# HID<sup>®</sup> Linq<sup>™</sup> On Premise User Guide

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# Contacts

For technical support, please visit: https://support.hidglobal.com.

# What's new

Date	Description	Revision
July 2025	Updated to support HID Linq On Premise software version v1.3.0.	A.1

A complete list of revisions is available in Revision history.

# **Powering** Trusted Identities

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# Section 01



# **1.1 Document purpose**

This document provides information to install and configure HID<sup>®</sup> Linq<sup>™</sup> On Premise, connect to HID Signo<sup>™</sup> readers, search and apply device Configuration Identifiers (Configuration IDs), create Configuration IDs, update HID Signo reader firmware, and manage custom keys stored in a local keystore within HID Linq On Premise.

# **1.2 Intended audience**

This document is intended for System Administrators and Device Administrators performing the following tasks:

- Connecting to HID Signo readers via the HID Signo Provisioning Accessory or HID Signo Programming Stand
- Updating Signo reader firmware and configurations via USB

# **1.3 HID Ling On Premise overview**

HID Linq On Premise is a server-based application installed on the users premises enabling the configuration and firmware update of multiple HID Signo readers via controller or serial connection. HID Origo™ connection is optional.



HID Linq On Premise operates online via HID Origo device management services to access a library of reader Configuration IDs and reader firmware update files. It also operates offline using a custom keystore, or local configuration store.

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The main components of the HID Linq On Premise solution are:

- HID Ling On Premise: A server-based application which connects to HID Signo readers via HID Mercury<sup>™</sup> controllers, or directly via serial connections. HID Ling On Premise allows you to search and apply known Configuration IDs to connected HID Signo readers (via OSDP), create configuration IDs, and perform reader firmware updates (when available).
- HID Ling Gateway: A utility app that provides a secure connection between HID Ling On Premise and HID Signo
  readers. If you are connecting via a Mercury controller, additional set up is required to establish a secure connection.
- HID Signo readers: HID Linq On Premise is compatible with HID Signo 20, 20K, 40, and 40K readers.

# **1.4 System requirements**

- Windows 10 64-bit Enterprise Edition 21H22 or newer.
- Windows 11 64-bit Enterprise Edition 21H22 or newer.
- 8 GB RAM.
- 20 GB available disk space.
- Web browser (Google Chrome recommended).

## 1.4.1 Hardware requirements

Caution: When connecting the reader via USB-C, DO NOT connect the reader to an external power source.

Important: It is best practice to use a powered USB hub when connecting a single reader, over a direct connection to the computers USB port.

• HID Signo Programming Stand (SIGNO-STAND-4) to connect up to four HID Signo readers to your PC.

**Note:** Four USB-C to USB-A cables included. Contact your HID Sales representative to order the HID Signo Programming Stand.

- USB-C to USB-A cable(s) (if not ordering the HID Signo Programming Stand).
- Externally powered USB 3.0 hub for use with the HID Signo Programming Stand.

Important: The hub must be externally powered, and able to provide a minimum of 500 mA per port.

#### **1.4.2 Version information**

Software	Version
HID Linq On Premise	1.3.0.37
HID Linq Gateway installer	1.3.0.6
HID Origo Management Portal	8.36.0

# 1.4.3 Signo reader firmware updates

Current Firmware version	Target Firmware Version
R10.0.10.4	R10.0.10.4 (Re-apply latest firmware version)
R.10.0.9.1	R10.0.10.4 (Upgrade)
R10.0.8.5	
R10.0.7.5	
R10.0.5.7	
R10.0.5.6	
R10.0.4.2	
R10.0.3.1	
R10.0.3.0	
R10.0.2.5	
R10.0.2.4	
R10.0.2.2	
R10.0.1.7	
R10.0.1.3	
R10.0.0.31	

# 1.4.4 Supported controllers and I/O modules

The listed HID<sup>®</sup> Mercury<sup>™</sup> and HID<sup>®</sup> Aero<sup>®</sup> controllers and Serial Input/Output (SIO) modules are supported for use with HID Ling On Premise.

Note: HID Linq On Premise only works with HID controllers and SIO modules with the following minimum firmware versions.

Controllers	Minimum firmware version
Mercury LP1501	2.4.0
Mercury LP1502	2.4.0
Mercury LP2500	2.4.0
Mercury LP4502	2.4.0
Mercury MP1501	2.6.0
Mercury MP1502	2.6.0
Mercury MP2500	2.6.0
Mercury MP4502	2.6.0
Aero X1100	2.4.0
Aero x1100A	2.4.0
Serial Input/Output modules	
Mercury MR50-S3	3.2210
Mercury MR52-S3	3.22.10
Mercury MR52-S3B	3.22.10
Aero X100	3.22.10
Aero X100A	3.22.10

Caution: Firmware upgrade via HID controllers is not currently supported.

#### Note:

- Only HID Signo readers connected to Mercury via OSDP are supported. Readers connected via Wiegand are not supported by HID Linq On Premise. Please use HID Reader Manager<sup>™</sup> to configure readers connected via Wiegand.
- S2 boards are not supported for the update of readers via HID Ling On Premise.
- Only authentic HID controllers are supported.
- HID Ling Gateway must also be installed alongside HID Ling On Premise, and on any PC used to remotely access HID Ling On Premise, to connect to HID Signo readers.
- You will need your HID Linq On Premise username and password, together with the IP address of the PC running HID Linq Gateway during the controller set up.

## 1.4.5 Signo offline soft charge profile

This allows you to perform any offline functionalities and requires a dedicated offline HID Signo reader with an unprogrammed soft charge profile. Select this profile when ordering any HID Signo reader (excluding HID Signo 25B).

Please see the Readers and Credentials How to Order Guide for more information.

Please see the Readers and Credentials How to Order Guide (PLT-02630) for more information.

HID Powering Trusted Identities

# 1.5 Licensing

HID Linq On Premise requires licensing to comply with legal requirements and grant access to all features.

#### 1.5.1 Obtain a license

- 1. Click the **About** tab in the left-hand menu.
- 2. Click **COPY** to copy the unique identifier.



- 3. Send your unique identifier to your HID representative. HID will send your license files.
- 4. Save your license files to C:\ProgramData\HID Global\Linq Device Manager.
- 5. Click Import and select the license files received from HID.
- 6. Navigate to the Welcome tab in the left-hand menu. Click LAUNCH.

# Section 02 Install HID Ling On Premise



# 2.1 Install HID Linq On Premise

To install HID Ling On Premise on a server, or individual PC:

Important: You must be logged in to the PC as an administrator to install HID Linq On Premise.

- 1. Double-click the setup file to launch the installation wizard.
- 2. Click Next.
- 3. Select I accept the agreement and click Next.



- 4. Check the **HID Ling<sup>™</sup>** box and **Setup SQL Server** box and click **Next**.
- 5. Enter an SQL SA Password and an SQL Server Connection Password and click Next.

Note: Make a note of the SQL Server Connection Password. It is needed later in the installation process.

- 6. Follow the on-screen prompts and click **Install** to begin the installation.
- 7. Click **Finish** to launch the application.
- 8. Enter and confirm a Master password and click OK.
- 9. Enter the **SQL Server Connection Password** created in step 5 and click **OK**. The HID Linq On Premise launch window is displayed.
- 10. Click Launch to launch the HID Ling On Premise web browser.

Note: Click Advanced > Proceed to localhost (unsafe) in the browser warning.

11. Enter the default credentials and click SIGN IN.

#### Note:

- Username: admin
- Password: password
- 12. Enter and confirm a new password.
- 13. Click SET PASSWORD AND CONTINUE.

# 2.1.1 Download a recovery key

HID Linq On Premise supports a Microsoft SQL database for storing encrypted user information. The backup and recovery feature allows you to move HID Linq On Premise to a different PC or server.

#### 1. Click DOWNLOAD.

- 2. The recovery key is downloaded to your **Downloads** folder.
- 3. Save the recovery key in a secure location for future use.

# Section 03 Home page and navigation





# 3.1 Home page

The home page is displayed once you have logged in and includes:

- Navigation tabs: To access different pages within HID Linq On Premise. See 3.2 Navigation for more information.
- General tips section: For brief descriptions of HID Linq On Premise features.
- Shortcuts section: Quick access to common tasks.

HID   Lind	é		C 8
》 众	Home		
	Get acquainted with HID Ling         Everything you need to manage HID Signo" readers for your organization. Access the HID Ling services hosted on your premises or on HID Origo cloud to satisfy your unique use case.         Connect to an HID Ling Gateway       +         HID Signo Reader Connectivity - Serial       +         HID Signo Reader Connectivity - HID Controllers       +         Upgrade Signo Reader Firmware       +         Apply Configuration ID       +	Shortcuts	

# 3.2 Navigation

Icon	Description
	Home tab: Displays task guidance and shortcuts to common actions. See <b>3.1 Home page</b> for more information.
(( 0 ))	<b>Live Events</b> tab: Displays real time feedback on reader status and events (for example, card read success and firmware updates). See <b>4.12 Live events</b> for more information.
Ξ	<b>Readers</b> tab: Displays connected Gateways and HID Signo readers, together with their installation status. Add or remove devices from the <b>Readers</b> tab.
	Device Configuration Templates tab: Create, search, and apply existing online and offline device configuration templates.
<u>f</u>	Keystore tab: View, add or manage the local keystore and key sets.
600 (1000) (1000)	<b>Users</b> tab: Displays all current users and their role. The <b>Users</b> tab allows you to add new users, manage existing users, and reset a user's password.
තු	<b>Settings</b> tab: Allows you to add an existing HID Reader Manager Technician account credentials, update HID Linq On Premise, and perform a system recovery.







# 4.1 HID Origo account

Verify your HID Origo account to access your online keys and Configuration IDs and apply them to your readers.

#### Note:

- HID Origo connection is not required to apply local configurations or access the HID Ling Custom Keystore.
- Enter your existing HID Reader Manager Technician account credentials to view keys associated with your account.

#### Verify your account:

- 1. Navigate to the 😳 **Settings** tab in the left-hand menu.
- 2. Click HID Origo Account.
- 3. Enter the E-Mail Address and Password for your HID Reader Manager Technician account.

HID   Ling				9 0
》 企	Settings			
(o)	General ① About 丞 HID Origo Account 丞 System HID Origo Account ② Time Zone	HID Origo Account Verify and Connect your HID Reade To get access to your Keys and Configur Organization to Manage Readers.	r Technician Account ations that are shared in the Cloud. Please verify with an HID Origo Account that is used by your	
<b>0</b> <i>p</i>		Enter HID Origo Réader Technician Account Password	. @	
88 103			VERIFY ACCOUNT	
		keys associated with this account	Sign in to an HID Origo Account to see Keys	-

#### 4. Click VERIFY ACCOUNT.

Note: Contact your organization's HID Reader Manager Portal Administrators if you need a new HID Origo account.



## 4.1.1 Change organization

Reader Technicians associated with multiple organizations can switch between organizations in HID Linq On Premise.

- 1. Navigate to the 😳 Settings tab in the left-hand menu.
- 2. Click **HID Origo Account**.
- 3. Click CHANGE.

HID   Ling	n		C @
» ሴ	Settings		
(•) -	General ⑦ About ※ HID Origo Account & System HID Origo Account ③ Time Zone ⑦ Application Updates	HID Origo Account Verify and Connect your HID Reader Technician Account To get access to your Keys and Configurations that are shared in the Cloud. Please verify with an HID Origo Account that is used by y Organization to Manage Readers.	our
2	System Recovery     Administration Security     Animistration Security     Animistration Security	Last verified on: 12:10 December 17, 2024  Connected HID Origo Account	
@		Full Name John Smith E-Mail John.smith@hidglobal.com Organization Role ReaderManagerAdmin, CompUserAdmin, RL_RLADMIN, RL_ORGADMIN Organization	
		Selected Organization.  Select  CHANGE  Keys associated with this account	

- 4. Select the required organization from the **Select Organization** drop-down list.
- 5. Click SAVE.

# 4.2 System HID Origo account

Verify your System HID Origo account to access the latest firmware and Configuration IDs and apply them to your readers.

Note: Enter your existing HID System account credentials to view keys associated with your account.

#### Verify your account:

- 1. Navigate to the 😳 Settings tab in the left-hand menu.
- 2. Click System HID Origo Account.
- 3. Enter the E-Mail Address and Password for your HID Origo System account.

1		C @
Settings Eneral (a) About (b) About (c) System HD Origo Account (c) System Recovery (c) Application Updates (c) System Recovery (c) Administration Security (c) Administration Securi	System HID Origo Account         Verify and Connect your HID System Account         To get access to latest firmware and configurations that you can apply to your readers, please verify with an HID Origo Account to use the system.         Enter HID Origo System Account         Password         VERIFY ACCOUNT         CREATE NEW ACCOUNT	efor
	Sectings Eneral () Abou () About () System HID Origo Account () Time Zone () Application Updates () System Recovery () Administration Security () Administration Security () Network	Settings  Server Settings Server Settings Sever

#### 4. Click VERIFY ACCOUNT.

Note: Contact your organization's HID Reader Manager Portal Administrators if you need a new HID Origo account.

# 4.3 User roles

User Role	Privileges	Description	
System Administrator	Super user	<ul> <li>Download, install, and set up HID Linq On Premise</li> <li>Add and manage other users</li> <li>Configuration and management of readers</li> <li>Create Origo and Local Configuration IDs</li> </ul>	
Device Administrator	Device management only	Configuration and management of readers	

#### Note:

- There is no limit to the number of System Administrator or Device Administrator users in HID Ling On Premise.
- System Administrators or Device Administrators can be HID Reader Manager Technician account holders with access to HID keys. These users must validate their HID Reader Manager credentials in HID Linq On Premise to gain access to the keys.



# 4.4 Add a user

- 1. Navigate to the  $20^{\circ}$  **Users** tab in the left-hand menu.
- 2. Click INVITE NEW USER.
- 3. Enter the new users information.

ng™		
Users	1	
Users	Invite New User This is where you can enter details in order to cre new user with a temporary password.	eate a
admin	First Name:	and the second sec
strong 1 45 19 mpts -	E-Mail Phone Number (opt	utionai) UT
	Choose Role to be assigned to this User	
	System Administrator Full access including System Settings	o
	Device Administrator Setup and maintenance of Devices with limited access to user	er Information
	CANCEL	INVITE NEW USER

- 4. Select the required user role.
  - System Administrator
  - Device Administrator
- 5. Click **INVITE NEW USER**.
- 6. Copy and save the new users password.
- 7. Click DONE.
- 8. Email the new user their login details and the URL specific to the created instance of HID Ling On Premise.

# 4.5 Edit a user

- 1. Navigate to the 20 **Users** tab in the left-hand menu.
- 2. Click the  $\swarrow$  Edit User Information icon for the required user.

Users			
Users			INVITE NEW U
Username	Name & Email	Role	Actions
admin	<b>admin</b> Default User	System Administrator	Edit User Information
johnsmith	John Smith john.smith@hidglobal.com	System Administrator	<b>e</b>
Showing 1 of 1 Pages		11	10

- 3. Edit the required details and roles.
- 4. Click SAVE.

#### **HID** Powering Trusted Identities

# 4.6 Reset a user's password

Note: Only an Administrator can reset another user's password.

- 1. Navigate to the  $\overset{\circ}{\sim}$  **Users** tab in the left-hand menu.
- 2. Click the  $\bigoplus$  **Reset New Password** icon for the required user.

i.			C <sup>9</sup> @
Users			
Users			INVITE NEW USER
Username	Name & Email	Role	Actions
admin	<b>admin</b> Default User	System Administrator	Reset New Password
johnsmith	John Smith john.smith@hidglobal.com	System Administrator	
Showing 1 of 1 Pages			10 Y
	Users Userame Ice admin Ice pointsmith Showing 1 of 1 Pages	Users Userane admin Default User admin Default User admin Default User admin Default User browing 1 of 1 Pages	Users         Verner       Name & Email         Image: Series       Admin         Image: Series       System Administrator         Image: Series       John Smith         Image: Series       System Administrator         Serving 1 of 1 Pages       1

- 3. Click RESET AND GENERATE NEW PASSWORD.
- 4. Click COPY PASSWORD.
- 5. Email the user their new password.

**Note:** The user must log in using the temporary password. They will be prompted to enter a new password at log in.

# 4.7 Delete a user

- 1. Navigate to the 23 **Users** tab in the left-hand menu.
- 2. Click the  $\widehat{\blacksquare}$  Delete Administrator icon for the required user.

2			
Users			
Users			INVITE NEW
Username	Name & Email	Role	Actions
admin	<b>admin</b> Default User	System Administrator	Delete Admi
johnsmith	John Smith john.smith@hidglobal.com	System Administrator	0 🗄 🔟
Showing 1 of 1 Pages		1	10

3. Click **DELETE ADMINISTRATOR**.

# 4.8 Set your time zone

- 1. Navigate to the 😳 Settings tab in the left-hand menu.
- 2. Click Time Zone.
- 3. Select the required **Time Zone** from the drop-down menu.

HID   Linq"		۹ 🕙
HUD LLing*	HID Linq Time Zone Current Time: 14:42 December 13, 2024 Time Zone Europe/London	
296 (2)		

# 4.9 Update HID Linq On Premise

#### Note:

- Only a System Administrator can update HID Linq On Premise.
- Offline users must contact HID Technical Support for HID Linq On Premise update information.
- 1. Navigate to the O Settings tab in the left-hand menu.
- 2. Click Application Updates.
- 3. Click CHECK FOR UPDATE.

HID   Lir	nq <sup>™</sup>		C @
>> 公 (•))	Settings General © About	Application Updates	
0 0 0	HID Origo Account  System HiD Origo Account  Time Zone  Application Updates  System Recovery  Administration Security  Network	HID Ling Device Manager is up to date. Last Checked 14:44 December 13, 2024	X
<u>نې</u>		Always Check For Updates Automatically check for new updates but do not download or install	

4. If an update is found, click DOWNLOAD AND INSTALL.

Note: Click the Always check for Updates toggle to automatically check for software version updates.

# 4.10 System backup and recovery

The system backup and recovery allows you to move the HID Linq On Premise install to a different computer using a recovery key.

- 1. Double-click the setup file to launch the installation wizard on the new computer.
- 2. Click Next.
- 3. Select I accept the agreement and click Next.
- 4. Check the **HID Ling™** box and **Setup SQL Server** box and click **Next**.
- 5. Enter an SQL SA Password and an SQL Server Connection Password and click Next.

Note: Make a note of the SQL Server Connection Password. It will be needed later in the installation process.

- 6. Follow the on-screen prompts and click **Install** to begin the installation.
- 7. Uncheck the Launch the application box and click Finish.

🔕 Setup - HID Linq™	- 🗆 ×
HID	Completing the HID Linq <sup>™</sup> Setup Wizard Setup has fnished installing HID Ling <sup>™</sup> on your computer. Click Finish to exit Setup. ☐ Launch the application
	Einish

- 8. Copy your HID\_LINQSERVER.mdf and HID\_LINQSERVER\_log.ldf recovery files, and paste them to the new C:\Program Files\HID Global\Linq Device Manager\database folder, to overwrite the new files.
- 9. Copy and paste the required database file to the new C:\ProgramData\HID Global\Linq Device Manager folder.

Linq Device Manager Share View			
📙 > This PC > Local Disk (C:) > ProgramData	→ HID Global → Linq De	vice Manager 🔉	~ Ç
Name	Date modified	Туре	Size
logs	07/01/2025 11:42	File folder	
6232d51b-9c24-40c4-9844-58be520247a7	20/12/2024 15:51	Data Base File	20 KB
onfiguration	17/12/2024 10:40	JSON Source File	1 KB

- 10. Navigate to C:\Program Files\HID Global\Linq Device Manager\bin and double click Configure.exe.
- 11. Enter and confirm a new Master password and click OK.
- 12. Enter the **SQL Server Connection Password** created in step 5 and click **OK**. The HID Linq On Premise launch window is displayed. Click **Yes** to continue.

Note: Close the Database Setup window that is displayed.

- 13. Navigate to C:\Program Files\HID Global\Linq Device Manager\bin and double click Start.exe.
- 14. Enter the Master password and click OK.

15. Click Launch to launch the HID Ling On Premise web browser.

Note: Click Advanced > Proceed to localhost (unsafe) in the browser warning.

- 16. Login to HID Linq On Premise using your existing credentials.
- 17. The Recovery Backup Key window is displayed. Click CHOOSE FILE.

Note: If the Recovery Backup Key window is not displayed, see 4.10.1 Manually perform a system recovery for more information.

- 18. Locate and upload the required LDM\_Recovery\_Key.pem file. Click VERIFY KEY.
- 19. Enter the Master password and click OK.
- 20. Enter the **Master password** and click **OK**.
- 21. Restart HID Linq On Premise. Navigate to C:\Program Files\HID Global\Linq Device Manager\bin and double click Start.exe.
- 22. Enter the Master password and click OK.
- 23. Click Launch to launch the HID Ling On Premise web browser.
- 24. Login to HID Linq On Premise using your existing credentials. Verify that your existing keystore, users and settings are visible.

#### 4.10.1 Manually perform a system recovery

Note: Only a System Administrator can perform a system recovery.

- 1. Navigate to the 😳 Settings tab in the left-hand menu.
- 2. Click System Recovery.
- 3. Either:
  - a. Click Enter Recovery Key and paste your key into the Enter Discovery Key Here field, or
  - b. Click Select Key from Files, then CHOOSE FILE and upload the required LDM\_Recovery\_Key.pem file.

HID   Linc	17		C <sup>o</sup> @
> G	Settings		
((*))	General ① About & HID Origo Account & System HID Origo Account	Recovery Options	
0 P	© Time Zone	Enter Recovery Key Here	0/5000
2% (\$)			VERIEV LEV

4. Click **VERIFY KEY** and follow the on-screen prompts.

# 4.11 Set administrative security options

This window allows you to view and manage administrative security settings, including:

- · How long a temporary password is valid
- How long an Administrator password is valid
- · How often a password change prompt is displayed
- The time duration until an inactive user is automatically logged out
- 1. Navigate to the O **Settings** tab in the left-hand menu.
- 2. Click Administration Security.
- 3. Click **CHANGE** to adjust the required setting.
- 4. Adjust the settings as required and click **SAVE** to apply the changes.

# 4.12 Live events

The ((o)) Live Events Monitor displays a chronological list of live events from the current session, and events generated by other connected users.

Click **EXPORT** to export the live events data to a CSV file. Each event has a correlation ID that can be cross referenced against the HID Ling system logs. See **D.1 Logs** for more information on logs.

IID   Ling*				C @
》 命	Live Events	Monitor		
((+1)	$\frac{1}{2} \equiv$ Live Events			
	Date/Time	Event	Device	EXPORT
9	2025-01-06 12:50:49	Configuration Template Apply Failed (Unsupported Configuration)	HID Ling Reader	
0	2025-01-06 12:50:37	Configuration Template Processing	HID Ling Reader	
28	2025-01-06 12:50:37	Configuration Template Queued (Success)	HID Ling Reader	
8	2025-01-06 12:27:05	Configuration Template Apply Failed (Unsupported Configuration)	HID Ling Readel	
	2025-01-06 12:26:53	Configuration Template Processing	HID Ling Reader	
	2025-01-06 12:26:53	Configuration Template Queued (Success)	HID Ling Reader	
	2025-01-06 12:16:26	Configuration Template Apply Failed (Unsupported Configuration)	HID Ling Reader	
	2025-01-06 12:16:14	Configuration Template Processing	HID Ling Reader	
	2025-01-06 12:16:14	Configuration Template Queued (Success)	HID Ling Reader	
	2025-01-06 12:15:23	Configuration Template Apply Failed (Unsupported Configuration)	HID Ling Reader	
	showing 1+10 of 12 yeausts		1 2 >>>	

Note: Exporting live events provides further debugging information.

# 4.13 Change the HID Linq Gateway security profile

The HID Ling Gateway has two security profiles:

Security Profile	Behavior
Normal	HID Ling Gateway runs as an application and requires a manual restart every time the PC is powered off.
Relaxed	HID Ling Gateway runs as a service and does not require a manual restart every time the PC is powered off.

**Note:** It is recommended to use the Normal security profile as it is more secure.

#### Who can change the HID Ling Gateway security profile?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	N/A	N/A

**Note:** Please see **C.4 Security profiles** for more information on the two security profiles before changing the security profile.

#### To change security profiles from Normal to Relaxed:

- 1. Exit the HID Ling Gateway in the Windows server tray.
- 2. Navigate to C:\Program Files\HID Global\HID Linq<sup>™</sup> Gateway\1.3.0.6.
- 3. Double click Configuration.exe.
- 4. Enter the master password.

5. Click Select a security profile.



- 6. Click Enable Relaxed Profile.
- 7. Enter the master password and click OK.



8. Click OK to finish.

#### To change security profiles from Relaxed to Normal:

- 1. Navigate to C:\Program Files\HID Global\HID Linq<sup>™</sup> Gateway\1.3.0.6.
- 2. Double click Configuration.exe.
- 3. Click Select a security profile.


#### 4. Click Restore Normal Profile.



5. Enter and confirm the master password and click OK.

Create Master Password for HID Ling	" Gateway X
Create Master password: Confirm Master password:	
IF YOU FORGET THIS PASSWORD, YO	U WILL HAVE TO SETUP A NEW SYSTEM!!
ок	Cancel
<ul> <li>Password Requirements</li> <li>Password must be between 12</li> <li>Password must contain an uppe</li> <li>Password must contain a lower</li> <li>Password must contain a digit.</li> <li>Password must contain a specia</li> <li>Passwords must match.</li> </ul>	and 64 characters in length. ercase character. case character. al character.

6. Click **OK** to finish.

# 4.14 Change your password

- 1. Click the Profile icon in the header.
- 2. Click CHANGE PASSWORD.

<ul> <li>Home</li> <li>Cet acquainted with HID Ling</li> <li>Det acquainted with HID Ling</li> <li>Set acquainted with HID Ling</li> <li>Perything you need to manage HID Signo " readers for your organization. Access the HID Ling services hosted on your premises on HID Origo cloud to satisfy your unique use case.</li> <li>Connect to an HID Ling Gateway</li> <li>HID Signo Reader Connectivity - Serial</li> <li>HID Signo Reader Connectivity - HID Controllers</li> <li>HID Signo Reader Firmware</li> <li>Upgrade Signo Reader Firmware</li> <li>Apply Configuration ID</li> <li>HID Configuration ID</li> </ul>	HID   Ling	1			C <b>°</b> e
<ul> <li>Get acquainted with HID Ling</li> <li>Brerything you need to manage HID Signo<sup>™</sup> readers for your organization. Access the HID Ling services hosted on your premises or on HID Origo cloud to satisfy your unique use case.</li> <li>Connect to an HID Ling Gateway +</li> <li>HID Signo Reader Connectivity - Serial +</li> <li>HID Signo Reader Connectivity - HID Controllers +</li> <li>Upgrade Signo Reader Firmware +</li> <li>Apply Configuration ID +</li> </ul>	》 众	Home			admin
Connect to an HID Ling Gateway + HID Signo Reader Connectivity - Serial + HID Signo Reader Connectivity - HID Controllers + Upgrade Signo Reader Firmware + Apply Configuration ID +	((o))	Get acquainted with HID Linq Everything you need to manage HID Signo <sup>®</sup> readers for your organization. Access the HID Ling services hosted on your prer or on HID Origo cloud to satisfy your unique use case.	nises	Shortcuts	SIGN OUT
HID Signo Reader Connectivity - Serial     +       1     HID Signo Reader Connectivity - HID Controllers     +       1     Upgrade Signo Reader Firmware     +       1     Apply Configuration ID     +	0	Connect to an HID Ling Gateway	+	Add User Connect to HID Origo	
Image: Signo Reader Connectivity - HID Controllers     +       Upgrade Signo Reader Firmware     +       Apply Configuration ID     +	29	HID Signo Reader Connectivity - Serial	+		
Upgrade Signo Reader Firmware + Apply Configuration ID +	මා	HID Signo Reader Connectivity - HID Controllers	+		
Apply Configuration ID +		Upgrade Signo Reader Firmware	+		
		Apply Configuration ID	+		

- 3. Enter your **Current Password**.
- 4. Enter a **New Password** that meets the security requirements.
- 5. Confirm the new password.
- 6. Click SET NEW PASSWORD.

# 4.14.1 About

This window displays the software version and information.



# 4.15 Sign out

- 1. Click the Profile icon in the header.
- 2. Click SIGN OUT.

# $\underset{\text{Download and install HID Ling Gateway}}{\text{Section 05}}$



# 5.1 HID Ling Gateway

Install, set up and run HID Linq Gateway to provide a secure connection between HID Linq On Premise and connected HID Signo readers. HID Linq Gateway can run as an application or as a service, depending on your security requirements.

#### Who can download, set up and run HID Linq Gateway?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes

# 5.2 Download HID Ling Gateway

To download HID Linq Gateway, log in to HID Linq On Premise.

- 1. Navigate to the **Readers** tab in the left-hand menu.
- 2. Click ADD NEW GATEWAY.
- 3. Click DOWNLOAD.

D ( Ling**		4
Readers		
Gateways	Reader Management	
ADD NEW GATEWAY		
	Connect to Gateway ×	
	No HID Ling Gateway Discovered     Please download and install HID Ling Gateway	
	Download HID Ling Gateway	
	s s	
	CLOSE THIS WINDOW	

#### Note: Only download one instance of HID Linq Gateway.

# 5.3 Install HID Linq Gateway

HID Ling Gateway must be installed to your machine to provide a secure connection between HID Ling On Premise and connected HID Signo readers. HID Ling Gateway can only be downloaded to a Windows OS and requires a minimum of Windows 10 or newer.

#### Important:

 To connect to HID Signo readers, HID Ling Gateway must be installed alongside HID Ling On Premise, and on any PC used to remotely access HID Ling On Premise.

**Note:** Only one instance of HID Linq Gateway can be installed per PC. If you download a new version, you must uninstall and delete the previous version before installing the newest download.

- 1. Navigate to your **Downloads** folder.
- 2. Double-click the setup file to launch the installation wizard.
- 3. Select HID Linq<sup>™</sup> Gateway (On-Premises) and click Next.

🚥 Setup - HID Linq™ Gateway version v1.0.0.25	-	-		×
Basic Information				нпр
Please select the server HID $Linq^{tm}$ Gateway will connect with, then click Next.				
<ul> <li>O HID Linq™ Gateway (Cloud)</li> <li>ID Linq™ Gateway (On-Premises)</li> </ul>				
	<u>N</u> ext		Car	icel

- 4. Click Install.
- 5. Click Finish to complete the installation.
- 6. Enter a Gateway Name and click CONNECT TO GATEWAY.



7. Enter and confirm a master password for your HID Ling Gateway and click OK.



8. Click **Yes** in the pop-up window.

# 5.4 Create a new gateway

Create a new gateway to discover readers connected to the computer. Gateways created in HID Linq On Premise are accessible to other HID Linq On Premise users on the same network. Only create a gateway for a specific computer on the network, which must only be activated on the computer it is created for.

Note: All computers on the network must have the HID Linq Gateway application installed. See **5.3 Install HID Linq** Gateway for more information.

For example:

- User A creates Gateway 1, Gateway 2, and Gateway 3 in HID Linq On Premise on Computer 1. User A must only activate Gateway 1 on Computer 1.
- User B must log in to HID Linq On Premise on Computer 2. Gateways 1, 2 and 3 are visible. User B must only activate Gateway 2 on Computer 2.
- Gateway 3 must only be activated on Computer 3 by User C.

#### To create a new gateway

- 1. Navigate to the 🗍 Readers tab in the left-hand menu.
- 2. Click ADD NEW GATEWAY.

HID   Lin	E.		<b>4</b> 0
» G	Readers		
•••	Gateways	Reader Management	
P 19 8		No HID Ling Gateway Add a Gateway to disco	5 y Discovered wer readers

- 3. Enter a Gateway Name.
- 4. Click CONNECT TO GATEWAY.
- 5. Click **CONTINUE** to finish.

#### **HID** Powering Trusted Identities

# 5.4.1 Activate a gateway

Activating a gateway starts the HID Linq Gateway application in the background of the current computer and allows you to connect that gateway to a computer. Activation is a one-time operation per computer.

Important: Only activate one gateway per computer on the server.

To select an existing gateway:

- 1. Navigate to the Readers tab in the left-hand menu.
- 2. Click the  $\bigcirc$  icon of the required gateway and click **Activate Gateway**.

		C* 8
Readers		
Gateways	Readers	
ADD NEW GATEWAY	<del>8</del>	
ਲੋਨ Gateway One	Conception of the second secon	<b>P</b>
Sateway Two	Change Name	vay Offline
ස්ස Gateway Three ලා සංකාශ	Θ	
	Readers Gateways ADD NEW GATEWAY Contervay One Contervay O	Sateways       Readers         Sateway One       Ativate Gateway         Sateway One       Delete Gateway         Change Name       Change Name         Sateway Three       Sateway Three         Sateway Three       Sateway Three

- 3. Click ACTIVATE GATEWAY.
- 4. Click **OK** in both pop-up windows that are displayed.
- 5. Enter the HID Ling Gateway Master password and click OK.
- 6. Click **CONTINUE** to finish.



# 5.5 Connect gateway to IP address

The Network tab allows you to configure how the HID Linq Gateway connects to the server.

#### 5.5.1 Hostname

Select **Hostname** to connect the HID Linq Gateway to the server via a hostname, determined by DNS. The HID Linq Gateway is connected via a hostname by default.

### 5.5.2 IP Address

This allows you to use an IP address if the network does not support the use of a hostname.

Note: The IP address must remain constant. Reserve the IP address only for this purpose.

1. Select IP Address to connect the HID Ling Gateway to the server via an IP address.

Settings	
General ⊙ About &- HID Origo Account &- System HID Origo Account	Network Configure Network Settings
<ul> <li>Time Zone</li> <li>Application Updates</li> <li>System Recovery</li> <li>Administration Security</li> <li>Administration Security</li> </ul>	Gateway Configuration The Gateway connects to the Server using hostname by default. If your Network configuration can not resolve the name, please use the IP address instead. Hostname:
die Network	Hostname Server will resolve hostname from DNS O
	IP Address: <b>192.168.133.1</b> The unit will connect to this IP. Either select one of your networks adapter from the dropdown or enter an IP Address.
	Network Adapter: 192.168.133.1
	Pådansee

2. Select the required IP address from the Network Adapter drop-down list.

Note: Alternatively, check the Manual IP Entry box and enter the required IP address.

# 5.6 Rename a Gateway

Note: The HID Linq Gateway is referenced by the host name of the machine it is downloaded on by default.

- 1. Navigate to the TReaders tab in the left-hand menu.
- 2. Click the  $\bigcirc$  icon of the required gateway.
- 3. Click Change Name.
- 4. Enter the new gateway name.

Note: Gateway names are limited to letters, numbers, hyphens, and underscores.

5. Click SAVE.

# **5.7 Port forwarding**

HID Linq On Premise needs the following ports to be open:

Port	Reason
22	Connecting to HID Signo readers to push a firmware update.
443	Connecting via HTTPS.
8885	Connecting to Mercury controllers via MQTT.
	Only required on the PC that HID Linq Gateway is installed on.
9090	Communication between HID Linq On Premise and HID Linq Gateway.

Note: If you are running another service which uses the same ports, see F.1 Port conflict troubleshooting

# **5.8 Uninstall HID Ling Gateway**

If you forget your HID Linq Gateway master password, you must uninstall HID Linq Gateway.

#### Important:

- If you are moving HID Linq On Premise to a different computer, navigate to the C:\Program Files\HID
   Global\Linq Device Manager\database folder and save the primary database files HID\_LINQSERVER.mdf and
   HID\_LINQSERVER\_log.ldf, and the recovery key downloaded during installation.
- Navigate to C:\ProgramData\HID Global\Linq Device Manager and save the required local keystore files.

Follow the standard Windows uninstall process to remove HID Ling On Premise and HID Ling Gateway:

- 1. Open Windows Add or remove programs.
- 2. Select the app or program in the displayed list and select Uninstall.
- 3. Follow the on-screen instructions.
- 4. Once the above steps are complete, navigate to C:\Program Files\HID Global and delete the Linq Device Manager folder.
- 5. Navigate to C:\ProgramData\HID Global and delete the Linq Device Manager and HID Linq<sup>™</sup> Gateway folders.

**Note:** You may need to set Windows File Explorer to display hidden files to see and access the **Program Data** folder.

# 5.9 Delete a Gateway

- 1. Navigate to the 🗍 **Readers** tab in the left-hand menu.
- 2. Click the  $\bigcirc$  icon of the required gateway.
- 3. Click Delete Gateway.
- 4. Click DELETE.

# Section 06 Connect to HID Signo readers via HID Programming Stand



# 6.1 Overview

This section explains the required steps to connect a single, or multiple HID Signo readers to the PC using the HID Signo Programming Stand allowing the system installer to configure the reader(s) on a bench before installation.

#### Note:

- The maximum recommended number of readers per hub is four. The maximum recommended number of hubs per PC is two.
- It is recommended to use a powered USB hub for optimal connectivity.
- Local Configuration updates via USB do not require a HID Origo connection.

In summary, the following steps need to be taken:

- 1. Disconnect the power supply from the reader(s).
- 2. Plug a HID Signo Provisioning Accessory into each reader.
- 3. Place the reader(s) on the HID Signo Gang Stand.
- 4. Connect each reader to a powered USB hub (not supplied).
- 5. Connect the serial cable to the serial adapter module.
- 6. Connect the USB hub to a spare USB port on your PC.

Caution: When connecting the reader via USB-C, DO NOT connect the reader to an external power source.



# 6.2 Connect to HID Signo readers via the HID Signo Programming Stand

#### WARNING: DO NOT CONNECT THE ADAPTER OR CABLE WHILE THE READER IS POWERED ON.

Note: For more information, including images, refer to the HID Signo Programming Stand Install Guide (PLT-07195).

#### Who can connect HID Signo readers to the HID Signo Programming Stand?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	Yes	Yes

To connect HID Signo readers via the HID Signo Programming Stand:

- 1. Disconnect the power supply from the HID Signo reader(s).
- 2. Remove the grommet from the back of the HID Signo reader(s) to access the adapter port.

**Note:** Keep the grommet(s) in a safe place as each must be replaced following the removal of the Signo Provisioning Accessory.

- 3. Connect each Signo Provisioning Accessory.
- 4. Place the HID Signo reader(s) on the Signo Programming Stand.

#### Note:

- If the reader is fitted with a mounting plate, remove the mounting plate before placing the reader on the stand.
- For readers with a pluggable pigtail, remove the pigtail before placing the reader on the stand.
- For readers with a non-removable pigtail, to prevent short circuits ensure that the wires are separated before inserting the Signo Provisioning Accessory and applying power via the USB-C.
- 5. Insert a USB-C to USB-A cable (not supplied) into each Signo Provisioning Accessory.
- 6. Insert each USB-C to USB-A cable into the powered USB hub.
- 7. Connect the USB hub to a spare USB port on your PC.
- 8. Connect the USB hub to a 12 VDC power supply.

**Caution:** When connecting the reader via USB-C, **DO NOT** connect the reader directly to an external power source.

9. In HID Linq On Premise, navigate to the 🗍 **Readers** tab and connect to the required Gateway.



10. Click DISCOVER READERS to confirm it is visible.

Sateways     ADD NEW GATEWAY     B   Cateway One   Imachive     Cateway Two    DISCOVER PEADERS		
ADD NEW GATEWAY & Cateway One Cateway Two Gateway Two Cateway Two	Readers	
Gateway Two	reway 🚓	

# 6.3 Disconnect HID Signo reader(s)

Note: For more information, including images, refer to the HID Signo Programming Stand Install Guide (PLT-07195).

- 1. Power off the USB hub.
- 2. Disconnect the USB-C cable from each Signo Provisioning Accessory.
- 3. Remove the Signo Provisioning Accessory module from each HID Signo reader adapter port.

Note: Carefully use a flat head screwdriver to release the Signo Provisioning Accessory.

4. Re-insert the grommet into the adapter port on the back of each HID Signo reader.

Important: Failure to replace the grommet correctly will void the IP rating for the reader.

# Section 07 Connect to HID Signo readers via HID controllers



# 7.1 Connect to a controller

This section explains the required steps to set up a HID Mercury LP controller to enable communication with HID Linq. HID Mercury MP series controllers and HID Aero controllers are compatible with HID Linq Cloud and the process to connect them is the same. For images of the HID Mercury and HID Aero controller DIP switches, please see **B.2 HID Controller DIP switches**.

#### Note:

- HID Ling Gateway and the controller must be on the same network. Perform a ping to make sure the PC can see the Mercury panel. HID Ling Gateway can discover and communicate with a HID controller in the same network that your access control solution is deployed.
- HID Ling Gateway must be able to reach HID Ling On Premise services over the network.
- Select up to a maximum of 8 readers connected per HID controller.
- There is no limit to the recommended number of controllers per PC.
- Each controller is limited to a single gateway.
- Rediscover readers after applying a configuration or a factory configuration reset.

#### Important:

- If the controller and reader use different power sources, make sure that both are grounded by connecting them together.
- A HID Origo connection is required for configuration updates via controller.

In summary, the following steps need to be taken:

- 1. Use HID Ling Gateway Manager to discover the controller on your local network.
- 2. Generate a secure certificate in HID Linq On Premise.
- 3. Upload the certificate to the controller via the web configuration page.
- 4. Configure the HID Ling MQTT broker.



# 7.2 Connect a controller to HID Linq On Premise

This is a single operation per controller to establish a connection. Once completed, any HID Signo readers connected to the controller via OSDP V2 will be available in HID Linq On Premise, allowing remote configuration of operational readers at a customer's site.

#### Note:

- Reader Technicians with physical access to the controller, and Reader Technicians connected via a common HID Ling Gateway, can configure the readers connected to a controller.
- HID Linq On Premise only supports OSDP V2 connection.
- HID Ling On Premise does not support two readers on the same OSDP bus (multi-drop OSDP connection).

#### Who can connect a controller to HID Linq On Premise?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	Yes	Yes

### 7.2.1 Generate a secure certificate

- 1. Exit HID Ling Gateway in the Windows server tray.
- 2. Navigate to C:\Program Files\HID Global\Linq<sup>™</sup> Gateway\1.3.0.6.
- 3. Double-click **Configuration.exe** to launch HID Linq Gateway Manager.
- 4. If HID Linq Gateway is in the **Normal** security profile, enter the master password.
- 5. Click Manage HID Mercury panels. The welcome screen is displayed with a summary of the steps required.
- 6. Click **BEGIN** to continue.

7. Click **DISCOVER**. HID Linq Gateway Manager will scan the network using mDNS and display any compatible controllers found.

Note: Alternatively, click ENTER MAC ADDRESS+ and directly enter the MAC address, if known. Click Add Controller to confirm.

			– 🗆 X
HID			
Export certificate from:		EXPORT CERTIFICAT	E DELETE
DISCOVER ENTER MAC ADDRES	S +		
MAC ADDRESS	LAST KNOWN IP	STATUS	LAST DISCOVERED
	PREVIOUS Page 1 of	1 NEXT	

- 8. Check the box of the required controller and click **EXPORT CERTIFICATE**. This will generate a **.PEM** secure certificate.
- 9. Click DOWNLOAD ZIP to download it to your PC.

Note: Extract the Zip file once it has downloaded.

### 7.2.2 Upload the secure certificate to the controller

- 1. Search the IP address of the controller in your web browser.
- 2. Log in to the panel.

#### Note:

- The default credentials are admin/password.
- You may be required to toggle DIP Switch 1. See 7.2.3 Prepare the controller for more information.
- 3. Navigate to Certificate Manager in the left-hand menu.
- 4. Under the Load PEM Certificate Chain section, click the Certificate Usage drop-down menu and select HID Ling<sup>™</sup>.
- 5. Click **Choose File** and navigate to the location of the **.PEM** secure certificate downloaded in **7.2.1 Generate a secure certificate**.
- 6. Click Load PEM Certificate Chain.

Wer Specified Common Name (CN) Attribute:         Wer Specified SubjectAlithame (SAN) Attribute:         Iters Specified SubjectAlithame (SAN)         Iters Specified SubjectAlithame (SAN)         Iters Specified SubjectAlithame (SAN)         Uter Specified Privatekey Password:         Options         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (M) 08. s.c. A.Z. (penod)tryphon) are allowed : # this field is wit blank, a secure         (Inters Step Password):         (Inters Step Password):         (Inters Step Password):         (Inters Step Password):         (Load PEM Certificate Chain			
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Load PEM Certificate Chain	Uplo Certi HID Spec Chr Priva	ad Certificate ficate usage: Llog <sup>am</sup> v Ifly a certificate chain file(**pem): osce file LingGateva 1-a4-61 pem te Key Password:	
	Loa	d PEM Certificate Chain	

Note: Once loaded, the Certificate Information is displayed.

7. Navigate to **HTS Configuration** in the left-hand menu and add the following HID Linq Gateway information in the **HID Linq™ Configuration** section:

Field	Enter
Connection String	The IP address of the PC running your HID Linq Gateway, and the default port number <b>8885</b> . For example <b>ssl://193.186.0.123:8885</b>
Username	username
Password	password

8. Click **Configure HID Ling Client** to save. At this point, both HID Ling Gateway and the controller should have a trusted communication channel set up. It should now be possible to discover HID Signo readers connected to the controller via OSDP in HID Ling On Premise.

Note: Repeat these steps for each connected controller.

# **7.2.3 Prepare the controller**

Caution: Firmware upgrade via controllers is not currently supported.

#### Important:

- When using an LP1502 panel, jumper switch J7 must be set to PASS when the input voltage is 12 VDC.
- When using a MR52-S3 SIO board, jumper switch J1 must be set to **Passed Through (PT)** when the input voltage is 12 VDC.
- If the input voltage (VIN) is greater than 20 VDC, switch both J7 and J1 to **12V**. Failure to do so may result in damage to the reader.
- See **B.1 Corresponding HID controller manuals** for the relevant HID Linq On Premise Mercury control panel installation and specification manuals for more information.
- 1. Open a web browser and navigate to the IP address of the controller.
- 2. When prompted, log in using your credentials.

#### Note:

The default credentials for Mercury controllers are:

- Username: admin
- Password: **password**

If the default credentials do not work, toggle the S1: DIP Switch 1 to OFF and ON.

- 3. To prove that you have physical access to the controller and are not attempting to access the device from a remote location, set the **S1: DIP Switch 1** to the following sequence:
  - On Off Off Off



Note: For alternative controller dip switch locations, see 1.1 HID Controller DIP switches.

4. The controller is now ready to receive the secure certificate.





# 8.1 Reader discovery

Discover the readers connected to your HID Ling Gateway to manage them.

#### Who can discover a reader?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	N/A	N/A

#### Note:

- It is recommended to perform a reader discovery every time a reader is physically connected or disconnected.
- It is recommended to perform a reader discovery after updating the reader firmware or configuration.
- It is recommended to perform a reader discovery after a period of inactivity or if your machine is powered off at any time.
- 1. Navigate to the  $\Box$  **Readers** tab in the left-hand menu.
- 2. Select the required HID Linq Gateway.
- 3. Click DISCOVER READERS.

Readers		
Gateways	Readers	
ADD NEW GATEWAY 문 Gateway One ⓒ inactive		
品 Gateway Two ② Active		Ders 🛛

Note: The list of readers connected to the required gateway is displayed. Click the  $\bigcirc$  icon of the required gateway and select **Discover Readers** to refresh the list of readers.

# 8.2 Locate a connected reader

The locate reader function allows you to physically locate a reader. With multiple readers connected via the HID Signo Provisioning Accessory, or readers installed on the premises, you can individually identify a specific reader before performing a firmware update, applying a Configuration ID, or resetting the reader to its default configuration settings.

#### Who can locate a connected reader?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	No	No

There are two ways to locate a connected reader:

#### **Reader list view**

- 1. Navigate to the TReaders tab in the left-hand menu.
- 2. Select the required HID Linq Gateway.
- 3. Click  $\triangleleft \emptyset$  on the required reader in the reader list.

HID   Lin	q <b>"</b>		C 🙁
》 G	Readers		
((0))	Gateways	Readers	8
٥	ADD NEW GATEWAY	Name Actions Configuration ID Firmware Hardware Model Soft Charging Pr O     Locate Reader	Offline Key Status
1 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Bateway One         ⊘ Active	Image: Model         HDLing         Q00046B         R10.0.5.7         Signo 20K         Standard	

**Note:** The reader will emit an audible beep, and the LED will flash green.



#### **Carousel view**

- 1. Navigate to the 🗍 **Readers** tab in the left-hand menu.
- 2. Select the required HID Linq Gateway.
- 3. Click the name of the required reader.
- 4. Click LOCATE.

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	🚝 Soft Charging Profile Standard	🔏 Offline Key INVALID	📋 Signo 20K	
		<del>6</del>	2	
	INSPECT READER	APPLY CONFIGURATION	UPDATE FIRMWARE	
	de	5	0	
	LOCATE	HISTORY	ADVANCED	

Note: The reader will emit an audible beep, and the LED will flash green.

# 8.3 Reader information

The reader carousel view allows you to view information about the reader:

- Reader name (Default reader UUID)
- Current configuration ID
- Current firmware version
- Connection method
- Soft Charging profile
- Offline Key status
- Reader model

To change the reader name from the default to a user-friendly name:

- 1. Navigate to the **Readers** tab in the left-hand menu.
- 2. Select the required reader.
- 3. Click  $\swarrow$  on the reader name.

HID   Linq™				<i>்</i> 8
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		ō	2	
	INSPECT READER	APPLY CONFIGURATION	UPDATE FIRMWARE	
	×1.0	0	0	
	LOCATE	HISTORY	ADVANCED	

- 4. Enter a friendly name.
- 5. Click SAVE.

# Section 9 Keystore



# 9.1 Keystore

Keystores allow you to use keys online via HID Origo Cloud, or offline via the HID Custom Keystore in HID Linq On Premise.

#### Note:

- The keystore is only available to System Administrators
- HID Linq On Premises supports up to 500 keystores, or until only 1 GB of storage remains

HID Custom Keystores allow you to securely store and access keys in the HID Linq On Premise application to perform reader configurations offline. It allows you to store the following:

- OEM SNMP keys to manage HID Signo readers offline
- · Custom credential keys for use with:
  - MIFARE/DESFire EV1, EV2 and EV3
  - Seos<sup>®</sup>
  - iCLASS<sup>®</sup> and iCLASS SE<sup>™</sup>

# 9.2 Create local keystore

- 1. Navigate to the A Keystore in the left-hand menu.
- 2. Click the HID Ling Custom Keystore tab.
- 3. Click CREATE CUSTOM KEYSTORE.

4. Enter the keystore name and password and click PROCEED.

Note: Passwords must be at least 12 characters.

Important: Make a note of your password and safely store it. If you forget your password, you will lose access to that keystore.

5. Click DONE.

#### 9.2.1 Add an OEM SNMP key set

Powering

**Trusted Identities** 

Important: Once a keyset is added, you can no longer see the key value. To edit the key, you must overwrite the existing key value.

- 1. Navigate to the A Keystore in the left-hand menu.
- 2. Click the HID Ling Custom Keystore tab.
- 3. Click *Open Keystore* of the required keystore.
- 4. Click ADD KEYSET.

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》 俞	Keystore BACK			
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8		And a Keyset to manage it bere.	You have Unconfigured Keys Complete all required Keys in the Keyset Keys	
			Auth (required)     Priv (required)	+++++
			CANCEL	SAVE

- 5. Enter the required Keyset Name.
- 6. Select **OEM SNMP** from the **Keyset Type** drop-down list.
- 7. Enter the required Auth key and Priv key values.
- 8. Click SAVE.
- 9. Enter the keystore password and click **SAVE**.

**User Guide** 

# 9.2.2 Add a MIFARE key set

Important: Once a keyset is added, you can no longer see the key value. To edit the key, you must overwrite the existing key value.

- 1. Navigate to the A Keystore in the left-hand menu.
- 2. Click the HID Ling Custom Keystore tab.
- 3. Click *P* **Open Keystore** of the required keystore.
- 4. Click ADD KEYSET.
- 5. Enter the required Keyset Name.
- 6. Select the required MIFARE keyset type from the Keyset Type drop-down list.

HID   Ling*			۹ 🔁
s s	Keystore BACK		
(**) []	xleysets Keyset name	ADD KEYSET Keyset Type	Keyset Defails # Keys Keyset Name (regurnet) My Miffare Key
P %	CEM SHAP- My CEM SNMP Key	<ul> <li>Configured.</li> </ul>	Keysel Type (required) MIFARE Classic®
8	MIFARE Classifiel Unnamed Keyset	Unconfigured:	O You have Unconfigured Keys Complete all required Keys in the Keyset
			Keys
			0 so +
			CANCEL

7. Enter the required Read key and SO values.

Note: These key values are set when encrypting a card via CP1000 or third-party software.

- 8. Click SAVE.
- 9. Enter the keystore password and click SAVE.

### 9.2.3 Add iCLASS or iCLASS SE key set

Important: Once a keyset is added, you can no longer see the key value. To edit the key, you must overwrite the existing key value.

- 1. Navigate to the A Keystore in the left-hand menu.
- 2. Click the HID Ling Custom Keystore tab.
- 3. Click A Open Keystore of the required keystore.
- 4. Click ADD KEYSET.
- 5. Enter the required Keyset Name.
- 6. Select the required iCLASS or iCLASS SE keyset type from the Keyset Type drop-down list.

Keystore		
BACK		
Keysets	ADD KEYSET	Keyset Details & Keys
Kessel name	Kerset Trow	Keyset Name (required)
	~ Q	My ICLASS Key
		Keyset Type (required)
050 DEM SNMP My OEM SNMP Key	<ul> <li>Configured</li> </ul>	ICLAS98
MIFARE Classical Unnamed Keyset	<ul> <li>Unconfigured</li> </ul>	
		You have Unconfigured Keys     Complete all required Keys in the Keyset
Showing 1 of 7 Pagel		
		Keys
		() Read (required)
		<u>0</u> so
		0 -
		CANCEL SA

7. Enter the required Read key and SO values.

Note: These key values are set when encrypting a card via CP1000 or third-party software.

- 8. Click SAVE.
- 9. Enter the keystore password and click SAVE.

# 9.2.4 Add Seos key set

Important: Once a keyset is added, you can no longer see the key value. To edit the key, you must overwrite the existing key value.

- 1. Navigate to the A Keystore in the left-hand menu.
- 2. Click the HID Ling Custom Keystore tab.
- 3. Click *P* **Open Keystore** of the required keystore.
- 4. Click ADD KEYSET.
- 5. Enter the required Keyset Name.
- 6. Select the required **Seos** keyset type from the **Keyset Type** drop-down list.

Keystore			
BACK			
Keysets	ADD KEYSE	T Keyset Details & Keys	
Keyset name	Keyset Type	Keyset Name (required) My SEOS[Key	
		Keyset Type (required)	
My OEM SNMP My OEM SNMP Key	Configured	Seos®	~
MIFARE Classic® Unnamed Keyset	Unconfigured	O You have Unconfigured Keys	
Showing 1 of 1 Pages		Complete all required Keys in the Keyset	
		Keys	
		SEOS Privacy Mac (required)	
		SEOS Privacy Enc (required)	
		SEOS ADF OID (required)	
		() Read (required)	
		J SO	
		CANCEL	SA

7. Enter the required keys for the keyset and the **SO** value.

Note: These key values are set when encrypting a card via CP1000 or third-party software.

- 8. Click SAVE.
- 9. Enter the keystore password and click SAVE.

# Section 10 Reader offline management



# 10.1 Overview

Enable the offline management of a HID Signo reader for offline mode use. Set your own OEM SNMP Admin key to confirm you are the owner of the reader for offline mode use.

**Note:** Only Signo readers configured for offline management are supported for offline use. Unprogrammed Signo readers are configured to support offline management from the factory.

# 10.2 Set a key

#### Note:

- Add your OEM SNMP key to the HID Ling Custom Keystore before continuing. See 9.2.1 Add an OEM SNMP key set for more information.
- The HID Signo reader firmware version must be 10.0.8.5 or newer.

Caution: Make a note of your SNMP and Media keys. These cannot be recovered by HID.

- 1. Navigate to the  $\Box$  **Readers** tab in the left-hand menu.
- 2. Select the required HID Ling Gateway.
- 3. Check the box of the required reader(s).
- 4. Click ADVANCED.
- 5. Click Offline Management.



#### 6. Click NEXT.

7. Select the required OEM SNMP key and click APPLY.



# 10.3 Roll a key

If the OEM SNMP is unknown or needs changing for business or security reasons:

#### Note:

- Add your OEM SNMP key to the HID Ling Custom Keystore before continuing. See 9.2.1 Add an OEM SNMP key set for more information.
- The HID Signo reader firmware version must be 10.0.8.5 or newer.

Caution: Make a note of your SNMP and Media keys. These cannot be recovered by HID.

- 1. Navigate to the  $\Box$  **Readers** tab in the left-hand menu.
- 2. Select the required HID Linq Gateway.
- 3. Check the box of the required reader(s).
- 4. Click ADVANCED.
- 5. Click Onboard Reader.

Gatewa	ys						
		Read	lers	Advanced		1	
ADD NEW GATEWAY ※ 편집 Gerallts Gateway		ND D	Reset to factory default configuration Accy (meanant Configuration) (in running furnion or made	0	E FIRMWARE	Offline Key Statu	
<u>O</u>	G num			Offline Management . Jas bis color share concessing a rease reader that is shittoning the i jactory zonumerations large or for an atreasy entropying management www.jou.i.ant to thange the communications kay to something their	0	Cuittom D0 standard	a
			P	Onboard Reader If you have enabled offline management on a reader with another tool, the key you used to update the status in Ling.	select	10	4
			= 1+	CANCEL	NEXT		

#### 6. Click NEXT.

7. Select the required OEM SNMP key and click APPLY.
# Section 1 Reader configuration



# **11.1 Create a Configuration ID**

Creating a Configuration ID allows you to manage connected readers. Configuration IDs can be saved locally within HID Ling On Premise, or online in HID Origo.

There are three ways to create a Configuration ID:

- Start from Existing Template: copies an existing configuration and allows you to change certain parameters
- Start New Template: new configuration from the default settings of the reader
- Start New Template that references a parent Configuration: references a parent configuration to create a new configuration

Note: Only available with Select Configuration save space drop-down list set to Origo.

HID ) Ling**				C 9
» ଜ	Device Configuration Tem	plates	CREATE READER CONFIGU	HATION TEMPLATE
(e))	Sele	ect in order to conti	nue ×	SEARCH Q
P 28	Identifier	+	Select Configuration save space	pduied
¢	Start from Existing Template Enter the Configuration you wish to copy "If the Configuration you choose has a parent you will be using it	Start New Template Create a new Signo Configuration from Default	Start New Template that references a parent Configuration Create a new Signo Configuration from Default	
	FETCH Q	CREATE 🗃	FETCH PARENT	

See A.1 Configuration ID overview for more information.

### 11.1.1 Start from an existing template

This allows you to copy an existing configuration template and make a new one with its properties. You can edit one or more properties without having to create a new template. Any inherited configurations are also copied.



- 1. Navigate to the Device Configuration Templates tab in the left-hand menu.
- 2. Click CREATE READER CONFIGURATION TEMPLATE.
- 3. Select where to save the configuration from the Select Configuration save space drop-down list.

Note: Configurations saved locally can only be applied to offline readers. See 10.2 Set a key

- 4. Click FETCH.
- 5. Enter the required Configuration ID and click FETCH.
- 6. The 11.2 Configuration Editor page is displayed.

#### 11.1.2 Start New Template

This allows you to create a new Configuration ID template with no parent Configuration ID association.

- 1. Navigate to the Device Configuration Templates tab in the left-hand menu.
- 2. Click CREATE READER CONFIGURATION TEMPLATE.
- 3. Select where to save the configuration from the Select Configuration save space drop-down list.

Note: Configurations saved locally can only be applied to offline readers. See 10.2 Set a key

- 4. Click CREATE.
- 5. The **11.2 Configuration Editor** page is displayed.

#### **11.1.3 Start New Template that references a parent Configuration**

This allows you to create a new Configuration ID template by referencing a parent template saved in HID Origo. The new configuration ID inherits all properties of the parent configuration.



- 1. Navigate to the Device Configuration Templates tab in the left-hand menu.
- 2. Click CREATE READER CONFIGURATION TEMPLATE.
- 3. Select Origo from the Select Configuration save space drop-down list.

Note: Start New Template that references a parent Configuration is only available with Origo selected in the Select Configuration save space drop-down list.

- 4. Click FETCH PARENT.
- 5. Enter the required Configuration ID and click **FETCH**.
- 6. The 11.2 Configuration Editor page is displayed.

# **11.2 Configuration Editor**

The Configuration Editor page allows you to change the template properties when creating a new Configuration ID.

A Local or Origo icon is displayed to show where the configuration is being saved.



#### **11.2.1 Online credential technology templates**

Select the required credential types to enable them on your reader.

Important: All credential technologies are enabled when purchasing an unmodified reader from HID by default. Changing the credential technologies via a configuration overwrites the default settings. Only the credential technologies of the new configuration will be available. The enabled credentials can be changed at any time by applying a configuration to the reader.

Credentials	Soft Ch	arge Profi	les	
	SEOS	Smart	Standard	Custom
SEOS Mobile ID's	•		•	•
SEOS	•	•	•	•
iCLASS SE			•	•
iCLASS SR			•	•
iCLASS		•	•	•
MIFARE, DESFire, EV1, EV2, EV3 - with SIO			•	•
MIFARE Classic with SIO			•	•
MIFARE Classic CSN			•	•
MIFARE, DESFire, EV1, EV2, EV3 - with Custom Data (Datamapper)				•
MIFARE Classic with Custom Data				•
FELICA IDM				•
DEPAS				•
125 kHz Proximity			•	•
125 kHz Indala Proximity			•	•
125 kHz EM4102 Proximity			•	•



1. Navigate to the **Credentials** tab.

) Linq™			C
> Reader Configuration	Create Configuration		
Configura			
O	SEOS Smart Standard Custom	Configuration Content	(Template)
Credentials	Quick Navigation 🔿	Open All	
P	Select All Credential types	Add Selected Credential Types to Template + Credentials	^
Keys	[] HID Mobile Access	- Maria	
*	SEOS Mobile	Keys Bluetooth	~
Bluetooth		Controller Communicati	ons 🗸
((=))	"tt] High Frequency Credentials	Keypad	~
Controller Comm.	SEOS®	Audio/Visual	~
00	SEOS	Other	~
88 Keypad	iclass	CANC	EL NEX
Audio/Visual	iclass se		
	ICLASS SR		
Other			
outer	MIFARE DESFIRE® EV1 SIO		
	MIFARE DESFire® EV2/3 SIO		
	DESFire® Praximity check		
	MIFARE DESFire® CSN		
	MIFARE® Classic MIFARE® Classic SIO		
	MIFARE® Classic CSN		

- 2. Click the required soft charge profile tab.
  - SEOS
  - Smart
  - Standard
  - Custom
- 3. Click the toggles to enable or disable the required parameters.
- 4. Click Add Selected Credential Types to Template for the required credentials.

Note: Use the Quick Navigation toggle to enable or disable all credential types.

# **11.3 Online key configuration**

Select the required HID Origo stored keys to add to the configuration template. See **11.2.1 Online credential technology templates** for the supported online credentials.

1. Navigate to the Keys tab.

HID   Lin	q*			😅 🙁
» G	Reader Configuration	Create Configuration		
~ 品 PM □ □ 2 2 38 章	Configura Ordenias Resolution And Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution Resolution	CLASS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS RCSS	Add Xay to Temples +  Blies Key  Blies Key  Co  Co  Co  Co  Co  Co  Co  Co  Co  C	Configuration Content (Template)  Configuration Content (Template)  Controller Communication  Kaypa  Controller Communication  Controller Communicat
		HID MIAAR DESFriet SE EV2/3 ~ HID DESFriet SE Tree Margin Object Provinity check 0. 1 ~	Etite Key Gandad Add Key to Tempose +	

Note: Click the Information icon to manage your enabled wallet technologies.

2. Click Add Key to Template for the required credentials.

Note: Use the Quick Navigation toggle to enable or disable all custom keys.

#### 11.3.1 Offline credential configuration

Select the required credential types to add to the template. See **11.2.1 Online credential technology templates** for the supported credentials.

Important: All credential technologies are enabled when purchasing an unmodified reader from HID by default. Changing the credential technologies via a configuration overwrites the default settings. Only the credential technologies of the new configuration will be available. The enabled credentials can be changed at any time by applying a configuration to the reader.

1. Navigate to the **Credentials** tab.

HIDIU	ng~				۵ 🖪
>>		> Create Configuration			
ଜ	oomigura				
((*))	0	Unprogrammed		Configuration Content (Tem)	plate)
0	Credentials	Quick Navigation ~		Open All	
0	P Keys	Select All Credential types	(Add Selected Credential Types to Template + )	Credentials	~
0		HID Mobile Access		Kevs	~
28	*	SEOS Mobile		Bluetooth	~
161	Divelociti			Controller Communications	4
\$	8+0	ul High Frequency Credentials		Keypad	~
	Controller Comm	in ingritequery streetings		Audio/Visual	Ŷ
		SEOS®		Other	~
	88 Keypad	SEOS SEOS		CANCEL	NEXT
	Audio/Visual				
		iclass se			
	Other	iclass sr			
		MIFARE® Classic and MIFARE DESFire®			
		MIFARE DESFINES SE EV1			
		MIFARE DESFINE® SE EV2/3			
		MIFARE DESFITE® SE CSN			
		Transact Mobile			

- 2. Click the toggles to enable or disable the required parameters.
- 3. Click Add Selected Credential Type to Template for the required credentials.

Note: Use the Quick Navigation toggle to enable or disable all credential types.

# **11.4 Offline key configuration**

Select the required locally stored keys to add to the configuration template. The following Soft Charge profiles are supported in the offline configuration editor.

Credentials	Soft Charge Profiles
	Unprogrammed
SEOS Mobile ID's	
SEOS	•
ICLASS SE	•
ICLASS SR	•
iCLASS	•
MIFARE, DESFire, EV1, EV2, EV3 - with SIO	•
MIFARE Classic with SIO	•
MIFARE Classic CSN	
MIFARE, DESFire, EV1, EV2, EV3 - with Custom Data (Datamapper)	•
MIFARE Classic with Custom Data	•
FELICA IDM	
DEPAS	
125 kHz Proximity	
125 kHz Indala Proximity	
125 kHz EM4102 Proximity	

**Powering** Trusted Identities

#### 1. Navigate to the **Keys** tab.

Reader Configuration	> Create Configuration		
Configura	tion Editor		
0			
0	Unprogrammed		Configuration Content (Template)
Greatmona	Quick Navigation		Open All
P	Keystore for Custom Keys	Add All	Keys to Template + ) Cradentials
Keys	I High Frequency Credentials		Keys ^
*			
Bluetooth	SEOS®	SEDS 40F OID	Bluetooth V
	SEOS (@ Custom Key	03010709 Add Key 1	to Template + Controller Communications
((+))			Keypad 🗸 🗸
Controller Comm.		O	Audio/Visual 🗸
			Other v
00 00	ICLASS		
Keypad	ICLASS	Custom Key  Add Key	to Template + CANCEL NEX
	and the second se	Cadd Key	to Template +
214	ICLASS SE	Custom Key	
Audio/ Visual	ICLASS SR	Custom Key     Add Key 1	to Template +)
Other	MIFARE® Classic and MIFARE DESFire®		
	HID MIFARE DESFINES SE EV2/3 💛	Custom Key     Add Key to	to Template +
	Time Margin Count		
	Proximity check 0 1 ~	0	
	MIFARE® Classic SE	Custom Key	to Template +)
		Q	
	Custom Application MIFARE® Classic/MIFARE DESFire®		

2. Click Add Key to Template for the required credentials.

#### Note:

- Click Add All Keys to Template to add all custom keys to the template.
- See 11.4 Offline key configuration for more information on the Custom Programming toggle.

#### **Custom Programming Configuration**

- 1. Click the **Custom Programming** toggle to enable or disable custom programming.
- 2. Click CUSTOM PROGRAMMING CONFIGURATION.

Co	onfigura	tion Editor					
00	Jinguru	tion Editor					
	Û	Unprogrammed				Configuration Content (Terr	nplate)
	Credentials	Quick Navigation				-	
	0	Keystore for Custom Keys	~		(Add All Keys to Template +)	Open All	
	Keys					Credentials	~
		all High Frequency Credentials				Keys	^
	* Bluetooth	SEOS®		2700 (PF 00)		Bluetooth	×
		SEOS	<ul> <li>Custom Key</li> </ul>	03010709	(Add Key to Template +)	Controller Communications	~
	((+i) Controller				0	Keypad	~
	Comm.					Audio/Visual	~
	88	ICLASS				Other	~
	Keypad	ICLASS		(e) Custom Key	Add Key to Template +	CANCEL	N
	10	ICLASS SE		Custom Key	(Add Key to Template +)		
	Audio/Visual	ICLASS SR		Gustom Key	Add Key to Template +		
	••• Other	MIFARE® Classic and MIFARE DESFire®					
		HID MIFARE DESFINE® SE EV2/3 🗸		(e) Custom Key	(Add Key to Template +)		
		Time Margin Count					
		Proximity check 0 1 ~			(1)		
		MIFARE® Classic SE		Custom Key	(Add Key to Template +)		
					0		
		Custom Application MIFARE® Classic/MIFARE DESFire®					
		CUSTOM PROGRAMMING CONFIGURATION			(Add Programming To Template +)		

- 3. Select the required credential in the **Custom Programming Configuration** pop-up window.
  - MIFARE DESFire®
  - MIFARE® Classic
  - Empty

O MIFARE DES	Fire® 🔘 MIFAS	RE® Classic	) Empty			
Application (D.)			mie ID		14.54	
-	1000			-		
the second second			distances with they below			
Communication M	-		Governiting works' Part			
			Custom Key			
Start bit	Length	Output Length	Data Representation	on Data Type	Fixed Value	Tag
	0	0.				0
œ.						
Constantine of			Tink Drug set		Samuel Rooms	

4. Click the toggles to enable or disable the required parameters.

**Note:** See **MIFARE Custom Programming Credentials** for more information on the MIFARE DESFire and MIFARE Classic credential configuration parameters.

- 5. Click SAVE to save and close the Custom Programming Configuration window.
- 6. Click Add Programming To Template to add the Custom Programming Configuration to the template.



# **11.4.1 Bluetooth Low Energy (BLE) configuration**

1. Navigate to the **Bluetooth** tab.

Preser Configuration Editor       Configuration Editor         Image: Configuration Editor       Image: Configuration Editor         Image: Configuration Editor	HID   Ling"						0
Image: Construction Configuration   Image: Construction Configuration   Image: Construction Image: Configuration   Image: Construction Image: Configuration   Image: Construction Image: Construction   Image: Construction Image: Construc	>> Reader Configur	ation > Create Configuration uration Editor (coal)					
Ners Twist & Go Add to Template + Credentials Keys <td>8-%</td> <td>용 👝 on Bluetooth Low Energy Cont</td> <td>Iguration</td> <td></td> <td>(Add BLE On/OII to Tempiste +)</td> <td>Configuration Content (Tem</td> <td>plate)</td>	8-%	용 👝 on Bluetooth Low Energy Cont	Iguration		(Add BLE On/OII to Tempiste +)	Configuration Content (Tem	plate)
Image: Second Participation Participati Participation Participation Participation Participation P		Twist & Go	Add to Template +		( Add to Template + )	Open All Credentials Keys Bluetooth	5 5 ¢
100     0     45     Other       Respect     Weersble     Add to Template +     CANCLL       Audio/Yeaush     SET TO DEFAULT     0     -/4       -100     0     -/4     Add to Template +       Other     Exhanced Tag     Add to Template +	Si Biueto Comte Com	Tap: SET To DEFAULT	( Add to Template + )			Controller Communications Krypad Audio/Visual	~ ~ ~
Austion/Visual: SLY TO DEFAULT -100 0 -74 (Add to Template +) Other Cristianced Tap (Add to Template +)	88 Keyp	-100 ed Wearable	( Add to Template + )	-45	( Add to Template + )	CANCLL	NEXT
Other Chanced Tap	Audio/V	ISUAL SET TO DEFAULT	ø	-74	( Add to Template + )		
	Othe	Enhanced Tap			(Add to Template +		

- 2. Click the toggles to enable or disable the required parameters.
- 3. Click Add to Template for the required parameters.

#### **11.4.2 Controller communications**

1. Navigate to the **Controller Communications** tab.

>> G	Reader Configuration Configura	Create Configuration tion Editor		
	Orecentials Reys	8+9 Controller Communications Proved Type DDDP Secure Mode Only Enabled Secure Mode Only Enabled ODDP Addees Version 2 V 0	Configuration Content (Terr Open All Credentials Keys Bluetooth	plate) ~ ~ ~
3	Bluetooth Commiller Commiller Keypad	Tamper Enabled (Add to Trimplate +) ELIC Rise Perio Stoc Bil 9500 V None V T V Add to Template +) Threeted CSN ISO14443 Random MD C Raw CSN Add to Template +)	Controller Communications Knypad Audio/Visual Other CANCEL	A W WEXT
	ada Audio/Visual i Other	IdD14430.405.0xpxt.Forman           0 = 35 bit MSS (default)           10           10           10           11           12           12           12           13           14           15           15           15           15           15           15           15           16           16           17           18           18           18           18           18           15           16           16           17           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18           18		

- 2. Select the required Protocol Type from the drop-down list.
  - None
  - Wiegand
  - OSDP
  - WiegandOSDPReady
  - ClockAndData
  - UART
  - PAM
- 3. Click the toggles to enable or disable the required protocol type parameters
- 4. Click Add to Template for the required parameters.



#### 11.4.3 Keypad

1. Navigate to the **Keypad** tab.

HID   Ling"	C 0
Reader Configuration ⇒ Create Configuration           Configuration Editor         Local	
Image: Constraints   Image:	Configuration Content (Template) Per All Credentials Keys Bluetooth Controller Communications Keypad Audio/Visual Other CANCEL

- 2. Click the toggles to enable or disable the required parameters.
- 3. Click Add to Template for the required parameters.



## 11.4.4 Audio/Visual

1. Navigate to the Audio/Visual tab.

HID   L	inq~				<i>с</i> @
> G	Reader Configuration	Create Configuration			
	Credentials Credentials Keys Bluetooth (4) Controller Com Big Keypad	Mulio/Visual         Idle       Success         Idle Color       Idle Controlled	RESET TO DEFAULT COLORS	Configuration Content (Term open All redentials Keys Bluetorh Controller Communications Keypad Audior/Visual Other CANCEL	Plate)

- 2. Select the required event tab.
  - Idle
  - Success
  - Fail
- 3. Configure the required parameters.
- 4. Click SAVE.



## 11.4.5 Other

1. Navigate to the **Other** tab.

HID   Lir	1q"			A 9
s «	Reader Configuration	> Create Configuration tion Editor Loca		
	Controller Credentials Keys Bluetooth Controller Comm. Big Keypad	<ul> <li>Dter</li> <li>Automatic Surface Detection</li> <li>Intelligent Power Management</li> <li>Velocity Check</li> </ul>	Add to Template + Add to Template +	Content (Template)
	Other			

- 2. Click the toggles to enable or disable the required parameters.
- 3. Click **Add to Template** for the required parameters.
- 4. Click **NEXT** when the required parameters are set.

# **11.4.6 Save the Configuration ID**

- 1. Enter a Configuration Name.
- 2. Enter a **Configuration Description**.
- 3. Click Save to Draft Status. The Configuration ID is editable but cannot be applied to a reader.

HID   Ling*				C 🙁
>> Reader Configuration	> Create Configuration ation Editor Local			
	Test Configuration ý Status: Unsaved ① Firmware Version: R10.0.3.0 time Genetinsoen	DILITE ANNO SUDATION.	Save to Draft Status  Configuration  NOTION Researchest	
ීම් ලි Credentials	Credentials			
⊘ Keys Bluetooth		No Credentials features present in template		
(**) Controller Comm. 88 Keypad				
Audio/Visual				

# **11.5 Move a Configuration ID to Publishable**

Moving the configuration to **Publishable** allows you to apply the template to a reader to test the configuration.

- 1. Navigate to the Device Configuration Templates tab in the left-hand menu.
- 2. Enter the required Configuration ID and click **SEARCH**.
- 3. Click the required Configuration ID.
- 4. Click Change Status.
- 5. Click Publishable and click DONE.

HD   Ling*	
Preader Configuration     > Edit Configuration       L0000002     Local       BACIK     BACIK	
Test Configuration       Test Configuration         DCID: L000002       Stratus: Draft         Change Status         Manage the lifecycle status of this Configuration	[] Change Status Ø Edit Configuration
Test Configuration Loodooz. Draft	() daviya ina kanana
Credentials   Unpriogrammed     Person   Person   Bluetcome   Commoler   Commoler   Regal     Audior/Neuel	

#### **11.5.1 Move a Configuration ID to Published**

Moving the configuration to Published allows you to apply the template to readers and makes it public.

#### Important:

- Test the Configuration ID before moving it to **Published**.
- The Configuration ID cannot be edited or changed back to Publishable once it has been Published.
- **Published** Configuration IDs cannot be edited because HID keeps a record of configurations applied to a reader. Any changes to a **Published** configuration would invalidate this record.
- 1. Navigate to the Device Configuration Templates tab in the left-hand menu.
- 2. Enter the required Configuration ID and click **SEARCH**.
- 3. Click the required Configuration ID.
- 4. Click Change Status.
- 5. Click Publishable and click DONE.

# **11.6 Apply a Configuration ID to a reader**

Applying a Configuration ID allows you to manage a reader's visual, audio, and performance characteristics. Configuration IDs can be applied before or after installation of a reader.

#### Who can apply a Configuration ID?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	Yes	Yes

#### Note:

- System Administrators and Device Administrators can apply a Configuration ID to a reader.
- Readers will not function when applying Configuration IDs. Readers connected to HID controllers should only be updated outside of work hours.
- Searching for a Configuration ID by name is limited to starting characters only.
- Searches are limited to 5000 results.
- Typical search time for a configuration can take up to 15 seconds.

Apply known Configuration IDs directly to a reader via the **Readers** tab. See **11.7 Search for a Configuration ID** to view a Configuration ID before applying it to a reader.

- 1. Navigate to the **Readers** tab.
- 2. Check the box of the required connected reader(s).
- 3. Click APPLY CONFIGURATION.

»»								
2	Readers							
.))	Gateways		Readers					
]	ADD NEW GATEWAY	æ	() 1 Render(s) Sete	cted	APPLY CON		UPDATE FIRMWARE	
1	8	œ	Name Ac	tions Configuration ID	Firmware	Hardware Model	Soft Charging Profile	Offline Key Status
2	Gateway I wo		HID Ling Reader	<\$¢ 000468	R10.0.5,7	Signo 20K	Standard	
		-						
3								
			mama   -  pt   pa		- 1			

4. Enter the required Configuration ID.

Note: See 1.1 Common Configuration IDs for a list of commonly used Configuration IDs.

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- 5. Click FETCH.
- 6. Click the arrow to apply the Configuration ID.

Readers		
Gateways ADD NEW GATEWAY	Fetch Configuration from HID Origo × ← FETCH AGAIN Reader Configuration found	San Charging Profile Offline Key Sta Stundard
C.Mark	Identifier Software Version Device Type Owner 0.000.00P R10.0.9.1 HID Signo Reader origotearm Name Common Parent Description Signo Configuration Common Parent Published Orderable	

- 7. HID Linq On Premise checks if the Configuration ID is compatible with the reader. Click **CONTINUE** if they are compatible.
- 8. Click START APPLYING CONFIGURATION. Progress is displayed.

**Note:** Click **CLOSE THIS WINDOW** to close the window (the process continues in the background). The **Applying Configuration** status bar is displayed on the main page.

- 9. Click **DONE** to finish.
- 10. Navigate to the 🗍 **Readers** tab and click **DISCOVER READERS** to refresh the changes to the reader Configuration ID.

# **11.7 Search for a Configuration ID**

The **Device Configuration Templates** tab allows you to search for a Configuration ID stored locally or in HID Origo by its identifier, name, or status. The search word used must match the first word of the Configuration ID name.

Online reader Configuration IDs are created in HID Origo by an organization, and only members of that organization can access its Configuration IDs.

**Note:** Configuration IDs owned by the current user are displayed when searching by configuration name or status by default. Disable the **Show my Configuration IDs** toggle to display configurations from the users organization.

#### 11.7.1 Search and apply a Configuration ID

The **Device Configuration Template** tab allows you to search for a Configuration ID and check its status and parameters before applying it to a reader.

- 1. Navigate to the Device Configuration Templates tab in the left-hand menu.
- 2. Enter the required search criteria and click SEARCH.
- 3. Check the box of the required Configuration ID and click APPLY TEMPLATE.

D	evice C	onfigurat	tion Temp	lates		CREAT	E READER CONFIGUR	ATION TEMPLATE
						Show my	Configuration IDs	SEARCH Q
	00000P	Matter	All Statuses 🗸	Origo 🗸 🗸	Gescanlion	Updated Alter	D Upsated	Bellate
	Reader Configura	ation Template Selected					10	APPLY TEMPLATE
	Identifie	e Name		Status	Stored	Description	Lastu	pristed
[		Jommon Pane	et .	PUBLISHED	Tirige-	Signa Dantigutatian Dommon Perint	Truid	A 82 2025

- 4. Select the required gateway and click **DISCOVER READERS**.
- 5. Check the box of the required readers and click **SELECT READERS**.

Note: Use the Offline Management Status drop-down list to filter between Online or Offline readers.

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6. Click START APPLYING CONFIGURATION. Progress is displayed.

Review	& Apply Configuration	×
Selected Configuration ID OOOOOP BACK	Readers ready for applying configuration 1 Readers START APPLYING CONFIGURATION	
Re	aders are ready for configuration	

Note: Click CLOSE THIS WINDOW to close the window (the process will continue in the background). The Applying Configuration status bar is displayed on the main page.

- 7. Click **DONE** to finish.
- 8. Navigate to the 🗍 **Readers** tab and click **DISCOVER READERS** to refresh the changes to the reader Configuration ID.

# Section 12 Update HID Signo reader firmware



# **12.1 Update reader firmware**

It is recommended to keep your HID Signo reader firmware up to date. When updating the reader firmware, you can reapply the same firmware version or upgrade to the latest firmware version. Readers connected via a controller are restricted from selection in the firmware update process.

Caution: Firmware upgrade via Mercury controllers is not currently supported.

**Note:** Readers with firmware version 7.5 or older must first be updated to 9.1 before they can be updated to the latest firmware.

#### Who can update reader firmware?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	Yes	Yes

#### Important:

• Readers will not function during firmware updates.

#### Note:

- An active connection to HID Ling On Premise is required to update reader firmware.
- The maximum recommended number of readers per hub is four.
- Do not disconnect the reader or remove the power supply until after the firmware update is complete. While a firmware update can be retried, it is possible that an interrupted firmware update may render the reader unusable and may void the warranty. If you encounter issues, contact HID Technical Support for assistance.
- A reader connected via USB takes approximately 8-12 minutes to complete.
- When updating multiple readers in parallel, the time to update each reader is the same.
- It is not possible to downgrade reader firmware.
- 1. Navigate to the **Readers** tab in the left-hand menu.
- 2. Select the required HID Linq Gateway.
- 3. Select the required connected reader.

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#### 4. Click UPDATE FIRMWARE.

HID   Linq™				C <b>?</b> (
»»				
☆	BACK TO LIST VIEW	-		
((o))				
1	<		>	
<u>ہ</u>				
2~2		HID Ling Reader		
26				
(Q)				
	👩 00046B	🗇 R10.0.5.7	end USB	
	≅ Soft Charging Profile Standard	🔏 Offline Key INVALID	📋 Signo 20K	
		ন্দ্র	2	
	INSPECT READER	APPLY CONFIGURATION	UPDATE FIRMWARE	
	<10	2)	0	
	LOCATE	HISTORY	ADVANCED	

5. Select the latest firmware version from the Available Firmware Versions list.

Note: Only the latest firmware can be re-applied to a reader that already has the latest firmware version.

6. Click UPDATE FIRMWARE and confirm UPDATE FIRMWARE in the pop-up window.

Important: Do not disconnect or power off the reader during the firmware update process.

**Note:** Close the window (the process will continue in the background). The **Firmware Update** status bar is displayed on the main page.

7. Navigate to the Readers tab and click **DISCOVER READERS** to refresh the changes to the reader Configuration ID.

Firmware update	Result
Success	Firmware update was successful. Re-discover the readers to see the changes to the readers.
Fail	Firmware update failed. Attempt the update again or contact HID Technical Support if the firmware update continues to fail.
Partial update	After a partial update, the reader is still discoverable. Repeat the update process. Reader operations are disabled until a successful firmware update is complete. Contact HID Technical Support if the firmware continues to partially update.

Note: If the reader is damaged, it will not be discoverable. Contact HID Technical Support.

# **12.2 Update multiple reader firmware**

Caution: Firmware upgrade via Mercury controllers is not currently supported.

When updating the reader firmware, you can upgrade to the latest firmware version. Upgrading your HID Signo reader firmware keeps them up to date with the latest features and security updates from HID. It is best practice to keep your HID Signo reader firmware up to date.

#### Important:

• Readers will not function during firmware updates.

#### Note:

- An active connection to HID Ling On Premise is required to update reader firmware.
- Do not disconnect the reader or remove the power supply until after the firmware update is complete. While a firmware update can be retried, it is possible that an interrupted firmware update may render the reader unusable and may void the warranty. If you encounter issues reach out to HID Technical Support for further assistance.
- A reader connected via USB takes approximately 8 minutes to complete.
- When updating multiple readers in parallel, the time to update each reader is the same.
- It is not possible to downgrade reader firmware.
- Multiple readers are updated in a group. The group is displayed in the progress bar. Update multiple groups of readers at the same time. See **12.2.1 Reader grouping** for more information.
- 1. Navigate to the **Readers** tab in the left-hand menu.
- 2. Select the required HID Ling Gateway.
- 3. Check the box of the required connected readers.

#### Note:

- Update up to four readers connected via USB, at any one time.
- All selected readers must have the same current firmware version.
- All selected readers can only be updated to the latest firmware version.
- If any reader in the list cannot be updated to the desired version, HID Linq On Premise will display a notification and not attempt the update for that individual reader.
- Once the update process is complete, the status of each reader is refreshed to show the version of the firmware installed.

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#### 4. Click UPDATE FIRMWARE.

Gateways		Readers	5						
ADD NEW GATE	WAY in	D 1	Reader(s) Selected			APP	LY CONFIGURATION	🖒 UPDATE FIRM	
-			Name	Actions	Configuration ID	Firmware	Hardware Model	Soft Charging Profile	Offline Key Status
Active			3Y3AR-TA0QO-4VZ77-ST2MI-W97NY	<.>	00XADD	R10.0.8.5	Signo 40K	U0	<i>a</i>
		Ø	AG7YW-QIOYZ-JJBJG-PPLVI-SVXDX	d)	0098G4	R10.0.8.5	Signo 40	U0	4
			69M3Q-ZVZMY-6NVH1+16X3B-S7IJ9	<٥	0145EH	R10.0.7.5	Signo 40	Standard	
		Stipwing 1-	the second se			-			
		Showing 1-	to to B			1			

5. Select the latest firmware version from the Available Firmware Versions list.

Note: Only the latest firmware can be re-applied to a reader that already has the latest firmware version.

6. Click UPDATE FIRMWARE and confirm YES, UPDATE FIRMWARE VERSION in the pop-up window.

Important: Do not disconnect or power off the reader during the firmware update process.

7. Close the pop-up window (the process continues in the background). The **Firmware Update** status bar is displayed on the main page.

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8. Once complete, navigate to the 🗍 **Readers** tab and click **DISCOVER READERS** to refresh the changes to the reader Configuration ID.

Firmware update	Result				
Success	Firmware update was successful. Re-discover the readers to see the changes to the readers.				
Fail	Firmware update failed. Attempt the update again or contact HID Technical Support if the firmware update continues to fail.				
Partial update	After a partial update, the reader is still discoverable. Repeat the update process. Reader operations are disabled until a successful firmware update is complete. Contact HID Technical Support if the firmware continues to partially update.				

Note: If the reader is damaged, it will not be discoverable. Contact HID Technical Support.

# 12.2.1 Reader grouping

HID Linq On Premise groups one or more readers during a firmware update.

Readers								Updating Firmware	SHOW LESS
Gateways		Reade	ers					Group 1 (2 Readers)	In Progre
		12						Group 2 (1 Readers)	In Progre
ADD NEW GATEWAY	'n eh		Name	Actions	Configuration ID	Firmware	Hardware Model		
8	0	•	3Y3AR-TABQO-4VZ77-ST2MI-W97NY	122	00XADD	R10.0.8.5	Signo 40K	,ŲO'	a.
Gateway One			AG7YW-QIOYZ-JJBJG-PPLVI-SVXDX	752	0098G4	R10.0.8.5	Signo 40	Úα	<u>a</u>
. (c) Attive			69M3Q-ZVZMY-6NVH1-16X3B-S7IJ9	742	0145EH	R10.0.7.5	Signo 40	Standard	
		Shawing	(-1,0 <sup>1</sup> 5/milds						
		Subwing	5 (~2 01 Seeuns						
		Shaving	s (~S of S Ansier						
		Shaving	) – S al S feater						
		Sharey	) – S at S feature			1			

For example:

Reader	Current Firmware version	Target Firmware Version
A,B,C	R10.0.7.5	R10.0.10.4 (Upgrade)
D,E,F	R10.0.4.2	
G,H,I	R10.0.3.1	

Readers **D**, **E** and **F** are at the same firmware version. You can only select them together to update them simultaneously. This would result in them being grouped as **Group 1**.

Readers **G**, **H** and **I** are at the same firmware version. You can only select them together to update them simultaneously. This would result in them being grouped as **Group 2**.

0	1 Reader(s) Selected			APP	LY CONFIGURATION	💭 UPDATE FIRM	AWARE 💮 ADVANCED
Ξ	Name	Actions	Configuration ID	Firmware	Hardware Model	Soft Charging Profile	Offline Key Status
2	3Y3AR-TA0Q0-4VZ77-ST2MI-W97NY	<b>4</b> »	00XADD	R10.0.8.5	Signo 40K	UO	a
~	AG7YW-QIOYZ-JJBJG-PPLVI-SVXDX	<b>4</b> »	009BG4	R10.0.8.5	Signo 40	UQ	A
	69M3Q-ZVZMY-6NVH1-16X3B-S7IJ9	())	0145EH	R10.0.7.5	Signo 40	Standard	

#### Note:

- All selected readers must have the same current firmware version.
- All selected readers can only update to the latest firmware version.

# Section **13** Reset a reader to the default configuration



# **13.1 To reset a reader to default configuration**

**Note:** If a reader is configured with an Elite key, that key will be removed from the reader. The key reference can be modified, and the reader can be configured with a different Elite key.

#### Who can reset a reader to default configuration?

	Reader Manager Portal Administrator	Reader Technician
Permission	Yes	Yes
Multiple reader capability	No	No

A reader configuration reset could be useful to:

- Push a new configuration
- Put the reader back to Standard from Elite profile
- Troubleshoot

#### Note:

- The credential profile of a reader is set before shipping and cannot change. The Configuration ID selected by HID Ling On Premise matches the default configuration for the credential profile of the reader.
- Resetting the device to its default configuration does not affect the reader firmware version.
- The reader must have the latest firmware version to enable this feature.
- Reset one reader at a time.
- If the operation fails, please contact HID Technical Support.
- Some reader profiles are not supported for this operation. See Reset Reader for more information.
- 1. Navigate to the TReaders tab in the left-hand menu.
- 2. Select the required HID Linq Gateway.

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3. Select the required connected reader and click ADVANCED.

HID   Linq™				ථ  ම
»				
↔ B	ACK TO LIST VIEW			
((*))				
	<		>	
5		-		
P				
<sup>2</sup> 26		HID Linq Reader		
¢		ⓑ 5DYJX-AEBC9-AW9J3-CLZG0-TG4CY		
	<b>ј</b> 00046В	⇔ R10.0.5.7	and USB	
	areas Soft Charging Profile Standard	<b>Offline Key INVALID</b>	📋 Signo 20K	
		ম	2	
	INSPECT READER	APPLY CONFIGURATION	UPDATE FIRMWARE	
	<20	2	$\odot$	
	LOCATE	HISTORY	ADVANCED	

- 4. Click Reset to factory default configuration and click NEXT.
- 5. Click START APPLYING CONFIGURATION.
- 6. Click CLOSE.
- 7. Navigate to the 🗍 **Readers** tab and click **DISCOVER READERS** to refresh the changes to the reader Configuration ID.

#### **13.1.1 Supported reader profiles**

The reset operation is only supported for the following profiles:

- Standard
- Custom

See 1.1 Error and warning messages for more information.

# Appendix A Configuration IDs


#### A.1 Configuration ID overview

Users with access to Origo services have access to a library of reader Configuration IDs. Each reader Configuration ID has a unique six character identifier.

Reader Configuration IDs support an inheritance capability. When creating a new reader Configuration ID, this allows a parent Configuration ID to be referenced that specifies a set of starting values, (which can be a small set or a complete listing of all available attributes such as the factory defaults) so that the subset of configuration values in the new Configuration ID, can be changed to what is needed.

When a Configuration ID in its own definition, or through inheritance, specifies the complete reader configuration, it is referred to as a Full Configuration ID. When a Configuration ID specifies a subset of values, it is referred to as a Delta Configuration ID:

- **Delta Configuration ID:** changes just the required attributes, leaving everything else at its current value. Past configurations values can be maintained or modified where needed.
- Full Configuration ID: sets the value of every attribute regardless of their previous values.
  - **Note:** When an Elite Key is used to protect the reader (referred to as the SNMP Key) and the Configuration ID being applied contains a main key reference to the standard key, the Elite Key value in the reader does not change. This maintains the security of the reader and only permits those with rights to that Elite key to configure the device. The main key of the reader can be changed from one Elite Key to another Elite Key when the user has rights to both keys.

Status Transition flow	Description	
Draft	The reader Configuration ID is in a fully editable state.	
Publishable	The reader Configuration ID is in a test state.	
Published	The reader Configuration ID is locked. It can be used to configure any connected readers.	
Deactivated	The reader Configuration ID is archived and no longer usable.	

#### A.1.1 Reader Configuration ID status

#### **A.2 Common Configuration IDs**

The below Configuration IDs are universal and can be uploaded to a HID Signo reader.

#### **A.2.1 Full Configuration IDs**

Note: Full Configuration IDs contain all reader configuration settings and keys.

Configuration ID	Description
00039R	Default configuration of a Seos® profile reader. This Configuration ID can be applied to any HID Signo reader.
00000P	Default configuration of a Standard profile reader. This Configuration ID can be applied to a Standard or Custom profile reader
0005PU	Default configuration of a Custom profile reader. This Configuration ID can only be applied to a Custom profile reader.
00039T	Default configuration of a Smart profile reader. This configuration can only be applied to a Smart profile reader.

#### A.2.2 Delta Configuration IDs

**Note:** Delta Configuration IDs contain one specific reader configuration setting, or a limited number of reader configuration settings.

Configuration ID	Description
00416J	Turn off Bluetooth Low Energy (LE). Mobile credentials will not work.
00416P	Turn on Bluetooth Low Energy.
007T4R	Set the LED to blue. For HID Signo 20K and 40K readers, this Configuration ID will also set the keypad backlight to blue.
00G9L2	Set the LED to red. For HID Signo 20K and 40K readers, this Configuration ID will also set the keypad backlight to red.
007UP7	Disables I'm Alive.
007UPC	I'm Alive (with a default of 60 seconds).
0095W6	Disables anti-passback.
009HUP	Enables anti-passback (with a setting of 1 second).
00BX6X	Enables anti-passback (with a setting of 10 seconds).

# Appendix B Mercury Controller installation manuals



#### **B.1 Corresponding HID controller manuals**

Mercury controllers	Installation manual	
LP1501	HID® Mercury™ LP1501 Controller Installation and Specifications (PLT-05243)	
LP1502	HID® Mercury™ LP1502 Controller Installation and Specifications (PLT-05244)	
LP2500	HID® Mercury™ LP2500 Controller Installation and Specifications (PLT-05245)	
LP4502	HID® Mercury™ LP4502 Controller Installation and Specifications (PLT-05246)	
MP1501	HID® Mercury™ MP1501 Controller Installation and Specifications (PLT-07669)	
MP1502	HID® Mercury™ MP1502 Controller Installation and Specifications (PLT-07611)	
MP2500	HID® Mercury™ MP2500 Controller Installation and Specifications (PLT-07667)	
MP4502	HID® Mercury™ MP4502 Controller Installation and Specifications (PLT-07612)	

Aero controllers	Installation manual
X1100	HID® Aero X1100 Installation Guide (PLT-04233)
X1100A	

#### **B.2 HID Controller DIP switches**

To prove that you have physical access to the controller and are not attempting to access the device from a remote location, set the **S1: DIP Switch 1** to the following sequence:

On - Off - Off - Off

#### **HID Aero controller**





#### **HID Mercury MP series controller**



## Appendix C

HID Ling Gateway secure deployment



#### **C.1 Installation**

#### **Download from official sources**

Only download HID Ling Gateway from official HID sources.

Important: Do not download HID Linq Gateway from a third-party as it may be compromised.

#### Check digital signature

To check the authenticity of the download file:

- 1. Navigate to your **Downloads** folder.
- 2. Right-click the file and select **Properties**.
- 3. Navigate to the **Digital Signatures** tab.
- 4. Make sure there is a valid **HID Corporation Ltd** signature.

#### **Update Windows**

Make sure that your Windows operating system is up to date before downloading HID Linq Gateway, to help avoid potential vulnerabilities that could be exploited by malicious software.

#### Antivirus scan

Use a reputable antivirus software to make sure that your system is free from any malware or threats before downloading HID Ling Gateway.

#### System restore point

Create a system restore point, so that you have a stable system state to refer to if there are any problems during the installation of HID Ling Gateway.

#### Installation process

For the installation process, see 5.3 Install HID Ling Gateway.

#### **User account control**

Windows may give User Account Control (UAC) warnings during the installation process. Only verify and proceed if you initiated the installation process.

#### Firewall settings

HID Ling Gateway may require network access for certain features. Check that your Windows firewall settings allow HID Ling Gateway to communicate securely over the network.

Note: You may be required to Allow an app through the firewall in the Windows Firewall & network protection tab.

URL	Description
https://*.*.hidglobal.com/*	
https://a3p6nbw5omi6ja-ats.iot.us-east-1.amazonaws.com	Used by HID Origo Services API

#### Ports

If the following services are blocked, HID Linq Gateway will not work as expected.

Port	Description	Configurable
8885	Listens for connections from Mercury Panels	No

Port 8885 is listed above in the context of secure deployment of HID Linq Gateway.

#### C.2 Running HID Linq Gateway

**Note:** HID Linq Gateway and the Mercury panel must be on the same network. Perform a ping to make sure the PC can see the Mercury panel.

Gateway.exe	<ul> <li>Allows HID Linq On Premise to communicate with readers connected via USB to the local PC.</li> <li>Allows HID Linq On Premise to communicate with readers connected via OSDP to specific Mercury panels.</li> </ul>	
Configuration.exe	Allows configuration of HID Ling Gateway security profiles.	
	Facilitates the onboarding of Mercury panels.	

#### C.3 Passwords

Important: If you forget your master password, you must uninstall HID Linq Gateway, delete the downloads and Zip file, and repeat the download process again. The password cannot be reset.

Description	Image
<ul> <li>You will be prompted to Create a Master password:</li> <li>The first time the software is started.</li> <li>Switching from the relaxed security profile to the normal security profile.</li> </ul>	Create Master Password for HID Linq™ Gateway       ×         Create Master password:
<ul> <li>The Master password only applies to the normal security profile. You will be prompted to enter it when:</li> <li>Starting the application.</li> <li>Reconnecting to Linq On Premise after a network issue.</li> <li>Switching from the relaxed security profile to the normal security profile.</li> <li>While downloading a Mercury certificate.</li> </ul>	Enter Master Password for HID Ling <sup>™</sup> Gateway × Enter Master password: OK Cancel

#### **C.4 Security profiles**

There are two security profiles available for HID Linq On Premise. See the following to select your required security profile.

Security profile	Description
Normal	<ul> <li>Data is secured using a master password. The password is not stored so the software relies on the user to provide it, for access to the necessary data.</li> <li>The software must run using the same operating system account. No other user of the computer can use the software.</li> <li>Service that allows browsers to detect that HID Linq On Premise is running through a WebSocket.</li> <li>Application that helps facilitate communication between HID Linq On Premise and readers.</li> </ul>
Relaxed	<ul> <li>Data is secured using a master password. The master password is cache encrypted on the PC. Any user of the computer can run the software without entering the master password.</li> <li>Any operating system user can run HID Linq On Premise.</li> <li>Service that allows browsers to detect that HID Linq On Premise is running through a WebSocket.</li> <li>Application that helps facilitate communication between HID Linq On Premise and readers.</li> </ul>

#### **C.5 Updates and maintenance**

- Keep HID Linq Gateway updated to ensure optimal performance and security.
- Perform regular maintenance tasks like scanning for malware, updating software, and backing up important data to maintain the security and integrity of your system.

#### C.6 User support

Contact the **Technical Support** team for further assistance if required.

### Appendix D Logs





#### D.1 Logs

When contacting HID Technical Support, you will need access to the HID Linq On Premise logs. Navigate to C:\ProgramData\HID Global\HID Linq<sup>™</sup> Gateway\logs.

## 

#### MIFARE Custom Programming Credentials



#### **E.1 MIFARE DESFire credential values**

Parameter	Value	
Application ID	Six digit hex string	
File ID	Two digit hex string	
File Size	Bytes	
Authentication Key Number	<ul> <li>KeyA_Key0</li> <li>KeyB_Key1</li> <li>Key2</li> <li>Key3</li> <li>Key4</li> <li>Key5</li> <li>Key6</li> <li>Key7</li> <li>Key8</li> <li>Key9</li> <li>KeyA</li> <li>KeyB</li> <li>KeyD</li> <li>FullAccess</li> <li>NoAccess</li> </ul>	
Authentication Key Algorithm	<ul><li>None</li><li>DES</li><li>AES</li></ul>	
Authentication Key Diversification Algorithm	<ul> <li>None</li> <li>AES_3DES</li> <li>AV2-AES_AES_3DES</li> <li>SDES</li> </ul>	
Random UID	<ul><li>None</li><li>DES</li><li>AES</li></ul>	
Communication Mode	<ul> <li>Plain</li> <li>MAC</li> <li>ENCRYPT</li> <li>UNKNOWN</li> </ul>	
Custom Key	Keyset name from HID Ling Custom Keystore	
DESFire functionality		
Proximity Check	Enable / Disable	
Key (Proximity Check enabled)	Keyset name from HID Linq Custom Keystore	
Time Margin (Proximity Check enabled)	Integer	
Count (Proximity Check enabled)	Integer	

#### HID Powering Trusted Identities

Parameter	Value
EV2 Secure Messaging	Enable / Disable
Data Structure	
Start bit	Integer
Length	Integer
Output Length	Integer
Data Representation	<ul><li>None</li><li>ByteReversed</li></ul>
Data Type	<ul> <li>Raw</li> <li>BinHex</li> <li>Int32</li> <li>BCDNibble</li> <li>BCDByte</li> <li>ASCIIDecimal</li> <li>ABATrack2String</li> <li>HKBU</li> </ul>
Fixed Value	Integer
Tag	Integer
Data Search	Integer
Data Structure	<ul><li>Field</li><li>IE</li><li>GM</li></ul>
Output Format	<ul> <li>None</li> <li>Wiegand</li> <li>ABATrack2</li> <li>ASCIIDecimal</li> </ul>
ETX Code	<ul> <li>None</li> <li>Fixed0</li> <li>Fixed1</li> <li>EvenParity</li> <li>OddParity</li> </ul>
ETX Number of Bits	Integer
STX Code	<ul> <li>None</li> <li>Fixed0</li> <li>Fixed1</li> <li>EvenParity</li> <li>OddParity</li> </ul>
STX Number of Bits	Integer
Diversification	



Parameter	Value
Diversification Input: Type	<ul> <li>NXP AN10922 (UID+AID+SYSID)</li> <li>NXP AN10957 (UID+Padding)</li> <li>1+UID+PADDING</li> <li>29+UID+89+Dadding</li> </ul>
Diversification Input System ID	Hex string of paired hex digits

#### **E.2 MIFARE Classic credential values**

Parameter	Value
Application ID	Four digit hex string
File ID	Two digit hex string
File Size	Bytes
Authentication Key Number	<ul><li>KeyA_Key0</li><li>KeyB_Key1</li></ul>
Authentication Key Algorithm	None     MIFARE
Custom Key	Keyset name from HID Ling Custom Keystore
Data Structure	
Start bit	Integer
Length	Integer
Output Length	Integer
Data Representation	<ul><li>None</li><li>ByteReversed</li></ul>
Data Type	<ul> <li>Raw</li> <li>BinHex</li> <li>Int32</li> <li>BCDNibble</li> <li>BCDByte</li> <li>ASCIIDecimal</li> <li>ABATrack2String</li> <li>HKBU</li> </ul>
Fixed Value	Integer
Tag	Integer
Data Search	Integer
Data Structure	<ul><li>Field</li><li>IE</li><li>GM</li></ul>
Output Format	<ul> <li>None</li> <li>Wiegand</li> <li>ABATrack2</li> <li>ASCIIDecimal</li> </ul>
ETX Code	<ul> <li>None</li> <li>Fixed0</li> <li>Fixed1</li> <li>EvenParity</li> <li>OddParity</li> </ul>



Parameter	Value
ETX Number of Bits	Integer
STX Code	<ul> <li>None</li> <li>Fixed0</li> <li>Fixed1</li> <li>EvenParity</li> <li>OddParity</li> </ul>
STX Number of Bits	Integer
Diversification	
Diversification Input: Type	<ul> <li>NXP AN10922 (UID+AID+SYSID)</li> <li>NXP AN10957 (UID+Padding)</li> <li>1+UID+PADDING</li> <li>88+UID+88+Padding</li> </ul>
Diversification Input System ID	Hex string of paired hex digits

### Appendix F Troubleshooting

#### HID

#### F.1 Port conflict troubleshooting

HID Linq On Premise uses port 443 by default. If an existing application is using port 443, the HID Linq On Premise web browser will not open.

To locate the application using port 443:

- 1. Open the Command Prompt.
- 2. Enter netstat -aon | findstr ":443" and press Enter.
- 3. Make a note of the PID of the application using port 443.

🔍 Com	mand Prompt				×
C:\User	s\ <b>JSmith≻n<u>ets</u>tat</b> -aon	findstr ":443"3"			^
тср	0.0.0.0 443	0.0.0.0:0	LISTENING	42360	
TCP	10.247.156.12:49463	20.90.152.133:443	ESTABLISHED	6932	
TCP	10.247.156.12:56339	34.206.155.123:443	CLOSE_WAIT	42360	
TCP	10.247.156.12:56340	34.206.155.123:443	CLOSE_WAIT	42360	
TCP	10.247.156.12:56341	34.206.155.123:443	CLOSE_WAIT	42360	
TCP	10.247.156.12:56342	34.206.155.123:443	CLOSE_WAIT	42360	
TCP	10.247.156.12:56343	34.206.155.123:443	CLOSE_WAIT	42360	
TCP	10.247.156.12:56344	34.206.155.123:443	CLOSE_WAIT	42360	
TCP	10.247.156.12:57749	20.90.153.243:443	ESTABLISHED	60704	
TCP	10.247.156.12:57949	35.153.189.154:443	ESTABLISHED	6560	
TCP	10.247.156.12:57967	52.111.229.144:443	ESTABLISHED	98380	
TCP	10.247.156.12:57968	52.111.229.0:443	ESTABLISHED	98380	
TCP	10.247.156.12:57973	52.97.146.130:443	ESTABLISHED	92272	
TCP	10.247.156.12:58200	52.112.122.45:443	ESTABLISHED	396	

- 4. Open Windows Task Manager and select navigate to the Details tab.
- 5. Use the PID noted in step 3 to locate the application. Close the application and restart HID Ling On Premise.

₁⊠ Task Manager File Options View		_	o x
Processes Performance App history	Startup Users Details Services		
Name	PID	Status	^
svchost.exe	33228	Running	
NVDisplay.Container.exe	33660	Running	
msedgewebview2.exe	33744	Running	
O chrome.exe	38468	Running	
📧 RuntimeBroker.exe	38852	Running	
🏶 slack.exe	40756	Running	
📧 svchost.exe	41500	Running	
📧 svchost.exe	41580	Running	
🍗 hid.crb64w.exe	42172	Running	
🛃 javaw.exe	42360	Running	
📨 msedgewebview2.exe	43060	Running	
OneDrive eve	A263A	Running	~ ~
Fewer details		[	End task



#### F.2 SQL Server troubleshooting

The HID Linq On Premise server auto start fails when it cannot connect to the database. To fix this issue, the SQL Server **Startup type** can be changed.

- 1. Open the Windows Services window.
- 2. Right-click SQL Server (LINQSQLEXPRESS) and select Properties.

Action View	Help						
🔿 📅 🛅 🤕							
	à 📑   🔽 📰   🕨 🔲 II ID						
Services (Local)	Services (Local)						
	SQL Server (LINQSQLEXPRESS)	Name	Description	Status	Startup Type	Log On As	1
	Stop the service Pause the service Restart the service Description: Provides storage, processing and controlled access of data, and rapid transaction processing.	Shell Hardware Detection     Smart Card     Smart Card Device Enumeration Service     Smart Card Removal Policy     Smart Card Removal Policy     Snow Inventory Agent     Software Protection     Software Protection     Software Verifier	Provides no Manages ac Creates soft Allows the s Receives tra Snow Inven Enables the This service Verifies pote	Running Running Running	Automatic Manual (Trig Manual Manual Automatic Automatic ( Manual Manual (Trig	Local Syste Local Service Local Syste Local Syste Local Service Local Syste Network S Local Service Local Syste	
		SOL Server (LINQSQLEXPRESS)     Sol Server Agent (LINQSQLEXPRESS)     Sol Server Browser     Sol Server CEIP service (LINQSQLEXPRE     Sol Server VSS Writer     Sol SOP Discovery	Provides sto Executes jo Provides SQ CEIP service Provides th Discovers n	Running Running Running Running Running	Automatic ( Disabled Automatic Automatic ( Automatic Manual	Local Syste Network S Local Service NT Service Local Syste Local Syste	

3. Select Automatic from the Startup type drop-down list.

SQL Server (LINQSQLEXPRESS) Properties (Local Computer)					×		
General	Log On	Recovery	Depend	lencies			
Service	name:	MSSQL <b>\$</b> L	INQSQLE	EXPRES	S		
Display	name:	SQL Serve	r (LINQS	QLEXPF	RESS)		
Descrip	tion:	Provides s of data, an	torage, p Id rapid tr	rocessin ansactio	g and conti in processir	rolled access ng.	Ç
Path to "C:\Pro	executabl gram Files	e: \Microsoft S	QL Serve	er\MSSC	QL16.LINQ	SQLEXPRESS	i\M:
Startup	type:	Automatic (Delayed Start) $\sim$					$\sim$
Automatic (Delayed Start)							
		Manual					-
Service	status:	Disabled Running					-
9	Start	Stop	)	Pa	use	Resume	
You can specify the start parameters that apply when you start the service from here.							
Start pa	arameters:						
			Oł	(	Cance	Apj	oly

4. Click Apply and click OK.

#### F.3 Enter Database password for HID Linq On Premise

If an old version of SQL Server or SSMS has been installed prior to HID Linq On Premise, the HID Linq Database password might be rejected.

Troubleshoot the automatic installation of SQL Server 2022 Express by navigating to C:\Program Files\Microsoft SQL Server\160\Setup Bootstrap\Log. Open the Summary.txt file and check the latest installation date.

To uninstall all older versions of SQL and related tools before reinstalling HID Linq On Premise:

Important: Only complete the following steps if it is the initial installation. Deleting files for an existing setup will destroy customer data.

- Uninstall all SQL Server related services from Windows
- Uninstall HID Ling On Premise
- Delete C:\Program Files\HID Global\Linq Device Manager
- Delete C:\ProgramData\HID Global\Linq Device Manager

#### F.4 Mercury panel does not connect to the HID Linq Gateway

If the time on the Mercury panel is incorrect, a certificate error is given in the logs. See **Logs** for more information on logs.

To check for the bad certificate:

- 1. Navigate to C:\ProgramData\HID Global\HID Linq<sup>™</sup> Gateway\logs.
- 2. Search **bad\_certificate** in the HID Linq Gateway logs.

Note: Return example: [WARN ] UTC:2025-Jan-27 17:42:38.685 - Could not accept connection from tcp://192.168.0.251:57416: javax.net.ssl.SSLHandshakeException: Received fatal alert: **bad\_certificate** (Received fatal alert: **bad\_certificate**)

- 3. Check the time on the Mercury panel is correct.
- 4. Check the jumpers of the Mercury panel Real Time Clock (RTC) are in the ON position.

#### F.5 Readers unavailable troubleshooting

Readers are grayed out when HID Linq On Premise cannot retrieve the reader information from HID Origo. There are several reasons a reader is grayed out:

#### The user performing a reader discovery does not have a HID Reader Technician account configured

HID Linq On Premise cannot reach HID Origo to query the reader information from the digital twin. See **4.1 HID Origo** account for information on connecting a HID Origo account to HID Linq On Premise.

#### The computer IP Address has changed since HID Linq On Premise install

The websocket server only accepts connections where the origin header is included in the allowed server SAN (default) list. See **4.10.1 Manually perform a system recovery** to import the recovery key. This regenerates the CA certificate and webserver certificate.

Note: Any certificate connections need to be set up again. For example HID Linq Gateway, HID Linq<sup>™</sup> Mobile or any future server connected devices.

#### No internet connection

Check your internet connection.

#### **Revision history**

Date	Description	Revision
July 2025	Updated to support HID Linq On Premise software version v1.3.0.	A.1
March 2025	Initial release.	A.0



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For technical support, please visit: https://support.hidglobal.com

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