

# A GUIDE TO ENCRYPTION

With an increasing number of businesses falling victim to a host of cyber crimes, the need for encryption and rigorous security measures is at an all-time high. But do you know what it actually means to encrypt data, or how to do it?

## What is encryption?

Encryption is the process of using a secret key to convert data into a format that is unreadable to anyone that does not possess that same key.

## What are the benefits of using encryption?

Encryption helps to keep data secure if devices are lost or stolen, or if the data ends up in the hands of someone it shouldn't. This could happen if someone hacks into a computer system, or if they are able to intercept the data while it is being transmitted.

Because encryption renders the information unreadable, it can lessen the impact of the European General Data Protection Regulation (GDPR).

## Are there any downsides to using encryption?

There are some, but these are generally outweighed (certainly for portable devices) by the added security that it provides. The principal downside is that the use of encryption (particularly at file, rather than disk level) may affect the performance of a device/system, due to the processing power required to decrypt the files. Secondly, if you forget your password for a device, or if the decryption key is lost, then the data will be near irretrievable.

## How do I ensure my devices are encrypted?

Encryption functionality comes as standard on most phones and laptops, it just needs to be turned on. Simply follow the relevant steps for your device on the right of this page. For full encryption of your databases, speak to your IT supplier.

## iPhone or iPad (iOS 8 or later)

Encryption is automatically enabled so long as a passcode or Touch ID is active. To ensure that encryption is in fact enabled, or to reactivate it if it has been disabled, follow these steps:

1. 'Settings'
2. 'Touch ID & Passcode'
3. 'Turn Passcode On' and enter a passcode. Four-digit passcodes are notoriously insecure, so try to make it longer.

## Android (5.0 or higher)

Enable encryption with the following steps:

1. 'Settings'
2. 'Personal'
3. 'Security'
4. 'Encrypt Phone'.

Instructions may slightly differ across devices.

## Windows 10

Follow these steps:

1. sign on as an administrator
2. after navigating to the 'Start' menu, type in 'encryption'
3. 'Change Device Encryption Settings'
4. 'Manage Bitlocker'
5. 'Turn on Bitlocker'
6. follow the instructions that pop up.

## Mac (computers)

Navigate through the following to enable encryption:

1. 'System Preferences'
2. 'Security & Privacy'
3. 'FileVault'
4. 'Turn On Filevault'.