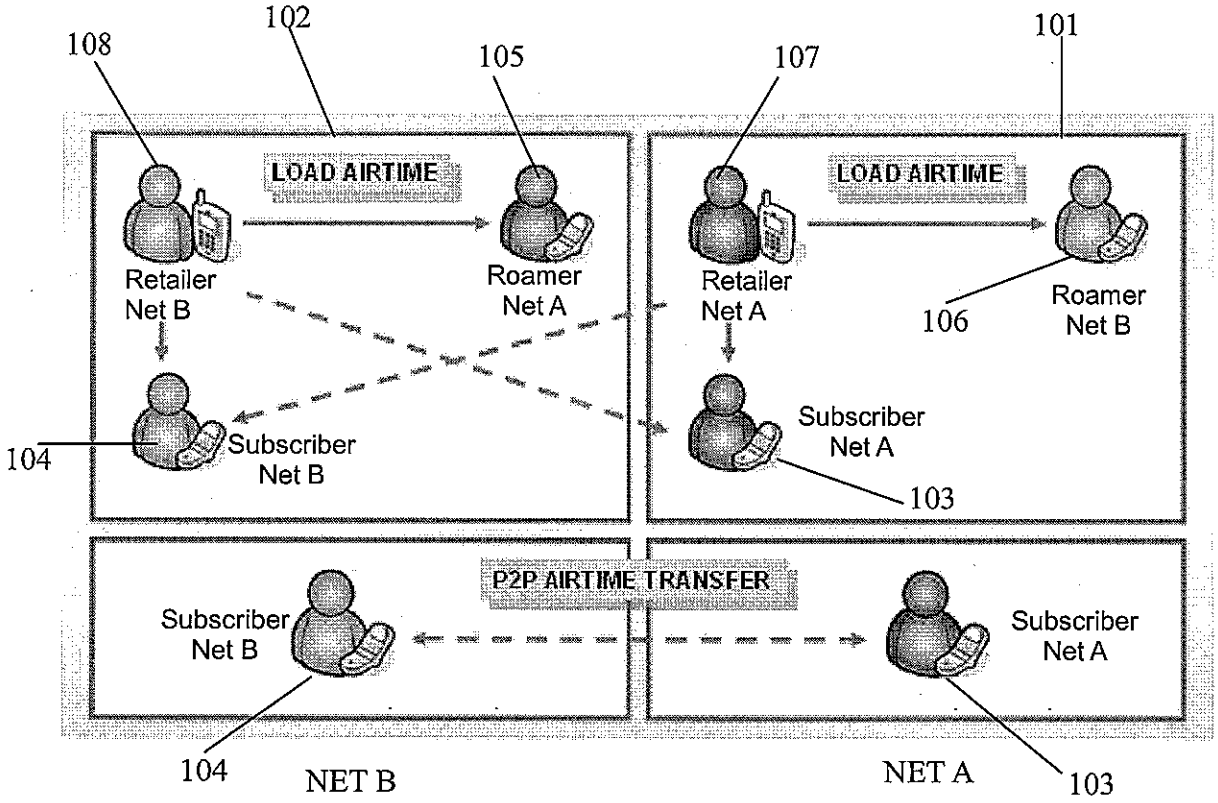
102
108
105
107
101
LOAD AIRTIME
LOAD AIRTIME
Retailer
Net B
Roamer
Net A
Retailer
Net A
106
Roamer
Net B
104
Subscriber
Net B
Subscriber
Net A
103
P2P AIRTIME TRANSFER
Subscriber
Net B
Subscriber
Net A
104
NET B
NET A
103

Fig 1

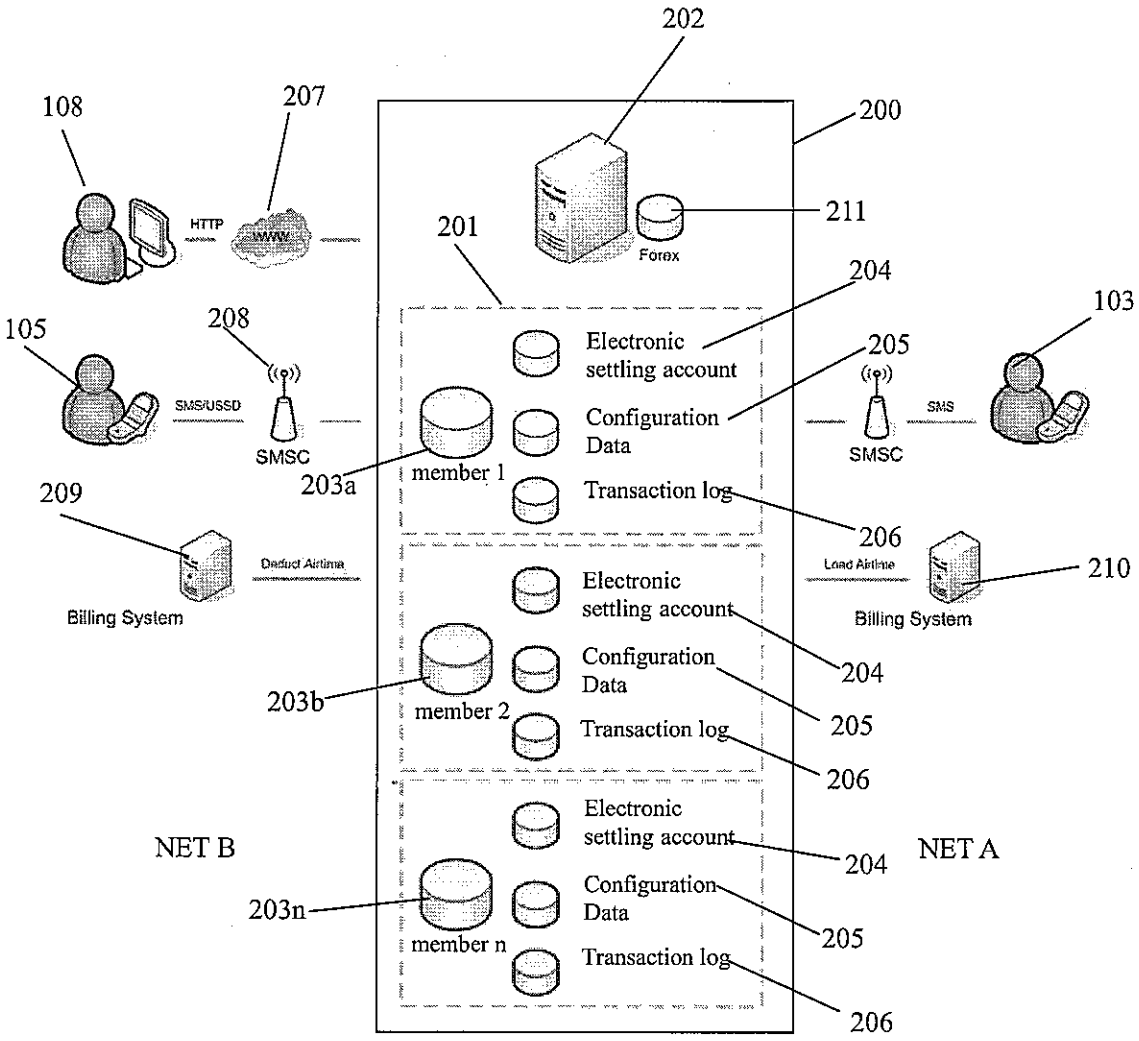
202
108
207
200
HTTP
WWW
211
Forex
201
204
103
105
208
Electronic settling account
205
SMS/USSD
SMS
Configuration Data
SMSC
SMSC
member 1
203a
Transaction log
206
209
Deduct Airtime
Load Airtime
210
Billing System
Billing System
Electronic settling account
204
Configuration Data
205
203b
member 2
Transaction log
206
NET B
Electronic settling account
204
NET A
Configuration Data
205
203n
member n
Transaction log
206

Fig 2

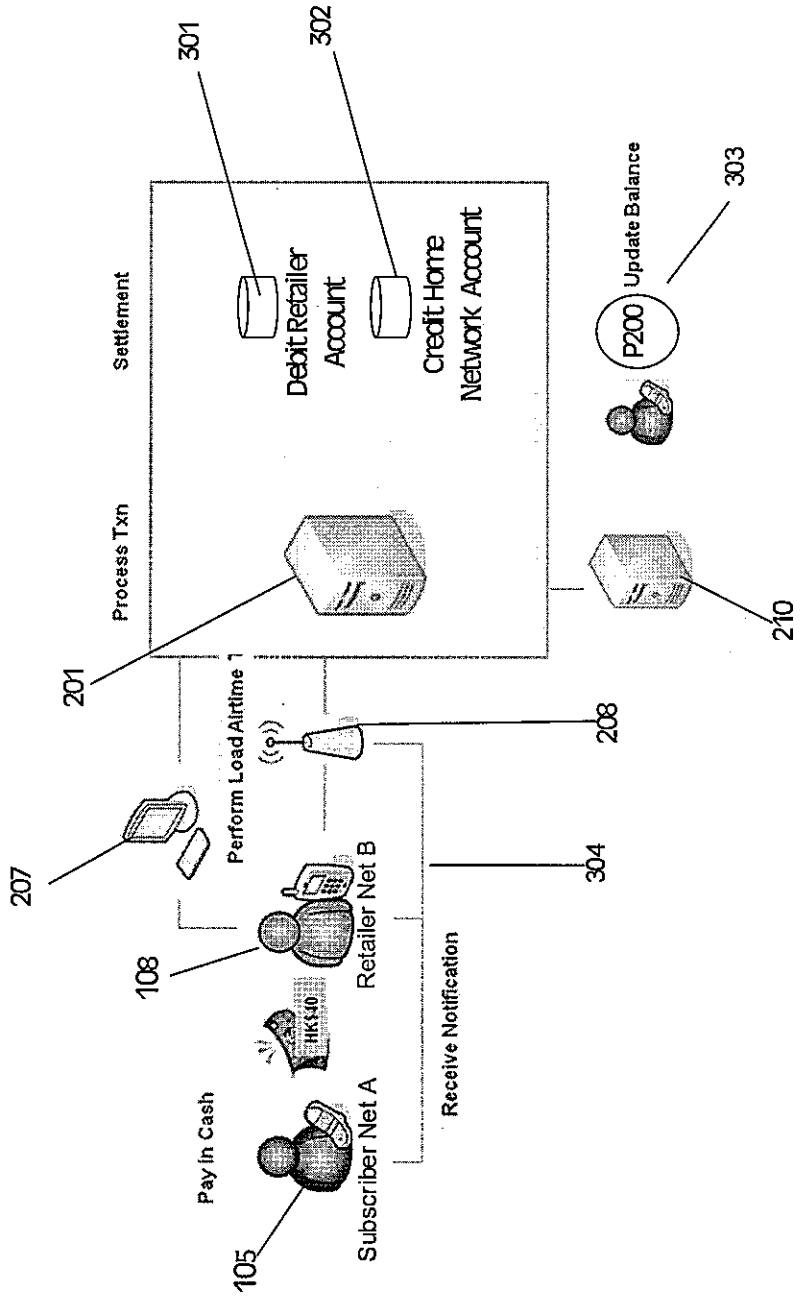
301
302
303
Settlement
Debit Retailer Account
Credit Home Network Account
P200
Update Balance
Process Txn
201
210
208
207
Perform Load Airtime
304
108
Retailer Net B
HK$40
Pay in Cash
Receive Notification
105
Subscriber Net A

Fig3

	Net A	Net B	Net C	Net D	Net E	Net F	Net G	Net H	Net I
Country		Hong Kong	Philippines	Indonesia	Japan	Singapore	Taiwan	Korea	India	India
Currency	**USD**	**HKD**	**PHP**	**IDR**	**JPY**	**SGD**	**TWD**	**KRW**	**INR**	**INR**
Conversion Rate	1	8	40	9000	100	1.5	30	950	40	40
Price (SRP)	**5**	**40**	**200**	**45,000**	**500**	**8**	**150**	**4,750**	**200**	**200**
	10	**80**	**400**	**90,000**	**1,000**	**15**	**300**	**9,500**	**400**	**400**
	20	**160**	**800**	**180,000**	**2,000**	**30**	**600**	**19,000**	**800**	**800**
Cost	4.25	34	170	38250	425	6.375	127.5	4037.5	170	170
	8.5	68	340	76500	850	12.75	255	8075	340	340
	17	136	680	153000	1700	25.5	510	16150	680	680
Markup	0.75	6	30	6750	75	1.125	22.5	712.5	30	30
	1.5	12	60	13500	150	2.25	45	1425	60	60
	3	24	120	27000	300	4.5	90	2850	120	120
Markup Rate		**15%**	**15%**	**15%**	**15%**	**15%**	**15%**	**15%**	**15%**	**15%**

Fig4

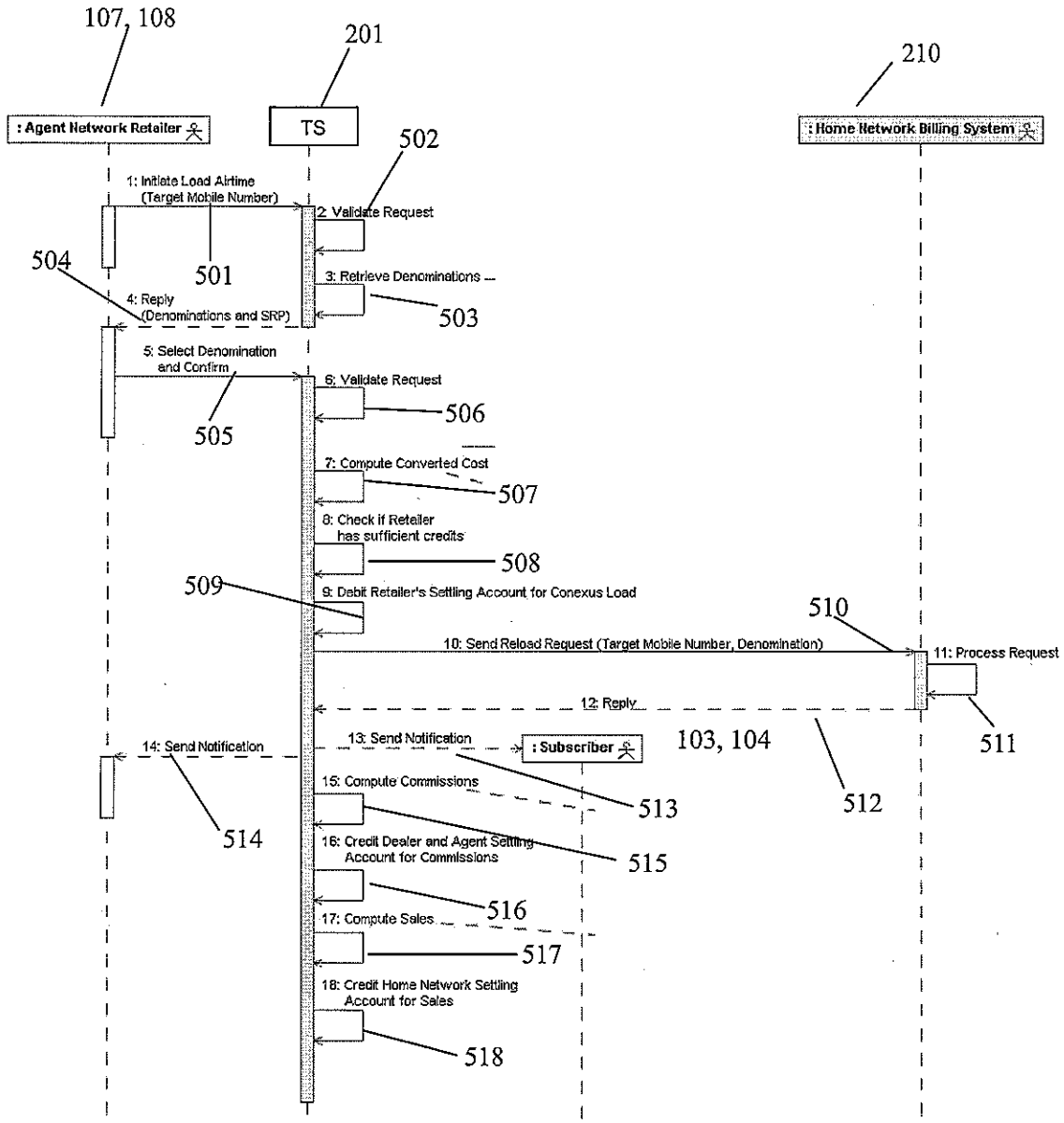
107, 108
201
210
: Agent Network Retailer
TS
: Home Network Billing System
502
1: Initiate Load Airtime (Target Mobile Number)
2: Validate Request
504
501
3: Retrieve Denominations
503
4: Reply (Denominations and SRP)
5: Select Denomination and Confirm
6: Validate Request
505
506
7: Compute Converted Cost
507
8: Check if Retailer has sufficient credits
508
509
9: Debit Retailer's Settling Account for Conexus Load
510
10: Send Reload Request (Target Mobile Number, Denomination)
11: Process Request
12: Reply
511
103, 104
512
14: Send Notification
13: Send Notification
: Subscriber
15: Compute Commissions
513
514
16: Credit Dealer and Agent Settling Account for Commissions
515
516
17: Compute Sales
517
18: Credit Home Network Settling Account for Sales
518

Fig 5

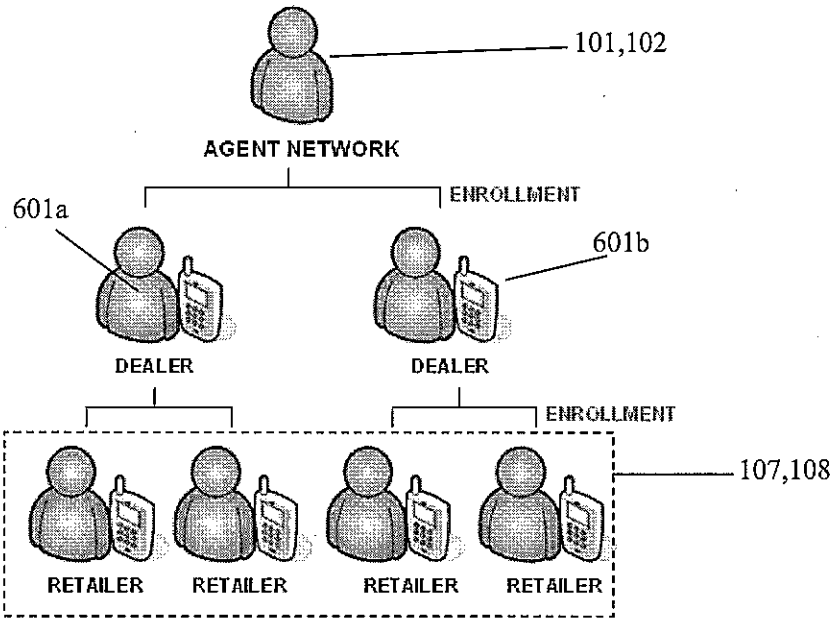
101,102
AGENT NETWORK
ENROLLMENT
601a
601b
DEALER
DEALER
ENROLLMENT
107,108
RETAILER
RETAILER
RETAILER
RETAILER

Fig 6

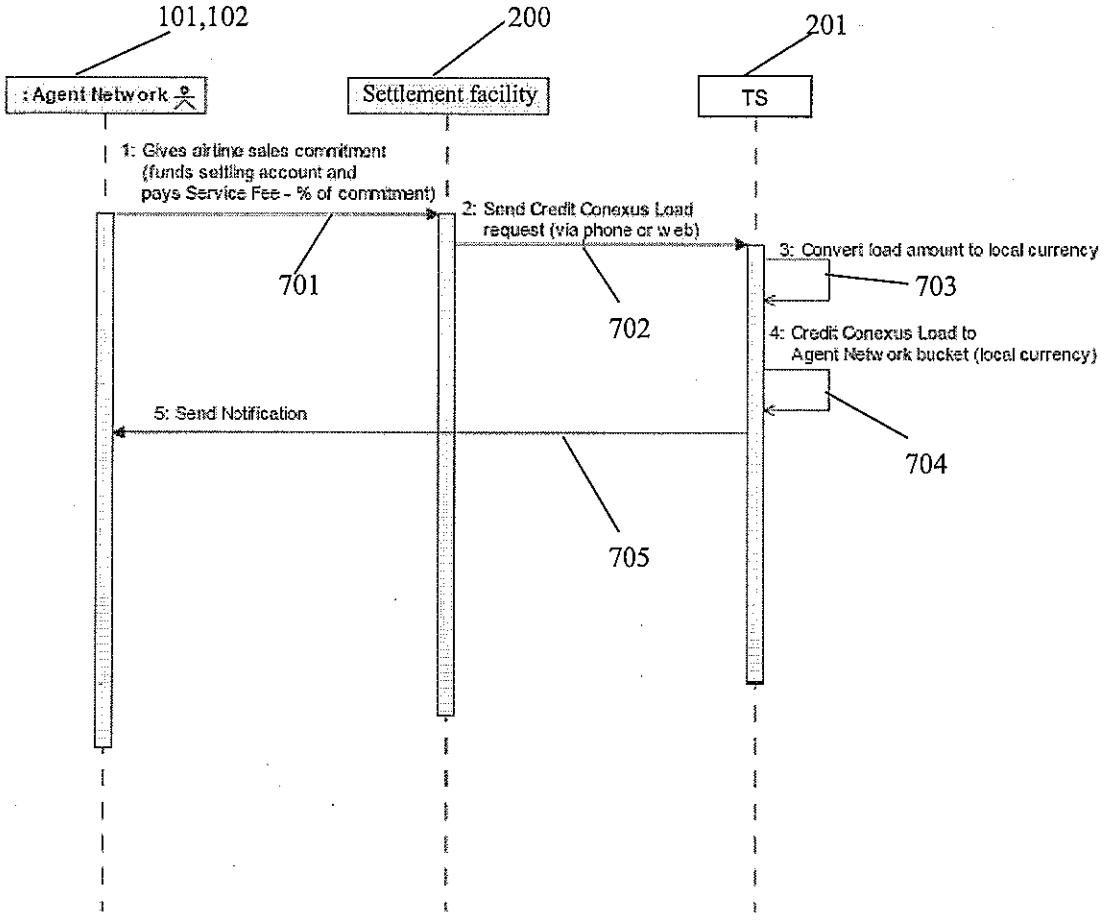
101,102
200
201
: Agent Network
Settlement facility
TS
1: Gives airline sales commitment
(funds settling account and
pays Service Fee - % of commitment)
2: Send Credit Conexus Load
request (via phone or web)
3: Convert load amount to local currency
4: Credit Conexus Load to
Agent Network bucket (local currency)
5: Send Notification
701
702
703
704
705

Fig 7

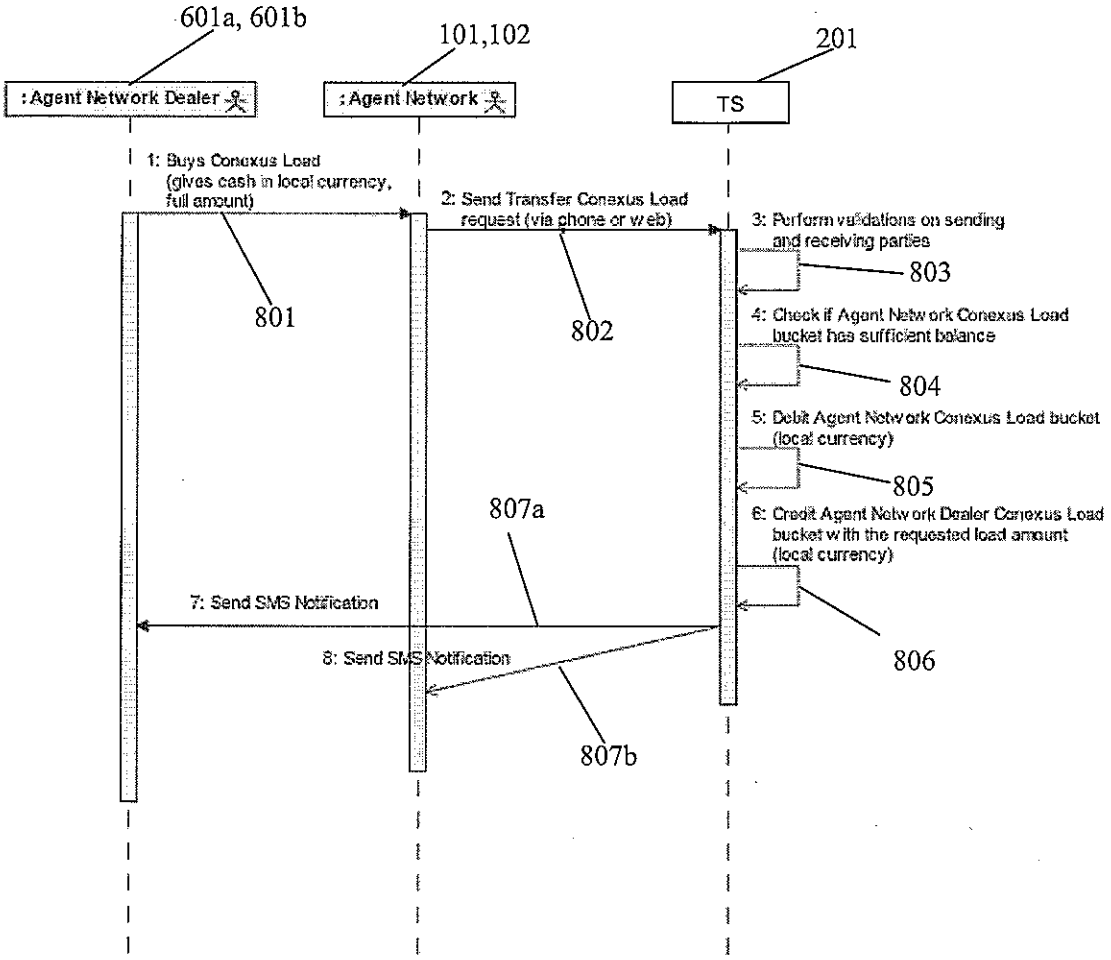
601a, 601b
101,102
201
:Agent Network Dealer
:Agent Network
TS
1: Buys Conexus Load (gives cash in local currency, full amount)
2: Send Transfer Conexus Load request (via phone or web)
3: Perform validations on sending and receiving parties
803
801
802
4: Check if Agent Network Conexus Load bucket has sufficient balance
804
5: Debit Agent Network Conexus Load bucket (local currency)
805
807a
6: Credit Agent Network Dealer Conexus Load bucket with the requested load amount (local currency)
7: Send SMS Notification
806
8: Send SMS Notification
807b

Fig 8

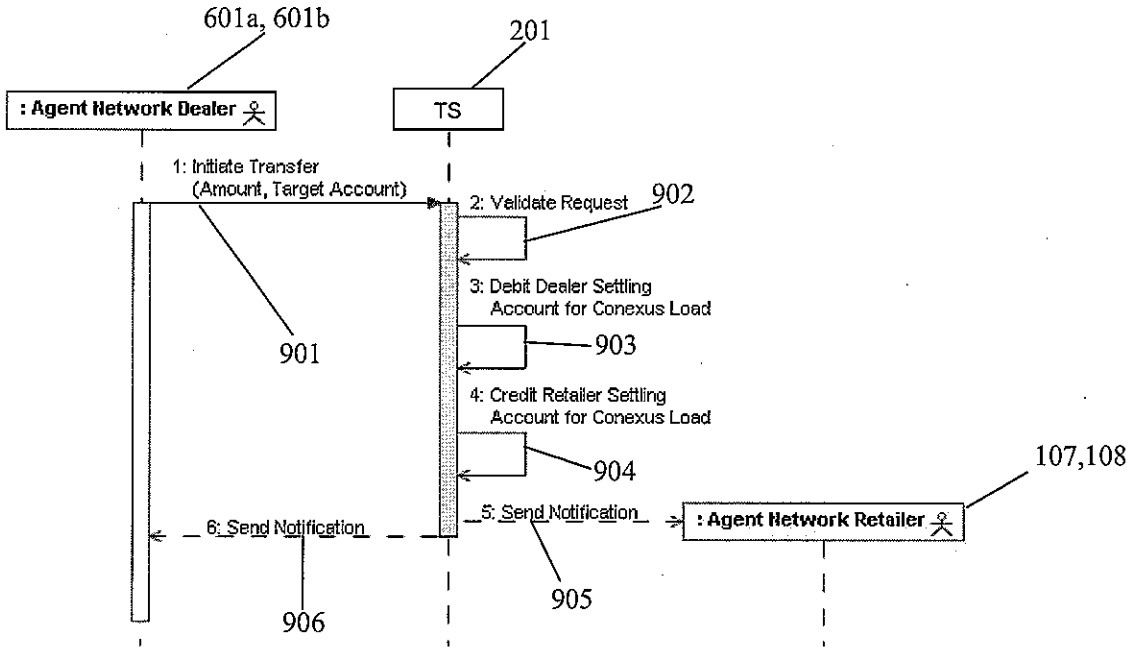
601a, 601b
201
: Agent Network Dealer
TS
1: Initiate Transfer
(Amount, Target Account)
2: Validate Request
902
3: Debit Dealer Settling
Account for Conexus Load
903
901
4: Credit Retailer Settling
Account for Conexus Load
904
107,108
6: Send Notification
5: Send Notification
: Agent Network Retailer
905
906

Fig 9

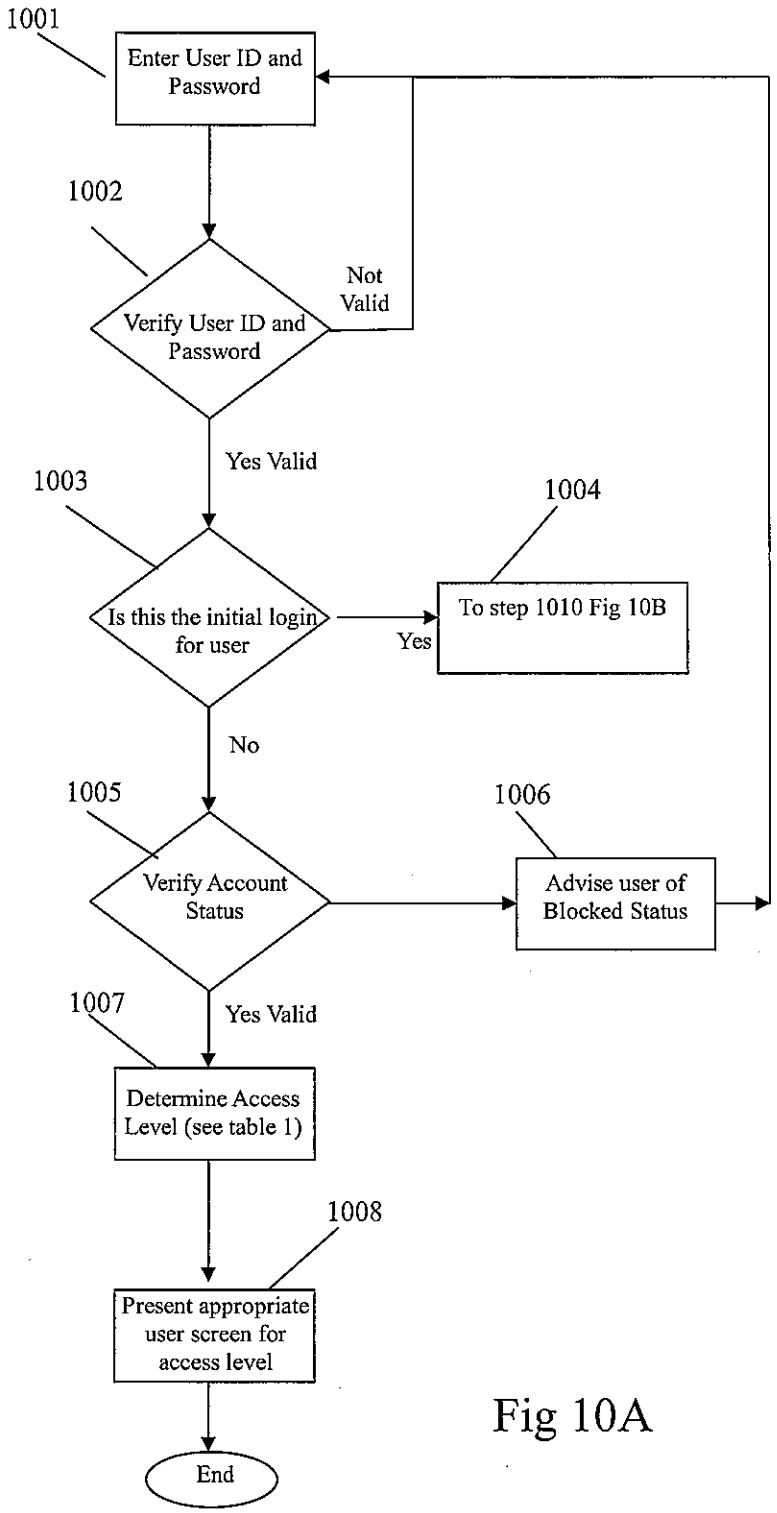
1001
Enter User ID and Password
1002
Verify User ID and Password
Not Valid
Yes Valid
1003
Is this the initial login for user
1004
Yes
To step 1010 Fig 10B
No
1005
Verify Account Status
1006
Advise user of Blocked Status
1007
Yes Valid
Determine Access Level (see table 1)
1008
Present appropriate user screen for access level
End

Fig 10A

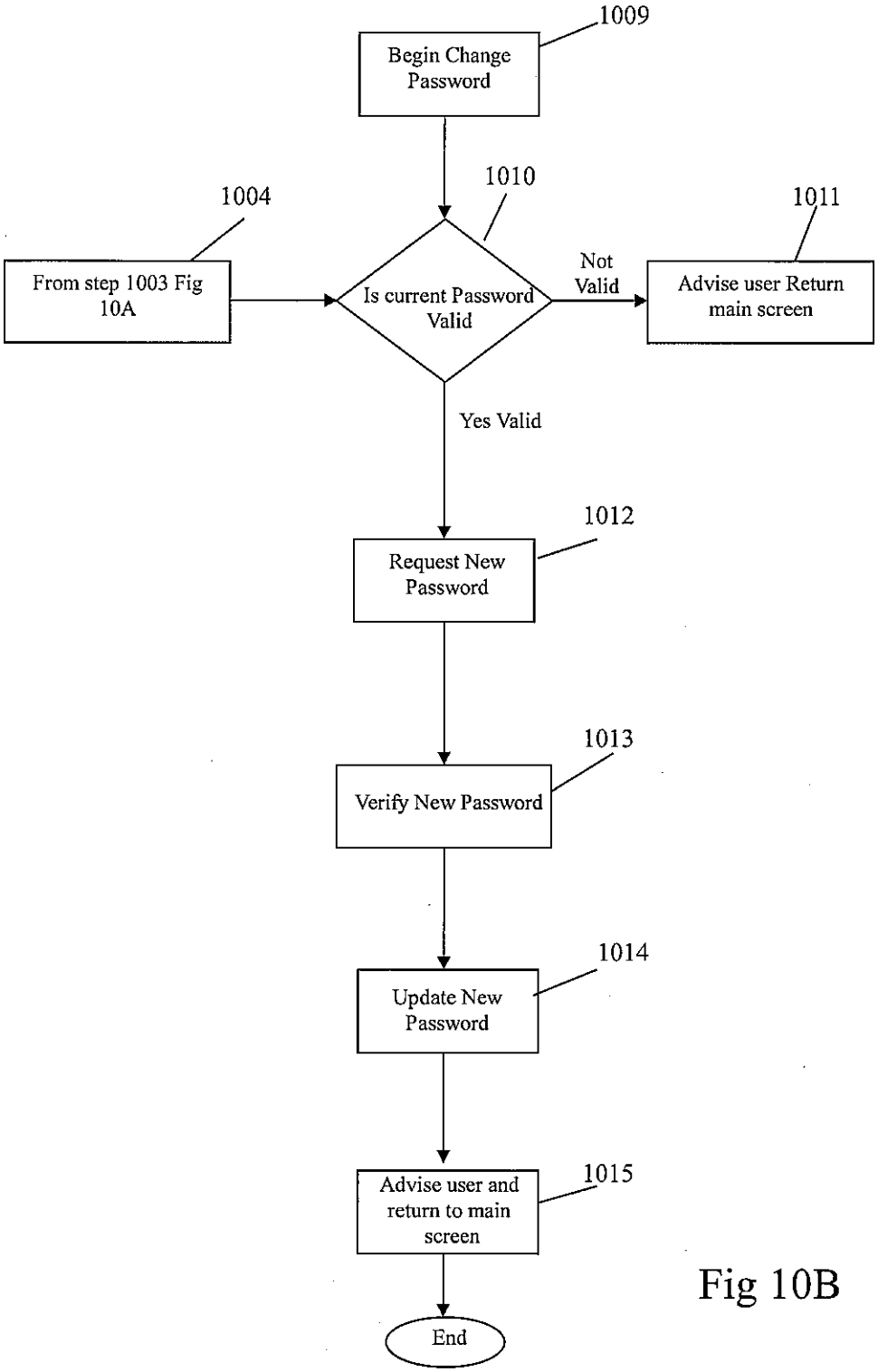
1009
Begin Change Password
1010
1004
1011
From step 1003 Fig 10A
Is current Password Valid
Not Valid
Advise user Return main screen
Yes Valid
1012
Request New Password
1013
Verify New Password
1014
Update New Password
1015
Advise user and return to main screen
End

Fig 10B

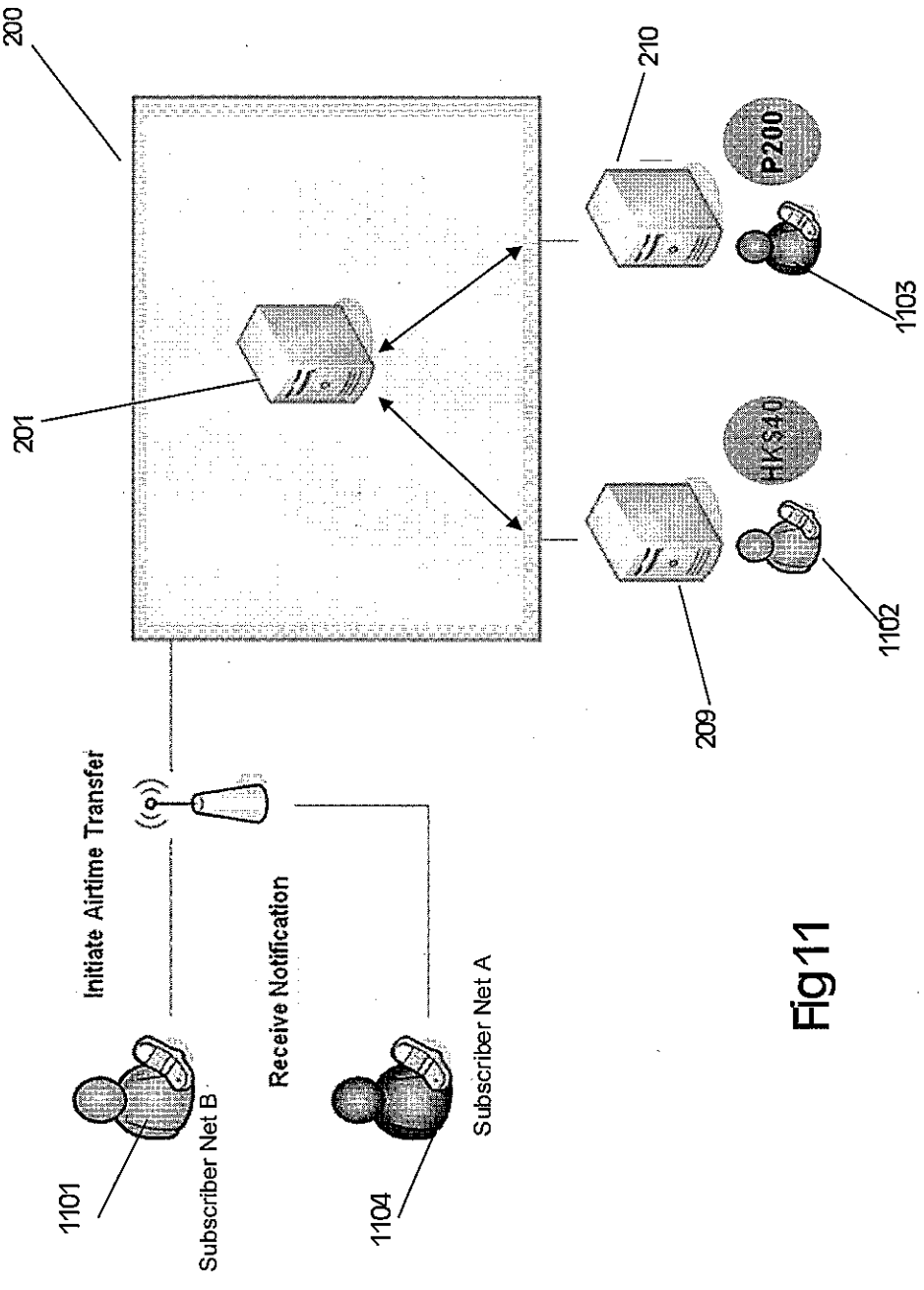
200
201
210
P200
1103
HKS40
1102
209
Initiate Airtime Transfer
Receive Notification
1101
Subscriber Net B
1104
Subscriber Net A

Fig11

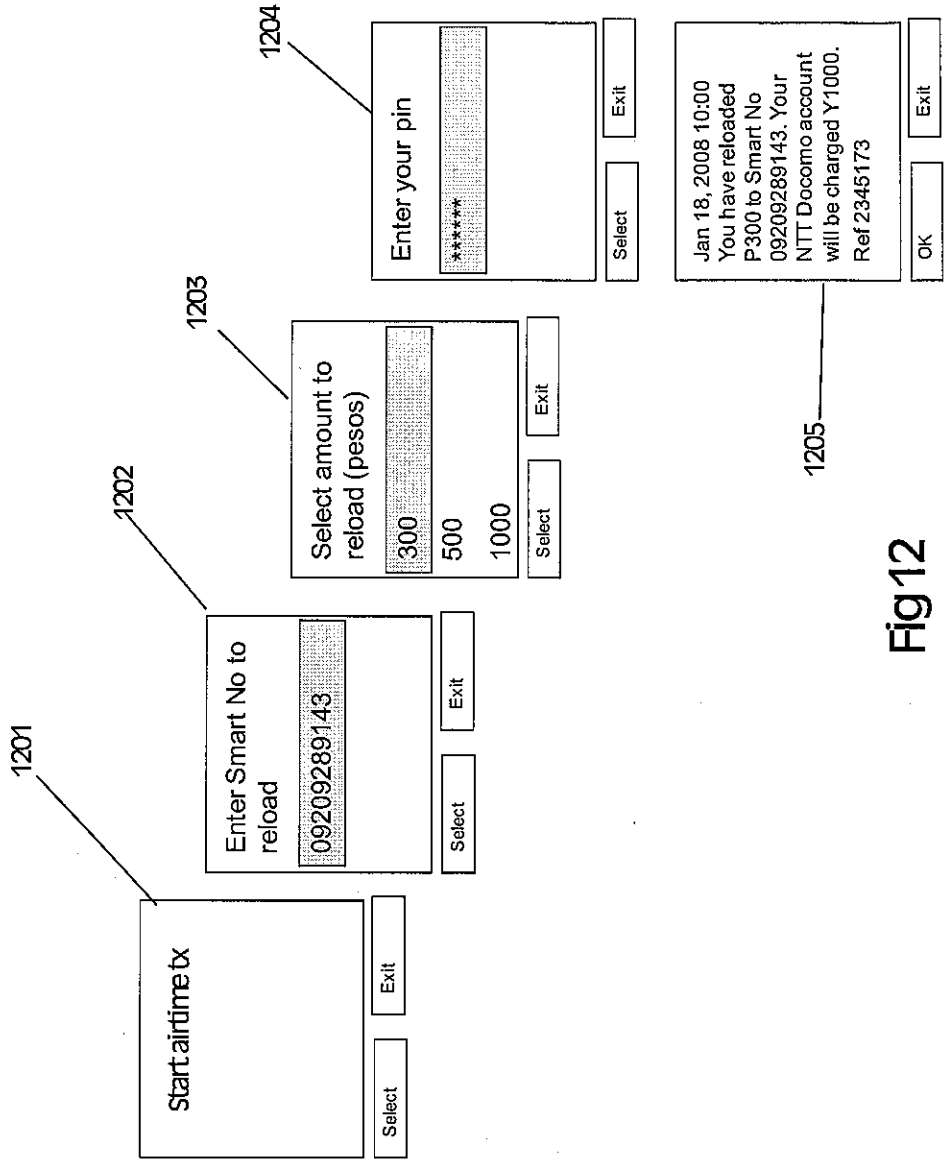
1201
Start airtime tx
Select
Exit
1202
Enter Smart No to reload
09209289143
Select
Exit
1203
Select amount to reload (pesos)
300
500
1000
Select
Exit
1204
Enter your pin
******
Select
Exit
1205
Jan 18, 2008 10:00
You have reloaded
P300 to Smart No
09209289143. Your
NTT Docomo account
will be charged Y1000.
Ref 2345173
OK
Exit

Fig 12

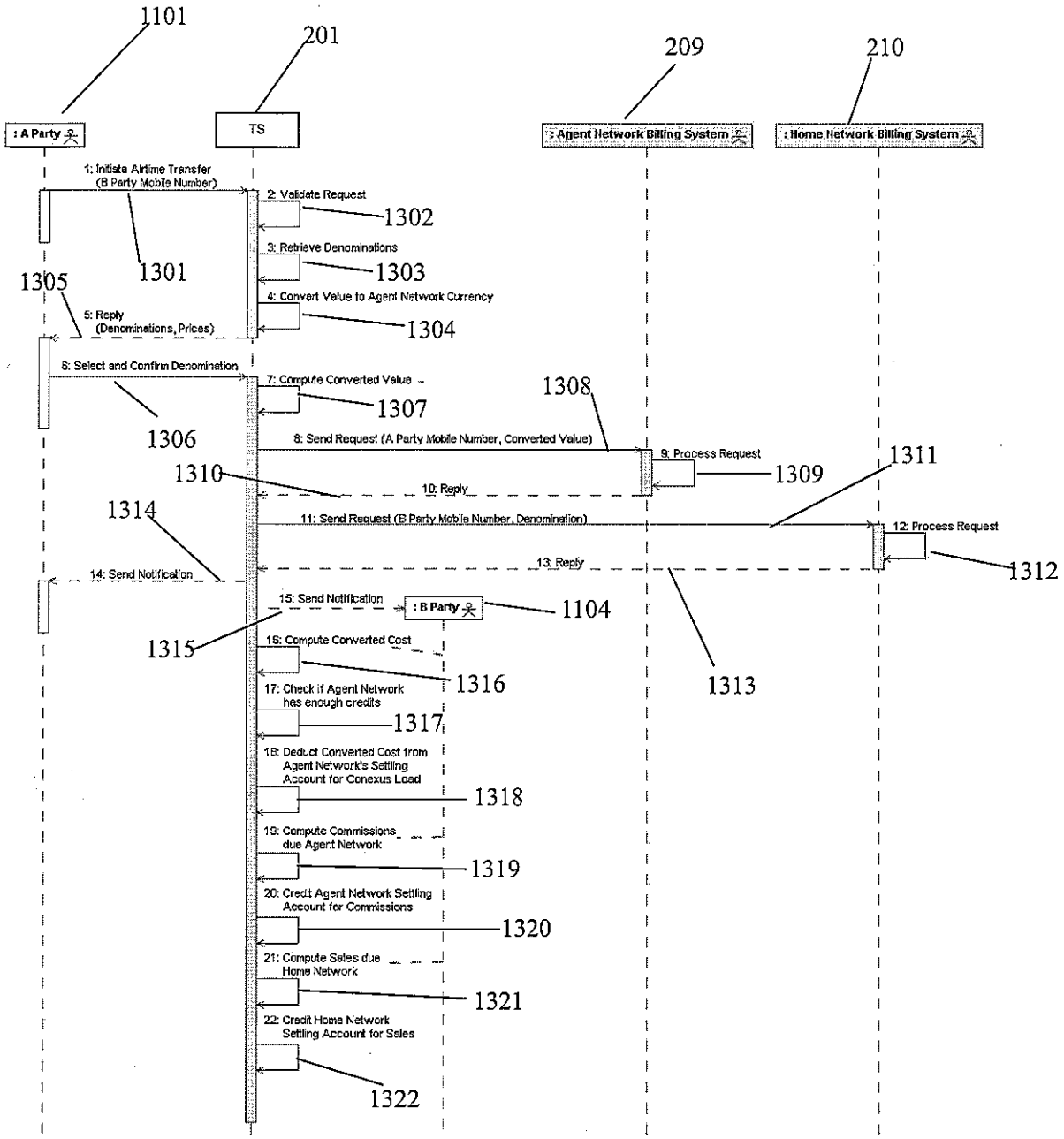
1101
201
209
210
: A Party
TS
: Agent Network Billing System
: Home Network Billing System
1: Initiate Airtime Transfer (B Party Mobile Number)
2: Validate Request
1302
3: Retrieve Denominations
1303
1301
1305
4: Convert Value to Agent Network Currency
1304
5: Reply (Denominations, Prices)
6: Select and Confirm Denomination
7: Compute Converted Value
1307
1308
1306
8: Send Request (A Party Mobile Number, Converted Value)
9: Process Request
1309
1311
1310
10: Reply
1314
11: Send Request (B Party Mobile Number, Denomination)
12: Process Request
1312
13: Reply
14: Send Notification
15: Send Notification
: B Party
1104
1315
16: Compute Converted Cost
1316
1313
17: Check if Agent Network has enough credits
1317
18: Deduct Converted Cost from Agent Network's Settling Account for Conexus Load
1318
19: Compute Commissions due Agent Network
1319
20: Credit Agent Network Settling Account for Commissions
1320
21: Compute Sales due Home Network
1321
22: Credit Home Network Settling Account for Sales
1322

Fig 13

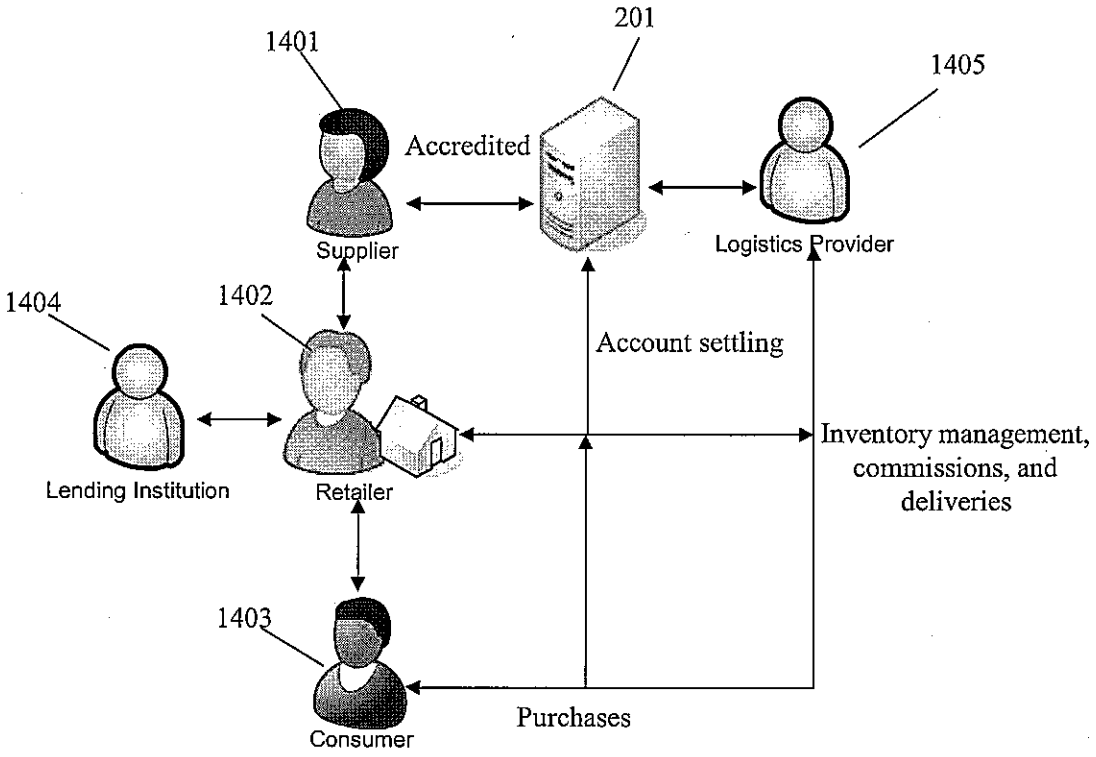
1401
201
1405
Accredited
Supplier
Logistics Provider
1404
1402
Account settling
Inventory management, commissions, and deliveries
Lending Institution
Retailer
1403
Purchases
Consumer

Fig 14

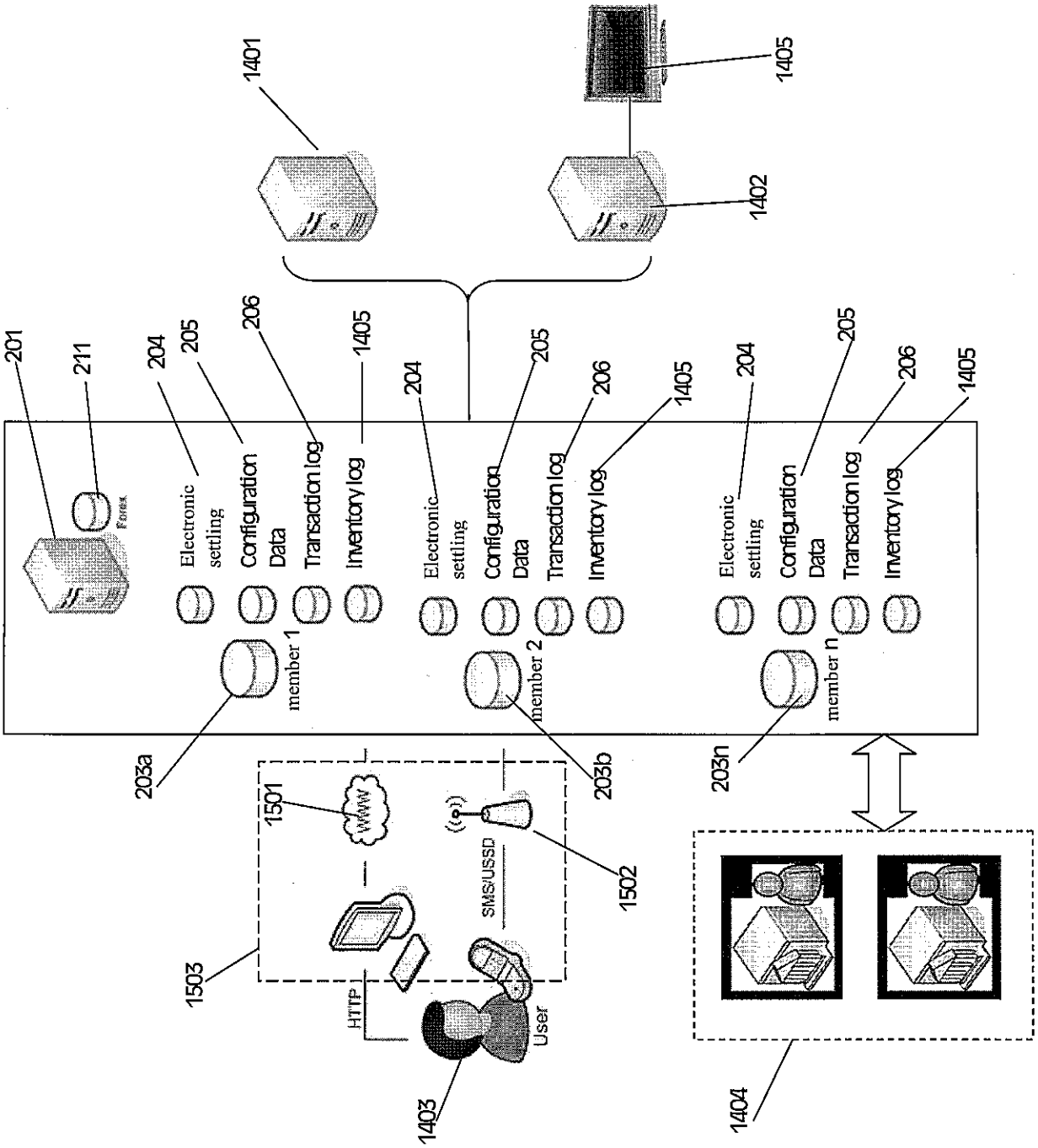
1401
1405
1402
201
211
204
205
206
1405
Electronic settling
Configuration Data
Transaction log
Inventory log
member 1
member 2
member n
203a
203b
203n
1501
WWW
SMS/USSD
1502
1503
HTTP
User
1403
1404

Fig15