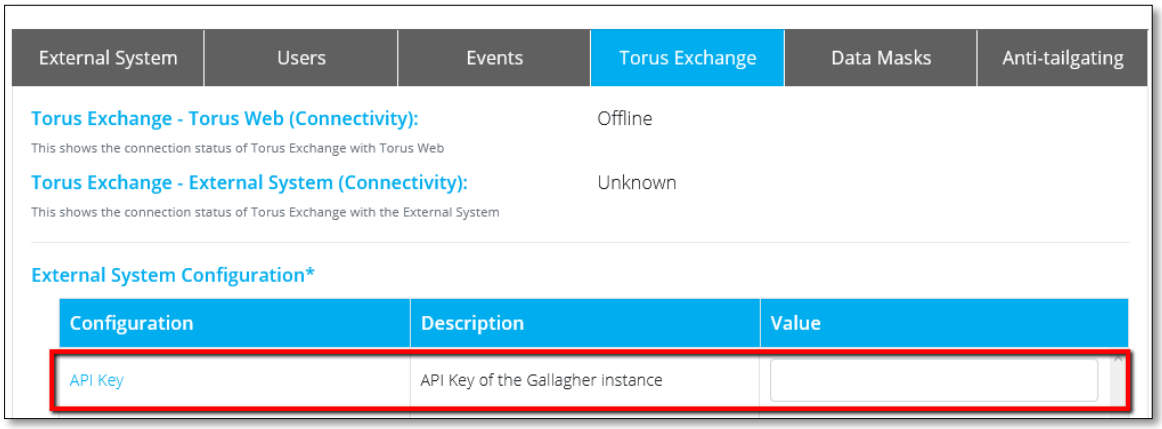


2 – CONFIGURE GALLGHER COMMAND CENTRE REST API

- Open Gallagher Command centre.
- Go to Configure > Services and Workstations.
- Create a new REST client, give any preferred name, and copy the API key of this client.

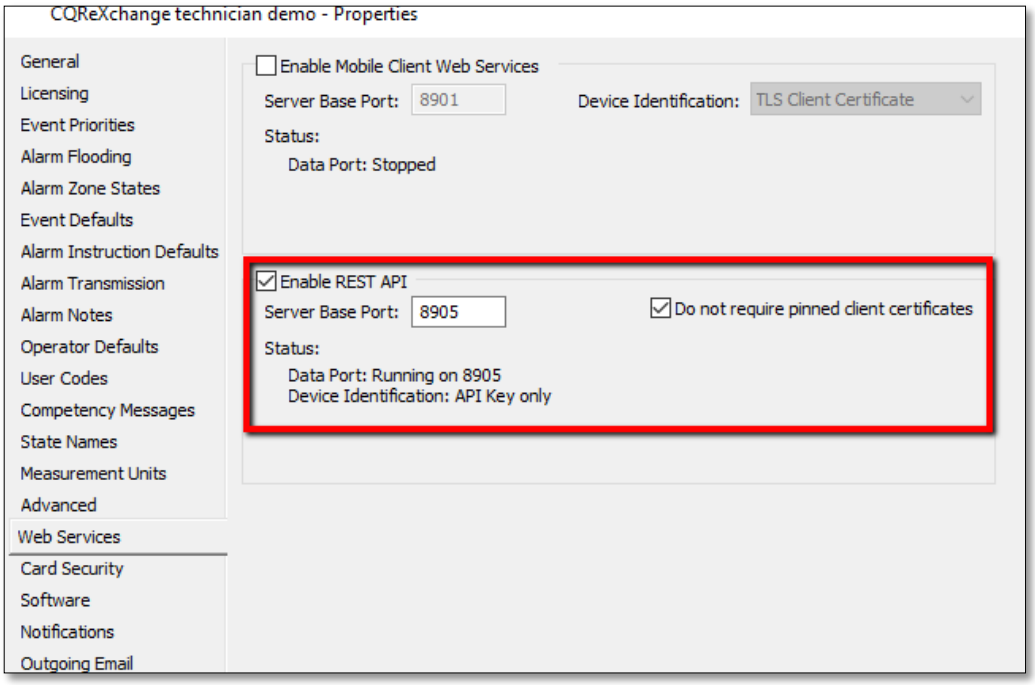


- Go to Torus Software and open the new integration details page.
- Select Torus Exchange Tab and paste Gallagher Command Centre REST Client 'API Key' in API Key field.

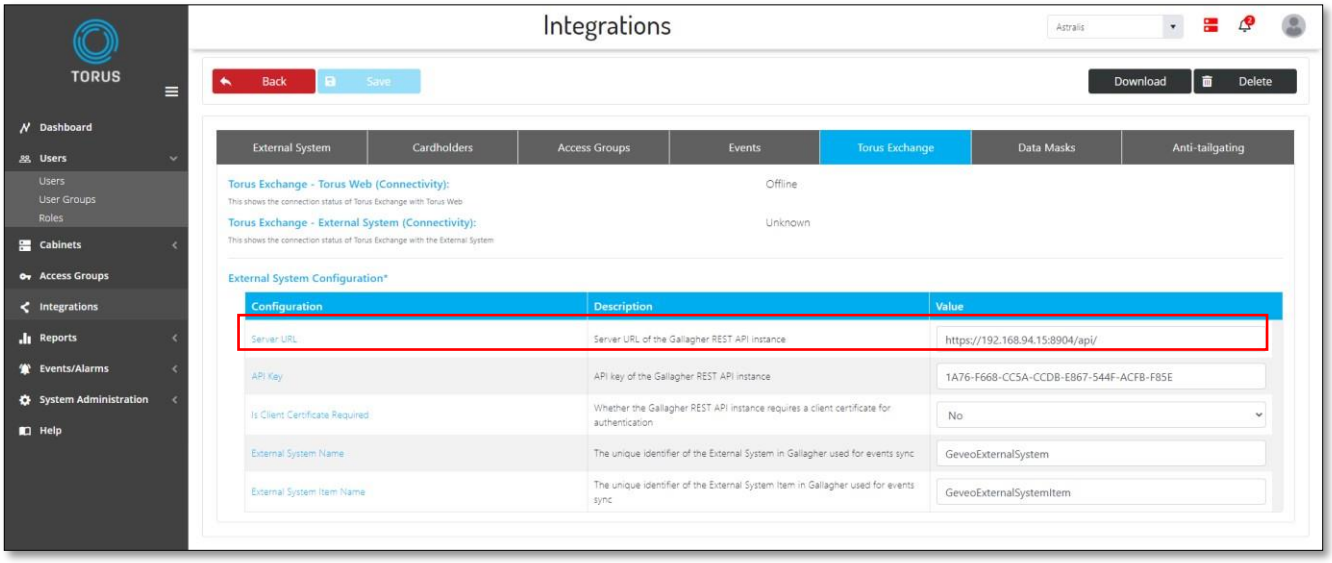


- Go to Gallagher Command Centre File > Server Properties > Web Services tab.

- Select 'Enable REST API' and 'Do not require pinned client certificates' and save and copy the port number.
- Server base port should be a free port to avoid any conflicts with application. For example, if port 8905 is not available then please use port 8904.



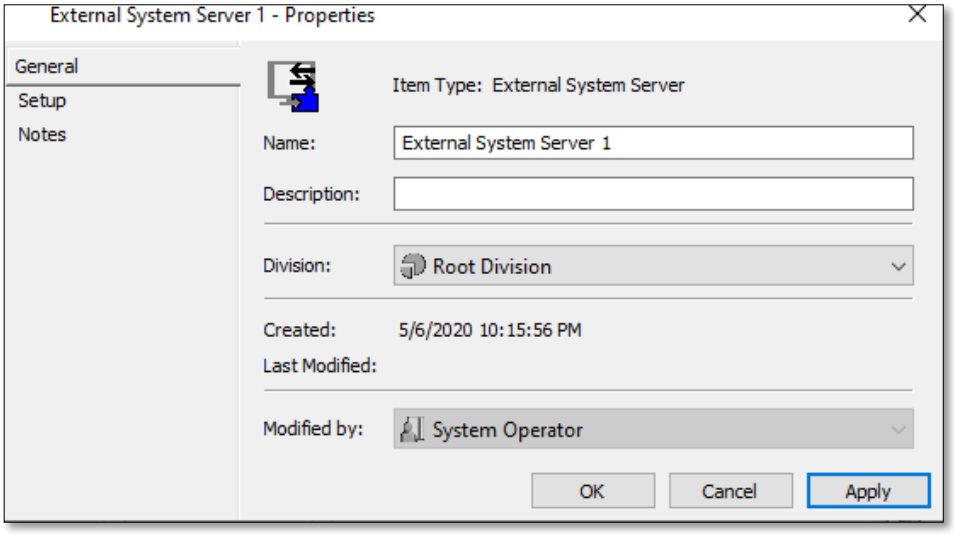
- For the ‘Server URL’ field in the ‘Torus Exchange’ tab of Integration record, provide the URL in the following format. *https://<IP address of PC where Gallagher Commend Centre is installed>:<Server Base Port>/api/*

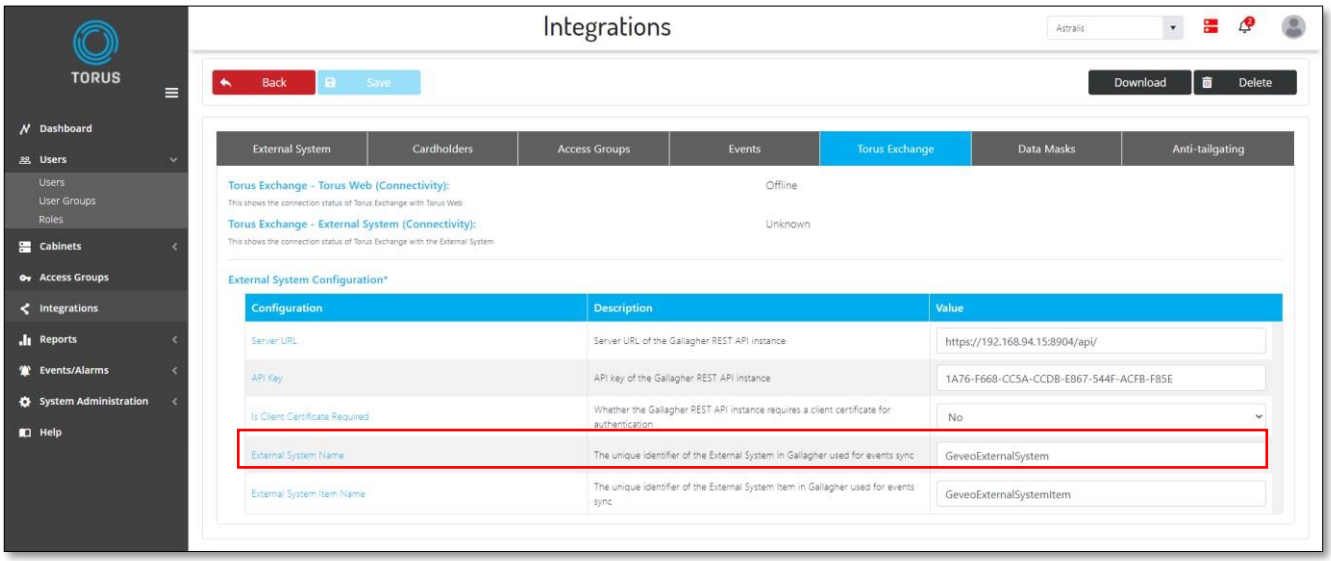


3 – CREATE EXTERNAL SYSTEMS IN GALLAGHER COMMAND CENTRE

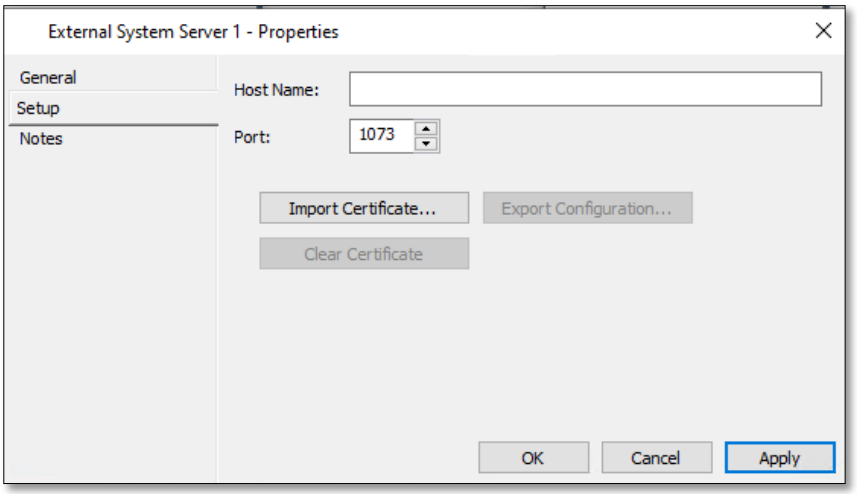
3.1 – Create an External System Server in Command Centre

- Open Gallagher Command Centre and go to Configure > External Systems.
- Create a new item type External System Server and complete details as follows.
  - ❖ General Tab
    - Give any preferred name and keep other details unchanged.
    - Use the same name in Torus Exchange record.



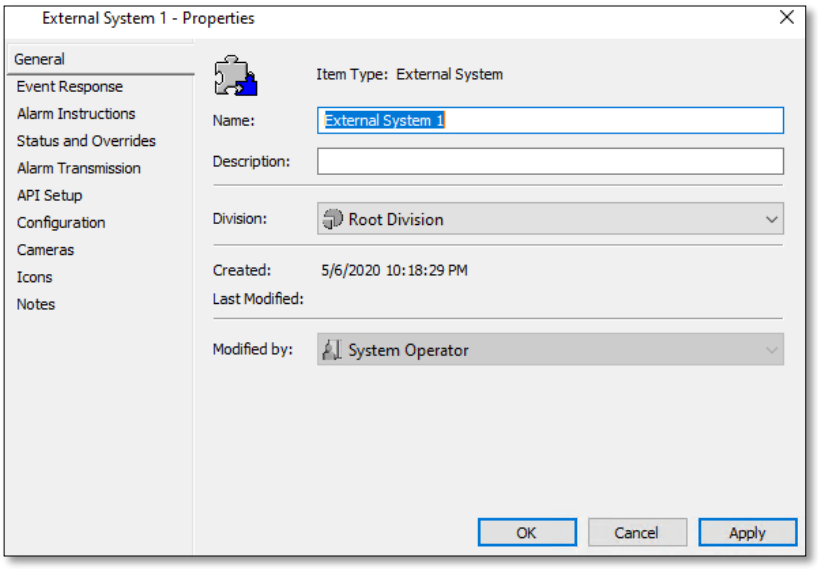


- Setup Tab
  - Host name – IP address of the PC where the Torus Exchange middleware will be installed.
  - Port – Keep unchanged
  - Install Gallagher FTCAPI where the Torus Exchange middleware service is installed.
  - Import FTCAPI.PEM file from Gallagher program files folder and click apply.
  - Export FTCAPI.ini file and place it Gallagher command centre program (Cardax api installation folder). Windows user must have admin permissions to override the existing FTCAPI.ini file.

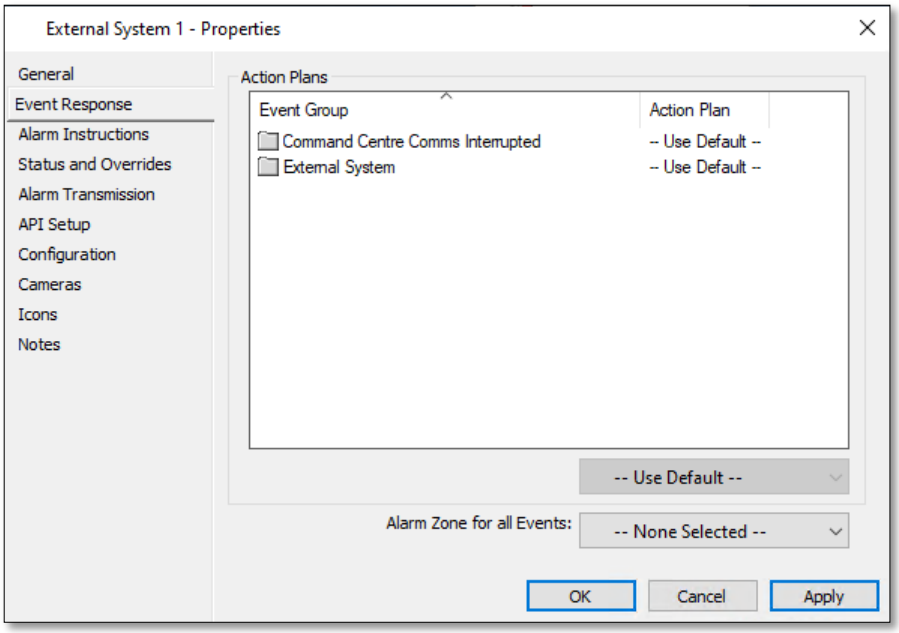


3.2 – Create an External System in Command Centre

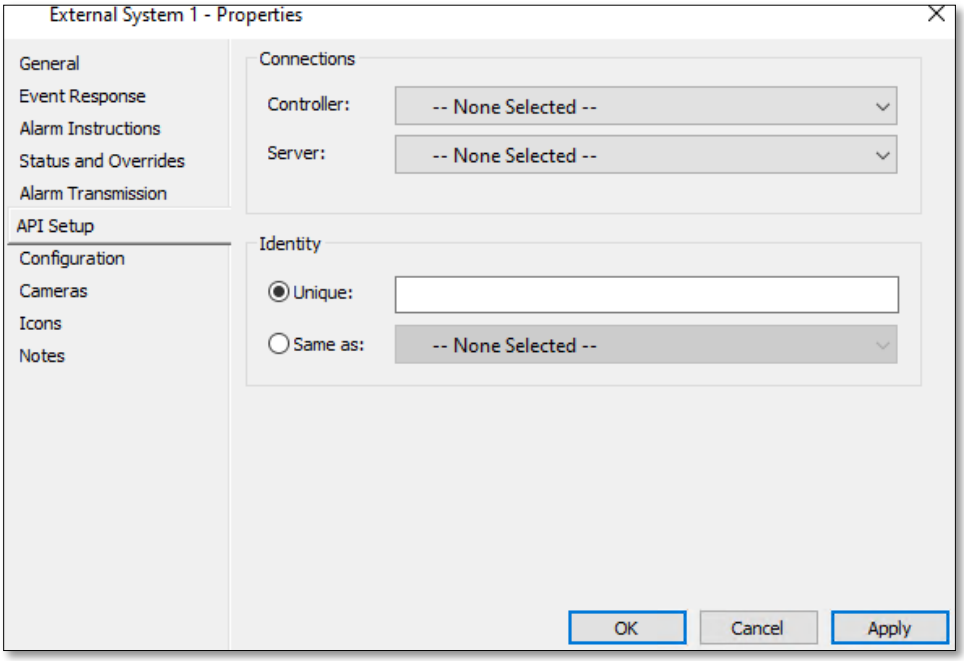
- Right click the created external system server and create a new item type External System.
  - ❖ General Tab
    - Give any name to External system, it is ideal to use the same name as Unique name for API setup

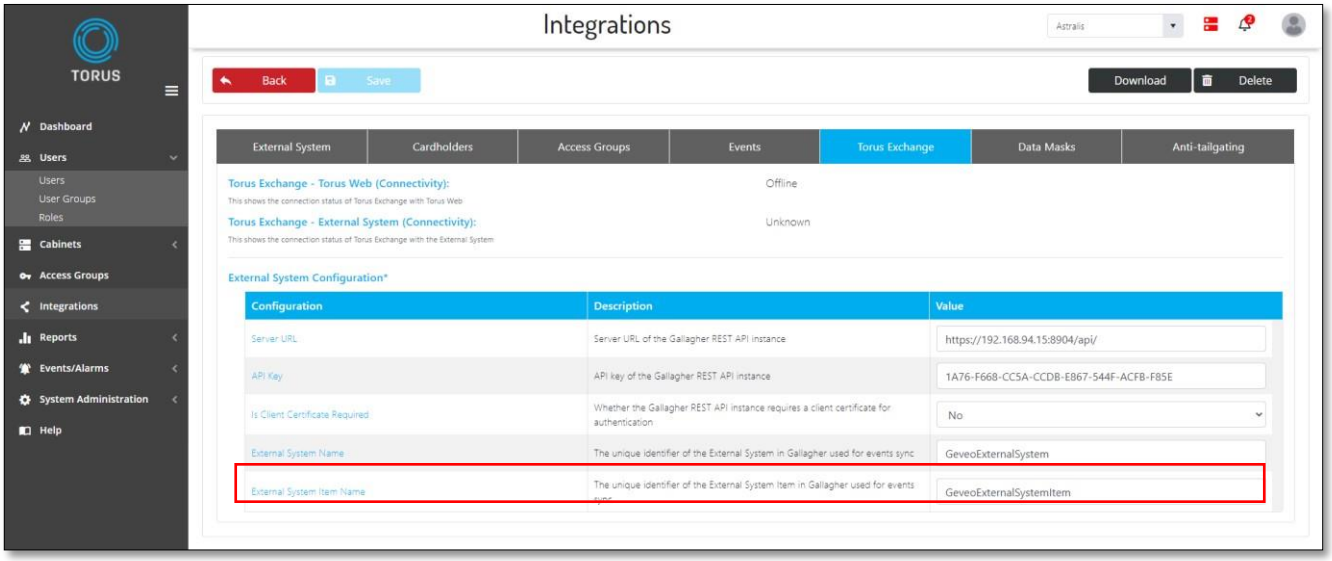


  - ❖ Event Response Tab
    - Select the relevant Alarm Zone.



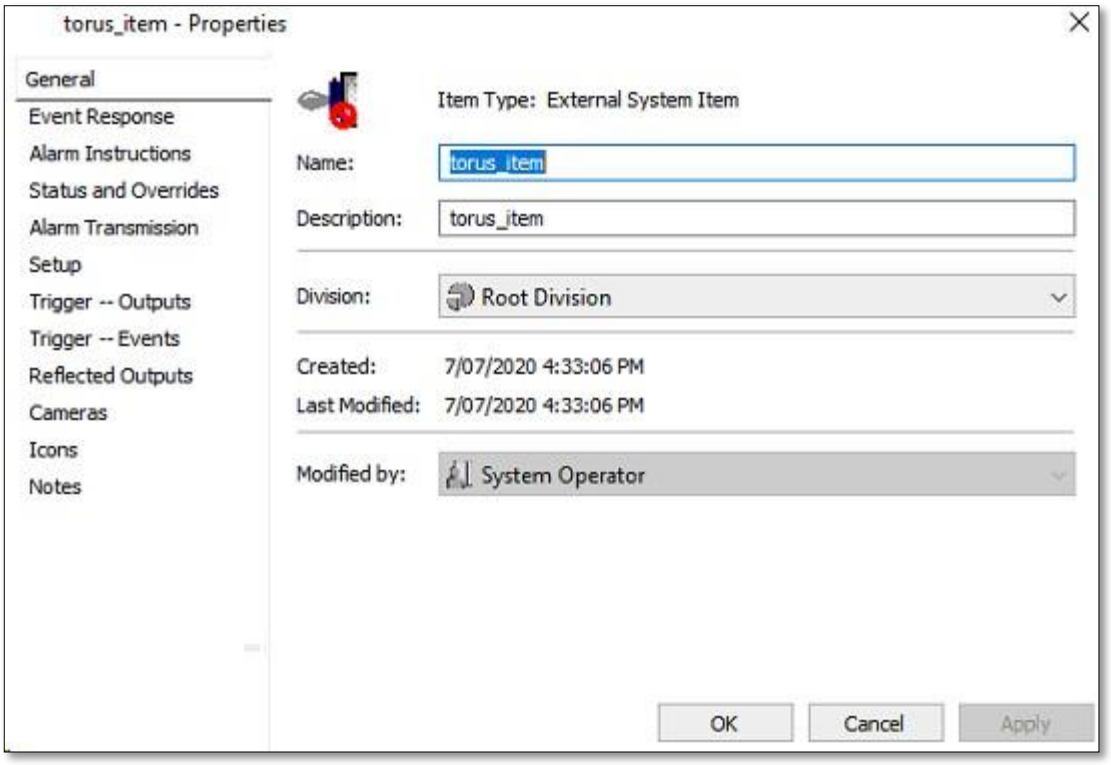
- API Setup Tab
  - Select the correct Controller and the External System Server.
  - For the Unique field, give the same name used in the Torus Exchange External System Item Name field of the integration record.



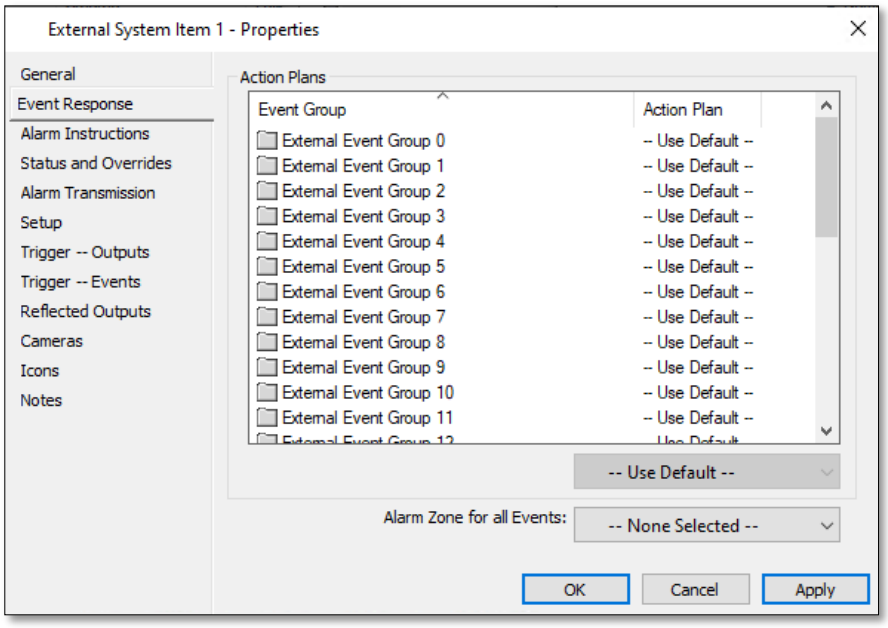


3.3 – Create an External System Item in Command Centre

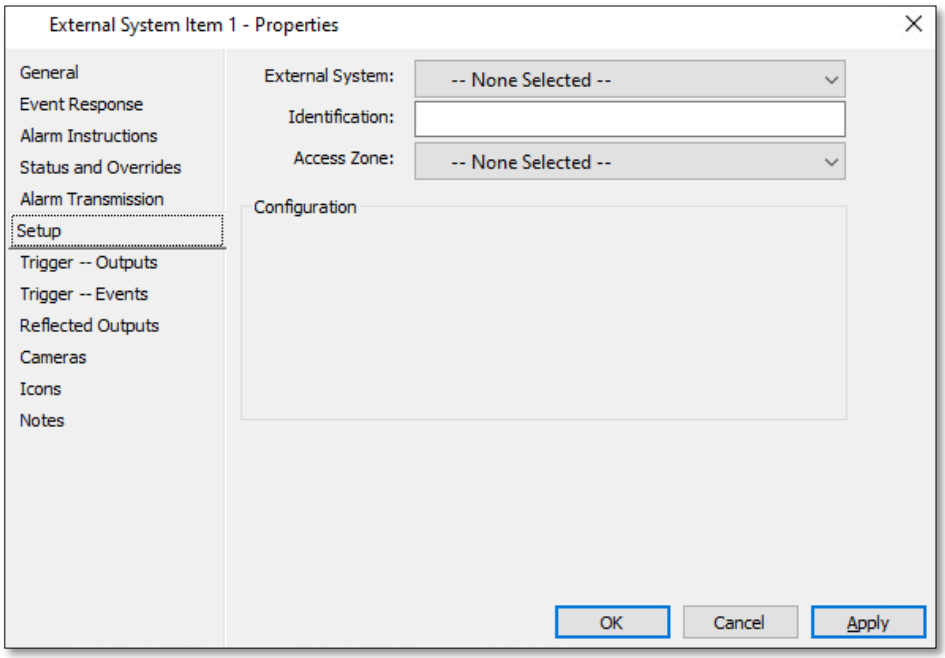
- Right click the external system and create a new item type External System Item.



- ❖ Event Response Tab
  - For external system item Select the relevant Alarm Zone.

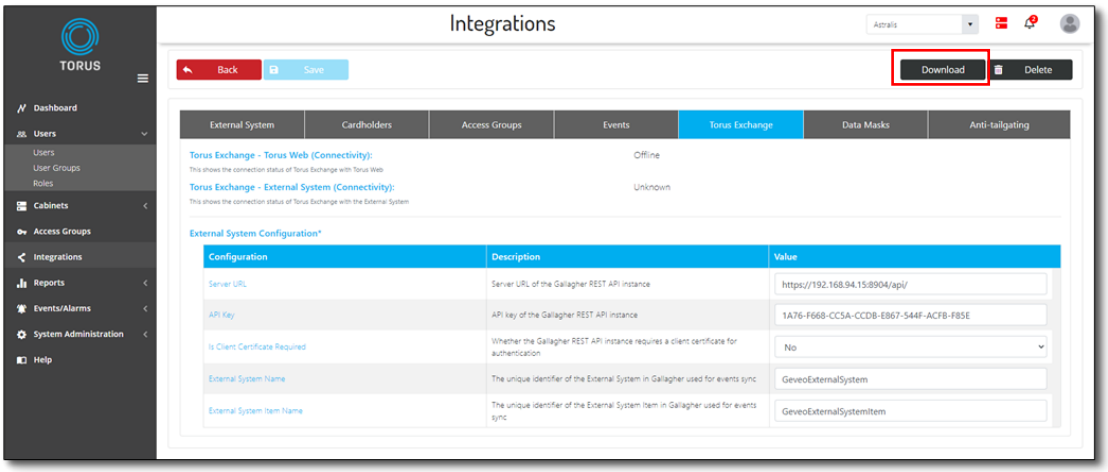


- Setup Tab
  - Select relevant External System and Access Zone.
  - Identification field - Give the same name as used in the External System Item Name field in the integration record.

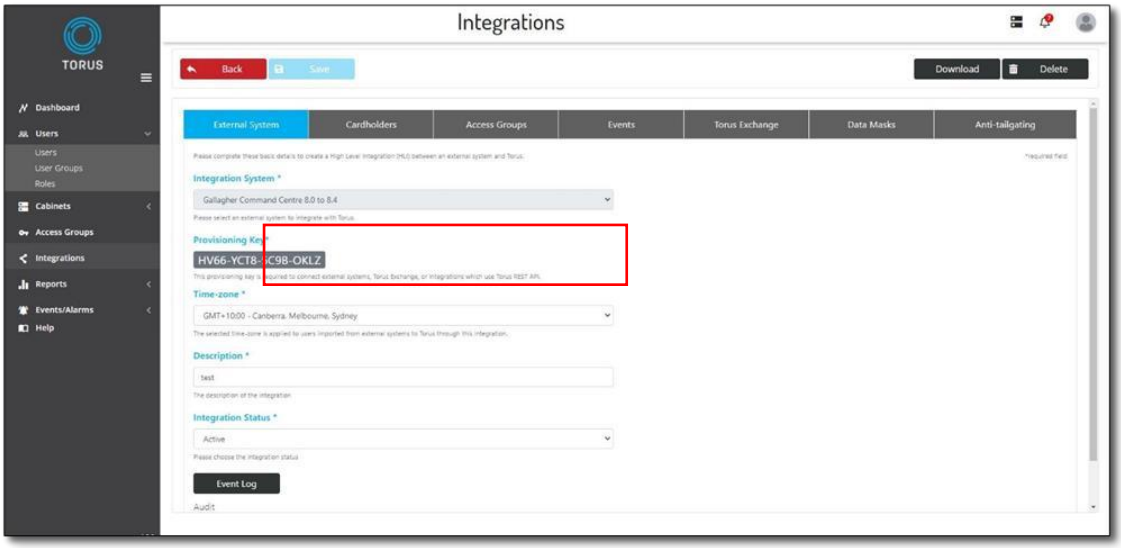


4 – INSTALL TORUS EXCHANGE

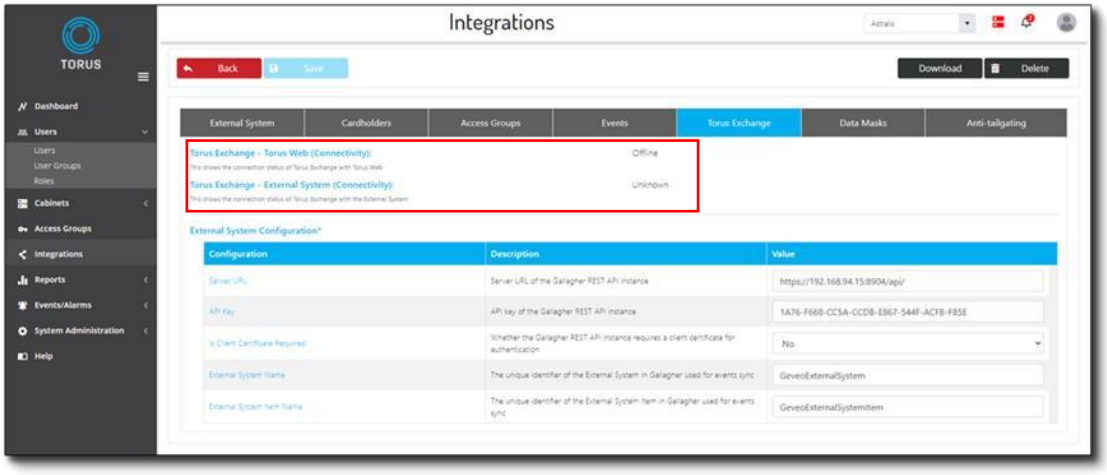
- After completing details for Torus Exchange, download Torus Exchange and install it on the Gallagher Command Centre Server.



- When Torus Exchange setup is executed the installation wizard will require a provisioning key which need to be copied from integration details page.



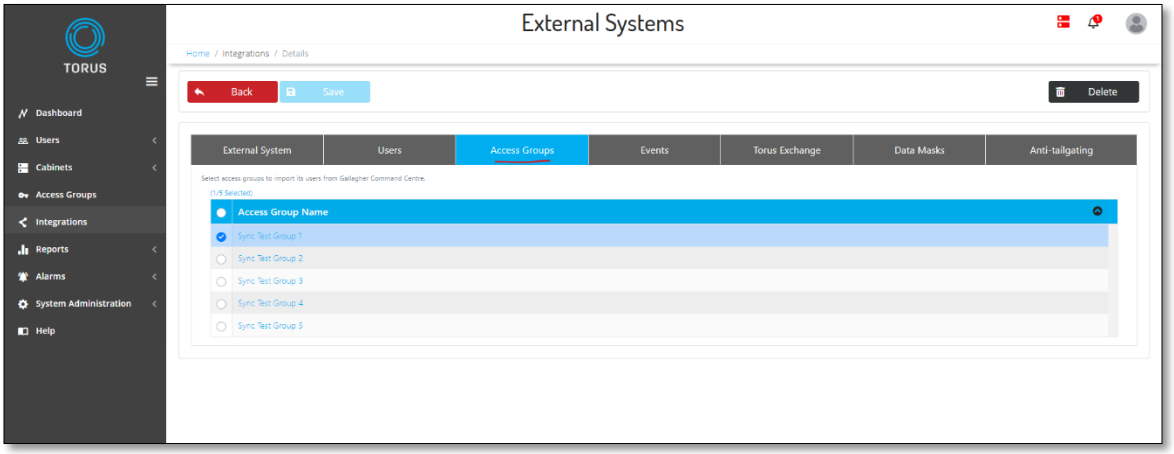
- Once Torus Exchange is installed, please verify the Torus Exchange services are running.
- After successful integration Torus shows the systems status as online in Torus Exchange tab.


Integrations
TORUS
Back
Save
Download
Delete
Dashboard
Users
Users
User Groups
Roles
Cabinets
Access Groups
Integrations
Reports
Events/Alarms
System Administration
Help
External System
Cardholders
Access Groups
Events
Torus Exchange
Data Masks
Anti-tailgating
Torus Exchange - Torus Web (Connectivity):
Offline
Torus Exchange - External System (Connectivity):
Unknown
External System Configuration*
Configuration
Description
Value
Server URL
Server URL of the Gallagher REST API instance
https://192.168.94.15:8904/api/
API Key
API key of the Gallagher REST API instance
1A76-F668-CC5A-CCDB-E867-544F-ACFB-F85E
Is Client Certificate Required
Whether the Gallagher REST API instance requires a client certificate for authentication
No
External System Name
The unique identifier of the External System in Gallagher used for events sync
GeveoExternalSystem
External System Item Name
The unique identifier of the External System Item in Gallagher used for events sync
GeveoExternalSystemItem

5 – COMPLETE USER SYNCHRONISATION SETTINGS

5.1 – Select Command Centre Access Groups in Torus

To import users in Torus from Command Centre, first select Command Centre's Access Group(s) in the Access Group tab.

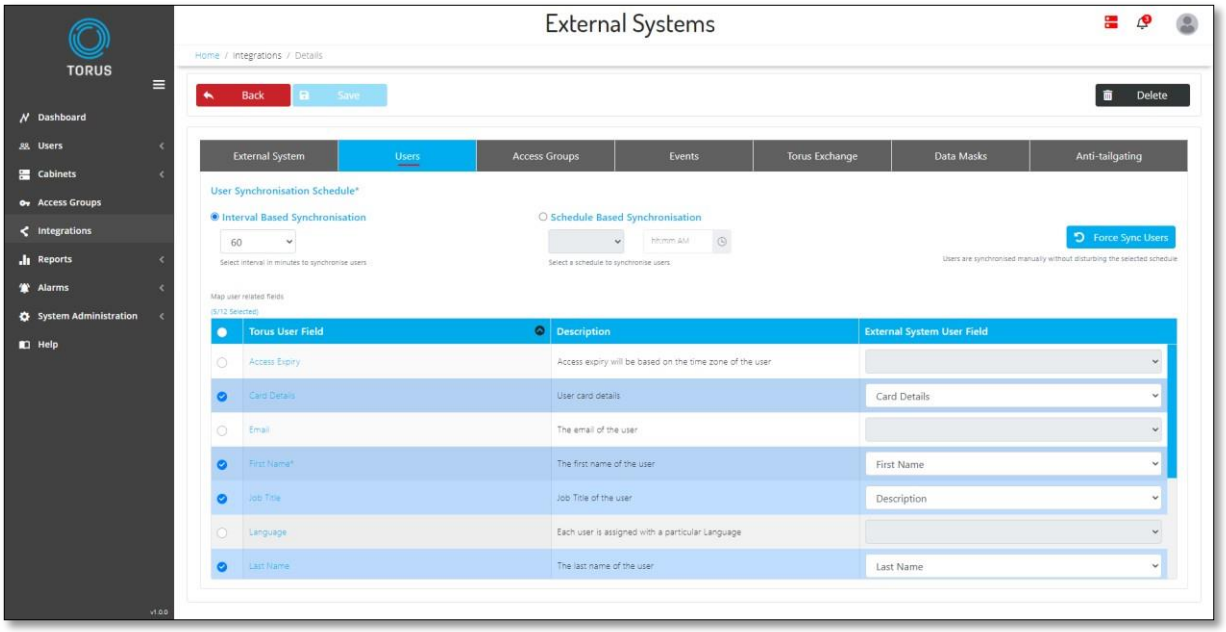


Torus only imports users which are part of Selected Access Group(s). Few important points to remember.

1. Torus only import users from Command Centre when its relative Command Centre's Access Group is selected in integration record.
2. Only selected Access Groups of Command Centre are imported to Torus and they are saved as USER GROUP in Torus.
3. If user deselects an Access Group in Access Group Tab and save the integration record, then its associated USER GROUP and USERS will be removed from Torus.
4. Access Groups are synchronised in real time with Command Centre which can result into following actions.
    a. If Access Group name is edited in Command Centre, then corresponding USER GROUP name in Torus will also change accordingly.
    b. If Access Group is deleted in Command Centre, then the respective USER GROUP in Torus will also be deleted, along with its corresponding imported users in Torus.

5.2 – Mapping of Command Centre User fields with Torus User fields

User's record field mapping is required to successfully import a user's record from Command Centre to Torus. By default, mandatory filed mapping is created at the time of creation of integration record. User's field mapping can be configured in USERS tab.



Following are mandatory Torus User Fields which must have a corresponding Command Centre User Field.

Torus User Field	Command Centre User Field
First Name	First Name
User Group	Access Group
Card Details	Card Details (Becomes mandatory when a Data Mask is selected in Data Mask tab)

In this tab User Synchronisation Schedule can also be configured which will synchronise users records with Command Centre on selected schedule. This schedule is only executed once at least one Access Group is selected in the Access Group tab. User must select a User Synchronisation Schedule to keep the user's record updated as per Command Centre user's record.

User Synchronisation Schedule	Description
Interval Based Synchronisation	An iterative time interval-based user synchronisation. There is an option of Real Time sync among

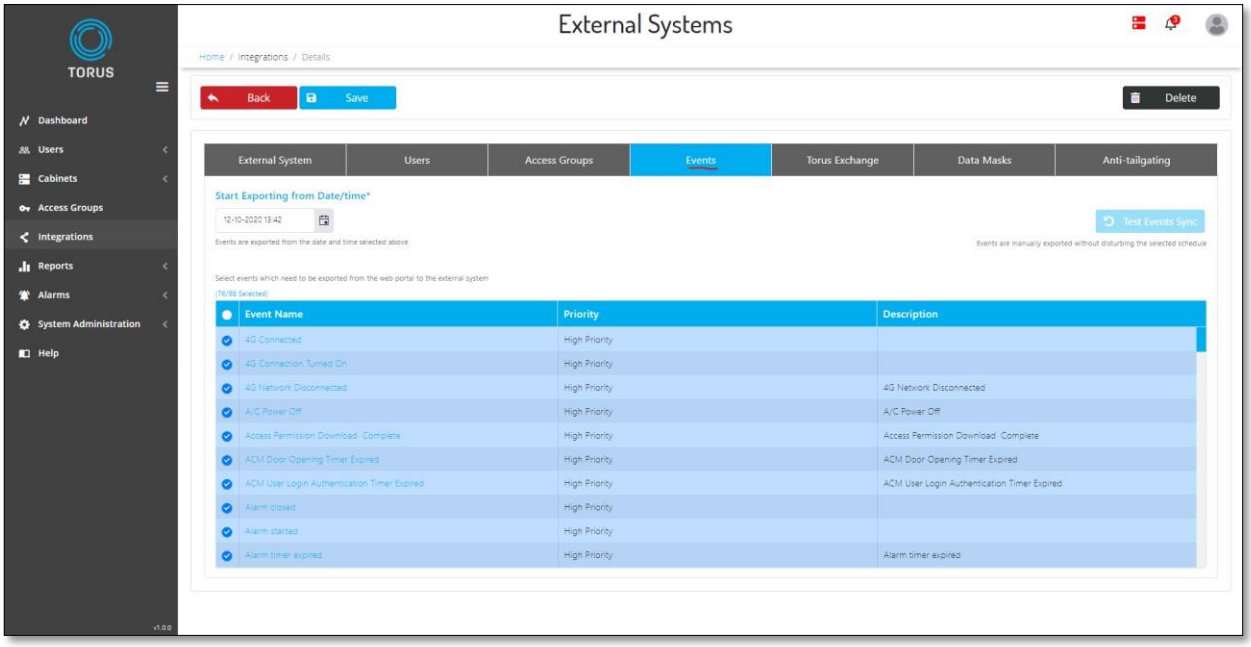
	the options if real time synchronisation is required.
Schedule Based Synchronisation	A weekly schedule in which user must select Date/Time to synchronise users.

Force Sync Users is an option which can be used to synchronise the users as without disturbing the selected User Synchronisation Schedule. When this option is selected then system will perform a force user synchronisation, which is often a handy way to test the user synchronisation between Torus and Command Centre.

6 – SELECT EVENTS FOR EXPORT

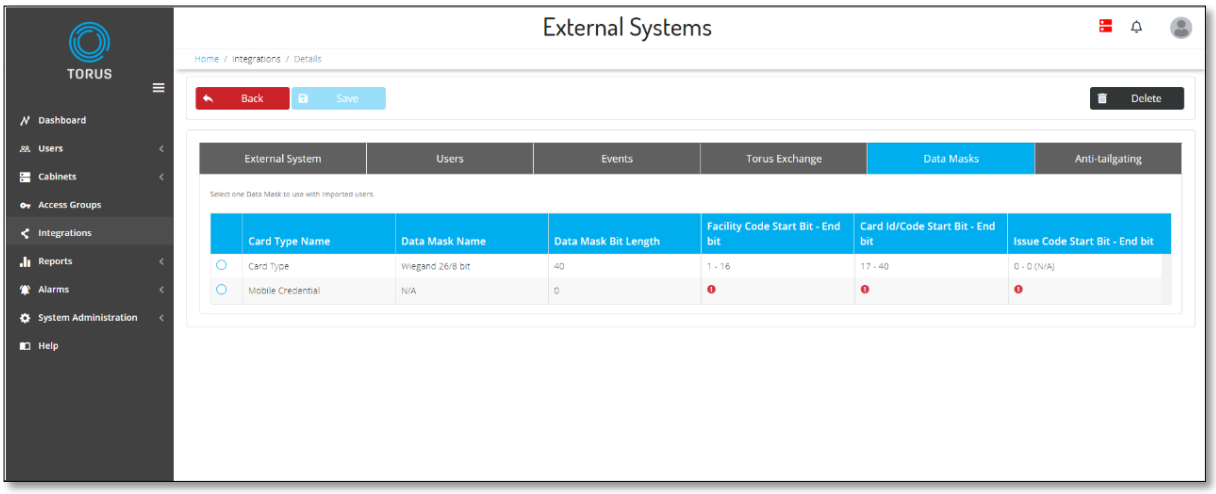
Torus cabinet events can be exported to Command Centre through Torus Exchange. Users can select the required events which need to be exported from Torus to Command Centre. This events configuration can be completed in Events tab. User must select a Start date/time and all events after selected date/time are exported to Command Centre.

Test Events Synchronisation button can be used to send test events to Command Centre and button gets enabled once Torus Exchange setup is completely configured and Integration Status is Active.

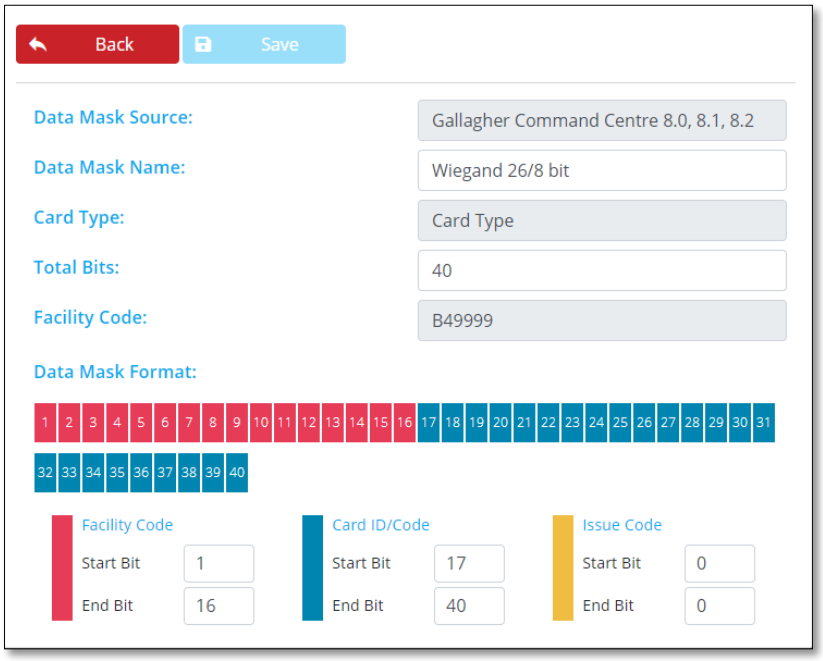


7 – DATA MASK SETUP

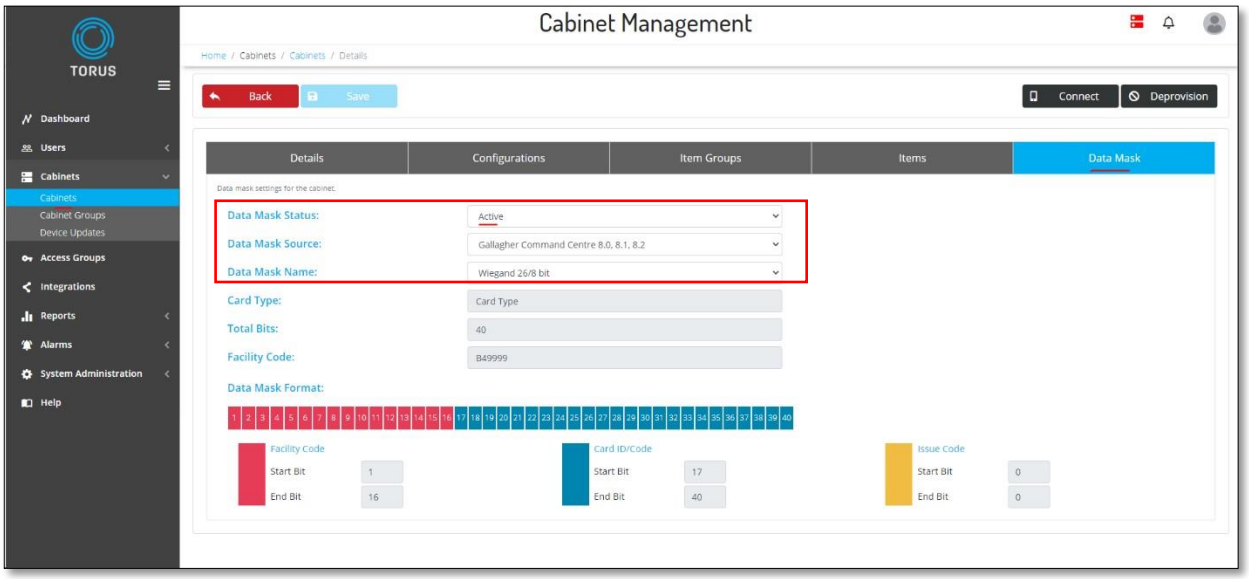
Once the integration is successfully configured Torus automatically imports Data Mask definitions from Gallagher Command Centre. Imported data masks are listed under Data Masks tab in Torus for Integriti integration.



User can compare the Data Mask configuration with Gallagher Command Centre and can edit Data Mask details in Torus.

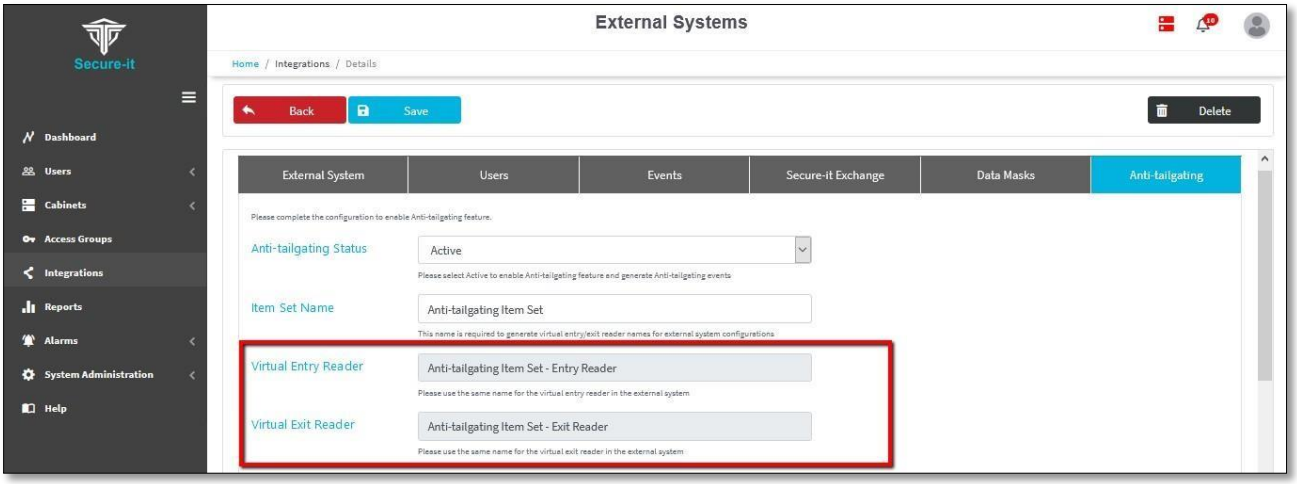


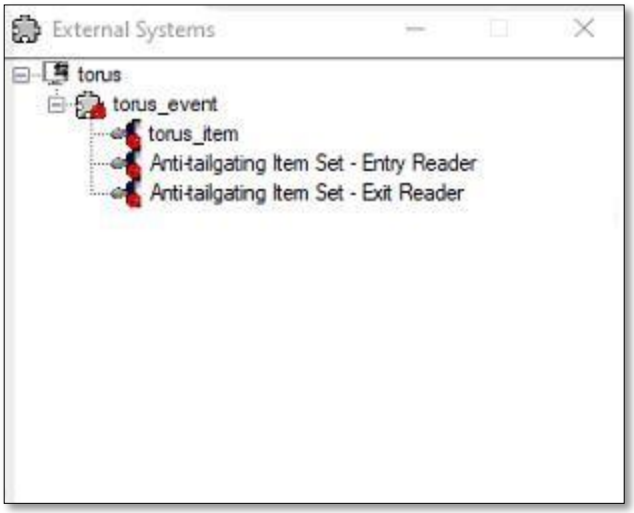
A Data Mask can be applied to cabinet from cabinet configurations in Torus. Go to cabinet record in Torus and select the correct Data Mask source from drop down and select relevant integration record and relevant data mask name.

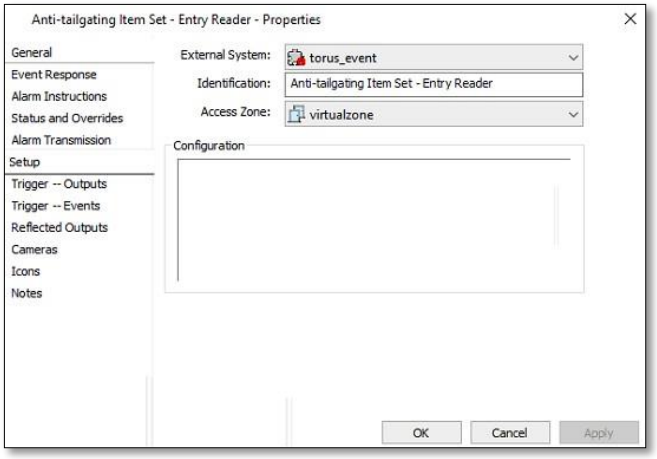


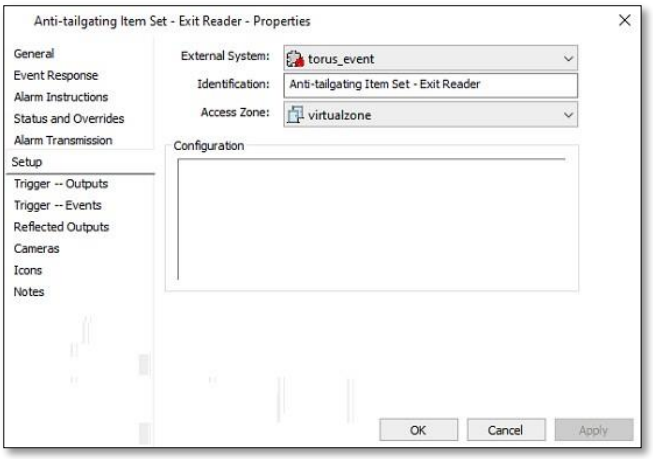
8 – ANTI-TAILGATING SETUP

- Anti-tailgating is an optional feature which stops a user to leave the building until the keys are returned to Torus key cabinet.
- For this feature it is mandatory that the building has setup exit card reader at the main exit of the building.
- User needs to define item set name and select the items on which anti-tailgating feature is required. These configurations can be completed from Anti-Tailgating Tab.
- To setup anti tailgating, create two more external items which are virtual entry and exit readers.
- A virtual zone is also required to virtually place the Torus cabinets inside this Virtual Zone.
- For each external item identification field please use the names as shown in Torus External system entry and exit reader names in the anti- tailgating tab of the integration record.

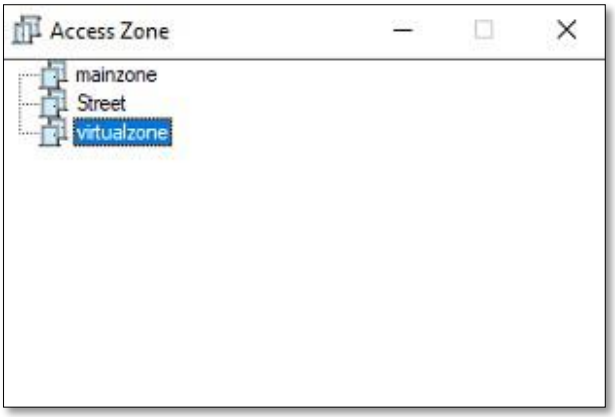


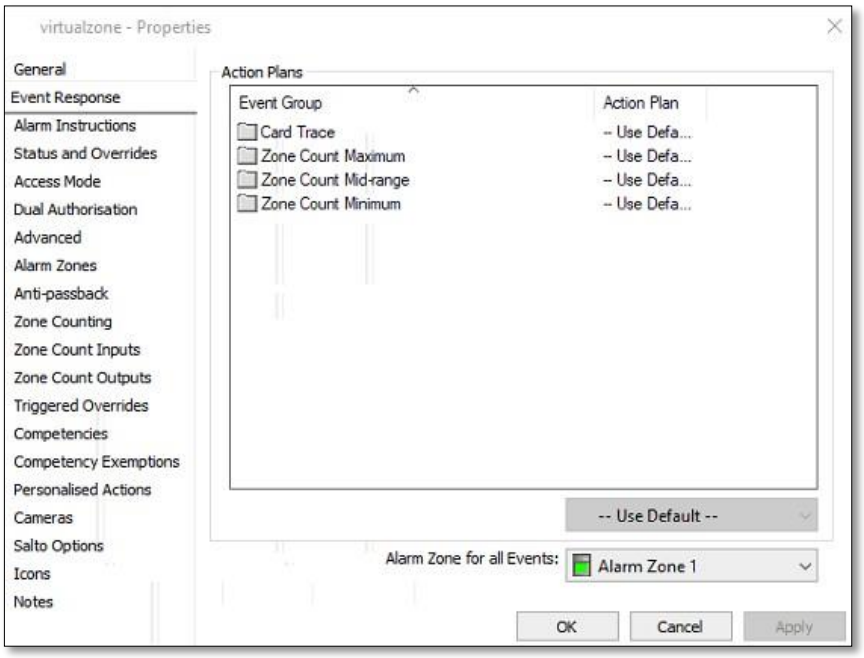




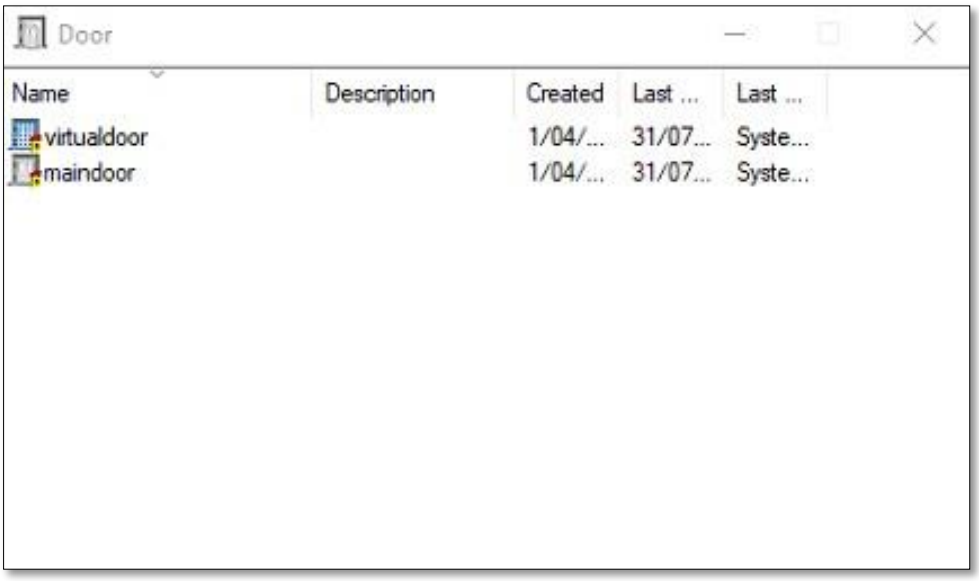


- Create a Virtual Zone and select the correct Alarm Zone for all events. Go to Gallagher Command Centre, configure>Access Zones and create a virtual Zone.

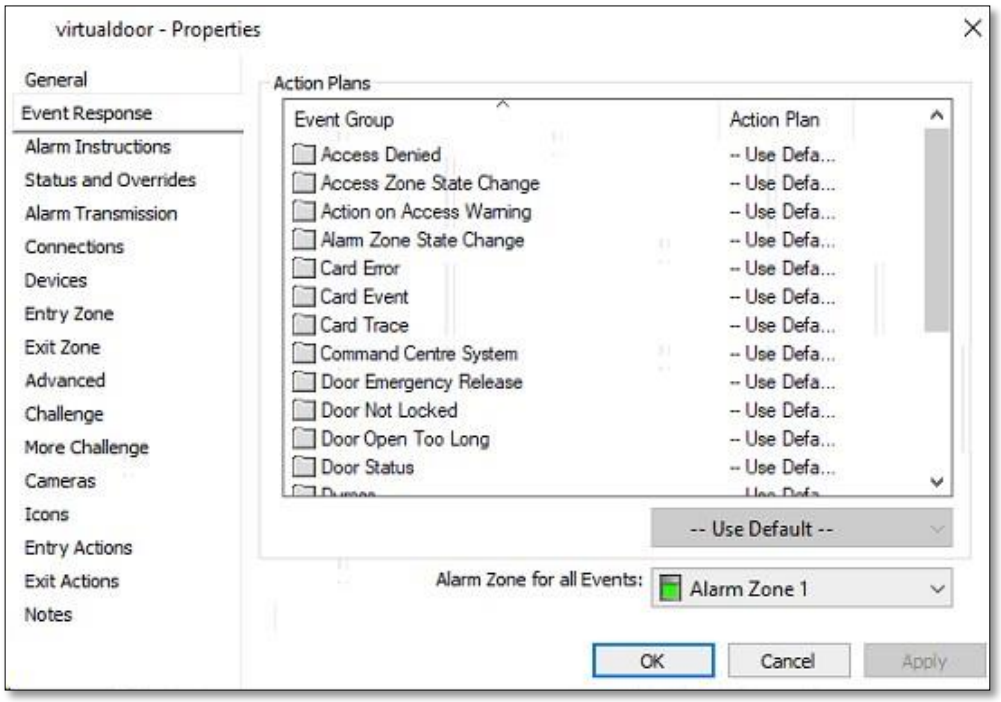




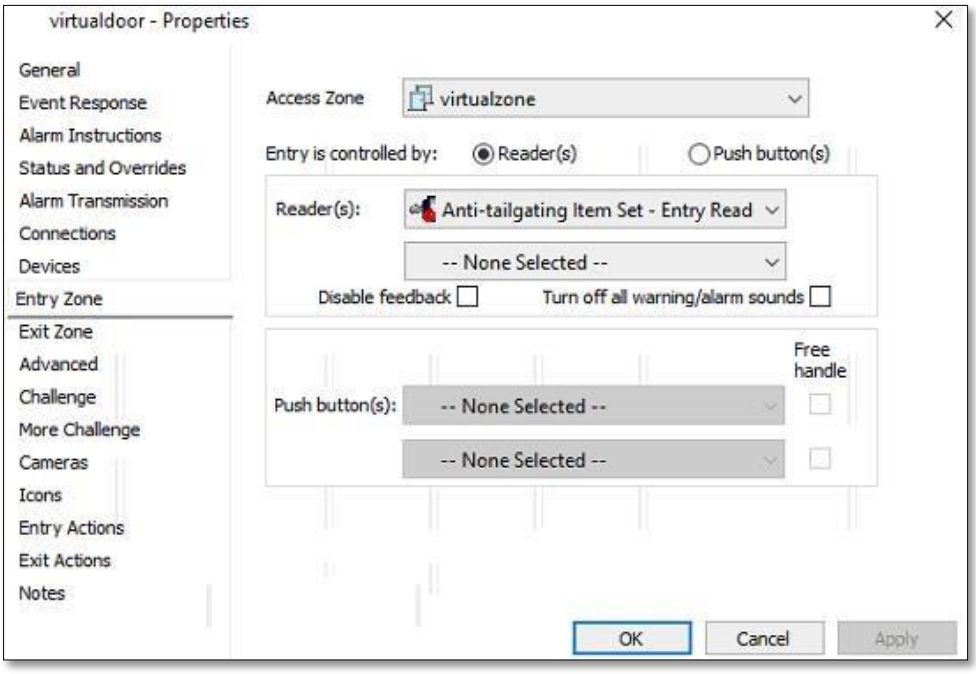
- For Anti-Tailgating, a virtual door is required. Go to Gallagher Command Centre, Configure >Door and create a virtual door.



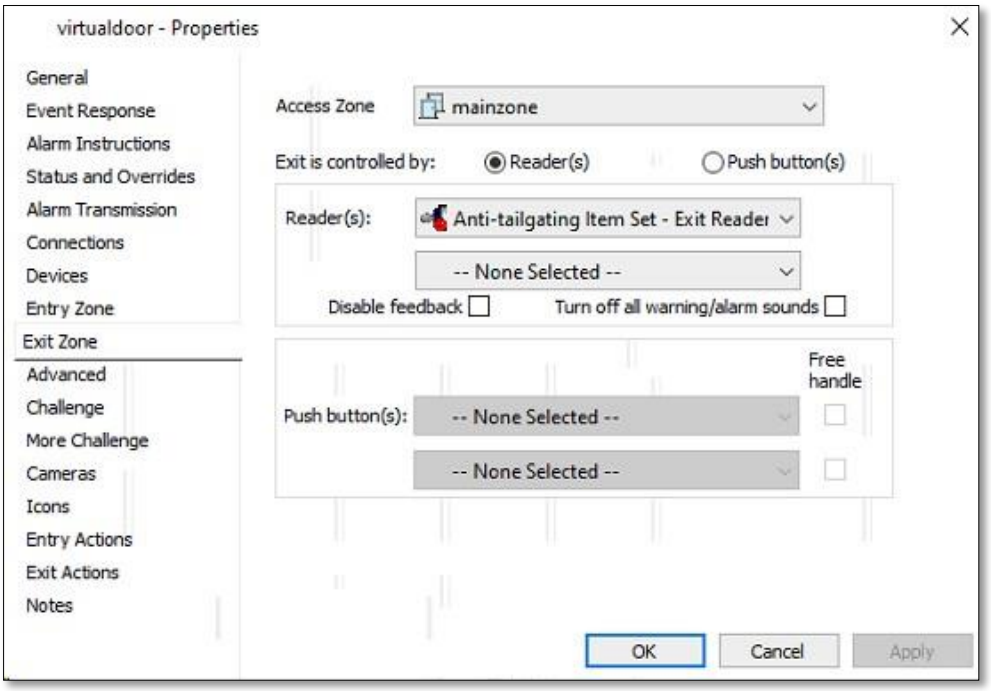
- Use correct Alarm Zone for all events.


virtualdoor - Properties
General
Event Response
Alarm Instructions
Status and Overrides
Alarm Transmission
Connections
Devices
Entry Zone
Exit Zone
Advanced
Challenge
More Challenge
Cameras
Icons
Entry Actions
Exit Actions
Notes
Action Plans
Event Group
Action Plan
Access Denied
Access Zone State Change
Action on Access Warning
Alarm Zone State Change
Card Error
Card Event
Card Trace
Command Centre System
Door Emergency Release
Door Not Locked
Door Open Too Long
Door Status
-- Use Defa...
-- Use Default --
Alarm Zone for all Events:
Alarm Zone 1
OK
Cancel
Apply

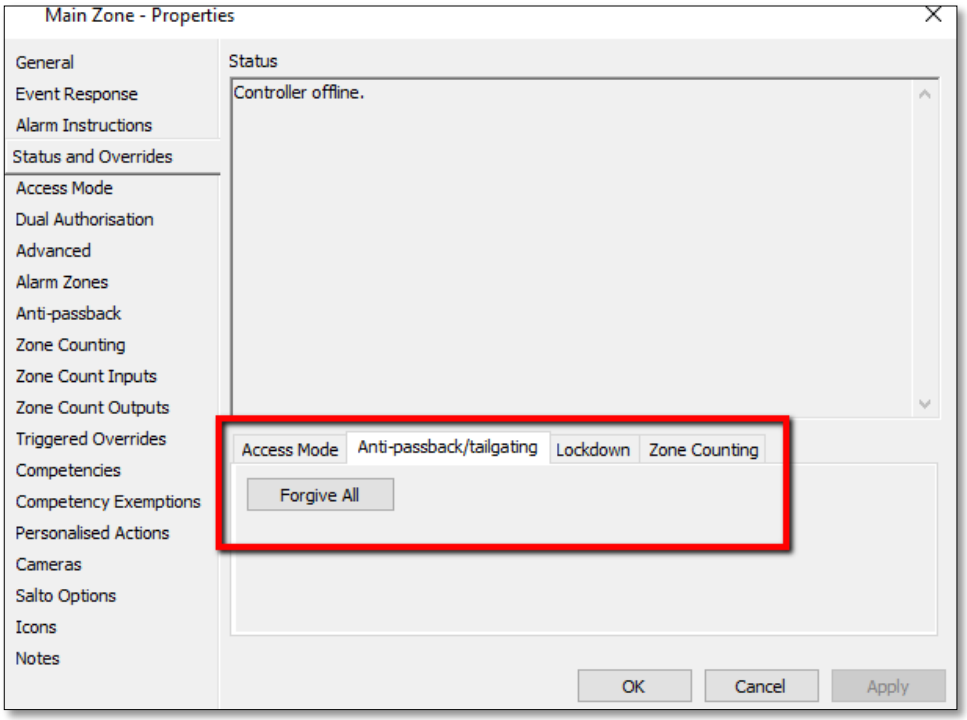
- Use Virtual Zone to link it with Virtual Door's Entry Zone >Access Zone
- In the Virtual door Entry Zone Reader use Anti-Tailgating virtual entry reader



- Use Main Zone to link it with Virtual Door's Exit Zone >Access Zone
- In the Virtual door Exit Zone Reader use Anti-Tailgating virtual exit reader



Note - If alarms still sound when you try to access with an authorized user after correctly setting up, Go to Configure > Access Zones and select the relevant access zone, go to Status and Overrides tab > Anti-



passback/tailgating tab > and click 'Forgive All' button.

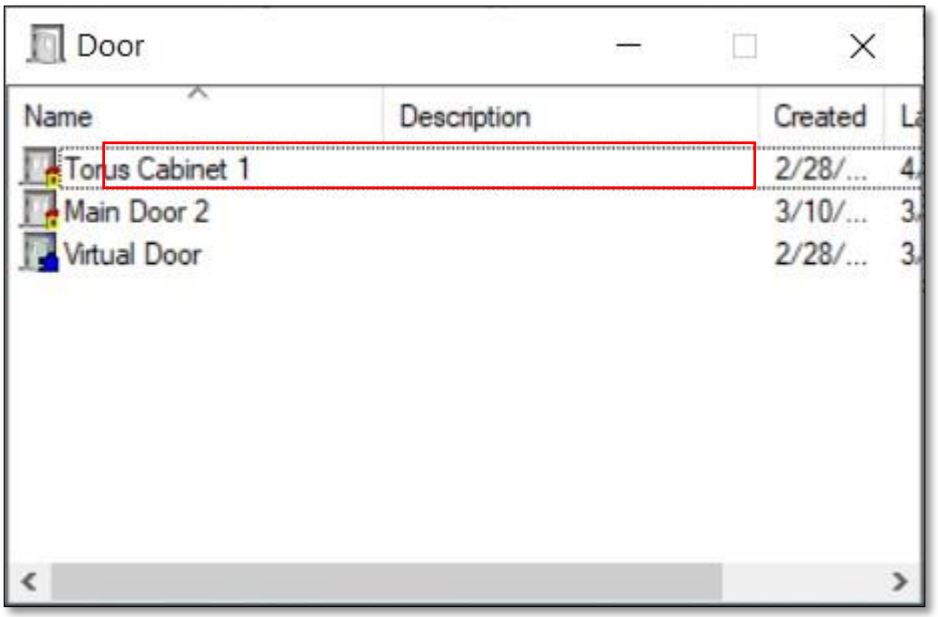
9 – CARD HOLDER LOGIN AT TORUS CABINET VIA REST API ALARMS & EVENTS

Gallagher Command Centre's REST API Alarms & Events is used to enable card holders to login at Torus cabinet when Gallagher card reader is not wired directly with Torus cabinet. In this type of setup Gallagher Card reader is physically mounted on Torus cabinet but it is directly wired with Gallagher Controller.

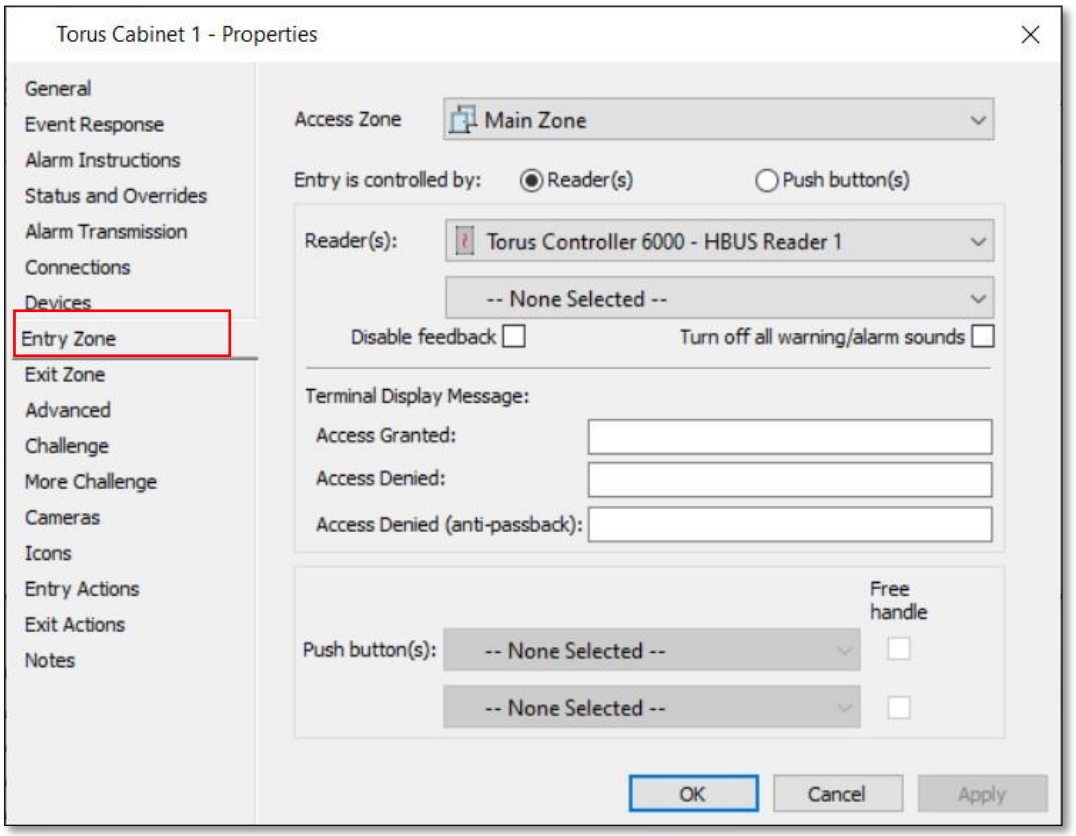
In this type of setup Card holders data is imported to Torus software and card holder need to be added in Access Group of Torus software to grant access on any item(s) in Torus cabinet. However, this type of card holder record does not need the card details imported to Torus software since the authentication at cabinet card reader is performed by Gallagher Controller. Furthermore, there is no need to configure any data mark on the cabinet where the card reader is connected with Gallagher Controller for this type of setup. This feature allows card or Gallagher mobile connect users to use their credentials at card readers mounted at Torus cabinet.

9.1 – Create Door in Command Centre

- Install the Gallagher card reader at Torus cabinet but do not wire it with Torus cabinet CU.
- Connect this Gallagher card reader with Gallagher Controller.
- Create a door record in Command centre.

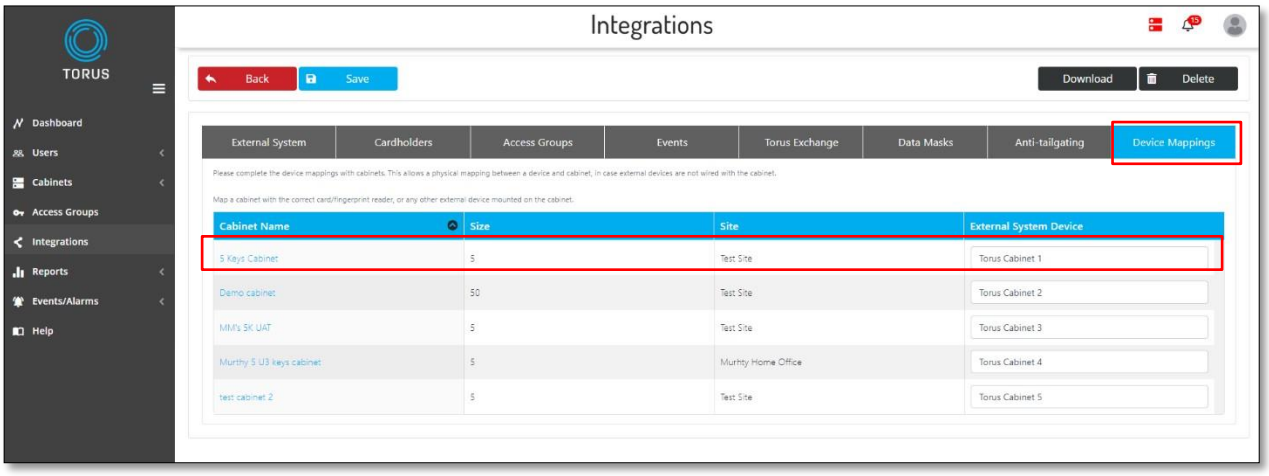


- Go to door properties and configure the Entry Zone for the card reader. Use any existing zone or create a new Access Zone for this door.



9.2 – Map Door with Torus cabinet

- In last step Command Centre door record has to be mapped with Torus cabinet.
- Open Torus software and go to integration record of Gallagher Command Centre.
- Go to External System Devices tab to input door name which is linked with Gallagher Card Reader mounted at corresponding cabinet.
- Add imported users to respective Access groups to grant access on desired items in Torus cabinet.


Integrations
TORUS
Dashboard
Users
Cabinets
Access Groups
Integrations
Reports
Events/Alarms
Help
Back
Save
Download
Delete
External System
Cardholders
Access Groups
Events
Torus Exchange
Data Masks
Anti-tailgating
Device Mappings
Please complete the device mappings with cabinets. This allows a physical mapping between a device and cabinet, in case external devices are not wired with the cabinet.
Map a cabinet with the correct card/fingerprint reader, or any other external device mounted on the cabinet.
Cabinet Name
Size
Site
External System Device
5 Keys Cabinet
5
Test Site
Torus Cabinet 1
Demo cabinet
50
Test Site
Torus Cabinet 2
MM's 5K UAT
5
Test Site
Torus Cabinet 3
Murthy 5 U3 keys cabinet
5
Murthy Home Office
Torus Cabinet 4
test cabinet 2
5
Test Site
Torus Cabinet 5

End of Document

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