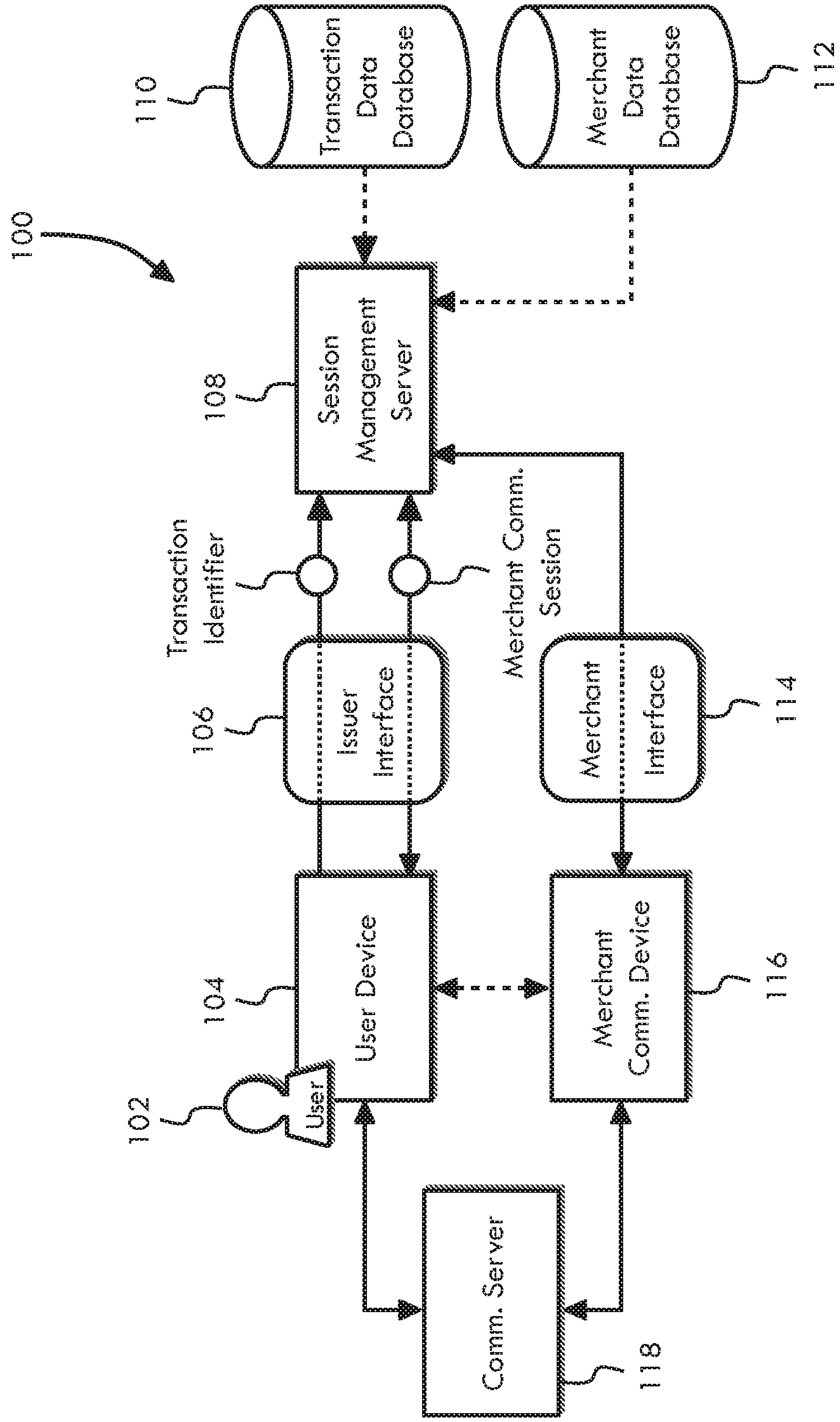

100
102
User
104
User Device
106
Issuer Interface
108
Session Management Server
110
Transaction Data Database
112
Merchant Data Database
114
Merchant Interface
116
Merchant Comm. Device
118
Comm. Server
Transaction Identifier
Merchant Comm. Session

FIG. 1

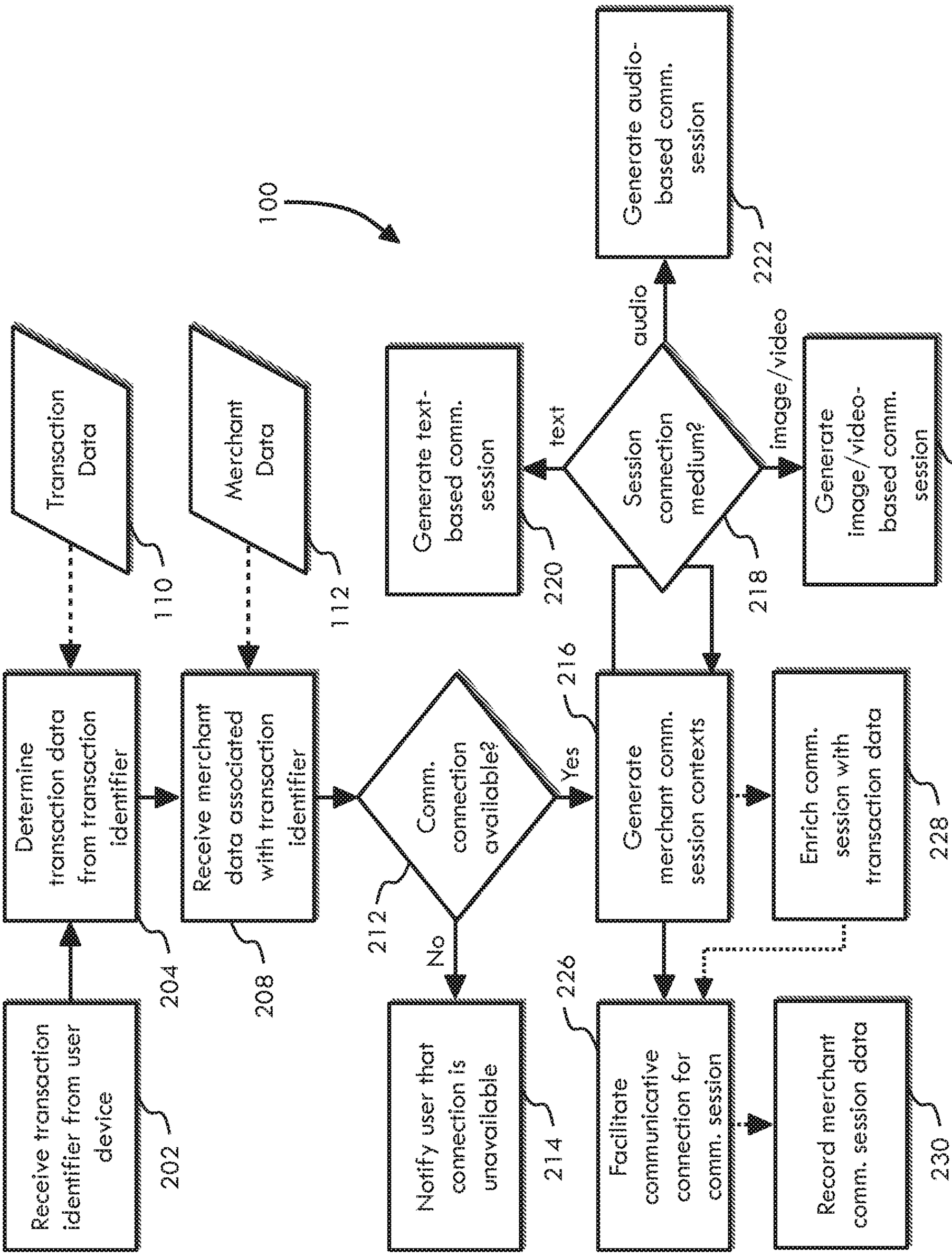

100
Transaction Data
110
Merchant Data
112
Receive transaction identifier from user device
202
Determine transaction data from transaction identifier
204
Receive merchant data associated with transaction identifier
208
Comm. connection available?
212
No
Notify user that connection is unavailable
214
Yes
216
Generate merchant comm. session contexts
Facilitate communicative connection for comm. session
226
Record merchant comm. session data
230
Enrich comm. session with transaction data
228
Session connection medium?
218
text
Generate text-based comm. session
220
audio
Generate audio-based comm. session
222
image/video
Generate image/video-based comm. session
224

FIG. 2

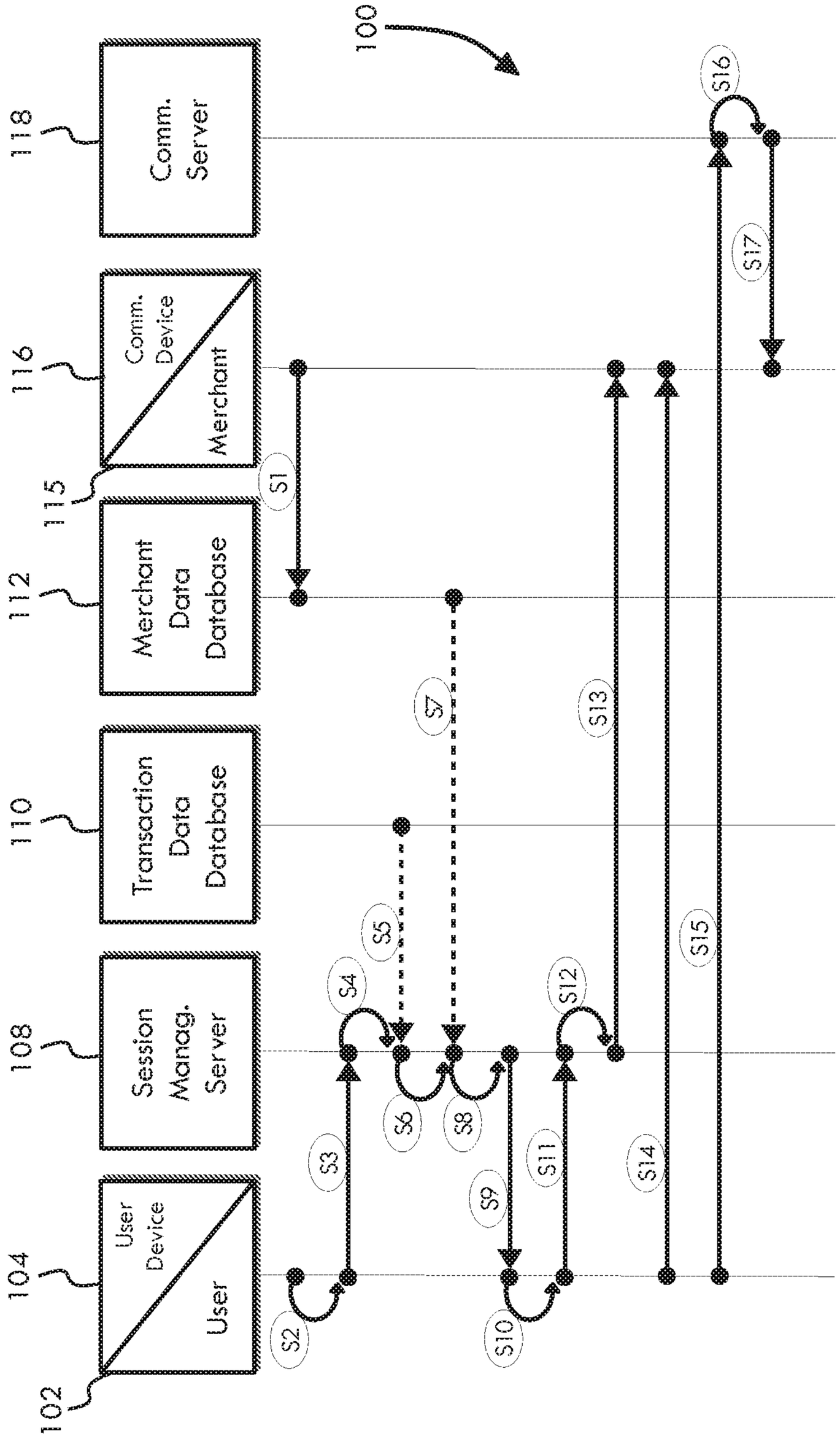
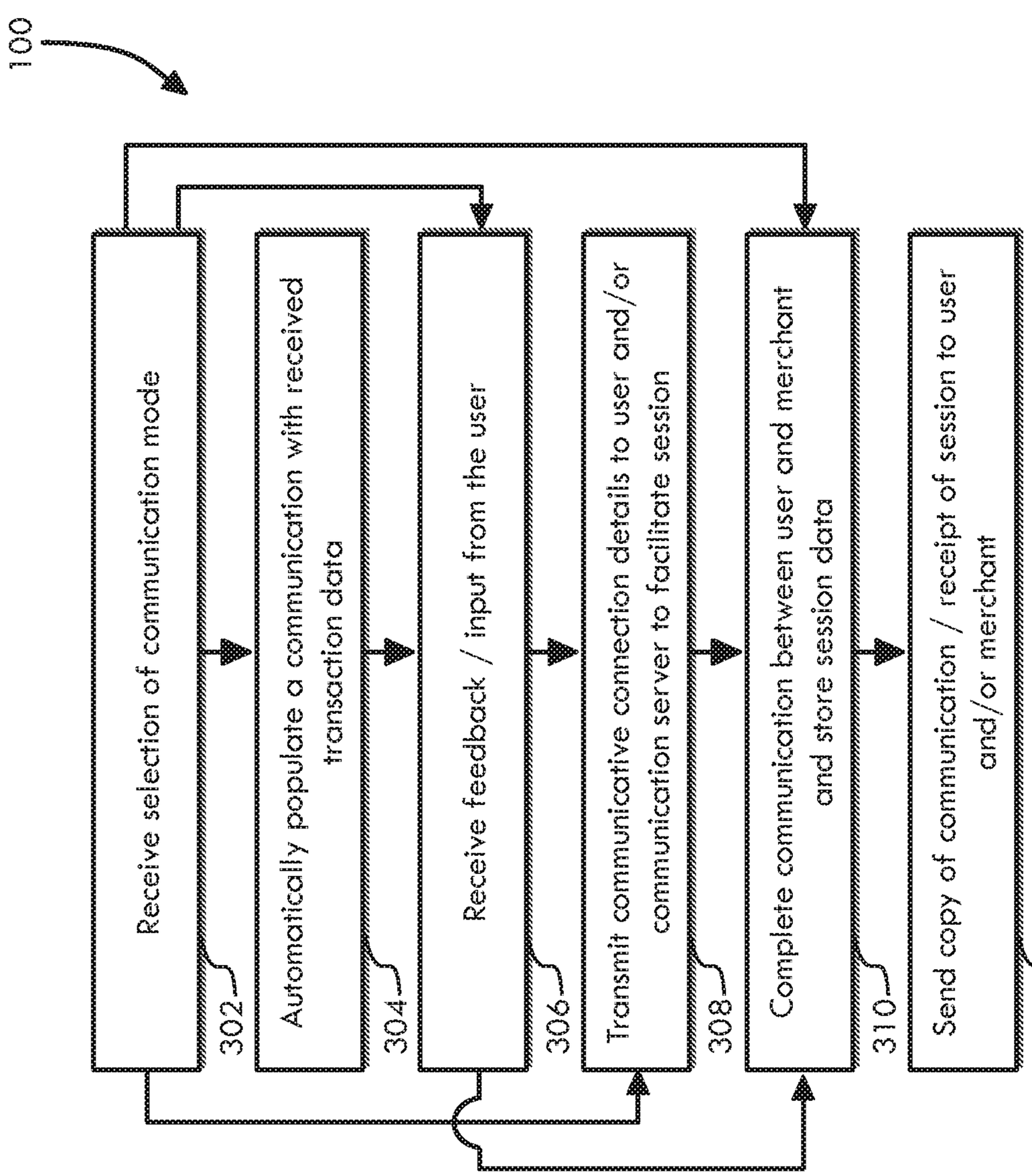

100
102
User Device
User
104
Comm. Server
118
Session Manag. Server
108
Transaction Data Database
110
Merchant Data Database
112
Comm. Device
Merchant
116
115
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
S16
S17

FIG. 3

FIG. 4


300
Receive selection of communication mode
302
Automatically populate a communication with received transaction data
304
Receive feedback / input from the user
306
Transmit communicative connection details to user and/or communication server to facilitate session
308
Complete communication between user and merchant and store session data
310
Send copy of communication / receipt of session to user and/or merchant
312

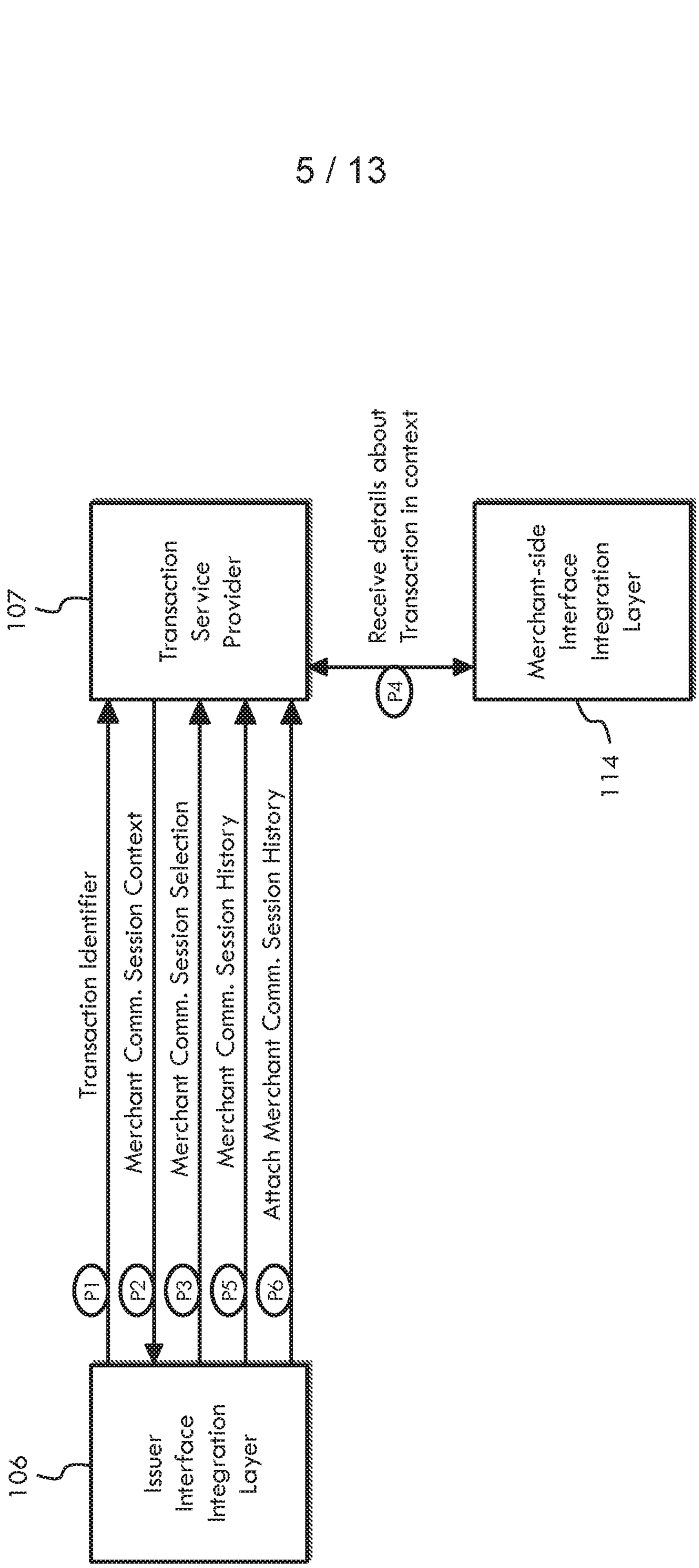

106
Issuer Interface Integration Layer
107
Transaction Service Provider
114
Merchant-side Interface Integration Layer
P1
Transaction Identifier
P2
Merchant Comm. Session Context
P3
Merchant Comm. Session Selection
P5
Merchant Comm. Session History
P6
Attach Merchant Comm. Session History
P4
Receive details about Transaction in context

FIG. 5

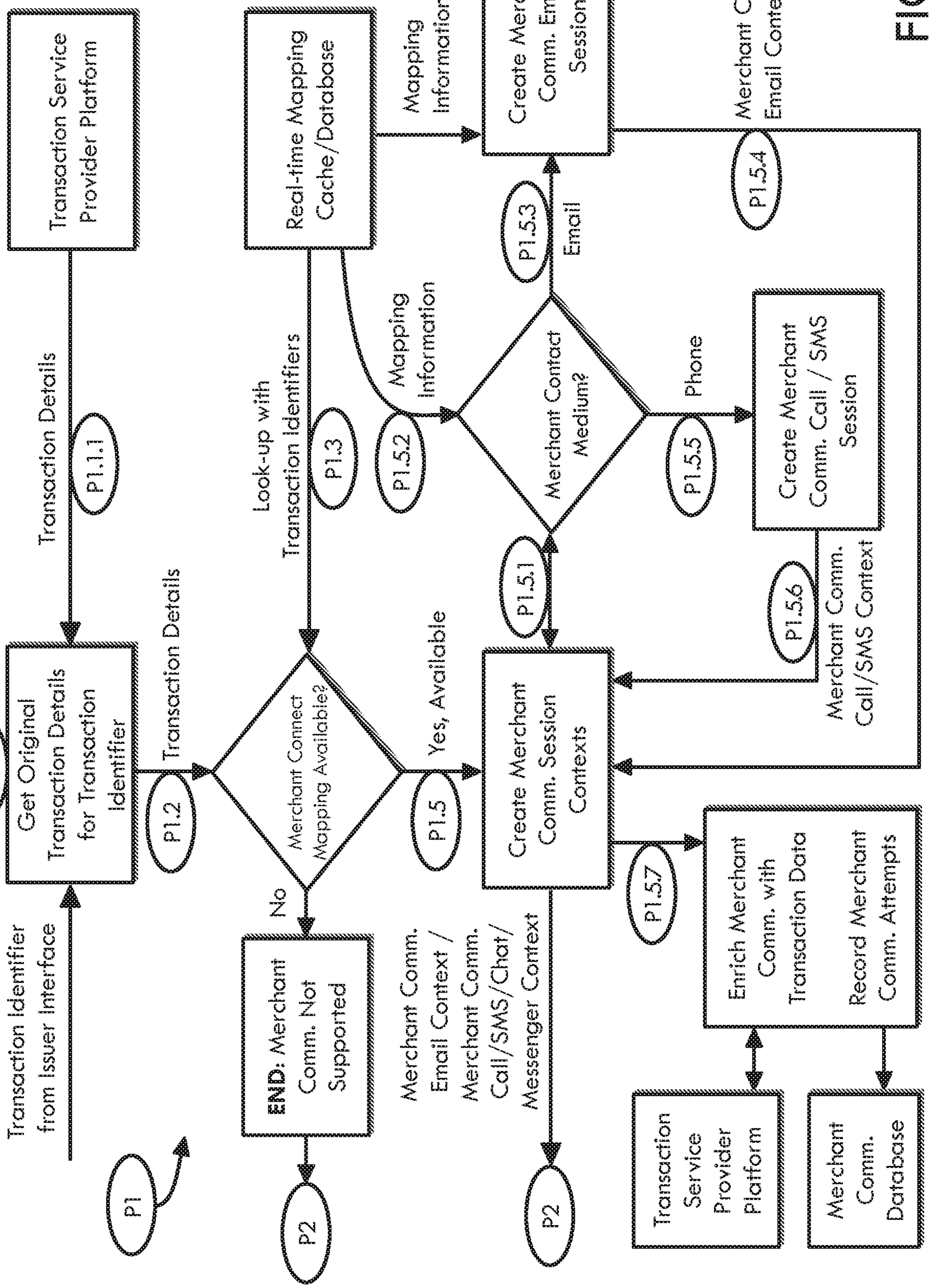

Transaction Service Provider Platform
Transaction Details
P1.1.1
Real-time Merchant Mapping Cache/Database
Look-up with Transaction Identifiers
P1.3
Mapping Information
P1.5.2
Create Merchant Comm. Email Session
Merchant Comm. Email Context
P1.5.4
Merchant Contact Medium?
Email
P1.5.3
Phone
P1.5.5
Create Merchant Comm. Call / SMS Session
Merchant Comm. Call/SMS Context
P1.5.6
Get Original Transaction Details for Transaction Identifier
P1.1
Transaction Details
P1.2
Merchant Connect Mapping Available?
Yes, Available
P1.5
No
Create Merchant Comm. Session Contexts
P1.5.1
Enrich Merchant Comm. with Transaction Data
Record Merchant Comm. Attempts
P1.5.7
Transaction Identifier from Issuer Interface
P1
END: Merchant Comm. Not Supported
P2
Merchant Comm. Email Context / Merchant Comm. Call/SMS/Chat/ Messenger Context
P2
Transaction Service Provider Platform
Merchant Comm. Database

FIG. 6

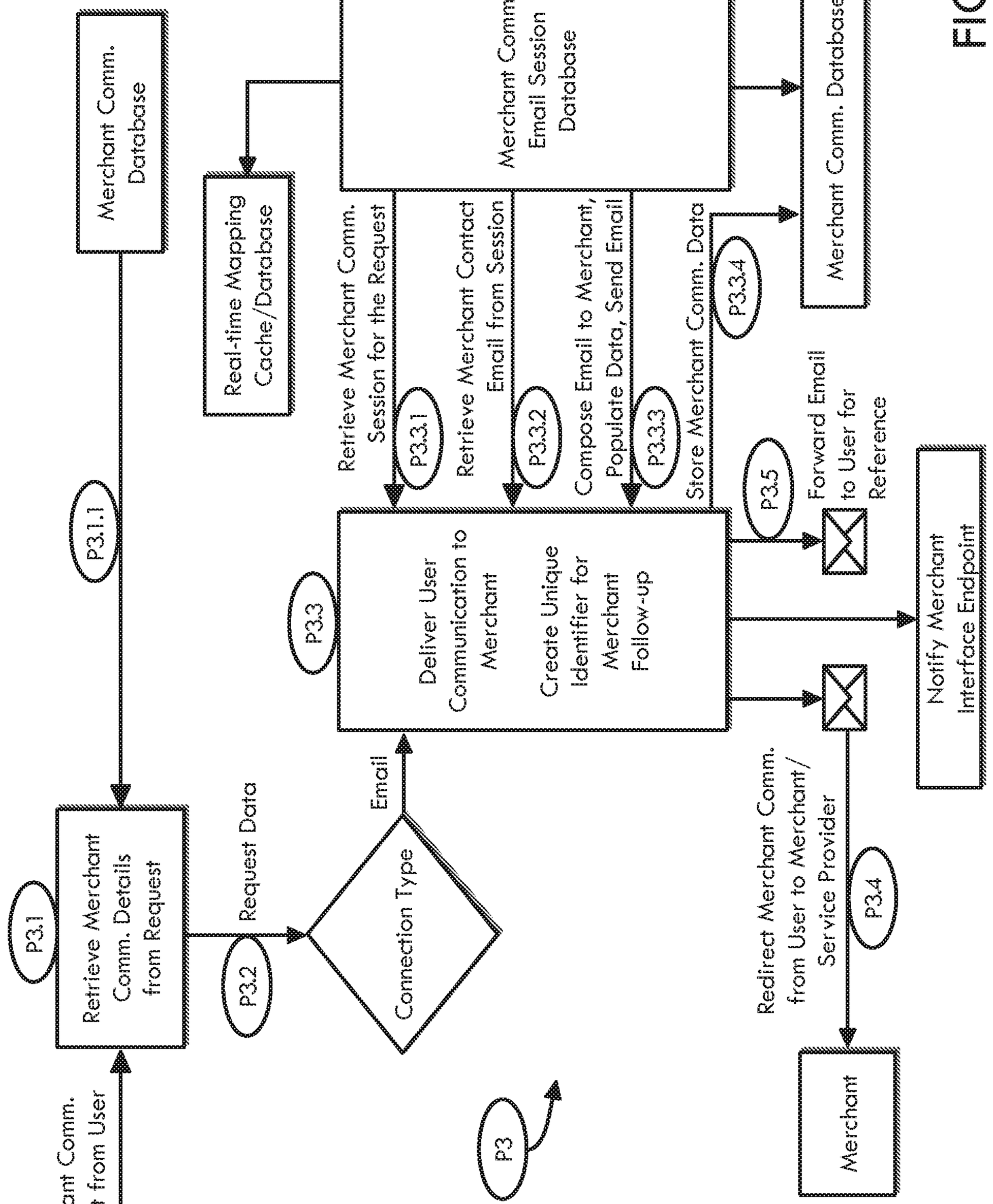

Merchant Comm. Request from User
P3.1
Retrieve Merchant Comm. Details from Request
P3.2
Request Data
Connection Type
Email
P3.3
Deliver User Communication to Merchant
Create Unique Identifier for Merchant Follow-up
Retrieve Merchant Comm. Session for the Request
P3.3.1
Retrieve Merchant Contact Email from Session
P3.3.2
Compose Email to Merchant, Populate Data, Send Email
P3.3.3
Store Merchant Comm. Data
P3.3.4
Merchant Comm. Email Session Database
Real-time Mapping Cache/Database
Merchant Comm. Database
P3.5
Forward Email to User for Reference
Notify Merchant Interface Endpoint
Redirect Merchant Comm. from User to Merchant/ Service Provider
P3.4
Merchant
P3

FIG. 7

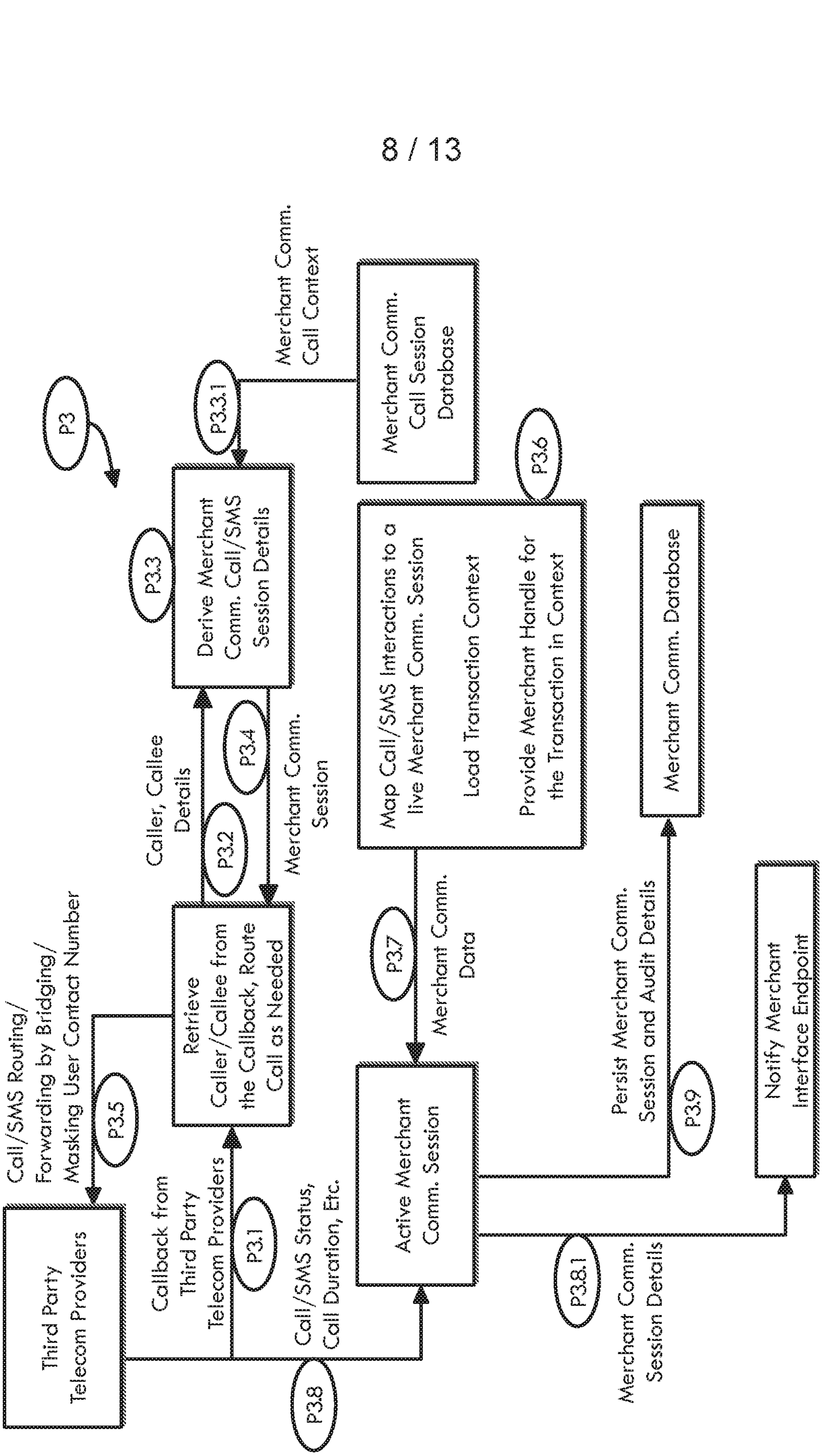

P3
P3.1
P3.2
P3.3
P3.4
P3.5
P3.6
P3.7
P3.8
P3.8.1
P3.9
Merchant Comm.
Call Context
Merchant Comm.
Call Session
Database
Derive Merchant
Comm. Call/SMS
Session Details
Caller, Callee
Details
Merchant Comm.
Session
Map Call/SMS Interactions to a
live Merchant Comm. Session
Load Transaction Context
Provide Merchant Handle for
the Transaction in Context
Merchant Comm. Database
Call/SMS Routing/
Forwarding by Bridging/
Masking User Contact Number
Callback from
Third Party
Telecom Providers
Retrieve
Caller/Callee from
the Callback, Route
Call as Needed
Active Merchant
Comm. Session
Merchant Comm.
Data
Persist Merchant Comm.
Session and Audit Details
Notify Merchant
Interface Endpoint
Call/SMS Status,
Call Duration, Etc.
Third Party
Telecom Providers
Merchant Comm.
Session Details

FIG. 8

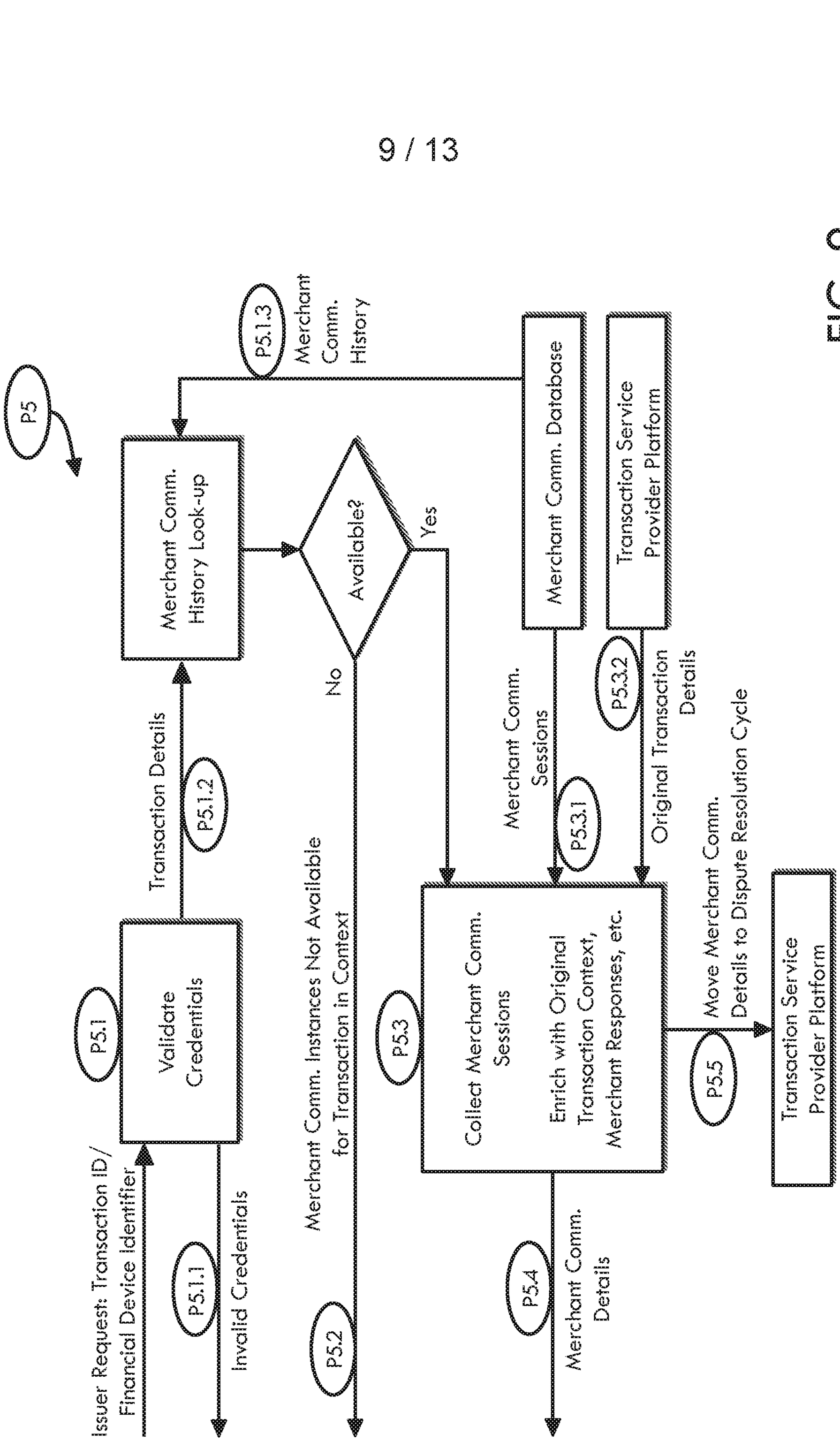

P5
P5.1.3
Merchant Comm. History
Merchant Comm. History Look-up
Available?
Yes
No
Merchant Comm. Database
Transaction Service Provider Platform
Transaction Details
P5.1.2
Merchant Comm. Sessions
P5.3.1
P5.3.2
Original Transaction Details
Merchant Comm. Instances Not Available for Transaction in Context
Issuer Request: Transaction ID/ Financial Device Identifier
P5.1
Validate Credentials
Tr
P5.3
Collect Merchant Comm. Sessions
Enrich with Original Transaction Context, Merchant Responses, etc.
P5.5
Move Merchant Comm. Details to Dispute Resolution Cycle
Transaction Service Provider Platform
P5.1.1
Invalid Credentials
P5.2
M
P5.4
Merchant Comm. Details

FIG. 9

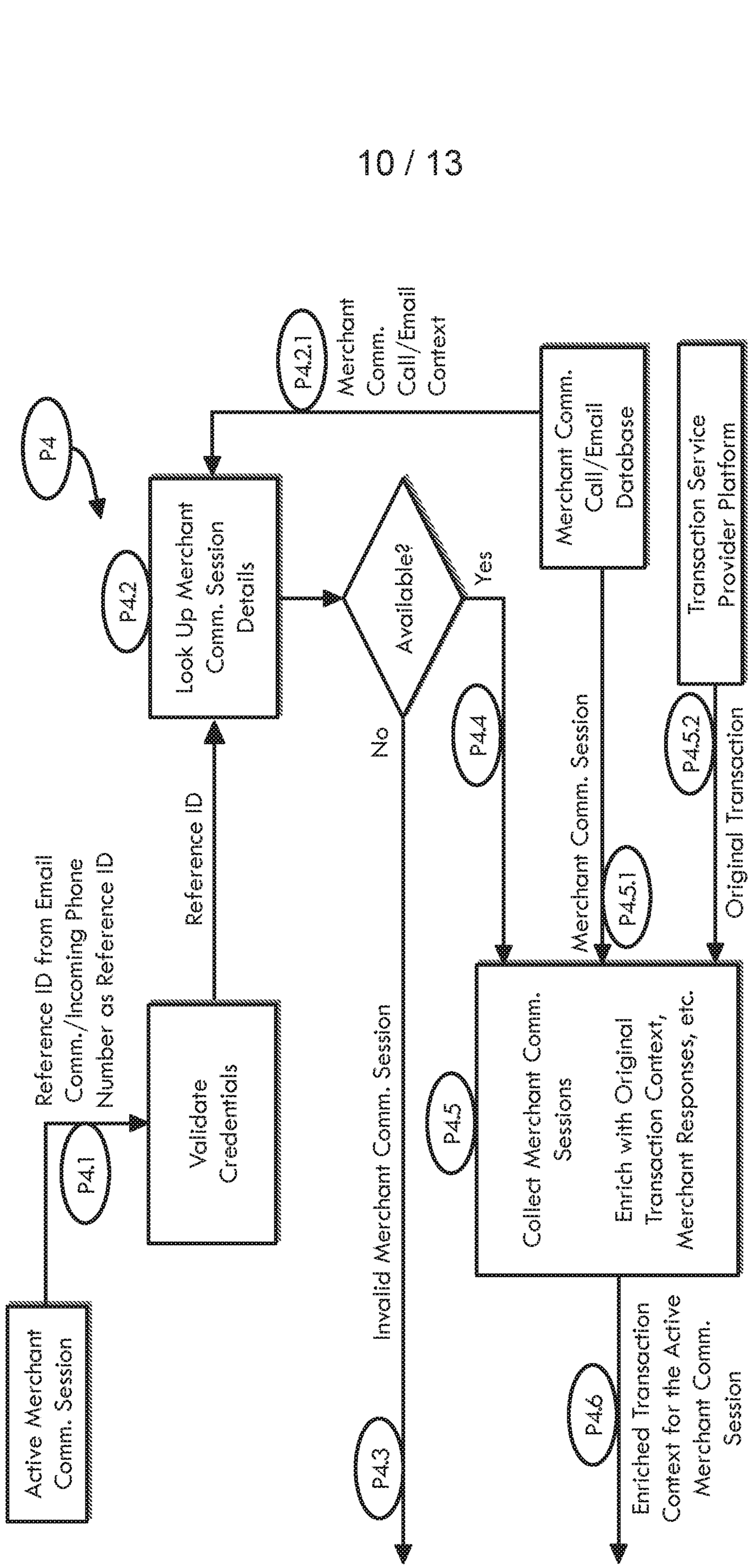

Active Merchant Comm. Session
P4
Reference ID from Email Comm./Incoming Phone Number as Reference ID
P4.1
Validate Credentials
Invalid Merchant Comm. Session
P4.3
Reference ID
P4.2
Look Up Merchant Comm. Session Details
Available?
No
Yes
P4.4
P4.5
Collect Merchant Comm. Sessions
Enrich with Original Transaction Context, Merchant Responses, etc.
P4.6
Enriched Transaction Context for the Active Merchant Comm. Session
P4.5.1
Merchant Comm. Session
P4.5.2
Original Transaction Details
Transaction Service Provider Platform
Merchant Comm. Call/Email Database
P4.2.1
Merchant Comm. Call/Email Context

FIG. 10

FIG. 11

Merchant
Device Acceptor ID, Terminal ID, ECMOTO Type, Merchant Identifier Combinations
Merchant Comm. Identifier
Mapping: Merchant Comm. Identifier and Contact Data
Contact Mapping Response
M1
M4
M5
M8
Pass-through Layer
Acquiring Institution
Transaction Service Provider
M2
M3
M6
M7

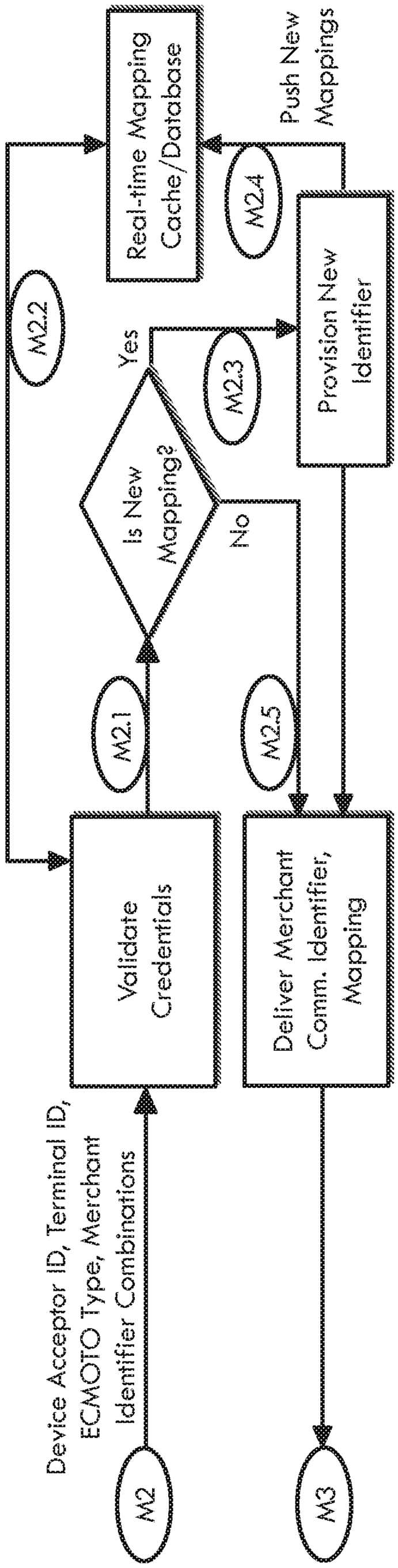

Device Acceptor ID, Terminal ID,
ECMOTO Type, Merchant
Identifier Combinations
M2
Validate
Credentials
M2.1
Is New
Mapping?
Yes
No
M2.2
M2.3
M2.4
M2.5
Real-time Mapping
Cache/Database
Push New
Mappings
Provision New
Identifier
Deliver Merchant
Comm. Identifier,
Mapping
M3

FIG. 12

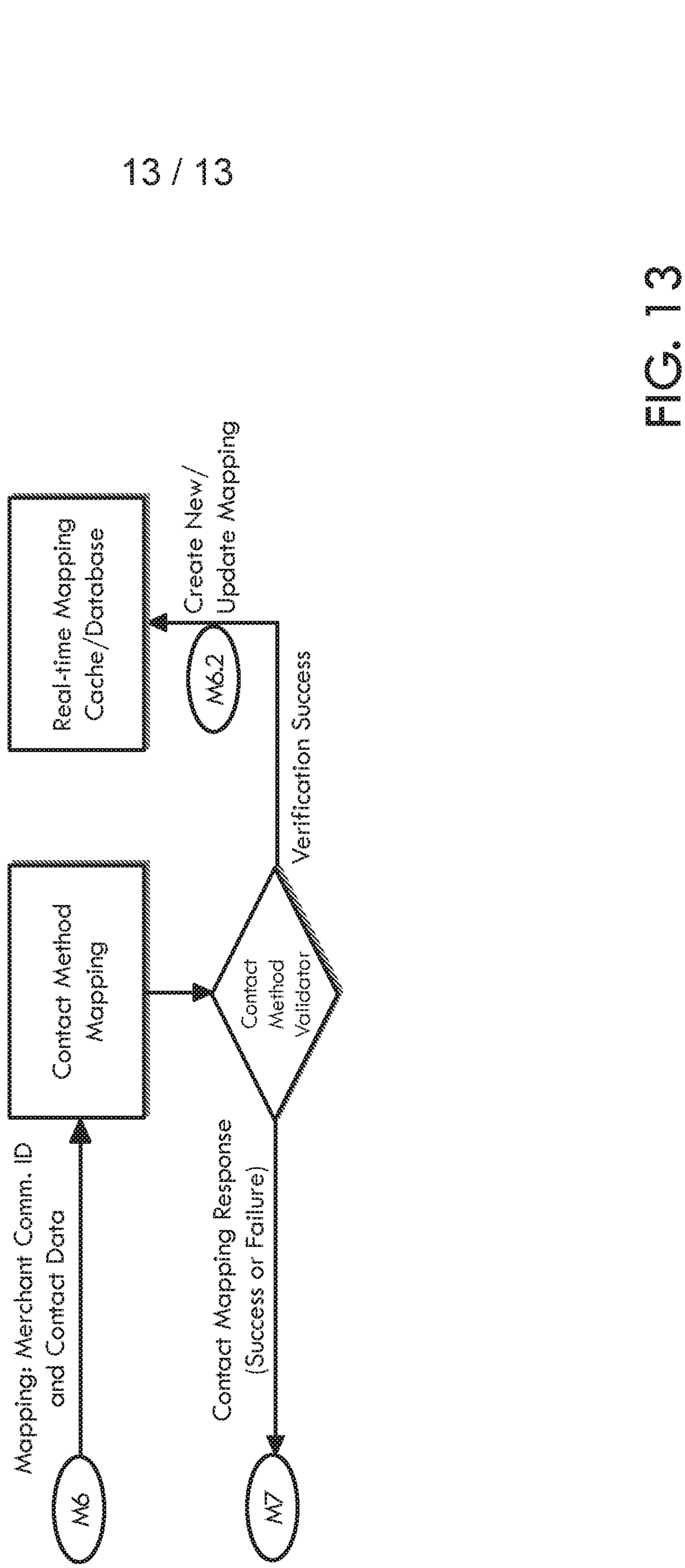

Mapping: Merchant Comm. ID and Contact Data
M6
Contact Method Mapping
Contact Method Validator
Verification Success
M6.2
Create New/ Update Mapping
Real-time Mapping Cache/Database
Contact Mapping Response (Success or Failure)
M7

FIG. 13