

# Credential Solutions

Gallagher offer a range of credential provisioning solutions:

- Encoding services are available to manage the issue of credentials
- A range of credential types are supplied directly for immediate use
- Full support for on-site encoding
- Credentials for mobile devices with Gallagher Mobile Connect
- Compatibility with the latest smart card technologies.

## Credential Services

**Gallagher offers the following credential services:**

### ISO Card Printing

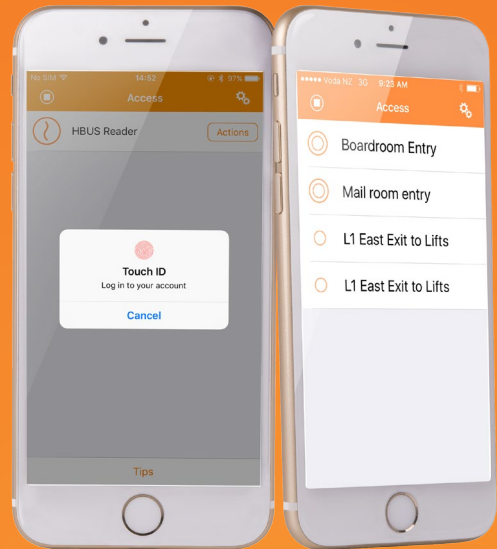
Customize your swipe cards with site specific logos and messages. Gallagher provides free black and white printing of images and/or text on both sides of ISO cards - a one off setup cost applies.

### Card Number Management

Gallagher manages card number uniqueness in conjunction with Channel Partners.

### Card Identification

Card numbers are printed on each credential encoded by Gallagher including clamshell and ISO cards, and keyfobs.



MIFARE® chip technology is widely used in contactless smart cards and proximity cards, it provides:



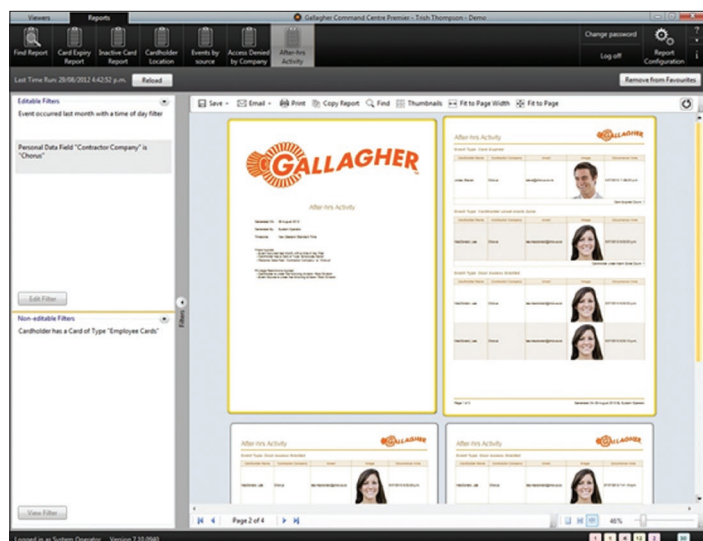
- The highest standard of security and feature levels
- More than 40 different applications worldwide
- Reliability with more than 150 million reader and 10 billion smart card chips sold worldwide
- Numerous manufacturers worldwide
- Compliance with international ISO/IEC 14443 - used in more than 80 per cent of all contactless smart cards today.



# Encoding Software

## Gallagher Photo ID Card & Encoding

Photo ID & Encoding is an optional licensed feature available in Gallagher Command Centre, providing the ability to design and produce encoded and/or photo identification cards.



### Custom-designed card layouts

The information retrieved from the Gallagher cardholder database would typically include the cardholder's photograph and access credentials. However, there is an extensive range of options available with this optional feature for formatting card layouts, including:

- Creating backgrounds
- Importing logos and images
- Adding and formatting text
- Incorporating barcodes
- Personalized cardholder data.

### Key benefits include:

- **Design lead** - options such as "Snap-to-grid" allow users to position objects exactly where required on the card
- **Time efficient** - once the first layout has been completed, it can be copied to create subsequent layouts within the same system
- **Compatible** - integrates with most photo ID card printers - (please refer to [security.gallagher.com](http://security.gallagher.com) for the latest information on tested compatible printers).

## Gallagher Encoder III

Encoder III is a user friendly Microsoft® Windows® XP or Windows 7 software package that allows the on-site encoding of 125kHz proximity cards and keyfobs, and MIFARE Classic smart cards.

Using an industry standard system, Encoder III is used in conjunction with the following Encoder hardware: 125kHz, Magstripe, and MIFARE USB.

### Automatic Card Serial Number Capture

Gallagher Command Centre Premier client supports the automatic capture of card serial numbers (CSN) for MIFARE Classic, MIFARE Plus and MIFARE DESFire EV1/MIFARE DESFireEV2 cards. When an encoded card is presented to a Gallagher MIFARE USB encoder the unique CSN is stored to the database and associated permanently with the card identifier encoded to that card.

### Integration with Gallagher systems

The integration of Gallagher Photo ID & encoding within the Gallagher system provides significant advantages over standalone photo identification applications including:

- **Detailed audit trail** - for example the reason for printing a card can be identified as all operator activity in the Gallagher system including adding, changing or deleting a card layout, and printing cards, are recorded in the system's audit trail
- **One cardholder database** - making the management of cardholder information much easier for operators and ensuring one centralized source of cardholder information
- **Access to stored photo images** - cardholder photo identification is increasingly becoming a requirement for many sites intent on enhancing site security. This feature allows stored photos to be recalled and printed onto cards
- **Providing an integrated cardholder management tool** within the Gallagher security system
- **Consistent with the core system** - uses industry standard Microsoft Windows layout
- **Centralized data** - integration with the Gallagher system means the site needs to manage only one cardholder database - simplifying information management.

### Optional Licensed Feature

Photo ID & Encoding is an optional licensed feature available in Gallagher Command Centre.

# Encoding Hardware

## MIFARE Encoding

MIFARE Classic, MIFARE Plus and, MIFARE DESFire EV1/2 cards can be encoded using the Gallagher MIFARE USB Encoder, which supports the encoding of:

- MIFARE Classic 1K and 4k cards and key fobs
- MIFARE Plus 2K and 4K cards in both standard security 'S' and extra security 'X' variants
- MIFARE DESFire 2K, 4K, and 8K cards
- Site specific MIFARE keys.



Keyfobs



Encoder Unit (MIFARE)



Cards & Clamshells

## High Speed ISO Card Printing



DataCard  
MX2000 Printer

Gallagher delivers rapid turnaround of ISO card printing and encoding requests with outstanding quality.

# Credential Migration

Gallagher continues to support 125kHz, Tiris, and Magstripe credential encoding with hardware and software available to end users, and via encoding services. A range of professional services are also available to assist in migrating to newer and more secure credential technologies. Please contact your Gallagher Business Development Manager for more information.

# Credential Comparison

This table compares\* some of the key attributes of credentials technologies supported by Gallagher:

Technology	125	MIFARE Classic	MIFARE Plus / DESFire EV1	MIFARE DESFire EV2	Mobile Connect	PIV
Security	Low	Medium	High	Very High	Very High	Very High
Credential cost	Low	Low	Medium	Medium	Medium	High
Supports multiple applications	No	Yes	Yes	Yes	Yes	Yes
Supports biometric applications	No	Yes	Yes	Yes	Yes	Yes
Integration flexible	Yes	Yes	Yes	Yes	Yes	Yes
Product status	Current	Current	Current	Current	Current	Current
Recommended for new sites	No	No	No	Yes	Yes	Yes

\*These comparisons are indicative only, providing a general guide for the various common technologies. Using multiple authentication factors (e.g. card plus biometric or card plus PIN) will further enhance the security level. Technology choice will often be specific the customer requirements, and we recommend consulting you nearest Gallagher representative for the solution that is right for you.

# Technical Specifications

Product numbers					
MIFARE Classic	C196350	MIFARE Classic ISO Card (1K) - Blank	C196301	MIFARE Classic Overmolded Keyfob (1K, Black)	
	C196330	MIFARE Classic ISO Card (4K) - Blank	C196304	MIFARE Classic Overmolded Keyfob (4K, Gray)	
125 kHz	C196450	125 Series ISO Card	C196410	125 Series Clamshell Card	
	C196400	125 Series Keyfob (Black) - Epoxy Material			
MIFARE Plus	C297172	MIFARE Plus ISO Card, 2K, S Type	C297272	MIFARE Plus ISO Card, 2K, X Type	
	C297174	MIFARE Plus ISO Card, 4K, S Type	C297274	MIFARE Plus ISO Card, 4K, X Type	
Dual technology	C196370	MIFARE Classic and Magstripe dual tech ISO Card (1K) - Blank	C196430	125 Series and MIFARE Classic dual tech ISO Card (1K)	
	C196340	MIFARE Classic and Magstripe dual tech ISO Card (4K) - Blank	C196490	125 Series and MIFARE Classic dual tech ISO Card (4K)	
	C196470	125 Series and Magstripe dual tech ISO Card	C297484	125 Series and MIFARE DESfire EV2 dual tech ISO Card (4k)	
MIFARE DESFire EV1	C297372	MIFARE DESFire ISO Card, 2K, EV1	C297378	MIFARE DESFire ISO Card, 8K, EV1	
	C297374	MIFARE DESFire ISO Card, 4K, EV1			
MIFARE DESFire EV2	C297472	MIFARE DESFire ISO Card, 2K, EV2	C297478	MIFARE DESFire ISO Card, 8K, EV2	
	C297474	MIFARE DESFire ISO Card, 4K, EV2	C297404	MIFARE DESFire Keyfob, 4K, EV2	
Mobile Connect	2A8570	Mobile Connect Credential (one credential required per user)	2A8571	Mobile Connect Credential - SM Customers	
Card accessories	C41007	Encoder Unit (MIFARE)	C196215	Encoder III Software (125, Tiris, MIFARE Classic, & Magstripe)	
Card encoding	C197800	Encoder Unit (125kHz)	C196295	Encoder III Software Extension Disk	

	Dimensions (Length x Width x Depth)	Temperature (Operating)	Temperature (Storage)
MIFARE ISO card	85.7mm x 54.0mm x 0.76 - 0.84mm	-10° - 50°C (14° - 122°F)	-25° - 50°C (-13° - 122°F)
125 kHz ISO & dual technology ISO card	85.7mm x 54.0mm x 0.76 - 0.84mm	-35° - 50°C (-30° - 122°F)	-25° - 50°C (-13° - 122°F)
MIFARE keyfob	45mm x 30mm x 2.0mm	-25° - 55°C (-13° - 131°F)	-25° - 55°C (-13° - 122°F)
125 kHz keyfob epoxy (Black)	45mm x 30mm x 1.6mm	-40° - 95°C (-40° - 203°F)	-40° - 85°C (-40° - 185°F)
125 kHz clamshell card	85.7mm x 54.0mm x 1.7mm	-10° - 50°C (14° - 122°F)	-25° - 50°C (-13° - 122°F)
Magstripe card	85.7mm x 54.0mm x 0.76mm		+ 5° - 30°C (41° - 86°F)

\*MIFARE Classic, MIFARE Plus, MIFARE DESfire EV1 and MIFARE DESfire EV2 are registered trademarks of NXP B.V.

## GALLAGHER WORLD HEADQUARTERS

Kahikatea Drive, Hamilton 3206  
Private Bag 3026, Hamilton 3240  
New Zealand

TEL: +64 7 838 9800

EMAIL: security@gallagher.com

## REGIONAL OFFICES

New Zealand..... +64 7 838 9800  
Americas..... +1 877 560 6308  
Asia ..... +852 3468 5175  
Australia ..... +61 3 9308 7722  
India ..... +91 80 2676 2084  
Middle East..... +971 4 2602145  
South Africa ..... +27 11 974 4740  
United Kingdom / Europe..... +44 2476 64 1234

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