Trusted Family

TF2.0 Encryption Systems



OVERVIEW

Our encryption systems start from using encryption of data during transit and encompass encryption of your data during storage, at rest, and for our backups as well.

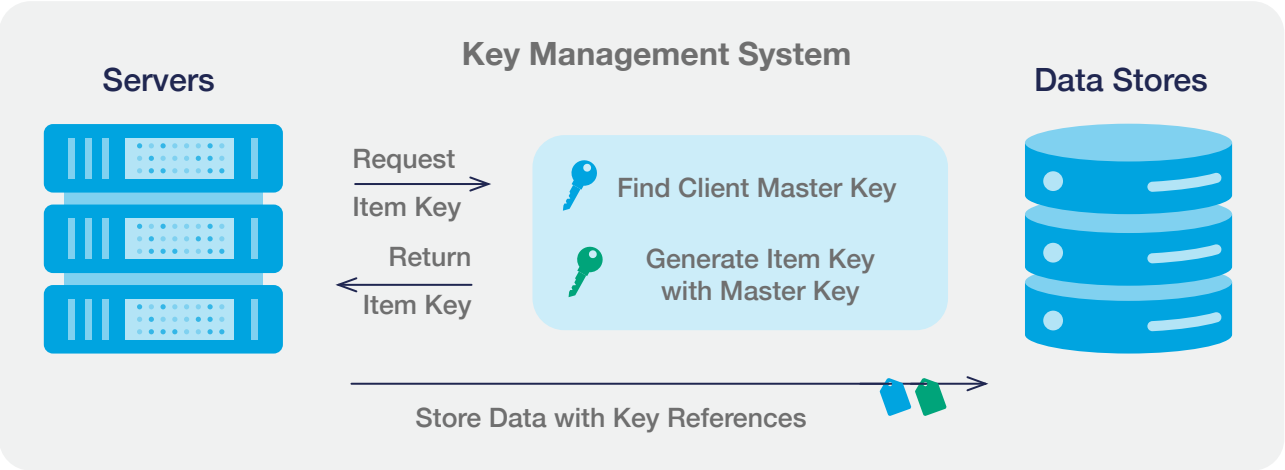
This holistic approach to encryption ensures the safety and security of your data from any and all unauthorised third-parties not only during transfer to and from our application but once it has been entrusted to our infrastructure as well.

ENCRYPTION – IN TRANSIT

First, all communication with the application and supporting services goes over HTTPS using TLS 1.2 or higher. This encryption tunnel secures the data from any and all unauthorised viewers. The health of our HTTPS is continuously monitored using SSLLabs.

Trusted Family

ENCRYPTION – IN USE AND AT REST



Data is encrypted “in use” implies both database records and files are encrypted before being written to disk. All data items are encrypted using an Item Key which is generated using a Master Key per customer. Furthermore, only references to the Item and Master Keys are stored, and both are required in conjunction with the Key Management System in order to decrypt the data.

Example of encrypted data store

name_ciphertext	email_ciphertext	email_bidx	roles
E8ZnvGAvZXQmimHZl3Hj zG39CKjdKviqZqPf9KNEF4 D3EPhlJ6F1N7w=	blu4AvhYCe10weHSRoqlaORv4 Ud+ssvHunapAk0ykkjGpOV5J 9NhX4R72Yy+bhq9493RJdF	P8KKN/MsjYm17HTY m17HTY1vhDjbkKO...	(member)
NAt7eeCe5Xvq7WWF+6YG uToV2OYO+btpqWlib2JLo wlib2JLow/gPBlTyCSruYLtj	IG74nPoNrtRlNvPF42a044GksKy VDiNESiuPBFaMOj4rtudo/Niqxw cp0b4XXjf/20zZxlcn...	2OcGUEt41t6cfnyDs cnwvXKn2/3gr2C3c ZUaj09X8Rg=	(member)
Dib/EXXJ7eX/K/U83Wj2j5x 3loalqqy3ZKKyvEYT7ULND Ggq7V...	kfHV2ILoOFUK39poiMmWeGN8o 7WFg5N2ausAQBjLdBkfQjkM+PQ 9MyYRavMA8l4SgSg...	N8lJWjkWMnOK4Rb dB2d1tGdY2Mtotqi+ XXzlsCATLlg=	(member)
KYYkhlSNyJXIs/Hht127ojmQ T9f9tZ3zjyAZsCoXdQ155po cap...	nQdu+LX5wYfhHl5dSa5dSA5E3q 4Y1tpzwLLt9luXdNeV6DGMErayx/ OobBLVG7j6BRJzmrWpjiph...	Uxm0Cml1dLaqJX+ hBd7AsXsz8gXnXM gx6YULfRvVl...	(member)

In practical terms, what this also means is that even if our industry-leading and vetted infrastructure partners were to be compromised, your data would still be unreadable.

Trusted Family

ENCRYPTED BACKUPS

Our backups are incremental and at least two (encrypted and anonymised) backups are taken daily by two independent (or redundant) systems that backup data to two geographically different locations. Since the data is encrypted “in use” before being written onto disk, the backups are implicitly encrypted as well.

DATA DELETION

When data is deleted from our system (e.g. on termination of contract) we delete the encryption Master Key key with it, thereby removing all Item Keys also. This makes all primary data stores (for the customer) instantly unreadable. And results in the customer’s backups also becoming unreadable, making the solution even more secure.





Trusted Family

Revolutionize the way your family business operates digitally.

www.trustedfamily.com

©Trusted Family, All rights reserved