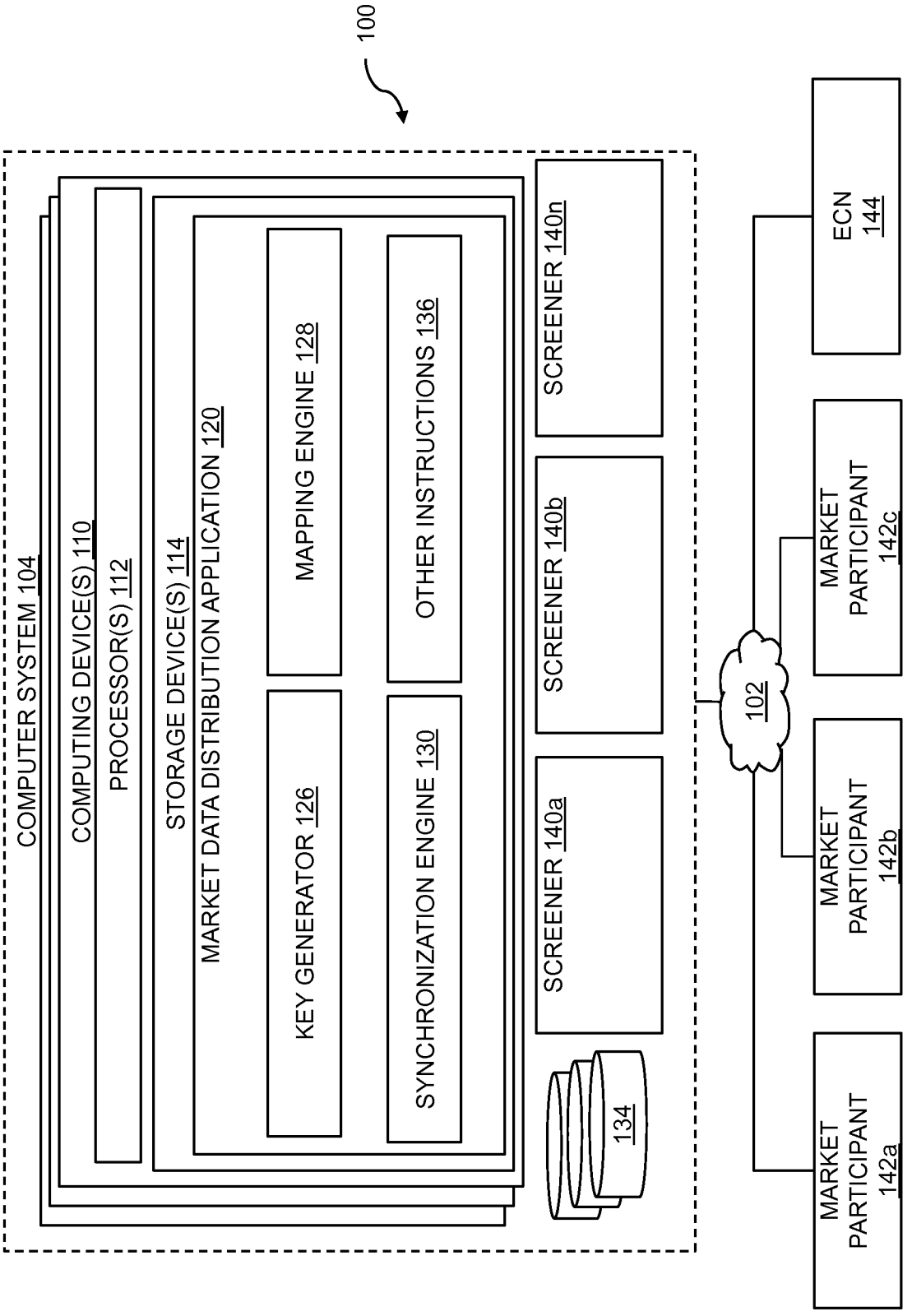
100
COMPUTER SYSTEM 104
COMPUTING DEVICE(S) 110
PROCESSOR(S) 112
STORAGE DEVICE(S) 114
MARKET DATA DISTRIBUTION APPLICATION 120
KEY GENERATOR 126
MAPPING ENGINE 128
SYNCHRONIZATION ENGINE 130
OTHER INSTRUCTIONS 136
134
SCREENER 140a
SCREENER 140b
SCREENER 140n
102
MARKET PARTICIPANT 142a
MARKET PARTICIPANT 142b
MARKET PARTICIPANT 142c
ECN 144

FIG. 1

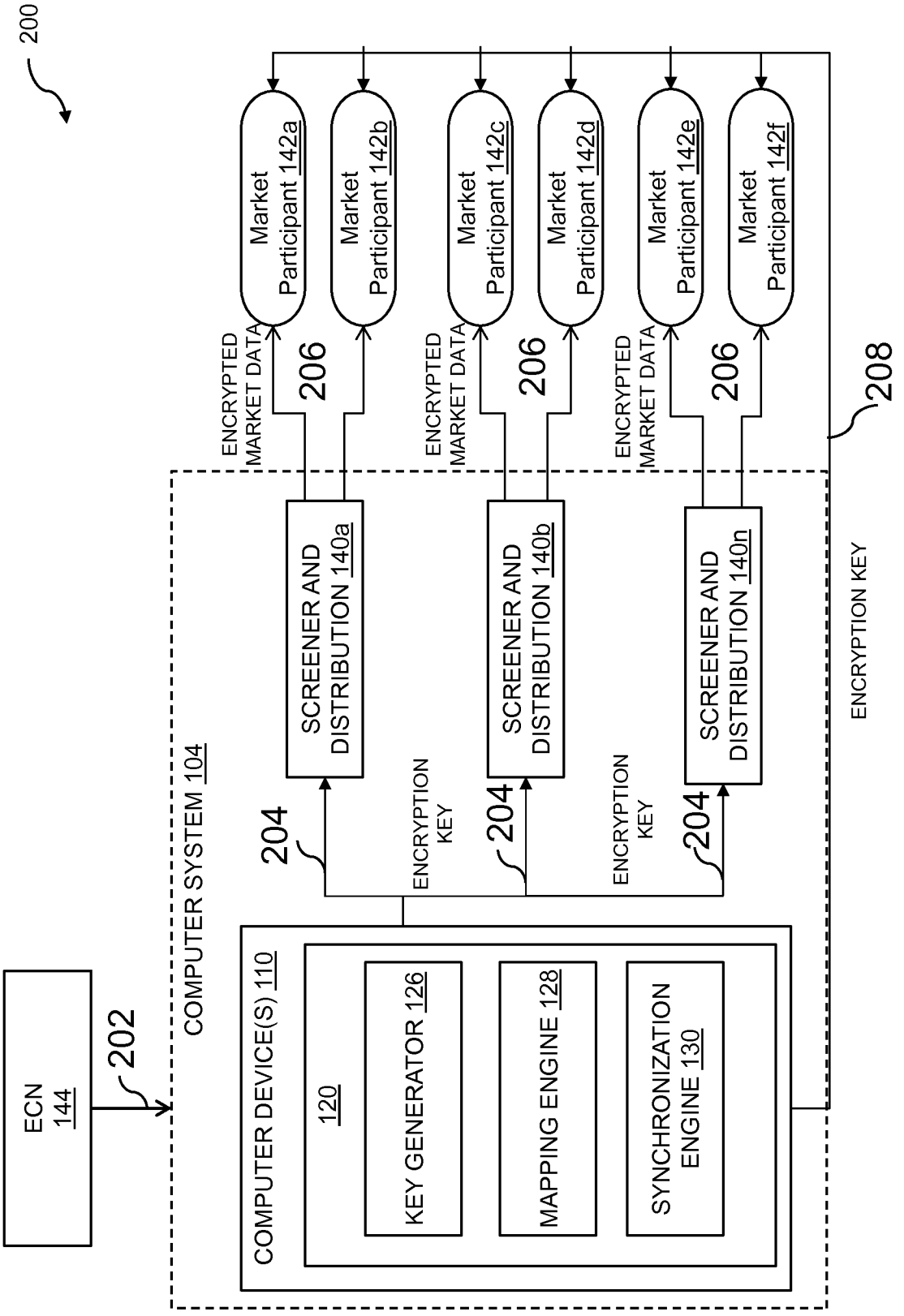
200
ECN 144
202
COMPUTER SYSTEM 104
COMPUTER DEVICE(S) 110
120
KEY GENERATOR 126
MAPPING ENGINE 128
SYNCHRONIZATION ENGINE 130
204
ENCRYPTION KEY
204
ENCRYPTION KEY
204
SCREENER AND DISTRIBUTION 140a
SCREENER AND DISTRIBUTION 140b
SCREENER AND DISTRIBUTION 140n
206
ENCRYPTED MARKET DATA
206
ENCRYPTED MARKET DATA
206
ENCRYPTED MARKET DATA
208
ENCRYPTION KEY
Market Participant 142a
Market Participant 142b
Market Participant 142c
Market Participant 142d
Market Participant 142e
Market Participant 142f

FIG. 2

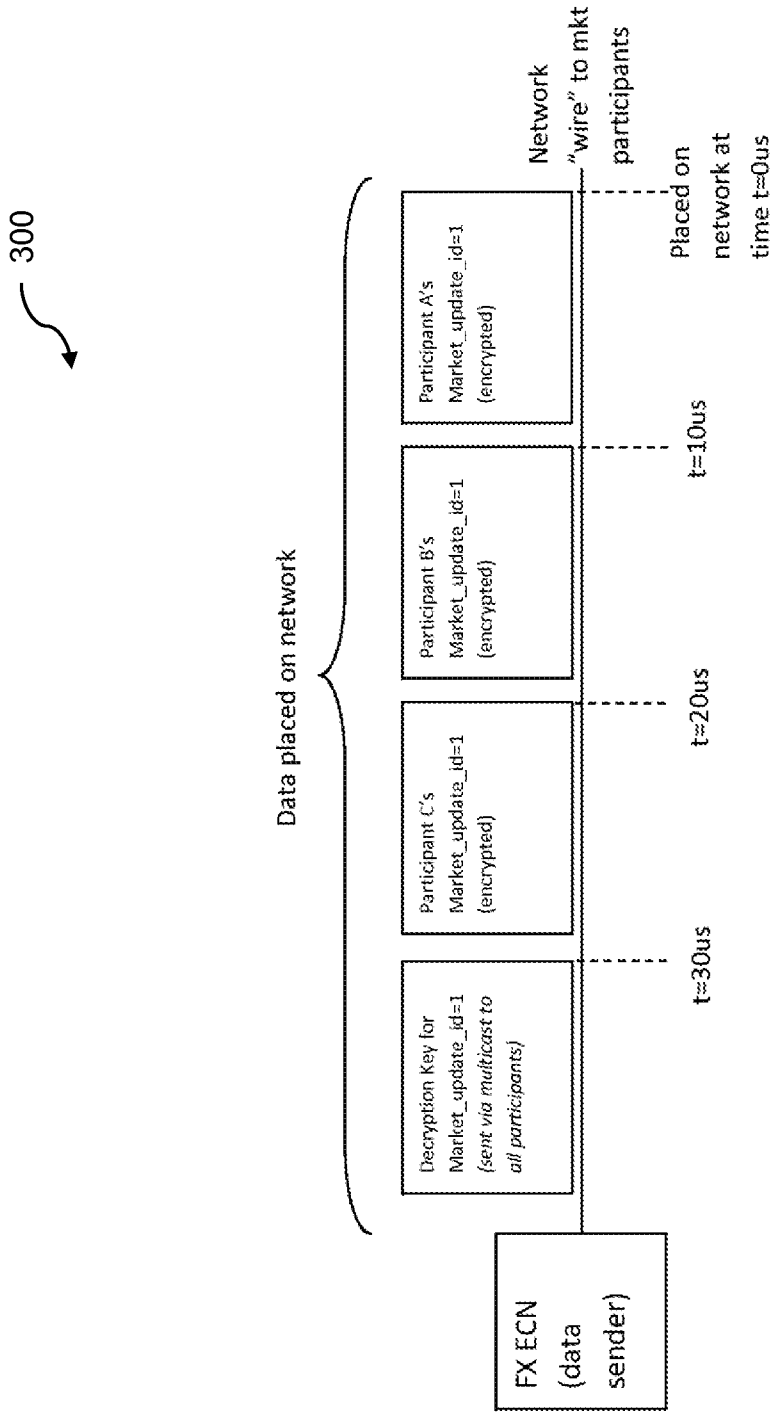
300
Data placed on network
FX ECN (data sender)
Decryption Key for Market_update_id=1 (sent via multicast to all participants)
Participant C's Market_update_id=1 (encrypted)
Participant B's Market_update_id=1 (encrypted)
Participant A's Market_update_id=1 (encrypted)
Network "wire" to mkt participants
t=30us
t=20us
t=10us
Placed on network at time t=0us

FIG. 3

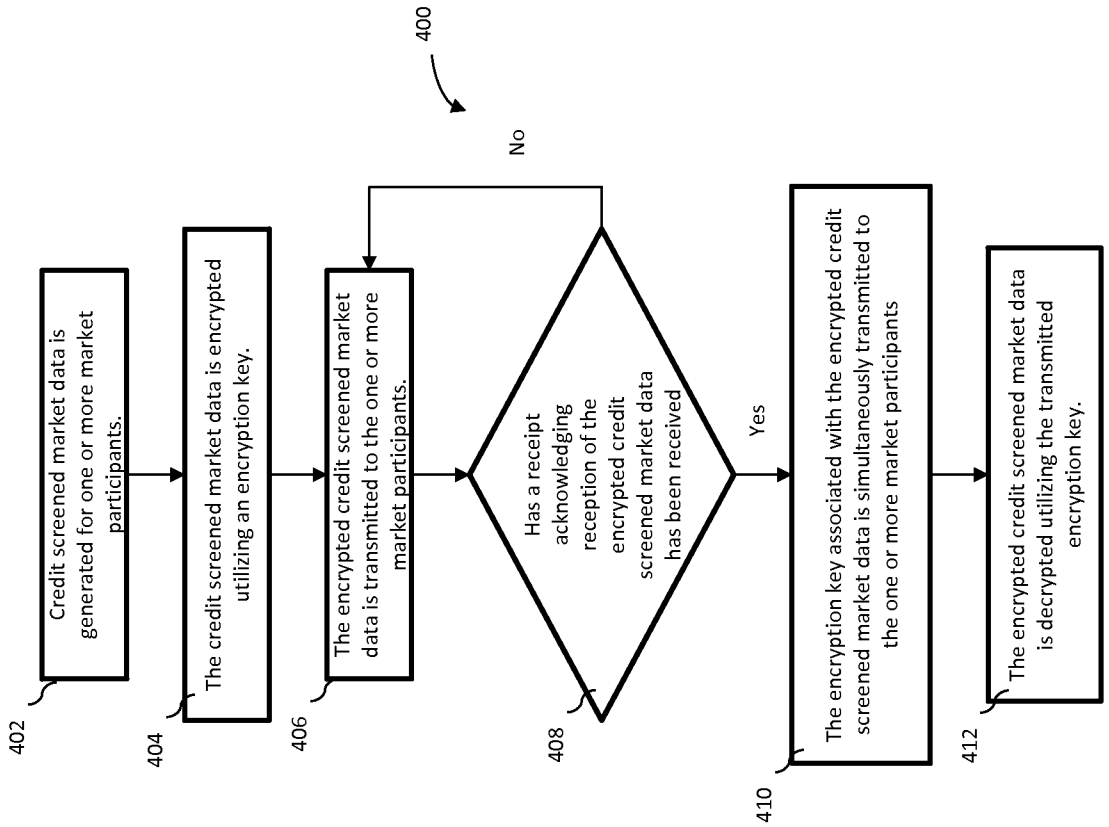
400
Credit screened market data is generated for one or more market participants.
402
The credit screened market data is encrypted utilizing an encryption key.
404
The encrypted credit screened market data is transmitted to the one or more market participants.
406
Has a receipt acknowledging reception of the encrypted credit screened market data has been received
408
No
Yes
The encryption key associated with the encrypted credit screened market data is simultaneously transmitted to the one or more market participants
410
The encrypted credit screened market data is decrypted utilizing the transmitted encryption key.
412

FIG. 4