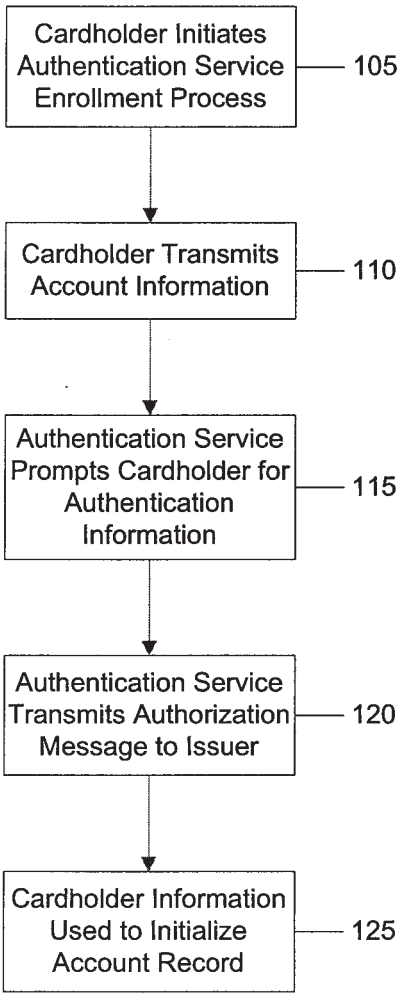

Cardholder Initiates Authentication Service Enrollment Process
105
Cardholder Transmits Account Information
110
Authentication Service Prompts Cardholder for Authentication Information
115
Authentication Service Transmits Authorization Message to Issuer
120
Cardholder Information Used to Initialize Account Record
125

FIG. 1

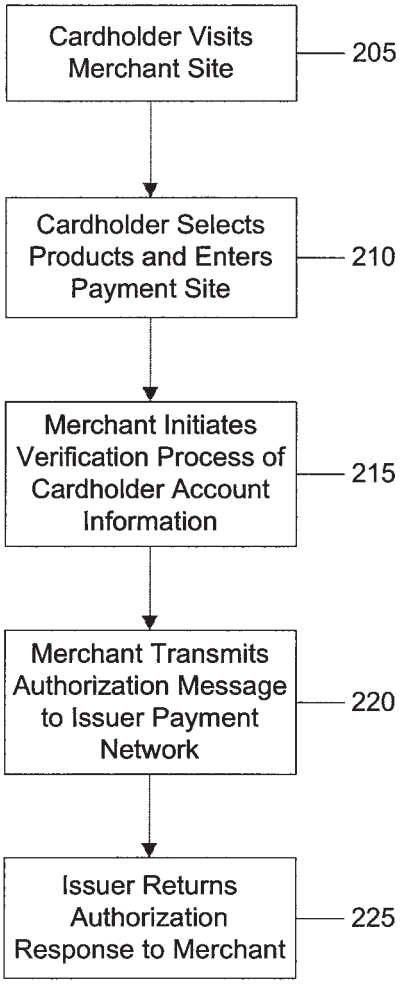

Cardholder Visits Merchant Site
205
Cardholder Selects Products and Enters Payment Site
210
Merchant Initiates Verification Process of Cardholder Account Information
215
Merchant Transmits Authorization Message to Issuer Payment Network
220
Issuer Returns Authorization Response to Merchant
225

FIG. 2

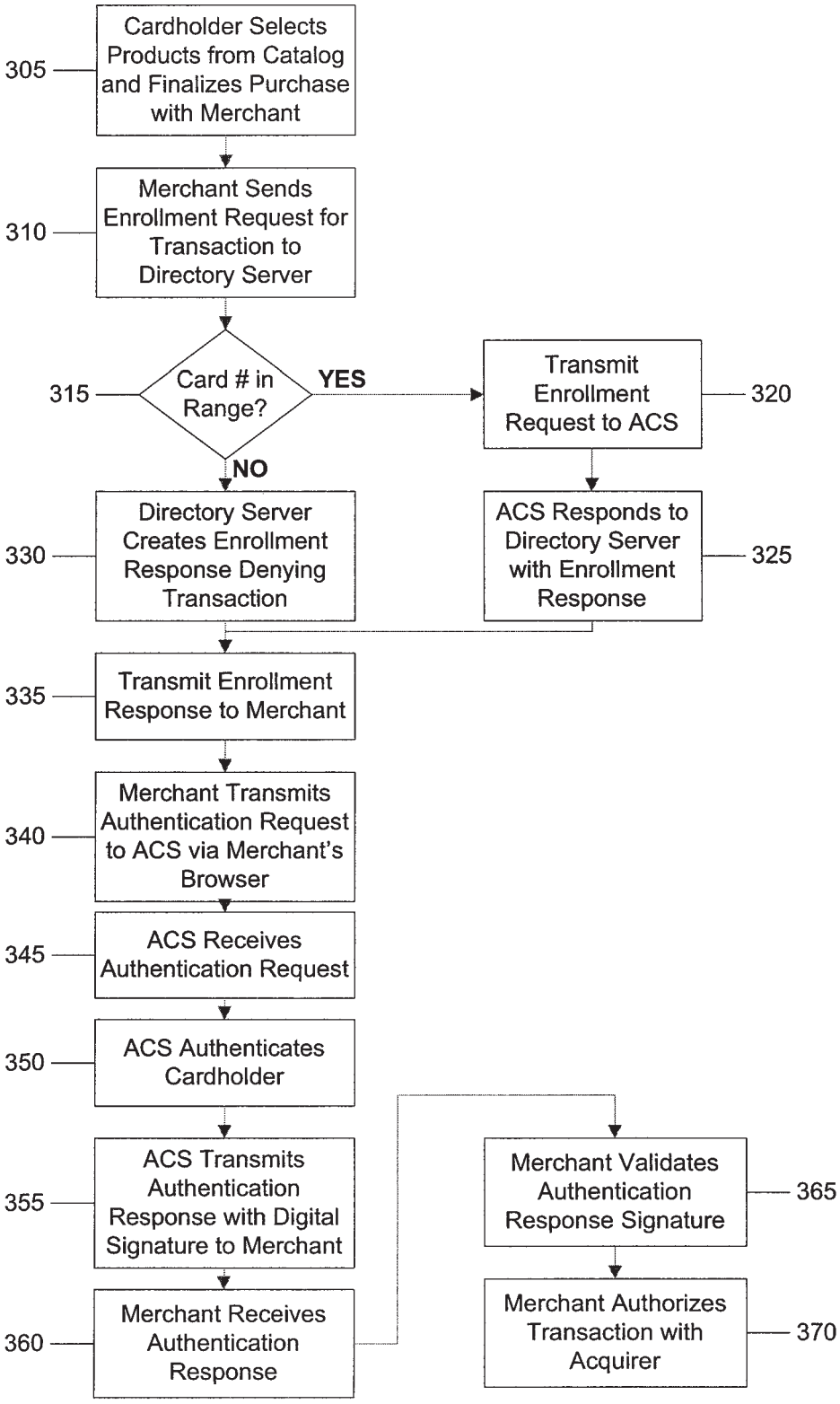

Cardholder Selects Products from Catalog and Finalizes Purchase with Merchant
305
Merchant Sends Enrollment Request for Transaction to Directory Server
310
Card # in Range?
315
YES
NO
Transmit Enrollment Request to ACS
320
ACS Responds to Directory Server with Enrollment Response
325
Directory Server Creates Enrollment Response Denying Transaction
330
Transmit Enrollment Response to Merchant
335
Merchant Transmits Authentication Request to ACS via Merchant's Browser
340
ACS Receives Authentication Request
345
ACS Authenticates Cardholder
350
ACS Transmits Authentication Response with Digital Signature to Merchant
355
Merchant Receives Authentication Response
360
Merchant Validates Authentication Response Signature
365
Merchant Authorizes Transaction with Acquirer
370

FIG. 3

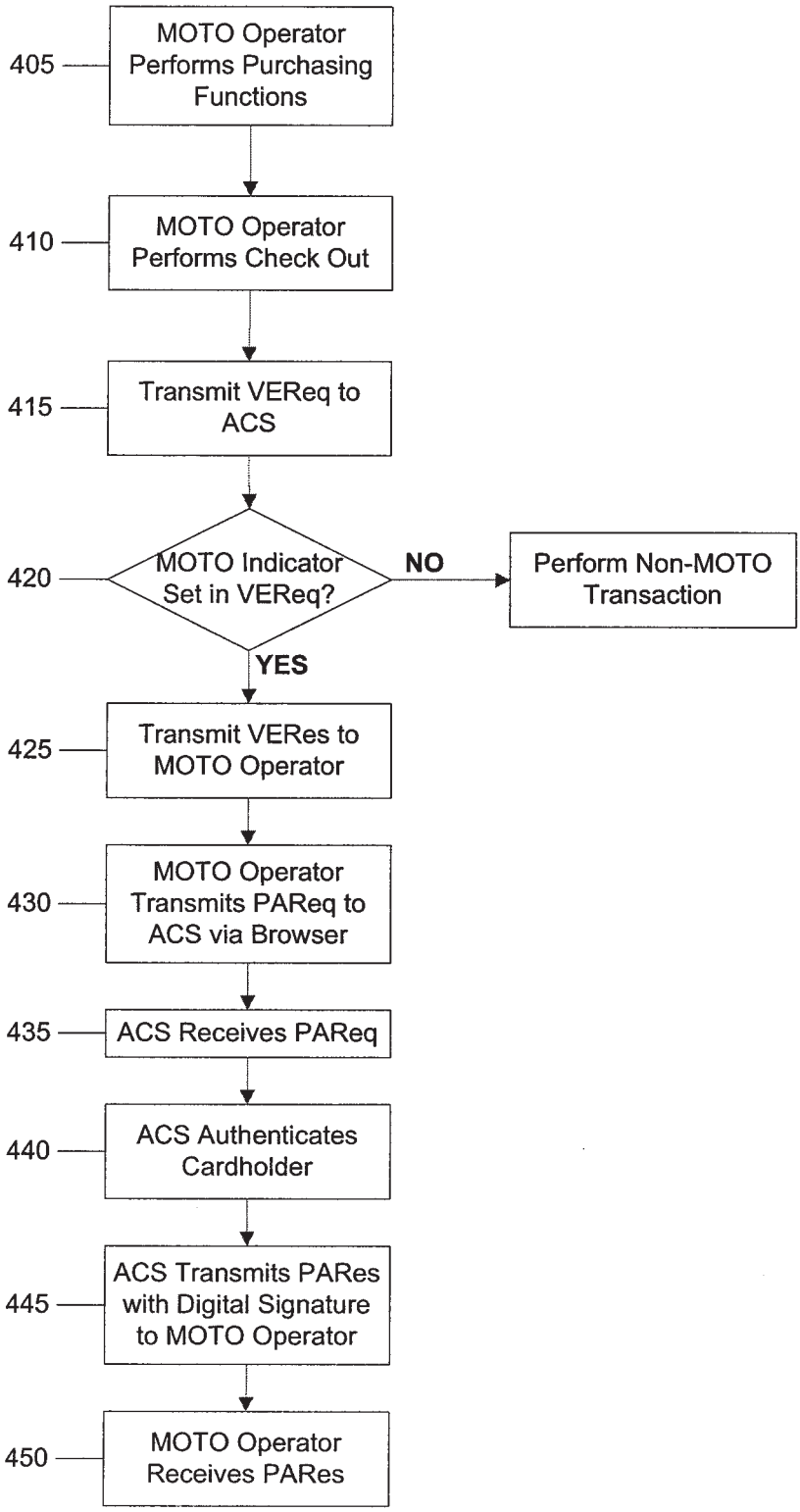

405
MOTO Operator Performs Purchasing Functions
410
MOTO Operator Performs Check Out
415
Transmit VEReq to ACS
420
MOTO Indicator Set in VEReq?
NO
Perform Non-MOTO Transaction
YES
425
Transmit VERes to MOTO Operator
430
MOTO Operator Transmits PAReq to ACS via Browser
435
ACS Receives PAReq
440
ACS Authenticates Cardholder
445
ACS Transmits PARes with Digital Signature to MOTO Operator
450
MOTO Operator Receives PARes

FIG. 4