

Unidirectional Conversion (Hash Function)

Along with symmetrical conversion dongles can calculate the unidirectional functions (hash functions): HASH64 with 128 or 256-bit private key (only for Guardant Sign/ Time / Net) and SHA256 with 256-bit private key.

Such conversion is characterized by the fact that it is practically impossible to restore the source data based on the result of conversion. Using the secret key ensures uniqueness of the conversion, which is frequently used for securing data against counterfeiting.

These features of unidirectional functions are widely used for data validity verification (e.g. password checks). Since you can write the same hardware algorithm descriptors into the memory of different dongles, the unidirectional conversion can be used both for data integrity checks related to data exchange of various protected applications and different parts of the same application.