

How to Encrypt Files

Who?

Short Answer: Anyone

Long Answer: Encrypting your files can help protect your data from anyone who may try to gain access to it.

What?

Short Answer: A way to protect your data

Long Answer: In cryptography, encryption is the process of encoding messages or information in such a way that only authorized parties can read it. Encryption does not of itself prevent interception, but denies the message content to the interceptor. In an encryption scheme, the intended communication information or message, referred to as plaintext, is encrypted using an encryption algorithm, generating ciphertext that can only be read if decrypted.

When?

Short Answer: Anytime

Long Answer: Encryption is best done sooner rather than later, but once encrypted. Your files are secure.

Where?

Short Answer: E-Mails, Websites, Documents, etc

Long Answer: It's important for all of your data to be encrypted, whether your shopping online, dealing with financial documents on your computer, or sending personal information over email. If there is any type of data transmission, you'll want it to be encrypted to protect yourself from attackers.

Why?

Short Answer: To Protect your Data from Attackers

Long Answer: The primary purpose of Encryption is to provide CIA(Confidentiality, Integrity and Availability) of data.

1. **Confidentiality:**

Steps undertaken to ensure the confidentiality of data prevents the data going into wrong hands. This is just like adding privacy to the data. Encryption protects the confidentiality of data by encrypting it with a strong authentication.

2. **Integrity:**

Data should not be changed or overwritten while transmitting it from one user to the other user. Encryption protects the Integrity of data with a strong password.

3. Availability:

Data should be available to the users at all times when dealing especially with the internet. Encryption ensures the availability of data all the times by preventing DOS attacks and controlling the traffic flow.

How?

Short Answer: Check to see before transmitting any data that it's either locked or encrypted

Long Answer: Before typing any personal information on websites, make sure there is a lock in the URL bar. This signifies that the data between your computer and that company is encrypted. Ask your email provider if their email is encrypted before sending any personal info through email. It's easy to encrypt documents, simply find the encryption or password section of a Google Doc, Microsoft Word Document, Adobe Acrobat PDF, etc. Most companies will allow you to encrypt your documents before transmission.