G00002

FIG. 1

5 INTERNET

162162

PUBLIC CIRCUIT

FIG. 2

31 INFORMATION DELIVERY APPARATUS

315 TRANSMISSION PART

311 CONTROL PART

316 RECEPTION PART

313 ATTRIBUTE INFORMATION STORAGE PART

312 DELIVERY INFORMATION STORAGE PART

314 EXTRACTED INFORMATION STORAGE PART

FIG. 3

MAGNETIC DATA

VALID SECTION

VALID PERIOD

USER IDENTIFICATION CODE

7 HACHIOHJI ⇔ TOKYO

VIA SHINJUKU

UNTIL H12 · 11 · 20

ICHIRO YAMADA 35 YEARS OLD

FIG. 4

ATTRIBUTE INFORMATION

USER IDENTIFICATION CODE	123456789	147258369	147259000
PRESENCE OF DESIRE FOR DELIVERY	DESIRE FOR DELIVER	DESIRE FOR DELIVER	DESIRE FOR DELIVER
NAME	ICHIRO YAMADA	HANAKO SUZUKI	SUSUMU SATO
AGE	35	20	18
GENDER	MALE	FEMALE	MALE
OCCUPATION	BUSINESSMAN	STUDENT	STUDENT
TYPE OF DELIVERY INFORMATION DESIRED	SPORTS/MOVIE	FASHION/MUSIC	SIDE JOB/RESTAURANT
DELIVERY INFORMATION NOT DESIRED	aaa STORE	bbb STORE	NOTHING
TIMETABLE	UNNECESSARY	NECESSARY	UNNECESSARY
DELAY INFORMATION	UNNECESSARY	NECESSARY	UNNECESSARY
MAIL ADDRESS	yamada@abc.ne.jpn	suzuki@abc.ne.jpn	sato@abc.ne.jpn
DESIRED AT THE TIME OF GETTING ON	DESIRED	DESIRED	DESIRED
DESIRED AT THE TIME OF GETTING OFF	DESIRED	NOT DESIRED	DESIRED
BOARDING SECTION	HACHIOHJI -TOKYO VIA SHINJUKU	ODAWARA - SHINJUKU	YOKOHAMA - SHIBUYA
HOME TELEPHONE NUMBER	03-3333-1234	045-2564-1245	045-3254-1745
BUSINESS TELEPHONE NUMBER	03-3789-1234	03-3257-1547	03-5426-4697
MEMBER	XXX MEMBER		

FIG. 5

(A)

DELIVERY CONDITION OF DELIVERY INFORMATION	FEMALE	20-29 YEARS OLD	USER PASSING THROUGH SHINJUKU STATION	VALID PERIOD 2000/9/1 - 2000/10/31

(B)

DELIVERY INFORMATION	DELIVERY INFORMATION NUMBER: K0001
UNTIL TODAY 18:00-20:00 SHAMPOO/RINSE FAIR IS OPEN!! WE HAVE LOVELY SOUVENIR AND ARE WAITING FOR YOU. SOUTHERN ENTRANCE OF SHINJUKU STATION ABC STORE TEL 03-3256-9875 URL XXX@ABC.ne.jp	

FIG. 6

21 AUTOMATIC TICKET GATE

211 CONTROL PART

212 STORAGE PART

213 CLOCKING PART

214 TRANSMISSION PART

215 INSERTION DETECTION PART

216 CONVEYANCE PART

217 READ PART

218 DOOR DRIVING PART

FIG. 7

21 AUTOMATIC TICKET GATE

PASSING DIRECTION

FIG. 8

7 COMMUTATION TICKET

USER IDENTIFICATION CODE

INFORMATION

VALID PERIOD

VALID SECTION

21 AUTOMATIC TICKET GATE

PASSING INFORMATION

8 PORTABLE TELEPHONE

DELIVERY

31 INFORMATION DELIVERY APPARATUS

FIG. 9

AUTOMATIC TICKET GATE

s1 WHETHER IS COMMUTATION TICKET INSERTION DETECTED?

s2 START OF TRANSFER OF COMMUTATION TICKET

s3 READ USER IDENTIFICATION CODE, VALID PERIOD, AND VALID SECTION

s4 WITHIN VALID PERIOD?

s5 WITHIN VALID SECTION?

s6 TRANSMIT USER IDENTIFICATION CODE, ENTRANCE INFORMATION, AND STATION NAME INFORMATION

s7 OPEN DOOR

s8 WHETHER IS COMMUTATION TICKET RELEASED?

s9 STOP CONVEYANCE PASSAGE

s19 STANDBY FOR DEFINITE TIME

s11 CLOSE DOOR

s12 WHETHER IS DOOR OPEN?

FIG. 10

PASSING INFORMATION

USER IDENTIFICATION CODE	VALID PERIOD	VALID SECTION	GATE CODE	PASSING TIME	ENTRANCE /EXIT
147528369	12/9/26-12/10/25	SHINJUKU-TOKYO	S1562478	19:14	ENTRANCE

FIG. 11

DELIVERY INFORMATION EXTRACTION PROCESSING

s21 READOUT OF ATTRIBUTE INFORMATION CORRESPONDING TO USER IDENTIFICATION CODE

s22 EXTRACTION OF DELIVERY INFORMATION AT ENTRANCE INTO STATION NEAR HOME

s23 STORAGE OF EXTRACTED DELIVERY INFORMATION INTO REGION A

s24 EXTRACTION OF DELIVERY INFORMATION AT EXIT FROM STATION NEAR EMPLOYMENT PLACE

s25 STORED IN REGION A?

s26 EXTRACTION OF DIFFERENT DELIVERY INFORMATION

s27 STORAGE OF EXTRACTED DELIVERY INFORMATION INTO REGION B

s28 EXTRACTION OF DELIVERY INFORMATION AT ENTRANCE INTO STATION NEAR EMPLOYMENT PLACE

s29 STORAGE OF EXTRACTED DELIVERY INFORMATION INTO REGION C

s30 EXTRACTION OF DELIVERY INFORMATION AT EXIT FROM STATION NEAR HOME

s31 STORED IN REGION C?

s32 EXTRACTION OF DIFFERENT DELIVERY INFORMATION

s33 STORAGE OF EXTRACTED DELIVERY INFORMATION INTO REGION D

s34 COMPLETED FOR ALL USERS?

END

FIG. 12

USER IDENTIFICATION CODE	123456789	147258369	147259000
REGION A STATION NEAR HOME ENTRANCE	WEATHER FORECAST OF TOKYO	TRANSMISSION COMPLETED	SIDE JOB INFORMATION OF SHIBUYA
REGION B STATION NEAR EMPLOYMENT PLACE EXIT	ADVERTISEMENT FROM MOVIE THEATER OF TOKYO	NOTHING	ADVERTISEMENT OF RESTAURANT OF SHIBUYA
REGION C STATION NEAR EMPLOYMENT PLACE ENTRANCE	ADVERTISEMENT FROM MOVIE THEATER OF HACHIOHJI	LIVE HOUSE INFORMATION OF ODAWARA	BARGAIN SALE INFORMATION OF YOKOHAMA
REGION D STATION NEAR HOME EXIT	WATCHING INFORMATION OF SPORTS HELD IN HACHIOHJI	NOTHING	TOMORROW WEATHER OF YOKOHAMA AND SHIBUYA

FIG. 13

DELIVERY PROCESSING

s41 IS PASSING INFORMATION RECEIVED?

s42 ENTRANCE INTO STATION NEAR HOME?

s43 EXIT FROM STATION NEAR EMPLOYMENT PLACE?

s44 ENTRANCE INTO STATION NEAR EMPLOYMENT PLACE?

S47 IS TRANSMISSION OF REGION A COMPLETED?

s48 TRANSMISSION OF DELIVERY INFORMATION STORED IN REGION A

s49 REGION A IS REWRITTEN SUCH THAT TRANSMISSION IS COMPLETED

s50 NUMBER OF TIMES OF TRANSMISSION CONCERNING TRANSMITTED

DELIVERY INFORMATION IS INCREMENTED BY ONE

s51 IS TRANSMISSION OF REGION B COMPLETED?

s52 TRANSMISSION OF DELIVERY INFORMATION STORED IN REGION B

s53 REGION B IS REWRITTEN SUCH THAT TRANSMISSION IS COMPLETED

s54 IS TRANSMISSION OF REGION C COMPLETED?

s55 TRANSMISSION OF DELIVERY INFORMATION STORED IN REGION C

s56 REGION C IS REWRITTEN SUCH THAT TRANSMISSION IS COMPETED

FIG. 54

s45 EXIT FROM STATION NEAR HOME?

s46 EXIT FROM ANOTHER STATION?

s57 IS TRANSMISSION OF REGION D COMPLETED?

s58 TRANSMISSION OF DELIVERY INFORMATION STORED IN REGION D

s59 REGION D IS REWRITTEN SUCH THAT TRANSMISSION IS COMPLETED

s60 EXTRACTION OF DELIVERY INFORMATION NEAR EXIT STATION

s61 TRANSMISSION OF EXTRACTED DELIVERY INFORMATION

FIG. 15

DELIVERY INFORMATION EXTRACTION PROCESSING

s21 READOUT OF ATTRIBUTE INFORMATION CORRESPONDING TO USER

IDENTIFICATION CODE

s22 EXTRACTION OF DELIVERY INFORMATION AT ENTRANCE INTO STATION NEAR HOME

s71 STORAGE OF DELIVERY INFORMATION NUMBER OF EXTRACTED DELIVERY INFORMATION INTO REGION A

s24 EXTRACTION OF DELIVERY INFORMATION AT EXIT FROM STATION NEAR EMPLOYMENT PLACE

s25 STORED IN REGION A?

s26 EXTRACTION OF DIFFERENT DELIVERY INFORMATION

s72 STORAGE OF DELIVERY INFORMATION NUMBER OF EXTRACTED DELIVERY INFORMATION INTO REGION B

s28 EXTRACTION OF DELIVERY INFORMATION AT ENTRANCE INTO STATION NEAR EMPLOYMENT PLACE

s73 STORAGE OF DELIVERY INFORMATION NUMBER OF EXTRACTED DELIVERY INFORMATION INTO REGION C

s30 EXTRACTION OF DELIVERY INFORMATION AT EXIT FROM STATION NEAR HOME

s31 STORED IN REGION C?

s32 EXTRACTION OF DIFFERENT DELIVERY INFORMATION

s74 STORAGE OF DELIVERY INFORMATION NUMBER OF EXTRACTED DELIVERY INFORMATION INTO REGION D

s34 COMPLETED FOR ALL USERS?

END

FIG. 16

USER IDENTIFICATION CODE	123456789	147258369	147259000
REGION A STATION NEAR HOME ENTRANCE	K1010	TRANSMISSION COMPLETED	TRANSMISSION COMPLETED
REGION B STATION NEAR EMPLOYMENT PLACE EXIT	K1051	NOTHING	C2365
REGION C STATION NEAR EMPLOYMENT PLACE ENTRANCE	C1081	B4620	G7645
REGION D STATION NEAR HOME EXIT	L3487	NOTHING	F5438

FIG. 17

s81 READOUT OF DELIVERY INFORMATION NUMBER

s82 READOUT OF RELEVANT DELIVERY INFORMATION FROM DELIVERY INFORMATION STORAGE PART

s83 TRANSMISSION OF READ DELIVERY INFORMATION

FIG. 18

DELIVERY INFORMATION EXTRACTION PROCESSING

s91 READOUT OF DELIVERY INFORMATION AND DELIVERY CONDITION

s92 EXTRACTION OF USER IDENTIFICATION CODE OF ATTRIBUTE INFORMATION SATISFYING DELIVERY CONDITION

s93 STORAGE OF DELIVERY INFORMATION INTO CORRESPONDING

REGION OF EXTRACTED USER IDENTIFICATION CODE

s94 SCHEDULED NUMBER OF TIMES OF DELIVERY IS INCREMENTED BY ONE

s95 WHETHER THE SCHEDULED NUMBER OF TIMES OF DELIVERY REACHES THE RESTRICTED NUMBER OF TIMES?

s96 WHETHER JUDGMENT HAS BEEN MADE FOR ALL USERS?

s97 COMPLETED FOR ALL DELIVERY INFORMATION?

END

FIG. 19

INFORMATION DELIVERY APPARATUS

s101 IS THERE PASSING INFORMATION?

s102 ENTRANCE?

s103 ACQUISITION OF ATTRIBUTE INFORMATION OF USER

s104 PERSON DESIRING ADVERTISEMENT DELIVERY?

s105 ADVERTISEMENT EXTRACTION PROCESSING

s106 DELIVERY IS DESIRED AT ENTRANCE?

s107 DELIVERY PROCESSING

s108 REGISTRATION IN DELIVERY PERSON LIST

s111 REGISTRANT OF DELIVERY PERSON LIST?

s112 DELIVERY PROCESSING

s113 RECORD DELETION

FIG. 20

DELIVERY INFORMATION EXTRACTION PROCESSING

s121 ALL ADVERTISEMENTS IN WHICH ATTRIBUTE INFORMATION OF USER IS CONSISTENT WITH DELIVERY CONDITION ARE EXTRACTED FROM GROUP OF ADVERTISEMENTS OF TYPE FOR WHICH THE USER DESIRES DELIVERY

s122 ADVERTISEMENT WHOSE DELIVERY IS NOT DESIRED BY THE USER IS REMOVED FROM THE EXTRACTED ADVERTISEMENTS

s123 PREPARATION OF DELIVERY DATA BASED ON REMAINING ADVERTISEMENTS

FIG. 21

DELIVERY PROCESSING

s131 READOUT OF RELEVANT DELIVERY DATA

s132 TRANSMISSION OF DELIVERY DATA

FIG. 22

DELIVERY PERSON LIST REGISTRATION PROCESSING

s141 PRESUMPTION OF DETRAINING STATION ARRIVAL TIME OF USER

s142 REGISTRATION OF IDENTIFICATION CODE AND DELIVERY DATA INTO DELIVERY PERSON LIST ACCORDING TO THE PRESUMED TIME

FIG. 23

(A)

ESTIMATED ARRIVAL TIME	USER IDENTIFICATION CODE	IDENTIFICATION CODE OF DELIVERY DATA TO BE DELIVERED
08-05	12345678	1111
08-10	34672460	4587
08-12	76549032	5483

(B)

ESTIMATED ARRIVAL TIME	USER IDENTIFICATION CODE	IDENTIFICATION CODE OF DELIVERY DATA TO BE DELIVERED
08-05	12345678	1111
08-10	34672460	4587
08-11	25680493	5197
08-12	76549032	5483

FIG. 24

INFORMATION DELIVERY APPARATUS

s151 IS THERE PASSING INFORMATION?

s152 ENTRANCE?

s153 SEARCH OF ATTRIBUTE INFORMATION OF USER

s154 PERSON DESIRING DELIVERY?

s155 DELIVERY INFORMATION EXTRACTION PROCESSING

s156 PRESUMPTION OF DETRAINING STATION ARRIVAL TIME

s157 REGISTRATION INTO DELIVERY PERSON LIST

s158 IS THERE USER BEYOND SCHEDULED TRANSMISSION TIME?

s159 DELIVERY PROCESSING TO ALL USERS BEYOND SCHEDULED TRANSMISSION TIME

s160 RECORD DELETION

FIG. 25

SCHEDULED TRANSMISSION TIME	USER IDENTIFICATION CODE	IDENTIFICATION CODE OF DELIVERY DATA TO BE DELIVERED
08-05	12345678	1111
08-10	34672460	4587
08-12	76549032	5483

FIG. 26

INFORMATION DELIVERY APPARATUS

s151 IS THERE PASSING INFORMATION?

s157 REGISTRATION INTO DELIVERY PERSON LIST

s161 IS THERE SPECIFIC STATION IN USE SECTION?

s162 EXTRACTION OF ADVERTISEMENT IN THE VICINITY OF SPECIFIC STATION

s163 DELIVERY DATA PREPARATION

s164 PRESUMPTION OF ARRIVAL TIME OF SPECIFIC STATION

s165 REGISTRATION INTO DELIVERY PERSON LIST

s158 IS THERE USER BEYOND SCHEDULED TRANSMISSION TIME?

s159 DELIVERY PROCESSING TO ALL USERS BEYOND SCHEDULED TRANSMISSION TIME

s160 RECORD DELETION

FIG. 27

DELIVERY INFORMATION UPDATE PROCESSING

n171 IS THERE DELIVERY INFORMATION UPDATE REQUEST?

n172 IS AUTHENTICATION DATA PROPER?

n173 DELIVERY INFORMATION UPDATE

FIG. 28

ATTRIBUTE INFORMATION UPDATE PROCESSING

n181 IS THERE ATTRIBUTE INFORMATION UPDATE REQUEST?

n182 IS AUTHENTICATION DATA PROPER?

n183 ATTRIBUTE INFORMATION UPDATE

FIG. 29

USER IDENTIFICATION CODE UPDATE PROCESSING

s191 IS THERE IS NOTIFICATION OF ISSUANCE OF CONTINUOUS COMMUTATION TICKET?

s192 READOUT OF OLD USER IDENTIFICATION CODE AND NEW USER IDENTIFICATION CODE

s193 IS THERE OLD USER IDENTIFICATION CODE?

s194 UPDATE OF OLD USE IDENTIFICATION CODE TO NEW USER IDENTIFICATION CODE

FIG. 30

INFORMATION DELIVERY APPARATUS

n201 EXTRACTION OF AFFECTED USER

n202 TRANSMISSION OF OCCURRENCE OF ACCIDENT OR DISASTER, ALTERNATIVE ROUTE, AND SUBSTITUTE TRANSPORT MEANS