

Asymmetric Ciphers

Cryptographic systems rely keys for encryption and decryption. Traditionally, a single key is required to encrypt and to decrypt. Thus in order for the recipient of the encrypted message to be decrypted by the recipient, the key must also be transmitted. However, sending the key over the channel where the actual message will be sent is insecure. The key must be transmitted on a different and secure channel[4].

Diffie-Hellman[1]

Rivest-Shamir-Adleman[5]

Elgamal[2]

Elliptic Curve Cryptosystems[3]

References

- [1] Whitfield Diffie and Martin Hellman. New directions in cryptography. *Information Theory, IEEE Transactions on*, 22(6):644–654, 1976.
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- [4] Ralph C. Merkle. Secure communications over insecure channels. *Commun. ACM*, 21(4):294–299, 1978.
- [5] Ronald L. Rivest, Adi Shamir, and Len Adleman. A method for obtaining digital signatures and public-key cryptosystems. *Communications of the ACM*, 21(2):120–126, 1978.