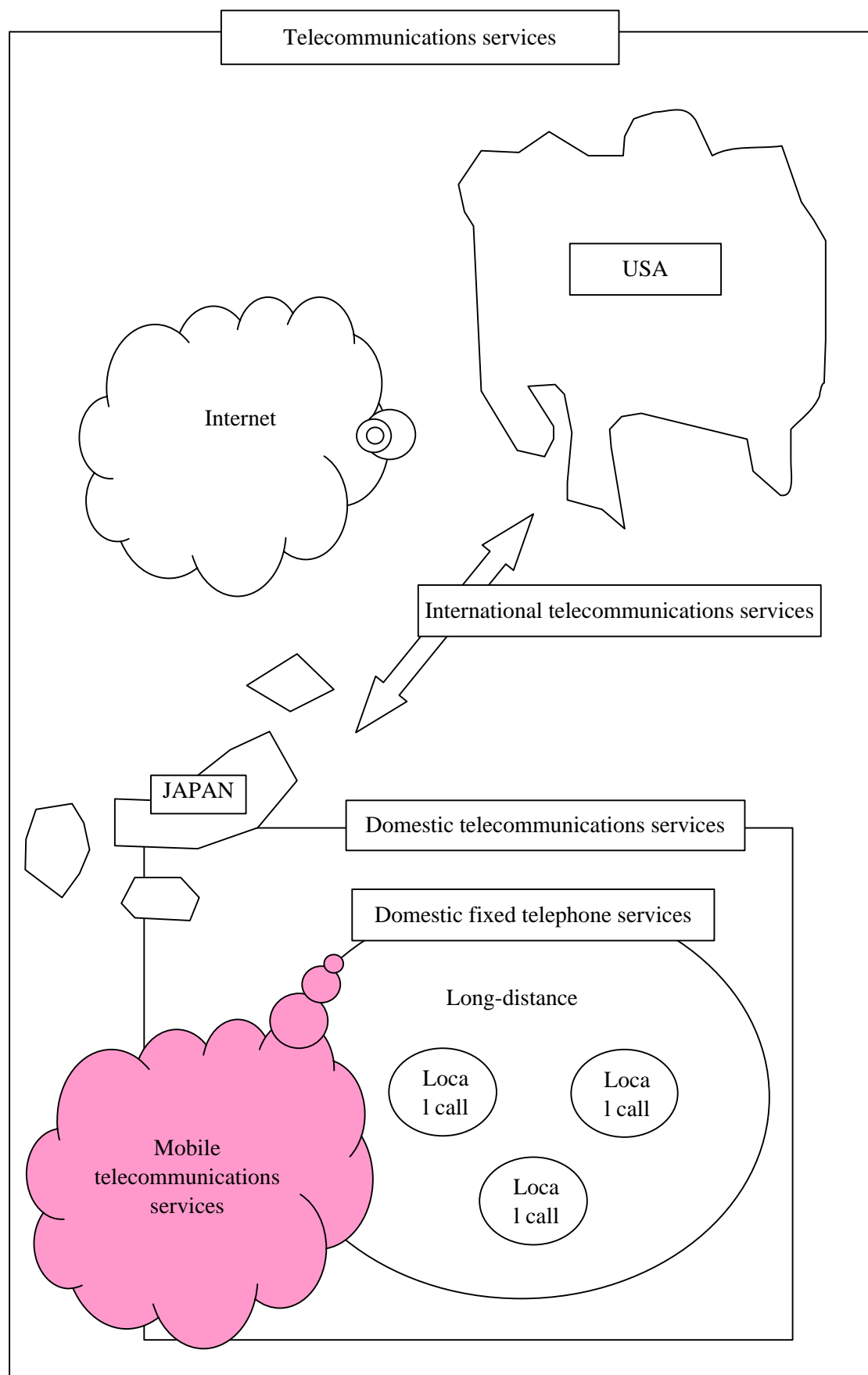
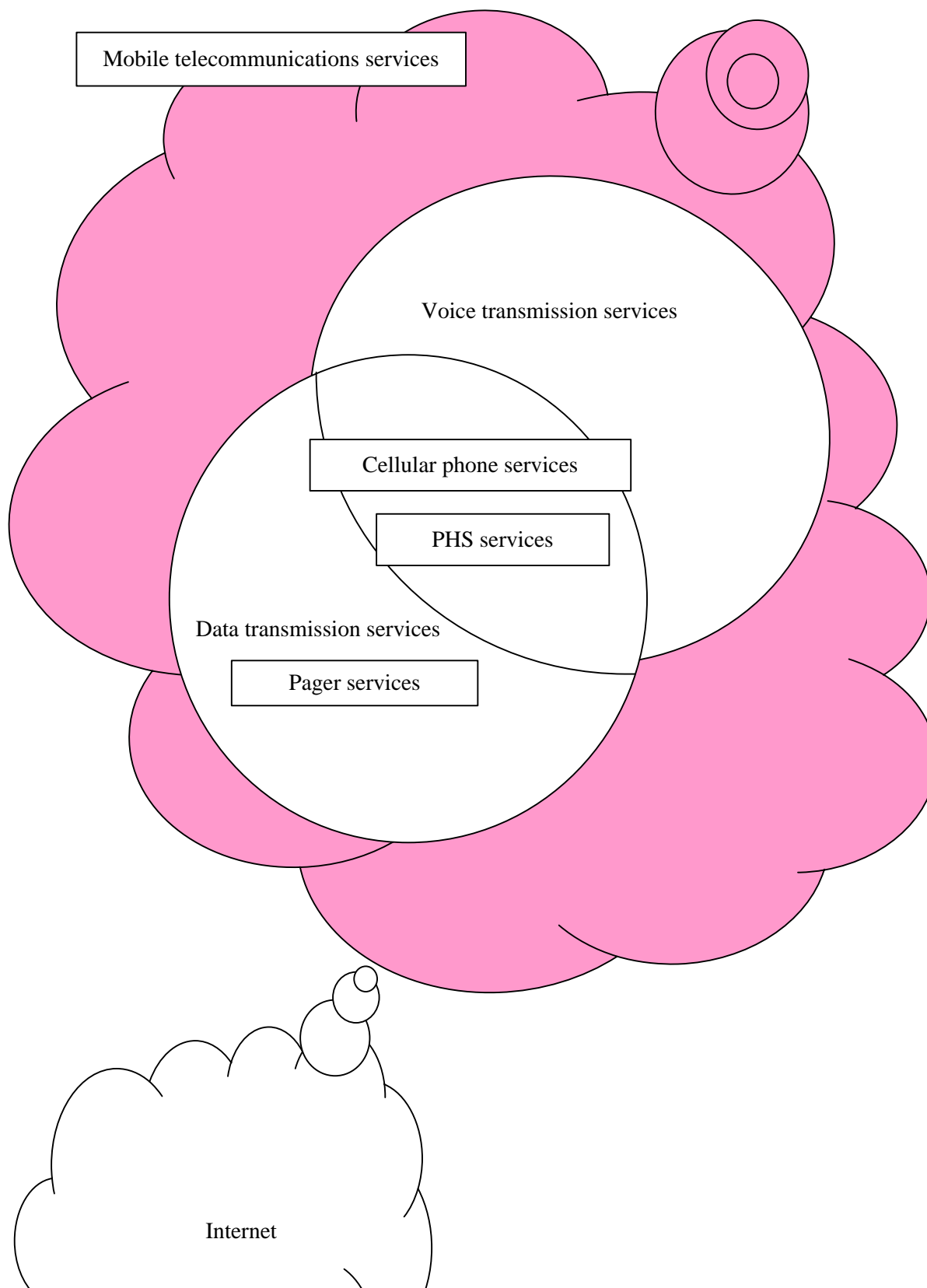


Overview of telecommunications services in Japan

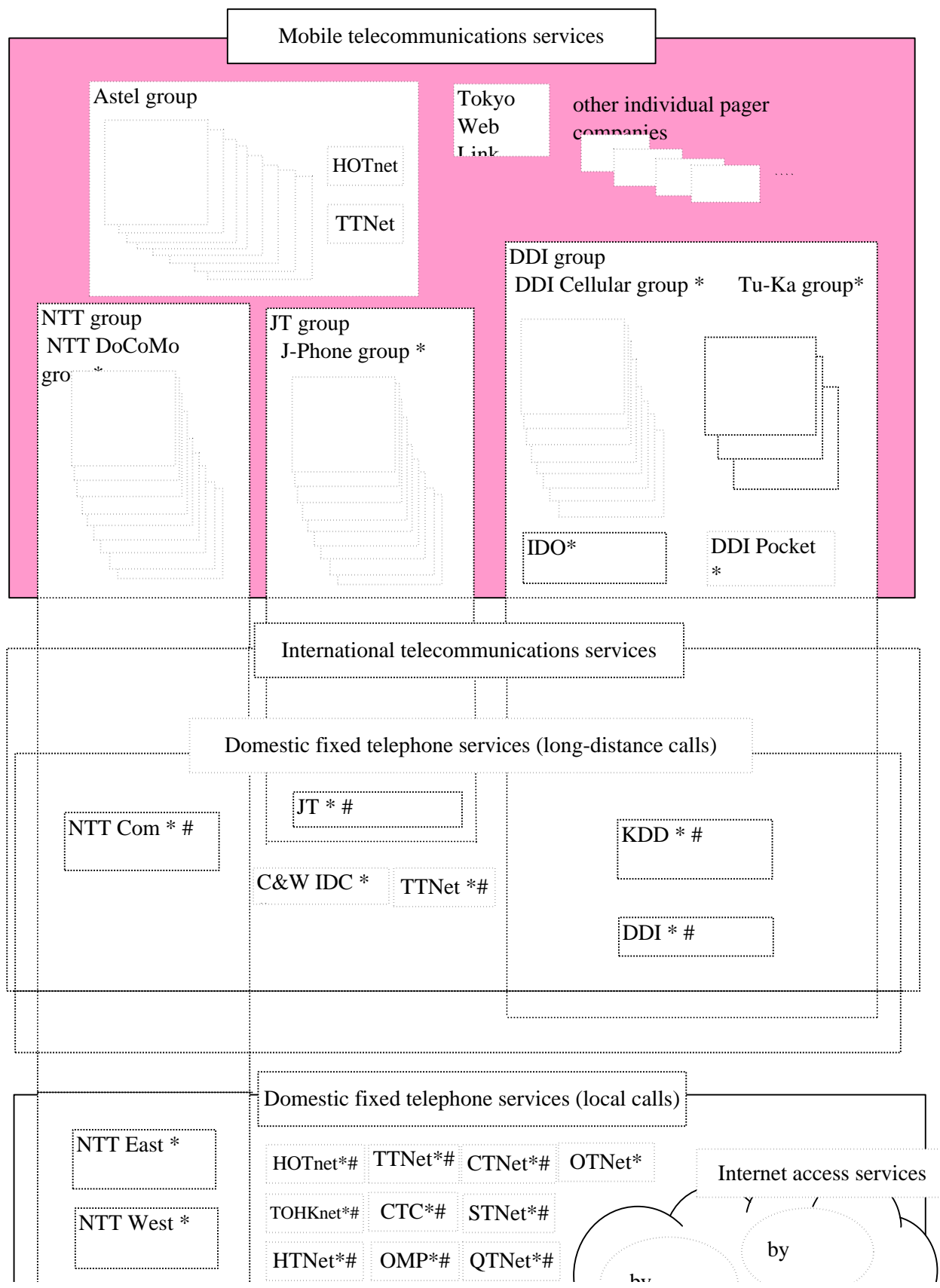


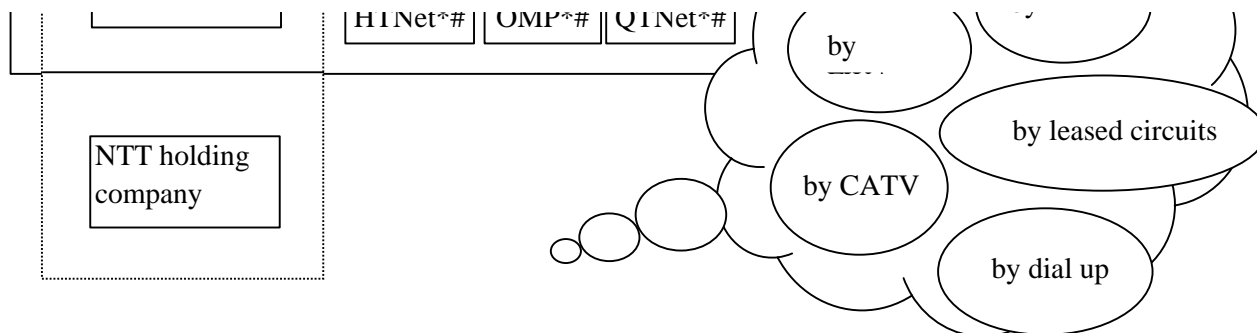
Overview of mobile telecommunications services in Japan



Industry organization

--- As of 31 August 2000 ---





- (Notes) 1. Asterisks (*) indicate companies providing Internet access services.
2. Sharps (#) indicate companies providing ISDN.
3. NTT group consists of NTT DoCoMo group, NTT Com (NTT Communications Corporation), NTT EAST (Nippon Telegraph and Telephone East Corporation), NTT WEST (Nippon Telegraph and Telephone West Corporation), and other telecommunications services related companies under the NTT (Nippon Telegraph and Telephone Corporation), which is a holding company. NTT DoCoMo group consists of NTT DoCoMo, Inc. and its eight regional subsidiaries: NTT DoCoMo Hokkaido, Inc., NTT DoCoMo Tohoku, Inc., NTT DoCoMo Tokai, Inc., NTT DoCoMo Hokuriku, Inc., NTT DoCoMo Kansai, Inc., NTT DoCoMo Chugoku, Inc., NTT DoCoMo Shikoku, Inc., and NTT DoCoMo Kyushu, Inc.
4. JT group consists of J-Phone group and JT (Japan Telecom Co., Ltd.)
J-Phone group consists of nine companies; J-Phone Hokkaido Co., Ltd., J-Phone Tohoku Co., Ltd., J-Phone Tokyo Co., Ltd., J-Phone Hokuriku Co., Ltd., J-Phone Tokai Co., Ltd., J-Phone Kansai Co., Ltd., J-Phone Chugoku Co., Ltd., J-Phone Shikoku Co., Ltd., and J-Phone Kyushu Co., Ltd., divided by the service area.
5. DDI group consists of DDI Cellular group, Tu-Ka group, IDO (IDO Corporation), DDI Pocket (DDI Pocket Inc.), KDD (Kokusai Denshin Denwa Co., Ltd.), and DDI (DDI Corporation).
DDI Cellular group consists of eight companies; Kansai Cellular Telephone Co., Kyushu Cellular Telephone Co., Chugoku Cellular Telephone Co., Tohoku Telephone Co., Hokkaido Cellular Telephone Co., Hokuriku Cellular Telephone Co., Shikoku Cellular Telephone and Okinawa Cellular Telephone Co., divided by the service area.
Tu-Ka group consists of three companies; Tu-Ka Phone Tokyo Inc., Tu-Ka Phone Kansai Inc., and Tu-Ka Cellular Tokai Inc., divided by the service area.
6. Astel group consists of 10 companies; Hokkaido Telecommunication Network Co., Inc. (HotNet), Astel Tohoku, Tokyo Telecommunication Network Co., Inc. (TTNet), Astel Chubu, Astel Kansai, Astel Hokuriku, Astel Chugoku, Astel Shikoku, Astel Kyushu, and Astel Okinawa, divided by the service area.
7. "Tokyo Web Link" stands for Tokyo Web Link Inc.
8. "C&W IDC" stands for Cable & Wireless IDC Inc.
9. "HOTnet" stands for Hokkaido Telecommunication Network Co., Inc..
10. "TOHKnet" stands for Tohoku Intelligent Telecommunication Network Co., Inc.
11. "HTNet" stands for Hokuriku Telecommunication Network Co., Inc.
12. "TTNet" stands for Tokyo Telecommunication Network Co., Inc.
13. "CTC" stand for Chubu Telecommunications Co., Inc.
14. "OMP" stands for Osaka Media Port Corporation.
15. "CTNet" stands for Chugoku Telecommunication Network Co., Inc.
16. "STNet" stands for Shikoku Information and Telecommunication Network Co., Inc.
17. "QTNet" stands for Kyushu Telecommunication Network Co., Inc.

18. "OTNet" stands for Okinawa Telecommunication Network Co., Inc.
19. "FWA" stands for fixed wireless access, which is one of the radio telecommunications systems used for fixed telecommunications services.
20. "xDSL" stands for x digital subscriber line, which is a general term for the high-speed transmission method uses a copper feeder. "Asymmetric digital subscriber line (ADSL)," which is a format of xDSL, is a high-speed data transmission service that has recently started in Japan.
21. "CATV" stands for the network used for cable television broadcasting.

Services provided

Major types of services			(Reference)
Condition	Voice transmission	Data transmission	Infrastructure used in the network
Mobile	Domestic telephone International telephone	Internet access services E-mail services Mail services between mobile equipment	Wireless telecommunications
			PDC
			cdmaOne
			PHS
			Wired telecommunications
			Copper feeder
			Fiber feeder

(Reference)

Major types of services			(Reference)
Condition	Voice transmission	Data transmission	Infrastructure used in the network
Fixed	Domestic telephone International telephone	Internet access services E-mail services	Wireless telecommunications
			FWA
			Wired telecommunications
			Copper feeder
			Fiber feeder
			ISDN
	Domestic leased circuits International leased circuits	CATV	
		xDSL	
		Internet	
Connection	Access charges		---
	Credit transfer type connection charges		

(Notes) 1. For details of the infrastructure used in the "network" of mobile telecommunications service see Appendix 7.

2. "ISDN" stands for Integrated Services Digital Network.

Publication structure and relationship to the CPC							
CSPI classification					(Reference)		
Major group							
	Group			CPC	ISIC	JSIC	Japan's
		Subgroup		Ver.1.0	Rev.3		I-O Tables
			Item				
Communications and broadcasting				---	---	---	---
	Communications			---	---	---	---
		Postal services		6811	6411	461	7311-011
			Letters				
			Postcards				
			Other postal services				
		Domestic and international telecommunications services		8411,8420	6420	4711	7312-011,7312-031
			Domestic fixed telephone services			4712	
			International fixed telephone services			472	
			ISDN (Integrated Services Digital Network)				
			Data transmission services				
			Domestic leased circuits				
			International leased circuits				
		Mobile telecommunications services		8412	6420	4713	7312-021
			Cellular phone services				
			PHS (Personal Handyphone System) services				
			Pager services				
		Access charges		---	6420	4719	7312-011,7312-021
			Access charges				
	Broadcasting			---	---	---	---
		Cable broadcasting		8411	6420	813	7321-031
			Cable broadcasting				
(Notes) 1. "CPC Ver.1.0" stands for Central Product Classification (CPC) Version 1.0.							
The numbers are the four-digit code numbers of the class classification in the CPC Ver. 1.0.							
2. "ISIC Rev.3" stands for International Standard Industrial Classification of All Economic Activities (ISIC Rev.3).							
The numbers are the code numbers of the ISIC Rev 3.							
3. "JSIC" stands for latest Japan's Standard Industrial Classification published by the Statistics Bureau,							
Management and Coordination Agency, Government of Japan, in October 1993.							
The numbers are the code numbers of the JSIC.							
4. "Japan's I-O Tables" stands for 1995 Japan's Input-Output Tables published by the Statistics Bureau,							
Management and Coordination Agency, Government of Japan, in March 1999.							
The numbers are the row code numbers of basic sector classification in the 1995 I-O Tables.							

Definition of the publication structure

--Definition of items in mobile telecommunications services--

1. Cellular phone services

Call from	To
Cellular phone	Cellular phone (same company)
	Cellular phone (same group company) ¹
	Cellular phone (different company) ²
	PHS (same company)
	PHS (same group company)
	PHS (different company)
	Domestic fixed telephone
	Domestic fixed telephone by ISDN
	Cellular phone (same company or same group company) in a foreign country by roaming ³
Cellular phone in a foreign country by roaming	Cellular phone (same company) in Japan ³
	Cellular phone (same group company) in Japan ³
	Fixed telephone in foreign country ³
Domestic fixed telephone	Cellular phone
Domestic fixed telephone by ISDN	

(Notes) 1,2. Calls to a cellular phone, prepared by the same group company or a different company, are included in the price data surveyed from company the caller is using, although the sales are split between the calling company and the receiving company based on an initial agreement called the "credit transfer type connecting rule" described in Reference 2-(a) of this Appendix.

This is because the calling company collects the charge, including the charge for the networks owned by the receiving company, based on the agreement.

3. Shadowed services are not included in cellular phone services yet.

2. PHS (Personal Handyphone System) services

Call from	To
PHS	PHS (same company)
	PHS (same group company)
	PHS (different company)
	Cellular phone (same company)
	Cellular phone (same group company)
	Cellular phone (different company)
	Domestic fixed telephone
	Domestic fixed telephone by ISDN
Domestic fixed telephone	PHS

Domestic fixed telephone by ISDN	
----------------------------------	--

3. Pager services

Call from	To
Pager	Pager (same company)
	Pager (same group company)
PHS (same company)	Pager
PHS (same group company)	
PHS (different company)	
Cellular phone (same company)	
Cellular phone (same group company)	
Cellular phone (different company)	
Domestic fixed telephone	
Domestic fixed telephone by ISDN	

(Reference)

1. Definition of other telecommunications services items in the CSPI

(a) Domestic fixed telephone services

Call from	To
Domestic fixed telephone	Domestic fixed telephone
	Domestic fixed telephone by ISDN
	Cellular phone ⁴
	PHS ⁵

(Notes)4,5. Shadowed service are not included in domestic fixed telephone services.

Calls to cellular phones are included in cellular phone services.

Calls to PHS are included in PHS services.

(b) ISDN (Integrated Services Digital Network)

Call from	To
Domestic fixed telephone by ISDN	Domestic fixed telephone by ISDN
	Domestic fixed telephone
	Cellular phone ⁶
	PHS ⁷

(Notes)6,7. Shadowed service are not included in domestic fixed telephone services,

because calls to cellular phones are included in cellular phone services, and

calls to PHS are included in PHS services.

(c) International fixed telephone services

Call from	To
Domestic fixed telephone	fixed telephone in a foreign country
Domestic fixed telephone by ISDN	
Cellular phone	

PHS	
Fixed telephone in a foreign country ^{8,9}	Domestic fixed telephone ⁸
	Domestic fixed telephone by ISDN ⁹

(Note)8,9. Shadowed services are not included in international fixed telephone services, because export services are not covered by the CSPI.
They might be included in the foreign countries' statistics as imported services.

(d) Access charges

Call from	To
Cellular phone ¹⁰	PHS (same group company) ¹⁰
	PHS (different company) ¹⁰
	Domestic fixed telephone ¹⁰
	Domestic fixed telephone by ISDN ¹⁰
PHS ¹¹	PHS (same group company) ¹¹
	PHS (different company) ¹¹
	Cellular phone (same group company) ¹¹
	Cellular phone (different company) ¹¹
	Domestic fixed telephone ¹¹
	Domestic fixed telephone by ISDN ¹¹
Domestic fixed telephone ¹²	Domestic fixed telephone (same group company) ¹²
	Domestic fixed telephone (different company) ¹²
	Cellular phone ¹³
	PHS ¹³
Domestic fixed telephone by ISDN ¹⁴	Cellular phone ¹⁴
	PHS ¹⁴
Domestic fixed telephone ¹⁵	Fixed telephone in a foreign country ¹⁵
Domestic fixed telephone by ISDN ¹⁵	
Cellular phone ¹⁵	
PHS ¹⁵	
Fixed telephone in a foreign country ^{16,17}	Domestic fixed telephone ¹⁶
	Domestic fixed telephone by ISDN ¹⁷

- (Notes)10. Access charges are paid by cellular phone companies to PHS services companies or domestic fixed telephone services companies.
11. Access charges are paid by PHS services companies to PHS services companies, cellular phone services companies, or domestic fixed telephone services companies.
12. Access charges are paid by domestic fixed telephone services companies (same group company or different company), which provide long-distance call services, to domestic fixed telephone services companies, which provide local call services.
13. Access charges are paid by cellular phone or PHS services companies to domestic fixed telephone services companies.
14. Access charges are paid by cellular phone or PHS services companies to domestic fixed telephone services companies, which provide the services by ISDN.
15. Access charges are paid by international fixed telephone services companies to domestic fixed telephone services companies, cellular phone services companies, or PHS services companies

16,17. Shadowed services are not included in access charges,

because export services are not covered by the CSPI.
They might be included in the foreign countries' statistics as imported services.

2. Other connecting related services not included in the CSPI

(a) Credit transfer type connection charges

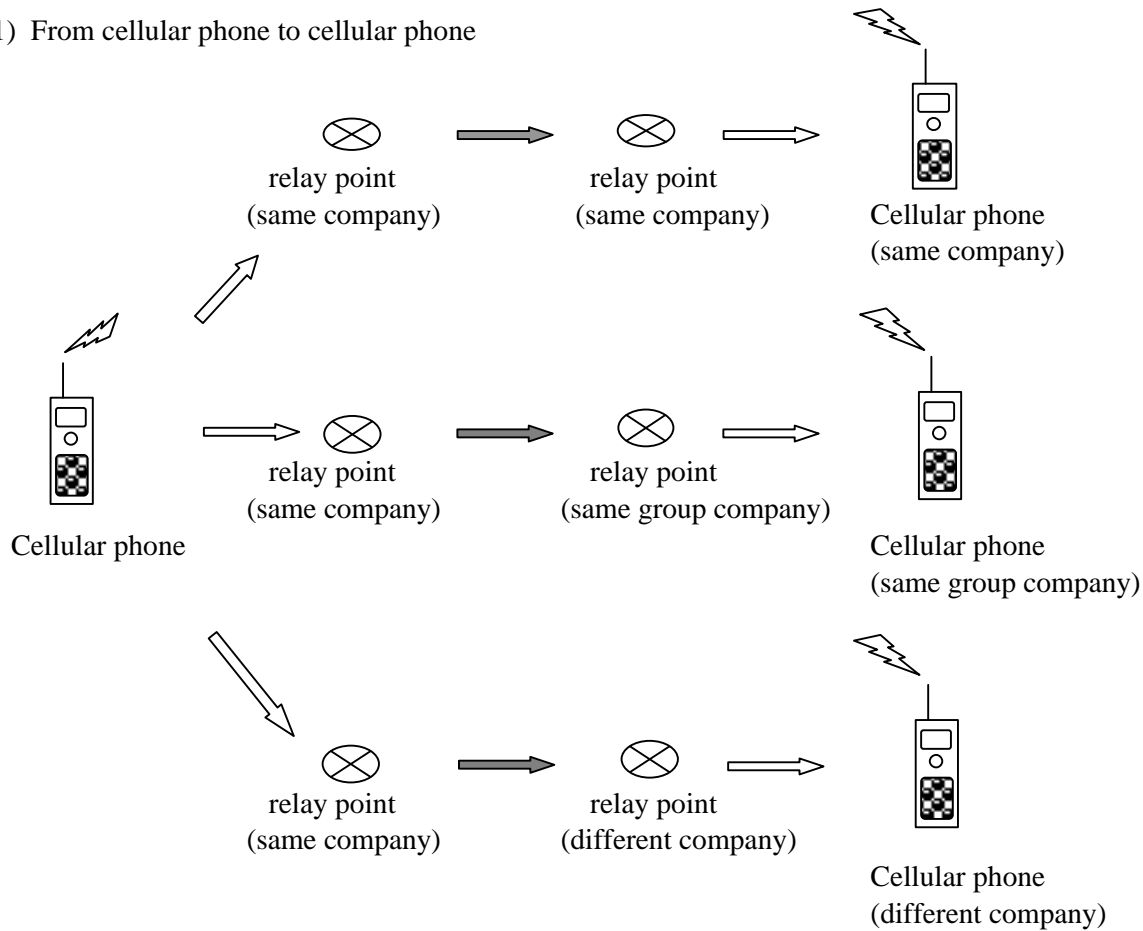
Call from	To
Cellular phone ¹⁸	Cellular phone (same group company) ¹⁸
	Cellular phone (different company) ¹⁸

(Notes)18. There is a point of interface between calling company and receiving company, which is the end of network for each company. Both companies have an agreement to connect their networks for the customers and to charge to the customers. That is the "credit transfer type connection rule."
Calling company collects bills from customers, including bill for receiving company. Collected bills are paid by calling companies to receiving companies later.
The difference between the "charges based on the credit transfer type of connection rule" and the "access charges" is the counting method to the annual report, such as balance sheet, profit and loss statement. The function to connect networks between two companies is the same.

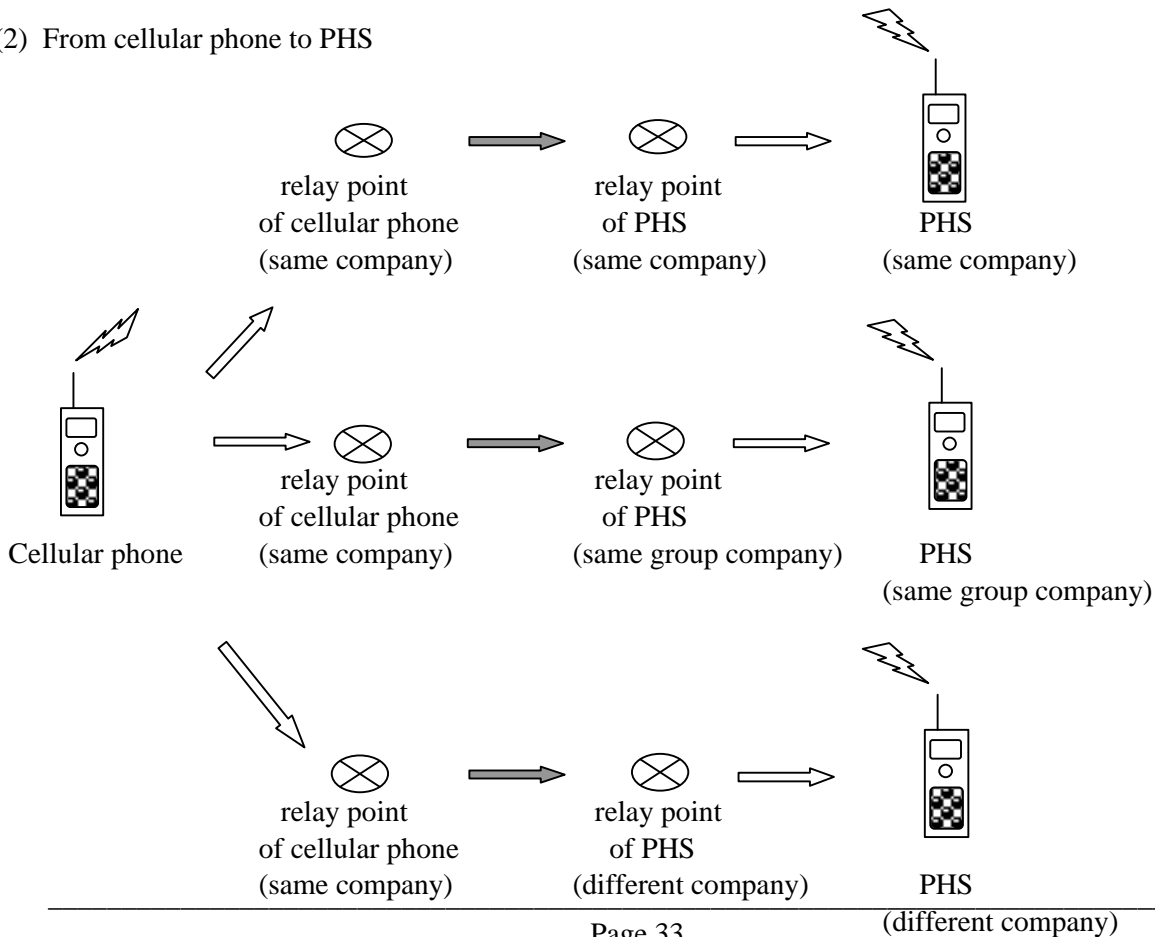
Infrastructure used in the "network" of (Appendix 7) mobile telecommunications services

1. Cellular phone services

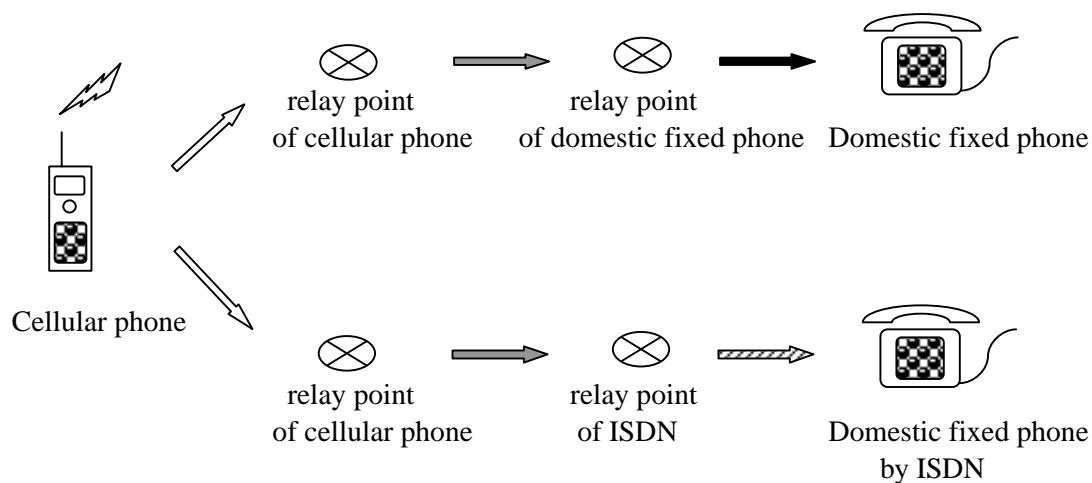
(1) From cellular phone to cellular phone



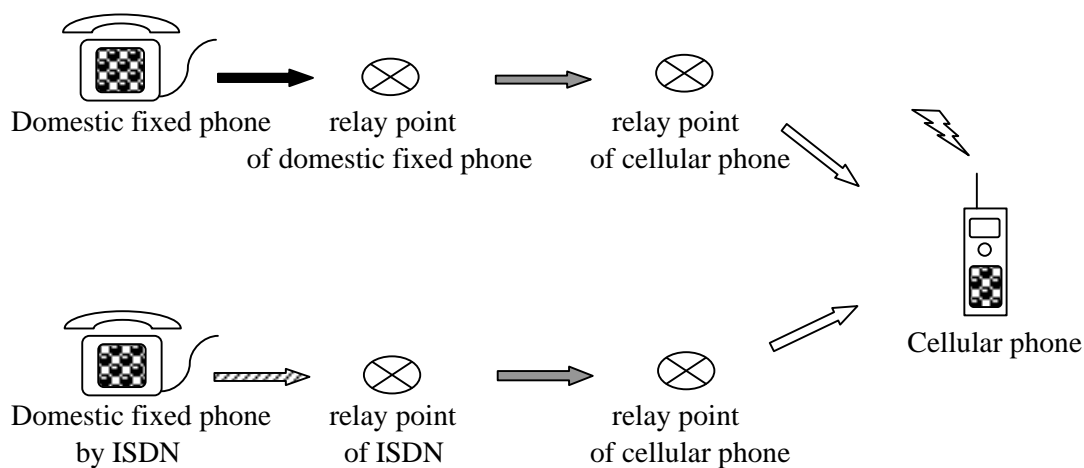
(2) From cellular phone to PHS







(3) From cellular phone to domestic fixed phone



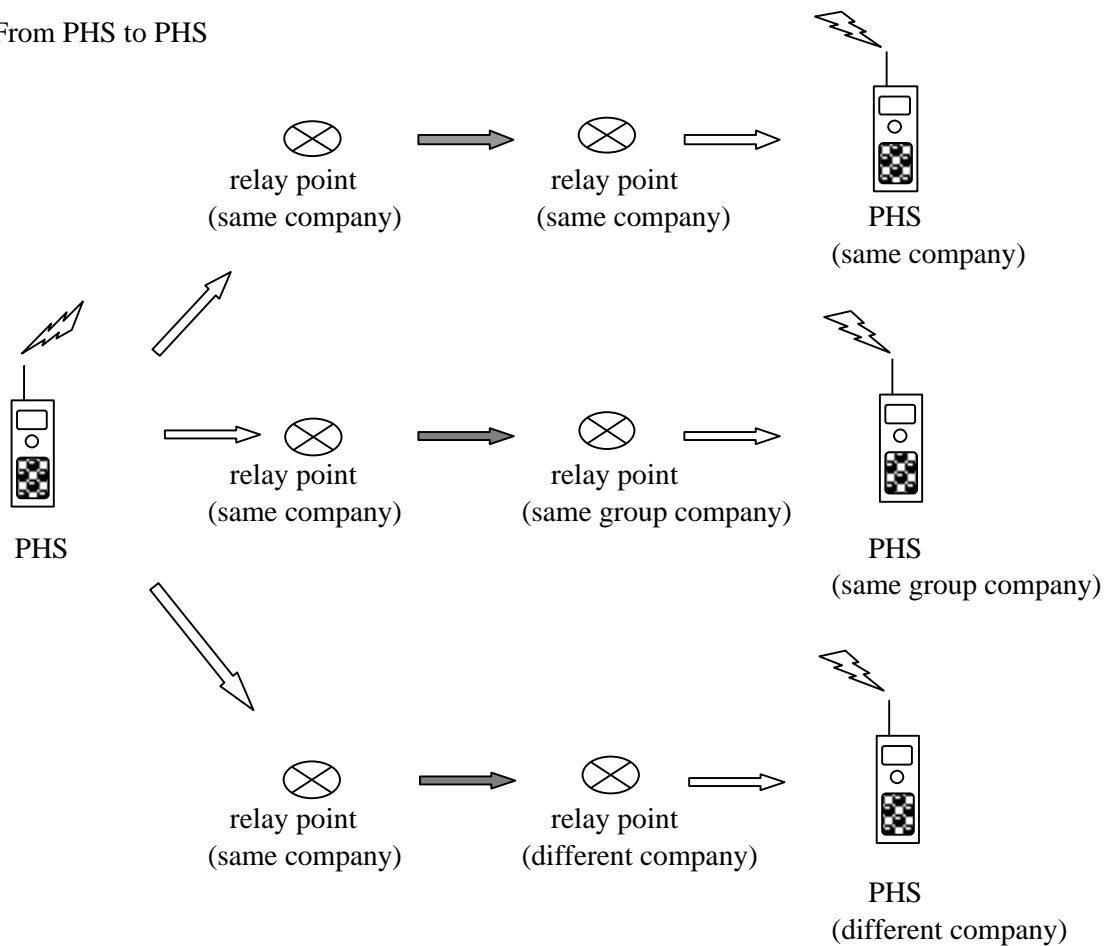
(4) From domestic fixed phone to cellular phone



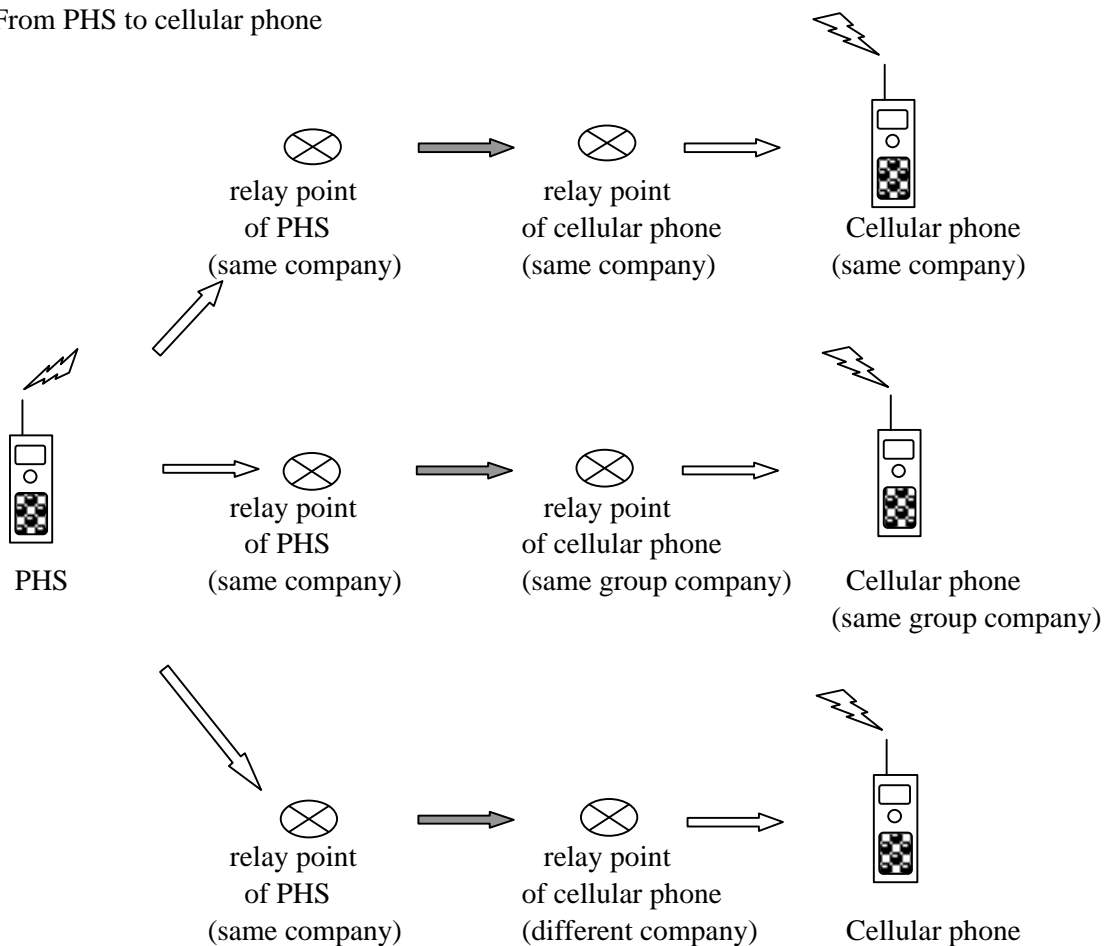
- (Notes)
1. Arrows  indicate wireless telecommunications.
 2. Arrows  indicate wireless or wired telecommunications.
 3. Arrows  indicate wired telecommunications.
 4. Arrows  indicate wired telecommunications by ISDN.

2. PHS services

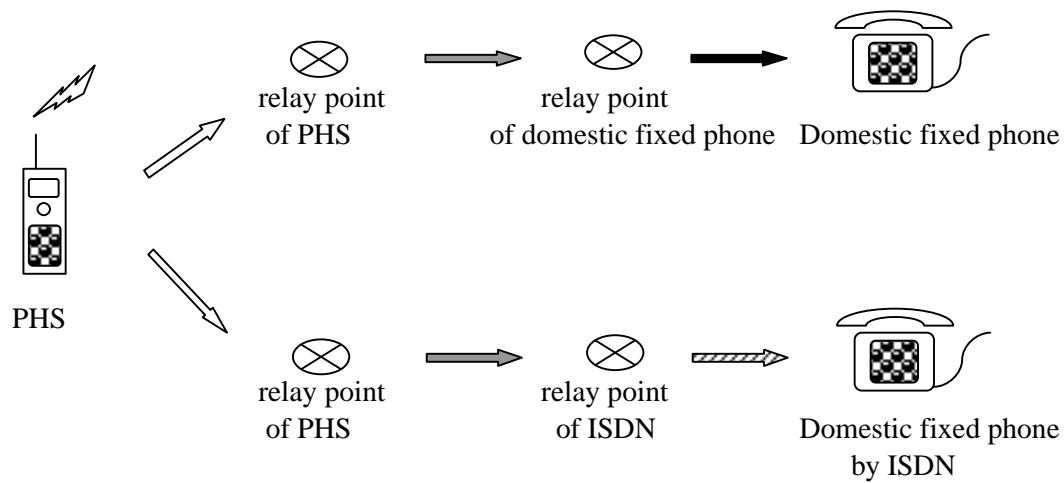
(1) From PHS to PHS



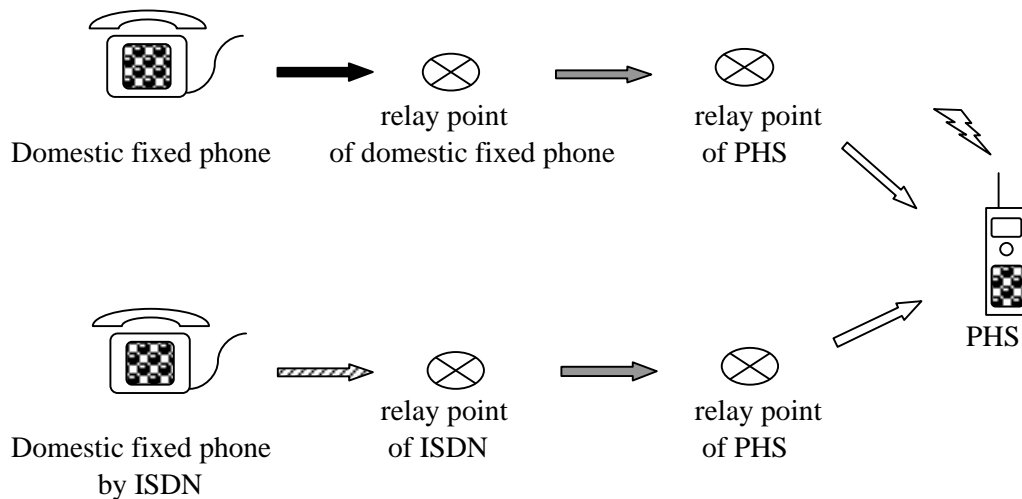
(2) From PHS to cellular phone

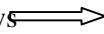


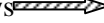


(3) From PHS to domestic fixed phone



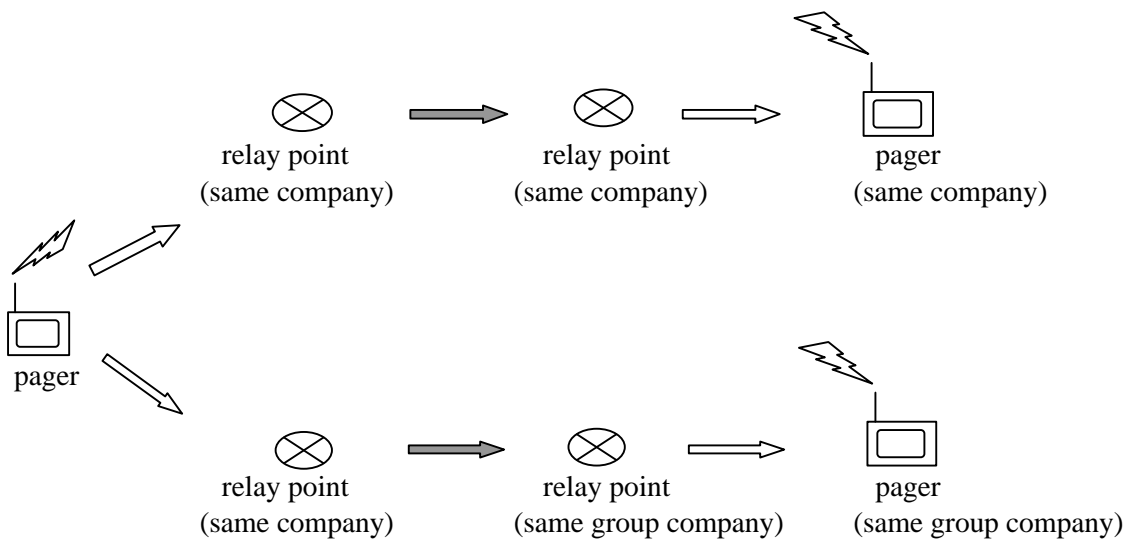
(4) From domestic fixed phone to PHS



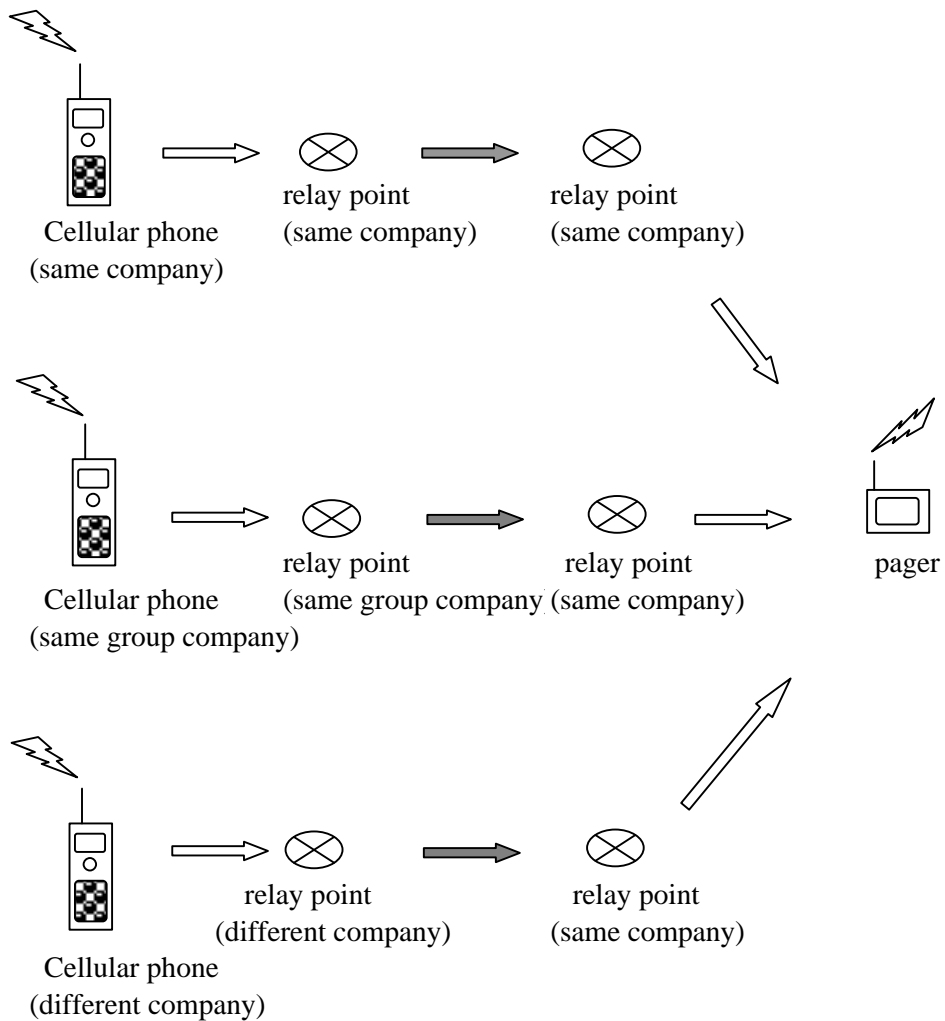
- (Notes)
1. Arrows  indicate wireless telecommunications.
 2. Arrows  indicate wireless or wired telecommunications.
 3. Arrows  indicate wired telecommunications.
 4. Arrows  indicate wired telecommunications by ISDN.

3. Pager services

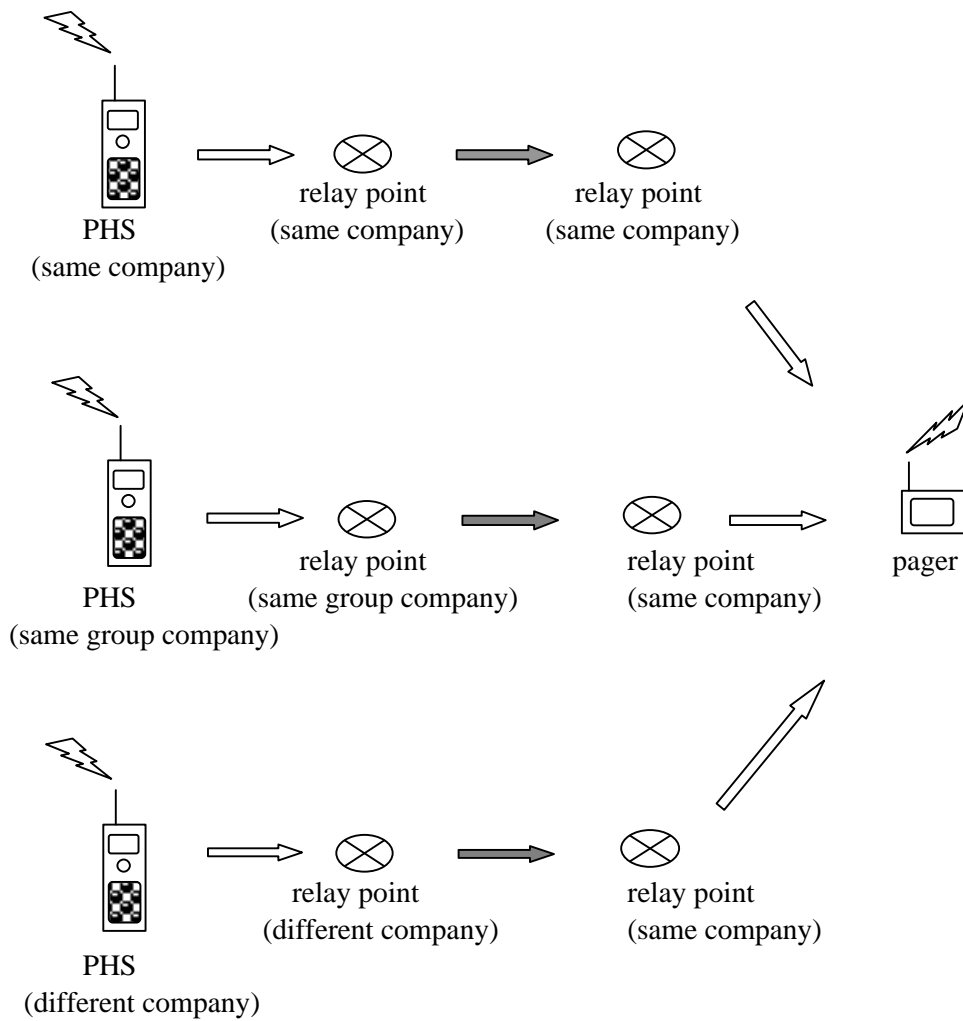
(1) From pager to pager



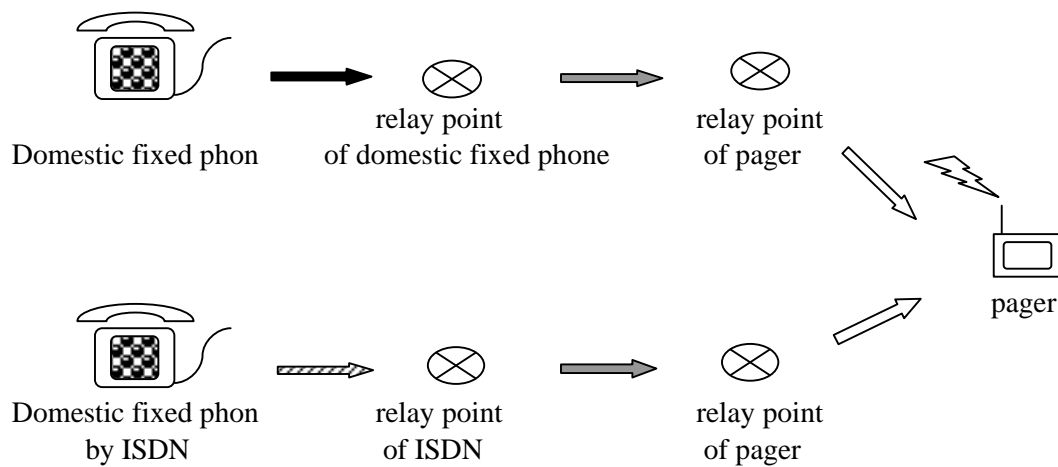
(2) From cellular phone to pager

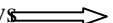





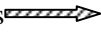
(3) From PHS to pager



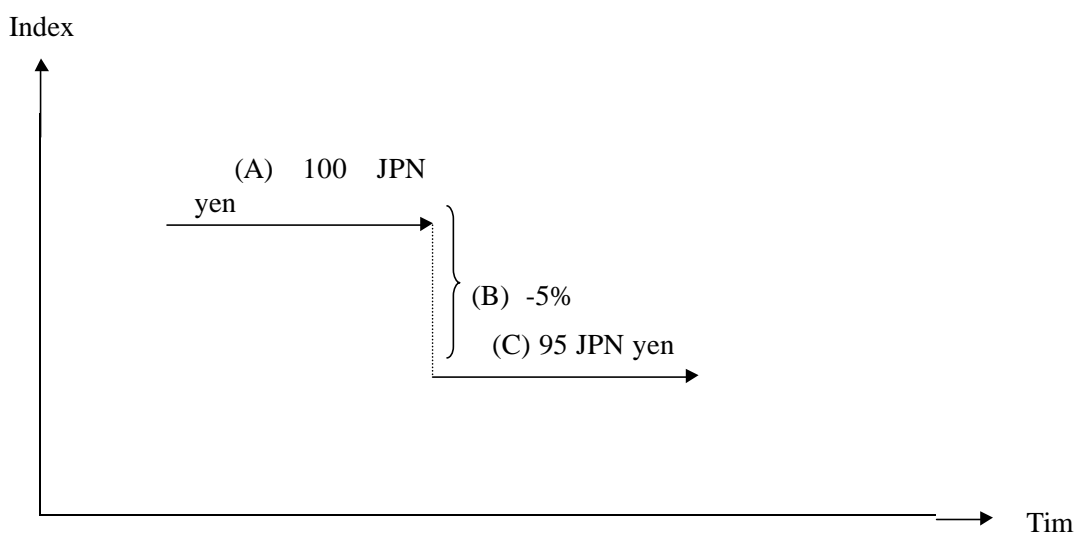
(4) From domestic fixed phone to pager



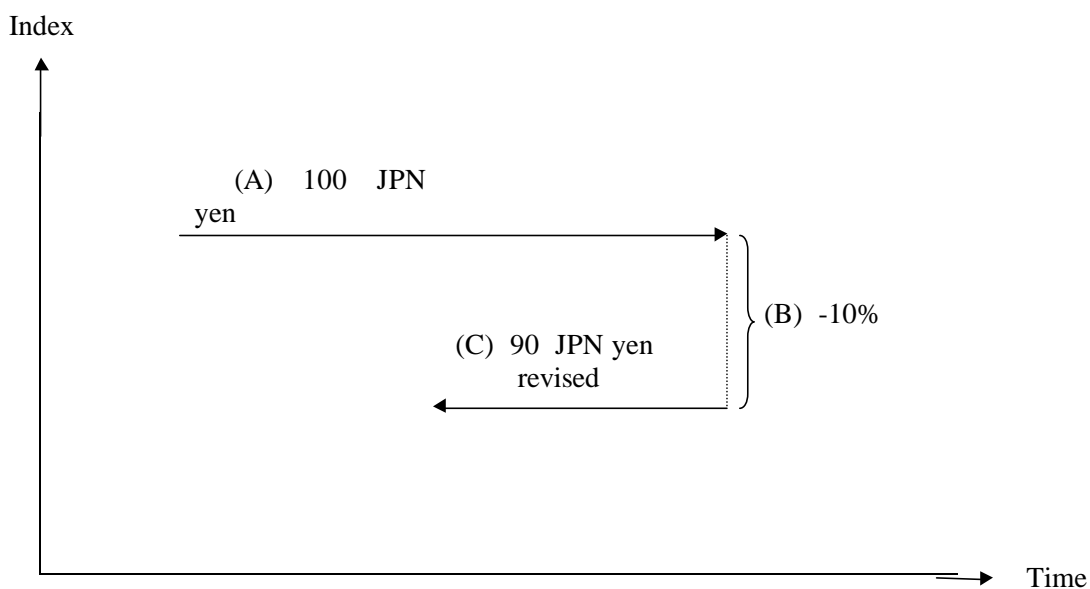
- (Notes) 1. Arrows  indicate wireless telecommunications.
 2. Arrows  indicate wireless or wired telecommunications.


3. Arrows  indicate wired telecommunications.
4. Arrows  indicate wired telecommunications by ISDN.

Example 1 : A scheme for reflecting discounts “on a real time basis”



Example 2 : A scheme for reflecting discounts “on a retroactive basis”



Example of price data including discounts

(Cellular phone services)

Year/month	Basic fare			Per call charges			
	Regular price	Discount rate	Price data for the CSPI	Regular price	Changes in regular price	Discount rate	Price data for the CSPI
	units: JPN yen	units: %	units: JPN yen	units: 1995/1=1,000.00 JPN yen	units: %	units: %	units: JPN yen
1995.01	7,000.00	0.0	7,000.00	1,000.00	---	0.0	1,000.00
1995.02	7,000.00	0.0	7,000.00	1,000.00	---	0.0	1,000.00
1995.03	7,000.00	0.0	7,000.00	1,000.00	---	0.0	1,000.00
1995.04	7,000.00	0.0	7,000.00	1,000.00	---	0.0	1,000.00
1995.05	7,000.00	0.0	7,000.00	1,000.00	---	0.0	1,000.00
1995.06	6,800.00	0.0	6,800.00	1,000.00	---	0.0	1,000.00
1995.07	6,800.00	0.0	6,800.00	1,000.00	---	0.0	1,000.00
1995.08	6,800.00	0.0	6,800.00	850.00	-15.0	0.0	850.00
1995.09	6,800.00	-3.0	6,596.00	850.00	---	0.0	850.00
1995.10	6,800.00	-3.0	6,596.00	850.00	---	0.0	850.00
1995.11	6,800.00	-3.0	6,596.00	850.00	---	0.0	850.00
1995.12	6,800.00	-3.0	6,596.00	850.00	---	0.0	850.00
1996.01	6,000.00	-3.0	5,820.00	850.00	---	0.0	850.00
1996.02	6,000.00	-3.0	5,820.00	850.00	---	-0.1	849.15
1996.03	6,000.00	-3.0	5,820.00	850.00	---	-0.1	849.15
1996.04	6,000.00	-3.0	5,820.00	850.00	---	-0.1	849.15
1996.05	6,000.00	-3.0	5,820.00	850.00	---	-0.1	849.15
1996.06	6,000.00	-3.0	5,820.00	782.00	-8.0	-0.1	781.22
1996.07	6,000.00	-3.0	5,820.00	782.00	---	-0.1	781.22
1996.08	6,000.00	-5.0	5,700.00	782.00	---	-0.1	781.22
1996.09	6,000.00	-5.0	5,700.00	782.00	---	-0.1	781.22
1996.10	6,000.00	-5.0	5,700.00	703.80	-10.0	-0.1	703.10
1996.11	6,000.00	-5.0	5,700.00	703.80	---	-0.1	703.10
1996.12	5,500.00	-5.1	5,219.50	703.80	---	-0.1	703.10
1997.01	5,500.00	-5.1	5,219.50	703.80	---	-0.1	703.10
1997.02	5,500.00	-5.1	5,219.50	612.31	-13.0	-0.3	610.47
1997.03	5,500.00	-5.1	5,219.50	612.31	---	-0.3	610.47
1997.04	5,500.00	-5.1	5,219.50	612.31	---	-0.3	610.47
1997.05	5,500.00	-5.1	5,219.50	612.31	---	-0.3	610.47
1997.06	5,500.00	-5.1	5,219.50	612.31	---	-0.3	610.47
1997.07	5,500.00	-5.1	5,219.50	612.31	---	-0.3	610.47
1997.08	5,500.00	-5.1	5,219.50	612.31	---	-0.3	610.47
1997.09	4,800.00	-5.1	4,555.20	612.31	---	-0.3	610.47
1997.10	4,800.00	-5.1	4,555.20	612.31	---	-0.3	610.47
1997.11	4,800.00	-5.1	4,555.20	612.31	---	-0.3	610.47
1997.12	4,800.00	-5.1	4,555.20	612.31	---	-0.3	610.47
1998.01	4,800.00	-5.1	4,555.20	612.31	---	-0.3	610.47
1998.02	4,800.00	-5.1	4,555.20	520.46	-15.0	-0.5	517.86
1998.03	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.04	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.05	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.06	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.07	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.08	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.09	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.10	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.11	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1998.12	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1999.01	4,800.00	-5.5	4,536.00	520.46	---	-0.5	517.86
1999.02	4,800.00	-5.5	4,536.00	520.46	---	-2.0	510.05
1999.03	4,800.00	-5.5	4,536.00	520.46	---	-2.0	510.05
1999.04	4,800.00	-5.5	4,536.00	520.46	---	-2.0	510.05
1999.05	4,800.00	-5.5	4,536.00	520.46	---	-2.0	510.05
1999.06	4,800.00	-5.5	4,536.00	520.46	---	-2.0	510.05
1999.07	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
1999.08	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
1999.09	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
1999.10	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
1999.11	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
1999.12	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
2000.01	4,800.00	-5.8	4,521.60	520.46	---	-2.0	510.05
2000.02	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64
2000.03	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64
2000.04	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64
2000.05	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64
2000.06	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64
2000.07	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64
2000.08	4,800.00	-5.8	4,521.60	520.46	---	-4.0	499.64

(Note) The "changes in regular price" for per call charges in this example shows the "average revision rate of price table," which is described in the main text column VIII.

SAMPLE WORKSHEET
WIRELESS TELECOMMUNICATIONS (EXCEPT PAGING) WORKSHEET

PART I: AVERAGE UNIT PER ACCESS LINE

List all types of charges assessed by company for the selected area in column 1. Enter the total number of units for each type of charge in column 2. Enter the total number of access lines in column 3. Divide column 2 by column 3 and enter in column 4. The reporter may be reluctant to provide data for the columns 2 and 3. If the reporter will calculate the percentages, it is only necessary to fill out columns 1 and 4.

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4 (COLUMN 2/COLUMN 3)
TYPE OF CHARGE	TOTAL UNITS: BILLED AND FREE	TOTAL NUMBER OF ACCESS LINES	AVERAGE NUMBER PER ACCESS LINE
ACCESS LINE			1.0000* *BY DEFINITION
USAGE CHARGE BASED ON TIME			
Peak minutes	32,400,000		162
Off-peak minutes	26,600,000	200,000	133
Roaming minutes	2,000,000	200,000	10
Landline minutes			
Other charges			
USAGE CHARGES OTHER THAN TIME			
Landline, per call	400,000	200,000	2
Other charges,			
Daily rate	200,000	200,000	1
FEATURES/OPTIONS AND FEATURE PACKAGES			
Custom calling package	130,000	200,000	0.65
Call waiting	40,000	200,000	0.20
Call forwarding	20,000	200,000	0.10
3-way conference	10,000	200,000	0.05
No answer transfer	20,000	200,000	0.10
Voice messaging	40,000	200,000	0.20

WIRELESS TELECOMMUNICATIONS (EXCEPT PAGING) WORKSHEET**PART II: AVERAGE REVENUE PER UNIT**

Copy all the charges in Part I, column I to Part II, column I. Obtain the net billed revenues for each type of charge and divide by the total quantity used of each charge. **OR**

The reporter may be reluctant to provide data for columns 2 and 3. If the reporter will calculate the average revenue, it is only necessary to fill columns 1 and 4.

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4 (COLUMN 2/COLUMN 3)
TYPE OF CHARGE	TOTAL NET: BILLED REVENUE	TOTAL UNITS: BILLED AND FREE	AVERAGE REVENUE PER UNIT
ACCESS LINE	<u>5,350,600</u>	<u>200,000</u>	<u>26.7530</u>

USAGE CHARGE BASED ON TIME

Peak minutes	<u>8,388,360</u>	<u>32,400,000</u>	<u>0.2589</u>
Off-peak minutes	<u>2,191,840</u>	<u>26,600,000</u>	<u>0.0824</u>
Roaming minutes	<u>1,944,400</u>	<u>2,000,000</u>	<u>0.9722</u>
Landline minutes	<u></u>	<u></u>	<u></u>
Other charges	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>

USAGE CHARGES OTHER THAN TIME

Landline, per call	<u>60,000</u>	<u>400,000</u>	<u>0.1500</u>
Other charges,	<u></u>	<u></u>	<u></u>
<u>Daily rate</u>	<u>300,000</u>	<u>200,000</u>	<u>1.5000</u>
<u></u>	<u></u>	<u></u>	<u></u>

FEATURES/OPTIONS AND FEATURE PACKAGES

Custom call package	<u>449,800</u>	<u>130,000</u>	<u>3.4600</u>
Call waiting	<u>194,000</u>	<u>40,000</u>	<u>4.8500</u>
Call forwarding	<u>103,000</u>	<u>20,000</u>	<u>5.1500</u>
3-way conference	<u>57,500</u>	<u>10,000</u>	<u>5.7500</u>
No answer transfer	<u>85,000</u>	<u>20,000</u>	<u>4.2500</u>
Voice messaging	<u>192,000</u>	<u>40,000</u>	<u>4.8000</u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>
<u></u>	<u></u>	<u></u>	<u></u>

WIRELESS TELECOMMUNICATIONS (EXCEPT PAGING) WORKSHEET**PART III: COMPUTE AVERAGE REVENUE BILL**

Copy all the types of charges in Part I, column 1 to Part III, column 1. Copy average number per access line from part I, column 4 to Column 2. Copy average revenue per unit from part II, column 4. Multiply column 2 by column 3 and enter in column 4. Sum column 4 to base period total or "price".

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4 (COLUMN 2 X COLUMN 3)
TYPE OF CHARGE	AVERAGE NUMBER PER ACCESS LINE (Part I, Col 4)	AVERAGE REVENUE: PER UNIT (Part II, Col 4)	WEIGHTED REVENUE
ACCESS LINE	<u>1.000</u>	<u>26.7530</u>	<u>26.7530</u>
USAGE CHARGE BASED ON TIME			
Peak minutes	<u>162</u>	<u>0.2589</u>	<u>41.9418</u>
Off-peak minutes	<u>133</u>	<u>0.0824</u>	<u>10.9592</u>
Roaming minutes	<u>10</u>	<u>0.9722</u>	<u>9.7220</u>
Landline minutes	<u> </u>	<u> </u>	<u> </u>
Other charges	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
USAGE CHARGES OTHER THAN TIME			
Landline, per call	<u>2</u>	<u>0.1500</u>	<u>0.3000</u>
Other charges,	<u> </u>	<u> </u>	<u> </u>
<u>Daily rate</u>	<u>1</u>	<u>1.5000</u>	<u>1.5000</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
FEATURES/OPTIONS AND FEATURE PACKAGES			
<u>Custom calling package</u>	<u>0.65</u>	<u>3.4600</u>	<u>2.2490</u>
<u>Call waiting</u>	<u>0.20</u>	<u>4.8500</u>	<u>0.9700</u>
<u>Call forwarding</u>	<u>0.10</u>	<u>5.1500</u>	<u>0.5150</u>
<u>3-way conference</u>	<u>0.05</u>	<u>5.7500</u>	<u>0.2875</u>
<u>No answer transfer</u>	<u>0.10</u>	<u>4.2500</u>	<u>0.4250</u>
<u>Voice messaging</u>	<u>0.20</u>	<u>4.8000</u>	<u>0.9600</u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u> </u>	<u> </u>	<u> </u>	<u> </u>
BASE PERIOD TOTAL			
			<u>97.0686</u>

PAGING WORKSHEET

INSTRUCTION FOR WORKSHEET LISTED ON FOLLOWING PAGES

PART I: AVERAGE UNITS PER SUBSCRIPTION

- List all types of charges assessed by company for the selected service type in column 1.
- Enter the total number of units for each type of charge in column 2.
- Enter the number of subscriptions in column 3.
- Divide column 2 by column 3 and enter in column 4.(see sample)

OR

The reporter may be reluctant to provide billed units or/and the number of subscriptions. If the reporter calculates the percentages, it is only necessary to fill out columns 1 and 4.

PART II: AVERAGE REVENUE PER UNIT

- List all types of charges assessed by the company for the selected service type in column 1.
- Enter the total net billed revenue in column 2
- Enter the total number of units, billed and free, in column 3.
- Divide column 2 by column 3 and enter in column 4.

OR

The reporter may be reluctant to provide units and subscriptions. If the reporter will calculate the average revenue, it is only necessary to fill out columns 1 and 4.

PART III: COMPUTATION OF THE AVERAGE REVENUE BILL

- List all types of charges assessed by the company for the service type in column 1.
- Enter the average per subscription from Part I, column 4, in column 2.
- Enter the average revenue per unit from Part II, column 4, in column 3,
- Multiply column 2 by column 3 and enter in column 4
- Sum Part III **BASE PERIOD TOTAL** or "price".

**SAMPLE WORKSHEET
PAGING WORKSHEET**

PART I

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4 (COLUMN 2/COLUMN 3)
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TYPE OF CHARGE	TOTAL UNITS: BILLED AND FREE	TOTAL NUMBER OF SUBSCRIPTIONS	WEIGHT AVE.#/SUBSCRIPTION
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SUBSCRIPTIONS	<u> </u>	<u> </u>	<u>1.0000*</u> *BY DEFINITION
PAGES + OVERPAGES	<u>6,125,000</u>	<u>35,000</u>	<u>175</u>

FEATURES/OPTIONS AND FEATURE PACKAGES

<u>Custom greeting</u>	<u>5,000</u>	<u>35,000</u>	<u>0.1429</u>
<u>Voice mail</u>	<u>25,000</u>	<u>35,000</u>	<u>0.7143</u>
<u>Message retrieval</u>	<u>30,000</u>	<u>35,000</u>	<u>0.8571</u>

PART II:

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4 (COLUMN 2/COLUMN 3)
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TYPE OF CHARGE	TOTAL NET BILLED REVENUE	TOTAL UNITS: BILLED AND FREE	WEIGHTED AVERAGE REVENUE
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SUBSCRIPTIONS	<u>551,250</u>	<u>35,000</u>	<u>15.7500</u>
PAGES + OVERPAGES	<u>131,250</u>	<u>6,125,000</u>	<u>0.0214</u>

FEATURES/OPTIONS AND FEATURE PACKAGES

<u>Custom greeting</u>	<u>131,250</u>	<u>35,000</u>	<u>3.7500</u>
<u>Voice mail</u>	<u>288,750</u>	<u>35,000</u>	<u>8.2500</u>
<u>Message retrieval</u>	<u>87,500</u>	<u>35,000</u>	<u>2.5000</u>

SAMPLE WORKSHEET PAGING WORKSHEET

PART III:

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4 (COLUMN 2 X COLUMN 3)
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TYPE OF CHARGE	WEIGHT: AVG # PER SUBSCRIPTION	AVERAGE REVENUE: PER UNIT	TOTALS
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SUBSCRIPTIONS	<u>1.000</u>	<u>15.7500</u>	<u>15.7500</u>
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PAGES + OVERPAGES	<u>175.000</u>	<u>0.0214</u>	<u>3.7450</u>
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FEATURES/OPTIONS AND FEATURE PACKAGES

Custom greeting	<u>0.1429</u>	<u>3.7500</u>	<u>0.5359</u>
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Voice mail	<u>0.7143</u>	<u>8.2500</u>	<u>5.8930</u>
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Message retrieval	<u>0.8751</u>	<u>2.5000</u>	<u>2.1428</u>
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BASE PERIOD TOTAL			<u>28.0667</u>
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