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REVERSIBLE DATA HIDING IN ENCRYPTED VIDEOS BY REVERSIBLE IMAGE TRANSFORMATION

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CONTENTS

01

Introduction

02

Problem Statement

03

Objective

04

Scope

05

Existing Systems

06

Proposed System

07

Modules Used

08

Conclusion

INTRODUCTION

Nowadays, as the popularity of outsourcing data to the cloud grows, there is a need to protect data and allow the cloud server to easily manage the data at the same time. Under these demands, our proposed system implements Reversible Data Hiding in encrypted videos.

PROBLEM STATEMENT

The existing cloud services do not provide much secure encryption on all types of confidential data that are stored in the cloud

OBJECTIVE

To allow users to upload videos on to cloud in a more encrypted form thus providing more security and confidentiality

SCOPE

- Secure video transmission through cloud
- Military purposes
- Medical Imaging
- Law Forensics
- Image Transcoding



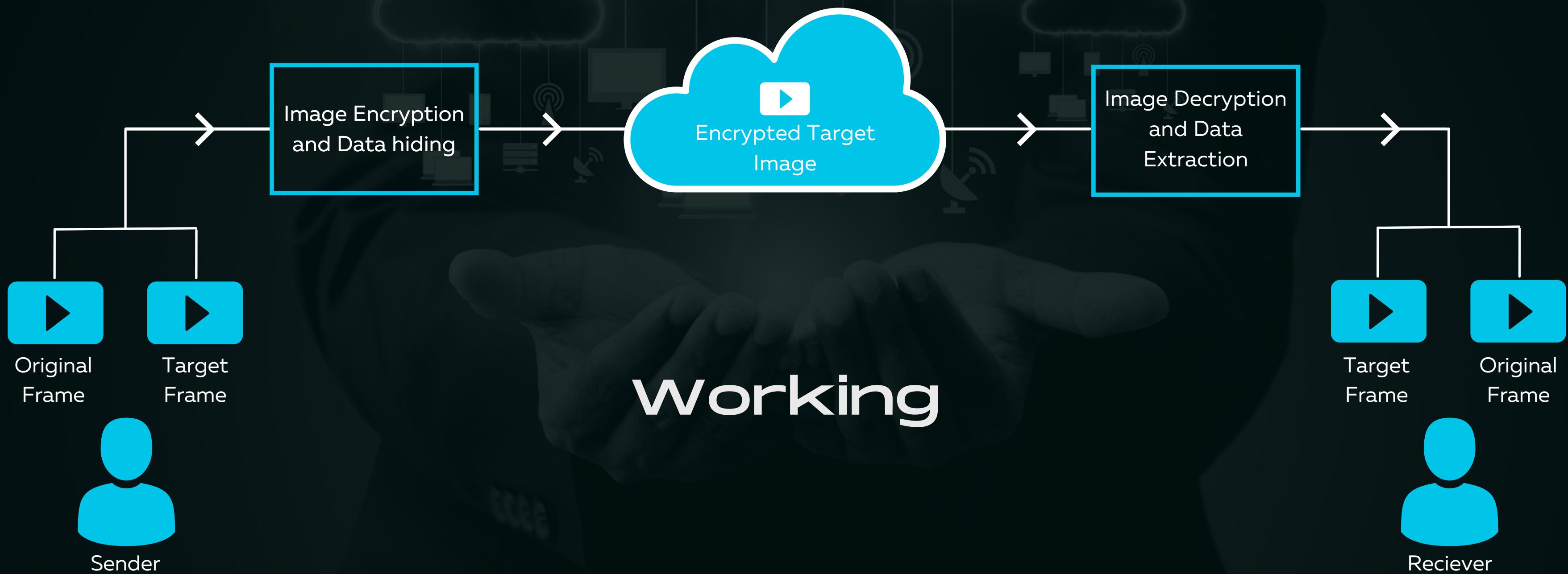
EXISTING SYSTEM



EXISTING SYSTEM

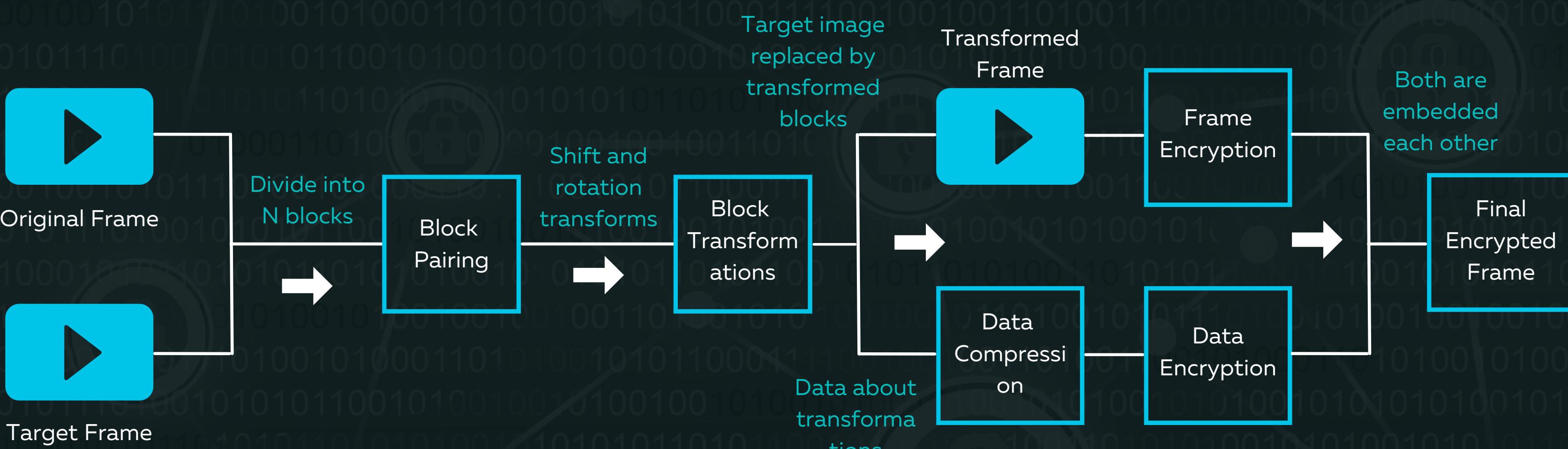
- Less Secure
- Data embedding is limited
- Encryption is limited only to images
- Cannot know the capacity of embedding

PROPOSED SYSTEM



Working

PROPOSED SYSTEM

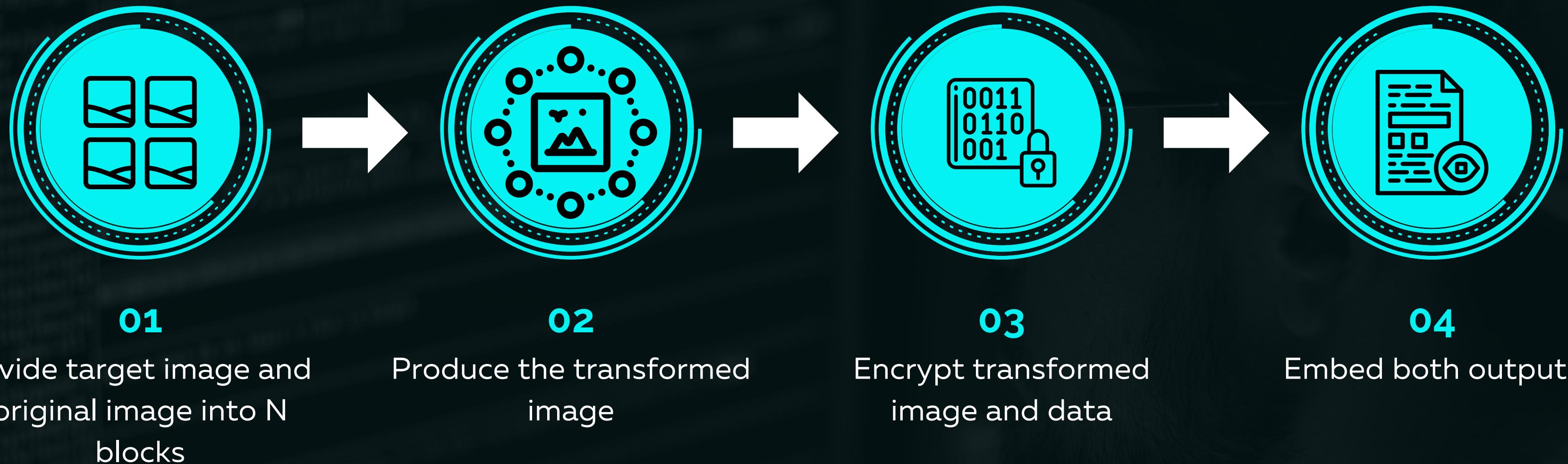


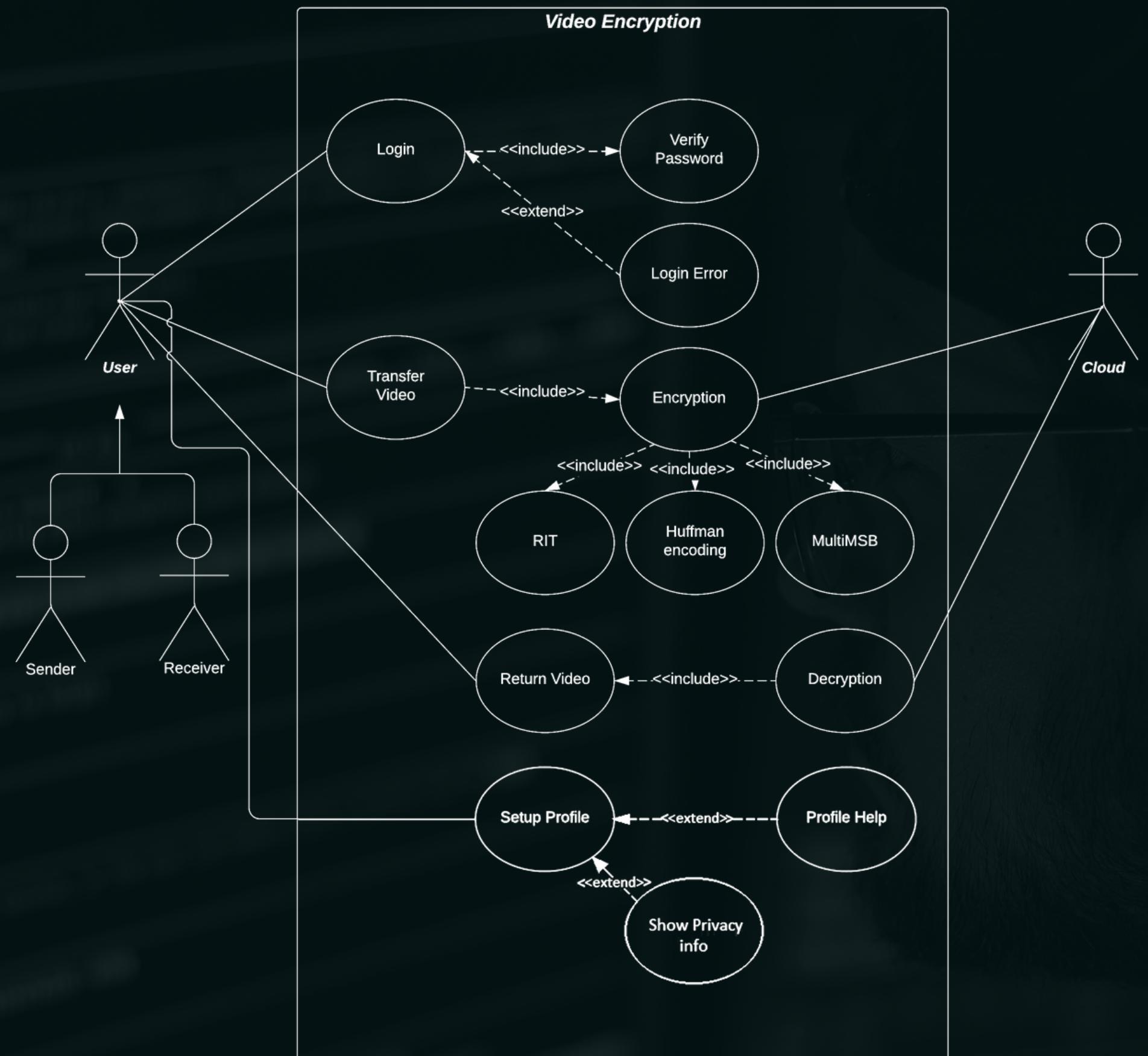
Encryption

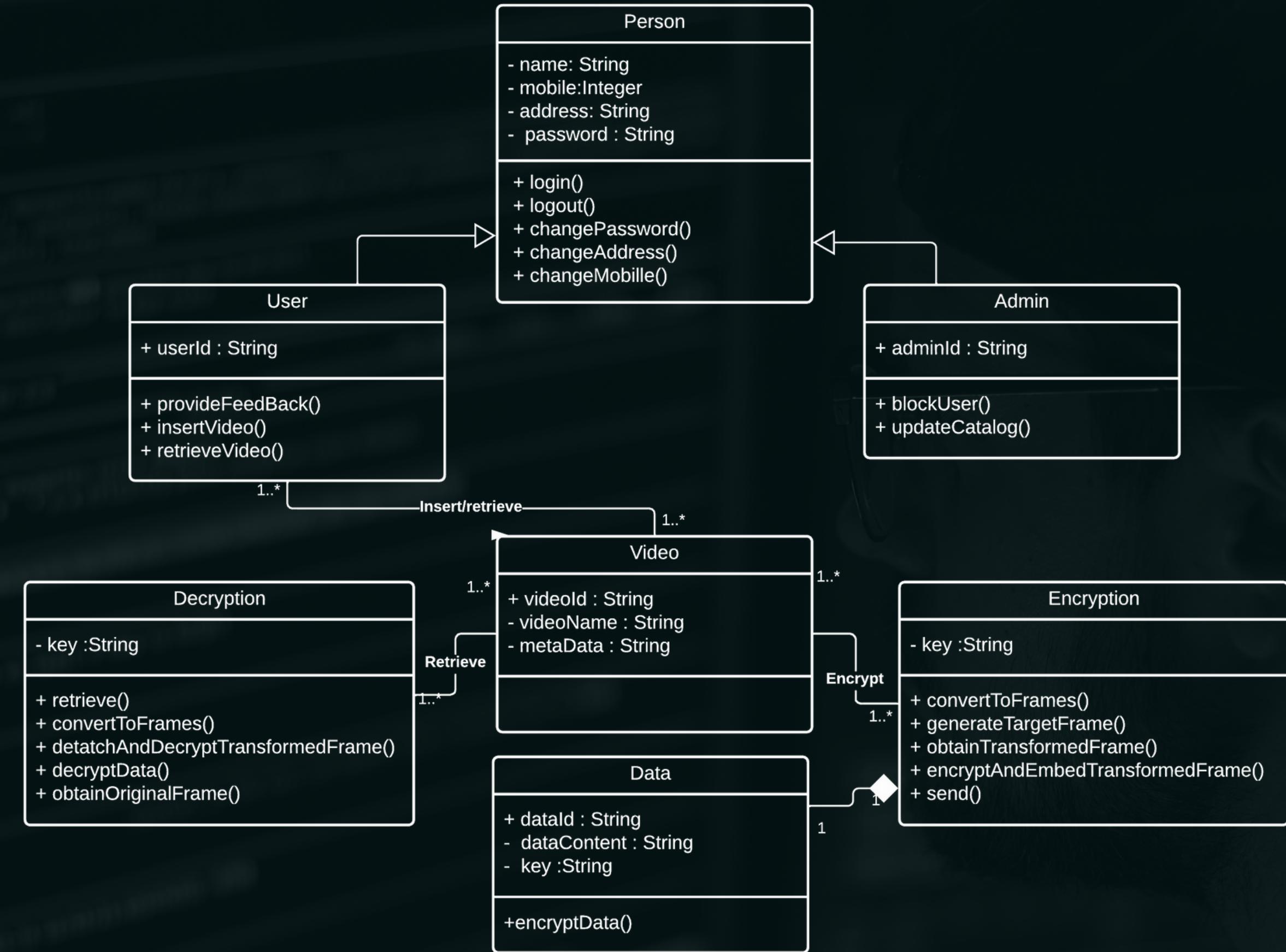
PROPOSED SYSTEM

- Converts original frame to transformed frame using a target frame
- Encrypts the transformed image and embeds data using multi-MSB Prediction and Huffman coding
- Thus obtains final encrypted video

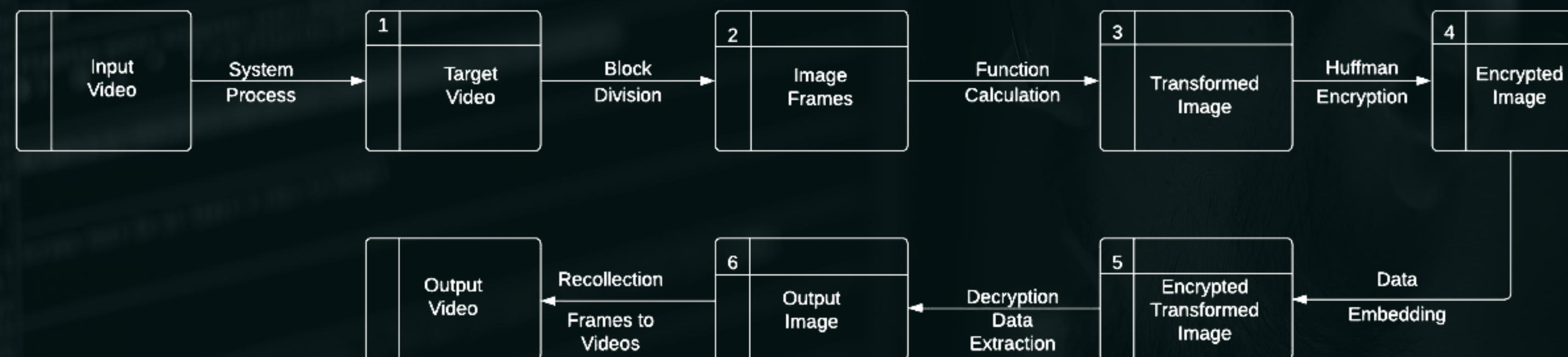
MODULES











LITERATURE REVIEW

PAPER

Reversible Data Hiding in Encrypted Images by Reversible Image Transformation

METHOD

Reversible image transformation for image encryption and decryption.

PROCESS

The original image and the target image are undergone a block pairing and block transformation to form a transformed image and then it is embedded with the encrypted data.

ADVANTAGE

Can be used for better encryption and data hiding in images, and the original image can be retrieved without any distortions.

RESULT

The proposed system provides more secure image transmission and data hiding by this mode of image encryption.

Reversible Data Hiding in Encrypted Three-Dimensional Mesh Models

Reversible data hiding in encrypted domain for 3D meshes

Method maps decimals of the vertex coordinates into integers, With a data-hiding key, several least-significant bits are operated to embed data

Can be used to encrypt 3D meshes and maintains high values of the decrypted meshes, and has low computational complexity

PAPER

Encrypted Signal based reversible data hiding with Public-Key cryptosystem

METHOD

Reversible Data Hiding for Encrypted Signal with Public-Key cryptosystem using Paillier Homomorphic Encryption.

PROCESS

The signal provider generates the encrypted signal, and then hider performs the hiding method to generate the encrypted signal with the embedded message by using the receiver's public key.

ADVANTAGE

Has more payload and signal quality than other EIRDH schemes. ESRDH scheme allows multiple signal providers and data hidars unlike C-- EIRDH with only specific providers .

RESULT

The proposed system provides more secure signal transmission and data hiding by this mode of signal encryption.

An Improved Reversible Data Hiding in Encrypted Images Using Side Match

Side Match technique to enhance Reversible Data Hiding in Encrypted Images

Method partitions an encrypted image into blocks each carrying one bit by flipping three LSBs of a pre-defined pixel set. Data extraction and Image recovery is achieved by examining block smoothness.

Uses a better scheme for measuring the smoothness of blocks. Uses the side-match scheme to further decrease the error rate of extracted-bits

The proposed method recovers the image blocks accurately and provides better perfomance for data extraction and image recovery

CONCLUSION

- The proposed system can provide a much more encrypted, secure, and protected cloud storage mechanism to which users can store videos more securely
- This system provides a higher data embedding capacity

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THANK YOU