

Explain about RC4? 2100031921

RC4 generates a pseudorandom stream of bits (a keystream). As with any stream cipher, these can be used for encryption by combining it with the plaintext using bitwise exclusive or; decryption is performed the same way (since exclusive or with given data is an involution).

Features of the RC4 encryption algorithm:

It generates a key stream of pseudorandom bits that are XORed with the plaintext to produce the ciphertext. Variable key size: RC4 supports variable key sizes, from 40 bits to 2048 bits, making it flexible for different security requirements.

It is a variable key-size stream cipher with byte-oriented operations. It uses either 64 bit or 128-bit key sizes. It is generally used in applications such as Secure Socket Layer (SSL), Transport Layer Security (TLS), and also used in IEEE 802.11 wireless LAN std.

Advantages and Disadvantages of using RC4 Encryption

It is easy to use RC4 stream ciphers. In comparison to other ciphers, RC4 has a quick operation.