



# Password Policy

**Document Owner:** Data Protection Officer

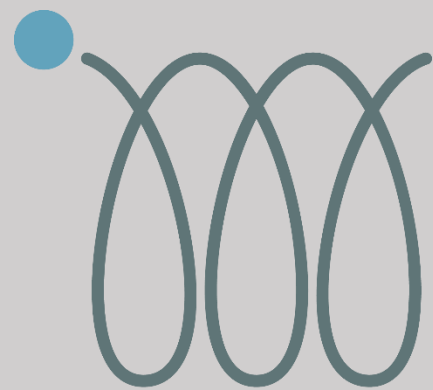
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| 1       | 01.23         | Judi Wood  | Policy created  |
|         |               |            |                 |
|         |               |            |                 |

## Purpose

This policy supports the IT regulations to ensure that passwords used to access computer resources are selected and updated in line with best proactive security standards.

The IM Group Ltd.'s IT regulations state that Users must take all necessary steps to protect and maintain the security of any equipment, software, data, storage area and/or passwords allocated for their use. This policy dictates the minimum that a user must do to conform to this requirement when selecting and updating a password.

Password policies are used to mitigate possible attacks against IM Group Ltd.'s IT infrastructure and the data held upon it. Use of long, complex passwords help to mitigate attacks that attempt to guess passwords, and regular password changes to mitigate long term exploitation of any disclosed or discovered passwords.

## Password Selection

To protect IM Groups systems and data, users must select a password that is secure and difficult to guess.

In accordance with security best practice the following rules are mandatory:

- All passwords should have a minimum of twelve characters.
- Each password must contain a combination of at least three out of four-character sets:
  - Uppercase characters (A through to Z)
  - Lowercase characters (a through to z)
  - Numerical digits (0 through to 9)
  - Non-alphabetical characters (e.g. ! \$ # % @ +)
  - Previous passwords used must not be re-used.

In addition, while not actively enforced by the password creation process:

- Accounts created for use on external online resources must not use the same password for IM Group Ltd.'s authentication.
- Passwords must not be something that can easily be guessed (avoid using your name, children or a pet's name, car registration number, football team, etc). Hackers have compiled very extensive lists of words and combinations in use and add to that list by the hour. These lists are then used to probe access to your account alongside activities to identify possible phrases you may use such as known dates, names, places etc. Hence, the recommendation to use a 12+ combination of letters, numbers, and special characters in a non-pattern-based format.
- You may choose to combine random words with numbers and characters ( i.e..  
CornSt&plerFleece!)

The chart below demonstrates how long it takes a potential hacker to find your password to enter your accounts.

| Number of Characters | Numbers Only | Lowercase Letters | Upper and Lowercase Letters | Numbers, Upper and Lowercase Letters | Numbers, Upper and Lowercase Letters, Symbols |
|----------------------|--------------|-------------------|-----------------------------|--------------------------------------|---|
| 4                    | Instantly    | Instantly         | Instantly                   | Instantly                            | Instantly                                     |
| 5                    | Instantly    | Instantly         | Instantly                   | Instantly                            | Instantly                                     |
| 6                    | Instantly    | Instantly         | Instantly                   | 1 sec                                | 5 secs  |
| 7                    | Instantly    | Instantly         | 25 secs                     | 1 min                                | 6 mins  |
| 8                    | Instantly    | 5 secs            | 22 mins                     | 1 hour                               | 8 hours                                       |
| 9                    | Instantly    | 2 mins            | 19 hours                    | 3 days                               | 3 weeks                                       |
| 10                   | Instantly    | 58 mins           | 1 month                     | 7 months                             | 5 years                                       |
| 11                   | 2 secs       | 1 day             | 5 years                     | 41 years                             | 400 years                                     |
| 12                   | 25 secs      | 3 weeks           | 300 years                   | 2k years                             | 34k years                                     |
| 13                   | 4 mins       | 1 year            | 16k years                   | 100k years                           | 2m years                                      |
| 14                   | 41 mins      | 51 years          | 800k years                  | 9m years                             | 200m years                                    |
| 15                   | 6 hours      | 1k years          | 43m years                   | 600m years                           | 15bn years                                    |
| 16                   | 2 days       | 34k years         | 2bn years                   | 37bn years                           | 1tn years                                     |
| 17                   | 4 weeks      | 800k years        | 100bn years                 | 2tn years                            | 93tn years                                    |
| 18                   | 9 months     | 23m years         | 61tm years                  | 100tn years                          | 7qd years                                     |

See Appendix A for a complete list of enforced password settings.

### Changing a Password

Passwords must be changed regularly to mitigate the long term exploitation of any disclosed or discovered passwords. It is recommended those passwords are changed every 60 days.

### Password Use

Passwords are the mechanism used to protect the security of IM Groups systems and must be protected.

- Passwords must be kept secret.
- Passwords must not be written in a form that others could identify.
- Passwords must not be stored electronically in a non-encrypted format.
- Passwords must never be shared with others.
- Care should be taken to prevent anyone from watching you type your password.

## Appendix A - Enforced password settings and rationale

|                              | <b>Setting</b>   | <b>Rationale</b>   |
|------------------------------|--|--|
| Minimum password length      | 12 characters  | In line with recommended minimum password sizes, to reduce the risk of dictionary attacks. |
| Minimum password age         | 0 days   | To allow immediate changing of password following help desk reset.                         |
| Maximum password age         | 60 days  | To ensure passwords are changed each year, while avoiding potential impact on staff.       |
| Password history             | 24 passwords   | To prevent the same password from being re-used (Note this is the maximum possible value). |
| Password Complexity          | Enabled  | To enforce stronger passwords (three of uppercase, lowercase, numbers, symbols).           |
| Change password at first use | No   | Disabled to simplify logon process for staff working from home.                            |
| Account lockout              | 15 minutes automatic Account Lockout after 3 bad passwords | To prevent dictionary attacks without impacting on staff                                   |