

## 1.2. Network Modification Charges

## 1.2.1. Application

Classification	Description
(1) Items subject to network modification charges	Network modification charges will be applied to the functions listed in Table 1.2.1.1 (Functions Subject to Network Modification Charges)
(2) Apportionment of network modification charges	<p>(a) In the event NTT or one or more contracting carriers are to use the functions subject to network modification charges, the amounts specified in Table 1.2.2 (Charge Amounts) are proportionally divided by using a method designated by NTT, such as dividing by the total number of telecommunications carriers using such functions or in accordance with the ratio of the number of circuits used, or based on usage frequency, etc. The amount so divided shall be applied to the respective contracting carriers. However, in case user charges constitute service segment unit charges, the amount to be borne by a contracting carrier with respect to the amounts specified in Table 1.2.2 (Charge Amounts) shall be determined upon consultation.</p> <p>(b) When the facilities of NTT are interconnected to those of a local carrier and when the both parties establish user charges for originated communications, costs incurred by the local carrier for the installation or modification of transmission line facilities that are jointly used by NTT and the local carrier between a switch of the local carrier and a POI shall also be subject to the apportionment specified in Item (a) above. In this case, the local carrier shall also proportionally bear a part of the costs incurred by NTT for the installation or modification of jointly used transmission line facilities between the NTT switch and a POI.</p>
(3) Application of time signal sound source provision function	A telecommunications carrier receiving the time signal sound source provision function shall also receive a similar function from the specified local carrier. However, this does not apply to the specified local carrier.

## 1.2.1.1 Functions Subject to Network Modification Charges

Classification	Remarks
(1) Function to use local switch interconnection transmission line facilities	Function specified in East (49) or West (47) is applied
(2) Function to use signaling tandem switch interconnection transmission line facilities	Function specified in East (49) or West (47) is applied
(3) Deleted	_____
(4) Access function for long-distance carrier's VPN service	The function to access VPN service provided by a contracting carrier Applied to long-distance carriers (excluding the specified long-distance carrier)
(5) Rerouting access function for long-distance carrier's VPN service	The function to carry out rerouting to access VPN service provided by a contracting carrier. Applied to long-distance carriers (excluding the specified long-distance carrier).
(6) Additional function for non-ringing communications function	The function added to a local switch of NTT in cases in which an NTT subscriber becomes a called party of non-ringing communications when the non-ringing communications function specified in the articles of agreement, etc. of the specified local carrier is provided Applied to the specified local carrier.

(7) Flexible charging function for mobile carriers	The function to calculate the charge on behalf of a mobile carrier after receiving billing data from the mobile carrier in relation to communications originated from NTT users.	Applied to mobile carriers.
(8) PHS-interface function	The function (including the packet multiplexing function and unrestricted digital mode communications function) to enable communications for a PHS carrier (dependent-type) by utilizing a PHS-interface subscriber module of NTT (including software for a local switch designated by NTT; hereinafter the same in Item 1.2 (Network Modification Charges) in these Tables of Charges.)	Applied to PHS carriers (dependent-type).
(9) PHS network control function	The function to carry out location registration, etc. of the PHS terminal equipment of a PHS carrier by utilizing the PHS network control station	Applied to PHS carriers (dependent-type).
(10) ID notification function for PHS carriers (dependent-type)	The function in which the subscriber line number, etc. of a calling party is provided by the PHS-interface subscriber module of NTT to a public cell station of a PHS carrier (dependent-type).	Applied to PHS carriers (dependent-type).
(11) Emergency priority signal function for PHS carriers (dependent-type)	The function provided by the PHS-interface subscriber module in order to secure important communications by transmitting and receiving the priority signals between telecommunications facilities of a PHS carrier (dependent-type) and the PHS-interface subscriber module of NTT	Applied to PHS carriers (dependent-type).
(12) Digital communications mode interconnection function for PHS carriers (dependent-type)	The function in which the PHS-interface subscriber module provides the function to transmit information at the speed of 64 kilobits per second to the telecommunications facilities of a PHS carrier (dependent-type)	Applied to PHS carriers (dependent-type).
(13) Interconnection function for digital communications mode from the PHS terminal (dependent-type)	The function in which the PHS-interface subscriber module provides the function to interconnect with the PHS terminal equipment of a PHS carrier (dependent-type) at the digital communications mode through telecommunications facilities of NTT.	Applied to PHS carriers (dependent-type) .
(14) Signal insertion function for PHS carriers (dependent-type)	The function in which the PHS-interface subscriber module provides signals designated by NTT for connections to emergency notification numbers from a PHS carrier (dependent-type).	Applied to PHS carriers (dependent-type) .
(15) Function to handle access to police/fire stations in different administrative areas for PHS carriers (dependent-type)	In case the administrative area in which the remote control equipment accommodating the communications circuit for a public cell station is located differs from the administrative area in which the PHS-interface subscriber module of NTT accommodating such remote control equipment is located under connections to emergency notification numbers from a PHS carrier (dependent-type), the function to connect this PHS-interface subscriber module to the police or fire station within the administrative area in which the remote control equipment is located.	Applied to PHS carriers (dependent-type) .
(16) Interconnection function between PHS carriers (dependent-type) and mobile carriers	The function in which the PHS-interface subscriber module provides the function to interconnect telecommunications facilities of a PHS carrier (dependent-type) and the telecommunications facilities of a mobile carrier through the telecommunications facilities of NTT.	Applied to PHS carriers (dependent-type) and mobile carriers.

(17) Interconnection function between PHS carriers (dependent-type) and PHS carriers (connective-type)	The function in which the PHS-interface subscriber module provides the function to interconnect the telecommunications facilities of a dependent-type PHS carrier and those of a connective-type PHS carrier through the telecommunications facilities of NTT and telecommunications facilities of local carriers connecting with PHS carriers	Applied to PHS carriers (dependent-type) and local carriers connecting with PHS carriers.
(18) Number transmission function	The function to interconnect communications terminating at a paging carrier by using the carrier identification number handling part of a local switch of NTT and transmission equipment, etc.	Applied to paging carriers.
(19) Time signal sound source provision function	The additional function to provide time casting information supplied from NTT's time signal sound source equipment	_____
(20) Facsimile non-ringing termination function	The additional function to terminate communications at the facsimile terminal of the called party with no ringing tone by using 1300-Hz signals from the non-ringing sound unit in a local switch	Applied to subscriber line end interconnection carriers.
(21) Additional function for call redirection service of a PHS carrier (dependent-type)	The additional function to enable the call redirection function provided by a PHS carrier (dependent-type) and to permit the control of such function by NTT users and subscribers of a PHS carrier (dependent-type)	Applied to PHS carriers (dependent-type) .
(22) Additional function for interconnection between a PHS carrier (dependent-type) and a long-distance carrier	The function in which the PHS-interface subscriber module provides the function to interconnect the telecommunications facilities of a PHS carrier (dependent-type) and telecommunications facilities of a specific long-distance carrier through NTT's local and tandem switches.	Applied to PHS carriers (dependent-type) and long-distance carriers.
(23) Additional function to provide the termination unit rate area information to a PHS carrier (dependent-type)	The additional function in which the PHS-interface subscriber module provides information on the unit rate area in which the called subscriber line is located for a PHS carrier (dependent-type) and transmits same to a public cell station.	Applied to PHS carriers (dependent-type).
(24) Additional function for changes in the paging timer value of a PHS carrier (dependent-type)	The additional function to change paging timer values registered in a PHS-interface subscriber module	Applied to PHS carriers (dependent-type) .
(25) Function for automatic credit call service	The function added to the telecommunications facilities of NTT to provide credit call service, etc. specified in the articles of agreement, etc. of a contracting carrier for communications originating from NTT	Applied to international carriers and the specified long-distance carrier.
(26) Function for changes in billing information provided to domestic/international public telephones	The function to change the number of seconds between charging signals transmitted from the NTT local switch to the domestic/international public telephone.	Applied to international carriers.
(27) Function to use tandem switch interconnection transmission line facilities	_____	Function specified in East (49) or West (47) is applied.

(28) Additional function related to one-digit increase of PHS telephone numbers	The function to shift the composition of a PHS telephone number from the 10-digit to 11-digit format, and the function in which the PHS-interface subscriber module and the PHS control station provide the function to convert the old telephone number to the new telephone number at the time of call origination from and termination at the old PHS terminal equipment not capable of accepting the one-digit number increase.	Applied to PHS carriers (dependent-type) .
(29) Additional function related to interconnection between a PHS carrier (dependent-type) and a satellite communications carrier through a long-distance carrier	The function in which the PHS-interface subscriber module provides the function to interconnect the telecommunications facilities of a PHS carrier (dependent-type) and those of a satellite communications carrier through telecommunications facilities of NTT and a long-distance carrier.	Applied to satellite communications carriers and long-distance carriers.
(30) ~ (31) Deleted	_____	_____
(32) Additional function related to directory assistance service access for a PHS carrier (dependent-type)	In the case of subscriber line end interconnection, the function in which the PHS-interface subscriber module provides the function to access NTT's directory assistance service through Dial 104 from a public cell station of a PHS carrier (dependent-type).	Applied to PHS carriers (dependent-type).
(33) Hand-over function covering different PHS-interface subscriber modules for a PHS carrier (dependent-type)	The function to extend the hand-over function (that permits uninterrupted communications even if the terminal moves to the area covered by a different public cell station) to cover the section between public cell stations accommodated by the different PHS-interface subscriber modules (including the function that permits control by the dependent-type PHS carrier at its discretion with respect to the start and completion of the hand-over function in a section between public cell stations accommodated by the different PHS-interface subscriber modules in the case of connecting from a public cell station of said carrier to the telecommunications facilities of said carrier by using the ISM loop-back function).	Applied to PHS carriers (dependent-type).
(34) Function to use leased circuit node equipment interconnection transmission line facilities	_____	Function specified in East (49) or West (47) is applied.
(35) Flexible charging function for a paging carrier	The function to calculate the user charge on behalf of a paging carrier after receiving billing information from a paging carrier for communications originated from an NTT user.	Applied to paging carriers.
(36) Additional function for Teledome Service	The function added to a local switch and a tandem switch to provide the multi-address simultaneous connection function (hereinafter referred to as "Teledome Service") specified in the articles of agreement, etc. of the specified long-distance carrier	Applied to the specified long-distance carrier.
(37) Additional function for Telegong Service	The function added to a local switch and a tandem switch to provide the function to total the number of calls made (hereinafter referred to as "Telegong Service") specified in the articles of agreement, etc. of the specified long-distance carrier	Applied to the specified long-distance carrier.

(38) Additional function for Group Security Service	The function added to a local switch and a tandem switch to provide the group security function (hereinafter referred to as “Group Security Service”) specified in the articles of agreement, etc. of the specified long-distance carrier	Applied to the specified long-distance carrier.
(39) Additional function for Emergency Message Dial calls	The function added to a local switch and a tandem switch for Emergency Message Dial calls specified in the articles of agreement, etc. of the specified long-distance carrier	Applied to the specified long-distance carrier.
(40) Facsimile network access function	The function added to a local switch and the ISM to provide facsimile network service specified in the articles of agreement, etc. of the specified long-distance carrier	Applied to the specified long-distance carrier.
(41) Other carrier’s interconnection message suspension function, etc.	The function to suspend or restrict only the interconnection message of the specified long-distance carrier at a local switch or a tandem switch	Applied to the specified long-distance carrier.
(42) IC-card accepting digital public telephone network control function	The function to carry out the authentication of IC cards by using the service control point for digital public telephones accepting IC cards and the service management system for digital public telephones accepting IC cards	Applied to the specified local carrier.
(43) <u>Function to use service management system for digital public telephones accepting IC cards</u>	<u>The function to carry out control, etc. of the contracting carrier’s service control point for digital public telephones accepting IC cards by using NTT’s service management system for digital public telephones accepting IC cards</u>	<u>Applied to the specified local carrier.</u>
(44) <u>Automatic directory assistance service network control function</u>	<u>The function to carry out number translation and provide a call completion notice by using the service control point for automatic directory assistance service and the service management system for automatic directory assistance service to provide automatic directory assistance service specified in the articles of agreement, etc. of the specified local carrier</u>	<u>Applied to the specified local carrier.</u>
<u>East:(45) West:(43)</u> User-to-user information transmission function for PHS carriers (dependent-type)	The function to provide user-to-user information transmission service for a PHS carrier (dependent-type) by sending and receiving user-to- user information between NTT telecommunications facilities and a cell station of a PHS carrier (dependent-type)	Applied to PHS carriers (dependent-type).
<u>East:(46) West:(44)</u> Function of transmitting and receiving reason for blocking calling line ID for PHS carriers (dependent-type)	The function in which NTT’s PHS- interface subscriber module provides the function of sending and receiving the reason why a calling party blocks the presentation of a subscriber line number, etc. in communications with a user of a PHS carrier (dependent-type)	Applied to PHS carriers (dependent-type.)
<u>East:(47) West:(45)</u> Call transfer ID transmission function for PHS carriers (dependent-type)	In the event a user of a PHS carrier (dependent-type) is registered as the destination of a call transfer, the function in which NTT’s PHS- interface subscriber module provides the subscriber line number, etc. of the line from which a call is transferred.	Applied to PHS carriers (dependent-type).
<u>East:(48) West:(46)</u> Call transfer ID transmission function for PHS carriers (dependent-type)	In the event a user of a PHS carrier (dependent-type) registers the call transfer function, the function in which NTT’s PHS-interface subscriber module provides a subscriber line number, etc. of the relevant PHS terminal	Applied to PHS carriers (dependent-type).

<u>East: (49) West: (47)</u> Function to use transmission line facilities	The function of exclusively using transmission line facilities installed between POIs of a contracting carrier and another contracting carrier, or the function to use transmission line facilities (including transmission equipment) installed between a POI and a local switch, signaling tandem switch, leased circuit node equipment, or interoffice transmission line facilities in the case of interconnection at a site specified in (3), (5) or (6) of the table in Paragraph 1, Article 5 (Standard Points of Interconnection).	_____
<u>East: (50) West: (48)</u> Function to transfer charging information to a long-distance carrier	With respect to communications originating from an NTT user, the function to transfer charging information, etc. that is transmitted from telecommunications facilities of a long-distance carrier to the charging equipment of the long-distance carrier.	Applied to long-distance carriers
<u>East: (51) West: (49)</u> Additional functions related to directory database access function	The function to convert the protocol of a contracting carrier and the function to add/set up authentication information, etc. at the directory database of NTT.	_____
<u>East: (52) West: (50)</u> Additional functions related to communications completion notification function	The following functions necessary for the use of the communications completion notification function specified in the articles of agreement, etc. of NTT or the specified local carrier: a. The function to send a notice, etc. concerning the completion of communications from NTT's local switch to the network of the specified local carrier b. The function to automatically originate a call by NTT's local switch to a pre-registered number	Applied to the specified local carrier or long-distance carriers
<u>East: (53) West: (51)</u> Interface function for interconnection to IP communications network	The function to provide an interface to the IP communications network terminating equipment for interconnection with a contracting carrier.	_____
<u>East: (54) West: (52)</u> Line selection function by call mode	The function to connect to the transmission line facilities of a contracting carrier by the type of call mode through separation at a tandem switch by the type of call mode (meaning voice or 64kb/s unrestricted digital communications).	_____
<u>East: (55) West: (53)</u> Number information storage function for services using additional service numbers	The function to store subscriber line numbers, etc. of subscribers to contracting-carrier services using the telecommunications numbers specified in Article 5 (limited to cases where numbers are used as additional service numbers) or Article 10 of the Telecommunications Numbering Regulations in NTT's directory database and to offer such data for directory assistance service.	_____
<u>East: (56) West: (54)</u> Emergency call telephone access function	The function to identify and connect emergency calls with respect to access to an emergency call telephone.	_____
<u>East: (57) West: (55)</u> Function to set a communications path for notification of PHS communications status	The function to set a communications path by NTT's telecommunications facilities to provide notification from the public cell station at the termination side to the terminal equipment at the origination side with respect to connection status to an automatic answering and recording center, etc. of a dependent-type PHS carrier until the receipt of an answer signal from said automatic answering and recording center, etc.	Applied to dependent-type PHS carriers

<u>East (58) West (56)</u> Function to identify and connect PHS terminals	In the case of connecting from a PHS terminal of a dependent-type PHS carrier to the telecommunications facilities of said carrier by using the ISM loop-back function, the function to identify and connect a call originated from a PHS terminal of said carrier.	Applied to dependent-type PHS carriers
<u>(59)(57)</u> Rerouting function for mobile number portability	For mobile number portability, a local switch or a tandem switch requests the call-transferring carrier to send information on a call-destination carrier, and re-establishes the route to the call-destination carrier based on the information sent from the call-transferring carrier.	_____
<u>(58) Function to register line numbers whose total number of digits varies in directory database</u>	<u>With respect to subscriber line numbers, etc. to be registered in NTT's directory information database, the function to store line numbers with the same prefix number (meaning the portion located before the first hyphen in the telecommunications numbers specified in Article 5, Article 9 or Article 10 of the Telecommunications Numbering Regulations) and for which the location of the first hyphen is the same but whose total number of digits varies in said database.</u>	

1.2.2. Charge Amounts

Network modification charges are calculated in the following manner in accordance with the Interconnection Charge Regulations.

1.2.2.1 Calculation Formula

Item	Description
Annual Charges	<p>Total</p> <p>Annual charges = Administration and management costs of designated facilities (hereinafter referred to as "AMCF") + Borrowed capital cost + Owner's equity cost + Profit-based tax.</p> <p>With respect to the facilities subject to individual management that are being used by multiple contracting carriers, however, if some contracting carriers cancel the usage of such facilities, the charge amount calculated by the following formula shall be reduced until the legal life of the applicable facilities elapses pursuant to the provisions of Article 36-2 (Usage Cancellation, Etc. of Facilities Subject to Individual Management Through Application by Contracting Carrier).</p> <p>Charge amount = The monthly charge for the month of closest to the usage cancellation for the network modification charge relating to the relevant equipment borne by the contracting carrier canceling the usage of the relevant equipment × 12</p>
	<p>AMCF</p> <p>AMCF is calculated in the following formula:</p> $  \boxed{\text{AMCF}} = \boxed{\text{Fixed asset acquisition value of the relevant facilities for the applicable function (hereinafter referred to as "applicable facilities")}} \times \boxed{\text{Ratio of AMCF to Fixed asset acquisition value (hereinafter referred to as the "RAF") of the relevant facilities having similar functions (hereinafter referred to as "similar facilities")}} + \frac{\boxed{\text{Fixed asset acquisition value of the applicable facilities - Residual value of the applicable facilities}}}{\boxed{\text{Number of years of legal life}}}  $ <p>(a) Notwithstanding the above calculation formula, the following calculation formula shall be used when renovations are not carried out even after the lapse of the number of years of legal life in the event the fixed asset acquisition values of the applicable facilities can be individually evaluated:</p> $  \boxed{\text{AMCF}} = \boxed{\text{Fixed asset acquisition value of the applicable facilities}} \times \boxed{\text{RAF of similar facilities}}  $ <p>(b) The similar facilities shall be determined by NTT, and the RAF shall comply with the provisions in Table 1.2.2.3.</p> <p>(c) The fixed asset net value of the applicable facilities is calculated by the following formula:</p> $  \boxed{\text{Fixed asset net value of the applicable facilities}} = \boxed{\text{Fixed asset acquisition value of the applicable facilities}} - \frac{\boxed{\text{Fixed asset acquisition value of the applicable facilities - Residual value of the applicable facilities}}}{2}  $ <p>However, if the legal life of the applicable facilities has already been elapsed, the fixed asset net value of the applicable facilities shall be the residual value of the applicable facilities.</p> <p>(d) Fixed asset acquisition value of the applicable facilities shall be the total amount of the following items from (1) to (5).</p> <p>(1) Fixed asset acquisition value for communications building = Building construction cost + Related administrative cost</p>



		<p>(i) Building construction cost is calculated by the following formula:  <math>\text{Building construction cost} = \text{Construction cost for the applicable building(s)} \times \text{Percentage of space occupied by the applicable facilities}</math></p> <p>(ii) Related administrative cost is calculated by the following formula:  <math>\text{Related administrative cost} = \text{Building construction cost} \times \text{Related administrative cost ratio}</math></p> <p>(iii) Related administrative cost ratio shall comply with the provisions in Table 1.2.2.2</p> <p>(2) Fixed asset acquisition value for land = Purchased land price + Related administrative cost</p> <p>(i) The purchased land price is calculated by the following formula:  <math>\text{Purchased land price} = \text{Cost required to purchase the applicable land} \times \text{Percentage of area occupied by the applicable facilities}</math></p> <p>(ii) Related administrative cost is calculated by the following formula:  <math>\text{Related administrative cost} = \text{Purchased land price} \times \text{Related administrative cost ratio}</math></p> <p>(iii) Related administrative cost ratio shall comply with the provisions in Table 1.2.2.2</p> <p>(3) Fixed asset acquisition value for electric power facilities = Construction cost (equipment cost + installation cost) + Common apportioned cost + Related administrative cost</p> <p>(i) Equipment cost and installation cost are calculated by the following formula:  <math>\text{Equipment cost} = \text{Purchase price of equipment required for the applicable facilities (power receiving equipment, generator, power supply equipment, batteries, etc.)} \times \text{Percentage of space occupied by the applicable facilities}</math>  <math>\text{Installation cost} = \text{Equipment cost} \times \text{Percentage of installation cost ratio}</math></p> <p>(ii) Related administrative cost and common apportioned cost are calculated by the following formula:  <math>\text{Related administrative cost} = \text{Construction cost (Equipment cost + Installation cost)} \times \text{Related administrative cost ratio}</math>  <math>\text{Common apportioned cost} = (\text{Construction cost (Equipment cost + Installation cost)} + \text{Related administrative cost}) \times \text{Common apportioned cost ratio}</math></p> <p>(iii) The installation cost ratio, common apportioned cost ratio and related administrative cost ratio shall comply with the provisions in Table 1.2.2.2.</p> <p>(4) Fixed asset acquisition value of telecommunications facilities other than the above (software is excluded; hereinafter the same in this table)  = Construction cost (Equipment cost + Installation cost) + Common apportioned cost + Related administrative cost</p> <p>(i) Equipment cost is calculated by the following formula:  <math>\text{Equipment cost} = \text{Purchase cost regarding the applicable facilities} \times \text{Percentage of space occupied by the applicable facilities}</math></p> <p>(ii) Installation cost, common apportioned cost, and related administrative cost are to be calculated by the method defined in the above item (3).</p> <p>(iii) The installation cost ratio, common apportioned cost ratio, and related administrative cost ratio shall comply with the provisions in Table 1.2.2.2.</p> <p>(5) Fixed asset acquisition value regarding software = Development cost + Installation cost + Common apportioned cost</p> <p>(i) Development cost will be calculated by NTT based on subcontracting cost, equipment cost, and overhead required for the development of the applicable function.</p> <p>(ii) Installation cost will be calculated by NTT for individual cases based on the average amount of works required for installation.</p> <p>(iii) Common apportioned cost is calculated by the following formula:  <math>\text{Common apportioned cost} = (\text{Development cost} + \text{Installation cost}) \times \text{Common apportioned cost ratio}</math></p> <p>(iv) The common apportioned cost ratio shall comply with the provisions in Table 1.2.2.2.</p>
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Borrowed capital cost	<p>The borrowed capital cost is calculated by the following formula:  <math>\text{Borrowed capital cost} = \text{Rate base of the applicable facilities} \times \text{Borrowed capital cost ratio} \times \text{Interest rate of the borrowed capital cost}</math></p> <p>(a) The rate base of the applicable facilities is worked out in the following formula:  <math>\text{Rate base of the applicable facilities} = \text{Fixed asset net value of the applicable facilities} \times (1 + \text{Deferred charge ratio} + \text{Investment, etc. ratio} + \text{Supplies ratio}) + \text{Working capital for the applicable facilities}</math></p> <p>(b) Working capital for the applicable facilities is calculated by the following formula:  <math>\text{Working capital for the applicable facilities} = \text{Fixed asset acquisition value of the applicable facilities} \times \text{the RAF of similar facilities (excluding depreciation cost, taxes and public charges and fixed asset retirement losses)} \times \text{Number of days between supply of function and receipt of interconnection charges} / 365</math></p> <p>(c) The borrowed capital cost ratio, interest rate of the borrowed capital cost, deferred charge ratio, investment, etc. ratio, and supplies ratio shall comply with the provisions in Table 1.2.2.3</p>
Owner's equity cost	<p>The owner's equity cost is calculated by the following formula:  <math>\text{Owner's equity cost} = \text{Rate base of the applicable facilities} \times \text{Owner's equity ratio} \times \text{Rate of return on owner's equity}</math></p> <p>(a) The rate base of the applicable facilities is calculated in the same method used for the borrowed capital cost.</p> <p>(b) The owner's equity ratio and the rate of return on owner's equity shall comply with the provisions in Table 1.2.2.3.</p>
Profit-based tax	<p>The profit-based tax is calculated by the following formula:  <math>\text{Profit-based tax} = (\text{Owner's equity cost} + \text{Amount of liabilities other than interest-bearing liabilities}) \times \text{Interest equivalent rate of liabilities other than interest-bearing liabilities} \times \text{Profit-based tax rate}</math></p> <p>(a) The amount of liabilities other than interest-bearing liabilities is calculated by the following formula:  <math>\text{Amount of liabilities other than interest-bearing liabilities} = \text{Rate base of the applicable facilities} \times \text{Rate of liabilities other than interest-bearing liabilities}</math></p> <p>(b) The rate base of the applicable facilities is calculated by the same method used for borrowed capital cost.</p> <p>(c) The interest equivalent rate of liabilities other than interest-bearing liabilities and profit-based tax rate, and rate of liabilities other than interest-bearing liabilities shall comply with the provisions in Table 1.2.2.3.</p>
Monthly charges	<p>Monthly charges for the applicable facilities shall be 1 / 12 of the annual charges.  In the case of the proviso covering annual charges in the Total Section above, if changes are made in the annual charges, the monthly charges shall be changed from the month following the month that includes the date of such changes.</p>

#### 1.2.2.1-2 Charge amounts in case of upgrades or usage cancellation of facilities subject to individual management

Pursuant to the provisions of Article 36 (Upgrades of Telecommunications Facilities or Software by NTT) or Paragraph 1, Article 36-2 (Usage Cancellation, Etc. of Facilities Subject to Individual Management Through Application by Contracting Carrier), NTT shall calculate the charge amounts to be borne by a contracting carrier by using the following calculation formulas in the event of upgrades or usage cancellation of facilities subject to individual management by NTT or a contracting carrier.

##### (1) When NTT removes facilities subject to individual management

- a. When the legal life of the relevant equipment has not expired  
 $\text{Charge amount} = \text{Undepreciated balance} + \text{Removal work expenses}$ 
  - (a) The undepreciated balance shall be calculated as follows.
  - (b)  $\text{Undepreciated balance} = (\text{Fixed asset acquisition value} - \text{Residual value}) \times \text{Remaining legal life period ratio} + \text{Residual value}$ 
    - 1) The fixed asset acquisition value shall be the total of "(d)(4)" and "(d)(5)," AMCF, 1.2.2.1 (Calculation Formula) (the same shall apply in 1.2.2.1-2 (Charge amounts in case of upgrades or usage cancellation of facilities subject to individual management)).

- 2) The remaining legal life period ratio shall be calculated by the following formula.  
 Legal life remaining period ratio = The number of months until the expiration of the legal life (meaning the number of months from the month following the month that includes the removal date of the relevant equipment until the month that includes the date of the expiration of the legal life of the relevant equipment; hereinafter the same)/(legal life × 12)

- (c) The removal work expenses shall be the actual expenses calculated by using the following calculation formula. In this case, the work unit charges specified in 2.1.2.4 (Work Unit Charges Applied to 2.1.2.3), 2.1.2 (Amount of Expenses for Works), 2.1 (Expenses for Works), Table 2 (Expenses for Works and Procedures) in the Tables of Charges shall be applied.

$$\text{Removal work expenses} = \text{Work unit charges} \times \text{Work hours}$$

- b. When the legal life of the relevant equipment has expired  
 Charge amount = Residual value + Removal work expenses  
 Removal work expenses shall be calculated by using the calculation formula specified in “a(b)” above.

- (2) When NTT diverts facilities subject to individual management for other purposes

$$\text{Charge amount} = \text{Undepreciated balance} + \text{Removal work expenses} - \text{Value of diverted equipment}$$

- a. The undepreciated balance shall be calculated by using the calculation formula specified in (1)a(a) above.  
 b. Removal work expenses shall be the actual expenses calculated by using the calculation formula specified in (1)a(b) above.  
 c. The value of diverted equipment shall be calculated by using the following calculation formula.  
 Diverted goods value = (Fixed asset acquisition value – Accumulated depreciation amount for the relevant equipment by the declining balance method) × Equipment costs/Fixed asset acquisition value

- 1.2.2.1-3 Charge amounts in case some contracting carriers cancel the usage of facilities subject to individual management that are being used by multiple contracting carriers.

Pursuant to the provisions of Article 36-2 (Usage Cancellation, Etc. of Facilities Subject to Individual Management Through Application by Contracting Carrier), in the event that some contracting carriers cancel the usage of facilities subject to individual management (whose legal life has not yet expired that are being used by multiple contracting carriers, the charge amount to be borne by the contracting carrier canceling the usage of the relevant facilities shall be calculated by the following calculation formula. However, this shall not apply when all contracting carriers otherwise agree and NTT consents to such separate arrangements.

Charge amount = Monthly charge for the month closest to the usage cancellation for the network modification charge relating to the relevant equipment borne by the contracting carrier canceling the usage of the relevant equipment × Number of months until the expiration of the legal life.

## 1.2.2.2 Ratio for Calculation of Fixed Asset Acquisition Value

Classification		Ratio
Installation cost ratio	Switching facilities	<u>0.263</u>
		<u>0.359</u>
	Power facilities	<u>0.885</u>
		<u>0.838</u>
	Transmission equipment	<u>0.212</u>
Radio equipment	<u>0.273</u>	
Related administrative cost ratio	Land and communications buildings	<u>0.219</u>
		<u>0.225</u>
	Other than land and communications buildings	<u>0.083</u>
Common apportioned cost ratio		<u>0.072</u>
		<u>0.007</u>
		<u>0.009</u>
		<u>0.048</u>
		<u>0.058</u>

## 1.2.2.3 Ratio for Calculation of Annual Charges

Classification			Ratio	
RAF	(1)	Other than (2)	Subscriber line transmission function	<u>0.065</u>
			<u>0.069</u>	
			Subscriber switching function	<u>0.055</u>
			<u>0.061</u>	
			Local transmission function	<u>0.057</u>
			<u>0.049</u>	
			Tandem switching function	<u>0.056</u>
	<u>0.054</u>			
	Interoffice transmission function	<u>0.057</u>		
	<u>0.050</u>			
	Total of telecommunications charge-related facilities	<u>0.055</u>		
	<u>0.059</u>			
	(2)	If case of separately paying the fixed asset retirement cost (limited to facilities subject to individual management)	Subscriber line transmission function	<u>0.061</u>
			<u>0.065</u>	
Subscriber switching function			<u>0.050</u>	
<u>0.056</u>				
Local transmission function			<u>0.051</u>	
<u>0.044</u>				
Tandem switching function			<u>0.052</u>	
Interoffice transmission function	<u>0.051</u>			
<u>0.046</u>				
Total of telecommunications charge-related facilities	<u>0.050</u>			
<u>0.055</u>				
Deferred charge ratio			<u>0.0117</u>	
			<u>0.0132</u>	
Investment, etc. ratio			<u>0.0034</u>	
			<u>0.0021</u>	
Supplies ratio			<u>0.0076</u>	
			<u>0.0104</u>	
Borrowed capital cost ratio			<u>0.425</u>	
			<u>0.522</u>	
Owner's equity ratio			<u>0.575</u>	
			<u>0.478</u>	
Interest rate of borrowed capital cost			<u>0.0158</u>	
			<u>0.0142</u>	
Rate of return of owner's equity			<u>0.0125</u>	

Rate of liabilities other than interest-bearing liabilities	<u>0.102</u>
	<u>0.108</u>
Interest equivalent rate of liabilities other than interest-bearing liabilities	0.0134
Profit-based tax rate	0.6540