

# End-to-End DATA Protection

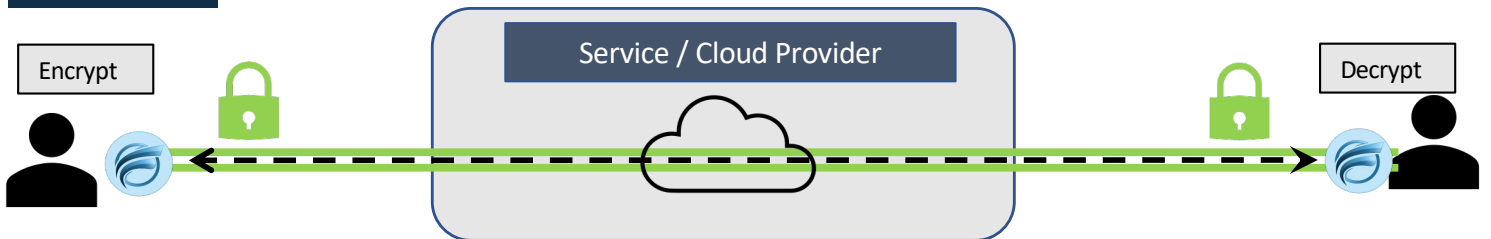
## SECURING CRITICAL DATA ALONG ITS ENTIRE JOURNEY

US Government - End-to-end encryption is defined as:

- The provision of cryptographic protection of data, such that the data is not in an unencrypted form, between an originator (or the originator's in-country security boundary) and an intended recipient (or the recipient's in-country security boundary);

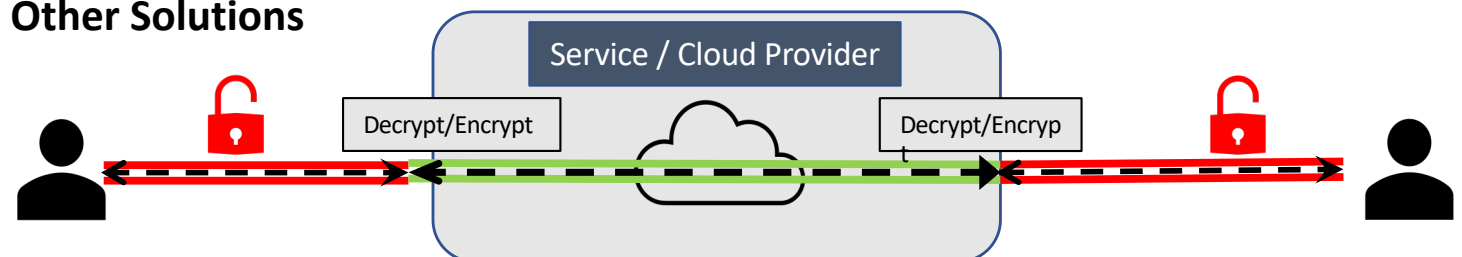
### The Challenge

- The means of decryption are not provided to any third party.
- The cryptographic protection must be applied prior to the data being sent outside of the originator's security boundary and remain undisturbed until it arrives within the security boundary of the intended recipient.
- For communications between individuals, this can be accomplished by encrypting the data on the sender's computer prior to emailing or otherwise sending it to the intended recipient.
- For large entities, the security boundary may be managed by IT staff, who will encrypt the data before it leaves the entity's secure network and decrypt it on the way into the network.
- Secured using cryptographic modules (hardware or software) compliant with the Federal Information Processing Standards Publication 140-2 (FIPS 140-2) or its successors, supplemented by software implementation, cryptographic key management, and other procedures and controls that are in accordance with guidance provided in current U.S. National Institute for Standards and Technology (NIST) publications, or by other cryptographic means that provide security strength that is at least comparable to the minimum 128 bits



✓ FIPS 140-2 ✓ Data protection uninterrupted ✓ Crypto keys **not with** Third party ✓ End to End

### Other Solutions



? FIPS 140-2 ✗ Data protection interrupted ✗ Crypto keys **with** Provider ✗ **Not** End to End

Certes – Patented technology placed at the Data origin and Intended recipient protect the entire Data Journey

#### Contact Certes Networks

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