

Guidebook for Interconnection Volume 2

Specific Procedures for Each Pattern of Interconnection

Framework of this Guidebook

This Guidebook consists of three volumes: (1) Common Interconnection Procedures, (2) Specific Procedures for Each Pattern of Interconnection, and (3) Reference Information Concerning Interconnection.

Please use each volume of this guidebook for the purposes indicated below.

- Volume 1: Please confirm the interconnection procedures based on the Articles of Agreement Concerning Interconnection.
- Volume 2: The second volume introduces the necessary information for each pattern of interconnection used by other carriers.
- Volume 3: The third volume explains the interconnection rules and other details and introduces various activities undertaken by NTT East for the development of telecommunications.

Please see the latest information provided in the NTT East Homepage at the following address.

URL: http://www.ntt-east.co.jp/info-st/

Before Making Applications

Various applications need to be submitted for interconnection to NTT East networks. In submitting these applications, please provide information that is as accurate as possible on each application form in order to ensure a prompt response to your interconnection request. Before making applications, moreover, please read and understand the Articles of Agreement Concerning Interconnection, the Guidebook for Interconnection, and the information provided on our Homepage.

In considering the interconnection to NTT East networks before submitting your applications, please refer to this Guidebook, the Articles of Agreement Concerning Interconnection, and the various types of information provided. Should you have any questions, please feel free to contact the Interconnection Business Promotion Section of the Interconnection Promotion Department.

While we will make every effort to provide information concerning interconnection in English, please note that Japanese only is available for consultations about interconnection, the exchange of formal documents concerning negotiations, and the conclusion of Interconnection Agreements and other contracts.

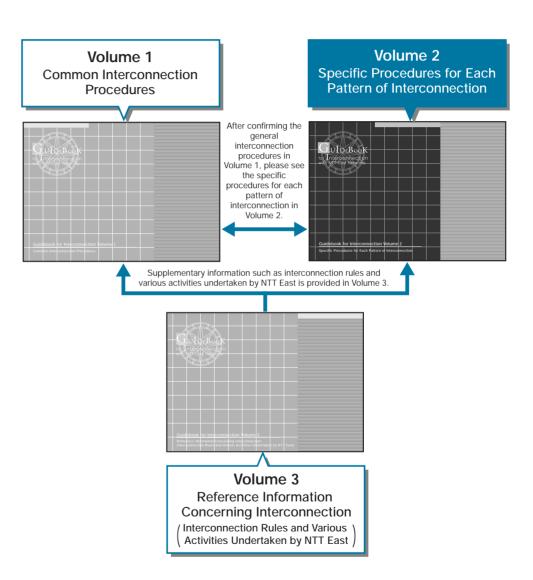


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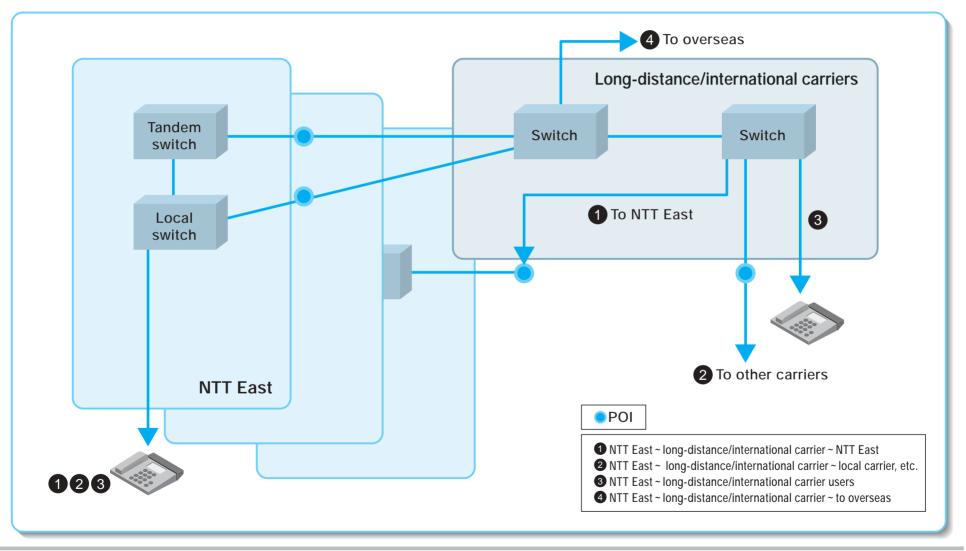
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Chapter 1

Telephone Network Interconnection

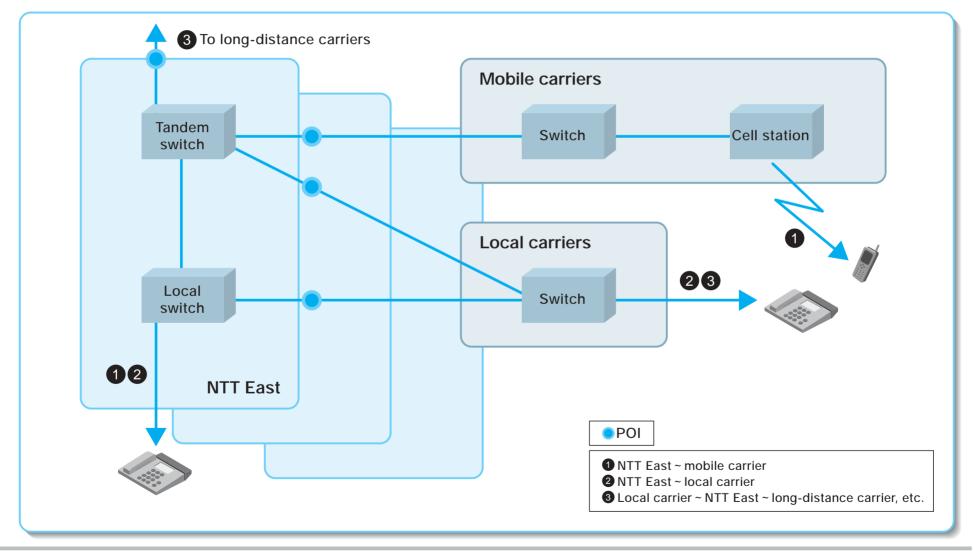
- 1 Typical Patterns of Interconnection: Example of Interconnection with Long-Distance and International Carriers

The typical pattern of interconnection with long-distance and international carriers is shown below:



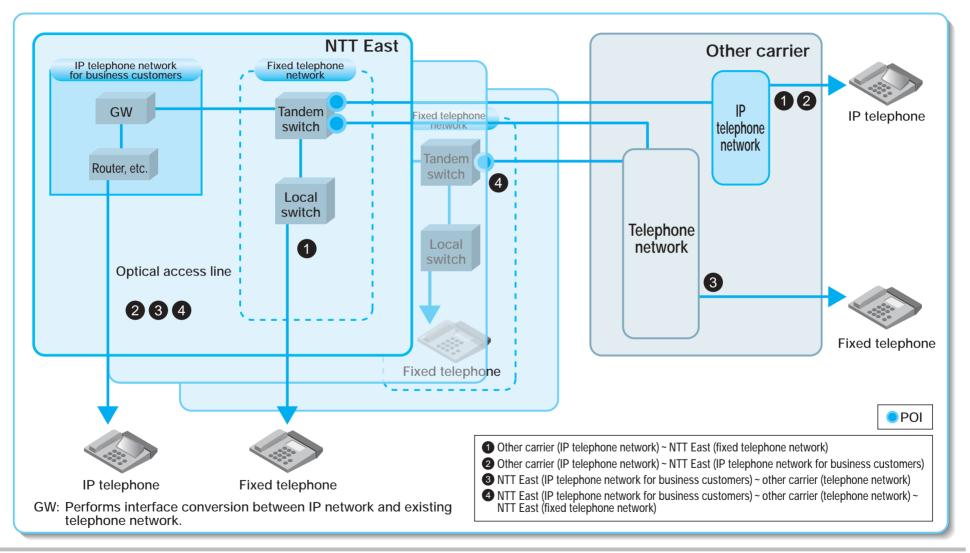
- 2 Typical Pattern of Interconnection: Example of Interconnection with Mobile and Local Carriers

The typical pattern of interconnection with mobile and local carriers is shown below:



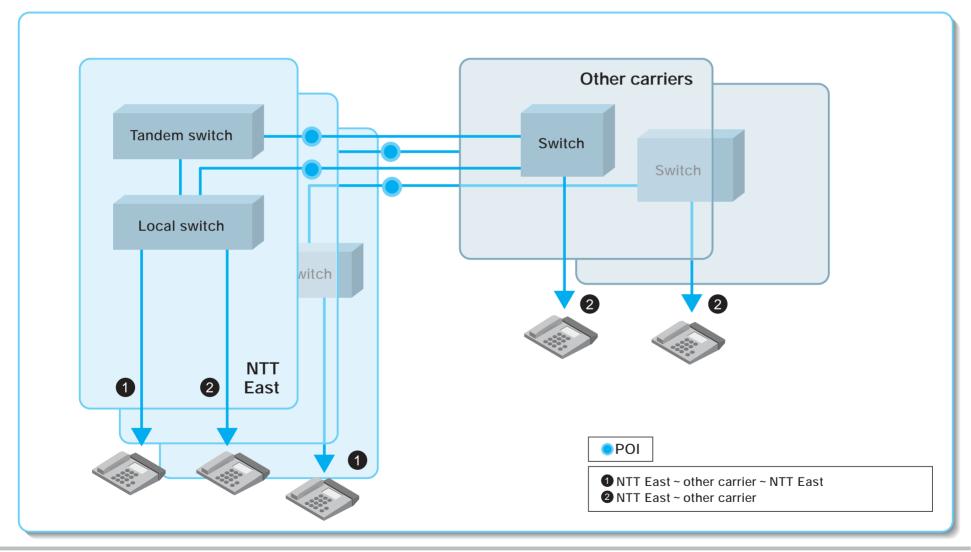
- 3 Typical Pattern of Interconnection: Interconnection with IP Telephony Carriers

The pattern of interconnection to IP telephony carriers and IP telephony for our business customers is shown below.



- 4 Typical Pattern of Interconnection: Example of Interconnection by Use of Multiple Standard Points of Interconnection

The use of multiple standard points of interconnection makes it possible to provide a variety of services.

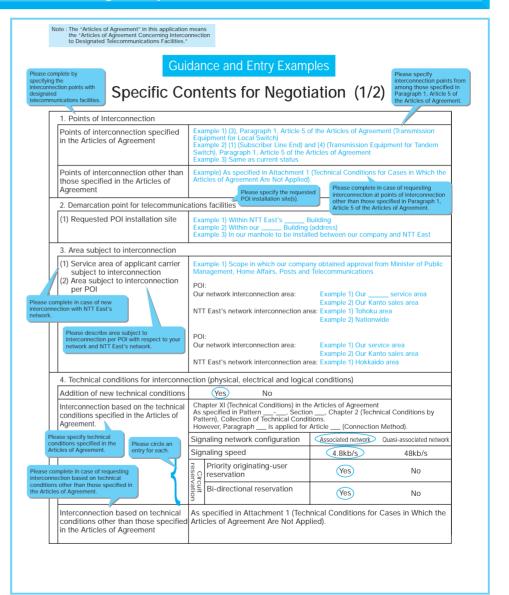


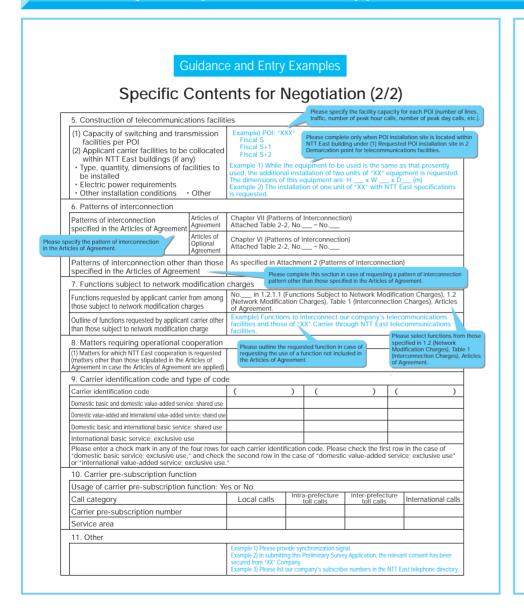
- 5 Major Functions That Become Available by Telephone Network Interconnection

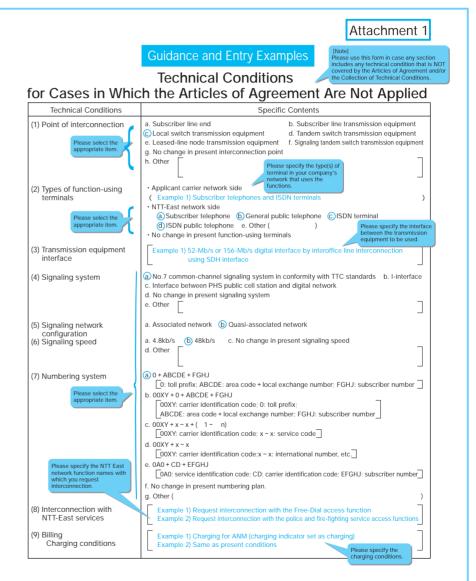
We will provide the following major functions, etc., based on the requests by other carriers.

Major Function	Outline of Function
Transmission line allocation function for local switch and leased circuit node equipment interconnection (DSM-I)	Function to carry out discretional route setting on the basis of 1.5-Mbps units in multiple multiplexed input and output transmission signals.
Transmission-line interconnection usage functions (TCM local switch interconnection)	Function to carry out multiplex conversion of interfaces (52 Mbps/156 Mbps) in local switch interconnection.
Tandem switch alternate route interconnection function for overflow calls in local switch interconnection	Function to automatically shift to tandem switch alternate routes for overflow calls, which cannot be transmitted due to failures, etc., at the time of local switch interconnection.
Synchronization signal supply function	Function to supply clock signals generated by our clock generation equipment to synchronize telecommunications facilities.
Local switch menu usage function	Function to make it possible to provide optional added services by using our local switch from the service control point (SCP) of other carriers.
Carrier pre-subscription function	Function to enable telephone users to use the carrier they have selected by pre-registration without dialing the carrier identification code. For details, please refer to the " -1 Provision of Carrier Pre-Subscription Function" in this Chapter.
Number portability	Function to enable users to change the telecommunications carrier from which service is received, to another telecommunications carrier without changing the telecommunications number that is assigned to the user. For details, please refer to the " -1 Provision of Number Portability" in this Chapter

To: NTT Ea	ıst	No. Date:	
		From: Company: Name: SEAL	
	TIME A DV CLIDE	'EY APPLICATION	J
			_
We hereby submit the	following Preliminary	Survey Application for the NTT East networks.	_
We hereby submit the	following Preliminary	Survey Application for th	_
We hereby submit the establishing/changing Outline of interconnection	following Preliminary	Survey Application for th	_
We hereby submit the establishing/changing Outline of interconnection to be established/changed Specific contents for	following Preliminary	Survey Application for th	_







Guidance and Entry Examples **Technical Conditions** Specific Contents Charging-start/ Charging-start timing: (a) Upon receipt of ANM (charging indicator set at charging) stop timing b. No change in present charging-start timing Charging-stop timing: (a) Upon receipt of REL b. No change in present charging-stop timing appropriate item. c. Other a) Unsuccessful calls b. Test calls Calls not subject to charging c. Calls encountering facility faults, etc., that affect charging d. No change in present subject calls (10) Settlement between carriers Example) Statement description: the total billing amount including said access charges (Statement description Settlement method: monthly bank transfers per account and date designated and settlement method) a. Manual interconnection test: Confirming good/bad connection by providing automatic (11) Test methods answering trunk function to IGS and NCC-GS and manually conducting connection testing b. Circuit activation access test: Upon line activation, confirming the name of the line, line number and good/bad calls between originating-switch outgoing side and terminatingswitch incoming side . Manual signaling route test: Confirming normal signaling link d. Circuit matching test: Matching circuit status to eliminate inconsistencies e) No change in present test methods Please select the appropriate item. f. Other (12) Congestion control (a) In conformity with Article 56 of the Articles of Agreement (Restrictions on Interconnection Messages) functions b. No change in present control methods c. Other Please specify the method of securir essential communications. (13) Securing essential Example 1) Implementing priority calling party reservation circuit control in order to communications secure essential communications (14) Other Example 1) Additionally using "1111110" in "b) Number type indicator, 3.8 Calling party number" in item (2) c., Paragraph 1, Article 18 of the Collection of Technical Please specify any other matters to be considered in negotiations concerning technical conditions.

Attachment 1

Guidance and Entry Examples

Patterns of Interconnection

	Column 1		
	Originating Carrier	Transit Carrier	Terminating Carrier
1	Our company		NTT East
2	NTT East		Our company
3	Our company	NTT East	Local carrier
4			

	Column 2	Column 3	Column 4
	Carrier Setting User Charges	Carrier Billing User Charges	Carrier Paying Usage-Sensitive Access Charges
1	Our company	Our company	Our company
2	NTT East	NTT East	_
3	Our company	Our company	Our company
4			



Guidance and Entry Examples

To: NTT East No.

From: Company:

Name: SEAL

POI SURVEY APPLICATION

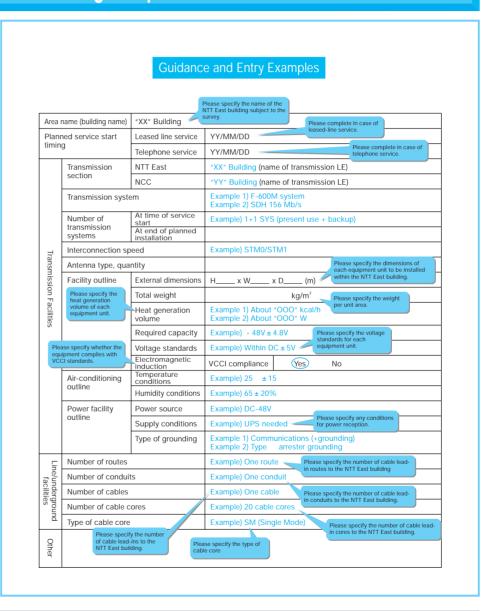
We hereby request that a POI survey be undertaken as follows

1. Survey request contents

Target building	Survey contents	Requested interconnection start timing	Remarks
"XX" Building	As indicated in the attachment	YY/MM/DD	

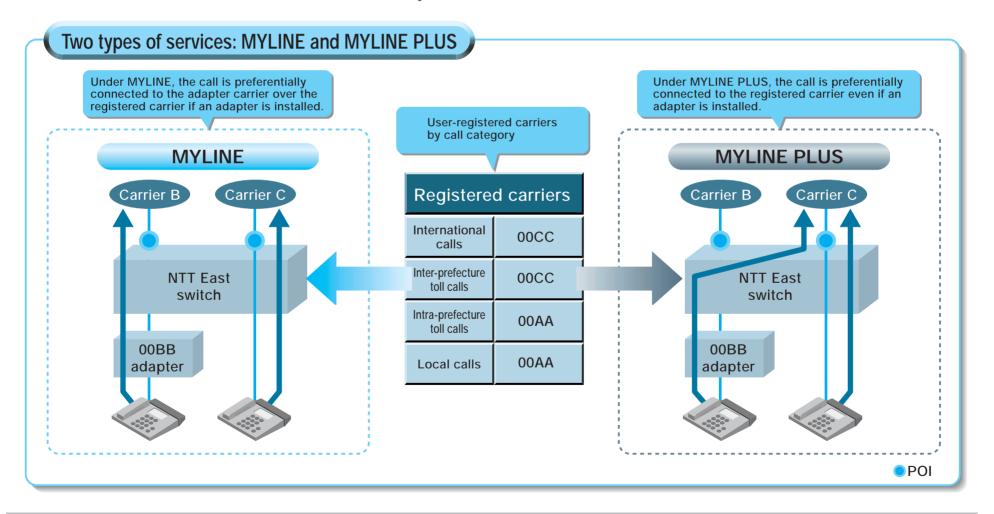
2. Survey costs

We will pay the costs required for the survey in accordance with a separate contract to be concluded between us.



- 1 Provision of Carrier Pre-Subscription Functions

Carrier pre-subscription functions make it possible for callers to use the selected telecommunications carriers without dialing the carrier identification code by registering the selected telecommunications carriers in advance at the NTT East local switch. Specifically, these functions involve a carrier selection service (MYLINE) and a carrier designation service (MYLINE PLUS), both of which services were started in May 2001. In addition, a carrier name notification function was added in May 2002.



- 2 Providing Carrier Pre-Subscription Service

Participation in the Carriers Association of Dialing Parity (MYLINE Carriers Association)

In order to contribute to the smooth introduction of carrier pre-subscription service to secure fair competition, to implement P/R activities for carrier pre-subscription service, to provide voluntary responses to claims made by users, and to discuss the problems raised by carriers concerning fair competition, etc., a Carriers Association of Dialing Parity (hereinafter referred to as the "MYLINE Carriers Association") has been established.

In establishing your participation in the MYLINE Carriers Association, please indicate the names of personnel designated as the committee member, expert committee member, member of the WG and SWG as shown in the "FAX Sheet" Exhibit and send it to NTT East.

Submitting registration information to the MYLINE Center

Applications from users for carrier pre-subscription service are accepted at the MYLINE Center. Carriers wishing to register as carriers using pre-subscription service are requested to submit an "Application for MYLINE Center Carrier Registration" at least two months prior to the start of carrier pre-subscription service.

In addition, please submit "area code information" with respect to the start timing of carrier pre-subscription service for area code information at least two months prior to the start of carrier pre-subscription service.

In this connection, the Reception WG Secretariat of the Carriers Association of Dialing Parity will separately provide detailed explanations with respect to entry procedures.

Points to Consider

With respect to providing carrier pre-subscription service, please follow all procedures determined by the Preparatory Committee for the Introduction of Carrier Pre-Subscription Service and the Carriers Association of Dialing Parity.

By the time the service is started, please obtain the consent of the relevant local carrier(s). If such consent is not obtained in time, we may be forced to postpone the start of service.

Major costs in providing carrier pre-subscription service

•In order to register the 00XY number, expenses for translator-related work are required. In this connection, there is no cost exclusively required for the carrier pre-subscription service. (However, the costs of constructing the environment needed to connect to the reception system are to be borne by the carrier.)

•\Access Charges] Per-connection expenses for carrier pre-subscription functions (please refer to 2-2 (3) of the Articles of Agreement) are required. (Such costs will be billed together with the ordinary access charge (AC).)

•[Expenses for Procedures] Changing the category and number of the carrier pre-subscription service for any call category is subject to the expenses for procedures for carrier pre-subscription service acceptance (please refer to 2-1 (14) of the Articles of Agreement). (Such costs will be billed by the MYLINE Center. We will separately bill the user for the MYLINE registration fee.)

(Reference) Application Form for Participation in the MYLINE Carriers Association



Secretariat MYLINE Carriers Association

Application for Participation in the MYLINE Carriers Association

- 1. Operational Structure of the MYLINE Carriers Association
- (1) Organizational structure of the MYLINE Carriers Association
 - The basic structure is as shown below, and studies are being carried out in each WG under the framework determined by the Study Group.
 - Any problems arising in the MYLINE Carriers Association with respect to the rules for the entire system that cannot be resolved among the related carriers will be presented to the Study Group.



		Discussion Contents	Member	Secretariat	Meeting Cycle
MYLINE ASSOC	Committee members	Confirmation of discussion results Presenting problems to the Study Group		Telecommunications Carriers Association	Whenever necessary
YLINE Carriers Association	Expert committee members	Reporting and confirming results in each WG (Discussing matters for which it is difficult to reach a conclusion within a WG) Presenting the problem to the Study Group	identification code) and which wish to participate in the MYLINE Carriers Association	ASSOCIATION	Whenever necessary
Reception WG		Preparing reception processing flow Establishing Reception Center Responding to inquiries and complaints from users	Carriers participating in carrier pre-subscription service* and carriers that	NTT regional company (East)	Whenever necessary
Information SWG		•Establishing procedural rules for data exchanges between the Reception Center and carriers.	wish to participate in WGs * Carriers that have	NTT regional company (East)	
Publicity WG		Implementing publicity activities for all users Preparing and maintaining P/R schedule Resoling problems concerning sales activities	already applied to NTT regional companies for carrier pre-subscription service interconnection.	NTT regional company (East)	
	International SWG - Publicizing new procedures for international calls, and studying P/R measures targeted at non-Japanese residents in Japan concerning carrier pre-subscription service			KDDI	
Cost WG Clarifying the methods of allocating		·Clarifying the methods of allocating the costs		NTT regional company (East)	
Spec WG	Specifications • Resolving problems concerning specifications to be encountered in the future			NTT regional company (East)	

However, WGs and/or SWGs may be added or abolished as determined by committee members (expert committee members) or each WG

- (2) MYLINE Carriers Association observers
 - MYLINE Carriers Association observers shall include carriers that have obtained a carrier identification code but which do not want to participate in the MYLINE Carriers Association as committee members, representative carriers from among mobile, PHS, CATV, and carriers, and officials from the Ministry of Public Management, Home Affairs, Posts and Telecommunications.
- 2. New Common Carrier Participation in the MYLINE Carriers Association Carriers that newly start carrier pre-subscription service and that wish to participate in the MYLINE Carriers Association are required to list the personnel for committee member, expert committee member, and member of each WG and SWG on the attached FAX Sheet and send it to the Secretariat of the MYLINE Carriers Association after applying to the relevant NTT regional company for carrier pre-subscription service interconnection.
 - In this connection, the names of members to be reported are as follows.
 - · MYLINE Carriers Association members to serve as a committee member, and an expert committee member
 - · WG members to serve on the Reception WG, Publicity WG, Cost WG and Specifications WG
 - · SWG members to serve on the Information SWG and International SWG

FAX Sheet

Date: YY/MM/DD Due Date: MM/DD

To: Secretariat of the MYLINE Carriers Association, Telecommunications Carriers Association FAX: 03-3502-0992

From:

 Company Name:

 Contact Person:

 TEL:

Participation in the WGs and SWGs: ______

Company name: _____

Division name: _____

Name: _____

TEL: _____

FAX: _____

(Reference) Application Form for Participation in the MYLINE Carriers Association

To: NTT East Date: YY/MM/DD NTT West

MYLINE Center Carrier Registration Application

We hereby apply for carrier registration in the MYLINE Center. The registration information is as follows.

"XX" Company

	Item		Description Column Notes	Description Column	Registration Category	Setting Value Update Date
Table	Carrier Identification	Local calls	Within 7 half-sized characters		New	
Setting	Code	Intra-prefecture toll calls	Within 7 half-sized characters		New	
Information	0000	Long-distance calls	Within 7 half-sized characters		New	
		International calls	Within 7 half-sized characters		New	
	Label type used for CMT	Label type	Enter "JIS" or "IBM"		New	
	Carrier abbreviated	Abbreviated name 1	Within 15 full-sized characters		New	
	name	Abbreviated name 2	Within 15 full-sized characters		New	
		Abbreviated name 3	Within 15 full-sized characters		New	
		Abbreviated name 4	Within 15 full-sized characters		New	
		Abbreviated name 5	Within 15 full-sized characters		New	
		Abbreviated name 6	Within 15 full-sized characters		New	
		Abbreviated name 7	Within 15 full-sized characters		New	
		Abbreviated name 8	Within 15 full-sized characters		New	
		Abbreviated name 9	Within 15 full-sized characters		New	
		Abbreviated name 10	Within 15 full-sized characters		New	
		Abbreviated name 11	Within 15 full-sized characters		New	
		Abbreviated name 12	Within 15 full-sized characters		New	
		Abbreviated name 13	Within 15 full-sized characters		New	
		Abbreviated name 14	Within 15 full-sized characters		New	
		Abbreviated name 15	Within 15 full-sized characters		New	
		Abbreviated name 16	Within 15 full-sized characters		New	
		Abbreviated name 17	Within 15 full-sized characters		New	
		Abbreviated name 18	Within 15 full-sized characters		New	
		Abbreviated name 19	Within 15 full-sized characters		New	
		Abbreviated name 20	Within 15 full-sized characters		New	
		Abbreviated name 21	Within 15 full-sized characters		New	
		Abbreviated name 22	Within 15 full-sized characters		New	
		Abbreviated name 23	Within 15 full-sized characters			
		Abbreviated name 24	Within 15 full-sized characters			
		Abbreviated name 25	Within 15 full-sized characters			
		Abbreviated name 26	Within 15 full-sized characters			
		Abbreviated name 27	Within 15 full-sized characters			
		Abbreviated name 28	Within 15 full-sized characters			
		Abbreviated name 29	Within 15 full-sized characters			
		Abbreviated name 30	Within 15 full-sized characters			
		Caller telephone number	Within 15 full-sized characters		New	
	for dial-up connection	Reason	Enter within the cell			
	User ID for RADIUS	User ID	Refer to the following		New	
		Reason	Enter within the cell			
	User ID for FTP server authentication Reason	User ID	Refer to the following		New	
		Reason	Enter within the cell			
	User ID for Web server	User ID	Refer to the following		New	
	authentication	Reason	Enter within the cell			
	Global IP address at the	time of WFB referral	Enter within the cell		New	

- 1 Please limit Description column entries as specified under Description Column Notes.
- 2 Please enter "New," "Change" or "Deletion" in Registration Category column.
- 3 Please use the format YYYYMMDD in entering for the "Setting Value Update Date" (Example: January 10, 2001 20010110).
 4 As user ID passwords for RADIUS authentication, FTP server authentication and WEB server authentication are provided directly to the person
- responsible for network information liaison, advance registration is essential. The password for FTP server authentication is issued every month, and passwords for RADIUS authentication and WEB server authentication are issued every year by the MYLINE Center.
- 5 User ID issuing standards (: essential items)
 Must consist of half-sized alphanumeric characters.

 - Two or more alphabetic characters are included.
- Must consist of at least six but fewer than eight characters.

 The selected IDs must be combinations that are difficult to guess by unauthorized person (this particularly applies to those for FTP server
- · The same ID may be used for RADIUS authentication, FTP server authentication and WEB server authentication
- in same time you be dear of in Annua's administration, in a series distinct and an one of series and in the series and i semi-colon (Example: 10.0.0.1;1).
- 8 Please submit this form at least one month prior to registration and any change request.

Date: YY/MM/DD

To NTT East

"XX" Company

Area code information

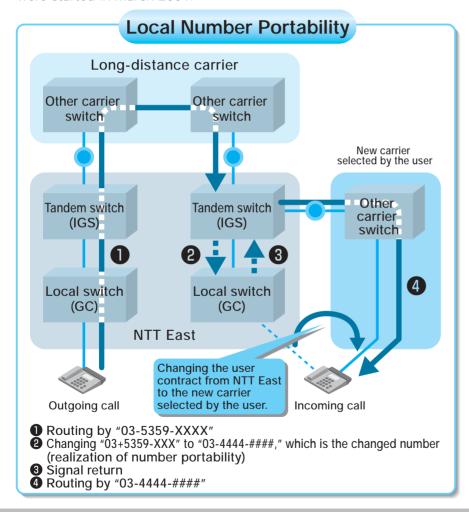
"OO"ZA

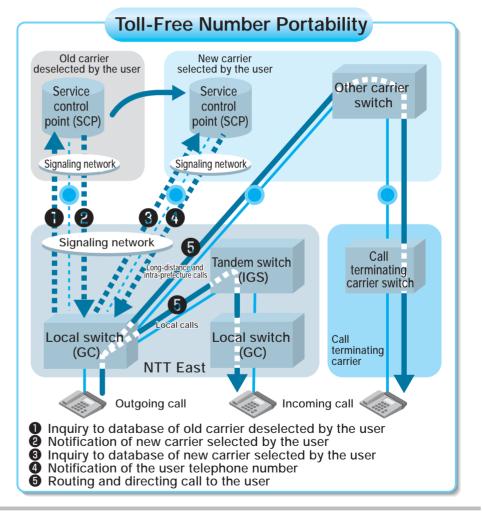
	1	
Area Code	Area	Start Timing YY/MM/DD

- 1 Provision of Number Portability

Number portability makes it possible for users to change telecommunications carriers from which service is received without any change in the telephone number, etc., which has been assigned to the user.

There are two types of number portability: "local number portability," which applies to numbers used for general subscriber telephone or ISDN service, and "toll free number portability," which applies to numbers used for toll-free service (numbers starting with 0120 or 0800). These services were started in March 2001.





- 2 Entry Examples of Number Portability Usage Application Forms

To: NTT East	No.
IO. INTT East	Date:

From: Company: Name:

SEAL

PRELIMINARY SURVEY APPLICATION

We hereby submit the following Preliminary Survey Application for the purpose of establishing/changing interconnection with the NTT East networks.

Outline of interconnection to be established/changed	Realization of number portability for general subscriber telephones and ISDN service
Specific contents for negotiation	As specified in Attachment
Requested start timing for new/changed interconnection	YY/MM
Contact details (name and telephone number)	(Name) (Title) 00000 Department 00000 Company TEL: FAX: EMAIL:

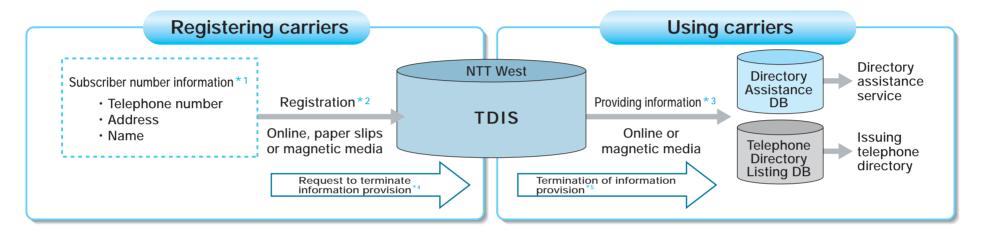
Specific C	ر ان	ntents for	Negotia	tion	
Specific C	·Oi	iterits for	rvegotia	tion	
Points of Interconnection					
Points of interconnection specified in the Articles of Agreement					
Points of interconnection other than those specified in the Articles of Agreement					
Demarcation point for teleco	mm	unications facilities			
(1) Requested POI installation site					
Area subject to interconnect	ion				
(1) Service area of applicant carrier subject to interconnection	Scope approval our company has obtained from the Minister of Public Management, Home Affairs, Posts and Telecommunications				
(2) Area subject to interconnection per POI	Our network interconnection area: NTT East's network interconnection area:				
Technical conditions for inte	rcon	nection (physical, ele	ctrical and logica	I conditions)	
Addition of new technical conditions	Yes	No			
Interconnection based on the technical conditions specified in the Articles of Agreement.					
	Signa	aling network configuration	Associated network	Quasi-associated network	
	١ŭ	naling speed	4.8kb/s	48kb/s	
	Circuit reservation	Priority originating- user reservation	Yes	No	
	uit	Bi-directional reservation	Yes	No	
Interconnection based on technical conditions other than those specified in the Articles of Agreement					
5. Construction of telecommur	icati	ons facilities			
(1) Capacity of switching and transmission facilities per POI (2) Applicant carrier facilities to be collocated within NTT-East buildings (if any) Type, quantity, dimensions of facilities to be installed Electric power requirements Other installation conditions Other	(1)	general sub	of traffic volume, etc., oscriber telephones and o acceptable.)	concerning number portable ISDN service. (Using a sep	

- 2 Entry Examples of Number Portability Usage Application Forms

Patterns of inter	rconnection							
interconnection	Articles of Agreement	Based on Item c of (3) in the table of "1 Application," Patterns of Interconnection, Attached Table 2						
Articles of C	Articles of Optional Agreement							
Patterns of interco other than those s the Articles of Agri	nnection pecified in							
7. Functions subje	ct to network	k modification of	harge	es				
Functions requested carrier from among to to network modificati	hose subject							
Outline of functions requ applicant carrier other th subject to network modi	ested by an those							
Matters requirin		l cooperation						
(1) Matters for whi cooperation is	ch NTT-East							
Carrier identification	ation code ar	nd type of code						
Carrier identification		(00X1Y1)	(00X	2Y2)	()	
Domestic basic and value-added service;	domestic shared use	,		_		Ť		
Domestic value-added a value-added service; sha	nd international							
Domestic basic and i basic service: shared	international							
International basic se				t		t		
exclusive use Please enter a che		ny of the four ro	ows fo	or each car	rrier identif	icatio	n code. Pleas	
Please enter a che check the first row case of "domestic exclusive use."	eck mark in a vin the case value-added	of "domestic ba d service; exclu	isic s	ervice," an	d check th	ne sec	ond row in the	
Please enter a che check the first row case of "domestic exclusive use." 10. Carrier pre-sub	eck mark in a	of "domestic ba d service; exclusion nction	isic s sive u	ervice," an ise" or "inte	d check th	ne sec	ond row in the	
Please enter a che check the first row case of "domestic exclusive use." 10. Carrier pre-sul Usage of carrier p	eck mark in a	of "domestic bad service; exclusion on function: Yes	sive u	ervice," an ise" or "inte lo	d check thernational	value	ond row in the	
Please enter a che check the first row case of "domestic exclusive use." 10. Carrier pre-sul Usage of carrier pr Call category	eck mark in a v in the case value-addec oscription fur re-subscripti	of "domestic ba d service; exclusion nction	sive u	ervice," an ise" or "inte lo	d check thernational	value	ond row in the	
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(Reference) Provision of Directory Information Database (TDIS)

Carriers registered under the directory information database (TDIS) consist of carriers including NTT East and NTT West that have their own subscriber base, and mobile carriers. The registered number information (telephone number, address and name) is being used by telephone directory service companies and telephone directory issuing companies.



Explanation

- *1 In accordance with the laws and ordinances such as the "Guidelines Concerning the Protection of Personal Data in the Telecommunications Business (No. 570, Notification of the Ministry of Posts and Telecommunications, 1998;" hereinafter referred to as the "Personal Data Protection Guidelines, Etc."), the subscriber number information shall be limited to that separately specified by NTT East within the range necessary to implement telephone directory listings or directory assistance service.
- *2 Except the following cases, we will register subscriber number information.
 - (1) In the event that the relevant contracting carrier fails or may likely fail to pay access charges stipulated in (4), 1.1.2.8 (Directory Assistance Function, Etc.), 1.1 (Access Charges), Table 1 in the Tables of Charges, or the expenses for procedures stipulated in Article 68 (Obligation to Pay Expenses for Procedures) of the Articles of Agreement.
 - (2) In the event that the contracting carrier fails or may likely fail to observe the following provisions in handling the subscriber number information to be registered.
 - a The contracting carrier shall make it possible for its subscriber to select whether or not to list such information in the telephone directory or provide same under directory assistance service. (In this case, the carrier may allow the subscriber to select whether to provide such information only by directory assistance service.)
 - b In the event the subscriber selects not to list such information in the telephone directory or to provide same under directory assistance service, the contracting carrier shall not request the registration of such information in our Directory Information Database.
 - c In the event the subscriber selects to provide such information under directory assistance service only, the contracting carrier shall request the registration of such information in our Directory Information Database only by limiting its purpose to directory assistance service.

- d In the event the subscriber asks the contracting carrier to register such information, the carrier shall request the registration of such information in our Directory Information Database without delay.

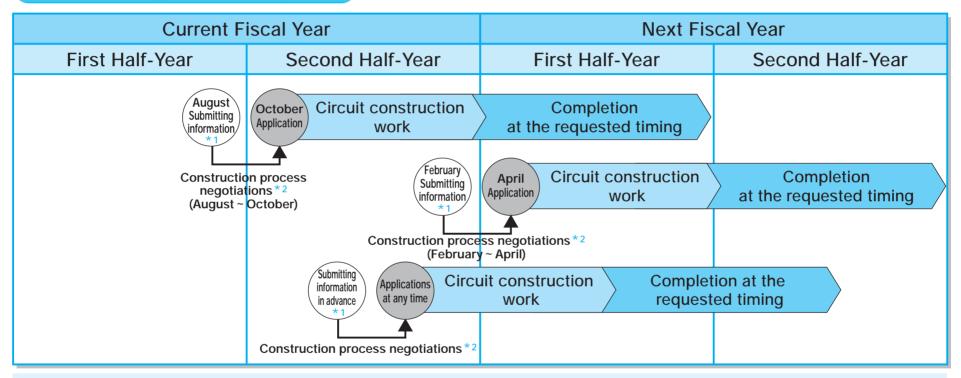
 e In addition, the contracting carrier shall observe the Personal Data Protection Guidelines, Etc.
- *3 Except the following cases, we will provide subscriber number information stored in our Directory Information Database.
 (1) In the event that the contracting carrier (including carriers using subscriber number information stored in the Directory Information Database under contracts other than the agreement) fails or may likely fail to pay access charge stipulated in (5), 1.1.2.8 (Directory Assistance Function, Etc.), 1.1 (Access Charges), Table 1 in the Tables of Charges.
 - (2) In the event that the contracting carrier fails or may likely fail to observe the following provisions in handling the subscriber number information to be provided.
 - a In the event that the contracting carrier is provided with subscriber number information, it shall modify its database without delay.
 - b The contracting carrier shall not wrongfully impair the rights or interests of any subscribers of the registering carriers.
 - c The contracting carrier shall use the number information registered in the Directory Information Database only for the purposes of compiling lists in the telephone directory or of providing directory assistance service carried out by itself.
 - d in the event that the subscriber number information is registered in our Directory Information Database only for the purpose of providing directory assistance service, the contracting carrier shall use said number information only for the purpose of providing directory assistance service.
 - e In addition, the contracting carrier shall observe the Personal Data Protection Guidelines, Etc.
- *4 Any carrier registering information may request the termination of the provision of its subscriber number information to a using carrier by submitting documentation proving that the carrier using the Directory Information Database is violating the Personal Data Protection Guidelines, Etc. However, in the event that said using carrier lodges a complaint or takes other action concerning the termination of the provision of number information, the carrier registering such information shall respond to such complaints on its own responsibility. unless such causes are attributable to our company.
- *5 In the event that a carrier registering information requests the termination of the provision of number information, we will notify the carrier using such information to that effect and shall stop providing number information on subscribers of the carrier registering such information, unless it is considered that the request has no foundation.

- 1 Application Procedures, Etc., for the Construction of Interconnection Circuits

With respect to application procedures for interconnection circuits, we will respond to other carriers on the basis of a semi-annual regular application cycle in July and January of every year.

Articles 23 ~ 28 and Article 50 of the Articles of Agreement

Schedule for Application Procedures



Explanation

*1 Prior to making an application for construction, please submit information concerning the requested number of circuits, the actual and estimated traffic, the accommodation status of transmission equipment, etc.

*2 We will discuss the number of circuits and the implementation period for the circuit construction work.

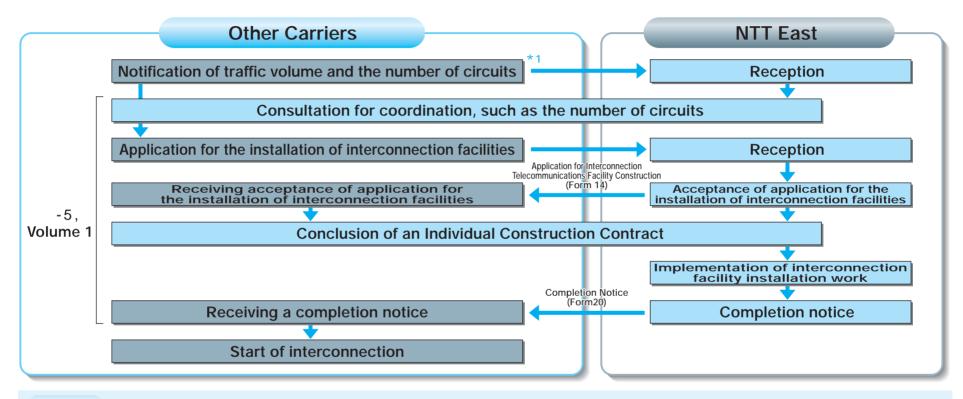
Applications at any time will be accepted only under the following conditions as specified in the Articles of Agreement.

"A contracting carrier may make an application at any time only when there is fear that call loss (meaning the interruption of communications through the relevant transmission equipment, etc., or transmission lines due to the occurrence of calls that exceed the line capacity of the transmission equipment, etc., or transmission lines) may continuously occur due to rapid increases in the traffic of the contracting carrier."

With respect to the "function to use transmission equipment for local switch interconnection" and the "function to exclusively use local switch circuit-related parts" under the category of subscriber switching functions, the "function to exclusively use tandem switch circuit-related parts" under the category of tandem switching functions and the "function to use transmission equipment for tandem switch interconnection" under the category of interoffice transmission functions, the relevant expenses specified in the Articles of Agreement Concerning Interconnection are to be individually borne in accordance with the number of circuits applied by a contracting carrier.

- 2 Application Procedures for the Construction of Interconnection Circuits

NTT East will start interconnection in accordance with the following procedures in response to an application for construction (submitted under the semi-annual regular application cycle and/or submitted at any time) after receiving notification of the traffic volume and the number of circuits.



Explanation

*1 Materials to be submitted by other carriers

Actual and estimated traffic volume and the estimated number of circuits per POI and per switch

Actual traffic

First half-year: Actual traffic in May, June and July Second half-year: Actual traffic in November, December and January

At any time. Actual traffic in the past three months

Estimated traffic volume and the estimated number of circuits

First half-year: As of the end of September and March in the next fiscal year Second half-year: As of the end of March in the next fiscal year and as of the end of September in the fiscal year following the next fiscal year At any time: As of the end of the fiscal half-year that includes the requested usage start month for interconnection facilities; as of the end of the next fiscal half-year; and as of the end of the fiscal half-year following the next fiscal half-year

Information concerning the accommodation status of transmission equipment, etc.

Other matters for which cooperation is requested by NTT East Number of circuits for which an application is made

Actual and estimated traffic volume and the estimated number of circuits

per MA and per local exchange number



Facility Introduction Plan Presentation Manual (Excerpts)

Outline of Facility Introduction Plan Presentation Manual

NTT East is promoting various measures aimed at offering a wide variety of services, improving the efficiency of network operations and cost reductions. In view of the potential impact that these measures may have on other carriers, it is necessary to notify other carriers of these plans at an early stage. Accordingly, the *NTT Facility Introduction Plan Presentation Manual* was published in November 1998 through consultation with other carriers that have established interconnection with NTT East facilities regarding the appropriate methods to present facility introduction plans accompanying our network restructuring, etc., for the purposes of facilitating a smooth local-switch interconnection with other carriers and promoting efficient facility construction among all telecommunications carriers.

This section introduces excerpts from this manual covering the basic concepts and the information presented, etc.

Basic Concepts · · · · · · · · · · · · · · · · · · ·	27
* Basic Concepts	21
Presenting Information	28
Outline of Information Presented	29
Presentation Schedule	30
• Information Necessary in Formulating Facility Construction Plans	31
Information Necessary for Routing	32
Plan Modification and Notification Procedures	33

Basic Concepts

Basic Concepts

Information concerning NTT East's facility introduction plans will be provided on a voluntary basis for the purpose of facilitating the efficient development of facilities by telecommunications carriers. As the basic concepts behind providing this information relate to the potential impact that the introduction of facilities accompanying network restructuring may have on other carriers in terms of existing networks, business plans and other factors, the scope of the target information to be presented focuses on facility introduction plans accompanying changes involving the point of interface (POI) between other carriers and NTT East. It is our belief that these concepts concerning the presentation of such information will be reciprocated in case other carriers carry out any renovations, etc., of their network facilities.

Please note that any information presented may be subject to change in response to environmental factors both inside and outside our company. In case of any changes on our side, we will provide notifications as quickly as possible and flexibly respond to plan modifications by other carriers accompanying such changes.

Carriers and Areas Subject to Information Presentation

Carriers Subject to Information Presentation

- · Carriers that have already established interconnection at switches (Note 1)
- · Carriers planning to establish interconnection at switches (Note 2)

Areas Subject to Information Presentation

Coverage areas are areas subject to interconnection on a "prefectural unit" (Note 3) basis. In the event information for other areas is necessary as a result of the expansion of areas subject to interconnection, information that is deemed necessary at each step in the interconnection consultation process will be presented successively in the same way as carriers planning to establish interconnection at local switches.

Notes 1. Interconnection at switches means (1) local switch interconnection, (2) tandem switch interconnection and (3) signaling tandem switch interconnection.

- 2. Information that is deemed necessary at each step in the interconnection consultation process will be presented successively.
- 3. In some regions, subject areas are to be classified in accordance with our branch area classification.

Presenting Information

Confidentiality Obligations

Because information provided to other carriers constitutes part of our business management information, the information provided shall be kept secret and shall not be used for other than the intended purposes.

Cost Bearing for Plan Changes

Unlike the situation in which carriers requesting interconnection submit individual applications requesting the construction of our network facilities, this presentation of information is implemented on a voluntary basis with the aim of improving efficiency in facility construction by other carriers.

In the event any changes in our plans for which we have presented information require changes in the construction applications of other carriers, NTT East will meet the requirements of such changes in principle. With respect to any changes in the plans of other carriers that are not attributable to changes in our plans, we will make every attempt to respond positively by discussing each case individually. However, we must ask the interconnecting carrier to bear the necessary expenses for emergency measures, etc.

With respect to construction expenses incurred by other carriers for plan changes due to changes in our plan within S* - 6 months, we will discuss the handling of such expenses based on the provisions of Article 88 (Exemptions) of the Articles of Agreement.

* "S" indicates service start timing.

Outline of Information Presented

Information concerning the Facility Introduction Plan Accompanying Changes of the Point of Interface (POI) Between Other Carriers and NTT East (Note) that will be provided by NTT East consists of Information Necessary in Formulating Facility Construction Plans and Information Necessary for Routing.

(Note) A change of the NTT East point of interface means that the unit subject to interconnection is changed.

(1) Information Necessary in Formulating Facility Construction Plans

Information necessary for other carriers to formulate facility construction plans

Annual information (First half of fiscal year X: July of fiscal year X - 1, second half of fiscal year X:

January of fiscal year X - 1)

Information at time of any change

(2) Information Necessary for Routing

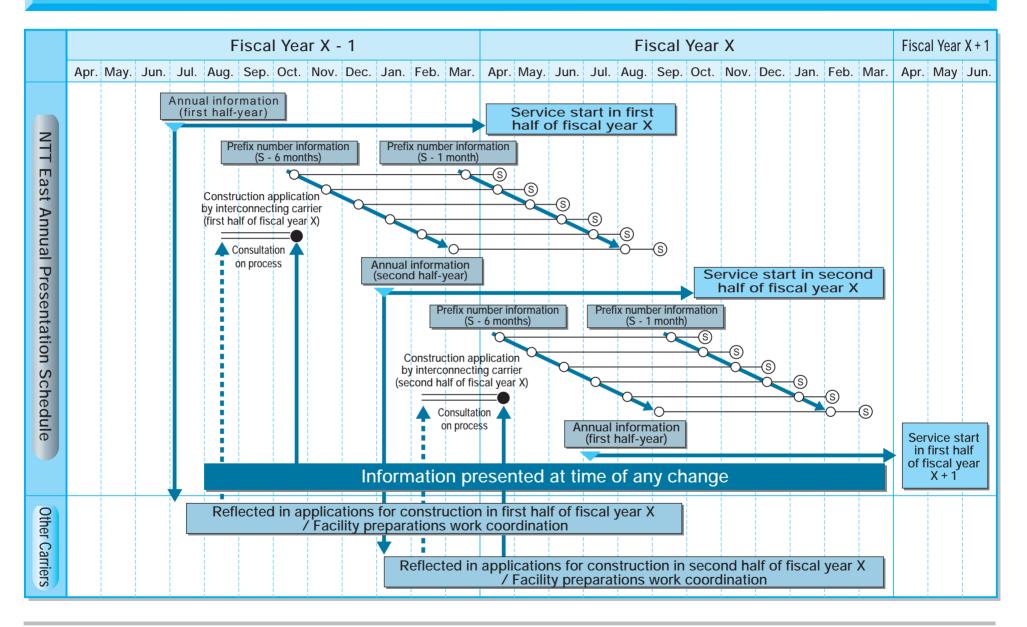
Information needed by other carriers for routing purposes such as translator deployment, etc.

Prefix number information (S - 6 months)

Prefix number information (S - 1 month)

Please see "V. Presentation Schedule" for details.

Presentation Schedule



Information Necessary in Formulating Facility Construction Plans (Annual Information and Information at Time of Any Change)

We present the information (annual information) necessary for other carriers in formulating facility construction plans in July of fiscal year X - 1 and January of fiscal year X - 1.

Annual information (first half of fiscal year X): Provided in July of fiscal year X - 1 Annual information (second half of fiscal year X): Provided in January of fiscal year X - 1 Information at time of any change (the modified version of annual information)

Information Necessary in Formulating Facility Construction Plans (Example : Local-Switch Interconnection)

Basic Information

- (1) Branch name
- (2) Prefecture name
- (3) MA name
- (4) Building name
- (5) Type of switch
- (6) Unit name

Facility information

- (7) Number of planned terminals (Note 1)
 (INS64, INS1500, subscriber telephone)
- (8) Planned service start month
- (9) New accommodation information (Note 2)
- (10) DPC number
- (11) Prefix numbers accommodated (new/additional)
- (12) Prefix numbers accommodated (shifted prefix numbers)
- (13) Old unit information (Note 3)

Notes:

- 1. The number of planned terminals refers to the number for S+12 months.
- 2. Information concerning switch to which the target switch is connected
- 3. Information concerning the old switch in which prefix numbers that were shifted to the target switch were accommodated

Information Necessary for Routing (Prefix Number Information)

We present the information (prefix number information) needed by other carriers for routing purposes such as the deployment of translators at S - 6 months and at S - 1 month.

In the prefix number information at S - 6 months, the "service start month (early/middle/late)" will be provided under the category of "cut-over date and time," and new numbering assignments will be provided under the category of "prefix numbers accommodated."

In the prefix number information at S - 1 month, the "service start date and time" will be provided under the category of "cut-over date and time."

Information Necessary for Routing (Prefix Number Information) Type of shift Status after shift Telephone network MA name Prefix numbers accommodated Building name and unit name Cut-over date and time DPC number Switch type Status before shift Remarks Building name · Unit name Prefix numbers accommodated DPC number

Plan Modification and Notification Procedures

As our plans to introduce facilities in GC units largely depend on demand trends, it is difficult to determine firm plans at an early stage. Accordingly, there may be cases in which modifications are required after the presentation of certain information. As such changes may have an impact on the facility plans of other carriers, we will provide notifications each time this occurs by means of "Information at Time of Any Change."

Changes to Facility Construction Information (Annual Information first half-year and second half-year)

Notification Method

In case of changes after the presentation of information, we will provide notifications by means of "Information at Time of Any Change" as quickly as possible each time a change is decided.

Target Information All annual information

Change to Routing Information (Prefix Number Information)

Notification Method

In case of changes after the presentation of information, we will announce such changes by including them in the next prefix number information presentation.

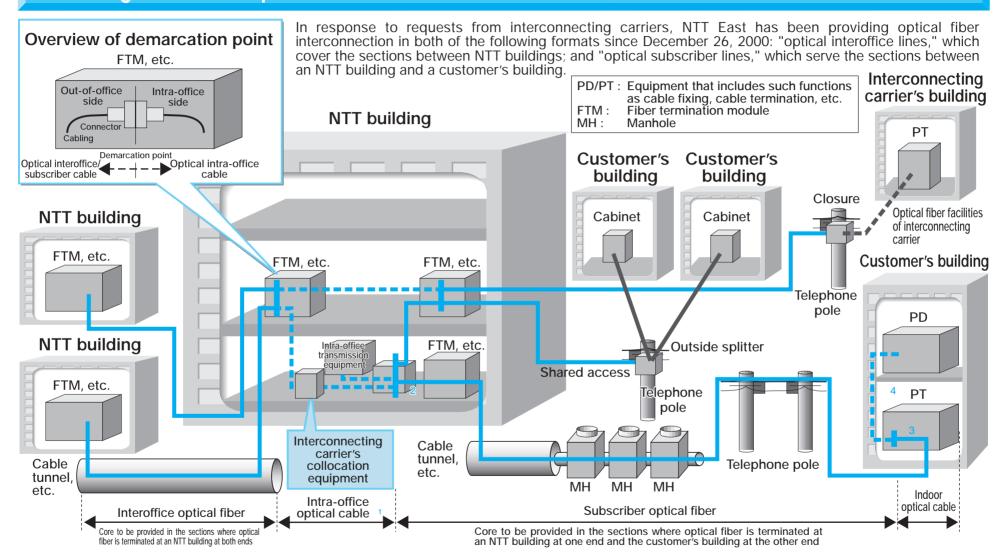
Target Information

Basically, changes concerning the numbering system and those with little impact upon facility construction plans.

Chapter 2

Optical Fiber

Configuration of Optical Fiber Facilities (Also shown on Page 34, Volume 1: Common Interconnection Procedures)



¹ In other than NTT buildings, there are cases in which we use cable installed by the building owner at the instructions of the building owner. The conditions under which service is provided in such cases depend on the building owner. 2 This connection format is applied in the case of a building in which intermediate distribution frames are installed

4 This cable is provided if an NTT indoor optical cable has already been installed and there is unused cable that can be provided.

³ With respect to the indoor optical cable section, permission from the building superintendent for our staff to enter the building is required through the end user who is a tenant of this building, interconnecting carrier, etc., in principle. In this case, we ask the interconnecting carrier requesting the survey application to deal with the end user, etc., and obtain appropriate permission from the building superintendent.

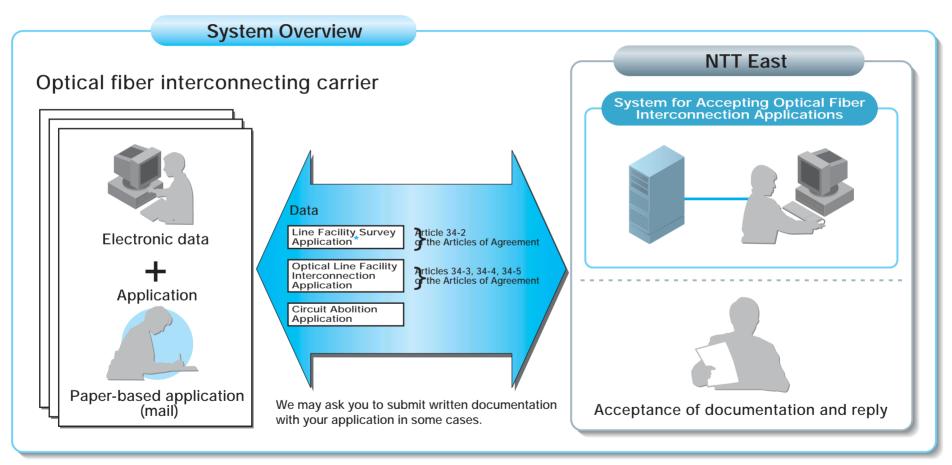
System for Accepting Optical Fiber Interconnection Applications

Among the procedures concerning optical fiber interconnection applications by optical fiber interconnecting carriers, the "System for Accepting Optical Fiber Interconnection Applications" targets the sending and receiving of data concerning the following application process as greater efficiency can be expected in this process through systemization.

Line Facility Survey Application*

Optical Line Facility Interconnection Application

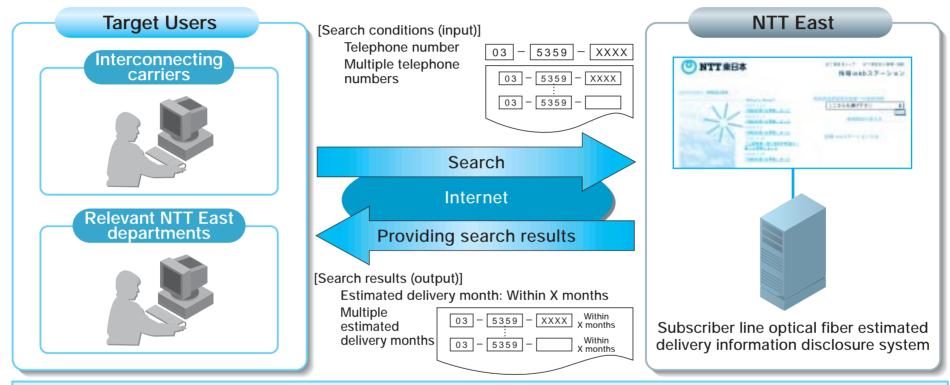
Circuit Abolition Application



^{*} This application is required only in case of using interoffice optical fiber lines.

Disclosure of Estimated Delivery Information for Subscriber Optical Fiber

We will disclose on the Web the estimated delivery information for subscriber optical fiber on the basis of the existing telephone numbers at sites where optical fiber installation is requested. ¹ The usage fee is required for this information disclosure per successful retrieval per telephone number. ²



Search conditions: Input of a telephone number. (With respect to searches by address information, individual requests are accepted on a preliminary inquiry basis, and manual searches are conducted to provide a response).

Search coverage: While estimated delivery information is disclosed with respect to Area A of "areas where subscriber optical fiber cable can be provided," information on areas where such cable cannot be promised might be included due to data setup arrangements. In conducting searches, please make sure to confirm that the searching area is an area where such cable can be provided.

Estimated delivery information: Delivery information is disclosed on an approximate monthly-unit basis "per telephone number" as determined from the optical fiber installation status, etc., at NTT East.

Explanation

- 1 Viewing information requires a Confidentiality Obligation Contract or an Interconnection Agreement with NTT East (registration of ID, password, etc., is necessary).
- 2 Please see "(15)c, 2.2.2.1 (Expenses for Procedures), Table 2 (Expenses for Works and Procedures) in the Tables of Charges, Articles of Agreement" for usage fees.

Information Disclosure Concerning Optical Fiber

Please confirm the newest information via homepage. (http://www.ntt-east.co.jp/info-st/mutial/hikari/index.html.)

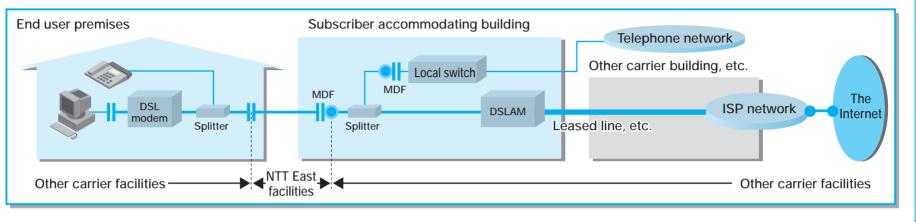
Classification	1	Disclosure Item	Contents, Etc.	Disclosure Methods		
General information		Section where facilities can be provided	Per section listing of optical fiber facilities (between NTT buildings) that can be provided			
necessary for	offic	Optical fiber type	Listing of optical fiber types and wavelength (zero dispersion) that can be provided			
business development	ma e o	Connector type	Listing of optical fiber connector types that can be provided			
development	ti ti ti	Approximate optical fiber length	Approximate length of fiber to be used as charge calculation unit			
2	tion o	Total number of cores	Number of optical fiber cores that exist in each section	Information Station		
	<u></u>	Status of unused cores	Ranked display of number of unused cores in each section	on the Web Other carrier		
<u>n</u>	P	Optical cable plan	Display of an optical cable plan exists (timing is also indicated)	1/		
V		Areas where facilities can be provided	Names and street addresses in towns where subscriber optical fiber cable can be provided	Disclosuré by HP		
2	Scr Inf	Optical fiber type	Types of optical fiber that can be provided	© MYTHER STREET		
	orn	Connector type	Connector types at optical cable start and end points	TOWNS A		
		Optical cable installation plan	Display of whether or not an optical cable installation plan exists (Optical Fiber Project maps)	- X-=-		
Car		Accommodation building information	Whether or not the building has subscriber optical fiber facilities, and addresses of accommodation buildings			
	fiber	Information on buildings where FTMs are installed	Name and address of buildings where intermediate distribution frames are installed	http://www.ntt-east.co.jp/info- st/mutial/hikari/index.html		
General information		Detailed information on optical fiber facilities	Total number of cores and number of unused cores of optical fiber facilities			
necessary for facility installation		Status of optical main distribution facilities	Location of optical main distribution frame (drawings), total number of terminals, number of unused terminals			
		Details of collocation site	Number of racks available	Individual implementation		
		Facility environment	Available air-conditioning capacity; available power supply and UPS capacity; availability of raised floors at collocation site	by personnel Other carrier		
Detailed informati	ion	Age of optical fiber	Surveys installation date for relevant optical fiber	Survey		
necessary for eac	r	Transmission loss	Surveys transmission loss data for relevant optical fiber			
circuit		Estimated delivery time for subscriber optical fiber	Estimated delivery information "per telephone number" as determined from the optical fiber installation status, etc.	Estimated delivery timing information disclosure system Information Station on the Web Disclosure via HP Via HP Other carrier		

Chapter 3

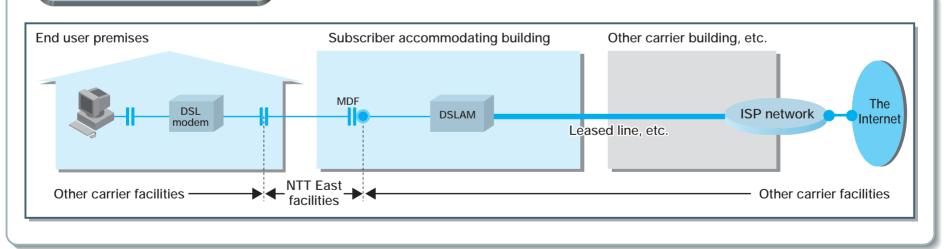
MDF Interconnection (Related to DSL Services)

Patterns of MDF Interconnection

In Case of Line Sharing



In Case of No Line Sharing



Pattern of MDF Interconnection by Collocation

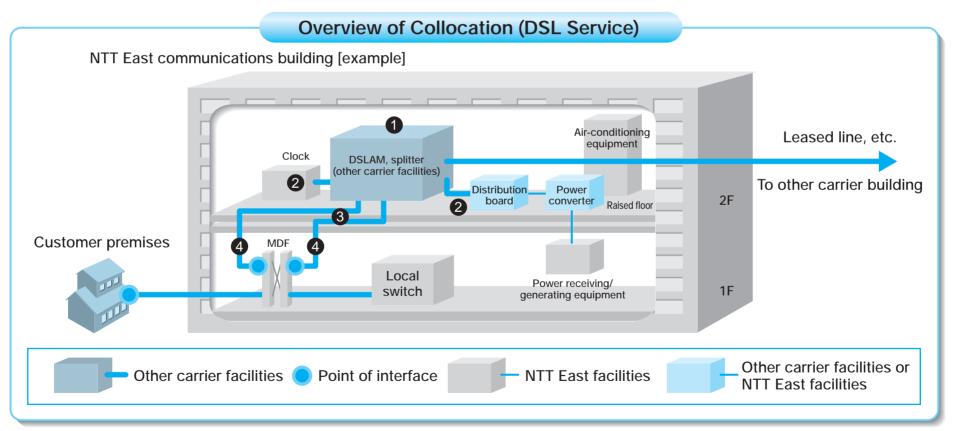
Installing such other carrier facilities as splitters, DSLAMs, routers, etc., in NTT East communications buildings to provide DSL services, etc., by means of MDF interconnection is referred to as collocation (see Page 60).

In case of collocating other carrier facilities, such carriers can either undertake the installation work and carry out maintenance by themselves or consign such work to NTT East.

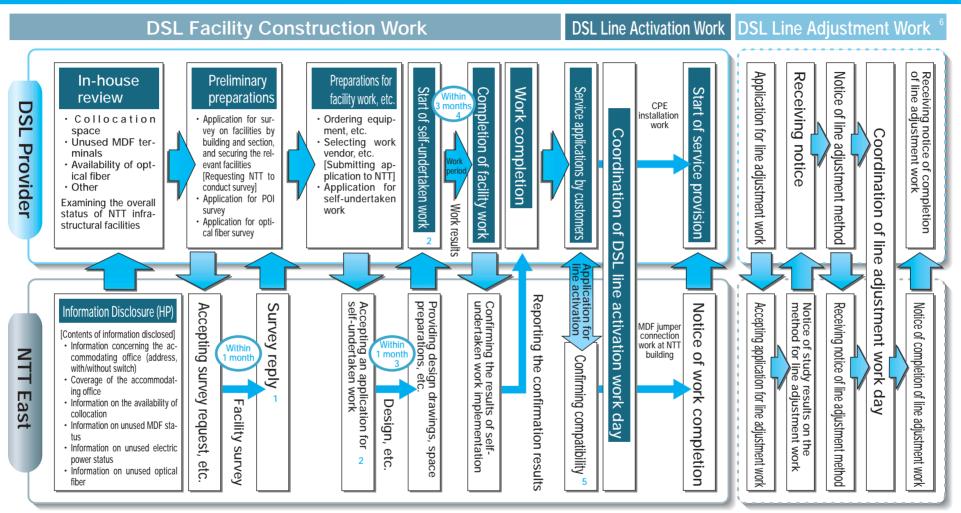
The following processes are involved in the self-undertaken installation work by other carriers or the work consigned to NTT East. (Including removal work)

- 1 Work to install DSLAM, splitter, etc. 2 Work to connect clock and electric power lines 3 Cable wiring
- **4** Work to connect communications lines

In addition to 1 through 4, self-provided electric power and air-conditioning are also made possible.



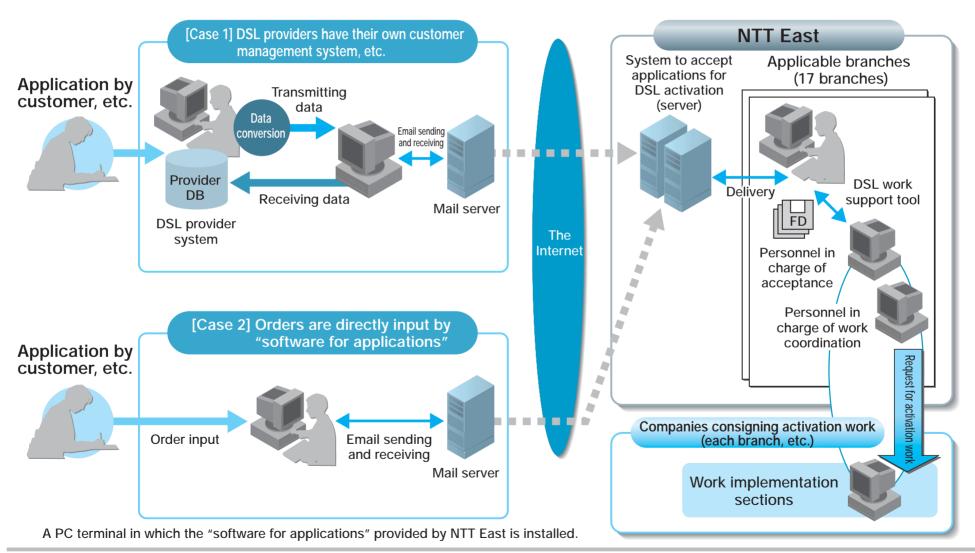
DSL Work Flow and Standard Timing



- 1 "POI Installation Application" and "Line Facility Interconnection Application" must be submitted within one month after survey reply.
- 2 An application for self-undertaken work and the start of such work is required within six months after an application for securing facilities (1).
- 3 In case preparations for NTT infrastructural facilities are necessary; for example: raised floor: 1.5 months.
- 4 In case the work period exceeds three months, NTT East may request discussions with other carriers. Moreover, the usage charge for the relevant space is required during the work period.
- 5 Confirming the possibility of providing DSL service with respect to optical fiber, ISDN lines, etc.
- 6 Communications at certain transmission speeds cannot be guaranteed through the implementation of line adjustment work. In case no unused wires are available in other subscriber lines, we may be unable to carry out the requested work to change the line wires used.

Acceptance of Applications for DSL Service Line Activation

In order to improve efficiency in accepting orders from DSL providers, information distribution such as line activation applications and orders between DSL providers and NTT East is realized by an online operations support system.



V - 1 Rules Concerning Line Accommodation, Etc., for Each Transmission System Based on Spectrum Management Standards

In responding to the rapid spread of DSL services and diversification in transmission systems, NTT East has provided for the rules for the accommodation, etc., of DSL lines and specific operational rules in the Articles of Agreement Concerning Interconnection in accordance with the Spectrum Management for Metallic Subscriber Line Transmission Systems (Version 2) established by TTC ¹ (hereinafter referred to as "TTC Standards Version 2") in order to enable smooth service usage by DSL service users of contracting carriers.

Articles 22, 37-2, 37-3, 50-3, 52, 59, 61, 68 and Tables of Charges, Articles of Agreement Concerning Interconnection

In the event of making an application for the installation or change ² of a DSL line, notifications concerning technical conditions for each transmission system should be provided to NTT East together with such application.

Transmission	Usage Restrictions	Interconnection Charges	
System	System	Access Charges	Expenses for Works and Procedures
Group 1	 No restrictions are imposed in terms of accommodation and line length. 	Access charges applied to cases in which no restrictions	With respect to lines subject to post-installation measures, there are cases in which expenses for post-installation measures are required in case another carrier reports any problem.
Group 2	 Restrictions are imposed in terms of accommodation or line length. In case of transmission systems on which restrictions are imposed in terms of accommodation, other lines are not installed in the same quad ³. In case of transmission systems on which restrictions are imposed in terms of line length, usage in excess of the line length prescribed for each transmission system is not possible. 	are imposed in terms of accommodation are applied. Access charges applied to cases in which restrictions are imposed in terms of accommodation are applied.	 Expenses for surveys on the DSL accommodation status, expenses for surveys on DSL line length, and expenses for line adjustment work (Type 1) are applied as necessary.

Explanation

- Note 1: Classifications used in TTC Standards Version 2 are used in the Collection of Technical Conditions.
- Note 2: As the application of the protection criteria ⁴ specified in TTC Standards Version 2 does not have direct impact on interconnection conditions of transmission systems themselves, the Articles of Agreement Concerning Interconnection (other than technical conditions) take into account only whether or not there are restrictions in terms of accommodation or line length in classifying transmission systems.
- Note 3: With respect to transmission systems for which spectral compatibility is not confirmed at TTC, interconnection will be established only after spectral compatibility is confirmed at TTC.
- 1 TTC: Telecommunication Technology Committee
- 2 Limited to cases in which specific contents of technical conditions of DSL lines are changed.
- 3 Two line pairs are twisted in the metallic cable.
- 4 The protection criteria are provided to indicate the maximum permissible interference from other transmission systems. If new transmission systems do not satisfy the values of the protection criteria through the calculation of spectral compatibility, restrictions will be imposed in terms of accommodation or line length.

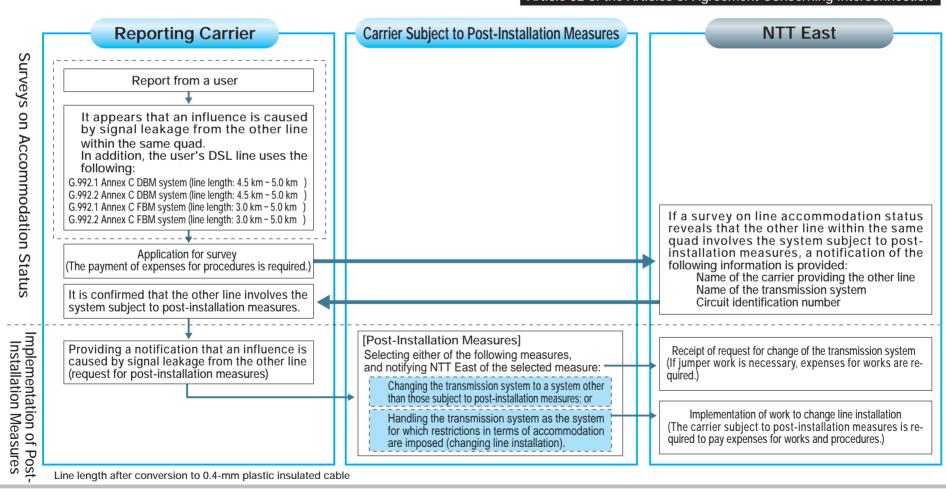
(Reference) Classification in TTC Standards Version 2

	Protected from other transmission systems	Not protected from other transmission systems	Classification in the Articles of Agreement Concerning Interconnection
No restrictions in terms of accommodation No restrictions in terms of line length	Class A	Class B	Group 1
Restrictions imposed in terms of accommodation or line length	Class A'	Class C	Group 2

Page 2 Rules Concerning Line Accommodation, Etc., for Each Transmission System Based on Spectrum Management Standards (Post-Installation Measures)

A contracting carrier providing DSL services by using a transmission system for which TTC Standards Version 2 require post-installation measures (hereinafter referred as "systems subject to post-installation measures") is required to take post-installation measures (changing the relevant transmission system to a transmission system other than those subject to post-installation measures, or handling the relevant transmission system as the system on which restrictions are imposed in terms of accommodation) if a carrier providing the other line within the same quad (limited to lines using transmission systems that are approved as eligible for reporting under TTC Standards Version 2) reports any influence caused by signal leakage.

Article 52 of the Articles of Agreement Concerning Interconnection



Information Disclosure Concerning DSL

Please confirm the newest information via homepage. (http://www.ntt-east.co.jp/info-st/info_dsl/menu.html)

Classification	Information Disclosure Item	Specific Contents	Implementation Method
Outline information	Location, etc., of an accommodating office	Addresses and specific names of administrative areas covered	
necessary for business evolution	Number of lines, etc., for each accommodating office	Number of analog telephone lines (full metallic, partial optical), number of ISDN lines	
	Availability of MDF, collocation site, and electric power facilities	Availability of MDF, collocation site, and electric power facilities (power receiving and generating facilities)	Information Web Station
	Names of accommodating offices in which metallic lines have been totally removed	Addresses and specific names of administrative areas covered	Web Station Disclosure via HP Other carriers
	Information on metallic line removal	Disclosed four years ago; disclosed one year ago; areas where removal plans have been determined	N. S. Towns a
	Current status of optical fiber installations and future plans for optical fiber installations	Current status and future plans	
Detailed information	Details on unused MDFs	Number of available terminals	Manual surveys for each case
necessary for facility construction	Details on collocation site	Number of racks that can be installed	Manual surveys for each case
construction	Facility environment	Available air-conditioning capacity, available power and UPS capacity, availability of raised floor at collocation site	Surveys Other carriers
Detailed information necessary for each line	Line conditions (theoretical data)	Line length from accommodating office to user, type of insulation, line diameter, DC resistance, number of bridge taps, number of hand-twisted points, transmission loss	Line information disclosure system Disclosure via HP
	Accommodation status (service situation) (theoretical data)	Accommodation of ISDN, DSL, etc., in the same quad, adjacent quad, every other quad or subunit	Information Web Station Other carriers
Other information disclosed	Local exchange number for each accommodating office	List of local exchange numbers for each accommodating office (by prefectural unit)	Disclosure via HP
	Information on shift to optical fiber for telephone lines	Identification of "lines for which optical fiber is applied" and "other lines" for each telephone number	Information Web Station Other carriers

Chapter 4

IP Communications Network (FLET'S Service)

Conditions for Interconnection to IP Communications Network (FLET'S Service)

Interconnection to the IP communications network (FLET'S service) is a menu for ISPs that provide Internet access service to end-users. The preconditions in submitting an application for interconnection are as follows.

Interconnection Conditions

An applicant must be a Type I or Type II telecommunications carrier.

An applicant can assign a global IP address to each end-user.

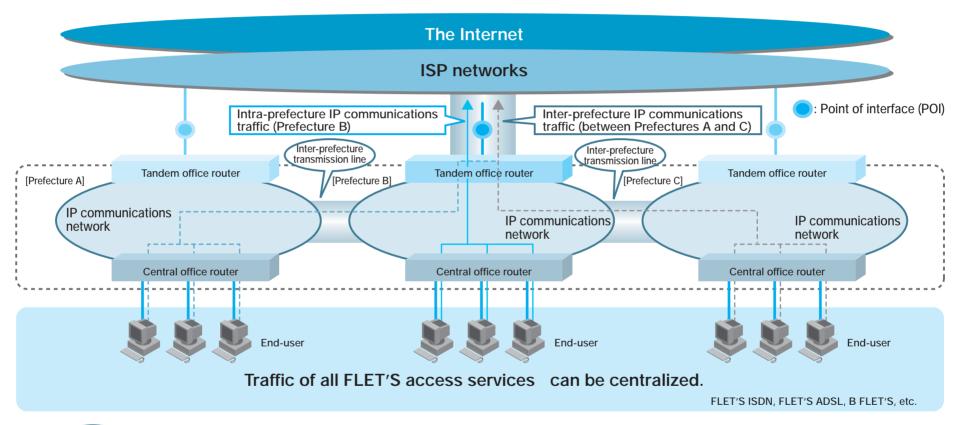
User authentication by RADIUS must be possible.

Cases in which service is not provided as telecommunications service and used on the in-house network, etc., of other carriers are not handled as interconnection.

With respect to FLET'S service, lines are provided for end-users only.

Patterns of Interconnection to IP Communications Network (FLET'S Service) (Overview)

Connecting to a POI for each prefecture makes it possible to provide service to end-users in service areas within each prefecture. Connecting to a centralized POI in any prefecture makes it possible to provide service to end-users in service areas in all prefectures.



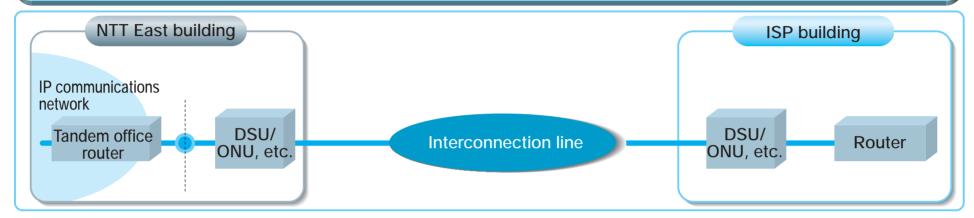


IP communications network: Can accommodate traffic of end-users for each prefecture on an individual basis.

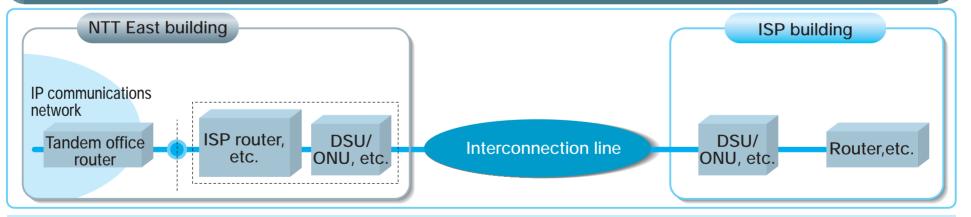
Wide-area IP communications network: Can accommodate traffic of end-users beyond prefectural borders through centralization.

Patterns of Interconnection to IP Communications Network (FLET'S Service)

Cases of direct interconnection to digital leased lines (1.5 M, 6 M), ATM leased lines (0.5 ~ 135 M), and wide-area LAN type leased lines (100 M, 1 G)



Cases of interconnection to other carrier facilities that are collocated in an NTT East building



The location of a POI may vary depending on the pattern of interconnection.

The above patterns are not necessarily used as the equipment to be installed differs depending on the pattern of interconnection.

Point of interface (POI)

Interfaces for Interconnection to IP Communications Network (FLET'S Service)

The interfaces for interconnection to the IP communications network of NTT East are as follows.

Interfaces for Tandem Office Router Interconnection	Corresponding Leased Line, Etc.
ATM (MM/SM) interface	ATM leased line, ¹ etc.
100BASE-TX interface 100BASE-FX interface 1000BASE-LX interface 1000BASE-SX interface	Interconnection to collocated other carrier facilities Wide-area LAN type leased line, ² etc.
Leased line primary-rate or secondary-rate user-network interface	Digital leased line, ³ etc.

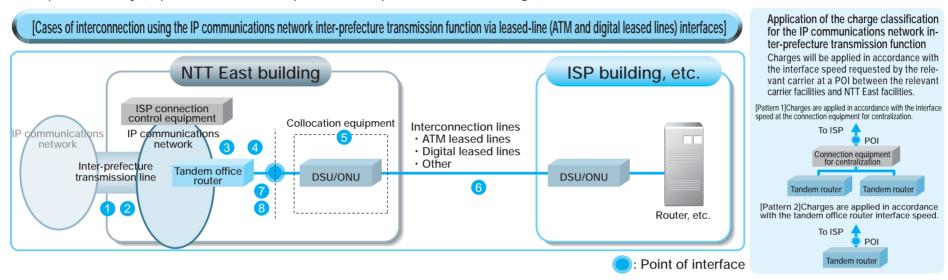
Explanation

- 1 ATM Megalink (Dual and Single) can provide this interface in the case of NTT East leased line services.
- 2 MetroEther and SuperWide LAN (100 Mbit/s) can provide this interface in the case of NTT East leased line services.
- 3 Digital Access 1500 and 6000 can provide this interface in the case of NTT East leased line services.

If you have questions about interfaces other than the above, please contact us separately.

Expenses for Interconnection to IP Communications Network (FLET'S Service)

Expenses for interconnection to the IP communications network of NTT East include network modification charges, collocation charges, etc., that are required monthly (expenses for work and procedures represent one-time charges).



	Expense Item	Description	Intra-prefecture IP communications	Inter-prefecture IP communications
_	Expenses for procedures for the line installation in the IP communications network inter-prefectural section	Charges for the procedure when the IP communications network inter-prefecture transmission function is used		
1	IP communications network inter-prefecture transmission function	Charges in accordance with the classification (interface speeds: medium capacity class and large capacity class)		
2	IP communications network inter-prefectural line management function	Charges for the management, etc., of usage information on the IP communications network inter-prefecture transmission function		
3	Work expenses for IP communications network data settings	Expenses for setting IP addresses, etc., in a tandem office router		
4	IP communications network interconnection interface function	Interconnection usage charges (expenses for the interface package of a tandem of- fice router, connection equipment for centralization, etc.)		
6	Collocation expenses	Space charges, electricity usage charges, NTT East facility usage charges, maintenance expenses, etc., when other carrier routers, etc., are installed in an NTT East building		
6	Interconnection line expenses (leased lines, etc.)	Charges in accordance with the speed class when NTT East leased lines are used		
7	Optical signal intra-office transmission function	Expenses required when an optical signal intra-office transmission line (intra-office optical fiber) is used for interconnection between a tandem office router and other carrier facilities		
8	Optical signal intra-office line management function	Charges for the management, etc., of information on the usage of optical signal intra-office transmission function		

Obligation to Pay Expenses for Interconnection to IP Communications Network (FLET'S Service)

Obligation to Pay Interconnection Charges (Network Modification Charges)

Please note in advance that the payment of expenses for interconnection facilities prepared for other carriers will be handled as follows in accordance with Article 36-2 (Usage Cancellation, Etc., of Facilities Subject to Individual Management Through Application by a Contracting Carrier), Article 36-3 (Disposal or Diversion for Other Purposes of Facilities Subject to Individual Management), and Article 66 (Obligation to Pay Network Modification Charges) of the Articles of Agreement Concerning Interconnection in the event either of the following is applicable.

[In Case of Canceling the Usage of Interconnection Facilities]

Please submit an application for the usage cancellation of interconnection facilities now being used by completing Form 22-2.

The payment of network modification charges as calculated by the following formula is required for interconnection facilities whose usage is to be canceled.

- <When diversion for other purposes is not possible>
- a. Cases in which the legal life of the relevant facility has not elapsed Charge amount = Undepreciated balance + removal work expenses
- b. Cased in which the legal life of the relevant facility has elapsed Charge amount = Residual value + removal work expenses
- <When diversion for other purposes is possible> Cases in which the legal life of the relevant facility has not elapsed Charge amount = Undepreciated balance + removal work expenses - usage value after diversion for other purposes

[In Case of Upgrading Interconnection Facilities]

Please submit an application for the usage cancellation of interconnection facilities now being used by completing Form 22-2. At the same time, please submit an application for the construction of interconnection facilities to be newly used (which is the procedure usually taken for such cases).

The payment of network modification charges as calculated by the following formula is required for interconnection facilities whose usage is to be canceled for upgrading, in addition to network modification charges for the interconnection facilities after upgrading.

- <When diversion for other purposes is not possible>
- a. Cases in which the legal life of the relevant facility has not elapsed Charge amount = Undepreciated balance + removal work expenses
- b. Cased in which the legal life of the relevant facility has elapsed Charge amount = Residual value + removal work expenses
- <When diversion for other purposes is possible>
- Cases in which the legal life of the relevant facility has not elapsed
- Charge amount = Undepreciated balance + removal work expenses usage value after diversion for other purposes

Please note in advance that the payment of expenses incurred is required in accordance with Paragraph 4, Article 27 of the Articles of Agreement Concerning Interconnection in the case of canceling the installation or modification of interconnection facilities after the application is submitted but before the start of interconnection.

The same procedures as those in and are applied for interconnection facilities (the interface package of a tandem office router, connection equipment for centralization, etc.) that become unnecessary as a result of POI centralization through the usage of the IP communications network inter-prefecture transmission function.

Explanation

If a change is made in the connection equipment (the interface package of a tandem office router, connection equipment for concentration, etc.) due to an increase in the number of end users, a shortage of bandwidth, etc., (e.g., from 100BASE-TX to 1000BASE-LX), the payment of network modification charges as calculated in accordance with the above cal-

culation formula for the connection equipment whose usage is to be cancelled is also required in addition to network modification charges for the connection equipment (such as the interface) to be newly used.

Other Carriers

Contracts and Agreements Necessary for Interconnection to IP Communications Network (FLET'S Service)

Contracts necessary for interconnection to the NTT East IP communications network are as follows.

East

Interconnection Agreement

This agreement is based on the Articles of Agreement Concerning Interconnection of NTT East and stipulates the pattern of interconnection, the POI location, a confidentiality obligation, and the basic items related to interconnection. It is not possible for applicant carriers to start service without entering into an Interconnection Agreement.

Particulars Based on Interconnection Agreement

This contract provides specific clerical processing details concerning the setup change work, maintenance, billing and payment methods, etc., after the start of interconnection, and confirms details of technical conditions concerning tandem office router connections. This contract is necessary for smooth interconnection operation.

Contract for Individual Construction, Etc.

This contract stipulates the conditions for the construction of NTT East communications facilities necessary for interconnection and monthly charges.

- Expenses for the provision of the tandem office router interface function (network modification charges)
- Expenses for the DSU (ONU) installed in an NTT East building (collocation expenses)

Various Types of Information Provided Concerning Interconnection to IP Communications Network (FLET'S Service)

Various types of information are provided on the Web for applicant carriers considering interconnection to the IP communications network.

Туре	URL
Homepage for ISPs Interconnection application forms Information on service area expansion Information on POI (point of interface) buildings Seminar materials Other Application forms necessary for interconnection to NTT East facilities, such as the Preliminary Survey Application and the Interconnection Application and entry guidelines are shown.	http://www.ntt-east.co.jp/info-st/ip_menu/index.html
Information on FLET'S service (information for end-users)	http://www.flets.com/
Information on leased lines	http://www.ntt-east.co.jp/senyo/
Possibility of diversion for other purposes with respect to facilities subject to individual management	http://www.ntt-east.co.jp/info-st/mutial/other/

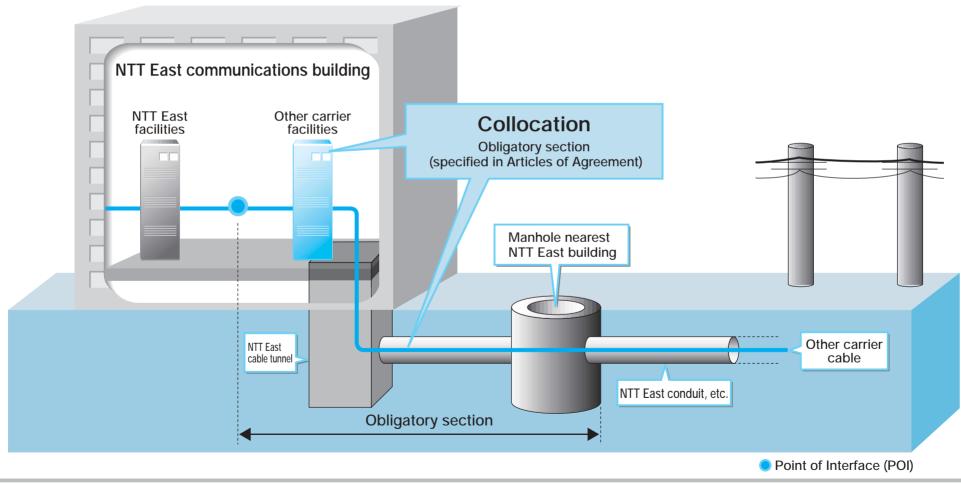
Chapter 5

Collocation

Collocation (Also detailed on Page 26, Volume 1: Common Interconnection Procedures)

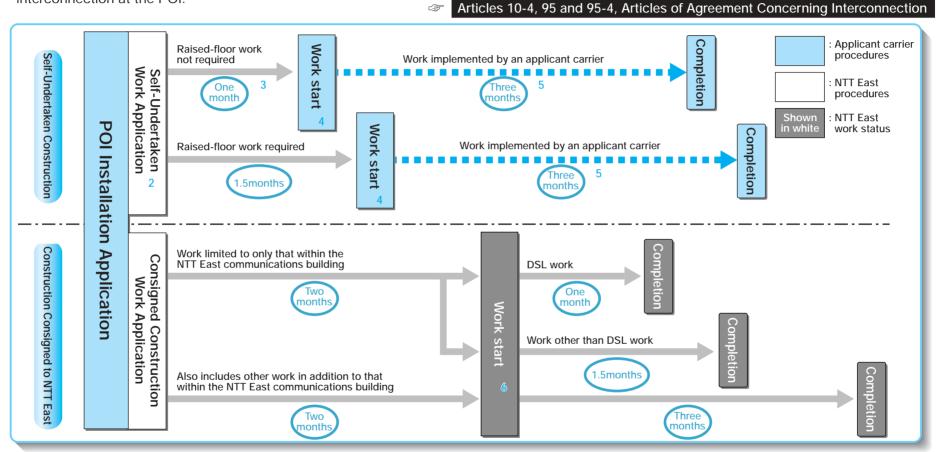
Collocation means installing the <u>equipment</u>, etc., necessary for the interconnection of other carriers in an NTT East <u>communications building</u>, etc., or in establishing interconnection with NTT East networks. We will meet the requests of other carriers by announcing the conditions, etc., for providing a site in an NTT-East communications building where other carrier equipment necessary for interconnection is installed.

- 1 This includes transmission equipment, cable and other equipment (meaning the telecommunications facilities whose installation within an NTT East communications building, etc., is reasonably considered necessary in view of the technical and economic alternatives) of an applicant carrier that are necessary for interconnection.
- 2 This includes the NTT East communications building, conduits and cable tunnels for the section between such communications building and the nearest available manhole designated by NTT East, and telephone poles installed within the premises of such communications building.



Standard Lead-Time for Collocation (Also detailed on Page 32, Volume 1: Common Interconnection Procedures)

NTT East will complete preparations within the following periods for the installation of the applicant carrier equipment, etc., necessary for interconnection at the POI.



- 1 These periods may be exceeded in the event special work is necessary, such as when the installation and/or modification of power equipment, storage batteries or power reception/generation equipment is required because the existing capacity of such equipment would be exceeded if power were supplied to the equipment, etc., necessary for interconnection in establishing interconnection, or when the scale of work under the Facility Construction Contract is extensive (meaning cases in which the consigned work expenses total ¥5 million or more at the relevant POI from among the amounts to be borne on the basis of the Facility Construction Contract).
- The indicated lead-time does not include any period required by an applicant carrier for study purposes, the time required to secure a road occupancy permit, road usage permit, etc., to install the equipment, etc., necessary for interconnection (the period from an application to obtaining a permit), or the time elapsed due to any force majeure such as natural disasters or otherwise due to the reasons not attributable to NTT East.
- 2 In the event the period form the planned work start date until the planned work completion date or the requested power equipment usage start date as indicated in the Self-Undertaken Work Application exceeds three months, an applicant carrier is requested to enter the reason therefor in the Self-Undertaken Work Application.
- 3 Within two weeks in the event of installing the equipment, etc., necessary for interconnection or any related equipment of the applicant carrier at the site where relevant equipment, etc., has already been installed by the applicant carrier and if there is no need for the installation or modification of the facilities available to the applicant carrier, including the power and air-conditioning facilities, raised floors or other peripheral equipment used in conjunction with the equipment, etc., necessary for interconnection.
- 4 The payment of fees covering such space (housing charges) is required during the work period. The payment of collocation charges is required from the requested usage start date of power equipment as estimated by the applicant carrier at the time of making an application for work or the date on which NTT East completes the preparations for power equipment, whichever is later. In the event the applicant carrier does not start the usage of new power equipment, the payment of collocation charges is required from the planned work completion date indicated by the applicant carrier in the Self-Undertaken Work Application or the date on which the self-undertaken work is completed, whichever is earlier.
- 5 NTT may ask the applicant carrier to discuss the situation in detail in case the work period exceeds three months
- 6 The payment of collocation charges is required from the planned work completion date or the date on which preparations are made for power equipment, whichever is later.

Entry Examples for Various Application Forms Concerning Collocation

Form 1 (Related to Paragraph 1, Article 10-2)

Entry Guidelines

PRELIMINARY INOUIRY APPLICATION

Nο Date:

To: NTT East

Interconnection Promotion Department

From: Company:

SEAL

Name: Pursuant to the provisions of Paragraph 1, Article 10-2 (Preliminary Inquiry) of your

Articles of Agreement Concerning Interconnection, we hereby submit the following preliminary inquiry application with respect to the planned site for POI installation.

etc., or the optical line facility usage section.

1. Requested Information

Planned POI installation optical line facility usage s		Requested information
or	uilding ITT East Inquiry or	Example) Purpose: MDF interconnection (DSL service) Requested information Number of available MDF terminals Number of racks available for collocation Location (floor) of available collocation site

1. Please specify the usage purpose for the planned POI installation as the reply differs depending on the purpose. Purpose: MDF interconnection, IP interconnection (including the IP routing network interconnection), access transmission lines (GC and IGS), optical fiber facility interconnection, other (please specify the detailed purpose). 2. Please select and enter the following items concerning the information requested through the preliminary inquiry:

the number of available MDF terminals, the location (floor) of the MDF installation, the number of available racks for collocation. the location (floor) of the available collocation site. the available power equipment capacity (DC 48V, AC 100V (UPS)), the available air-conditioning capacity (kcal/h), the availability of raised floors. the available conduit and cable tunnel space in the obligatory section. the total number of optical fiber facility cores and the number of unused cores, the location (floor) of the optical main distribution frame

2. Survey Expenses

Upon concluding the necessary contract, we will pay the expenses required to conduct the survey to provide the requested information.

Information provided pursuant to this application will be handled in the same way as stipulated in Article 47 (Confidentiality Obligation) of the Articles of Agreement Concerning Interconnection.

Note: Please use JIS A4-sized paper in preparing this application.

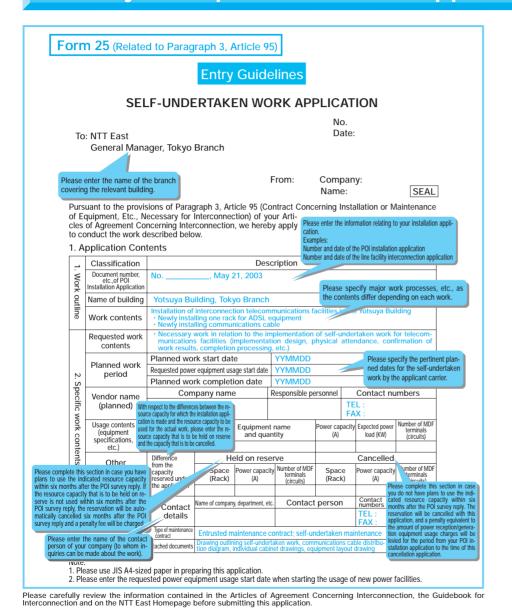
Please carefully review the information contained in the Articles of Agreement Concerning Interconnection, the Guidebook for Interconnection and on the NTT East Homepage before submitting this application

Form 6 (Related to Paragraph 2, Article 10-5 and Paragraph 2, Article 34-5) **Entry Guidelines** COMMUNICATIONS BUILDING ENTRY APPLICATION Nο Date: To: NTT Fast Tokyo Branch, Plant Department Interconnection Section Please specify the name of the applicable From: Company: branch covering the relevant building. Name: Pursuant to the provisions of Paragraph 2. Article 10-5 (Entry to Installation Site of Equipment, Etc., Necessary for Interconnection by Applicant for Interconnection) and Paragraph 2. Article 34-5 (Entry in Case No Unused Cores are Available in Optical Line Facilities) of your Articles of Agreement Concerning Interconnection, we hereby apply for entry into your communications building described below. Please specify the date and the document number of the relevant POI Survey Reply from NTT East. 1. Application Contents To confirm the details concerning POI installation as indicated in the Purpose of entry POI Survey Reply (No. XXX) dated January 10, 2001 **Building name** Yotsuya Building, Tokyo Branch Please specify the names of all persons en-Name(s) of person(s) Company: tering the building (the number of persons entering the building entering the building is limited to necessary Name(s): personnel depending on the purpose). Planned start time January 10, 2001 at 08:30 Date/time of Planned completion time Please specify the entry period for the confir-January 15, 2001 at 17:00 mation of details relating to the POI Survey Reply and planned start and completion timing. Company: Name: Responsible Contact numbers: person Telephone number: Fax number: Remarks Please specify the applicant carrier's contact person who is responsible for such entry. Note: Please use JIS A4-sized paper in preparing this application.

Please carefully review the information contained in the Articles of Agreement Concerning Interconnection, the Guidebook for Interconnection and on the NTT East Homepage before submitting this application.



Entry Examples for Various Application Forms Concerning Collocation

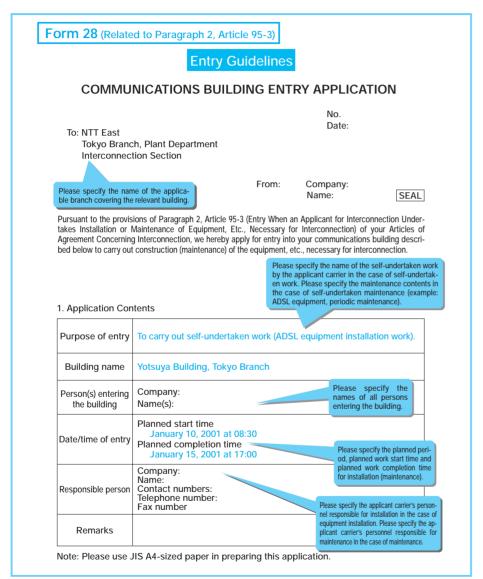


Form 26 (Related to Paragraph 2, Article 95-2) **Entry Guidelines** APPLICATION FOR ATTENDANCE **DURING CONSTRUCTION (MAINTENANCE)** Date: To: NTT East Tokyo Branch, Plant Department Interconnection Section From Company: Please specify the name of the applicable SEAL Name: branch covering the relevant building. Pursuant to the provisions of Paragraph 2, Article 95-2 (Entry for Attendance Purposes by Applicant for Interconnection, Etc.) of your Articles of Agreement Concerning Interconnection, we hereby apply for the person(s) named below to be physically present during the performance of construction (maintenance) work at your communications building. Please specify the name of the self-undertaken work by the applicant carrier in the case of self-undertaken work. Please specify the maintenance contents in the case of self-undertaken maintenance (example: ADSL equipment, periodic maintenance). 1. Application Contents Attendance purposes for work entrusted to NTT East (example: ADSL Purpose of entry equipment installation work). Building name Yotsuya Building, Tokyo Branch Please specify the names of Company: Person(s) entering all persons entering the buildthe building Name(s): ing for attendance purposes. Planned start time Date/time January 10, 2001 at 08:30 of entry Planned completion time Please specify the planned January 15, 2001 at 17:00 period and time for attendance for work (maintenance). Company: Name: Responsible Contact numbers: person Telephone number: Fax number: Remarks Please specify the applicant carrier's contact person who Note: Please use JIS A4-sized paper in preparing this application. is responsible for attendance.

Please carefully review the information contained in the Articles of Agreement Concerning Interconnection, the Guidebook for Interconnection and on the NTT East Homepage before submitting this application.



Entry Examples for Various Application Forms Concerning Collocation



Please carefully review the information contained in the Articles of Agreement Concerning Interconnection, the Guidebook for Interconnection and on the NTT East Homepage before submitting this application.

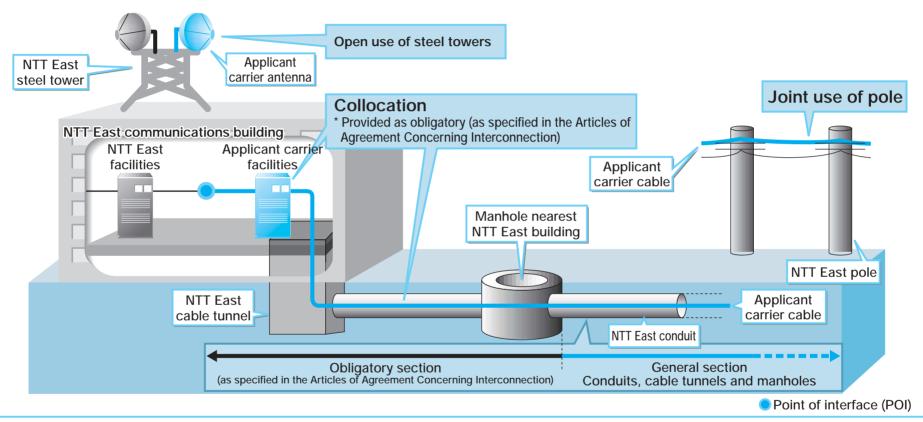


Chapter 6

Conduits, Telephone Poles, Etc.

Leasing of NTT East Telecommunications Facilities

In response to a request by an applicant carrier, NTT East also offers facilities other than those specified under the Articles of Agreement Concerning Interconnection and provided as obligatory depending upon their availability. With respect to telephone poles, conduits, etc., in general sections from among these facilities, the usage procedures and conditions for providing such facilities are announced.



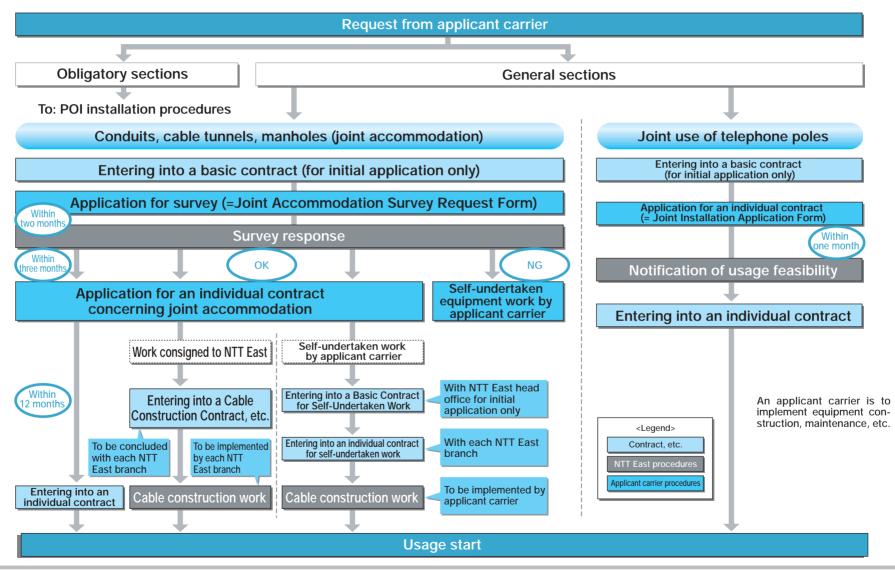
With respect to telephone poles, conduits, etc., that are owned by NTT East, NTT East has established conditions for providing the essential sections for interconnection (hereinafter referred to as "obligatory sections") in the Articles of Agreement Concerning Interconnection. At the same time, we have also provided telephone poles, conduits, etc., in the sections other than obligatory sections (hereinafter referred to as "general sections") on a fair and non-discriminatory basis in accordance with the Application for the Usage of Conduits, Etc., and Contract Conditions, Etc., announced on March 26, 1999, prior to the NTT reorganization when we do not have specific usage plans.

Accompanying the April 2001enforcement of the Guidelines Concerning the Usage of Poles, Conduits, Etc., of Public Utility Companies (hereinafter referred to as the "Guidelines") by the Ministry of Public Management, Home Affairs, Posts and Telecommunications, we announced the new standard implementation outline that conforms to the Guidelines in April of the same year through a further enhancement of the contents that had so far been announced. Following this, we have been continuing our studies on conditions to further facilitate usage and revising the standard implementation outline.

Please see our Homepage for the latest version of the Application for the Usage of Poles, Conduits, Etc., and Contract Conditions (standard implementation outline) at URL: http://www.ntt-east.co.jp/info-st/conquide/kanro/index.html.

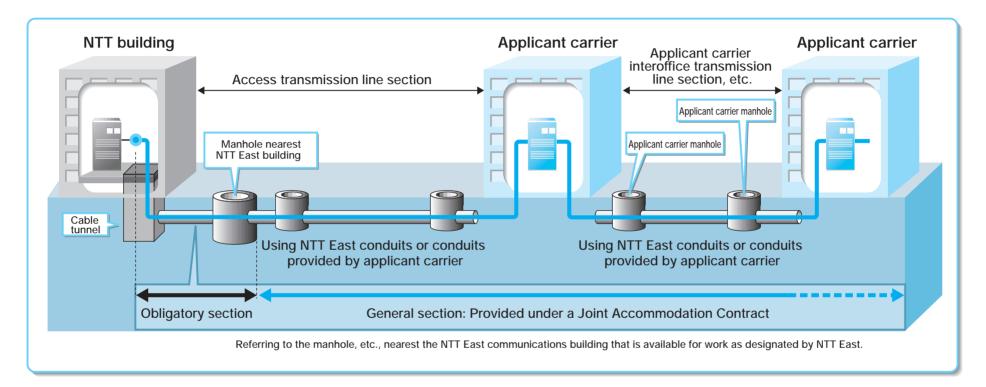
Usage Procedures for NTT East Conduits, Telephone Poles, Etc.

Usage procedures for conduits, telephone poles, etc., in the general sections are as follows:



- 1 Usage of NTT East Conduits, Etc.

NTT East offers our conduits, etc., for use by other carriers not only in the obligatory sections that are essential for interconnection, but also in other general sections when we do not have specific usage plans.



Explanation

Facilities Subject to Joint Accommodation

- 1. Underground conduits
- 2. Manholes, etc., that are connected to underground conduits
- 3. Cable tunnels (including public utility tunnels as stipulated by law). Public utility tunnels shared by multiple companies will become subject to joint accommodation only when the consent of all companies involved is obtained.

Carriers Subject to Joint Accommodation

Approved telecommunications carriers

Carriers other than approved telecommunications carriers that can obtain a road occupancy permit pursuant to Article 35 of the Road Law are encouraged to separately consult with the appropriate branch of NTT East.

- 1 Usage of NTT East Conduits, Etc.

Usage Under Joint Accommodation

NTT East offers our facilities for joint accommodation pursuant to applicable laws and ordinances.

If usage conditions are met, NTT East facilities can be used after entering into a contract.

Installation Work by Other Carriers

With respect to the cable installation work of other carriers, the options of work consigned to NTT East and self-undertaken work by other carriers are both available.

- 2 Usage Conditions for NTT East Conduits, Etc.

NTT East will accept usage applications except in cases in which the following conditions are applicable.

Cases in which there is no unused space in the conduits, etc., in the requested section.

Cases in which NTT East has plans to use the conduits, etc., in the requested section within five years and there will be no available space at such time.

Cases in which plans call for the modification or relocation of the conduits, etc., in the requested section.

Cases involving non-conformity with NTT East technical standards, or cases in which NTT East technical standards do not include clear provisions and the installation of other carrier facilities has caused or may likely to cause difficulties in terms of construction or maintenance by NTT East.

Cases involving non-fulfillment of contracts regarding the expenses to be borne, usage period and other usage conditions in the past or a fear of the same.

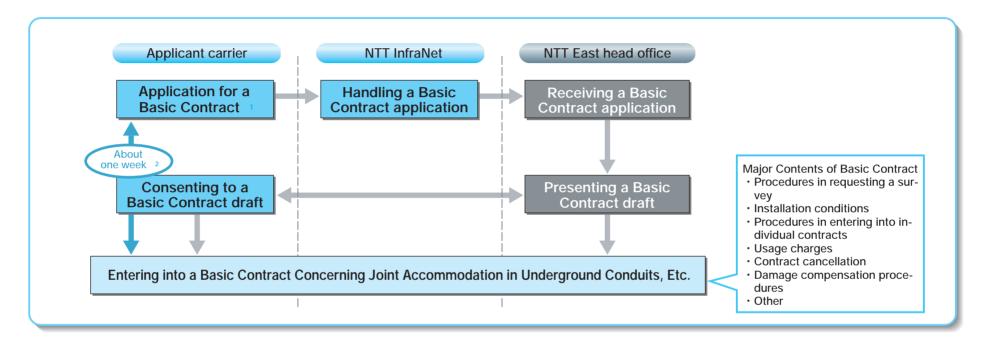
Cases not meeting the conditions of applicable laws and ordinances, or cases involving difficulties in obtaining a road occupancy permit or a fear of the same.

Cases involving the failure to observe full security (confidentiality obligations, prohibition of usage for other than intended purposes) regarding information obtained from NTT East, or a fear of the same.

Cases otherwise involving a hindrance to public utility work by NTT East.

II - 3 - Entering into a Basic Contract Concerning the Usage of NTT East Conduits, Etc. (Joint Accommodation)

In order to reduce the period for negotiations concerning individual sections, a Basic Contract Concerning Joint Accommodation in Underground Conduits, Etc., will be entered into with the NTT East head office at the time the initial application is made.



Explanation

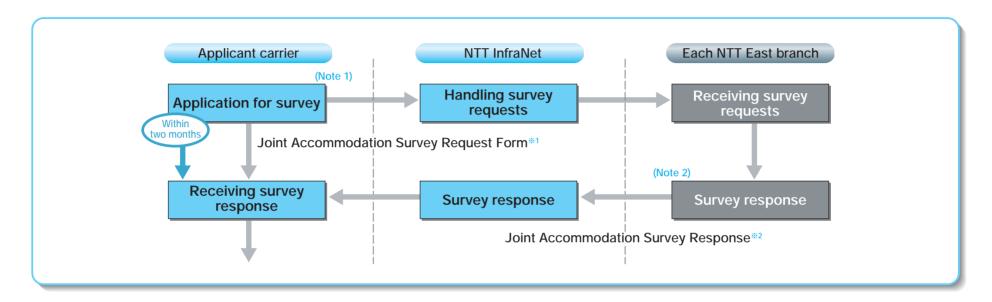
- Materials that need to be prepared for a Basic Contract application
 - Applicant carrier's company profile (that indicates the scale of the company)
 - Name of the person authorized to enter into a Basic Contract (company representative, etc.)
 - Specifications of the cable to be installed (including outer diameter and the number of cores)
 - Location of the requested section of conduits, etc. (please use a subdivision plotting map, etc., to indicate the location.)
- Contact numbers (the name of contact person, contact numbers, address, etc.)

 Please prepare the above materials before submitting an application.

 In comparison, the Project Contract during the Project during the Proj
- In case of no changes in the Basic Contract draft.

- 3 - Survey Application and Response Concerning the Usage of NTT East Conduits, Etc. (Joint Accommodation)

Individual applications for usage begin with the Survey Request Form, and NTT East will provide a response indicating the usage feasibility, etc., within two months after receiving such request form.



Explanation

1 Joint Accommodation Survey Request Form

Requested section of conduits, etc. (please also attached a map.)

Outline of applicant carrier facilities to be installed (outer cable diameter, the number of cores, etc.)

Requested usage start timing and usage period

Request for a half-duct system (Yes or No)

Other matters that need to be considered at the time of a survey

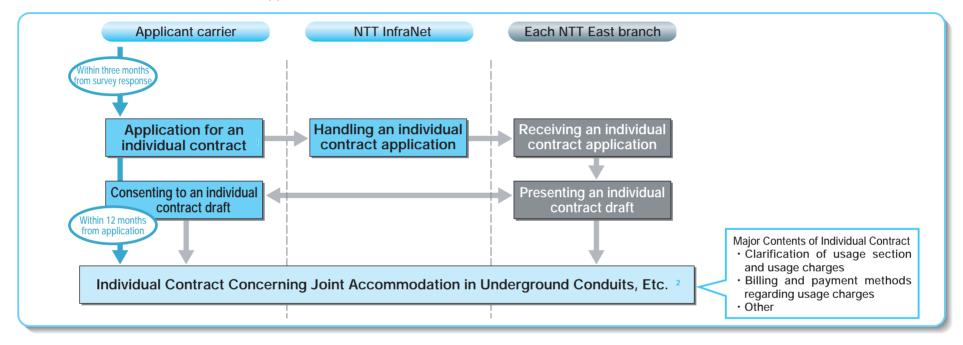
- *Please consult with NTT InfraNet, which handles survey requests for NTT East, in completing the survey request form.
- 2 Joint Accommodation Survey Response

We will provide a response indicating the usage feasibility of the requested conduit, etc. In the event such usage is possible, we will also indicate the route, estimated expenses, etc.

- *In the event the survey finds that the requested usage would be difficult, we will provide a response that indicates the reasons therefor.
- *Whether or not the requested facilities are actually used, expenses incurred for the survey will be separately required.
- *The survey will be implemented on a documentary examination basis only to provide a response.
- (Note 1) Attachment 1: Joint Accommodation Survey for Underground Conduits, Etc. (Request) (Form N-05)
- (Note 2) Attachment 2: Results of Joint Accommodation Survey for Underground Conduits, Etc. (Response)

- 3 - Application for Individual Contracts Concerning the Usage of NTT East Conduits, Etc. (Joint Accommodation)

In the event conduits, etc., that can be provided are actually used, an applicant carrier is requested to submit an application for an Individual Contract Concerning Joint Accommodation in Underground Conduits, Etc., within three months of the survey response. An individual contract will be concluded within 12 months from this application.



Explanation

1 Application for Individual Contract

If an application is not submitted within three months from the survey response, the relevant response will cease to be effective as it is assumed that there is no intention to enter into a contract.

If an individual contract cannot be entered into even after 12 months have elapsed following an application due to reasons attributable to an applicant carrier, the payment of an amount equivalent to usage charges for 12 months is required as a penalty, and said application ceases to be effective. In the event any reason attributable to an applicant carrier prevents the conclusion of a contract before 12 months have elapsed, the payment of an amount equivalent to usage charges for the elapsed period is required. The same applies in case of canceling an application.

Attachment 3: Application for Individual Contract Concerning Joint Accommodation in Underground Conduits, Etc. (Request) (Form N-15)

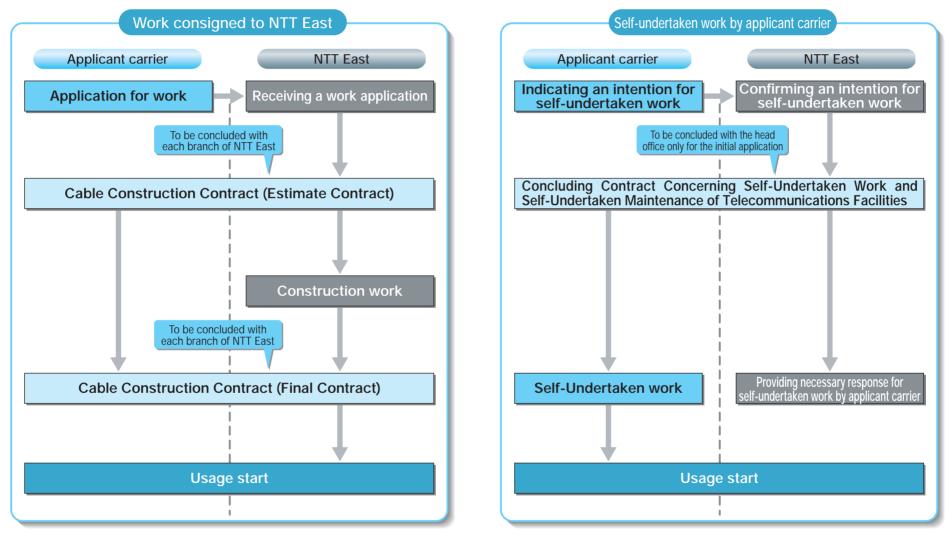
2 Individual Contract Concerning Joint Accommodation in Underground Conduits, Etc.

Individual contracts will be entered into for each joint accommodation section.

The effective date of an individual contract will be the date on which an applicant carrier's cable installation work is started.



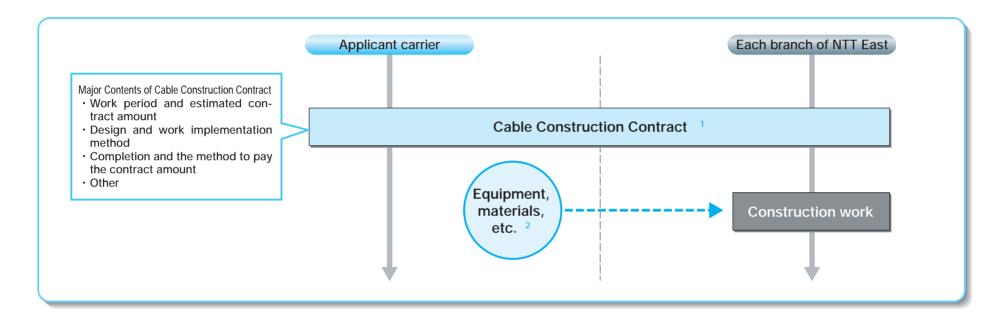
(Reference) Work Implementation Flow Concerning the Usage of NTT East Conduits, Etc.



A maintenance contract is required for usage start. An applicant carrier can select either self-undertaken maintenance or maintenance consigned to NTT East for the maintenance contract. Please consult with us separately for details.

- 3 - Cable Construction Contract Concerning the Usage of NTT East Conduits, Etc. (Joint Accommodation)

In parallel with individual contracts, a contract concerning the installation and maintenance of applicant carrier facilities will be entered into.

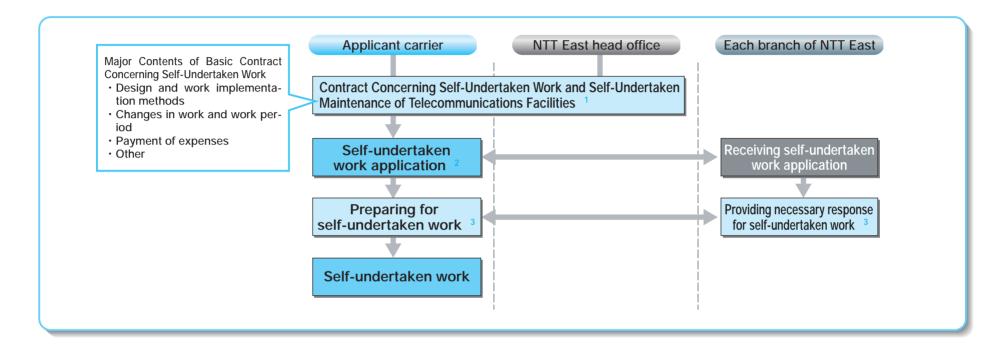


Explanation

- 1 Please conclude a contract with each branch of NTT East.
- 2 Please provide us with the equipment, materials, etc., necessary for work prior to the start of construction work.

- 3 - Basic Contract, Etc., Concerning Self-Undertaken Work for NTT East Conduits, Etc. (Joint Accommodation)

In parallel with individual contracts, a contract concerning self-undertaken work for applicant carrier facilities will be entered into.



Explanation

- 1 A Basic Contract is concluded with the NTT East head office only for the initial application.
- 2 Please submit an application for self-undertaken work for each work to the appropriate branch of NTT East.
- 3 Arrangements for self-undertaken work are made jointly with the appropriate branch of NTT East for each project.

(Reference) NTT East Technical Standards for Conduits, Etc.

NTT East's technical standards concerning conduits, etc., are as described below.

1. Structure of cable to be accommodated

(1) Conduits

For sections with a standard conduit inner diameter of 75 mm, the standard cable outer diameter shall be 60 mm or less. For sections with a conduit inner diameter of 50 mm, the standard cable outer diameter shall be 35 mm or less.

(2) Other than conduits

Flame-resistant cable shall be used.

2. Half-duct system

- (1) A half-duct system is applied to cable with a standard outer diameter of 24 mm or less.
- (2) In the case of conduits, an inner pipe with a standard inner diameter of 30 mm or less that is in conformity with NTT East specifications is installed within a conduit with a standard inner diameter of 75 mm, and the cable indicated in (1) above is accommodated within such inner pipe.
- (3) A half-duct system is not applied to the sections where measures to prevent freezing are taken, bridge sections or sections where many cables cannot be accommodated due to individual equipment circumstances.

3. Structure of cable joints (closures, etc.)

- (1) The cable joint structure shall not encroach upon the inner workspace of a manhole, etc.
- (2) The dimensions of closures, etc., shall be approximately 25 cm or less in outer diameter and 70 cm or less in length. Consultation will be provided individually for cases in which the above conditions cannot be applied, as limit values differ for specific equipment depending on the type of manhole, the existing cable situation, etc.

4. Other

Consultation will be provided individually for sections where measures to prevent cable movement, frost damage, induction, etc., are necessary depending on the environment where the conduit is installed, etc.

Moreover, consultation will also be individually provided with respect to the details on Items 1, 2 and 3 above, the connectivity of a cable measuring device, and other conditions and standards.

- 4 Information on Offices Handling Matters Relating to the Usage of NTT East Conduits, Etc.

From the standpoint of ensuring convenience and fairness as well as increasing efficiency by consolidating work, all matters relating to conduits, etc., will be handled by an NTT group company, NTT InfraNet.

Classification	Handling Office	Address and Telephone Number
Reception	NTT InfraNet (Route Design Office)	15F, Hama-cho Center Building, 2-31-1 Nihonbashi-Hama-cho, Chuo-ku, Tokyo 103-0007 TEL: +81-3-5645-1038
Concluding a basic contract, etc.	Nippon Telegraph and Telephone East Corporation (Network Business Headquarters, Interconnection Business Promotion Section, Interconnection Promotion Department)	3-19-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-8019 TEL: +81-3-5359-4125
Concluding individual contracts and receiving work applications	Nippon Telegraph and Telephone East Corporation	Each branch

URL link concerning the usage of NTT East conduits, etc.

NTT East

http://www.ntt-east.co.jp/info-st/conguide/kanro/index.html

Attachments 1 and 2

Attachment 1

(Form N-05) Ver.1.2 (October 21, 1999)		
	No. Date:	
To: NTT East General Manager of Branch		
	From: Address Company:	SEAL
Joint Accommodation Survey for Underground	Conduits, Etc. (Re	equest)
We hereby request that a joint accommodation survey for the undertaken as follows.	underground conduits	s, etc.,
Joint accommodation survey section for underground contained to the section of the section	onduits, etc.	
Date: 4. Requested joint accommodation period Date: ~ Date:		
5. Remarks * Please let us know the feasibility for each section individuated. We will separately consult with your contact section weys and replies. * In case joint accommodation is not possible in the section an adjacent route. * Please conduct a survey on the basis of documentary exprompt response. * As the section subject to this survey assumes the adoption the matter of coordination for the adoption of a half-duct sy ready is another party for joint accommodation or such party * As we request the connection to our conduits (one cable and end points, please also let us know the feasibility of suc * With respect to connections to our conduits at the mannous quest such connections by the beginning/middle/end of the and implement such connections. * Please implement a survey on the basis of a Basic Contraction in Underground Conduits, Etc. 6. Contact information regarding the survey contents	we requested, please a amination and provide n of a half-duct system stem to you in the ever y subsequently emerges with£"75mm) at the su h connections. ple, as we will determin he year, please c	us with a we leave it there al- c. rvey start he and re- oordinate
Contact information regarding the survey contents Contact person: TEL: FAX:		

Attachment 2

No. Date:	
To: Mr./Ms Company	
From: NTT Fast	
General Manager of Branci SEA	_
Results of Joint Accommodation Survey for Underground Conduits, Etc. (Response)	
We are pleased to provide the following response with respect to your request for the joint accommodation survey for underground conduits, etc. (No; dated October 1, 2001).	
Survey section(s):Nihonbashi-Hamacho, Chuo-ku,	
2. Relevant branch/building: NTT Branch, Building	
3. Section(s) where joint accommodation is possible (distance)	
m	
Cable tunnel: m Conduit: m Manhole: unit(s)	
4. Joint accommodation usage charge: ¥ per month Manhole: unit(s)	
5. Survey expenses: ¥ (hours) (1) As indicated in the attached Expense Contract Concerning a Survey of Under-	
ground Conduits, Etc.(2) The survey expense contract shall become effective on the date it is accepted by an authorized representative of your company.	
(3) The survey expenses will be billed on the basis of this contract.	
6. Other	
(1) As this survey was conducted mainly on the basis of documentary examination, there may be cases in which the survey results cannot be used without further de- tailed surveys.	
(2) Coordination with respect to the joint accommodation start timing, etc., will be separately provided after an application for a Cable Construction Contract is sub- mitted.	
Attached materials Attachment (Report on Route Survey Results)	
Contact information regarding this response NTT Branch, Department, Section Name: Contact number:	

Attachment 3 and Attached Table 1

Attachment 3

To: NTT East	No. Dat	
General Manager of _	Branch	
	From: Addres: Compa	
Application for an	Individual Contract Concerning Joint Acounterground Conduits, Etc. (Request)	commodation in
for an individual con We would also requ ture for joint accom	ponse (No, dated) to our request for derground conduits, etc. (No, dated) tract as follows. set that you implement a design that will become modation as follows. Please also note that your a we carry out underground construction work.	necessary in the fu
Joint accommodation section	line manhole ~ cable tunnel, point	As indicated in the attached map.
Requested man- hole to install our	line, manhole (one cable with 75mm) cable tunnel, point (one cable with 75mm)	As indicated in the attached map.
conduit	,	,
	Date:	
conduit 3. Requested jointaccommoda-		

Attached Table 1

Section	Section	Distance (m)	Feasibility	Facility	Half-duct system	Reason that joint accommodation is not possible, etc.
1	cable tunnel Point A ~ cable tunnel Point J	456.5	Feasible	Cable tunnel	Yes	
2	cable tunnel Point J ~ cable tunnel Point A	120.5	Feasible	Cable tunnel	Yes	
3	cable tunnel Point A ~ j2MH	48.9	Feasible	Conduit	Yes	
4	No. 2 MH ~ J3MH	59.8	Feasible	Conduit	(*)	
5	No.2 MH ~ j4MH	84.5	Not Feasible	Conduit		There is no space available to accommodate cable at present.
6						
7						
8						
9						

- 1 Usage Conditions for Joint Installations on Telephone Poles

NTT East will accept usage applications except in cases in which the following conditions are applicable.

Cases in which there is no available space on the requested telephone pole.

Cases in which NTT East has plans to use the requested telephone pole within five years and there will be no available space at such time. ¹

Cases in which plans call for the modification or relocation of the requested telephone pole.

Cases in which plans call for the installation of underground cable in the section in which the joint installation is requested.

Cases involving non-conformity with NTT East technical standards, ² or cases in which NTT East technical standards do not include clear provisions and the installation of other carrier facilities has caused or may likely to cause difficulties in terms of construction or maintenance by NTT East.

Cases involving non-fulfillment of contracts regarding the expenses to be borne, usage period and other usage conditions in the past or a fear of the same.

Cases not meeting the conditions of applicable laws and ordinances, or cases involving difficulties in obtaining a road occupancy permit or a fear of the same.

Cases involving the failure to observe full security (confidentiality obligations, prohibition of usage for other than intended purposes) regarding information obtained from NTT East, or a fear of the same.

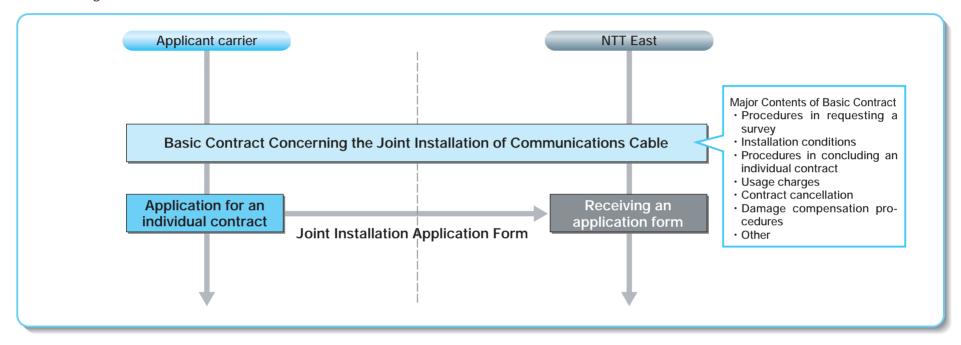
Cases otherwise involving a hindrance to public utility work by NTT East.

Explanation

- 1 "No available space" means: (i) cases in which joint installation space (isolated from other joint use facilities) cannot be secured and (ii) the permissible range of pole strength would be exceeded if the applied cable, etc., is installed.
- 2 Please see NTT East Technical Standards for Telephone Poles (Page 84).

- 2 - Application for a Basic Contract and Individual Contracts for Joint Installations on Telephone Poles

In order to reduce the period for negotiations concerning individual sections, a Basic Contract Concerning the Joint Installation of Communications Cable will be concluded at the time the initial application is made. Please use the Joint Installation Application Form in making an application for individual usage cases.



Explanation

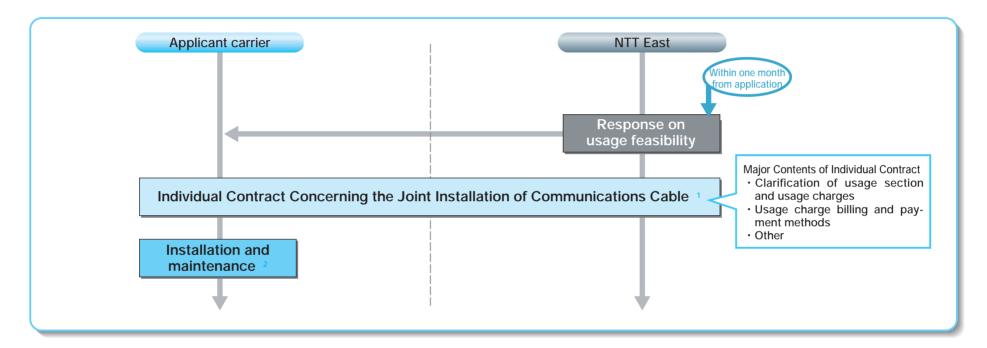
The following entries are required.

- Requested location or section (please also show a map and the number of the telephone pole).
- · Outline of other carrier facilities to be installed (the outer diameter of the cable to be installed, etc.)
- · Requested usage start timing and usage period
- · Other matters requiring attention in conducting a survey.

The submission of this application form will be deemed as expressing the intention to make an application for an individual contract.

- 2 - Response on Feasibility of Joint Installations on Telephone Poles and Conclusion of Individual Contracts

Within one month from the submission of the Joint Installation Application Form (application for an individual contract), NTT East will provide a response on the usage feasibility of the requested pole.



Explanation

- 1 A response indicating the usage feasibility of the requested pole, expenses, etc., will be provided. In the event usage is possible, an individual contract will be entered into. Please see usage conditions (Page 81).
- If it is determined that usage would be difficult, we will provide a response that indicates the reasons therefor.
- · Survey expenses are separately required whether or not the requested pole is actually used.
- The period from the application to the response may exceed one month depending on the distance involved, etc.
- An individual contract is entered into per usage section.
- 2 Applicant carriers are requested to carry out cable installation and maintenance.

(Reference) NTT East Technical Standards for Telephone Poles

NTT East technical standards relating to telephone poles are as follows.

1. Lines to be jointly installed

- (1) The type of line shall be cable or insulated wire.
- (2) Line voltage and electric current shall be 100V or less and 15A or less.

2. Distance from communications lines

The distance between NTT East communications lines and jointly installed lines (including auxiliary facilities) shall be 30cm or more.

However, this shall not apply in the event approval is obtained from NTT East and the existing joint installation carriers, or in the event the aerial line to be installed (including auxiliary facilities) does not cause any hindrance to work relating to aerial lines installed by NTT East and existing joint installation carriers, and does not cause any damage to said lines.

The above conditions are not applicable in the following cases.

- (1) Cases in which the line to be installed is bundled with the existing aerial lines and auxiliary facilities are installed at a site different from that for the existing lines.
- (2) Cases in which the line is to be installed at the designated location by using protruding metal fittings after obtaining the approval of NTT East.

3. Installation location

The location where the joint installation line (including auxiliary facilities) is to be installed shall basically be above the NTT East communications line (including lead-in wires).

In the case of concrete poles, no line shall be installed within 15 cm from the top of the telephone pole.

4. Load, etc.

In principle, the wind pressure load, etc., of lines to be installed by Type I telecommunications carriers shall not exceed the structural strength of the existing telephone pole facilities (including bundled facilities).

5. Prevention of unbalanced load

Type I telecommunications carriers are required to ensure that measures to prevent unbalanced loads on the existing telephone pole facilities are fully taken with respect to the line to be installed.

6. Installation of auxiliary facilities

In case of installing auxiliary facilities such as repeaters and splitters, such facilities shall be installed within a range that results in no impact on NTT East facilities or existing joint installation carrier facilities (including construction and maintenance work, communications, etc., involving the relevant facilities), and said facilities shall not be installed within 1meter from the telephone pole flank (including pole braces). Consultation will be separately provided with respect to the shape, weight, etc., of such installations.

7. Lead-in wires to customers

When Type I telecommunications carriers install lead-in wires, etc., a distance of 1meter or more shall be secured from the telephone pole flank.

8. Other

Consultation will be provided on an individual basis with respect to details for Items 1 through 7 above and other conditions and standards.

- 3 NTT Contact Sections for Joint Installations on Telephone Poles (East Japan Area)

Coverage	Contact Section	Address and Telephone Number	Coverage	Contact Section	Address and Telephone Number
Tokyo (Chiyoda-ku and Chuo-ku)	Access Section Plant Department Chuo Branch NTT-ME Tokyo	6F, NTT East Kasumigaseki Building Shinkan, 1-1-6 Uchisaiwaicho, Chiyoda-ku, Tokyo 100-0011 TEL: 03-3519-9071	Yamanashi	Database Section Plant Operations Department NTT-ME Yamanashi	2-12-4 Honcho, Nirasaki, Yamanashi 407-0024 TEL: 0551-23-5800
Tokyo (Minato-ku, Shinagawa-ku, Meguro- ku, Ota-ku, Setagaya-ku, Shibuya-ku and part of Mitaka, Komae and Chofu)	Access Plant Promotion Section Access Techno Center Plant Department Minami Branch NTT-ME Tokyo	3F, NTT Togasaki LMC, 1-11-7 Chuo-cho, Meguro-ku, Tokyo 152-0001 TEL: 03-3760-8701	Nagano	Access Section Maintenance Sales Department NTT-ME Nagano	1137-5 Shinden-cho, Nagano 380-8519 TEL: 026-267-4322
Tokyo (Shinjuku-ku, Nakano-ku, Suginami-ku, Toshima-ku, Kita- ku, Itabashi-ku and Nerima-ku)	Techno Ikebukuro Second Section Plant Department Kita Branch NTT-ME Tokyo	4F, NTT Minami itabashi Building Honkan, 34-1 Saiwaicho Itabashi-ku,Tokyo 173-0034 TEL: 03-5986-2461	Niigata	Database Section Maintenance Sales Department NTT-ME Niigata	4F, NTT Kawagishi-cho Building, 1-37 Kawagishi-cho, Niigata 951-8133 TEL: 025-234-0708
Tokyo (Bunkyo-ku, Taito-ku, Sumida-ku, Koto-ku, Arakawa-ku, Adachi-ku, Katsushika-ku and Edogawa-ku)	Access Section Plant Department Higashi Branch NTT-ME Tokyo	NTT Mukojima Building Bekkan, 1-44-3 Kyojima, Sumida-ku, Tokyo 131-0064 TEL: 03-5631-9515	Miyagi	Access Support Section EG/Operations Department NTT-ME Miyagi	4-3-15 Nigatake, Miyagino-ku, Sendai, Miyagi 983-0036 TEL: 022-238-8760
Tokyo (Other than 23 wards, Tama district and part of Kanagawa)	Database Section Plant Department Tokyo Nishi Branch NTT-ME Tokyo	NTT Hino Building, 6-23 Tamadaira, Hino, Tokyo 191-0062 TEL: 042-582-2909	Fukushima	Liaison Section Plant Management Department NTT-ME Fukushima	22-1 Naka-arako, Fukushima 960-8216 TEL: 024-535-7149
Kanagawa (Except for Sagamihara)	Customer Subsection Access Section Plant Operations Department NTT-ME Kanagawa	2F, NTT Yokohama Minami Building, 3-54 Hananoki, Minami-ku, Yokohama, Kanagawa 232-0018 TEL: 045-714-7591	lwate	Planning Support Section NTT-ME Iwate	2-18-43 Ueda, Morioka, Iwate 020-0066 TEL: 019-621-7191
Chiba	Access Liaison Section Engineering Sales Department NTT-ME Chiba	16F, NTT Makuhari Building, 1-6 Nakase, Mihama-ku, Chiba 261-0023 TEL: 043-351-7263	Aomori	Access Service Section IT Service Department NTT-ME Aomori	2-6-27 Tsutsumi-machi, Aomori 030-0812 TEL: 017-732-5805
Saitama	Plant Business Section Engineering Business Department NTT-ME Saitama	3F, NTT Daitakubo Building Kyukan, 1-26-20 Daitakubo, Saitama 336-8865 TEL: 048-813-7097	Yamagata	Plant Service Section Field Service Department NTT-ME Yamagata	6-10 Minami-niban-cho, Yamagata 990-2442 TEL: 023-635-2626
Ibaraki	Liaison and Coordination Section Maintenance Department NTT-ME Ibaraki	3-4131-1 Ishikawamachi, Mito, Ibaraki 310-0062 TEL: 029-232-4386	Akita	Access Service Section Field Service Department NTT-ME Akita	233 Aza-Noboriki, Izumi, Akita 010-0816 TEL: 018-883-4144
Tochigi	Liaison Office Plant Department NTT-ME Tochigi	3F, NTT DoCoMo Nishikawata Building, 64-1 Nishikawata-machi, Utsunomiya, Tochigi 321- 0151 TEL: 028-684-3491	Hokkaido	Service Operations Section Service Operations Department NTT-ME Hokkaido	5F, NTT 4-chome Building, Nishi 4-chome, Kita 1-Jo, Chuo-ku, Sapporo 060-0001 TEL: 011-210-2255
Gunma	Plant Database Section Access Service Department NTT-ME Gunma	3F, NTT Gunma Branch Building Honkan, 3 Takasugi-machi, Takasaki, Gunma 370-0829 TEL: 027-310-8395			

(As of August 1, 2004; addresses and contact numbers of contact sections are subject to change)



Carrier's Rate

- 1 Leased Line Carrier's Rate

Interconnection charges for subscriber line-end interconnection for leased line service have been revised from applying charges specified in the Articles of Agreement for Leased Line Service mutatis mutandis to applying discount charges for carrier's rate: charges for inter-terminal transmission functions, etc.) (this revision was approved on January 31, 2001), and "not including liaison/coordination work" was added to the carrier's rate menu (this addition was approved on August 1, 2002).

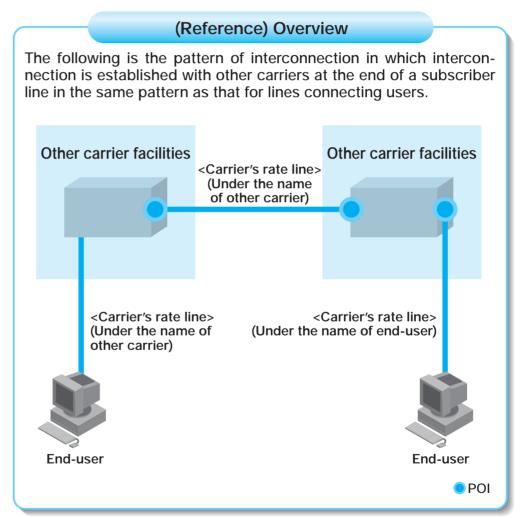
Carrier's Rate

<Discount Rate for Inter-Terminal Transmission Functions, Etc.>

	Including liaison/ coordination work	Not including liaison/ coordination work
High-speed digital transmission service	8.6%	21.6%
ATM leased line service	24.3%	35.1%
General leased line service	3.5% 10.3%	9.5% 15.8%

Charges = {Charge amounts specified in the Articles of Agreement for Leased Line Service × (1 - Discount rate for inter-terminal transmission functions, etc.)}

Long-term continuous usage discounts and volume discounts can be applied to the above charges in the same way as stipulated in the Articles of Agreement for Leased Line Service. Figures in parentheses indicate the maximum discount rate that combines the long-term continuous usage discount (excluding general leased line service) and the volume discount.



- 2 Major Conditions for Leased Line Carrier's Rate

Item		Major Conditions	
Applicable services	High-speed digital transmission service, ATM leased line service and general leased line service <excluding 11="" agreement="" and="" article="" articles="" broadcasting="" for="" general="" in="" interconnection="" ip="" leased="" line="" network="" of="" provisions="" routing="" service="" service,="" services="" stipulated="" supplementary="" the="" transmission="" usage="" video="" wireless=""> D-3 (facsimile transmission), E-1 (AM broadcasting), G-2 (facsimile transmission), I-2 (photo/facsimile transmission), 48kHz, 240kHz, 100b/s, 200b/s, 300b/s, 1200b/s, 48kb/s, 1.5Mb/s (single class)</excluding>		
Application format	Selecting "including" or "not including" lia	aison/coordination work per carrier (per-line and per-service selections are not accepted)	
Line format	Intra-prefecture end-to-end lines	s (the same format as that for lines connecting users)	
Name of contracting party for line	The line between the end-user building and the The line between the applicant carrier building applicant carrier	applicant carrier building: Under the name of the end-user or the name of the telecommunications carrier s and the line between the NTT East building and the applicant carrier building: Under the name of the	
Contract format	Contracts are required on a per-line basis after concluding an Interconnection Agreement and a Contract on Leased Line Service for Carriers (this contract relates to the line between the end-user building and the applicant carrier building under the name of the telecommunications carrier).		
Usage format	The usage purpose is to provide telecommunications service to end-users. (Note) The carrier's rate is not applicable to lines used by other carriers for their own usage (so-called self-use lines).		
Billing format	Charges are billed to other carriers (end-user charges are set and billed by other carriers). (Note) The carrier's rate is not applicable to service segment unit charges (so-called per-unit charges).		
	Long-term continuous usage discount and volume discount	Conditions stipulated in the Articles of Agreement for Leased Line Service are applied mutatis mutandis. (Note) • Under the volume discount scheme, it is not possible to add charges for services provided under the Articles of Agreement for Leased Line Service. • It is possible to add charges for services under contracts covered by the Interconnection Agreement plus a Contract on Leased Line Service for Carriers.	
Other	Minimum usage period	Conditions stipulated in the Articles of Agreement for Leased Line	
	Temporary lines	Service are applied mutatis mutandis.	
	Transfers, suspensions, etc.	Transfers, suspensions and relocations are possible. However, transfers are possible only to carriers that concluded an agreement concerning the leased line carrier's rate. (Transfers after changing to the lines covered by the Articles of Agreement for Leased Line Service are accepted.)	
	Retroactive and time lag settlements	Not applicable	

- 3 Contents of Liaison/Coordination Work for Leased Line Carrier's Rate

Work Description

Distributing line application forms received from other carriers to the appropriate Business Service Centers in each area, and confirming the contents with other carriers in case of any entry omissions, etc., and modifying the contents as required. Providing schedule coordination with the reception section and/or the work implementation section in case the service start date requested by other carriers is different from the date on which NTT East can make such service available. Receiving fault reports, providing progress reports on fault repairs, providing fault recovery reports, providing explanations on fault causes, etc., on a nationwide basis as required.

Differences Between "Including" and "Not Including" Liaison/Coordination Work

Category	Including liaison/coordination work	Not including liaison/ coordination work
Line application	An applicant carrier submits an application to the Business Service Center via an NTT East account manager (AM).	An applicant carrier submits an application directly to the Business Service Center. Please submit to: Business Service Center (Tokyo)
Confirmation of contents	An AM confirms any entry errors or omissions in the line application form, and modifies same as required.	 After receiving an application, the Business Service Center confirms any entry errors or omissions, and notifies the applicant carrier accordingly. The applicant carrier modifies the contents in case of any errors or omissions in the line application form, and re-submits the application form.
When the requested service start date is different from the possible service start date	,	 An applicant carrier contacts the Business Service Center and notifies it of the requested service start date that comes after the possible service start date. y effort to meet the request of an applicant carrier.
Troubleshooting	An AM will receive fault reports, provide progress reports on fault repairs, provide fault recovery reports, provide explanations	The Business Service Center will receive fault reports, provide progress reports on fault repairs, provide fault recovery reports, provide explanations of fault causes, etc., as required with respect to the lines under its coverage.

Regardless of whether liaison/coordination work is included or not included, consulting, visits, proposals, quotations (including completing an application form and physical attendance at the work site), etc., are not implemented by our account manager, etc., in providing the carrier's rate.

- 4 Providing Leased Line Carrier's Rate

Target Carriers, Etc.

The leased line carrier's rate is applied to telecommunications carriers that conform to the following conditions.

- Telecommunications carriers that offer basic telecommunications service as specified in the Telecommunications Business law are requested to provide NTT East with a copy of the latest Articles of Agreement for Service that were submitted to the competent Minister.
- With respect to other telecommunications carriers, one of the following items must be applicable.
 - (1) The carrier has a carrier identification code for settlements among carriers.
 - (2) Telecommunications numbers have been assigned to the carrier based on the Telecommunications Numbering Regulations.
 - (3) The carrier has received confirmation from a public utilities organization (a corporation established pursuant to the provisions of Article 34 of the Civil Law) relating to telecommunications business supervised by the competent authority (such confirmation work is handled by the Telecom Services Association).

Procedures, Etc., Necessary Before Usage Start

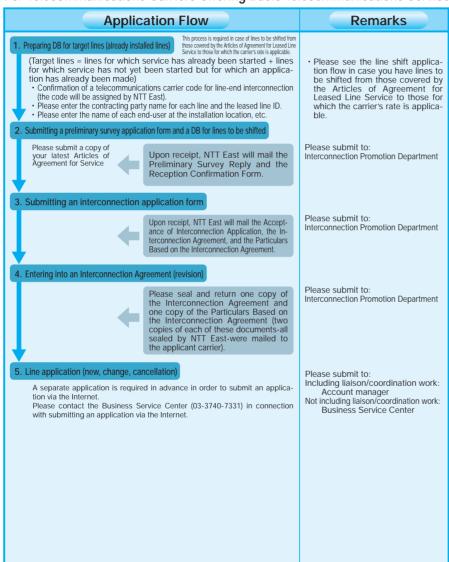
Such procedures as the "preliminary survey application," "interconnection application," and "entering into an Interconnection Agreement" are necessary before usage start.

Please submit an application to NTT East in accordance with the Leased Line Carrier's Rate Application Flow and the Line Shift Application Flow.

A form different from the existing application form for leased line services is used for new line applications, etc., relating to the leased line carrier's rate.

- 5 Leased Line Carrier's Rate Application Flow

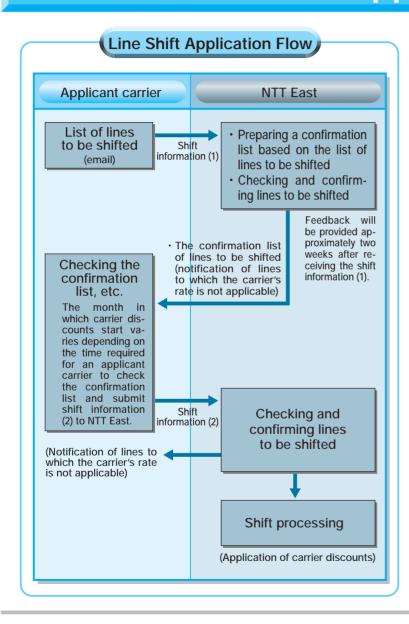
For Telecommunications Carriers Offering Basic Telecommunications Service



For Other Telecommunications Carriers

Applica	Remarks	
1. Confirmation by a public utilitie	es organization	
service as specified in the Telecommulon code, carriers to which telecommulwhich a confirmation certificate has beer Preparing DB for lines to be shifte (already installed lines) (Target lines = lines for which service vice has not yet been started but for Confirmation of a telecommunica (the code will be assigned by NT Please enter the contracting party n leased line ID. Please enter the name of each end-ution. Please enter the items related to inter 3. Submitting a preliminary survey Carriers preparing the Articles of Agreest Articles of Agreement for Service. Carriers with a carrier identification cocarriers to which telecommunications nications numbers.	this process is required in case of lines to be shifted from those covered by the Articles of Agreement for Leased Line Service to those for which the carriers rate is applicable. The same already been started + lines for which serwhich an application has already been made) titions carrier code for line-end interconnection [East], ame for each line and the ser at the installation locaconnection with other lines.	<contact information=""> Telecom Services Association, Business Confirmation Section TEL: 03-3597-1092 FAX: 03-3597-1096 Email: telesa@mxa.mesh.ne.jp Homepage URL: www.telesa.or.jp • Items related to interconnection with other lines include the following: For the line between the end-user and the applicant carrier buildings: the ID of the interconnected line between the applicant carrier buildings. For the line between the applicant carrier buildings: the ID of the interconnected line between the applicant carrier buildings and the applicant carrier building or the dial-up number (in case of a public/leased line connection).</contact>
confirmation certificate.	Upon receipt, NTT East will mail the Preliminary Survey Reply and the Reception Confirmation Form.	Please submit to: Interconnection Promotion Department
4. Submitting an interconnection a	pplication form	
←	Upon receipt, NTT East will mail the Acceptance of Interconnection Application, the Interconnection Agreement, the Contract on Leased Line Service for Carriers and the Particulars Based on the Interconnection Agreement.	Please submit to: Interconnection Promotion Department
5. Entering into an Interconnection Ag Line Service for Carriers (revision)	reement and a Contract on Leased	
←	Please seal and return one copy of the Interconnection Agreement, one copy of the Contract on Leased Line Service for Carriers and one copy of the Particulars Based on the Interconnection Agreement (two copies of each of these documents-all sealed by NTT East-were mailed to the applicant carrier).	Please submit to: Interconnection Promotion Department Please submit to:
6. Line application (new, change, car	ncellation)	Including liaison/coordination work: Account manager Not including liaison/coordination work:
A separate application is require tion via the Internet.	ed in advance in order to submit an applica- ervice Center (03-3740-7331) in connection	Business Service Center

- 6 Line Shift Application Flow and Data Format



Line Shift Data Format

Shift Information (1): Please enter the company identification code, leased line ID, and line-end interconnection carrier code.

For carriers that are using subscriber line-end interconnection for leased line service, please use the same format as the following to prepare the line-end interconnection line information.

Shift Information (1)				
Company identification code Leased line ID Telecommunications carrier code for line-end interconnection				
One-digit number	Nine-digit number	Seven-digit number		
1	300123456	1234567		

Please use CSV file format.

Company identification code: Distinction between NTT East and West to which a line-shift application is to be submitted.

[1]: NTT East, [2]: NTT West

Line ID: Line number of the line for which a shift application is to be submitted.

Telecommunications carrier code for line-end interconnection designated by NTT East: Code to identify the carrier

Shift Information (2): Please verify the contents of the confirmation list and enter the line-end interconnection classification code, IDs of access lines for lines between other carrier buildings, etc.

Shift Info	ormation (1)		Shift Information (2)			
Company identification	Leased line ID	Line-end interconnection	Line between oth	ner carrier buildings		
code	Leased line ID	classification code 1	Leased line ID 2	Dial-up number 3		
One-digit number	Nine-digit number	One-digit number	Nine-digit number	Ten-digit number		
1	300123456	0				
1	300123456	0				

	Disclosed Information						
Review results 4	Reason code	Company code, etc.	Installation number	Customer name			ation address mpany name
One-digit number	Two-digit number	Seven-digit number	Three-digit number	Up to 40 Chinese characters	Up to 50	Chine	se characters
0	00	1234567	001	corporation	Sendai	•	corporation
0	00	1234567	002	corporation	Sendai	•	corporation

- 1 Line-end interconnection classification code:
- 1 = Line-end interconnection side, 0 = User side
- 2 IDs of access lines connected at both ends (please enter only in case of the line between the applicant carrier buildings).
- 3 Dial-up number in case of a public/leased line connection (please enter only in case of the line between the applicant carrier buildings).
- 4 The review results and reason code are provided after an examination of the lines with respect to the applicability of the carrier's rate based on the shift information (1).

- 7 Entry Examples of Various Leased Line Carrier's Rate Application Forms

Preliminary Survey Application Form Entry Example 1

Please complete the portions in blue.

PRELIMINARY SURVEY APPLICATION

No. Date:

Company:

To: Executive Manager Interconnection Promotion Department NTT Fast

> From: Name:

SEAL

Pursuant to the provisions of Paragraph 2, Article 11 (Application for Preliminary Survey) of your Articles of Agreement Concerning Interconnection, we hereby submit the following Preliminary Survey Application for the purpose of establishing/changing interconnection with the NTT East networks.

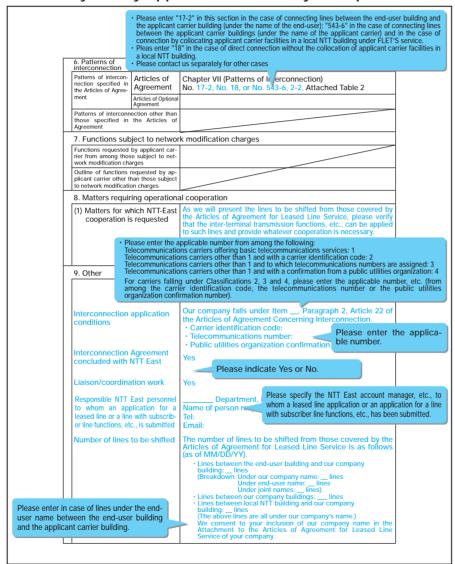
Outline of interconnection to be established/changed	Usage of inter-terminal transmission functions, etc. (We will set charges for your company's leased line service section to be interconnected to our network.)	
Specific contents for negotiation	As specified in Attachment 1	
Requested start timing for new/changed inter- connection	YY/MM	
Contact information (name and telephone number)	(Name) (Title) OOOOO Department OOOOO Company TEL: FAX: EMAIL:	

Preliminary Survey Application Form Entry Example 2

Attachment 1 **Specific Contents for Negotiation** 1. Points of Interconnection Points of interconnection specified in the Articles of Agreement To be interconnected at (1), Paragraph 1, Article 5 (Standard Points of Interconnection) of the Articles of Agreement Concerning Interconnection. specified in the Articles of Agreement 2. Demarcation point for telecommunications facilities (1) Requested POI installation (Enter the requested POI installation sites) Example 1) Within our company's building (address) Example 2) Within an NTT building 3. Area subject to interconnection (1) Service area of applicant (Complete this section in the case of new interconnection with NTT carrier subject to inter-East networks) Example 1) Within Tokyo (2) Area subject to intercon-Our network interconnection area: Example 1) Our Tokyo service area nection per POI NTT East's network interconnection area: Example 1) Tokyo 4. Technical conditions for interconnection (physical, electrical and logical conditions) Addition of new technical conditions No Interconnection based on the Chapter XI (Technical Conditions) of the Articles of Agreement Confcerning Interconnection
As specified in Part_, Chapter II (Technical Conditions by Pattern) technical conditions specified in the Articles of Agreement. Collection of Technical Conditions Signaling network configuration Associated network Signaling speed 4.8kb/5 Priority originating-Yes No user reservation Bi-directional reservation Interconnection based on technical As per technical conditions for cases other than those in which the Articles conditions other than those speci- of Agreement Concerning Interconnection are not applied (Attachment 1). fied in the Articles of Agreement 5. Construction of telecommunications facilities (1) Capacity of switching and (Complete this section only when the entry in (1) (Requested transmission facilities per POI installation site), Items 2 (Demarcation point for telecommunications facilities) is "Within an NTT East building.") (2) Applicant carrier facilities to be collocated within NTT-East buildings (if any) Type, quantity, dimensions of facilities to be installed Electric power requirements Other installation conditions

- 7 Entry Examples of Various Leased Line Carrier's Rate Application Forms

Preliminary Survey Application Form Entry Example 3



Interconnection Application Form Entry Example

	INTERCONNECTION APPLICATION
	Date:
To	e: President, NTT East
	From: Postal Code: Address: Name: (Representative Director and President) SEAL Business Approval (Registration/Notification) No.: Business Approval (Registration/Notification) Date:
in w	egarding your reply dated concerning our Prelim- ary Survey Application dated (No), e hereby submit this Interconnection Application pursuant to the anditions specified in your reply.

- 1 Outline of INS 1500 Line Carrier's Rate



Charges

Figures in parentheses = Discount rate

ltem	Charges	
Not including liaison/coordination work	¥19,964 (35.6%)	
Including liaison/coordination work	¥23,312 (24.8%)	

Charges = {Line usage charges (basic charges) under the Articles of Agreement for ISDN Service × (1 - ISDN subscriber line transmission function discount rate)}

- 2 Major Conditions for INS 1500 Line Carrier's Rate

Item	Service Conditions
Applicable services	23B+D receive-only lines (excluding 23B+D subscriber lines that are shared with 24B lines, lines to which INS1500 carrier's rate is not applicable, and 23B+D lines used under a pilot number)
Application format	Selecting "including" or "not including" liaison/coordination work per carrier (per-line selections are not accepted)
Contract format	Contracts are executed on a per-line basis after concluding an Interconnection Agreement. (Lines are contracted under the name of the applicant carrier.)
Usage format	The usage purpose is to provide telecommunications service to end-users. (Note) The carrier's rate is not applicable to so-called self-use lines that are used by other carriers for their own usage.
Temporary lines	The carrier's rate is not applicable.
Transfers, suspensions, etc.	Transfers, suspensions and relocations are possible. However, transfers are possible only to carriers that conclude an agreement concerning the INS 1500 carrier's rate. (Transfers after changing to the general INS-Net 1500 lines are accepted.)
Retroactive settlements, etc.	Retroactive and time lag settlements are not applicable.
Other	Conditions stipulated in the Articles of Agreement for ISDN Service are applied mutatis mutandis to other conditions.

- 3 Providing INS 1500 Line Carrier's Rate

Target Carriers, Etc.

The INS 1500 line carrier's rate is applied to telecommunications carriers that conform to the following conditions.

Telecommunications carriers that offer basic telecommunications service as specified in the Telecommunications Business law are requested to provide NTT East with a copy of the latest Articles of Agreement for Service that were submitted to the competent Minister.

With respect to other telecommunications carriers, one of the following items must be applicable.

- (1) The carrier has a carrier identification code for settlements among carriers.
- (2) Telecommunications numbers have been assigned to the carrier based on the Telecommunications Numbering Regulations.
- (3) The carrier has received confirmation from a public utilities organization (a corporation established pursuant to the provisions of Article 34 of the Civil Law) relating to telecommunications business supervised

Procedures, Etc., Necessary Before Usage Start

Such procedures as the "preliminary survey application," "interconnection application," and "entering into an Interconnection Agreement" are necessary before usage start.

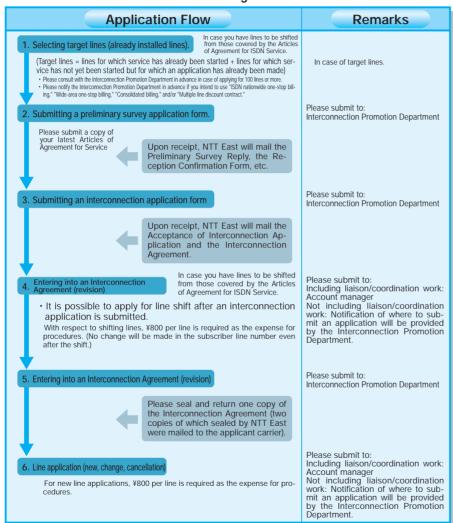
For carriers that selected "Not including liaison/coordination work," please note the following.

- (1) An applicant carrier must submit a line application form to each NTT East branch that handles the line installation.
- (2) No coordination is provided with respect to the installation date (in case the possible work date is different from the requested date).
- (3) Troubleshooting will be handled via Dial 113.

If "Including liaison/coordination work" is selected, the same work as now provided by our account manager, etc., will be continued. Regardless of the selection of including or not including liaison/coordination work, consulting, visits, proposals, quotations (including completing an application form), etc., are not implemented by our account manager, etc., in providing the carrier's rate.

- 4 INS 1500 Line Carrier's Rate Application Flow

For Telecommunications Carriers Offering Basic Telecommunications Service



Invoice description: Including liaison/coordination work "CR line usage charges <Type 1>," Not including liaison/coordination work "CR line usage charges <Type 2>." Other invoice descriptions are the same as those for general INS-Net 1500 service.

For Other Telecommunications Carriers

Application Flow	Remarks
1. Confirmation by a public utilities organization This process is not required for telecommunications carriers offering basic telecommunications service as specified in the Telecommunications Business Law, carriers with a carrier identification code, carriers to which telecommunications numbers have been assigned, and carriers to which a confirmation certificate has been issued by a public utilities organization. 2. Selecting target lines (already installed lines) In case of target lines.	<contact information=""> Telecom Services Association, Business Confirmation Section TEL: 03-3597-1092 FAX: 03-3597-1096 Email: telesa@mxa.mesh.ne.jp Homepage URL: www.telesa.or,jp</contact>
(Target lines = lines for which service has already been started + lines for which service has not yet been started but for which an application has already been made) - Please consult with the Interconnection Promotion Department in advance in case of applying for 100 lines or more. - Please notify the Interconnection Promotion Department in advance if you intend to use "SDIN nationwide one-stop billing," "Wide-area one-stop billing," "Consolidated billing," and/or "Multiple line discount contracts."	Please submit to:
3. Submitting an interconnection application form • Carriers preparing the Articles of Agreement for Service: Please submit a copy of the latest Articles of Agreement for Service. • Carriers with a carrier identification code: Please indicate the carrier identification code. • Carriers to which telecommunications numbers are assigned: Please indicate the telecommunications numbers. • Carriers with a confirmation from a public utilities organization: Please submit a copy of the confirmation certificate. (This is not required for carriers that submit a copy at the time of applying for the leased line carrier's rate. Please indicate the confirmation number only.) Upon receipt, NTT East will mail the Preliminary Survey Reply and the Reception Confirmation Form.	Interconnection Promotion Department
4. Submitting an interconnection Upon receipt, NTT East will mail the Acceptance of Interconnection Application and the Interconnection Agreement.	Please submit to: Interconnection Promotion Department
5. Making an application for line shift In case you have lines to be shifted from those covered by the Articles of Agreement for ISDN Service, etc. • It is possible to apply for line shift after an interconnection application is submitted. Carrier's rate start timing begins after concluding an Interconnection Agreement.	Please submit to: Including liaison/coordination work: Account manager Not including liaison/coordination work: Notification of where to submit an appli- cation will be provided by the Intercon- nection Promotion Department.
6. Entering into an Interconnection Agreement (revision) Please seal and return one copy of the Interconnection Agreement (two copies of which sealed by NTT East	Please submit to: Interconnection Promotion Department Please submit to:
were mailed to the applicant carrier). 7. Line application (new, change, cancellation) For new line applications, ¥800 per line is required as the expense for procedures.	Including liaison/coordination work: Ac- count manager Not including liaison/coordination work: Notification of where to submit an appli- cation will be provided by the Intercon- nection Promotion Department.

Invoice description: Including liaison/coordination work "CR line usage charges <Type 1>," Not including liaison/coordination work "CR line usage charges <Type 2>." Other invoice descriptions are the same as those for general INS-Net 1500 service.



- 5 Entry Examples of Various INS 1500 Line Carrier's Rate Application Forms

Preliminary Survey Application Form Entry Example 1

PRELIMINARY SURVEY APPLICATION

No.

To: Executive Manager
Interconnection Promotion Department
NTT Fast

From: Company: Name:

SEAL

Pursuant to the provisions of Paragraph 2, Article 11 (Application for Preliminary Survey) of your Articles of Agreement Concerning Interconnection, we hereby submit the following Preliminary Survey Application for the purpose of establishing/ehanging interconnection with the NTT East networks.

Outline of interconnection to be established/changed	Usage of ISDN subscriber line transmission functions	
Specific contents for negotiation	As specified in Attachment 1.	
Requested start timing for new/changed inter- connection	YY/MM	
Contact information (name and telephone number)	(Name) (Title) 00000 Department 00000 Company TEL: FAX: EMAIL:	

Preliminary Survey Application Form Entry Example 2

Attachment **Specific Contents for Negotiation** 1. Points of Interconnection Points of interconnection specified in the Articles of Agreement To be interconnected at (1), Paragraph 1, Article 5 (Standard Points of Interconnection) of the Articles of Agreement Concerning Interconnection. Points of interconnection other than those N/A specified in the Articles of Agreement 2. Demarcation point for telecommunications facilities (1) Requested POI installation site Within our company building (address) 3. Area subject to interconnection (1) Service area of applicant (Complete this section in the case of new interconnection carrier subject to interwith NTT East networks) connection (2) Area subject to intercon-Our network interconnection area: Our Tokyo service area nection per POI NTT East's network interconnection area: Tokyo 4. Technical conditions for interconnection (physical, electrical and logical conditions) Addition of new technical conditions Yes (No) Chapter XI (Technical Conditions) of the Articles of Agreement Cop Interconnection based on the cerning Interconnection
As specified in Part_, Chapter II (Technical Conditions by Pattern),
Collection of Technical Conditions. technical conditions specified in the Articles of Agreement. Signaling network configuration Associated network 4.8kb/s 48kb/s Signaling speed Priority originating Yes No □ user reservation Bi-directional res ervation Interconnection based on technical As specified in Attachment 1 (technical conditions for cases other than those in conditions other than those speci-fied in the Articles of Agreement which the Articles of Agreement Concerning Interconnection are not applied). 5. Construction of telecommunications facilities (1) Capacity of switching and (Complete this section only when the entry in (1) (Requested transmission facilities per POI installation site), Item 2 (Demarcation point for telecommunications facilities) is "Within an NTT East building.") (2) Applicant carrier facilities to be collocated within NTT-East buildings (if any) Type, quantity, dimensions of facilities to be installed For Type I telecommunications carriers Electric power requirements please enter "6-2." For Type II telecom-Other installation conditions munications carriers, please enter "17-2." 6. Patterns of interconnection Patterns of inter- Articles of Chapter VII (Patterns of Interconnection) connection speci- Agreement As specified in No. ___, Attached Table 2-2 fied in the Articles Articles of Chapter VI (Patterns of Interconnection) of Agreement Optional As specified in No. __ ~ No. __, Attached Table 2-2 Patterns of interconnection othe As specified in Attachment 2 (Patterns of Interconnection) than those specified in the Art

- 5 Entry Examples of Various INS 1500 Line Carrier's Rate Application Forms

Preliminary Survey Application Form Entry Example 3

7. Functions subject to network modification charges Functions requested by applicant carrier from among those subject 1.2 (Network Modification Charges), Table 1 in the 4rdfes of Charten to network modification charges see the Articles of Agreement Concepting-inferconnection Outline of functions requested by applicant carrier other than those subject to network modification charges 8. Matters requiring operational cooperation (1) Matters for which NTT-East cooperation is requested 9. Carrier identification code and type of code Carrier identification code Domestic basic and domestic supple-mentary service; shared use Domestic supplementary and international supplementary service; shared use Domestic basic and international basic service; shared use nternational basic service; exclusive Please enter a check mark in any of the four rows for each carrier identification code. Please enter the applicable number from among the following: Please check the first row in case of "domestic basic service," and check the second row Telecommunications carriers offering basic telecommunications services: 1 in case of "domestic supplementary service; exclusive use" or "international supplemen Telecommunications carriers other than 1 and with a carrier identification tary service; exclusive use. 10. Carrier pre-subscription function Telecommunications carriers other than 1 and to which telecommunications Usage of carrier pre-subscription function: Yes or No numbers are assigned: 3 Telecommunications carriers other than 1 and with a confirmation from a Intra-prefecture tell calls Inter-prefecture tell calls International calls Call category Local calls public utilities organization: 4 Carrier pre-subscription number For carriers falling under Classifications 2, 3 and 4, please enter the applicable number, etc. (from among the carrier identification code, the telecommu Service area nications number or the public utilities organization confirmation number). 11. Other terconnection application Our company falls under Item . Paragraph 2. Article 22 of conditions the Articles of Agreement Concerning Interconnection Please enter the applicable number. Carrier identification code Telecommunications number: Public utilities organization confirmation number: nterconnection Agreement oncluded with NTT East Please indicate Yes or No. iaison/coordination work Responsible NTT East per-Department, NTT onnel to whom an applica-Name of person responsible Please specify the NTT East account manager, etc., to whom ion for an INS-Net 1500 line the application for the INS-Net1500 line has been submitted. s submitted Please enter the applicable billing cycle block(s) (multiple blocks are acceptable; please confirm with Number of lines to be shifted The number of lines to be shifted from those covered by the the invoice issued by NTT East) from among the fol-Please enter the URL of your Homepage (showing a Articles of Agreement for Leased Line Service is ___ (w lowing. Block A: 21st ~ 20th, Block B: 26th ~ 25th, list of dial-up numbers for end-users, etc.), by which NTT East area) (as of MM/DD/YY). Block C: 1st ~ end of month). Block D: 6th ~ 5th. it is possible to confirm that the lines to be shifted Applicable billing cycle is Blocks __ and __ Block E: 11th ~ 10th, Block F: 16th ~ 15th. are for service use. In case such list is not included Service-use confirmation URL: www.. in the Homepage, please enclose a manual for endusers, etc., that indicates dial-up numbers.