Verschlüsselung - PGP vs. S/MIME

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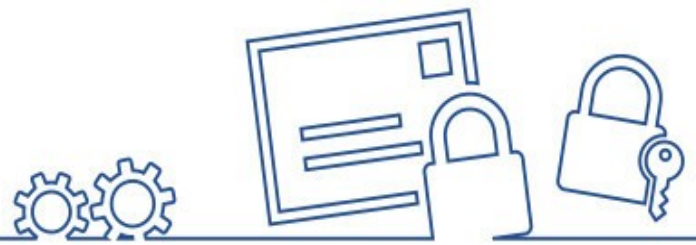
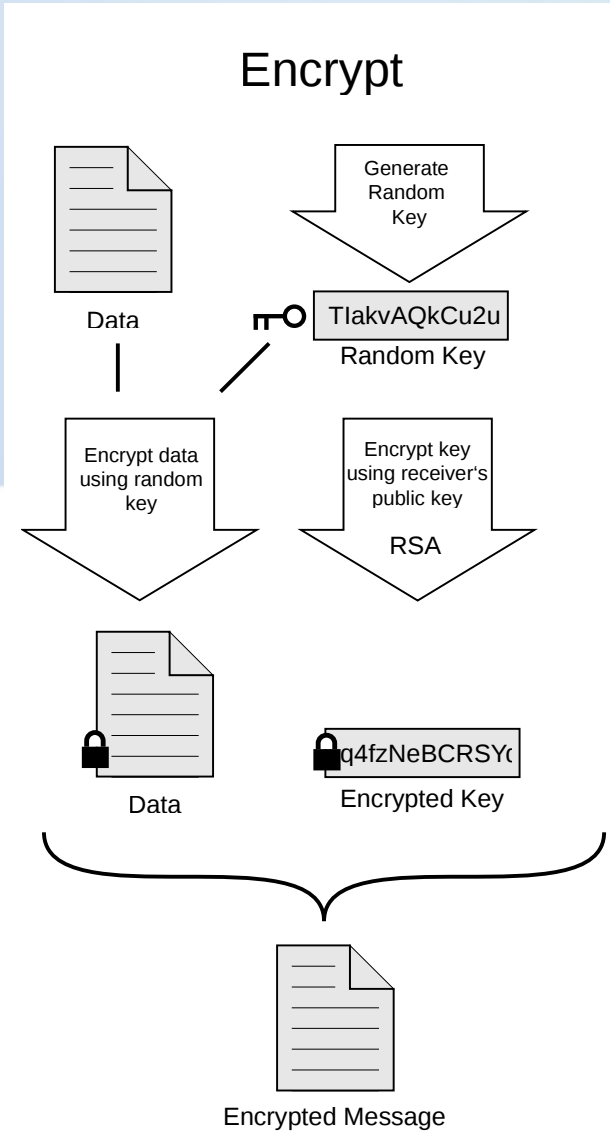
PGP

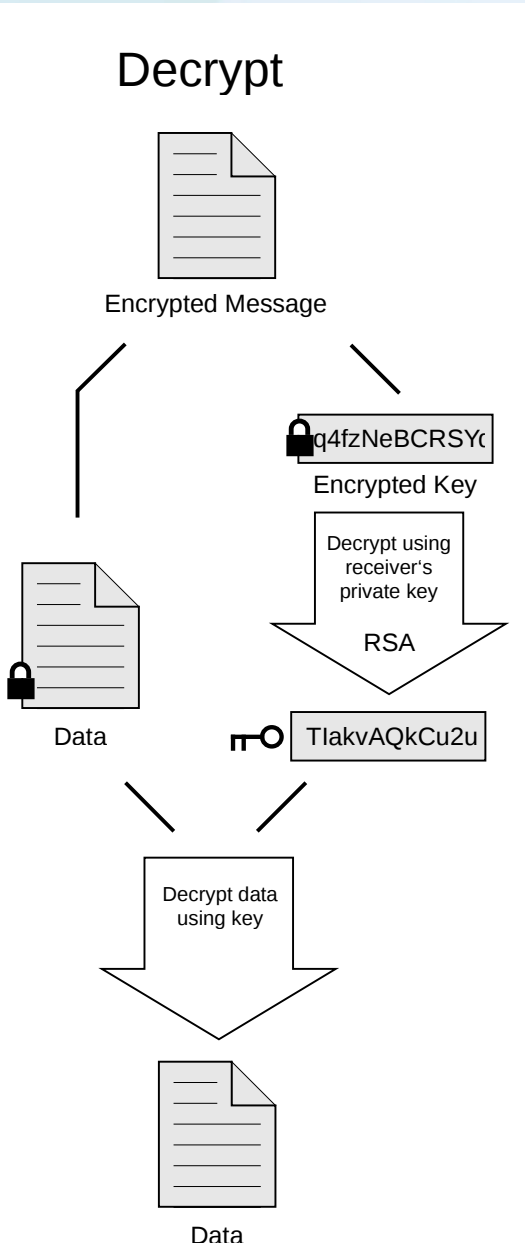
PGP (Pretty Good Privacy) is an encryption protocol which provides cryptographic privacy and authentication. PGP can sign, encrypt and decrypt data.

PGP's Features:

- Confidentiality (Encryption)
- Digital signatures (Authentication)







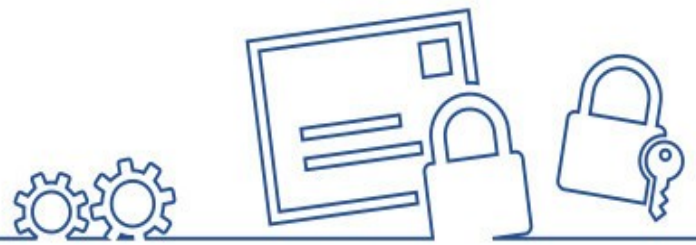
https://en.wikipedia.org/wiki/Pretty_Good_Privacy

S/MIME

S/MIME (Secure/Multipurpose Internet Mail Extensions) is a protocol for sending signed and encrypted messages. S/MIME helps to digitally sign and encrypt a message and make sure the received message is originated from the sender.

Basically, S/MIME provides two main services:

- Digital signature
- Message encryption



S/MIME

- **Digital signatures**

  Digital signatures are equivalent digital version of traditional signature on paper document.

  Digital signatures provide three security features:

  - Authentication: To validate an identity

  - Non-repudiation: The uniqueness of a signature

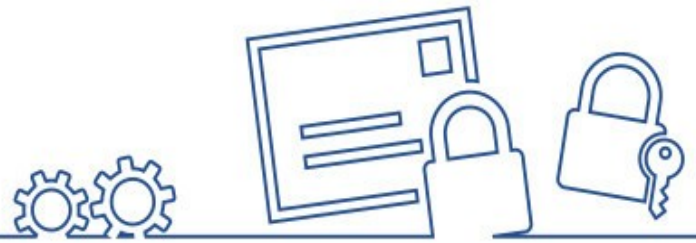
  - Data integrity: To make sure received data has not been tempered

S/MIME

- **Message Encryption**

  S/MIME encryption provides two features:

  - Confidentiality
  - Data integrity



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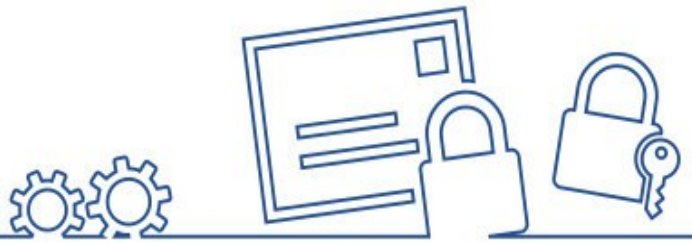
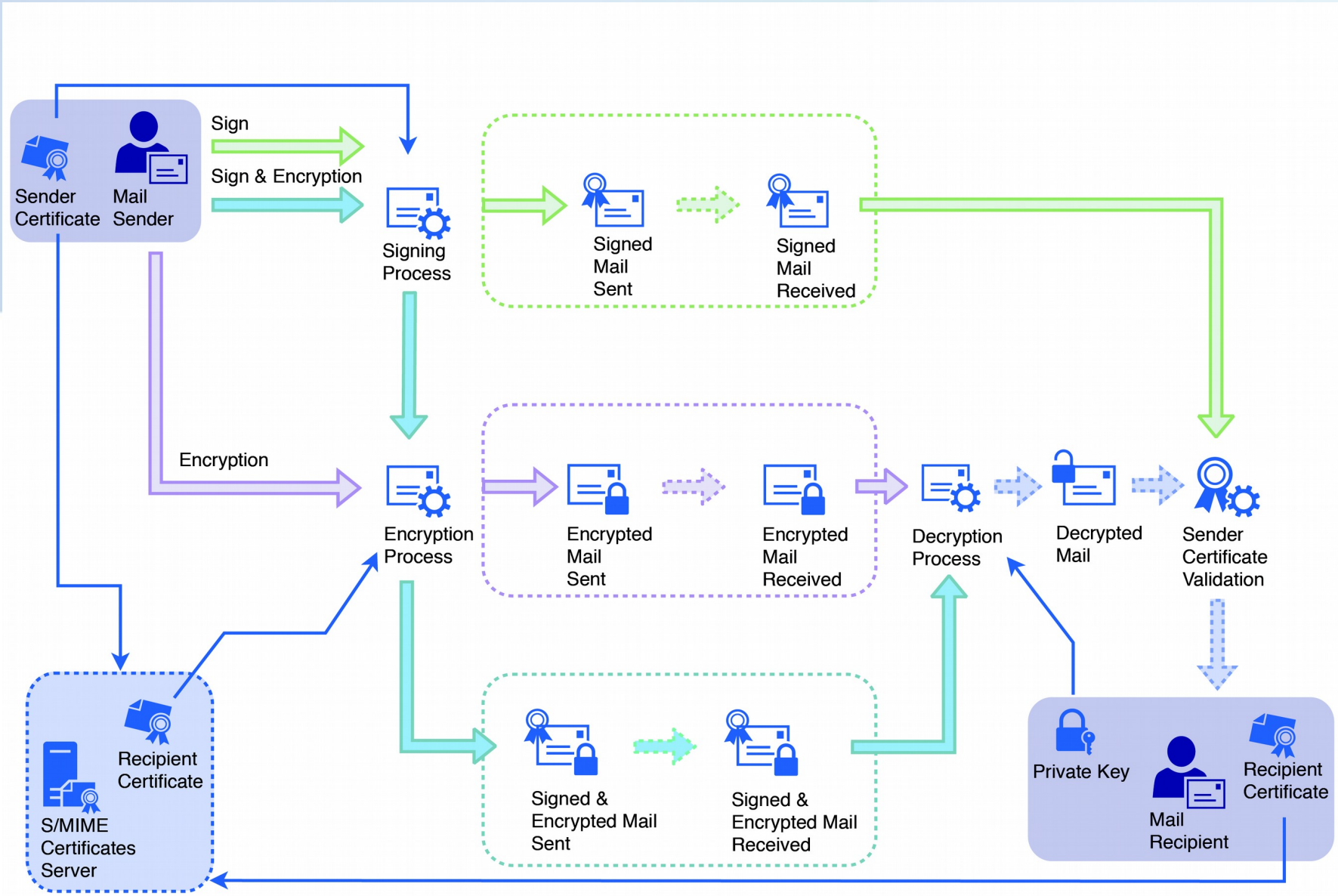



Sender Certificate
Mail Sender
Sign
Sign & Encryption
Signing Process
Signed Mail Sent
Signed Mail Received
Encryption
Encryption Process
Encrypted Mail Sent
Encrypted Mail Received
Decryption Process
Decrypted Mail
Sender Certificate Validation
Recipient Certificate
S/MIME Certificates Server
Signed & Encrypted Mail Sent
Signed & Encrypted Mail Received
Private Key
Mail Recipient
Recipient Certificate

PGP vs S/MIME

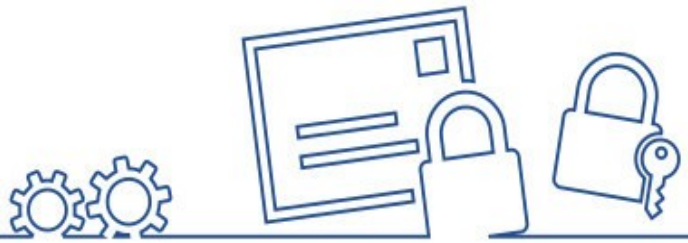
Similar features – what are the differences?

PGP

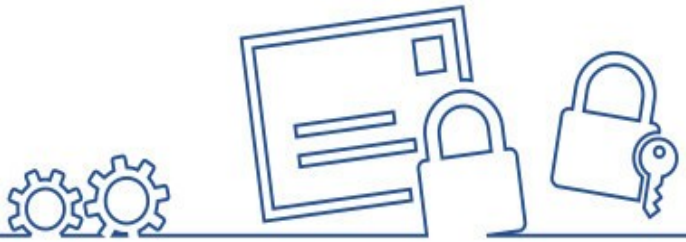
+ Private key stays in browser
+ More secure solution
- Key exchange & validation
- Browser plugin (Mailvelope) needed
- Client support specially mobile

S/MIME

+ Wide client support
+ Ease of use & deployment
+ Key exchange & validation via CA
- Security of CA infrastructure
- Security relies trust in server



THANK YOU!



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Bei Fragen sprechen Sie uns gerne an!

If you have any questions, please feel free to contact us!

Ihr EGroupware Team

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