

## **DENCRYPT CORE** CUSTOMISED INTEGRATION OF DYNAMIC ENCRYPTION

Dencrypt Core is a customer-specific package of the crypto components required to integrate Dynamic Encryption into existing or planned products. Anything from satellites and drones to Internet-of-Things gadgets, sensors, wearables etc. can have Dencrypt Core added for stronger protection of data streams.

Based on the customers' product specifications, Dencrypt will design the best solution for implementing Dencrypt Core, and develop special components if required. Data packet size, programming language, restrictions on timing/speed, API adjustments etc. are issues that may need to clarified. Implementation of Dencrypt Core should be considered an integration project. Conversations and project execution will be covered by NDA or a similar agreement.

## **About Dynamic Encryption**

Dynamic Encryption has been called "state of art in cryptology" by Vincent Rijmen, co-inventor of the AES encryption standard and a world-renowned cryptologist.

The inner encryption algorithm (e.g. AES-256 or national algorithm) is wrapped by an outer Dynamic Encryption algorithm. Dynamic Encryption provides extra protection, as not only the encryption keys for both algorithms but also the configuration of the outer crypto system is changed for each data session. When the data transfer is complete, the keys and the one-time encryption algorithm are discarded.

Cryptanalysis (code breaking) normally requires large amounts of data to be encrypted with the same method. As Dynamic Encryption is constantly mutating, cryptanalysis is made practically impossible.

This is the moving target defence strategy applied to cryptography, also known as 'perfect forward secrecy': any potential breach would only reveal the content of a single data transaction, as the subsequent transaction will be encrypted in a different way. The Dynamic Encryption principle extends the lifetime of a cryptosystem, as the outer layer shields the inner algorithm from attacks.

The Dynamic Encryption principle was invented in 2013 by Professor Lars Ramkilde Knudsen at the Technical University of Denmark. He was one of five finalists in the international Advanced Encryption Standard (AES) competition. Dencrypt has the exclusive right to use the patent for Dynamic Encryption.

## **DYNAMIC ENCRYPTION** (patent pending)



Dynamic Encryption Mutating algorithm, changing keys

Eg. AES, Changing Keys





ENCRYPTION USED BY NATO & THE DANISH DEFENCE \$