

GUIDEBOOK
for Interconnection
with NTT-East Networks

Guidebook for Interconnection Volume 3

Reference Information Concerning Interconnection
(Interconnection Rules and Various Activities Undertaken by NTT East)

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.

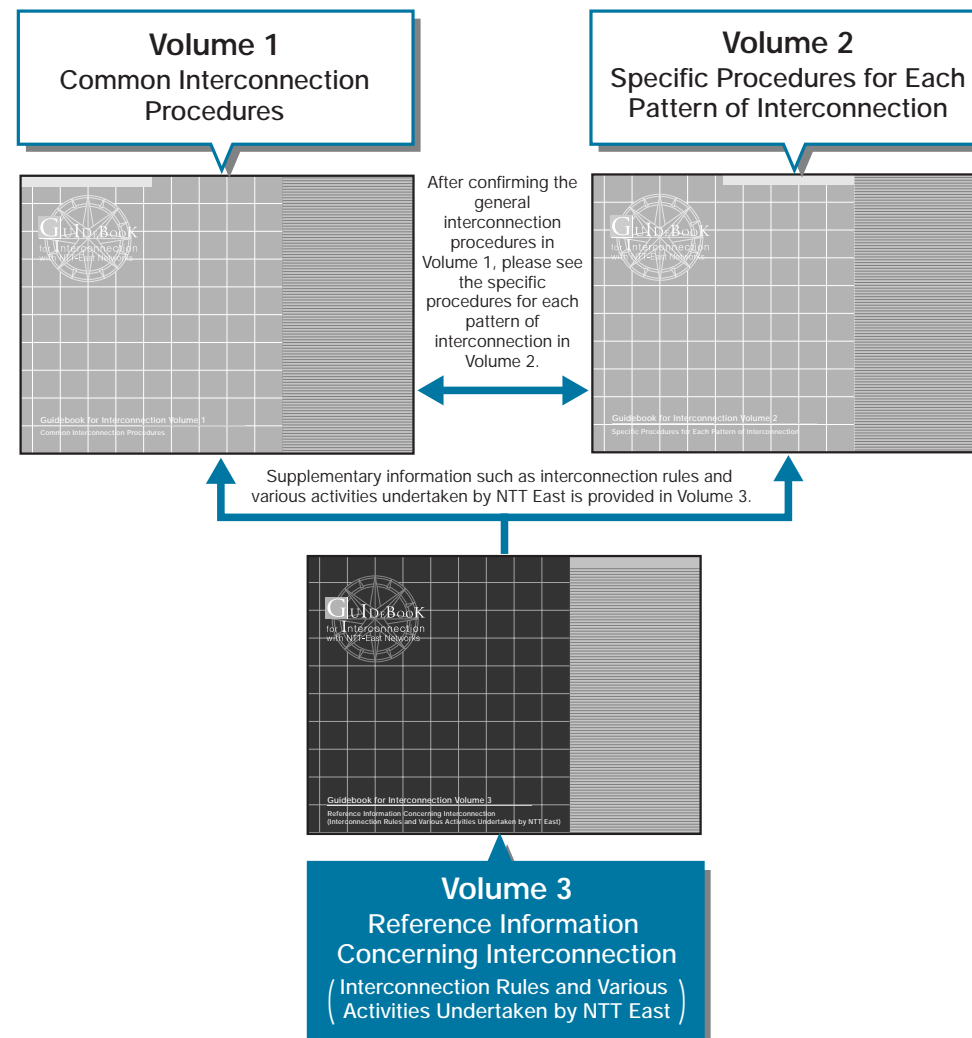


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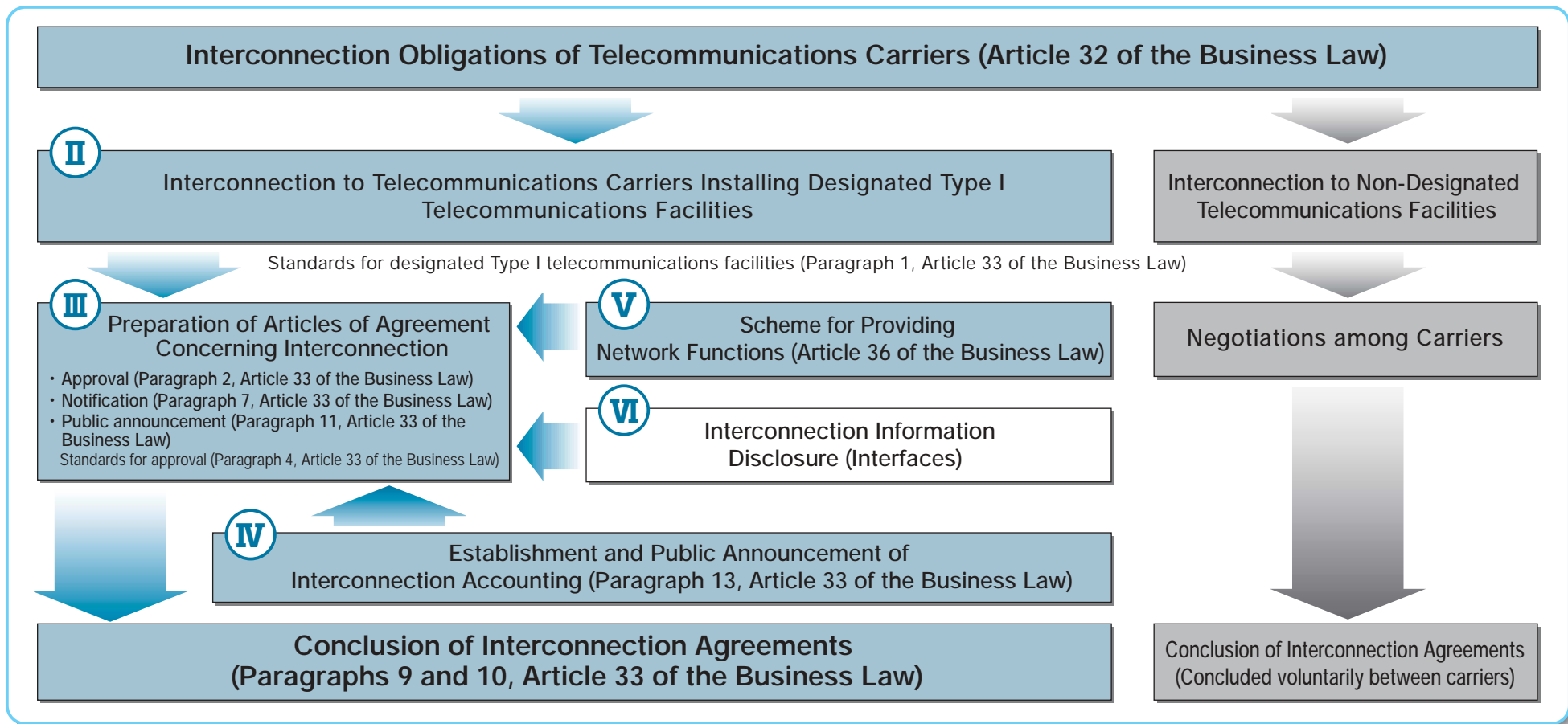
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Chapter 1

**Interconnection Rules and Various Activities
Undertaken by NTT East**

Outline of Interconnection Rules (Telecommunications Business Law)

This chapter outlines the interconnection-related portions of the Telecommunications Business Law and Telecommunications Business Law Enforcement Regulations that are the rules that govern the activities of telecommunications carriers. Excerpts from these law and regulations are provided for those portions that are especially important. The table of contents of the Articles of Agreement Concerning Interconnection is also provided to introduce the topics that are included in this agreement.



Voluntary information disclosure based on Paragraph 15, Article 33 of the Business Law

- 1 Establishment of Legal Framework for Basic Rules for Interconnection

The current interconnection rules were established pursuant to the "Basic Rules for Interconnection" (which took effect in November 1997), the subsequent "Review of the Basic Rules for Interconnection" (which took effect in November 2001) and other rules.

Interconnection obligations of telecommunications carriers

Codification of interconnection conditions (including interconnection charges)

Public announcement of the proposed Articles of Agreement Concerning Interconnection and the solicitation of comments

Obligation to publicly announce the Articles of Agreement Concerning Interconnection

Conclusion of Interconnection Agreements based on the Articles of Agreement Concerning Interconnection

Enactment of interconnection accounting regulations

Preparation and public announcement of interconnection accounting reports

Enactment of regulations on interconnection charges

Calculation of interconnection charges in accordance with the regulations on interconnection charges

Preparation and public announcement of schemes for providing network functions

Notes

1. The underlined rules are special rules applied to telecommunications carriers that own designated Type I telecommunications facilities.
2. Items marked with an asterisk () are implemented by the MIC.
MIC=Ministry of Internal Affairs and Communications.

Acceptance of Interconnection Applications and the Scope of Designated Type I Telecommunications Facilities

Telecommunications Business Law

Acceptance of Interconnection Requests (Article 32)

Establishing rules that require all telecommunications carriers to accept requests for interconnection to their own telecommunications line facilities
 <Fair reasons justifying the rejection of interconnection applications>

- (1) Cases raising any concern that the smooth provision of telecommunications services may be hindered.
- (2) Cases raising any concern that the interests of a carrier providing interconnection may be unduly damaged by the interconnection.
- (3) Other cases stipulated under ordinances of the MIC.

Designation of Designated Type I Telecommunications Facilities (Paragraph 1, Article 33)

Purpose of designation
 Improving user benefits by establishing interconnection to telecommunications facilities of other telecommunications carriers and promoting comprehensive and rational development of telecommunications

Unit of designation
 The areas stipulated by the MIC ordinance in consideration of the usage status of telecommunications services and the prefectural areas.

Scope of designation
 All facilities stipulated by the MIC ordinance that include subscriber lines in excess of the ratio stipulated by the MIC ordinance and facilities installed as part of these subscriber lines.

Telecommunications Business Law Enforcement Regulations

Fair Reasons Justifying the Denial of the Acceptance of Interconnection Applications (Article 23)

- (1) Cases in which an applicant carrier has failed or is likely to fail to pay any amount due with respect to interconnection.
- (2) Cases in which the installation or modification of facilities to execute interconnection is extremely difficult from the technical or economic standpoints.

Notification Method (Paragraph 1, Article 23-2)

Announcement in the Official Gazette November 30, 2001 (MIC Notice No. 723)
 Notification provided to the relevant carrier

Unit Area (Paragraph 2, Article 23-2)

Prefectural areas

Ratio (Paragraph 3, Article 23-2)

One-half of fixed local transmission line facilities

Scope of Designated Type I Telecommunications Facilities (Paragraph 4, Article 23-2)

- (1) Switching facilities
- (2) Transmission line facilities
- (3) Facilities to implement information management, service control, and terminal authentication
- (4) Besides the facilities indicated in the preceding three items, switching facilities, transmission line facilities or terminal facilities for which interconnection is indispensable in order to improve user convenience and for the comprehensive and rational development of telecommunications

Codification of Interconnection Conditions (Preparation and Announcement of the Articles of Agreement Concerning Interconnection)

The Articles of Agreement Concerning Interconnection have been established to clarify the conditions concerning interconnection to designated Type I telecommunications facilities. In establishing and/or changing interconnection charges and interconnection conditions, public comments are widely solicited through the Information and Communications Council to secure fairness and transparency in all procedures after an application for approval of such setups or changes is submitted to the minister of the MIC.

Major Contents of the Articles of Agreement Concerning Interconnection

[Matters Stipulated in the Law]

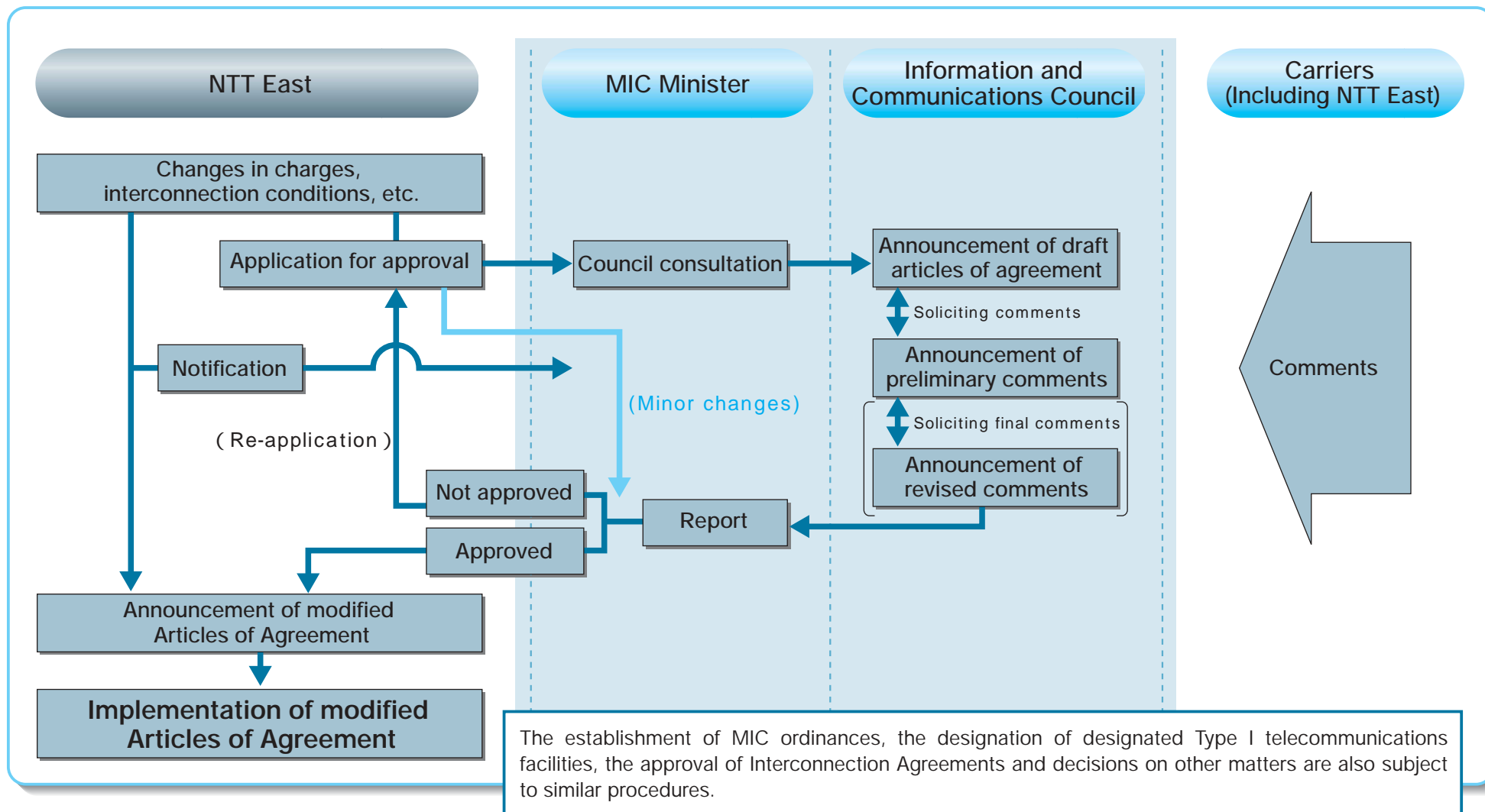
- Technical conditions at the standard points of interconnection
- Interconnection charges for each function
- Matters concerning the responsibility of carriers
- Classification of telecommunications carriers determining user charges for telecommunications services
- Procedures for the conclusion and cancellation of Interconnection Agreements
- Matters related to collocation
- Standard period required for the start of interconnection
- Matters concerning the responsibility to users
- Methods for handling important communications
- Methods to resolve a matter by mediation or arbitration when such matter cannot be resolved by discussion
- Provision of information concerning interconnection procedures and the bases for calculations

[Other Matters Necessary for Interconnection]

- Procedural matters such as the steps in making applications for interconnection
- Matters related to interim measures

III - 1 Procedures for the Approval of the Articles of Agreement Concerning Interconnection

Transparency is secured for the establishment and/or changes of interconnection charges and interconnection conditions through open hearings at the Information and Communications Council that solicit a wide range of views from the public.



(Reference) Table of Contents of the Articles of Agreement Concerning Interconnection (1)

Articles of Agreement Concerning Interconnection to Designated Type I Telecommunications Facilities Pursuant to Paragraphs 2 and 7 of Article 33 of the Telecommunications Business Law (to so sei No. 99-2, 1999) Effective July 1, 1999	Article 23	Application for Installation or Modification of Interconnection Facilities	Article 36-3	Removal or Diversion for Other Purposes of Facilities Subject to Individual Management Request for Other Works
Chapter I	Article 24	Submission of Materials Necessary for Application	Part 9	Request for Other Works
Chapter II	Article 25	Approval of Application for Installation or Modification of Interconnection Facilities	Article 37	Circuit Adjustment Work for the DSL Line Request for Installation, Etc., of a DSL Line with Usage Restrictions in Terms of Line Length Standard Interconnection Period (Article 38 and Article 39)
Chapter II-2	Article 26	Conclusion of Individual Construction Contract	Article 37-2	
Article 10-2	Article 27	Changes, Etc., in Installation or Modification of Interconnection Facilities	Article 37-3	
Article 10-3	Article 28	Notice of Completion	Chapter IV	Conclusion, Cancellation, Etc., of Agreement (Article 40 through Article 46)
Article 10-4	Article 29	Application for Installation or Modification of Other Interconnection Facilities	Chapter V	Obligations (Article 47 through Article 53-2)
Article 10-5	Part 6	Application for Interconnection Software Development	Chapter VI	Patterns of Interconnection (Article 54)
Article 10-6	Article 30	Application for Interconnection Software Development	Chapter VII	Handling of Important Communications (Article 55 through Article 58)
Article 10-7	Article 31	Approval of Application for Interconnection Software Development	Chapter VIII	Temporary Discontinuance, Suspension and Discontinuance of Interconnection (Article 59 through Article 61-2)
Article 10-8	Article 32	Conclusion of Interconnection Software Development Contract	Chapter IX	Charges, Etc. (Article 62 through Article 82)
Chapter II-3	Article 33	Cancellation of Interconnection Software Development	Chapter X	Technical Conditions (Article 83)
Deleted	Article 34	Notice of Completion	Chapter XI	Damage Compensation (Article 84 through Article 88)
From Article 10-9 through Article 10-12 were deleted.	Part 6-2	Procedures for Interconnection to NTT's Optical Line Facilities	Chapter XII	Matters Concerning Responsibility to Users (Article 89 through Article 94)
Chapter III	Article 34-2	Line Facility Survey for Optical Interoffice Lines	Chapter XIII	Cases in which POIs are Established within NTT Communications Buildings (Article 95 through Article 95-5)
Part 1	Article 34-3	Application for Interconnection to Optical Interoffice Lines	Chapter XIV	Conflict Resolution by Mediation or Arbitration
Article 11	Article 34-4	Application for Interconnection to Optical Subscriber Lines or Optical Intra-Office Transmission Lines	Chapter XIV-2	Conflict Resolution by Mediation or Arbitration
Article 12	Article 34-5	Entry in Case No Unused Cores are Available in Optical Line Facilities	Article 95-6	Conflict Resolution by Mediation or Arbitration
Article 13	Part 7	Defects	Chapter XIV-3	Deleted
Part 2	Article 35	Defects	Article 95-7	Deleted
Article 14	Part 8	Upgrades or Discontinuance of NTT's Telecommunications Facilities or Software	Chapter XV	Telephone Directory Listing and Directory Assistance for Contracting Carrier Subscriber Line Numbers, Etc., and <u>Directory Information Database Registration and Directory Information Database Usage</u> (Article 96 through Article 97-3)
Article 15	Article 36	Upgrades of Telecommunications Facilities or Software by NTT	Chapter XVI	Miscellaneous (Article 98 through Article 101)
Part 3	Article 36-2	Usage Discontinuance, Etc., of Facilities Subject to Individual Management Through Application by Contracting Carrier		
Article 16				
Part 4				
Article 21				
Article 22				
Part 5				

Note: Underlined items are those that are applicable only to the Articles of Agreement of NTT West.

(Reference) Table of Contents of the Articles of Agreement Concerning Interconnection (2)

Tables of Charges

General Rules

Table 1	Interconnection Charges
1.1	Access Charges
1.2	Network Modification Charges
Table 2	Expenses for Works and Procedures
2.1	Expenses for Works
2.2	Expenses for Procedures
Table 2-2	Amount to be Borne Under Entrusted Construction Contracts
Table 3	Amount to be Borne Under Entrusted Maintenance Contracts, Etc.
3.1	Amount to be Borne for Communications Buildings
3.2	Amount to be Borne for Cable Tunnels or Conduits
3.3	Amount to be Borne for Telephone Poles
Technical Conditions	
Chapter I	General Provisions
Chapter II	Technical Conditions by Pattern
Part 1	Pattern 1-1: Subscriber Line End Interconnection Interface (Interface for dependent-type PHS carriers)
Part 2	Pattern 1-2: Subscriber Line End Interconnection Interface (Interface to which the articles of agreement for telephone service are applied mutatis mutandis)
Part 3	Pattern 1-3: Subscriber Line End Interconnection Interface (Interface to which the articles of agreement for ISDN service are applied mutatis mutandis)
Part 4	Pattern 1-4: Subscriber Line End Interconnection Interface (Interface for leased line service)
Part 4-2	Pattern 1-5: Subscriber Line End Interconnection Interface (Interface for DSL)
Part 4-3	Pattern 1-6: Subscriber Line End Interconnection Interface (Interface for optical subscriber lines)
Part 4-4	Pattern 1-7: Subscriber Line End Interconnection Interface (IP communications network switching office router interconnection interface)

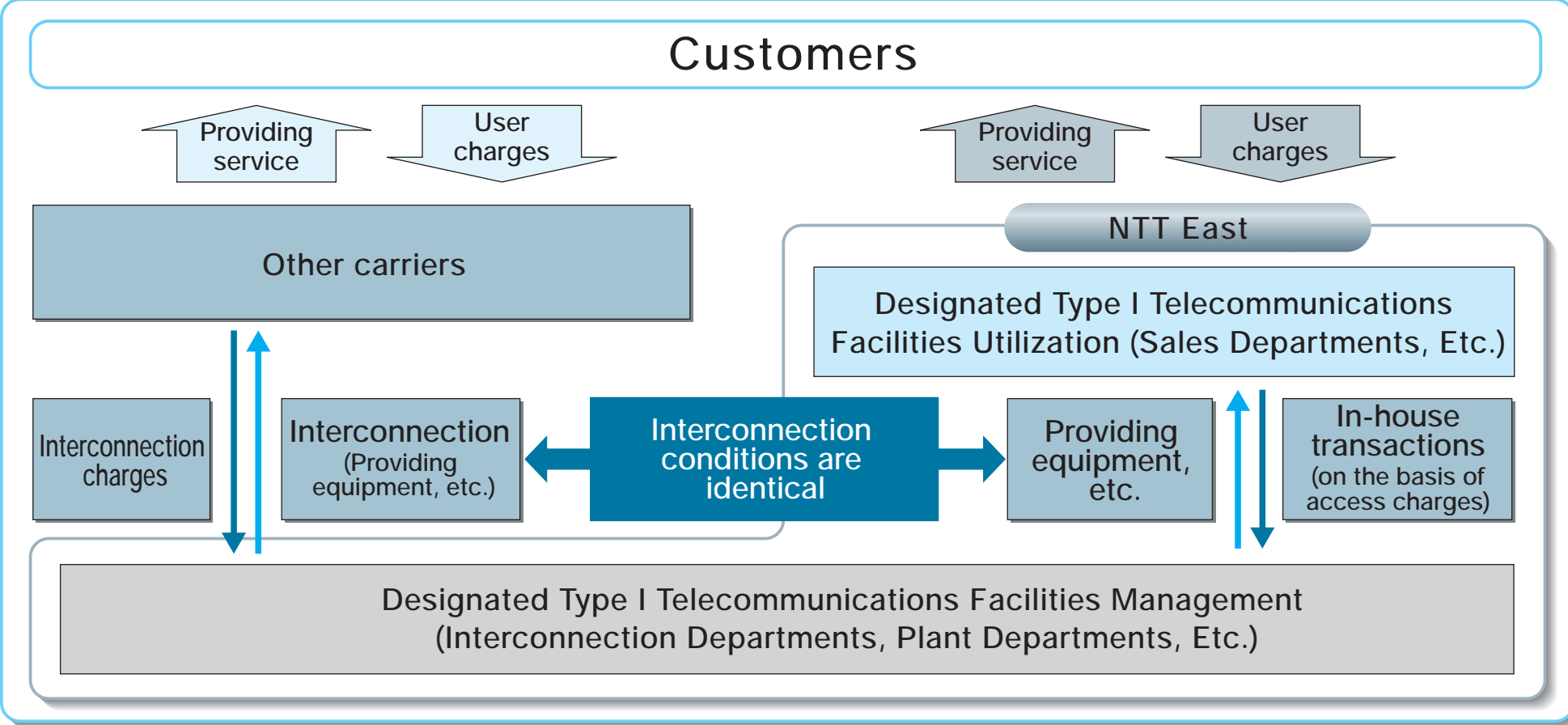
Part 5	Pattern 2: Subscriber Line Interconnection Interface (Interface for leased lines connected to the IP routing network)
Part 5-2	Pattern 2-2: Deleted
Part 5-3	Pattern 2-3: Subscriber Line Interconnection Interface (Optical transmission equipment interconnection interface)
Part 6	Pattern 3-1: Deleted
Part 7	Pattern 3-2: Local Switch Interconnection Interface (Interface for MF)
Part 8	Pattern 3-3: Local Switch Interconnection Interface (Multi-carrier interconnection interface)
Part 9	Pattern 4-1: Deleted
Part 10	Pattern 4-2: Deleted
Part 11	Pattern 4-3: Tandem Switch Interconnection Interface (Interface for M)
Part 12	Pattern 4-4: Deleted
Part 13	Pattern 4-5: Deleted
Part 14	Pattern 4-6: Tandem Switch Interconnection Interface (Multi-carrier interconnection interface)
Part 15	Pattern 4-7: Tandem Switch Interconnection Interface (Interface for MF)
Part 16	Pattern 5: Leased Line Interconnection Interface
Part 16-2	Pattern 5-2: Leased Line Interconnection Interface (IP communications network switching office router interconnection interface)
Part 17	Pattern 6-1: Signaling Network Interconnection Interface (Interface for PHS roaming)
Part 18	Pattern 6-2: Signaling Network Interconnection Interface (Interface for connection to each advanced local switch service)
Part 18-2	Pattern 6-3: Signaling Network Interconnection Interface (Interface for connection to advanced local switch services)
Part 19	Pattern 7: Directory Assistance Database Interconnection Interface

Part 20	Pattern 8: Service Management System Interconnection Interface
Part 21	Pattern 9: Subscriber Line MDF Interconnection Interface (Interface for DSL)
Part 22	Pattern 10: ISM Loop-Back Interconnection Interface
Part 23	Pattern 11: Subscriber Line Local Switch Interconnection Interface
Part 24	Pattern 12: Optical Subscriber Line Interconnection Interface
Part 25	Pattern 13: Optical Interoffice Line Interconnection Interface
Part 26	Pattern 14: Switching Office Router Interconnection Interface (IP communications network switching office router interconnection interface)
Part 27	Pattern 15: Central Office Router Interconnection Interface (IP communications network central office router interconnection interface)
Part 28	Pattern 16: Tandem Office Cell Relay Interconnection Interface
Attached Table 1: Functions Provided by Interconnection	
Attached Table 2: Patterns of Interconnection	
Attached Table 3: Forms	
Supplementary Provisions	

(As of July 1, 2004)

Interconnection Accounting

The interconnection accounting system is designed to clarify respective revenues and expenses by dividing the functions related to designated Type I telecommunications facilities into those of managing, operating and providing connections to such facilities (designated Type I telecommunications facilities management) and those of using such facilities on the basis of access charges to provide user services (designated Type I telecommunications facilities utilization). This accounting system is also designed to identify the costs of designated Type I telecommunications facilities on equipment categories that are classified in accordance with an equipment layer or usage purposes in order to provide the basic data necessary for the calculation of unbundled interconnection charges.



Scheme for Providing Network Functions

(Telecommunications Business Law)

Notification of Schemes for Providing Network Functions (Paragraph 1, Article 36)

- Notification Coverage
Plans for changes or additions to the functions (except for those stipulated by MIC ordinance) of designated Type I telecommunications facilities.

- Notification Period
Notifications must be submitted to the minister of the MIC the number of days stipulated by MIC ordinance before the day on which the relevant work is to be started.

- Notification Items
Notification items are those stipulated by MIC ordinance

(Telecommunications Business Law Enforcement Regulations)

Network Functions for Which Notification is Not Required (Article 24-5)

- 1 Functions to rewrite programs or data
 - 2 Traffic measuring functions
 - 3 Charging functions, charge calculation functions (except for the interconnection charge billing functions)
 - 4 Monitoring functions, control functions (functions that do not impact on other carriers)
 - 5 Functions to immediately collect public telephone charges
 - 6 Functions to connect to specific work departments of a carrier installing designated telecommunications facilities (Dial 113, Dial 114, etc.)
 - 7 Functions for a user to setup or change usage conditions from a terminal (customer control function)
 - 8 Directory assistance functions (except for the function to connect to other carriers)
 - 9 Functions to exchange codes by router (meaning the telecommunications equipment that exchange codes by Internet protocol)
 - 10 Functions to carry out multiplexing by digital subscriber line access multiplexer
 - 11 Functions to separate transmitted sound and codes in accordance with the frequency band by digital subscriber line signal separator
 - 12 Functions to convert optical signals and electric signals by optical signal/electric signal converter
- With respect to 9 through 12 above, Notification No. 757 of the Ministry of Internal Affairs and Communications (December 18, 2001) includes the provisions concerning information disclosure.

Notification Period (Article 24-2)

Basic principle	At least 200 days in advance
Exception: Change notification for the plan already notified	At least 60 days in advance
Notification of functions conforming to TTC standards	At least 140 days in advance
Notification of functions requested by other carriers	At least 40 days in advance
Notification of plan changes based on recommendations	At least seven days in advance

Procedures to Change the Work Start Date (Article 24-4)

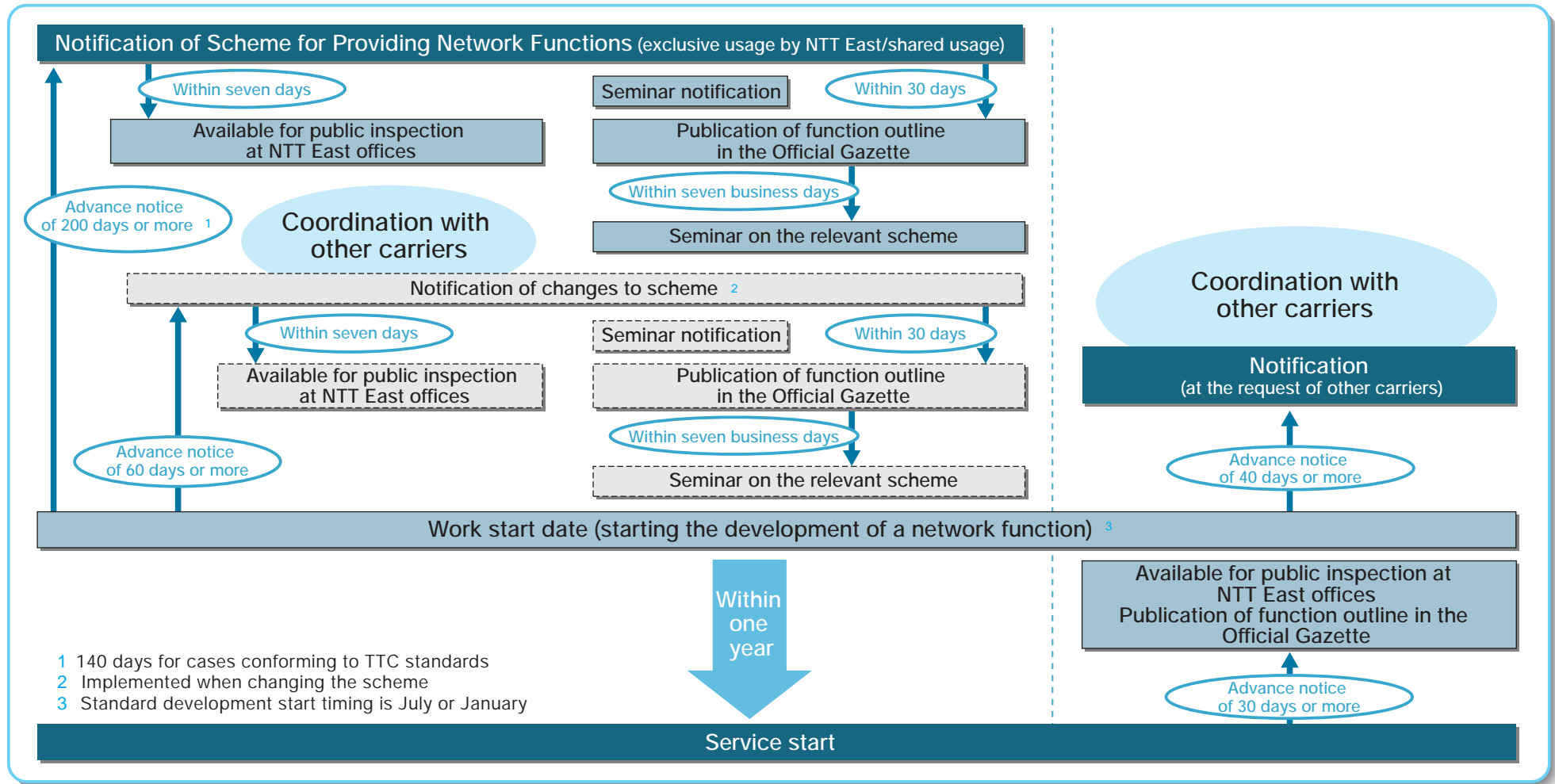
If no requests or comments are submitted by other carriers within 30 days of the comment reception period after a change is published in the Official Gazette, it is possible to change the work start date (to an earlier day), and the post-change scheme shall be announced in the Official Gazette.

Notification Items and Forms (Article 24)

The prescribed forms shall be used to enter the contents of functions, conditions, interfaces, estimated costs, the planned work start date, the planned timing when a function is available, etc.

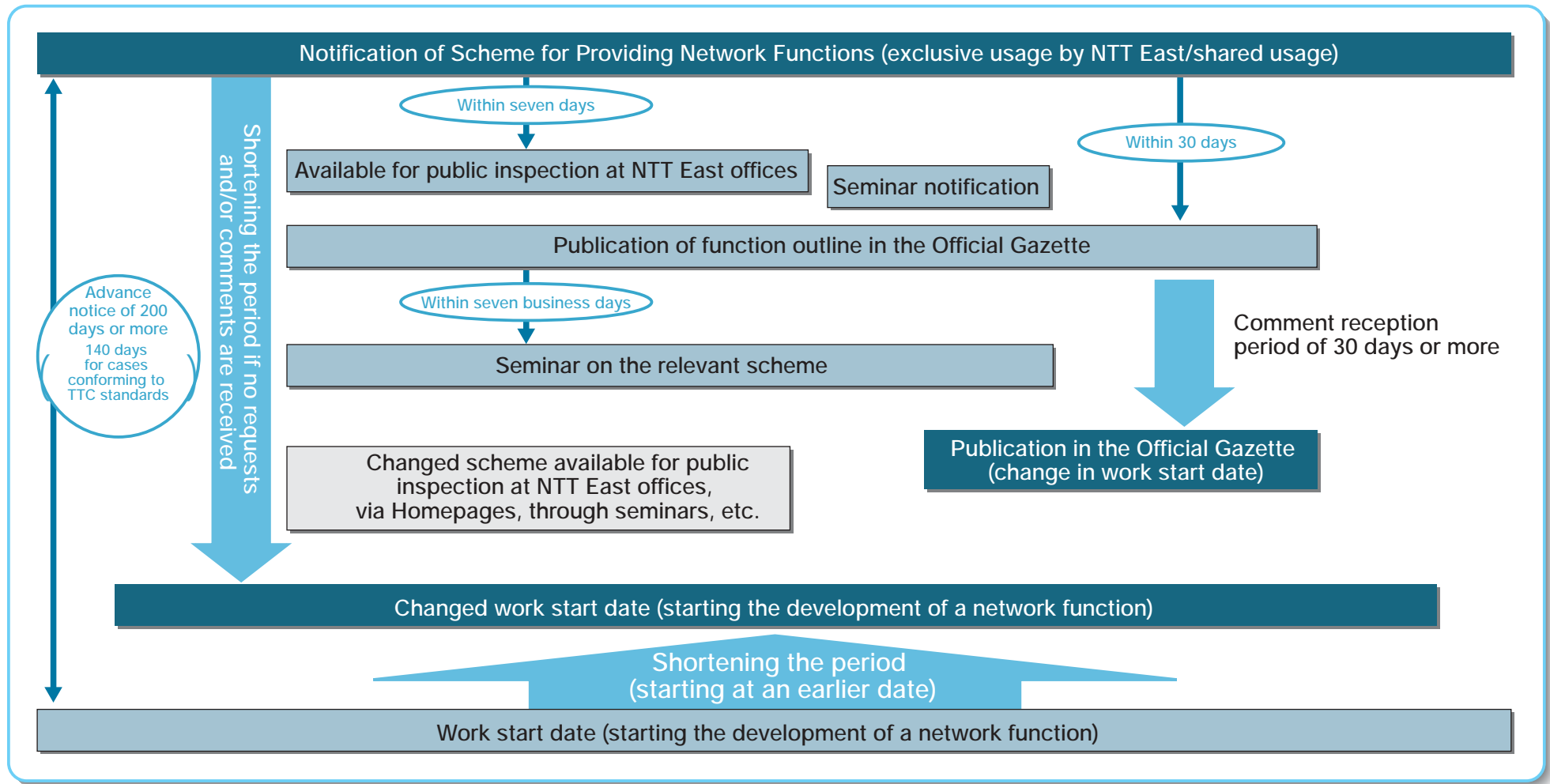
- 1 Notification/Announcement of Schemes for Providing Network Functions

NTT East has long worked towards ensuring fairness among carriers with respect to service developments by voluntarily announcing network functions that are assumed to have an influence on existing interconnection conditions prior to any additions and/or changes in such functions. In principle, the interconnection rules require notification to the minister of the MIC and the public announcement of plans for changing and/or adding functions to designated telecommunications facilities in the format of a Scheme for Providing Network Functions.



- 2 Shortening the Announcement Period (Change in Work Start Date)

While NTT East has been required to submit a notification on the scheme for providing network functions 200 days prior to the start of work, it has been made possible to change the work start date to an earlier day if no requests or comments are submitted by other carriers within the comment reception period of 30 days or more after the scheme is announced in the Official Gazette. The post-change scheme will be published in the Official Gazette.



(Reference) Scheme for Providing Network Functions: List of Notification Items

Fiscal Year Sequence Number		Scheme Number	Function Outline
Fiscal 1997	No. 1 (February 6, 1998)	H9-1	Function to select the method of notifying users of the message storage status at the completion of communications by using such data as the message storage status before initiating communications, and the message registration and deletion notices that were received from a voice storage device during communications.
		H9-2	Function to notify the originating terminal of call charge information, etc., before the start of communications at the request of the originating terminal.
		H9-3	Incorporating the following in the congestion control function: (1) carrying out congestion detection and control by each outgoing-circuit group unit; (2) blocking some portions of circuits by remote instructions; (3) sending and receiving information on implemented congestion control; (4) changing the number of priority-user reserved circuits; and (5) controlling access to the network service control point (NSP) by identifying the final digit of dialed numbers.
Fiscal 1998	No. 1 (May 29, 1998)	H10-1	Function to transmit by connecting user terminals via 10/100 Base-T and FDDI as the user-network interface.
	No. 2 (June 24, 1998)	H10-2	Function to transmit user-to-user information (UUI) regardless of communications status (whether or not B-channel is being used).
		H10-3	When the calling party registers for communications monitoring in case the called party is busy, this function monitors the communications status (busy/unused) of the called party and notifies the calling party when the line becomes available.
		H10-4	When a notice that the called line is now available is issued to the calling party, this function re-originates the call to such called party by simplified dialing operations.
	No. 3 (September 1, 1998)	H10-5	When the common channel signal (ISUP) length exceeds the maximum signal length (272 octets) that can be transferred in the Message Transfer Part (MTP), this function divides and transmits the signals, and receives and re-assembles the signals.
	No. 4 (September 18, 1998)	H10-6	Function to transmit and receive signals via ATM signaling protocol between signaling tandem switches
No. 5 (December 24, 1998)	H10-7	Function to connect to selected carrier based on interconnection carrier information for each call category set up at local switches for each user circuit.	
	H10-8	This function uses the 10Base-T interface as the user-network interface and the ATM (STM-1) interface as the network-to-network interface; and multiplexes/concentrates, distributes and transmits data signals (IP packets).	

Fiscal Year Sequence Number		Scheme Number	Function Outline
Fiscal 1998	No. 6 (February 18, 1999)	H10-9	Changing the function to the procedure stipulated by the Telecommunications Technology Committee (TTC) in place of the means of notifying the originating switch by the address complete message (ACM) of the fact that user-to-user information under the user-to-user information notice service that is set in the initial address message (IAM) is discarded within the communications network.
		H10-10	The originating switch function to enable the terminating switch to receive the parameter concerning the interconnection charge billing system that is set in the call progress message (CPG message).
Fiscal 1999	No. 1 (June 8, 1999)	H11-Other 1	When the connection destination number obtained from the service control point (SCP) is a number that initiates an inquiry to another SCP, this function releases the circuit by notifying the preceding switch of this number and initiates another inquiry to the SCP based on the number obtained.
	No. 2 (July 15, 1999)	East H11-1	The terminating switch initiates an inquiry to the service control point (SCP) for information elements, and notifies the terminating subscriber line of the information obtained
		East H11-2	The terminating switch initiates an inquiry to the SCP and carries out the redirection of the incoming call as instructed by the SCP. In the event the incoming call cannot be connected, the terminating switch again initiates an inquiry to the SCP and connects such call to the next redirection destination on the basis of the SCP instructions.
	No. 2 (December 2, 1999)	East H11-1 Change	The terminating switch initiates an inquiry to the service control point (SCP) for information elements on the basis of the originating subscriber number, and notifies the terminating subscriber line of the information obtained through the SCP database.
No. 3 (March 3, 2000)	East H11-3	With respect to the function in which the originating local switch notifies the user line that a connection will be made not on the basis of the carrier identification code specified by the user line but on the basis of a different carrier identification code that is pre-set in the switch, this function was changed to enable the originating local switch to notify the switch of the connecting carrier that the incoming call is connected in cases of connections to other carrier networks.	

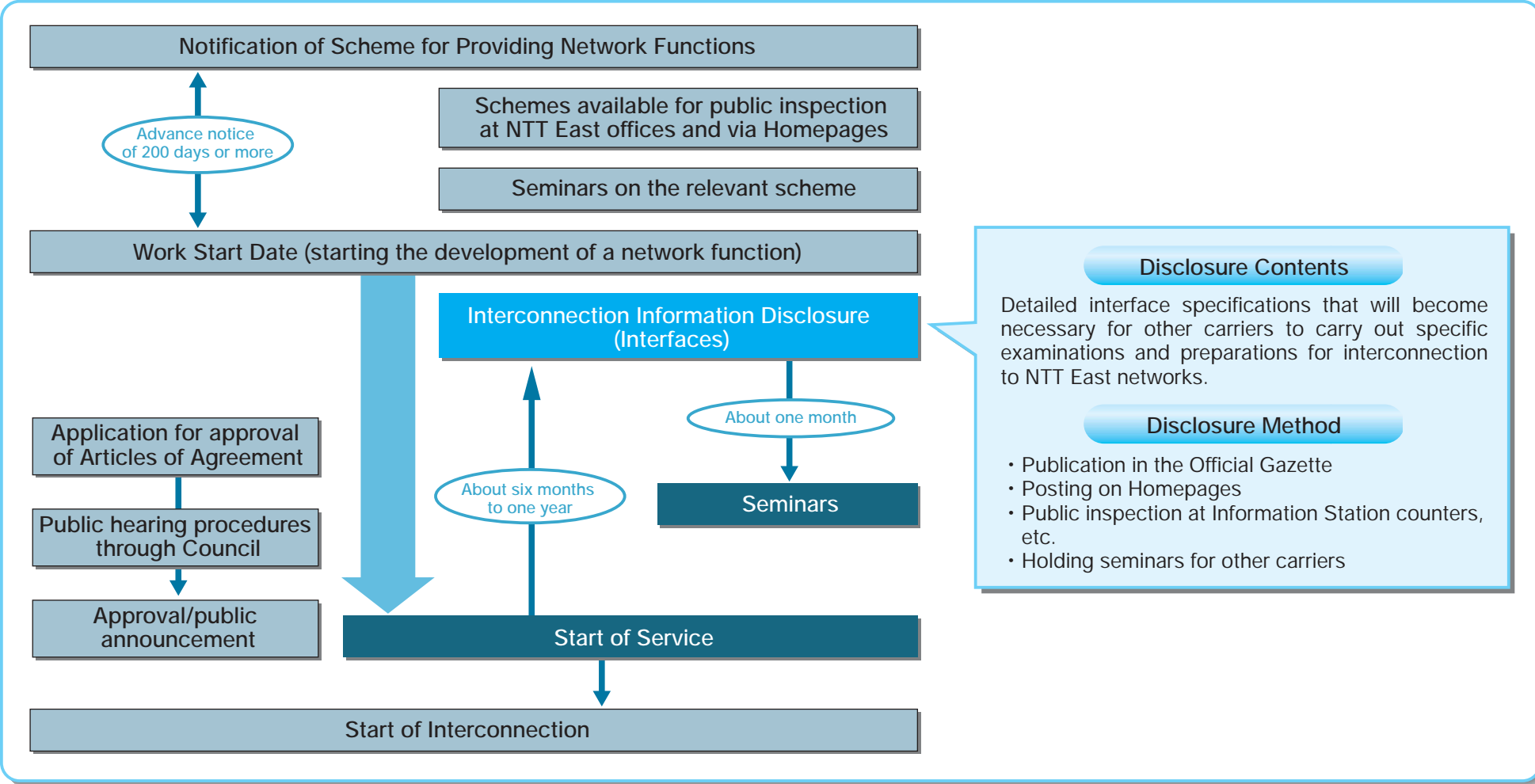
(Reference) Public Announcement of Network Functions

In parallel with the series of public announcements concerning network functions since June 1995, seminars have been held concurrently for the benefit of other carriers.

1st announcement: June 29, 1995	<ul style="list-style-type: none"> • Network functions for which development had already been started as well as new functions for which development was scheduled to start in the third quarter of fiscal 1995 or thereafter (total of 18 items)
2nd announcement: December 26, 1995	<ul style="list-style-type: none"> • Open Computer Network functions (equivalent to leased line UNI) • Local switch interconnection interface functions [For associated signaling operations (general interconnection)]
3rd announcement: March 26, 1996	<ul style="list-style-type: none"> • Open Computer Network functions (high-speed data transmission) • Subscriber line interconnection interface functions [For subscriber telephone service]
4th announcement: June 26, 1996	<ul style="list-style-type: none"> • Local switch interconnection interface functions [For quasi-associated signaling network operations (general interconnection)] • Signaling network interconnection interface functions [For non-associated signaling operations (common part)]
5th announcement: November 25, 1996	<ul style="list-style-type: none"> • ATM leased line service interconnection interface functions
6th announcement: March 28, 1997	<ul style="list-style-type: none"> • Connection destination instruction function
7th announcement: July 3, 1997	<ul style="list-style-type: none"> • Signaling network interconnection interface functions [For non-associated signaling operations (local switching function)]
8th announcement: September 25, 1997	<ul style="list-style-type: none"> • Tandem switch interconnection interface functions [For Type II carriers] • Digital access 1500 service interconnection interface functions
9th announcement: December 18, 1997	<ul style="list-style-type: none"> • Shared-bandwidth ATM interface functions

Interconnection Information Disclosure (Interfaces)

NTT East voluntarily releases interface specifications as part of Interconnection Information Disclosure details approximately six months to one year prior to the service start in the event a new interface becomes necessary in establishing an interconnection to designated Type I telecommunications facilities of NTT East. Upon the start of interconnection, new interfaces have been successively added to the Articles of Agreement Concerning Interconnection.



Disclosure Contents

Detailed interface specifications that will become necessary for other carriers to carry out specific examinations and preparations for interconnection to NTT East networks.

Disclosure Method

- Publication in the Official Gazette
- Posting on Homepages
- Public inspection at Information Station counters, etc.
- Holding seminars for other carriers

(Reference) Interconnection Information Disclosure (Interfaces)

Fiscal Year Sequence Number	Disclosure No.	Interface	Outline of Interface Functions	
Fiscal 1998	No. 1 (November 27, 1998)	H10-1-1	Local switch interconnection interface (interface among multiple carriers)	Interconnection interface that can be commonly applied for the local switch interconnection regardless of the communications business format of the carrier to be interconnected.
		H10-1-2	Tandem switch interconnection interface (interface among multiple carriers)	Interconnection interface that can be commonly applied for the tandem switch interconnection regardless of the communications business format of the carrier to be interconnected.
	No. 2 (March 3, 1999)	H10-2-1	Transmission equipment interface (new SDH interface)	With respect to the interface between transmission equipment for interconnection at interconnection points between the transmission equipment of other carriers and the transmission equipment of NTT East for local switches, tandem switches and leased line node equipment, additions and/or changes of interface specifications were made to conform to international standards.
		H10-2-2	Bandwidth guarantee VC interconnection ATM interface	Guaranteed bandwidth VC interconnection interface under the ATM system.
Fiscal 1999	No. 1 (May 20, 1999)	H11-1-1	Common channel signaling network ATM interface	The common channel signaling network interconnection ATM interface that applies the broadband ISDN (B-ISDN) signaling protocol conforming to the TTC standards to equivalents of MTP 1, 2, 3 under the current signaling protocol. <small>Related to the Scheme for Providing Network Functions (H10-6)</small>
		H11-1-2	IP communications interconnection ATM	The ATM interface that multiplexes/concentrates and connects data signals (IP packets). <small>Related to the Scheme for Providing Network Functions (H10-8)</small>
	No. 2 (June 14, 1999)	H11-2-1	Local switch advanced service interconnection interface	(1)Function menu for setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions. (2)Function menu for disconnecting the forward connection, setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions. (3)Function menu for seizing multiple interim connections, setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions.

Fiscal Year Sequence Number	Disclosure No.	Interface	Outline of Interface Functions	
Fiscal 2000	No. 1 (March 19, 2001)	East H12-1-1	Superhigh-speed leased line node equipment interface (SONET)	(4)Function menu for releasing two call segments, setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions. (5)Function menu for releasing a call segment, setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions. (6)Function menu for releasing a call segment, seizing multiple interim connections, setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions. (7)Function menu for disconnecting the forward connection, seizing multiple interim connections, setting the requested charging information, the requested charging event and the requested event, and making connection to the designated connection destination in accordance with SCP instructions. <small>Related to the announcement concerning NTT network functions (H9-1-2)</small>
		East H12-1-2	Superhigh-speed leased line node equipment interface (SDH)	Interface that conforms to the American National Standards Institute (ANSI) standard to establish interconnection at the interconnection point between telecommunications facilities of other carriers and the superhigh-speed leased line node equipment of NTT East. (OC-3/OC-12/OC-48)
	No. 1 (March 5, 2002)	East H13-1-1	Superhigh-speed leased line node equipment interface (SONET)	Interface that conforms to the American National Standards Institute (ANSI) standard to establish interconnection at the interconnection point between telecommunications facilities of other carriers and the superhigh-speed leased line node equipment of NTT East. (OC-3/OC-12/OC-48)
		East H13-1-2	Superhigh-speed leased line node equipment interface (SDH)	Interface that conforms to the American National Standards Institute (ANSI) standard to establish interconnection at the interconnection point between telecommunications facilities of other carriers and the superhigh-speed leased line node equipment of NTT East. (STM-1/STM-4/STM-16)

Telecommunications Business Law

Reference

Telecommunications Business Law (Excerpts)

(Interconnection with Telecommunications Facilities Owned by Telecommunications Carriers)

Article 32: A telecommunications carrier shall agree to requests from other telecommunications carriers for interconnection between its telecommunications facilities and the telecommunications facilities of said other telecommunications carriers, except in the cases listed below:

- i) When there is concern regarding the smooth provision of telecommunications service
- ii) When there is concern that said interconnection may unfairly impair the interests of said Type I telecommunications carrier
- iii) When there are legitimate reasons provided by the applicable ministerial ordinance of the Ministry of Internal Affairs and Communications (MIC) in addition to the cases specified in the preceding two paragraphs

(Interconnection with Designated Type 1 Telecommunications Facilities)

Article 33: In accordance with the procedures stipulated in the applicable ministerial ordinance of the MIC and for each area specified in the applicable ministerial ordinance of the MIC by dividing the entire nation in consideration of area-specific telecommunications service usage status and prefectural boundaries, the Minister of the MIC may designate a total set of facilities that consist of: transmission line facilities, one end of which is connected to the user telecommunications facilities (except mobile terminal facilities (meaning user telecommunications facilities which are radio facilities of moving radio stations; the same shall apply in Paragraph 1 of the following Article)) and which are installed by the same telecommunications carrier, where the ratio of the number of telecommunications lines of such transmission line facilities to the number of telecommunications lines of all same-type transmission line facilities installed in the relevant area exceeds the ratio specified by the applicable ministerial ordinance of the MIC; and the telecommunications facilities installed in the relevant area by the said telecommunications carrier as an integral part of said facilities and which are specified by the applicable ministerial ordinance of the MIC, as the telecommunications facilities whose interconnection with the telecommunications facilities of other telecommunications carriers is essential for the improvement of user benefits and the comprehensive and rational development of telecommunications.

2. A telecommunications carrier installing telecommunications facilities designated in accordance with the provisions of the preceding paragraph (hereinafter referred to as "designated Type 1 telecommunications facilities") shall establish articles of agreement concerning interconnection which set forth the amount of money that said Type 1 telecommunications carrier will receive (hereafter referred to as "interconnection charges" in this Article) and the interconnection terms and conditions (excluding the interconnection charges and interconnection terms and conditions specified in Paragraph 5 below) with respect to the interconnection of said designated Type 1 telecommunications facilities with the telecommunications facilities of other telecommunications carriers, and shall obtain approval from the Minister of the MIC. The same shall also apply where such articles of agreement concerning interconnection are to be amended.
3. Notwithstanding the provisions of the preceding paragraph, approval is not required for interconnection charges and interconnection terms and conditions specified in the articles of agreement concerning interconnection that are subject to approval in accordance with the preceding paragraph, which are specified in the applicable ministerial ordinance of the Ministry of Internal Affairs and Communications as those having a comparatively small influence on the improvement of user benefits as well as on comprehensive and rational development of telecommunications in consideration of their content.
4. The Minister of the MIC shall grant approval when the application for approval submitted in accordance with the provisions of Paragraph 2 (including cases in which these provisions are applied by making necessary modifications as specified in the provisions of Paragraph 16; hereinafter the same in this paragraph, Paragraphs 6, 9, 10 and 14) is deemed to conform to all of the following items.
 - i) The following items must be specified fairly and clearly.
 - a. The technical conditions at points of interface (POIs) that are stipulated by the applicable ministerial ordinance of the MIC as standard from among POIs at which interconnection with telecommunications facilities of other telecommunications carriers is technically and economically feasible.
 - b. Interconnection charges for each function specified by the applicable ministerial ordinance of the MIC.
 - c. Items related to the responsibilities of a telecommunications carrier installing designated Type 1 telecommunications facilities and those of other telecommunications carriers that establish interconnection with such facilities.
 - d. Classification of telecommunications carriers determining user charges for telecommunications services.
 - e. Besides the items listed in "a" through "d," the items stipulated in the applicable ministerial ordinance of the

MIC as necessary in order to accomplish smooth interconnection with designated Type 1 telecommunications facilities.

- ii) The interconnection charges must be fair and appropriate in light of the costs calculated in accordance with the methods specified by the applicable ministerial ordinance of the MIC as being those that contribute to the calculation of appropriate costs under efficient management conditions.
 - iii) The interconnection conditions shall be no less favorable than those applicable when a telecommunications carrier installing designated Type 1 telecommunications facilities establishes interconnection between the designated Type 1 telecommunications facilities and the telecommunications facilities of their own.
 - iv) No undue discrimination against specific telecommunications carriers is involved.
5. The method specified by the applicable ministerial ordinance of the MIC as stipulated in Item ii) of the preceding paragraph (limited to the method which is used to calculate interconnection charges for the functions specified by the applicable ministerial ordinance of the MIC as the functions for which a substantial improvement of efficiency in providing telecommunications services relating to such functions can be achieved through interconnection to designated Type 1 telecommunications facilities as a result of the introduction of new and advanced telecommunications technologies from among the functions specified by the applicable ministerial ordinance of the MIC as stipulated in "b," Item i) of the preceding paragraph) must enable the calculation of the costs in consideration of the expenses required for the relevant designated Type 1 telecommunications facilities that increase in accordance with any increase in communications traffic and the number of lines for telecommunications services that are provided through the relevant designated Type 1 telecommunications facilities via the interconnection to the relevant designated Type 1 telecommunications facilities in cases where the designated Type 1 telecommunications facilities are to be newly configured to become more efficient facilities by adopting new and advanced telecommunications technologies that can be used on a regular basis.
 6. When it is deemed that the promotion of public interest is impaired because interconnection charges specified in the articles of agreement concerning interconnection that were approved under Paragraph 2 become inappropriate in light of the costs stipulated in Item ii), Paragraph 4, or because interconnection terms and conditions specified in said articles of agreement concerning interconnection become extremely inappropriate due to fluctuations of socioeconomic situations, the Minister of the MIC may order a telecommunications carrier installing designated Type 1 telecommunications facilities to apply for approval of a change of said articles of agreement concerning interconnection by specifying a reasonable period.
 7. A telecommunications carrier installing designated Type 1 telecommunications facilities shall establish articles of agreement concerning interconnection with respect to the interconnection charges and interconnection terms and conditions relating to interconnection with its designated Type 1 telecommunications facilities that are stipulated by the applicable ministerial ordinance of the MIC as specified in Paragraph 3, and shall submit a notification of the same to the Minister of the MIC prior to the enforcement of such articles of agreement concerning interconnection. The same shall also apply where such articles of agreement concerning interconnection are to be amended.
 8. When it is deemed that the promotion of public interest is impaired by interconnection charges or interconnection terms and conditions that are specified in the articles of agreement concerning interconnection submitted in accordance with the preceding paragraph (including cases in which these provisions are applied by making necessary modifications as specified in the provisions of Paragraph 17), the Minister of the MIC may order a telecommunications carrier installing designated Type 1 telecommunications facilities to change said articles of agreement concerning interconnection by specifying a reasonable period.
 9. A telecommunications carrier installing designated Type 1 telecommunications facilities shall neither enter into any agreement with other telecommunications carriers concerning interconnection to its designated Type 1 telecommunications facilities nor amend such agreement unless pursuant to the articles of agreement concerning interconnection either approved in accordance with the provisions of Paragraph 2 or submitted in accordance with the provisions of Paragraph 7 (including cases in which these provisions are applied by making necessary modifications as specified in the provisions of Paragraph 17) (hereafter referred to as "the approved articles of agreement concerning interconnection, etc." in this Article).

Telecommunications Business Law

Reference

Telecommunications Business Law (Excerpts)

10. Notwithstanding the provisions of the preceding paragraph, when special circumstances are involved that make conformity with the approved articles of agreement concerning interconnection, etc., difficult, a telecommunications carrier installing designated Type 1 telecommunications facilities may, subject to the approval of the Minister of the MIC, enter into or amend an agreement concerning interconnection with designated Type 1 telecommunications facilities under the interconnection charges and interconnection conditions (limited to those conforming to any items (excluding "a" and "b" of Item i) in Paragraph 4 among those corresponding to the interconnection charges and interconnection terms and conditions stipulated in Paragraph 2) that differ from those stipulated in the approved articles of agreement concerning interconnection.
11. A Type 1 telecommunications carrier installing designated Type 1 telecommunications facilities shall publicly announce the approved articles of agreement concerning interconnection, etc., in accordance with the applicable ministerial ordinance of the MIC.
12. In accordance with the applicable ministerial ordinance of the MIC, a telecommunications carrier installing designated Type 1 telecommunications facilities shall keep records of the communications traffic, the number of lines and/or other items specified by the applicable ministerial ordinance of the MIC (referred to as "communications traffic, etc." in Paragraph 14) for each function specified by the applicable ministerial ordinance of the MIC as stipulated in "b." Item i), Paragraph 4 that is provided through the interconnection with the relevant designated Type 1 telecommunications facilities.
13. A telecommunications carrier installing designated Type 1 telecommunications facilities shall carry out accounting procedures relating to the interconnection with designated Type 1 telecommunications facilities in accordance with the applicable ministerial ordinance of the MIC, and shall publicly announce the revenues and expenses relating to the interconnection and other items stipulated in the applicable ministerial ordinance of the MIC on the basis of such accounting procedures.
14. A telecommunications carrier installing designated Type 1 telecommunications facilities shall recalculate the interconnection charges based on the records of communications traffic, etc., and the accounting results as specified in the preceding paragraph in order to keep the interconnection charges fair and appropriate in light of the costs calculated in accordance with the methods specified by the applicable ministerial ordinance of the MIC as specified in Item ii), Paragraph 4 with respect to the interconnection charges specified under Paragraph 5 each time the period set forth by the applicable ministerial ordinance of the MIC has elapsed within a time frame not exceeding five years after approval under Paragraph 2 is obtained. The same shall apply with respect to the interconnection charges other than the above at the time of the account settlement for each fiscal year in accordance with the provisions of the preceding paragraph.
15. A telecommunications carrier installing designated Type 1 telecommunications facilities shall strive to offer the information necessary for other telecommunications carriers to establish smooth interconnection between their telecommunications facilities and designated Type 1 telecommunications facilities.
16. With respect to interconnection charges and interconnection terms and conditions that are specified in the articles of agreement concerning interconnection for which a telecommunications carrier installing telecommunications facilities that have been newly designated pursuant to the provisions of Paragraph 1 is to obtain approval of the Minister of the MIC in accordance with Paragraph 2 for the first time from such designation, the phrase in said paragraph "shall obtain approval from the Minister of the MIC; same shall also apply where such articles of agreement concerning interconnection are to be amended" shall read as "shall apply to the Minister of the MIC for approval within three months from the day of new designation in accordance with the provisions of the preceding paragraph."
17. With respect to interconnection charges and interconnection terms and conditions that are specified in the articles of agreement concerning interconnection which a telecommunications carrier installing telecommunications facilities that have been newly designated pursuant to the provisions of Paragraph 1 is to submit to the Minister of the MIC in accordance with Paragraph 7 for the first time from such designation, the phrase in said paragraph "shall submit a notification to the Minister of the MIC prior to the enforcement of such articles of agreement concerning interconnection; the same shall also apply where such articles of agreement concerning interconnection are to be amended" shall read as "shall submit a notification to the Minister of the MIC within three months from the day of new designation in accordance with the provisions of Paragraph 1."
18. With respect to an agreement concerning interconnection to newly designated telecommunications facilities from among agreements that were concluded by a telecommunications carrier installing telecommunications facilities that have been newly designated pursuant to the provisions of Paragraph 1 with other telecommunications carriers concerning interconnection to telecommunications facilities, and which is in force on the day when approval of the Minister of the MIC has been granted for the articles of agreement concerning interconnection for which said telecommunications carrier applied for approval in accordance with the provisions of Paragraph 2 that are applied by making necessary modifications as specified in the provisions of Paragraph 16, or on the day when said telecommunications carrier submitted the articles of agreement concerning interconnection in accordance with the provisions of Paragraph 7 that are applied by making necessary modifications as specified in the provisions of the preceding paragraph, whichever is later (hereinafter referred to as the "calculation start day" in this paragraph), the provisions of Paragraph 9 shall not apply for three months from the calculation start day.
- (Interconnection with Designated Type 2 Telecommunications Facilities)**
- Article 34: In accordance with the procedures stipulated in the applicable ministerial ordinance of the MIC, the Minister of the MIC may designate a total set of facilities that consist of: transmission line facilities, one end of which is connected to the specified mobile terminal facilities (meaning mobile terminal facilities stipulated under the applicable ministerial ordinance of the MIC; hereinafter the same in this paragraph) and which are installed by the same telecommunications carrier, where the ratio of the number of the specified mobile terminal facilities connected to such transmission line facilities to the number of the specified mobile terminal facilities connected to all same-type transmission line facilities installed in the same service area as that of telecommunications services using the said transmission line facilities exceeds the ratio specified by the applicable ministerial ordinance of the MIC; and the telecommunications facilities installed by the relevant telecommunications carrier in order to provide the relevant telecommunications services as specified by the applicable ministerial ordinance of the MIC, as the telecommunications facilities for which proper and smooth interconnection to the telecommunications facilities of other telecommunications carriers must be secured.
2. A telecommunications carrier installing the telecommunications facilities designated in accordance with the provisions of the preceding paragraph (hereinafter referred to as "designated Type 2 telecommunications facilities") shall establish articles of agreement concerning interconnection that specify the amount of money the relevant telecommunications carrier receives and interconnection terms and conditions with respect to the interconnection between the relevant designated Type 2 telecommunications facilities and telecommunications facilities of other telecommunications carriers, and shall submit a notification of the same to the Minister of the MIC prior to the enforcement of the said articles of agreement concerning interconnection in accordance with the applicable ministerial ordinance of the MIC. The same shall apply in the case of amending the said articles of agreement concerning interconnection.
3. When it is deemed that the articles of agreement concerning interconnection submitted in accordance with the provisions of the preceding paragraph (including cases in which these provisions are applied by making necessary modifications as specified in the provisions of Paragraph 6) fall under any of the following items, the Minister of the MIC may order said telecommunications carrier installing designated Type 2 telecommunications facilities to change said articles of agreement concerning interconnection by specifying a reasonable period.
- Matters concerning the responsibilities of a telecommunications carrier installing designated Type 2 telecommunications facilities and those of other telecommunications carriers that establish interconnection with said designated Type 2 telecommunications facilities are not fairly and explicitly stipulated.
 - Technical conditions at interconnection points with telecommunications facilities of other telecommunications carriers are not properly and clearly stipulated.
 - Classification of telecommunications carriers determining user charges for telecommunications services is not properly and clearly stipulated.
 - The amount of money to be received by a telecommunications carrier installing designated Type 2 telecommunications facilities exceeds the amount of appropriate costs under efficient management plus reasonable profits.
 - Imposing undue conditions on other telecommunications carriers.
 - Involving unduly discriminatory treatment against specific telecommunications carriers.
4. A telecommunications carrier installing designated Type 2 telecommunications facilities shall neither enter into any agreement with other telecommunications carriers concerning interconnection to designated Type 2 telecommunications facilities nor amend such agreement unless pursuant to the articles of agreement concerning interconnection submitted in accordance with the provisions of Paragraph 2 (including cases in which these provisions are applied by making necessary modifications as specified in the provisions of Paragraph 6; hereinafter the same in Paragraph 5)

Telecommunications Business Law

Reference

Telecommunications Business Law (Excerpts)

5. Pursuant to the applicable ministerial ordinance of the MIC, a telecommunications carrier installing designated Type 2 telecommunications facilities shall publicly announce the articles of agreement concerning interconnection submitted in accordance with the provisions of Paragraph 2.
6. With respect to the amount of charges and interconnection terms and conditions that are specified in the articles of agreement concerning interconnection which a telecommunications carrier installing telecommunications facilities that have been newly designated pursuant to the provisions of Paragraph 1 is to submit to the Minister of the MIC in accordance with Paragraph 2 for the first time from such designation, the phrase in said paragraph "shall submit a notification to the Minister of the MIC prior to the enforcement of such articles of agreement concerning interconnection; the same shall also apply where such articles of agreement concerning interconnection are to be amended" shall read as "shall submit a notification to the Minister of the MIC within three months from the day of new designation in accordance with the provisions of the preceding paragraph."
7. With respect to an agreement concerning interconnection to newly designated telecommunications facilities from among agreements that were concluded by a telecommunications carrier installing telecommunications facilities that have been newly designated pursuant to the provisions of Paragraph 1 with other telecommunications carriers concerning interconnection to telecommunications facilities, and which is in force on the day when said telecommunications carrier submitted the articles of agreement concerning interconnection in accordance with the provisions of Paragraph 2 that are applied by making necessary modifications as specified in the provisions of the preceding paragraph (hereinafter referred to as the "notification day" in this paragraph), the provisions of Paragraph 4 shall not apply for three months from the notification day.

(Order, Etc., Concerning Interconnection of Telecommunications Facilities)

- Article 35: In the event that in spite of a request by a telecommunications carrier to another telecommunications carrier for the conclusion of an agreement concerning interconnection of their telecommunications facilities, the requested telecommunications carrier does not accept the request for negotiations or the relevant negotiations fail to reach an agreement, the Minister of the MIC shall, upon a petition by the telecommunications carrier requesting such agreement, order the relevant telecommunications carrier to initiate or resume such negotiations, except in cases where such interconnection is deemed to fall under any item of Article 38 or an application for arbitration has already been made under the provisions of Paragraph 1, Article 155.
2. In addition to those cases stipulated in the preceding paragraph, in the event that in spite of a request for the conclusion of an agreement concerning interconnection to telecommunications facilities by a telecommunications carrier, the requested telecommunications carrier does not accept the request for negotiations or such negotiations fail to reach an agreement, the Minister of the MIC may, upon a petition by the requesting telecommunications carrier, order the other telecommunications carrier to initiate or resume negotiations if it is deemed that such interconnection is especially necessary and appropriate in order to promote the public interest, except in cases where an application for arbitration under the provisions of Paragraph 1, Article 155 has been filed.
 3. Where negotiations between the parties concerned fail to come to an agreement on such items as the amount of money to be paid and received by them or other detailed matters including the interconnection terms and conditions with respect to interconnection to the telecommunications facilities of a telecommunications carrier, a telecommunications carrier that installs telecommunications facilities to be connected to the relevant telecommunications facilities may apply for arbitration by the Minister of the MIC. This shall not apply, however, after a party has filed an application for arbitration pursuant to the provisions of Paragraph 1, Article 155.
 4. In addition to those cases stipulated in the preceding paragraph, in the event an order has been issued pursuant to the provisions of Paragraph 1 or Paragraph 2 and when negotiations between the parties concerned fail to come to an agreement with respect to the amount of money to be paid and received them or other detailed matters including the interconnection terms and conditions, a party may apply for arbitration by the Minister of the MIC.
 5. Upon the receipt of an application for arbitration as stipulated in the provisions of the preceding two paragraphs, the Minister of the MIC shall notify the other party to this effect, and shall provide such party with an opportunity to submit its defense within a period to be specified.
 6. When the Minister of the MIC has made an arbitration decision as stipulated in Paragraph 3 or Paragraph 4, the Minister shall notify the parties of the arbitration results without delay.
 7. When a decision for arbitration as stipulated in Paragraph 3 or Paragraph 4 has been made, it is deemed that negotiations between the parties have come to an agreement in accordance with such arbitration results.
 8. In the event of any dissatisfaction with arbitration decision as stipulated in Paragraph 3 or Paragraph 4 with respect to

- the amount of money to be paid or received by a party, the dissatisfied party may demand an increase or decrease in the amount by filing a lawsuit within three months of the day on which the said party learns the arbitration results.
9. In the event of a lawsuit under the preceding paragraph, the other party shall be the defendant.
10. In case of filing an objection to the results of arbitration as stipulated in Paragraph 3 or Paragraph 4, any dissatisfaction with the amount of money to be paid or received by a party shall not constitute grounds for dissatisfaction with the arbitration results.

(Plans Concerning Changes and/or Additions of Functions in Designated Type 1 Telecommunications Facilities)

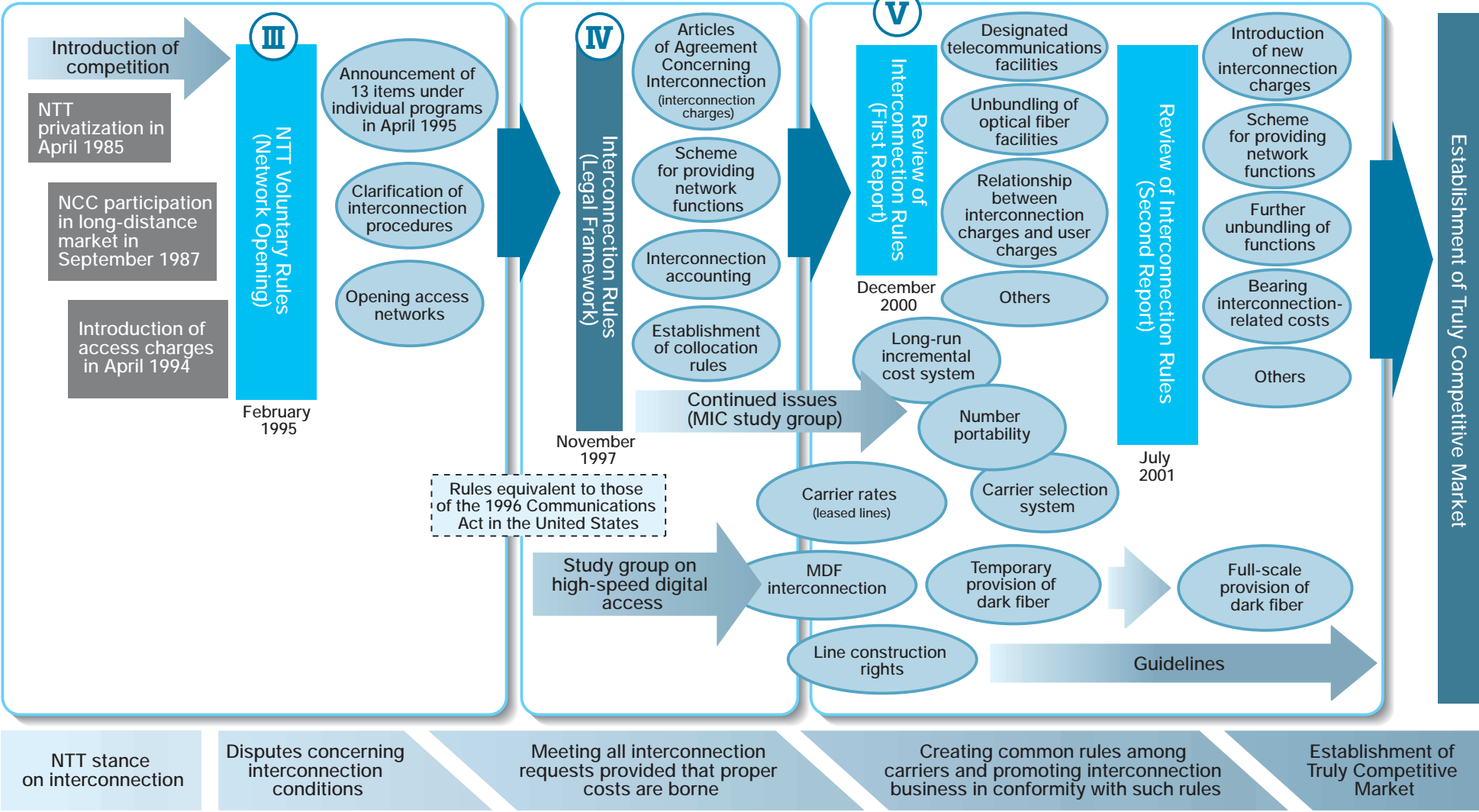
- Article 36: When a telecommunications carrier installing designated Type 1 telecommunications facilities plans to change or add any functions concerning the said designated Type 1 telecommunications facilities (excluding the functions specified in an applicable ministerial ordinance of the MIC), this carrier shall report such plan to the Minister of the MIC within the number of days specified in the applicable ministerial ordinance of the MIC prior to the start day of such work in accordance with the applicable ministerial ordinance of the MIC. The same shall apply when modifications are to be made to such reported plans.
2. In accordance with the applicable ministerial ordinance of the MIC, a telecommunications carrier installing designated Type 1 telecommunications facilities shall publicly announce the plan submitted pursuant to the provisions of the preceding paragraph.
 3. In the event a plan is submitted pursuant to the provisions of Paragraph 1 and when the Minister of the MIC deems that the implementation of the reported plan may cause hindrance to the smooth interconnection between telecommunications facilities of other telecommunications carriers and the designated telecommunications facilities, the Minister of the MIC may recommend changes in such plan to the telecommunications carrier installing the relevant designated telecommunications facilities.

Chapter 2

Activities Towards Network Opening

Establishment of Interconnection Rules and Network Opening

NTT East announced its "Network Opening" policy in February 1995, and has implemented various measures to date to enable other telecommunications carriers to freely utilize NTT East networks and roll out a variety of services on the basis of their own ideas.



Three Goals in Pursuit of Market Competition and the History of Interconnection

Three Goals in Pursuit of Market Competition

- (1) Promoting competition by opening NTT East networks to vitalize the market.
- (2) Establishing interconnection rules to realize a free market that facilitates fair and effective competition.
- (3) Promoting the easing and/or abolition of various regulations that hamper the realization of free competition.

History of Interconnection

<p>Introduction of Competition</p>	<p>April 1985 : Enforcement of the Telecommunications Business Law (privatization of NTT) September 1987 : Participation in long-distance market by NCCs April 1994 : Introduction of interconnection charge system November 1994 : Issue of frame relay and VPN interconnection</p>
<p>Network Opening</p>	<p>February 1995 : Announcement of "Network Opening" policy March 1995 : Specific measures concerning the clarification of interconnection procedures, etc. September 1995 : Opening access networks</p>
<p>Interconnection Rules</p>	<p>November 1997 : Enforcement of Interconnection Rules (Amendment of the Telecommunications Business Law) December 1997 : Completion of network digitization February 1998 : WTO agreement came into effect March 1998 : Approval and implementation of the Articles of Agreement Concerning Interconnection October 2000 : Review of Interconnection Rules referred to the Council December 2000 : First report on the review of Interconnection Rules July 2001 : Second report on the review of Interconnection Rules</p>

Activities on the Basis of Voluntary Rules

NTT East has developed a competitive environment and promoted network opening to provide a venue in which competition can easily take place. Our goal is to promote competition that will vitalize the telecommunications market and consequently benefit customers from greater service diversity at low costs.

Basic Concept

Meeting all interconnection requests except in cases where interconnection is technically impossible, provided that proper costs are borne.

Securing **fair, impartial and non-discriminatory** conditions for interconnection between other carriers and NTT networks.

"Network Opening (Basic Concept)" (Announced in February 1995)

Specific Measures

Meeting all interconnection requests in principle.

Preparation and implementation of standard interconnection procedures and periods.

Securing transparency, and clarifying and lowering interconnection costs → Detailing the grounds for calculations, reducing network costs.

Publicly announcing additions and changes to network functions → Disclosing interface conditions

Publicly announcing Interconnection Agreements → Only cases with the consent of interconnecting carriers.

Specific measures concerning the clarification of interconnection procedures, etc. (Announced on March 31, 1995 and revised on August 31, 1995)

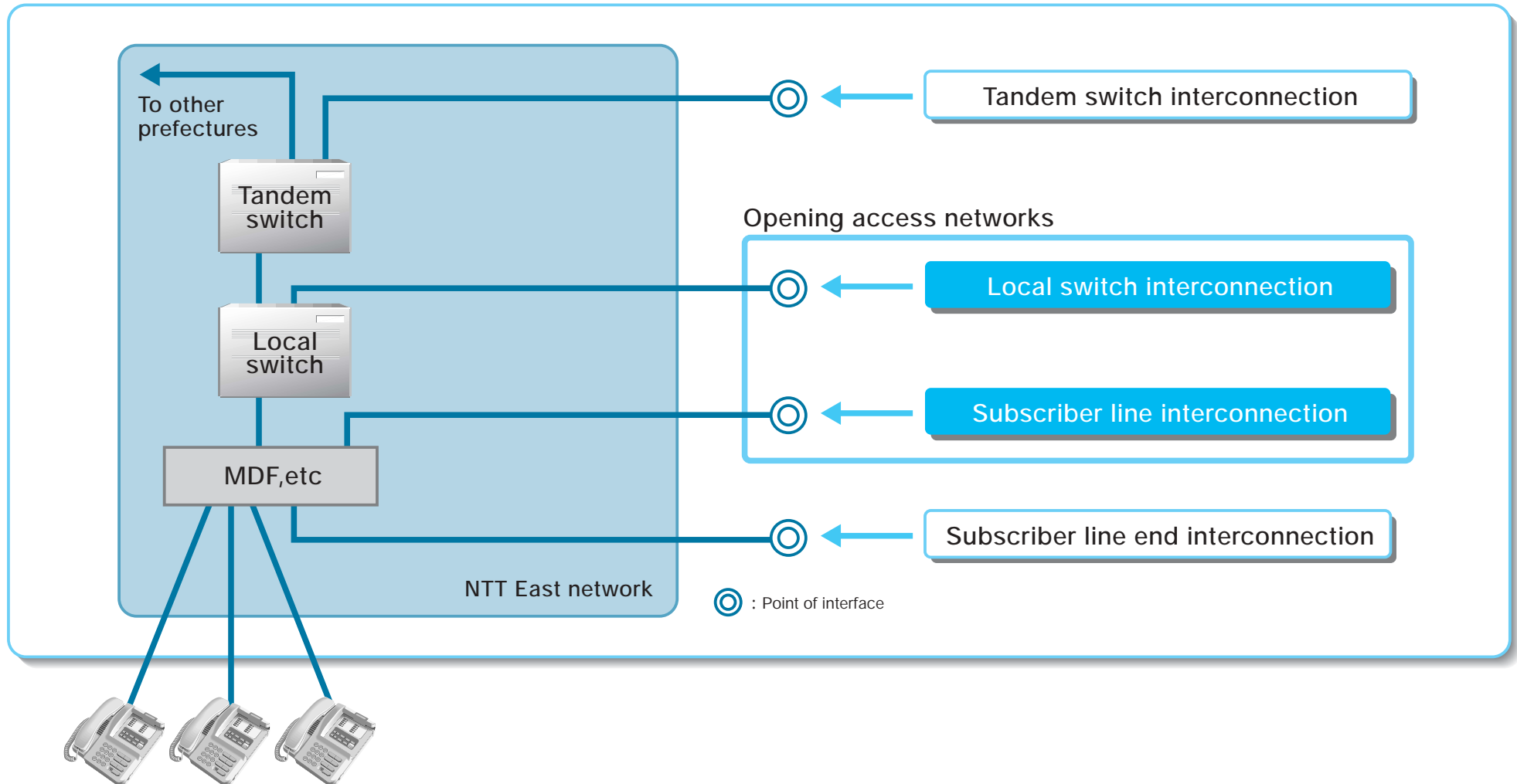
(Reference) Implementation of Specific Programs for Network Opening

NTT East announced "Thirteen Items under Individual Programs for Network Opening" in April 1995 as part of our voluntary efforts for network opening, and has worked towards the implementation of such measures. As a result, all items under the specific programs for network opening were realized in May 2001.

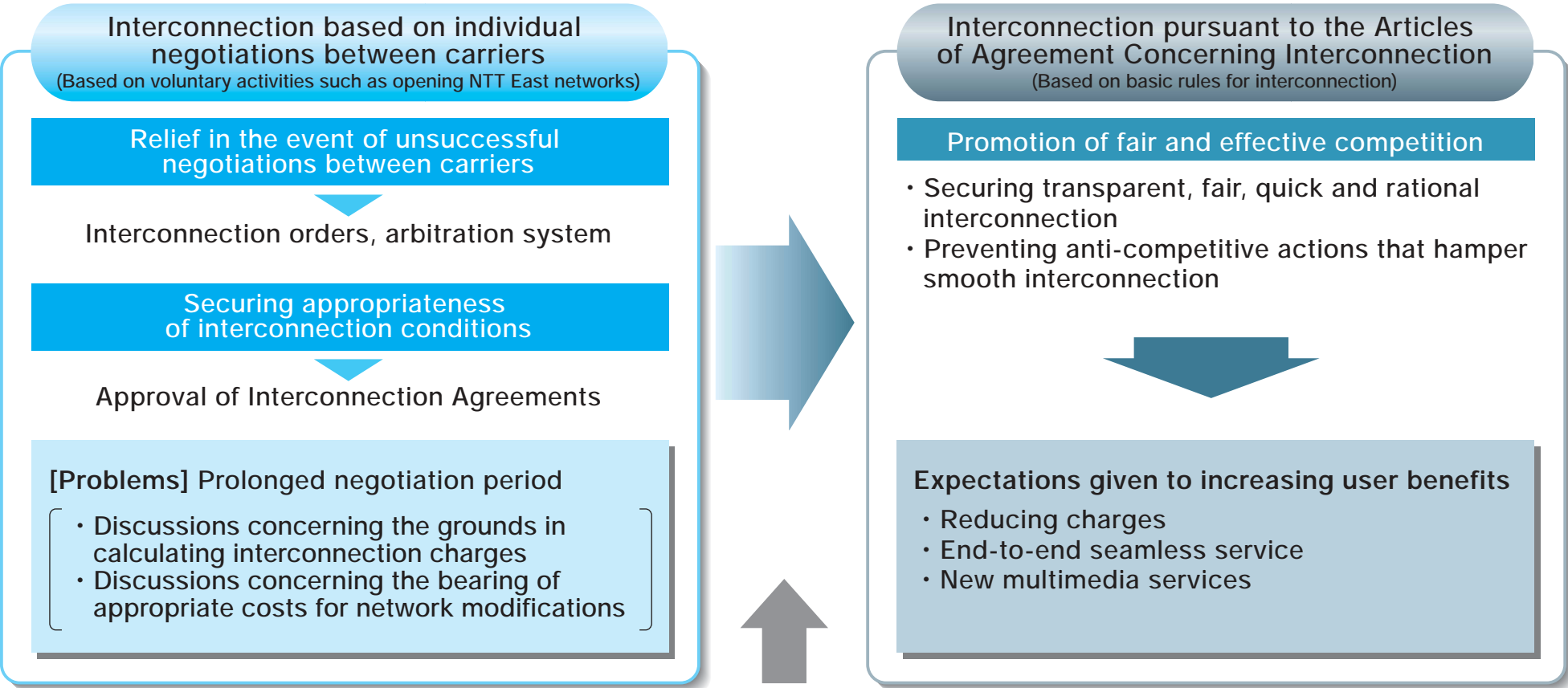
Specific Programs	Implementation Period
1. "Public-leased" and "public-leased-public" line connections	April 1995 (public-leased), October 1996 (public-leased-public)
2. Interconnection with PHS	July 1995 (NTT network dependent type), March 1996 (NTT network connective type)
3. Interconnection between leased line service and telephone service	October 1995
4. Interconnection with CATV phones	December 1996
5. Non-ringing facsimile termination	March 1997
6. Signaling network interconnection	December 1997 (basic service), January 2000 (advanced service)
7. Expansion from one-way interconnection to two-way interconnection, etc.	December 1997
8. Caller ID notification	February 1998 (full-scale service)
9. Interconnection to NTT Free Dial service	October 1998 (CATV), April 1999 (mobile, etc.)
10. Trunk line interconnection with Type II telecommunications carriers	October 1998
11. NCC Free Phone	January 2000
12. Number portability	March 2001
13. Carrier selection (equal access)	May 2001

(Reference) Opening Access Networks

In addition to tandem switch interconnection, interconnection at local switches and subscriber lines has now been made possible, thereby opening access networks.



Review of Interconnection System by Establishing the Legal Framework for Basic Rules for Interconnection



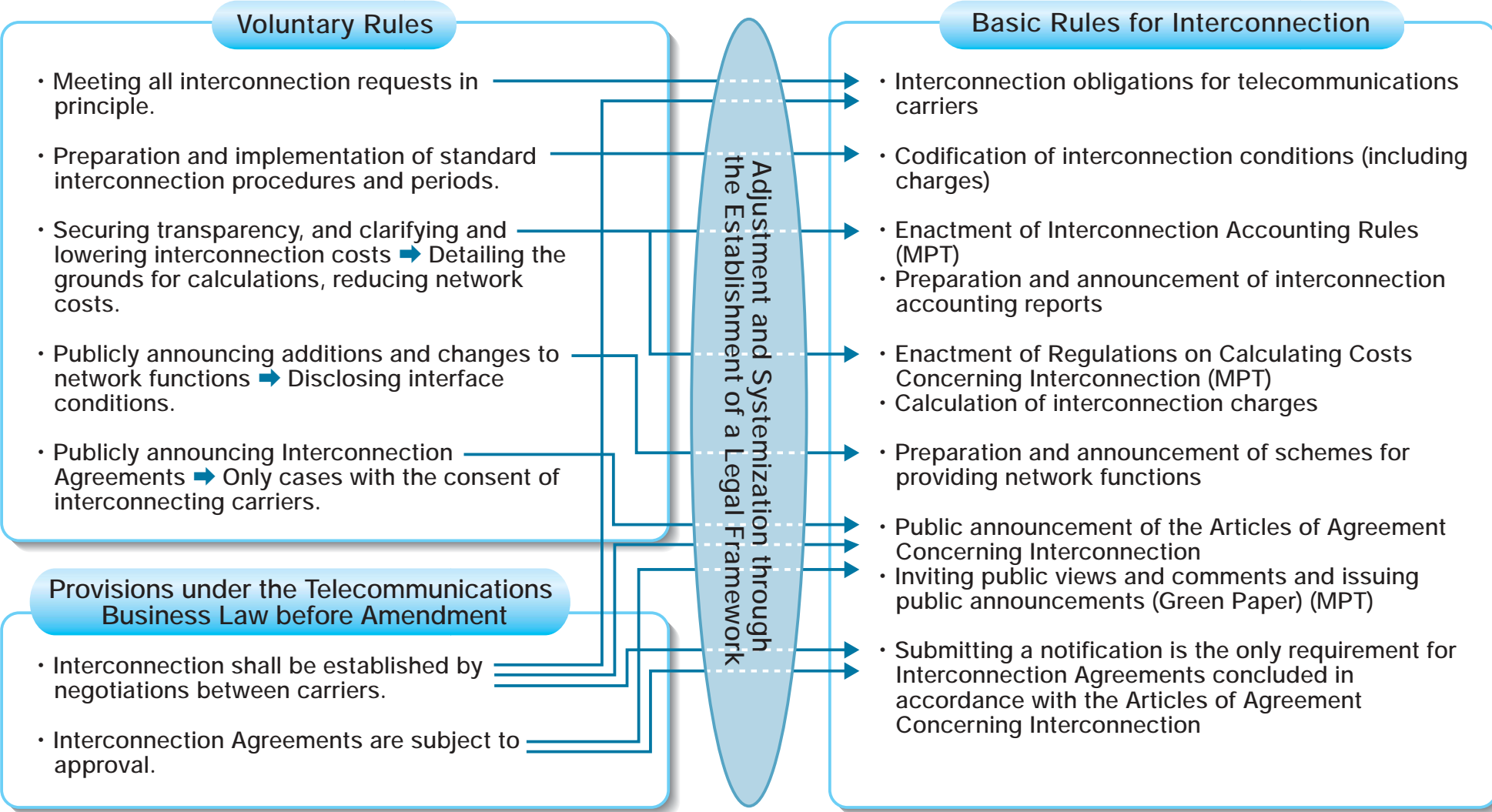
International Harmony based on WTO Agreement

Most-favored-nation treatment Market access National treatment

Additional commitment: Ensuring interconnection (non-discriminatory treatment in terms of periods, conditions and charges, cost-based charges, unbundling)

(Reference) Comparison Between Voluntary Rules and Basic Rules for Interconnection

Through the establishment of the legal framework for the basic rules for interconnection, conventional voluntary rules have been adjusted, and fair and effective competition has been facilitated.



Review of Interconnection Rules

Upon receiving the reports on the review that were submitted in December 2000 and July 2001, interconnection rules are now being revised.

First Report on the "Review of Interconnection Rules" (Ministerial Ordinance revised in April 2001)

1. **Designated telecommunications facilities**
 - Handling of facilities of mobile communications carriers
 - Handling of optical fiber facilities
 - Handling of interoffice transmission line facilities
2. **Unbundling of optical fiber facilities**
3. **Relationship between interconnection charges and user charges**
 - Levels of interconnection charges and flat-rate user charges, etc.
 - Expansion of discount rates for carriers (carrier rates)
4. **Other matters**
 - Concept in bearing interconnection-related costs
 - Using the same telephone number in shifting from ISDN to analog
 - Scheme for providing network functions
 - Establishing the rules on procedures to determine the acceptance or rejection of interconnection requests
 - Periodic review of the overall interconnection system

Second Report on the "Appropriate Interconnection Rules in the IT Era" (Ministerial Ordinance revised in December 2001)

1. **Introduction of new interconnection charges**
 - Interconnection charges for optical fiber facilities
 - Setting flat-rate interconnection charges for the Internet
 - Setting discount rates for carriers interconnecting to public networks
2. **Improvement of the scheme for providing network functions**
 - In principle, maintaining the scheme for providing network functions
 - Application scope of the scheme for providing network functions
 - Public announcement period of the scheme for providing network functions
3. **Further unbundling of functions**
 - Further unbundling of transmission lines
 - Unbundling of optical fiber networks used for FTTH service
4. **Concept in bearing interconnection-related costs**
 - Criteria to determine basic interconnection functions
 - Review of calculation methods concerning interconnection charges borne by individual carriers
5. **Other matters**
 - Verification of relationship between interconnection charges and user charges
 - Non-discriminatory application of procedures, etc., for the use of optical fiber facilities
 - Shortening the interconnection software development period

Chapter 3



Activities for Information Disclosure

Basic Concept in Information Disclosure

NTT East is proactively disclosing various types of information that is generated in the course of telecommunications business operations in order to promote fair competition in the telecommunications market and facilitate the balanced development of telecommunications as a whole.

Scope of Information Disclosure

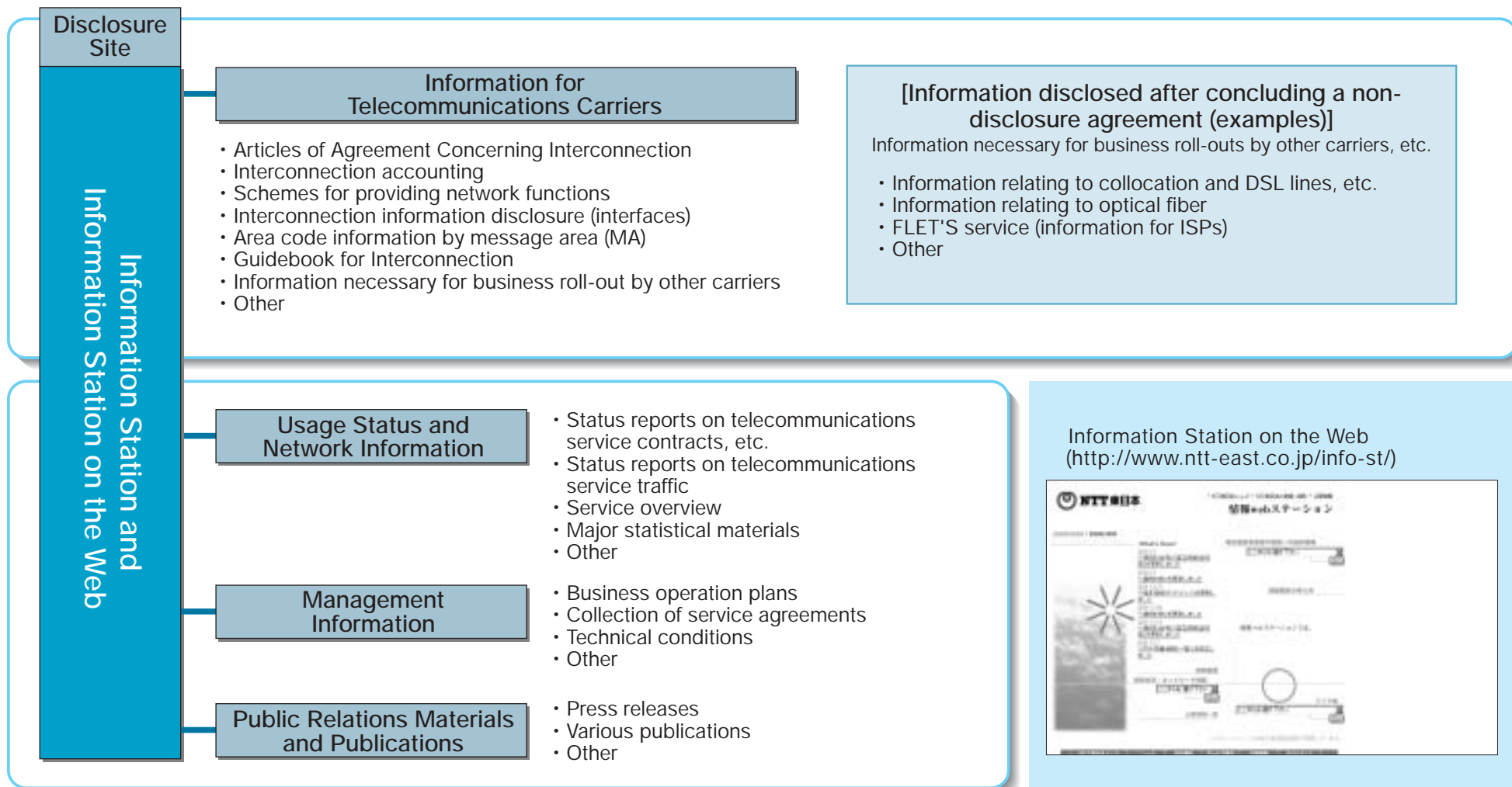
Various types of NTT East proprietary information will be disclosed to the public in principle, except for the following cases.

- (1) Information relating to the privacy of customers, transacting parties, etc.
- (2) Information relating to the maintenance of public order
- (3) Information relating to insider transaction regulations

Information specified above may be disclosed to other carriers establishing network interconnection if it is necessary for the establishment of interconnection and for the roll-out of business, except in cases where legal restrictions are imposed.

Information Subject to Disclosure by NTT East

Information to be disclosed by NTT East is broadly classified into four categories. Information that is necessary for other carriers to establish interconnection will be disclosed based on confidentiality obligations or a non-disclosure contract pursuant to the Articles of Agreement Concerning Interconnection.



NTT East Contact Points for Information Disclosure

NTT East discloses all information necessary to smoothly establish interconnection in accordance with the provisions of the Telecommunications Business Law. Moreover, in order to secure fair and effective competition and increase the effect of research and development results, we also disclose as much technical information as possible.

The above information can be viewed at the following contact points and through the homepage of NTT East.

1. General inquiries about information disclosure

Information Station

1F NTT East Head Office Building, 3-19-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo 163-8019

TEL: 0120-188220

(toll-free number available only in Japan)

9:30 ~ 16:30

(Closed on Saturdays, Sundays and holidays)

Branches

Nagano Branch TEL: 026-225-3043

Miyagi Branch TEL: 022-269-3319

Hokkaido Branch TEL: 011-212-4479

2. Inquiries and applications for disclosure of research and development results

- Disclosure of research and development results and technical information

NTT Intellectual Property Center

TEL: 0422-59-4761

- Disclosure of research and development results and technical information owned by NTT East

Intellectual Property Section, Technology

Department, NTT East

TEL: 03-5359-2755

3. Inquiries about interconnection information other than the above

- Interconnection Promotion Department, NTT East

TEL: 03-5359-4180

4. Information Station on the Web

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

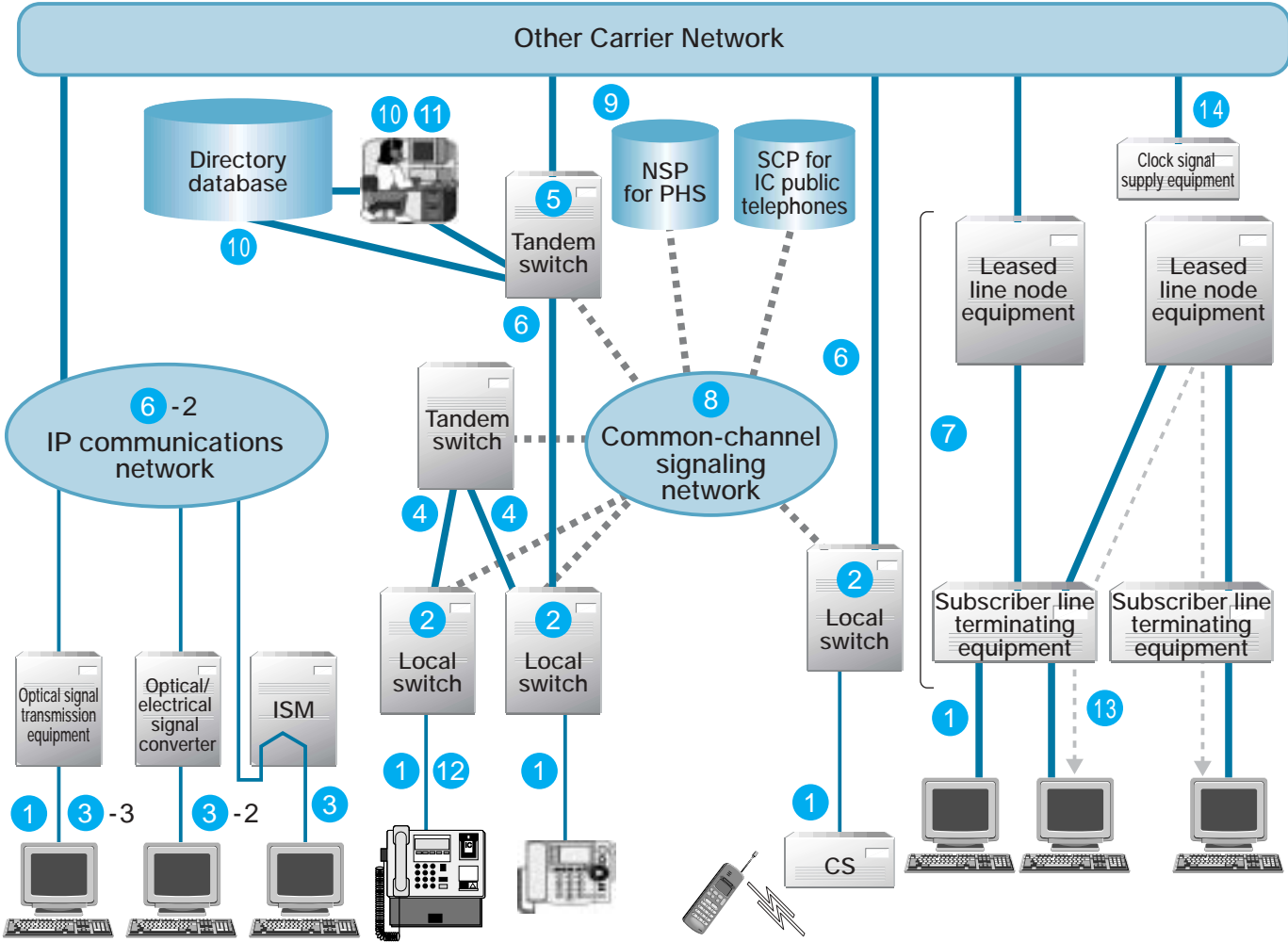
Chapter 4

Other NTT East Activities

Unbundling of Network Functions

In accordance with the Basic Rules for Interconnection, NTT East has unbundled network elements to allow for the use of only specific functions required for interconnection and has set the respective access charge for each.

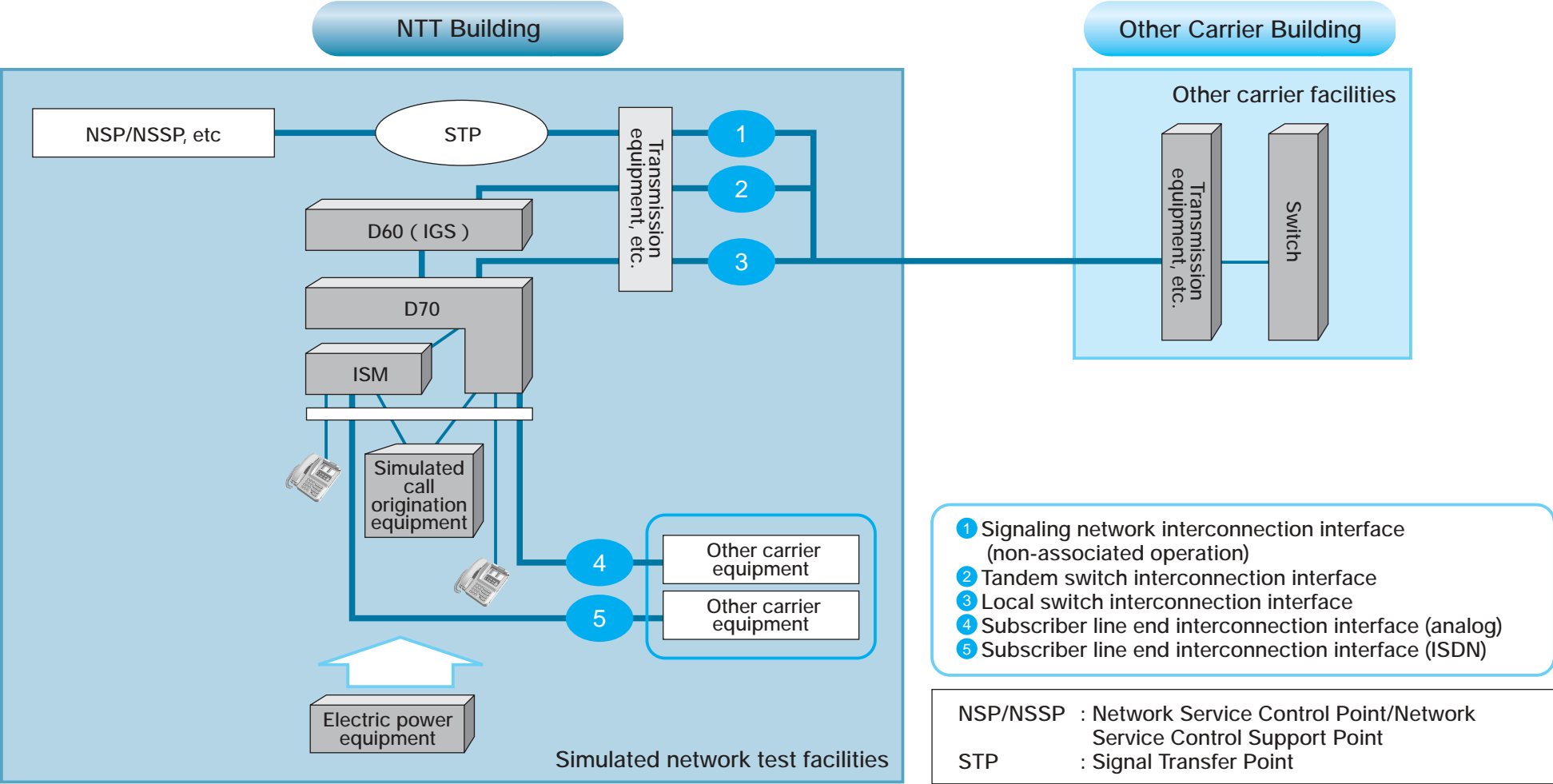
Functions Stipulated in Article 4 of the Interconnection Charge Regulations	
1 Subscriber line transmission functions	Band transparent subscriber line transmission function
	Band division subscriber line transmission function
	Subscriber line transmission function for cell station facilities
	Optical subscriber line transmission function
	ISDN subscriber line transmission function
2 Subscriber line switching function	Local switching function
	Signal control switching function
	Carrier selection function
3 Loop-back communications path setup function	
3 -2 Optical/electrical signal conversion function	
3 -3 Optical signal separation function	
4 Local transmission function	
5 Tandem switching function	
6 Interoffice transmission function	Interoffice transmission function for shared use
	Interoffice transmission function for exclusive use
	Optical interoffice transmission function
6 -2 Routing transmission function	
7 Exclusive transmission function	
8 Signal transmission function	
9 Call-related database function	
10 Directory assistance function	
11 Operator assistance service function	
12 Public telephone function	
13 Inter-terminal transmission function	
14 Clock signal supply function	



Simulated Network Tests

At the request of other carriers, NTT East provides a simulated network test environment (on a fee basis) for preliminary connection testing, etc. We will make individual arrangements with respect to specific equipment configuration and scheduling to implement testing.

<Example of simulated network test configuration (telephone network)>



Contact Points for Comments, Inquires and Requests

NTT East has established contact points within its Interconnection Promotion Department to accept comments, inquiries, requests, etc., from other carriers as part of our efforts to facilitate the proper functioning of fair competitive conditions.

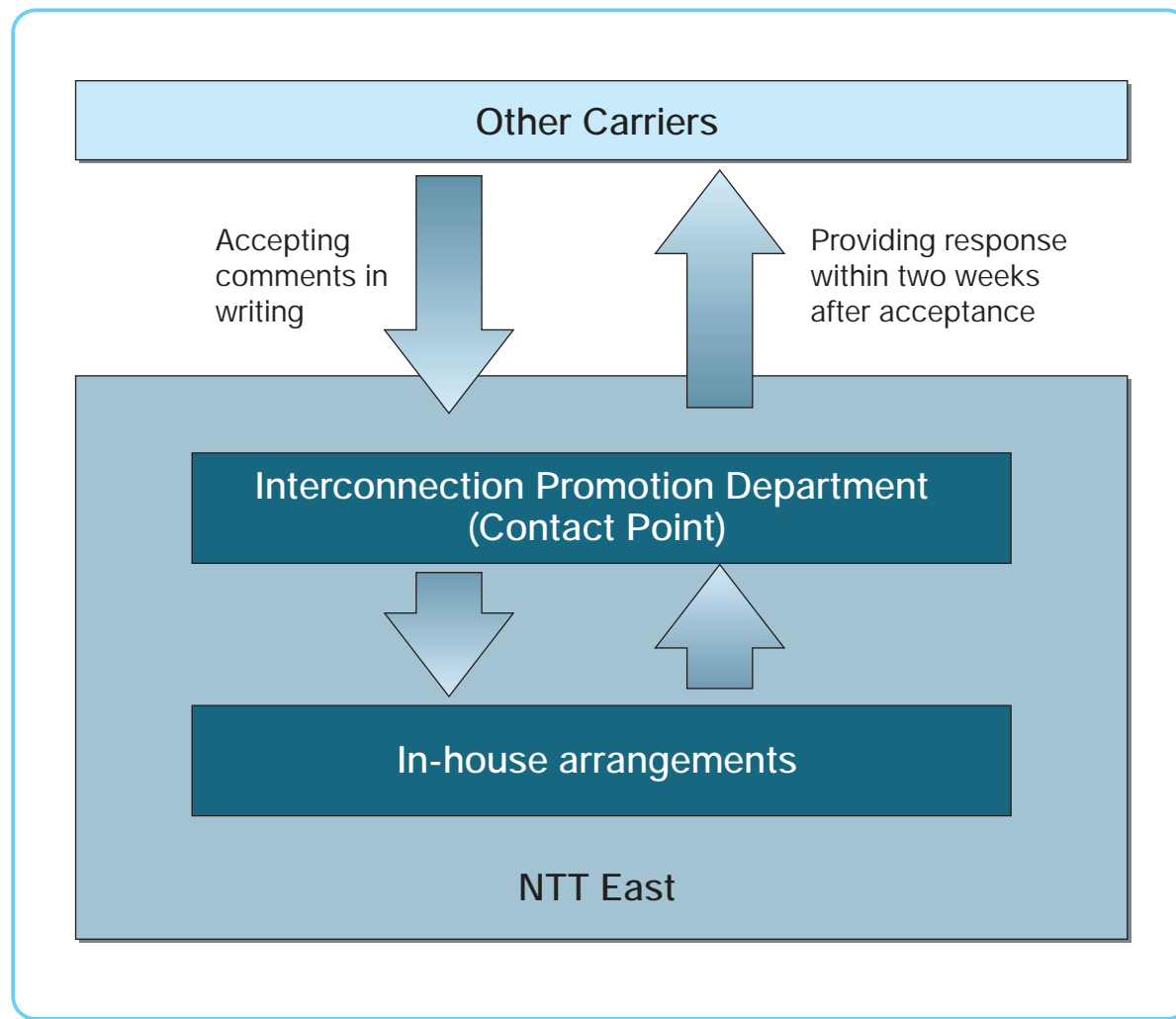
Contact Point

Nippon Telegraph and Telephone East Corporation
Interconnection Promotion Department
3-19-2 Nishi-Shinjuku, Shinjuku-ku, Tokyo
163-8019
TEL: 03-5359-4112
FAX: 03-5359-1528

Procedures

Comments, inquiries, requests, etc., will be accepted in writing and responses will similarly be provided in writing. A response will be provided within two weeks after acceptance in principle.

Operating hours: 9:30 ~ 16:30
(Closed on Saturdays, Sundays and holidays)
Facsimile transmissions will also be accepted.



Activities to Ensure Fair Competition and Non-Discriminatory Treatment

NTT East is carrying out sales and marketing activities for services that compete with interconnecting carriers in strict conformity with the conditions of fair competition.

- 1. Prohibiting the usage of interconnecting carrier information for other than the intended purposes (proper information usage)
- 2. Securing equality in permitting the use of buildings and facilities that are necessary for interconnection and in providing related information (non-discriminatory treatment)

