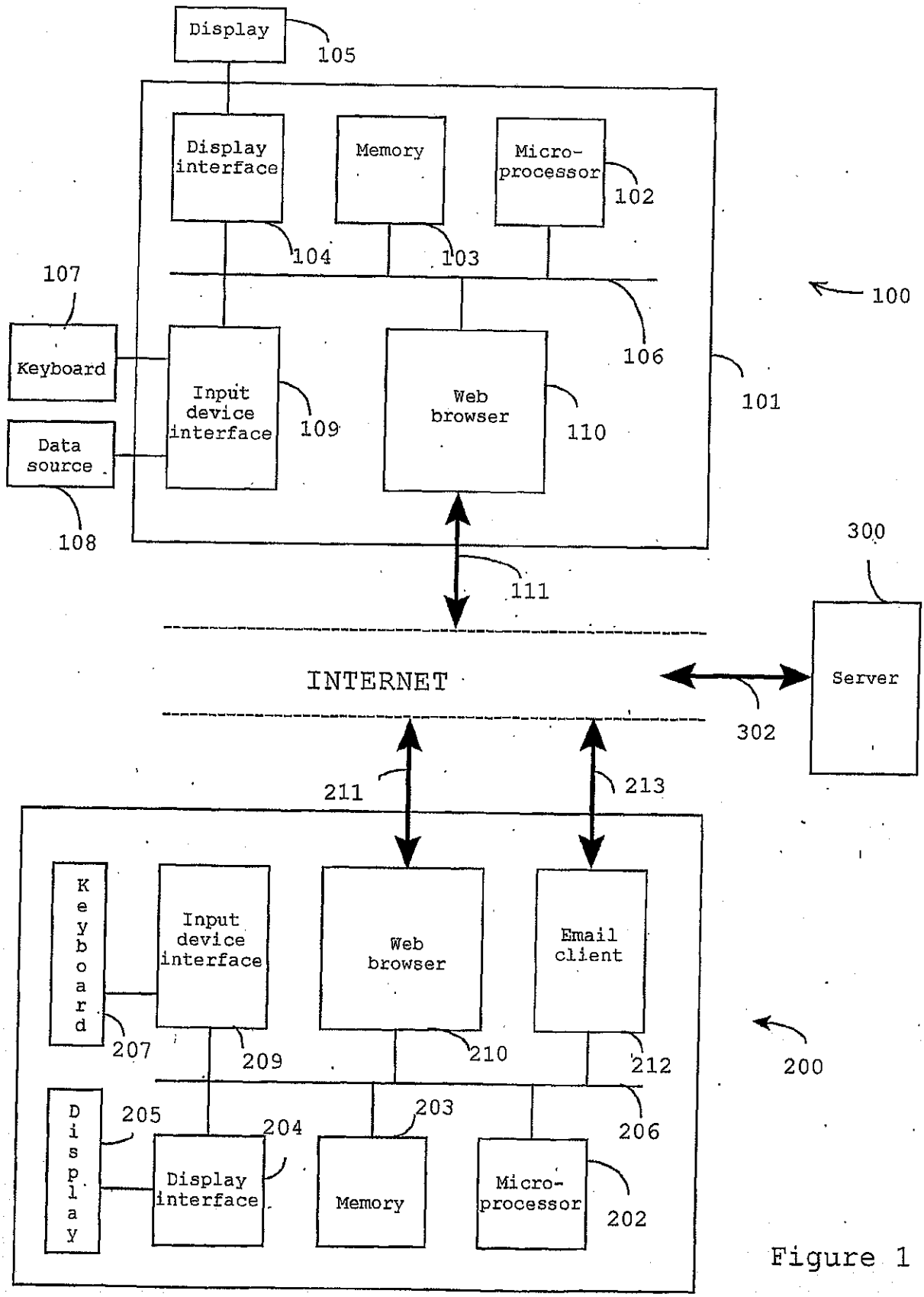

Display
105
Display interface
Memory
Micro-processor
102
104
103
107
100
Keyboard
Input device interface
106
Web browser
101
Data source
109
110
108
111
300
INTERNET
Server
302
211
213
Keyboard
Input device interface
Web browser
Email client
207
209
210
212
200
Display
205
204
203
206
Display interface
Memory
Micro-processor
202

Figure 1

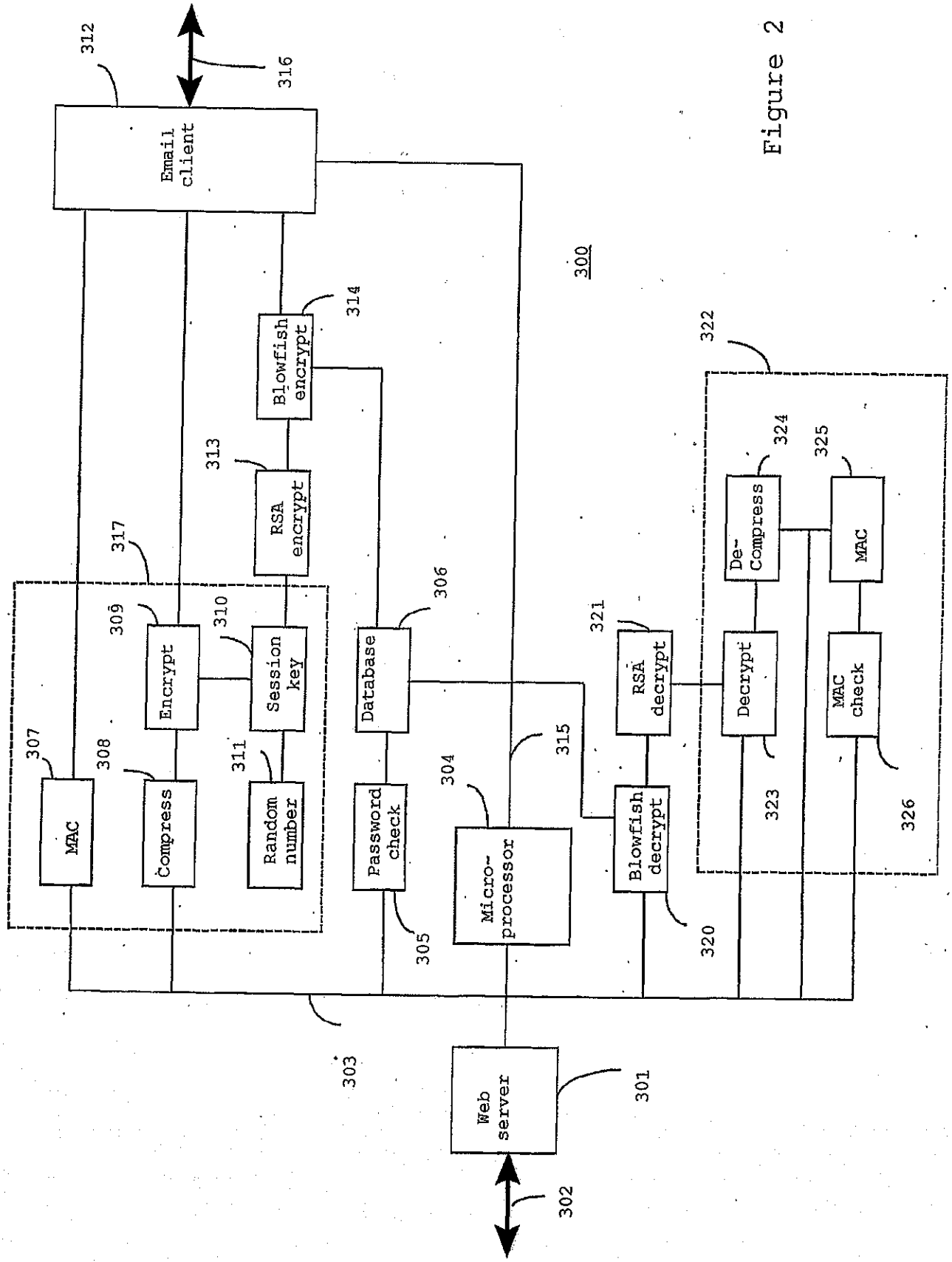

Email client
312
316
300
Blowfish encrypt
314
RSA encrypt
313
317
Encrypt
309
Session key
310
MAC
307
Compress
308
Random number
311
Database
306
Password check
305
Micro-processor
304
315
RSA decrypt
321
Blowfish decrypt
320
322
De-Compress
324
MAC
325
Decrypt
323
MAC check
326
Web server
301
303
302

Figure 2

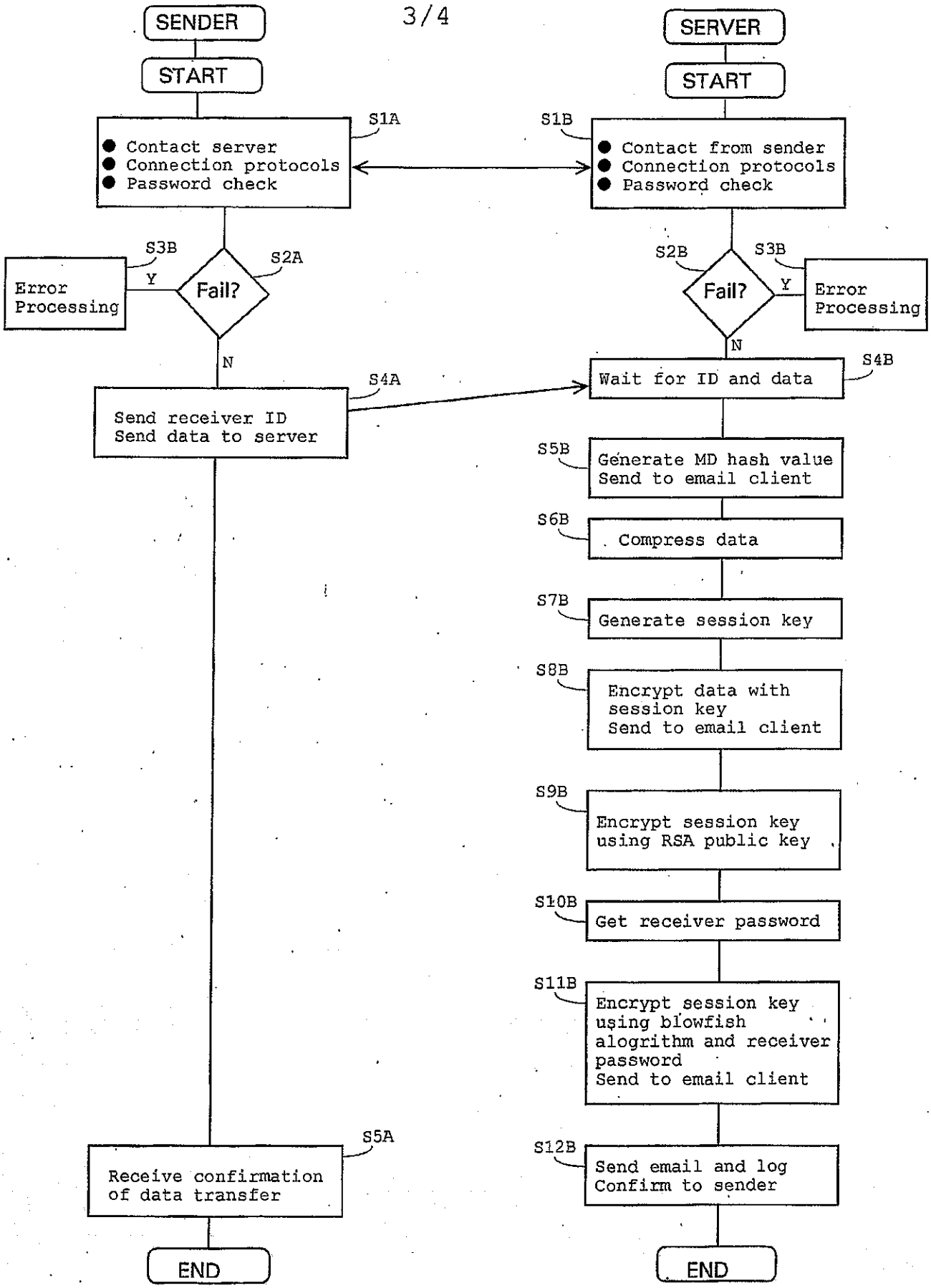

SENDER
START
S1A
Contact server
Connection protocols
Password check
S3B
Y
Error Processing
S2A
Fail?
N
S4A
Send receiver ID
Send data to server
S5A
Receive confirmation of data transfer
END
SERVER
START
S1B
Contact from sender
Connection protocols
Password check
S2B
Fail?
Y
S3B
Error Processing
N
S4B
Wait for ID and data
S5B
Generate MD hash value
Send to email client
S6B
Compress data
S7B
Generate session key
S8B
Encrypt data with session key
Send to email client
S9B
Encrypt session key using RSA public key
S10B
Get receiver password
S11B
Encrypt session key using blowfish alogrithm and receiver password
Send to email client
S12B
Send email and log
Confirm to sender
END

Figure 3

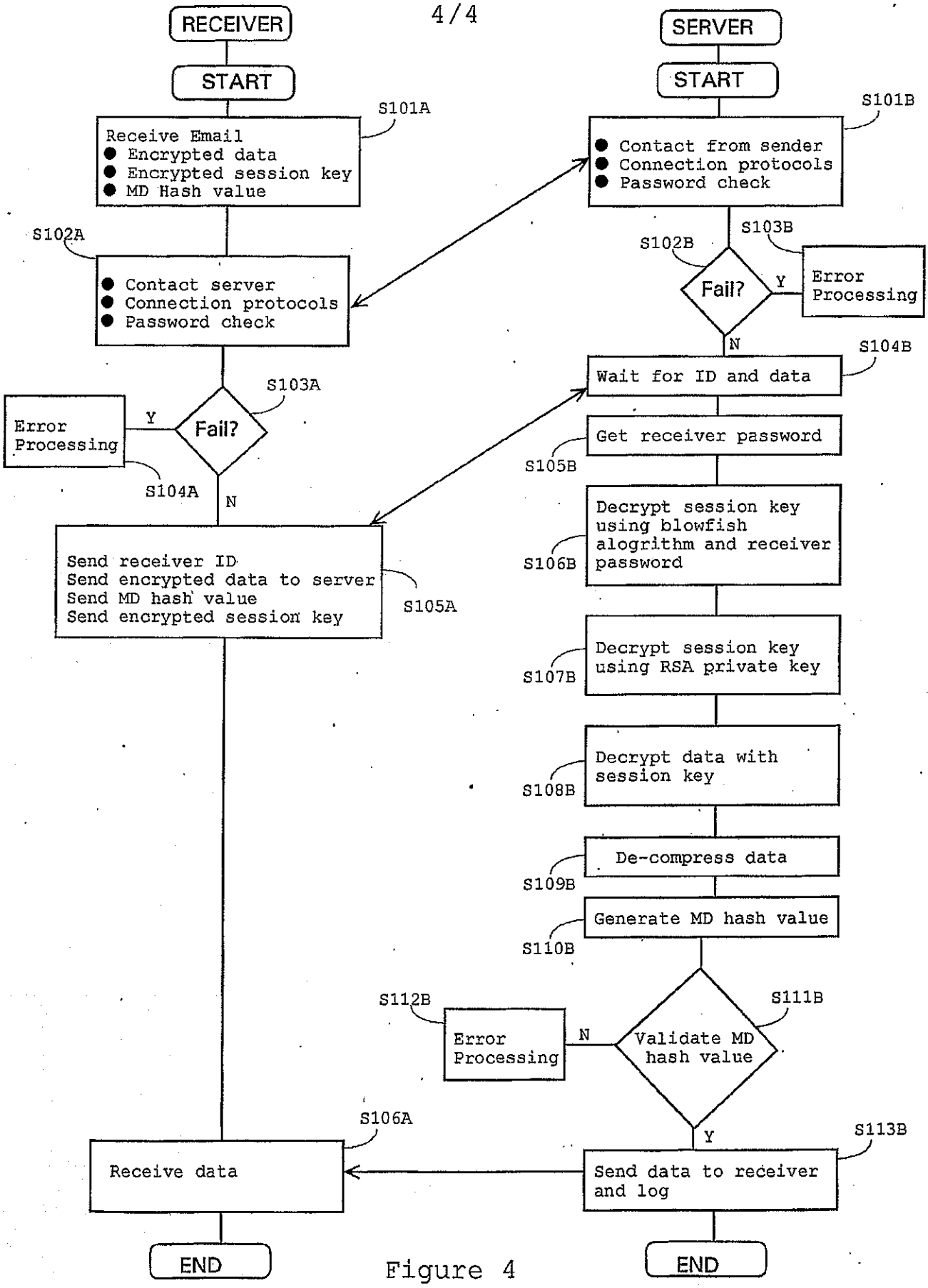

RECEIVER
START
S101A
Receive Email
Encrypted data
Encrypted session key
MD Hash value
S102A
Contact server
Connection protocols
Password check
S103A
Fail?
Y
Error Processing
S104A
N
Send receiver ID
Send encrypted data to server
Send MD hash value
Send encrypted session key
S105A
S106A
Receive data
END
SERVER
START
S101B
Contact from sender
Connection protocols
Password check
S102B
Fail?
Y
S103B
Error Processing
N
S104B
Wait for ID and data
S105B
Get receiver password
S106B
Decrypt session key using blowfish alogrithm and receiver password
S107B
Decrypt session key using RSA private key
S108B
Decrypt data with session key
S109B
De-compress data
S110B
Generate MD hash value
S111B
Validate MD hash value
N
S112B
Error Processing
Y
S113B
Send data to receiver and log
END

Figure 4