

Features of AS2 protocol



Encryption

Using the public-key cryptography mechanism, the sender uses the **recipient's public key to encrypt the message, hiding the true meaning of the information** so that only the recipient can decode the message using his/her private key.



Digital Signatures

A digital signature is a mathematical scheme for **verifying the identity of the message sender**. The sender signs the message using his/her private key, and the receiver can verify the signature by using the sender's public key to validate the authenticity and integrity of the message



Compression

Compression **reduces the overall transfer size** to reduce transmission time and save bandwidth



MDN (Message Disposition Notification)

MDN is an **electronic return receipt**, which the sender can request either synchronously or asynchronously, to **ensure that the receiver received the message intact**.



MIC (Message Integrity Check)

MIC is a legal proof of delivery. The sender calculates the original message MIC value by using a hashing algorithm and when the message is received, the receiver calculates the received message MIC with the same algorithm used by the sender. Then the calculated MIC value is sent back to the sender with the MDN for comparison **to ensure that the received message was identical to what he/she originally sent**, and has not been tampered with, or altered, in the middle of the transaction.