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Supplement 21
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SERIES Q: SWITCHING AND SIGNALLING

Technical Report TRQ.2320: Bearer Control Signalling Requirements – Third-party Bearer Control

ITU-T Q-series Recommendations – Supplement 21

(Formerly CCITT Recommendations)

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SUPPLEMENT 21 TO ITU-T Q-SERIES RECOMMENDATIONS

TECHNICAL REPORT TRQ.2320: BEARER CONTROL SIGNALLING REQUIREMENTS – THIRD-PARTY BEARER CONTROL

Summary

This Supplement specifies the signalling requirements for bearer control capability of the third party of a call. The bearer control functional entity actions by a third party of a call are defined in terms of information flows.

This Supplement is intended to specify the essential UNI and NNI interactions required to develop third-party bearer control functional entity actions.

Source

Supplement 21 to ITU-T Recommendations was prepared by ITU-T Study Group 11 (1997-2000) and was approved under the WTSC Resolution 5 procedure on 3 December 1999.

FOREWORD

ITU (International Telecommunication Union) is the United Nations Specialized Agency in the field of telecommunications. The ITU Telecommunication Standardization Sector (ITU-T) is a permanent organ of the ITU. The ITU-T is responsible for studying technical, operating and tariff questions and issuing Recommendations on them with a view to standardizing telecommunications on a worldwide basis.

The World Telecommunication Standardization Conference (WTSC), which meets every four years, establishes the topics for study by the ITU-T Study Groups which, in their turn, produce Recommendations on these topics.

The approval of Recommendations by the Members of the ITU-T is covered by the procedure laid down in WTSC Resolution 1.

In some areas of information technology which fall within ITU-T's purview, the necessary standards are prepared on a collaborative basis with ISO and IEC.

NOTE

In this publication, the expression "Administration" is used for conciseness to indicate both a telecommunication administration and a recognized operating agency.

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Supplement 21 to Q-series Recommendations

TECHNICAL REPORT TRQ.2320: BEARER CONTROL SIGNALLING REQUIREMENTS – THIRD-PARTY BEARER CONTROL

(Geneva, 1999)

1 Scope

This Supplement presents the procedures, information flows and information elements needed for supporting control by a third party of bearers involving type 1, 2, 3 and type 5 network connections. Table 1-1 illustrates the scope of the capabilities contained within this Supplement.

Table 1-1 – Third-party Call Control Capabilities

	Network connection type
Addition of one or more new network connections to an existing call requested by a party that will not be attached to the new network connection(s)	
Addition of one new network connections to an existing call	Type 1, 2, 3 and 5
Addition of one or more new network connections to an existing call	Type 1, 2, 3 and 5
Attachment of one or more existing parties to one or more existing network connections requested by a party that is not attached to the existing network connection	
Attach one or more existing parties to one or more existing connections	Type 1, 2, 3 and 5
Attach one or more existing parties to one or more new connections	Type 1, 2, 3 and 5
Detachment of one or more parties from one or more connections by either the call owner, network connection owner or the party owner	
Detach a party from its associated network connection branches in a two-party call	Type 1, 2, 3 and 5
Detach one or more parties from their associated network connection branches in a three- or more-party call	Type 1, 2, 3 and 5
Removal of one or more connections from a call requested by the network requested by either the connection owner or the call owner	
Removal of one or more network connections from a two-party call	Type 1, 2, 3 and 5
Removal of one or more network connections from a three- or more-party call	Type 1, 2, 3 and 5

2 Normative references

The following Technical Reports and other references contain provisions which, through reference in this text, constitute provisions of this Supplement. At the time of publication, the editions indicated were valid. All supplements and other references are subject to revision; all users of this Supplement are therefore encouraged to investigate the possibility of applying the most recent edition of the supplements and other references listed below. A list of the currently valid ITU-T Recommendations and supplements is regularly published.

[1] ITU-T Q-series Recommendations – Supplement 7 (1999), *Technical Report TRQ.200*1: *General aspects for the development of unified signalling requirements*.

[2] ITU-T Q-series Recommendations – Supplement 10 (1999), *Technical Report TRQ.2002*: *Information Flow Elements*.

3 Definitions

This Supplement defines the following terms:

3.1 addressed party: The party addressed by the requested signalling capability.

3.2 addressed serving node: Network equipment associated with the party addressed by the requested signalling capability.

3.3 backward: The direction from the addressed party to the party requesting a signalling capability.

3.4 network connection: An ATM network connection of topology type 1 to 5 as defined in the Supplement 7 [1].

3.5 call: An end-to-end communications service between two- or more-call party end points, or between one call party end point and its Serving Node.

3.6 call owner: One who initiates a call is the Call Owner. There is only one Call Owner per call.

3.7 forward: The direction from the requesting party to the addressed party.

3.8 party owner: One who adds a party to a call is the owner of that party. There may be several party Owners within a call.

3.9 relay node: Network equipment, such as a transit bearer exchange, which contains a bearer control functional entity but no call control functional entity.

3.10 requesting party: The party requesting a signalling capability.

3.11 requesting serving node: Network equipment associated with the party requesting a signalling capability.

3.12 serving node: Network equipment, such as a local exchange or private branch exchange, which contains call control and bearer control functional entities.

4 Abbreviations

This Supplement uses the following abbreviations:

NA Not Applicable

PEP Party End Point

5 Information flows used in this Supplement

Table 5-1 contains the root- and third-party control information flows that are used across the call control and bearer control interfaces illustrated in the Unified Functional Model contained in Supplement 7 [1]. These information flows are used to establish, modify and release third-party requested network connections.

Table 5-1 – Information flows used for third-party control

Information Flow	begin	ready	commit	cancel	indication
Add-Bearer-to-Call	✓	✓	✓		
Attach-Party-to-Bearer	✓	✓	✓		
Remote-Attach-Party-to-Bearer	✓	✓	✓		
Remote-Add-Bearer-to-Call	✓	✓	✓		
Detach-Party-from-Bearer		✓	✓		
Notify-Call-&-Bearer-Change					✓
Release-Bearer		✓	✓		
Remote-Release-Bearer		✓	✓		
Remote-Detach-Party-from Bearer		✓	✓		

In addition to those information flows defined in Table 5-1, the full set of information flow definitions can be found in Supplement 10 [2].

6 Overview of call control level peer-to-peer functional entity actions

Stage 2 flows for each signalling capability is illustrated via a high level overview. The overview model does not illustrate all possible configurations which could exist within an actual instant of the service, however, the examples have been chosen in order to illustrate the general principles. The overview will employ the network configuration shown in Figure 6-1. The actions illustrated in this figure can be used to describe signalling control actions associated with establishment or release of a network connection.

Note that for the purpose of this overview, the information flows and actions illustrate the establishment of a two-party network connection.

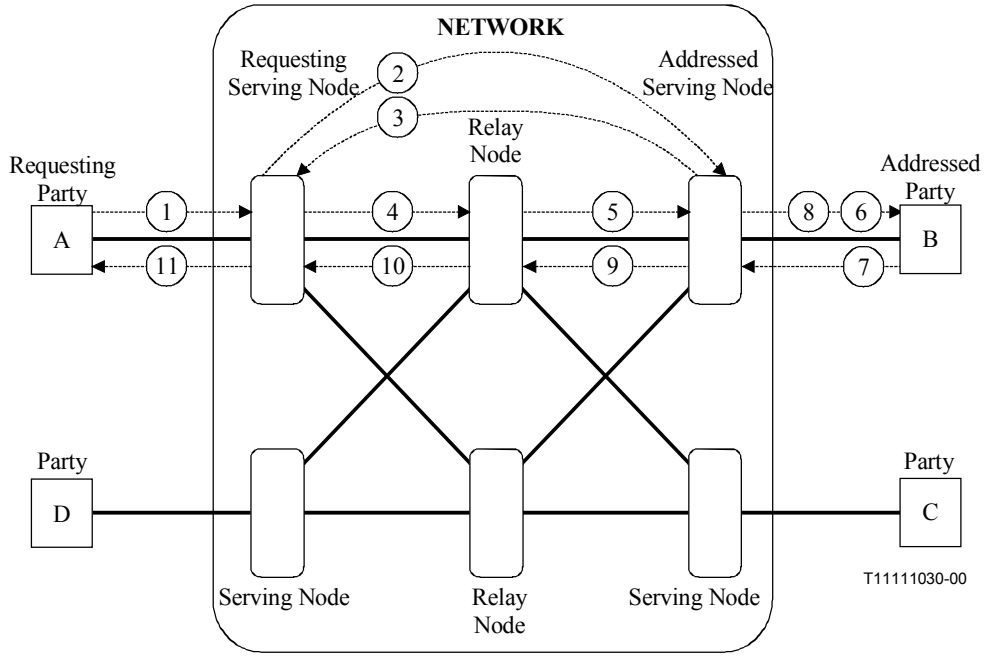


Figure 6-1 – Two-party coordinated call and network connection establishment

The actions illustrated in Figure 6-1 are described as follows:

1) Signalling Service Request issued by service requester: Receiving entity validates request, modifies internal state information, and then issues action 2.

2) Relayed Signalling Service Request issued by requester's serving node: Receiving entity validates request, modifies internal state information, and then issues its response as action 3.

3) Signalling Service Response issued by addressed party's serving node: Receiving entity validates request, modifies internal state information, and then issues the request on the relay node as action 4.

4) Signalling Service Request issued by requester's serving node: Receiving entity records request, modifies internal state information and then relays request as action 5.

5) Relayed Signalling Service Request issued by relay node: Receiving entity records request, modifies internal state information and then issues the request on the addressed party's interface as action 6.

6) Signalling Service Request issued by addressed party's serving node: Receiving entity validates request, modifies internal state information, and then issues its response as action 7.

7) Signalling Service Response issued by addressed party: Receiving entity records response, modifies internal state information, and then issues its confirmation as action 8 and its response as action 9.

8) Signalling Service Confirmation issued by addressed party's serving node: Receiving entity records response, modifies internal state information, and notifies the user of the outcome of the responded service.

9) Signalling Service Response issued by addressed party's serving node: Receiving entity records response, modifies internal state information and then relays response as action 10.

10) Signalling Service Response issued by relay node: Receiving entity records response, modifies internal state information and relays response to the service requester as action 11.

11) Signalling Service Response issued by requester's serving node: Receiving entity records response, modifies internal state information, and notifies the user of the outcome of the requested service.

The purpose of this overview model is to provide an end-to-end pictorial representation of the signalling capability in one figure. Again, note that the model does not present all possible network topologies, however, it illustrates the general configurations that would be encountered in intra-network operation. The extension to multiple networks can be extrapolated by replacing the serving nodes and relay nodes with local serving networks and transit networks.

The following clauses will describe the basic bearer control signalling capabilities using this model.

7 Addition of a new network connection to an existing call with attachment of existing parties to the network connection

The addition of one or more Network Connections to an existing call can be separated into several categories such as those that are associated with Type 1 and Type 2 Network Connections. For Signalling Capability Set 2, the following categories have been agreed upon:

1) Addition of a Type 1 Network Connection to an existing call.

2) Addition of a Type 2 Network Connection to an existing call.

The following subclause describes these signalling services.

Four example variations of this capability will be illustrated in this clause. These four variations are as follows:

1) Network Connection Establishment of a Type 1 Network Connection by a "third party" and without negotiation, without network initiated "Look ahead", and without notification;

2) Network Connection Establishment of a Type 2 Network Connection by a "third party" and without negotiation, without network initiated "Look ahead", and without notification;

3) Network Connection Establishment of a Type 1 Network Connection by a "third party" with negotiation, but without network initiated "Look ahead", and without notification; and

4) Network Connection Establishment of a Type 2 Network Connection by a "third party" with negotiation, but without network initiated "Look ahead", and without notification.

5) Simultaneous Call and Network Connection establishment capabilities are not contained in the following subclauses; the Information Flows, however, follow similar patterns.

7.1 Addition of a Type 1 network connection to an existing call

One example variation of this capability will be illustrated in this subclause. This variation is as follows:

– Addition of a Network Connection to an existing call requested by a third party associated with the call without network "Look ahead" and without the Notification of the other parties associated with the call.

The overview of the capabilities for addition of a Type 1 Network Connection to an existing call are contained in the following subclause.

7.1.1 Network connection establishment with Type 1 connection – Third party – No negotiation

The User (party D) requests a connection between party A and party B. One point-to-point Network Connection is to be associated with this call. Parties A and B are to be attached to the Network Connection. The User (party D) also specifies the Higher Layer service to be carried on this Network Connection and the desired Network Bearer service that should be established. The requested service is of the non-human interactive type. Therefore, immediate answer can be performed by the party A's and party B's equipment. If both the Requested parties equipment can accept the requested service, the designated attachment method, and specified bearer service, the equipment will indicate acceptance of the call and Network Connection request. This example also assumes that both Requested parties are not connected to a Multi-signalling entity interface. In addition, the network does not perform a "Look-ahead" procedure before progressing with the Network Connection establishment. The call and bearer transition diagram for adding a new type 1 connection to an existing call is shown below (see Figure 7-1).

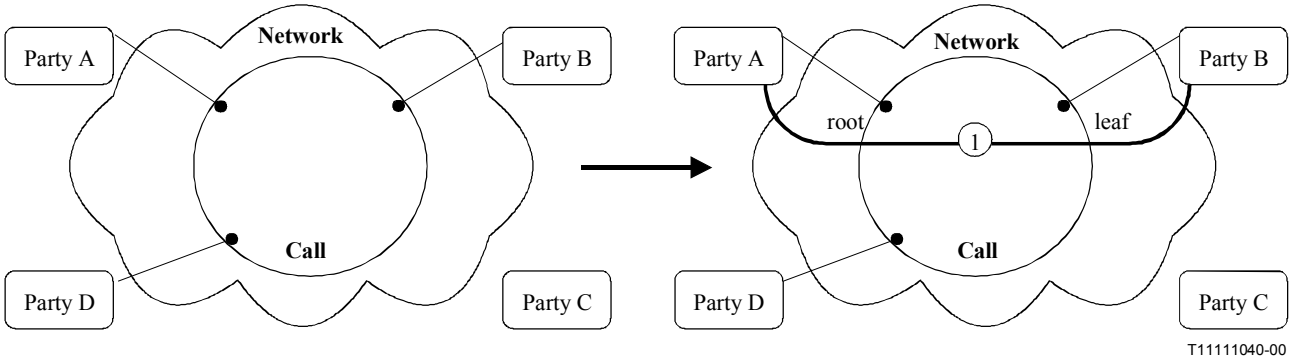


Figure 7-1 – Call and Bearer Transition for addition of a new type 1 connection to an existing call

The signalling capability of adding an additional Network Connection between two parties by a third party without network "Look ahead" and without notification is illustrated in Figure 7-2.

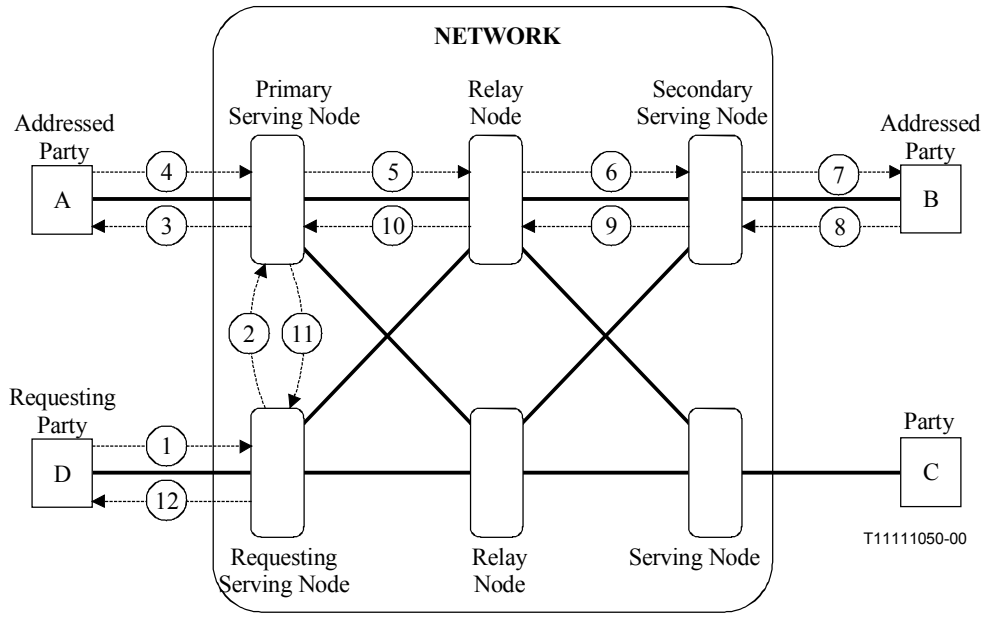


Figure 7-2 – Point-to-point Network Connection – Type 1 between A and B Third Party – No Negotiation – No Look Ahead – No Notification

The actions illustrated in Figure 7-2 are as follows.

The requesting party's (party D) terminal equipment issues the following information flow towards its serving node.

1 Add-Bearer-to-Call.ready Party D to Serving Node D

Resource information	Call Information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID** **Addressed party Information** [PEP "A" ID, Network address], **Addressed party Information** [PEP "B" ID, Network address], **Requesting party information** [PEP "D" ID, Network Address]	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), [(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The requester's serving node validates the request and determines which party will be designated the "root" party for this Network Connection (for this example party A is chosen) and the edge signalling route to the serving node associated with selected "root" party. Since party D is not attached to the requested Network Connection, and the "root" of the Network Connection is located in another serving node, a remote operation request needs to be invoked. In addition, only one outgoing signalling port is needed, therefore party D's serving node can commit to the request and, therefore, issues the following information flow towards the selected "root" serving node.

2 Remote-Add-Bearer-to-Call.ready Serving Node D to Serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID** **Direct Call association** (SN(A) ref-a - SN(D):ref. D) ID, **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "B" ID, Network address] Party Owner: PEP "D" ID,, **Requesting party information** [PEP "D" ID, Network Address] Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), [(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The selected serving node validates the request and determines the interface associated with party A. Since this interface is not a multi-signalling entity interface and the Network Connection is established without negotiation possibilities, the serving node can commit to the request and, therefore, issues the following information flow towards the addressed party (party A).

3 Add-Bearer-to-Call.ready Serving Node A to Party A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address], Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When party A receives the above information flow, it determines if it can accept the request contained in the information flow. If it can accept the Network Connection, it responds with the following message. The terminal equipment then attaches to the forward and backward portion of the Network Connection.

4 Add-Bearer-to-Call.commit Party A to Serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID	**Network connection 1** [Bearer "1" ID, Bearer type, **Addressed party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives the above information flow, it then determines the route and the outgoing trunk facility. Since only one outgoing port is needed, and party A has accepted the request, the serving node can also commit to the request and therefore issues the following information flow towards the selected relay node. The Network Connection is backward through connected.

5 Add-Bearer-to-Call.ready Serving Node A to Relay Node 1

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The selected relay node validates the request and determines the route and outgoing trunk facility. Since only one outgoing port is needed, the relay node can commit to the request and, therefore, issues the following information flow towards the addressed serving node. The Network Connection is backward through connected.

6 Add-Bearer-to-Call.ready Relay Node 1 to Serving Node B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Call Owner: PEP "A" ID** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address, Party Owner: PEP "D" ID,]	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed serving node validates the request and selects the terminating interface facility. Since the interface is not classified as a multiple signalling entity interface, the serving node can commit to the addressed end point and, therefore, issues the following information flow towards the selected interface facility. The Network Connection is back-ward through connected.

7 Add-Bearer-to-Call.ready Serving Node B to Party B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address, Party Owner: PEP "D" ID,]	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed terminal equipment determines that it can accept the request and issues the following information flow towards its associated serving node. The terminal connects to the Network Connection in both the forward and backward directions.

8 Add-Bearer-to-Call.commit Party B to Serving Node B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed serving node records the response and issues the following information flow towards the requesting relay node. The Network Connection is forward through connected.

9 Add-Bearer-to-Call.commit Serving Node B to Relay Node 1

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Remote party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** **(**SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the relay node receives this information flow, it records the commitment, and relays this commitment to the requesting serving node by issuing the following information flow, it also performs forward through-connect of the Network Connection.

10 Add-Bearer-to-Call.commit Relay Node 1 to serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Remote party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "D" ID, Network address	**Network connection 1** [Bearer "1" ID, Bearer type, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives this information flow, it records the commitment and performs forward through-connect of the Network Connection. In addition, it issues the notification of the completion of the remote request by issuing the following information flow towards the requesting serving node associated with party D.

11 Add-Bearer-to-Call-Remote.commit Serving Node A to Serving Node D

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type,	**Call Control Segment ID,** **Direct Call association** **(**SN(A):ref.a - SN(D):ref.d) ID, **Remote Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), [(PEP "A" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the requesting service node receives this information flow, it records the commitment, and relays the commitment to the requesting party (party D) by issuing the following information flow.

12	Add-Bearer-to-Call.commit	Serving Node D to Party D

Resource information	**Call information**	**Bearer information**
Session ID	**Call Control Segment ID**	**Network connection 1**
Resource 1	**Call Owner: PEP "A" ID**	[Bearer "1" ID,
[Resource 1 ID, Resource type,	**Addressed party Information**	**Remote party's bearer branch information**
	[PEP "D" ID, Network address],	[(PEP "B" ID, bearer branch characteristics),
	Party Owner: PEP "D" ID,	[(PEP "A" ID, bearer branch characteristics),
		Remote party's service module information
		[(PEP "B" ID, Service module characteristics
		[(PEP "A" ID, Service module characteristics
		Service component list
		[(Resource 1 ID)]

Processing upon receipt: When the requesting party's user equipment receives this information flow, it records the commitment and notifies the user, thereby completing the requested action.

7.1.2 Network connection establishment with Type 1 connection – Third party – With negotiation

The User (party D) requests a connection between party A and party B. One point-to-point Network Connection is to be associated with this call. Parties A and B are to be attached to the Network Connection. The User (party D) does not fully specify the Higher Layer service to be carried on this Network Connection and the desired Network Bearer service that should be established. The requested service is of the non-human interactive type. Therefore, immediate answer can be performed by the party A's and party B's equipment. If party A can accept the requested service, it may further specify the Higher Layer service and the desired Network Bearer service that is to be established. If party B also can accept the requested service, it may have to fully specify the Higher Layer service and the desired Network Bearer service that is to be established. This example also assumes that both requested parties are not connected to a multi-signalling entity interface. In addition, the network does not perform a "Look-ahead" procedure before progressing with the Network Connection establishment. The call and bearer transition diagram for adding a new type 1 connection to an existing call is shown in Figure 7-3 below.

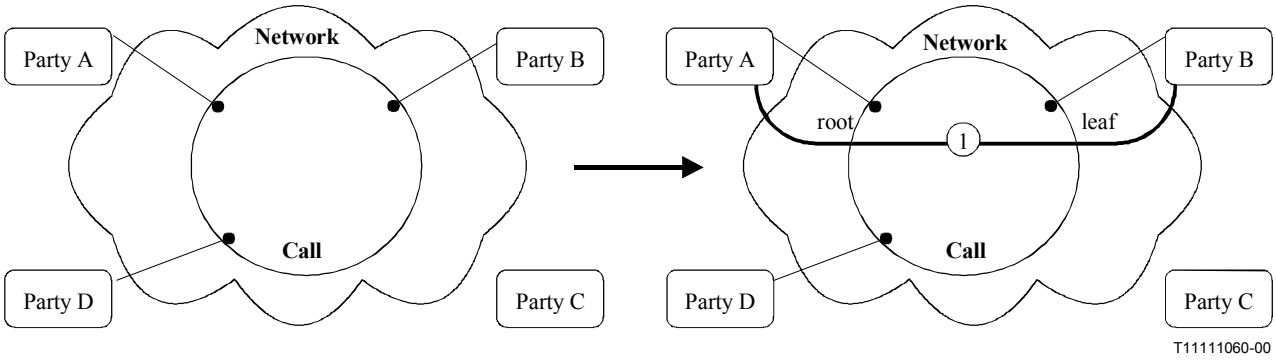


Figure 7-3 – Call and Bearer Transition for addition of a new type 1 connection to an existing call

The signalling capability of adding an additional Network Connection between two parties by a third party without network "Look ahead" and without notification but with negotiation is illustrated in Figure 7-4 below.

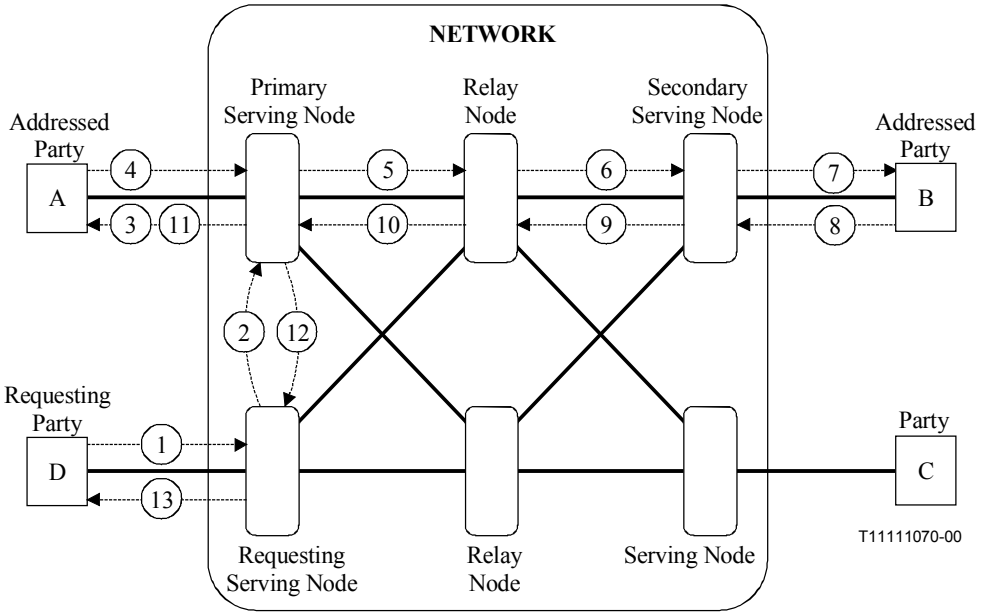


Figure 7-4 – Point-to-point Network Connection (Type 1 between A and B) – Third Party – With Negotiation – No Look ahead – No Notification

The actions illustrated in Figure 7-4 are as follows.

The requesting party's (party D) terminal equipment issues the following information flow towards its serving node.

1 Add-Bearer-to-Call.ready Party D to Serving Node D

Resource information
Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP"B"),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]

Call information
Call Control Segment ID
Addressed party Information
[PEP "A" ID, Network address],
Addressed party Information
[PEP "B" ID, Network address],
Requesting party information
[PEP "D" ID, Network Address]

Bearer information
Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
(PEP "A" ID(root), PEP "B" ID(leaf)),
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The requester's serving node validates the request and determines which party will be designated the "root" party for this Network Connection (for this example party A is chosen) and the edge signalling route to the serving node associated with the selected "root" party. Since party D is not attached to the requested Network Connection, and the "root" of the Network Connection is located in another serving node, a remote operation request needs to be invoked. In addition, only one outgoing signalling port is needed, therefore party D's serving node can commit to the request and, therefore, issues the following information flow towards the selected "root" serving node.

2 Remote-Add-Bearer-to-Call.ready Serving Node D to Serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID** **Direct Call association** (SN(A) ref-a - SN(D):ref.d) ID, **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "B" ID, Network address] Party Owner: PEP "D" ID,, **Requesting party information** [PEP "D" ID, Network Address] Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), [(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The selected serving node validates the request and determines the interface associated with party A. Although this interface is a not multi-signalling entity interface, the Network Connection is established with negotiation possibilities, therefore, the serving node cannot commit to the request and has to issue the following information flow towards the addressed party (party A).

3 Add-Bearer-to-Call.begin Serving Node A to Party A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address], Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When party A receives the above information flow, it determines if it can accept the request contained in the information flow. If it can accept the Network Connection, it may further specify the Higher Layer service and the desired Network Bearer service that is to be established. It then responds with the following message. The terminal equipment does not yet attach to the Network Connection.

4 Add-Bearer-to-Call.ready Party A to Serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID	**Network connection 1** [Bearer "1" ID, Bearer type, **Addressed party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives the above information flow, it determines the route and the outgoing trunk facility. Since only one outgoing port is needed, and party A has accepted the request, the serving node can also commit to the request and therefore issues the following information flow towards the selected relay node. The Network Connection is not yet through connected.

5 Add-Bearer-to-Call.ready Serving Node A to Relay Node 1

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The selected relay node validates the request and determines the route and outgoing trunk facility. Since only one outgoing port is needed, the relay node can commit to the request and, therefore, issues the following information flow towards the addressed serving node. The Network Connection is not yet through connected.

6 Add-Bearer-to-Call.ready Relay Node 1 to Serving Node B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Owner: PEP "D" ID** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address, Party Owner: PEP "D" ID,]	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed serving node validates the request and selects the terminating interface facility. Since the interface is not classified as a multiple signalling entity interface, the serving node can commit to the addressed end point and, therefore, issues the following information flow towards the selected interface facility. The Network Connection is not yet through connected.

7 Add-Bearer-to-Call.ready Serving Node B to Party B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B"), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Remote party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address, Party Owner: PEP "D" ID,]	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID(leaf)), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed terminal equipment determines that it can accept the request. It may have to fully specify the Higher Layer service and the desired Network Bearer service that is to be established. It then issues the following information flow towards its associated serving node. The terminal connects to the Network Connection in both the forward and backward directions.

8 Add-Bearer-to-Call.commit Party B to Serving Node B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed serving node records the response and issues the following information flow towards the requesting relay node. The Network Connection is through connected in both the forward and backward direction.

9 Add-Bearer-to-Call.commit Serving Node B to Relay Node 1

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Remote party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** **(**SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "A" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the relay node receives this information flow, it records the commitment, and relays this commitment to the requesting serving node by issuing the following information flow, it also performs forward and backward through-connect of the Network Connection.

10 Add-Bearer-to-Call.commit Relay Node 1 to serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Remote party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Remote party information** [PEP "B" ID, Network address, **Addressed party Information** [PEP "A" ID, Network address	**Network connection 1** [Bearer "1" ID, Bearer type, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives this information flow, it records the commitment and performs forward and backward through-connect of the Network Connection. It also sends a commitment information flow towards party A's terminal equipment by issuing the following information flow.

11 Add-Bearer-to-Call.commit Serving Node A to Party A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Remote party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: Upon receipt of this message, party A's terminal connects to the forward and backward direction of the Network Connection.

In addition, party A's serving node issues the notification of the completion of the remote request by issuing the following information flow towards the requesting serving node associated with party D.

12 Add-Bearer-to-Call-Remote.commit Serving Node A to Serving Node D

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type,	**Call Control Segment ID,** **Direct Call association** **(**SN(A):ref.a - SN(D):ref.d) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), [(PEP "A" ID, bearer branch characteristics), **Remote party's service module information** [(PEP "B" ID, Service module characteristics [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the requesting service node receives this information flow, it records the commitment, and relays the commitment to the requesting party (party D) by issuing the following information flow.

13 Add-Bearer-to-Call.commit Serving Node D to Party D

Resource information	Call information	Bearer information
Session ID	**Call Control Segment ID**	**Network connection 1**
Resource 1	**Call Owner: PEP "A" ID**	[Bearer "1" ID,
[Resource 1 ID, Resource type,	**Addressed party Information**	**Remote party's bearer branch information**
	[PEP "D" ID, Network address],	[(PEP "B" ID, bearer branch characteristics),
	Party Owner: PEP "D" ID,	[(PEP "A" ID, bearer branch characteristics),
		Remote party's service module information
		[(PEP "B" ID, Service module characteristics
		[(PEP "A" ID, Service module characteristics
		Service component list
		[(Resource 1 ID)]

Processing upon receipt: When the requesting party's user equipment receives this information flow, it records the commitment and notifies the user, thereby completing the requested action.

7.2 Addition of a Type 2 network connection to an existing call

Two example variations of this capability will be illustrated in this subclause. These variations are as follows:

1) addition of a single Network Connection with branching occurring at the originating exchange and without network initiated "Look ahead". The requesting party is to be the "root" of the Network Connection; and

2) addition of a single Network Connection with branching occurring at the relay node and without network initiated "Look ahead". The requesting party is to be the "root" of the Network Connection.

The overview of the Type 2 simultaneous call and Network Connection establishment capabilities are contained in the following subclauses.

7.2.1 Network connection establishment with Type 2 connection – Third party – No negotiation

The User (party D) requests a point-to-multipoint Network Connection to be associated with this call. Parties A, B and C are to be attached to the Network Connection. Party A is to be the "root" of the Network Connection. The User also specifies the Higher Layer service to be carried on this Network Connection and the desired Network Bearer service that should be established. The requested service is of the non-human interactive type. Therefore, immediate answer can be performed by party A's party B's, and party C's equipment. If the requested parties equipment can accept the requested service, the designated attachment method, and specified bearer service, the equipment will indicate acceptance of the call and Network Connection request. This example also assumes that the requested parties are not connected to a multi-signalling entity interface. In addition, the network does not perform a "Look-ahead" procedure before progressing with the Network Connection establishment. The call and bearer transition diagram for adding a new type 2 connection to an existing call is shown in Figure 7-5 below.

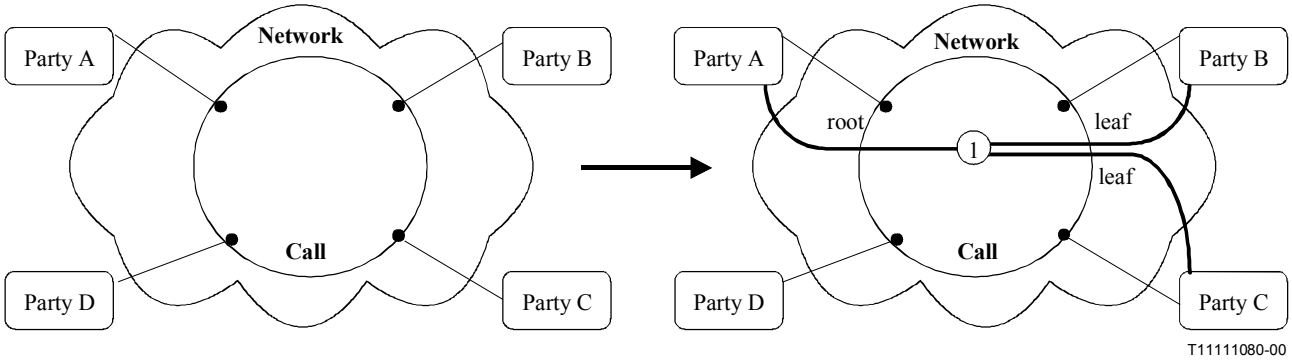


Figure 7-5 – Call and Bearer Transition for addition of a new type 2 connection to an existing call

The signalling capability of adding this Network Connection between the three parties by a further party without network "Look ahead" and without notification is illustrated in Figure 7-6 below.

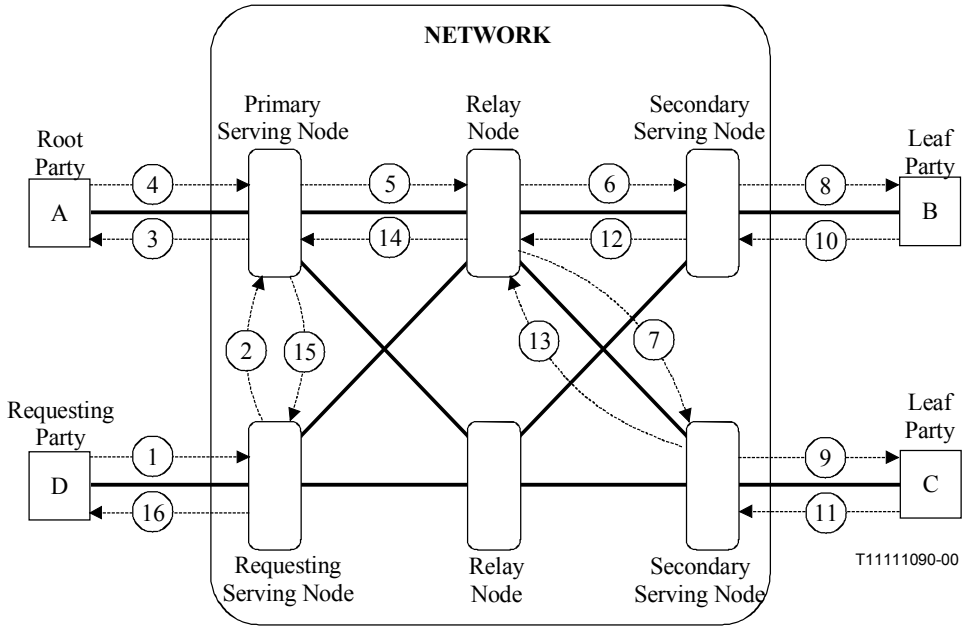


Figure 7-6 – Point-to-multipoint Network Connection (Type 2 between A, B and C) – Third Party – No Negotiation – No Look ahead – No Notification

The actions illustrated in Figure 7-6 are as follows.

The requesting party's (party D) terminal equipment issues the following information flow towards its serving node.

1 Add-Bearer-to-Call.ready Party D to Serving Node D

Resource information
Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]
(PEP "C" ID, Service component characteristics)]

Call information
Call Control Segment ID
Addressed party Information
[PEP "A" ID, Network address],
Addressed party Information
[PEP "B" ID, Network address],
Addressed party Information
[PEP "C" ID, Network address],
Requesting party information
[PEP "D" ID, Network Address]

Bearer information
Network connection 1
[Bearer "1" ID, Bearer type,
Parties connected
(PEP "A" ID, PEP "B" ID), , PEP "C" ID)
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics),
[(PEP "C" ID, Transit Network Selection, bearer branch characteristics)
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
[(PEP "C" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The requester's serving node validates the request and determines the route to the serving node associated with the "root" of the Network Connection. Since the "root" of the Network Connection is located in another serving node, a remote operation request needs to be invoked. The following information flow is issued towards the serving node associated with party A.

2 Add-Bearer-to-Call-Remote.ready Serving Node D to Serving Node A

Resource information
Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]
(PEP "C" ID, Service component characteristics)]

Call information
Call Control Segment ID
Direct Call association (SN(A) ref-a - SN(D):ref.d) ID,
Call Owner: PEP "A" ID
Addressed party Information
[PEP "A" ID, Network address],
Party Owner: PEP "D" ID,
Remote party Information
[PEP "B" ID, Network address]
Party Owner: PEP "D" ID,
Remote party Information
[PEP "C" ID, Network address]
Party Owner: PEP "D" ID,
Requesting party information
[PEP "D" ID, Network Address]
Party Owner: PEP "D" ID,

Bearer information
Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
(PEP "A" ID, PEP "B" ID, PEP "C" ID)
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
[(PEP "C" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The selected serving node of the "root" validates the request and determines the interface associated with party A. Since this interface is not a multi-signalling entity interface and the Network Connection is established without negotiation possibilities, the serving node can commit to the request and, therefore, issues the following information flow towards the addressed party (party A).

3 Add-Bearer-to-Call.ready From Serving Node A to Party A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] **Remote party's service component information** (PEP "B" ID, Service component characteristics) (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "B" ID), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), [(PEP "C" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Remote party's service module information** [(PEP "B" ID, Service module characteristics, [(PEP "C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When party A receives the above information flow, it determines if it can accept the request contained in the information flow. If it can accept the Network Connection, it responds with the following message. The terminal equipment then attaches to the forward portion of the (unidirectional) Network Connection.

4 Add-Bearer-to-Call.commit From Party A to Serving Node A

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "A" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives the above information flow, it determines the route to the requested parties B and C. For this example, the Network Connection will be routed through a single relay node, the serving node can commit to the request and therefore issues the following information flow towards the selected relay node. The Network Connection does not need to be backward through connected.

5 Add-Bearer-to-Call.ready Serving Node A to Relay Node 1

Resource information

Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]
(PEP "C" ID, Service component characteristics)]

Call information

Call Control Segment ID,
Direct Call association
(SN(A):ref.a - SN(B):ref.b) ID,
Direct Call association
(SN(A):ref.a - SN(C):ref.c) ID,
Addressed party Information
[PEP "B" ID, Network address],
Addressed party Information
[PEP "C" ID, Network address],

Bearer information

Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
(PEP "A" ID, PEP "B" ID, PEP "C" ID)
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
[(PEP "C" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The selected relay node validates the requests and determines the route and outgoing trunk facility. As a result of this routing, two separate routes are required to get to parties B and C. The selected relay node can commit to the request and, therefore, issues the following information flows towards the addressed serving nodes. The Network Connection in the relay node does not need to be backward through connected.

6 Add-Bearer-to-Call.ready Relay Node 1 to Serving Node B

Resource information

Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "B" ID, Service component characteristics)]
Remote party's service component information
(PEP "A" ID, Service component characteristics)
(PEP "C" ID, Service component characteristics)]

Call information

Call Control Segment ID,
Direct Call association
(SN(A):ref.a - SN(B):ref.b) ID,
Addressed party Information
[PEP "B" ID, Network address],

Bearer information

Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
[(PEP "A" ID), (PEP "B" ID)]
Addressed party's bearer branch information
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)]
Addressed party's service module information
[(PEP "B" ID, Service module characteristics]
Service component list
[(Resource 1 ID)]

Processing upon receipt: See item 7 below.

7 Add-Bearer-to-Call.ready From Relay Node 1 to Serving Node C

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics) (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID, Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** [(PEP "A" ID), (PEP "C" ID)] **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)] **Addressed party's service module information** [(PEP "C" ID, Service module characteristics] **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with parties B and C receives information flow 6 or 7 respectively, they validate the information flow and select the terminating interface facilities associated with parties B and C. Since the interfaces are not classified as multiple-signalling entity interfaces, the serving nodes can commit to the addressed end point and, therefore, issues the following information flows toward the selected interface facilities. The Network Connection does not need to be backward through connected.

8 Add-Bearer-to-Call.ready Serving Node B to Party B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics) (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID, Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "B" ID), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics, **Service component list** [(Resource 1 ID)]

Processing upon receipt: Party B's terminal equipment determines that it can accept the request and issues information flow 10 towards its associated serving node and the terminal connects to the (unidirectional) Network Connection in the forward direction.

9 Add-Bearer-to-Call.ready From Serving Node C to Party C

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics) (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID, Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "C" ID), **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "C" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics, **Service component list** [(Resource 1 ID)]

Processing upon receipt: Party C's terminal equipment determines that it can accept the request and issues information flow 11 towards its associated serving node and the terminal connects to the (unidirectional) Network Connection in the forward direction.

10 Add-Bearer-to-Call.commit From Party B to Serving Node B

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID, Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed service node associated with party B receives the above flow and records the response to the action request and issues information flow 12 (as a response to the request in 6) to its associated relay node. The Network Connection is forward through connected.

11 Add-Bearer-to-Call.commit From Party C to Serving Node C

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP"C" ID, Service component characteristics)]	**Call Control Segment ID, Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP"C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed service node associated with party B receives the above flow and records the response to the action request and issues information flow 13 (in response to the request in flow 7) to its associated relay node. The Network Connection is forward through connected.

12 Add-Bearer-to-Call.commit From Serving Node B to Relay Node 1

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** **(**SN(A):ref.a - SN(B):ref.b) ID, **Remote Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed relay node receives the above flow and records the response to the action request and awaits the response to the request in 7 before proceeding.

NOTE – In this scenario, it is assumed that information flow 12 is received at the relay node before flow 13. The order of reception of information flows 12 and 13 may be reversed.

13 Add-Bearer-to-Call.commit From Serving Node C to Relay Node 1

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** **(**SN(A):ref.a - SN(C):ref.c) ID, **Remote Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP"C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the selected relay node receives both information flows 12 and 13 (responses to 6 and 7) it records them and relays the responses to the requesting serving node in the form illustrated by information flow 14. It also performs forward through-connect of the Network Connection.

14 Add-Bearer-to-Call.commit From Relay Node 1 to Serving Node A

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the remote serving node associated with party A receives information flow 14, it records the commitment and performs forward through-connect of the Network Connection. In addition, it issues the notification of the completion of the remote request by issuing the following information flow towards the requesting serving node associated with party D.

15 Add-Bearer-to-Call-Remote.commit From Serving Node A to Serving Node D

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(D):ref.d) ID, **Remote Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "A" ID, Service module characteristics), (PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the service node associated with party D receives information flow 15, it records the commitment, and relays the commitment to the requesting party D by issuing information flow 16.

16 Add-Bearer-to-Call.commit From Serving Node D to Party D

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID** **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "A" ID, Service module characteristics), (PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the requesting party's user equipment receives this information flow, it records the commitment and notifies the user, thereby completing the requested action.

7.2.2 Network connection establishment with Type 2 connection – Third party – With negotiation

The User (party D) requests a point-to-multipoint Network Connection to be associated with this call. Parties A, B, and C are to be attached to the Network Connection. Party A is to be the "root" of the Network Connection. The User (party D) does not fully specify the Higher Layer service to be carried on this Network Connection and the desired Network Bearer service that should be established. The requested service is of the non-human interactive type. Therefore, immediate answer can be performed by party A's, party B's and party C's equipment. If party A can accept the requested service, it may further specify the Higher Layer service and the desired Network Bearer service that is to be established. If party B and party C can also accept the requested service, they may further specify the Higher Layer service and the desired Network Bearer service that is to be established. This example also assumes that the requested parties are not connected to a multi-signalling entity interface. In addition, the network does not perform a "Look-ahead" procedure before progressing with the Network Connection establishment. The call and bearer transition diagram for adding a new type 2 connection to an existing call is shown in Figure 7-7 below.

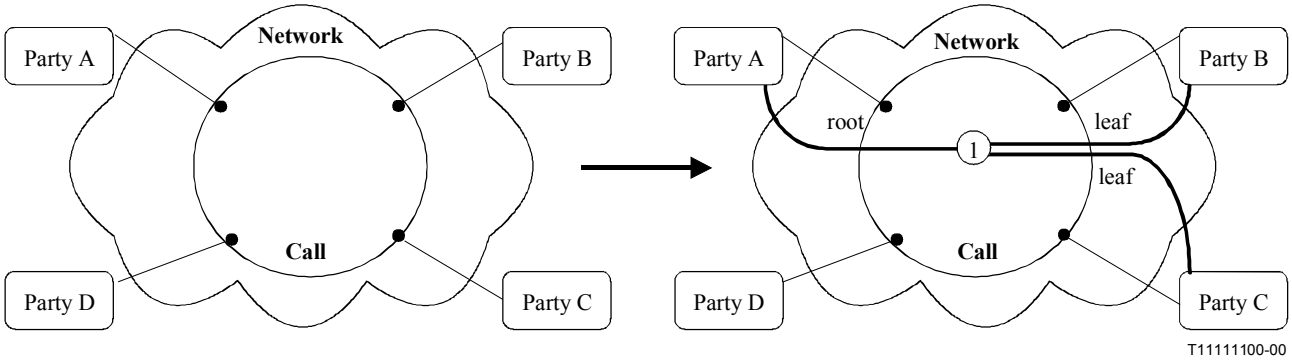


Figure 7-7 – Call and Bearer Transition for addition of a new type 2 connection to an existing call

The signalling capability of adding this Network Connection between the three parties by a further party without network "Look ahead" and without notification is illustrated in Figure 7-8 below.

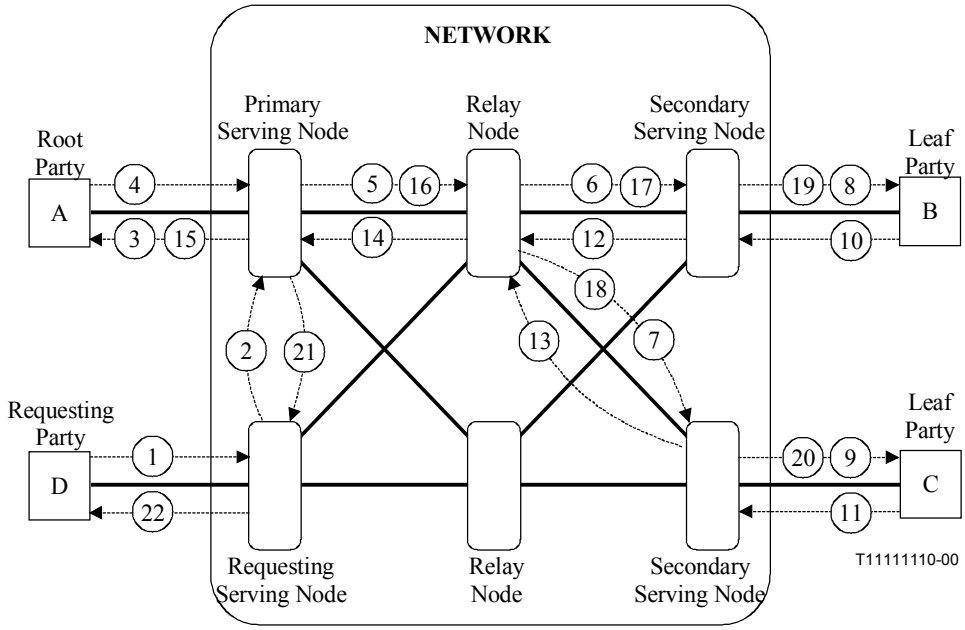


Figure 7-8 – Point-to-multipoint Network Connection (Type 2 between A, B and C) – Third Party – With Negotiation – No Look ahead – No Notification

The actions illustrated in Figure 7-8 are as follows.

The requesting party's (party D) terminal equipment issues the following information flow towards its serving node.

1 Add-Bearer-to-Call.ready Party D to Serving Node D

Resource information

Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]
(PEP "C" ID, Service component characteristics)]

Call information

Call Control Segment ID
Addressed party Information
[PEP "A" ID, Network address],
Addressed party Information
[PEP "B" ID, Network address],
Addressed party Information
[PEP "C" ID, Network address],
Requesting party information
[PEP "D" ID, Network Address]

Bearer information

Network connection 1
[Bearer "1" ID, Bearer type,
Parties connected
(PEP "A" ID, PEP "B" ID), , PEP "C" ID)
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics),
[(PEP "C" ID, Transit Network Selection, bearer branch characteristics)
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
[(PEP "C" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The requester's serving node validates the request and determines the route to the serving node associated with the "root" of the Network Connection. Since the "root" of the Network Connection is located in another serving node, a remote operation request needs to be invoked. The following information flow is issued towards the serving node associated with party A.

2 Remote-Add-Bearer-to-Call.ready Serving Node D to Serving A

Resource information

Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]
(PEP "C" ID, Service component characteristics)]

Call information

Call Control Segment ID
Direct Call association (SN(A) ref-a - SN(D):ref.d) ID,
Call Owner: PEP "A" ID
Addressed party Information
[PEP "A" ID, Network address],
Party Owner: PEP "D" ID,
Remote party Information
[PEP "B" ID, Network address]
Party Owner: PEP "D" ID,
Remote party Information
[PEP "C" ID, Network address]
Party Owner: PEP "D" ID,
Requesting party information
[PEP "D" ID, Network Address]
Party Owner: PEP "D" ID,

Bearer information

Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
(PEP "A" ID, PEP "B" ID, PEP "C" ID)
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
[(PEP "C" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The selected serving node of the "root" validates the request and determines the interface associated with party A. Although this interface is a not multi-signalling entity interface, the Network Connection is established with negotiation possibilities, therefore, the serving node cannot commit to the request and has to issue the following information flow towards the addressed party (party A).

3 Add-Bearer-to-Call.begin From Serving Node A to Party A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] **Remote party's service component information** (PEP "B" ID, Service component characteristics) (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID** **Call Owner: PEP "A" ID** **Addressed party Information** [PEP "A" ID, Network address], Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "B" ID), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), [(PEP "C" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Remote party's service module information** [(PEP "B" ID, Service module characteristics, [(PEP "C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When party A receives the above information flow, it determines if it can accept the request contained in the information flow. If it can accept the Network Connection, it may further specify the Higher Layer service and the desired Network Bearer service that is to be established. It then responds with the following message. The terminal equipment does not yet attach to the Network Connection.

4 Add-Bearer-to-Call.ready From Party A to Serving Node A

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "B" ID, Network address], Party Owner: PEP "D" ID, **Addressed party Information** [PEP "C" ID, Network address], Party Owner: PEP "D" ID,	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives the above information flow, it determines the route to the requested parties B and C. For this example, the Network Connection will be routed through a single relay node, nevertheless, the serving node cannot yet commit to the request and therefore issues the following information flow towards the selected relay node. The Network Connection is not yet through connected.

5 Add-Bearer-to-Call.begin Serving Node A to Relay Node 1

Resource information

Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "A" ID, Service component characteristics)]
(PEP "B" ID, Service component characteristics)]
(PEP "C" ID, Service component characteristics)]

Call information

Call Control Segment ID,
Direct Call association
(SN(A):ref.a - SN(B):ref.b) ID,
Direct Call association
(SN(A):ref.a - SN(C):ref.c) ID,
Addressed party Information
[PEP "B" ID, Network address],
Addressed party Information
[PEP "C" ID, Network address],

Bearer information

Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
(PEP "A" ID, PEP "B" ID, PEP "C" ID)
Addressed party's bearer branch information
[(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID),
[(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)
Addressed party's service module information
[(PEP "A" ID, Service module characteristics
[(PEP "B" ID, Service module characteristics
[(PEP "C" ID, Service module characteristics
Service component list
[(Resource 1 ID)]

Processing upon receipt: The selected relay node validates the requests and determines the route and outgoing trunk facility. As a result of this routing, two separate routes are required to get to parties B and C. The selected relay node cannot yet commit to the request and, therefore, issues the following information flows towards the addressed serving nodes. The Network Connection is not yet through connected.

6 Add-Bearer-to-Call.begin Relay Node 1 to Serving Node B

Resource information

Session ID
Resource 1
[Resource 1 ID, Resource type,
Parties communicating
(PEP "A" ID, PEP "B" ID, PEP "C" ID),
Addressed party's service component information
(PEP "B" ID, Service component characteristics)]
Remote party's service component information
(PEP "A" ID, Service component characteristics)
(PEP "C" ID, Service component characteristics)]

Call information

Call Control Segment ID,
Direct Call association
(SN(A):ref.a - SN(B):ref.b) ID,
Addressed party Information
[PEP "B" ID, Network address],

Bearer information

Network connection 1
[Bearer "1" ID, Bearer type, Connection owner: PEP "D",
Parties connected
[(PEP "A" ID), (PEP "B" ID)]
Addressed party's bearer branch information
[(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)]
Addressed party's service module information
[(PEP "B" ID, Service module characteristics]
Service component list
[(Resource 1 ID)]

Processing upon receipt: See item 7 below.

7 Add-Bearer-to-Call.begin From Relay Node 1 to Serving Node C

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics) (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID, Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** [(PEP "A" ID), (PEP "C" ID)] **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)] **Addressed party's service module information** [(PEP "C" ID, Service module characteristics] **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with parties B and C receives the above information flows, they validate the information flow and select the terminating interface facilities associated with parties B and C. Although the interfaces are not classified as multiple signalling entity interfaces, the serving node cannot yet commit to the Network Connection and issues the following information flows towards the selected interface facilities. The Network Connection is not yet through connected.

8 Add-Bearer-to-Call.begin Serving Node B to Party B

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics) (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID, Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "B" ID), **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics, **Service component list** [(Resource 1 ID)]

Processing upon receipt: Party B's terminal equipment determines that it can accept the request. It may further specify the Higher Layer service and the desired Network Bearer service that is to be established. It then issues the following information flows towards its associated serving node. The terminals do not yet connect to the Network Connection.

9 Add-Bearer-to-Call.begin From Serving Node C to Party C

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics) (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "C" ID), **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "C" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics, **Service component list** [(Resource 1 ID)]

Processing upon receipt: Party C's terminal equipment determines that it can accept the request. It may further specify the Higher Layer service and the desired Network Bearer service that is to be established. It then issues the following information flows towards its associated serving node. The terminals do not yet connect to the Network Connection.

10 Add-Bearer-to-Call.ready From Party B to Serving Node B

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed service node associated with party B receives the above flow and records the response to the action request and issues information flow 12 (as a response to the request in 6) to its associated relay node.

11 Add-Bearer-to-Call.ready From Party C to Serving Node C

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP"C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed service node associated with party C receives the above flow and records the response to the action request and issues information flow 13 (as a response to the request in 7) to its associated relay node.

12 Add-Bearer-to-Call.ready From Serving Node B to Relay Node 1

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Remote Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP "B" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed relay node receives the above flow and records the response to the action request and awaits the response to the request in 7 before proceeding.

NOTE – In this scenario, it is assumed that information flow 12 is received at the relay node before flow 13. The order of reception of information flows 12 and 13 may be reversed.

13 Add-Bearer-to-Call.ready From Serving Node C to Relay Node 1

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Remote Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP"C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the selected relay node has received both information flow responses 12 and 13, it records them and relays the responses to the requesting serving node by issuing the following information flow, the Network Connection is still not through connected.

14 Add-Bearer-to-Call.ready From Relay Node 1 to Serving Node A

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the serving node associated with party A receives this information flow, it records the commitment and performs any final specification of the Higher Layer service and the desired Network Bearer service that is to be established. It also sends a commitment information flow towards party A's terminal equipment by issuing the following information flow.

15 Add-Bearer-to-Call.commit From Serving Node A to Party A

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "A" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: Upon receipt of this message, party A's terminal connects to the forward direction of the (unidirectional) Network Connection and notifies the user of this commitment.

In addition, party A's serving node issues the notification of the final commitment to the Network Connection towards the relay node by issuing the following information flow and the (unidirectional) Network Connection is forward through connected.

16 Add-Bearer-to-Call.commit Serving Node A to Relay Node 1

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "B" ID, Service component characteristics)] (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "B" ID, Network address], **Addressed party Information** [PEP "C" ID, Network address]	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID, PEP "B" ID, PEP "C" ID) **Addressed party's bearer branch information** [(PEP "B" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), [(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID) **Addressed party's service module information** [(PEP "B" ID, Service module characteristics [(PEP "C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the relay node receives this information flow, it records the commitment and performs the forward through connect of the (unidirectional) Network Connection. The notification of the commitment is forwarded to the addressed serving nodes by issuing the following information flows.

17 Add-Bearer-to-Call.commit From Relay Node 1 to Serving Node B

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Addressed party's service component information** [(PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Remote Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics)] **Addressed party's service module information** (PEP "B" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: Upon receipt of information flow 17, the serving node associated with party B records the commitment and performs the forward through-connect of the (unidirectional) Network Connection. The service node sends a commitment information flow to the terminal by issuing information flow 19.

18 Add-Bearer-to-Call.commit From Relay Node 1 to Serving Node C

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Addressed party's service component information** [(PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Remote Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics)] **Addressed party's service module information** (PEP"C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: Upon receipt of information flow 18, the serving node associated with party C records the commitment and performs the forward through-connect of the (unidirectional) Network Connection. The service node sends a commitment information flow to the terminal by issuing information flow 20.

19 Add-Bearer-to-Call.commit From Serving Node B to Party B

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Addressed party's service component information** [(PEP "B" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "B" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Addressed party's bearer branch information** [(PEP "B" ID, bearer branch characteristics)] **Addressed party's service module information** (PEP "B" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the user equipment receives such an information flow, it records the commitment, notifies the user of this commitment, and through connects in the forward direction.

20 Add-Bearer-to-Call.commit Serving Node C to Party C

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Addressed party's service component information** [(PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "C" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics)] **Addressed party's service module information** (PEP"C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the user equipment receives such an information flow, it records the commitment, notifies the user of this commitment, and through connects in the forward direction.

Party A's serving node also issues the notification of the completion of the remote request by issuing the following information flow towards the requesting serving node associated with party D.

21 Remote-Add-Bearer-to-Call.commit From Serving Node A to Serving Node D

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(D):ref.d) ID, **Remote Call association** (SN(A):ref.a - SN(B):ref.b) ID, **Remote Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "A" ID, Service module characteristics), (PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the service node associated with party D receives this information flow, it records the commitment, and relays the commitment to the requesting party D by issuing the following information flow.

22 Add-Bearer-to-Call.commit From Serving Node D to Party D

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "D" ID, Network address],	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "A" ID, Service module characteristics), (PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the requesting party's user equipment receives this information flow, it records the commitment and notifies the user, thereby completing the requested action.

8 Attachment of one or more existing parties to one or more existing network connections

8.1 Attach one or more existing parties to one or more existing connections

The following example shows the addition of a new party to an existing connection. The User D requests that a new party (party C) be attached to the existing connection between party A and party B. Party A is the root-party. The call and bearer transition is shown in Figure 8-1 below.

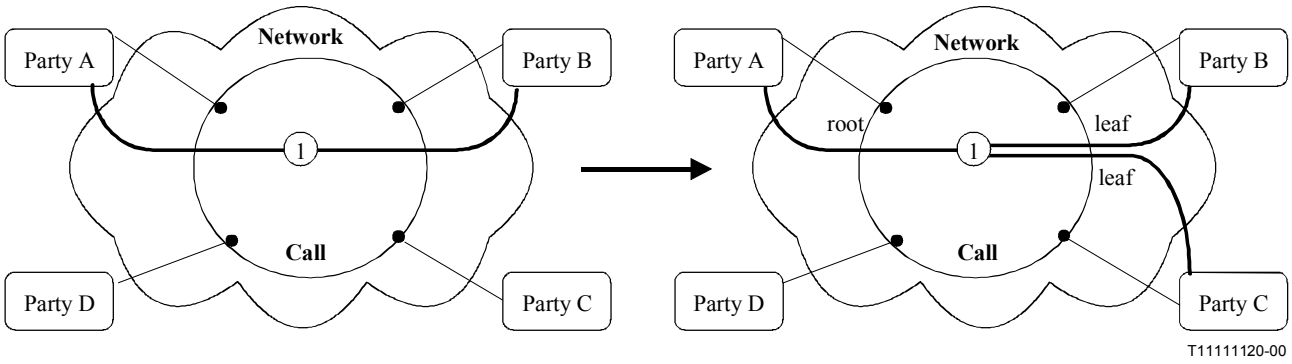


Figure 8-1 – Call and Bearer Transition for addition of a new party to an existing connection

The signalling capability of adding a new party to an existing connection is illustrated in Figure 8-2 below.

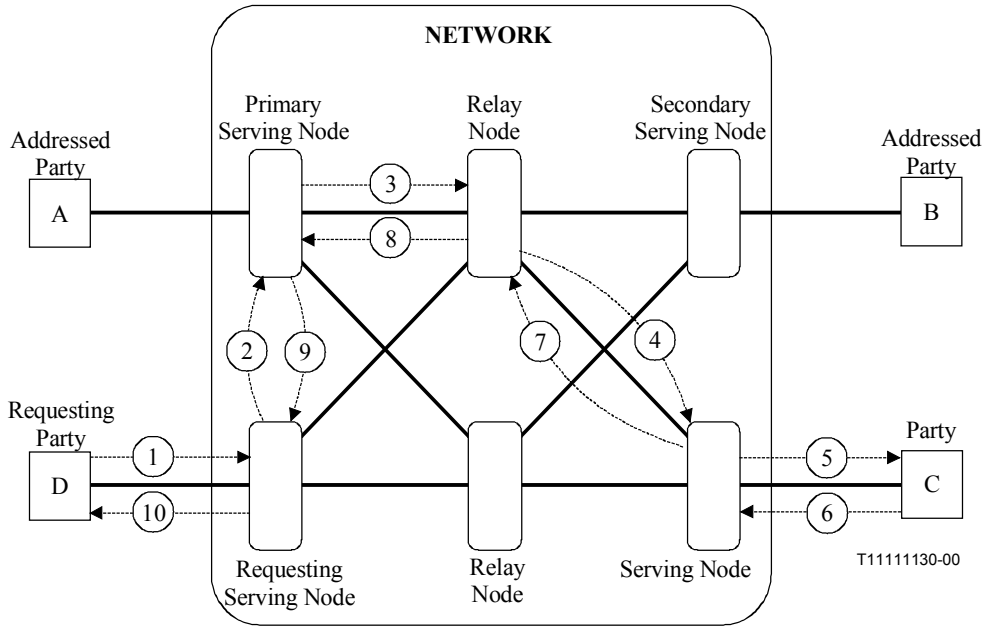


Figure 8-2 – Point-to-point Network Connection exists between A and B – Third Party D requests addition of existing Party (C) – No Negotiation – No Look Ahead – No Notification

The actions illustrated in Figure 8-2 are as follows.

1 Remote-Add-Party-to-Bearer.ready Party D to Serving Node D

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B",PEP"C"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] **Remote party's service component information** (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID** **Addressed party Information** [PEP "C" ID, Network address], **Requesting party information** [PEP "D" ID, Network Address	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Remote party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Remote party's service module information** [(PEP "C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The requester's serving node validates the request and determines which party will be designated the "root" party for this Network Connection (for this example party A is chosen) and the edge signalling route to the serving node associated with the selected "root" party. Since party D is not attached to the requested Network Connection, and the "root" of the Network Connection is located in another serving node, a remote operation request needs to be invoked. In addition, only one outgoing signalling port is needed, therefore party D's serving node can commit to the request and, therefore, issues the following information flow towards the selected "root" serving node.

2 Remote-Add-Party-to-Bearer.ready Serving Node D to Serving Node A

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B" ,PEP"C"), **Addressed party's service component information** (PEP "A" ID, Service component characteristics)] **Remote party's service component information** (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(D):ref.d) ID, **Call Owner: PEP "D" ID** **Addressed party Information** [PEP "C" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address] Party Owner: PEP "D" ID	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID), **Addressed party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Remote party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID), **Addressed party's service module information** [(PEP "A" ID, Service module characteristics **Remote party's service module information** [(PEP "C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The selected serving node validates the request and determines the interface associated with party A. The serving node can immediately forward on the request to party C.

3 Add-Party-to-Bearer.ready Serving Node A to Relay Node 1

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP"B", PEP"C"), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Call Owner: PEP "D" ID** **Addressed party Information** [PEP "C" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address] Party Owner: PEP "D" ID	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** (PEP "A" ID(root), PEP "B" ID), **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "C" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The selected relay node validates the request and determines the route and outgoing trunk facility. Since only one outgoing port is needed, the relay node can commit to the request and, therefore, issues the following information flow towards the addressed serving node. The Network Connection is backward through connected.

4 Add-Bearer-to-Call.ready Relay Node 1 to Serving Node C

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Call Owner: PEP "D" ID** **Addressed party Information** [PEP "C" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address] Party Owner: PEP "D" ID	**Network connection 1** [Bearer "1" ID, Bearer type, Connection owner: PEP "D", **Parties connected** [(PEP "A" ID), (PEP "B" ID)] **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics, branch owner: PEP "D" ID)] **Addressed party's service module information** [(PEP "C" ID, Service module characteristics] **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the above information flow is received by the serving node associated with leaf party C, it will validate the request. The serving node will determine the interface which is associated with party C.

5 Add-Bearer-to-Call.ready Serving Node C to Party C

Resource information	Call information	Bearer information
Session ID **Resource 1** [Resource 1 ID, Resource type, **Parties communicating** (PEP "A" ID, PEP "B" ID, PEP "C" ID), **Addressed party's service component information** (PEP "C" ID, Service component characteristics)] **Remote party's service component information** (PEP "A" ID, Service component characteristics)	**Call Control Segment ID,** **Call Owner: PEP "D" ID** **Addressed party Information** [PEP "C" ID, Network address], Party Owner: PEP "D" ID, **Requesting party information** [PEP "D" ID, Network Address] Party Owner: PEP "D" ID	**Network connection 1** [Bearer "1" ID, Bearer type, **Parties connected** (PEP "A" ID, PEP "C" ID), **Addressed party's bearer branch information** [(PEP "C" ID, Transit Network Selection, bearer branch characteristics), **Remote party's bearer branch information** [(PEP "A" ID, Transit Network Selection, bearer branch characteristics), **Addressed party's service module information** [(PEP "C" ID, Service module characteristics **Remote party's service module information** [(PEP "A" ID, Service module characteristics, **Service component list** [(Resource 1 ID)]

Processing upon receipt: Party C's terminal equipment determines that it can accept the request and issues information flow 6 towards its associated serving node.

NOTE – If the terminal cannot accept the network connection characteristics, it could either respond with an alternate set of characteristics or issue a cancel. If an alternate set of characteristics is desired, then this is indicated in the ready (information flow 6).

6 Add-Bearer-to-Call.commit Party C to Serving Node C

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Addressed party Information** [PEP "C" ID, Network address]	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP"C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The addressed service node associated with party C receives the above flow and records the response to the action request, and issues the following information flow.

7 Add-Bearer-to-Call.commit Serving Node C to Relay Node 1

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type, **Addressed party's service component information** (PEP"C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Addressed party Information** [PEP "D" ID, Network address]	**Network connection 1** [Bearer "1" ID, **Addressed party's bearer branch information** [(PEP"C" ID, bearer branch characteristics), **Addressed party's service module information** [(PEP"C" ID, Service module characteristics **Service component list** [(Resource 1 ID)]

Processing upon receipt: The relay node receives the information flow, records it and relays the response to Serving node A.

8 Remote-Add-Party-to-Bearer.commit Relay Node 1 to Serving Node A

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(C):ref.c) ID, **Remote party Information** [PEP "C" ID, Network address] **Addressed party Information** [PEP "D" ID, Network address]	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the remote service node associated with party A receives information flow 8, it performs forward through-connect of the Network Connection.

9 Remote-Add-Party-to-Bearer.commit Serving Node A to Serving Node D

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID,** **Direct Call association** (SN(A):ref.a - SN(D):ref.d) ID, **Remote party Information** [PEP "C" ID, Network address] **Addressed party Information** [PEP "D" ID, Network address]	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "A" ID, Service module characteristics), (PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the service node associated with party D receives information flow 9, it records the willingness of all parties to accept the call and the Network Connection, and sends the commitment information flow towards party D's terminal equipment.

10 Remote-Add-Party-to-Bearer.commit Serving Node D to Party D

Resource information	Call information	Bearer information
Resource 1 [Resource 1 ID, Resource type] **Remote party's service component information** [(PEP "B" ID, Service component characteristics), (PEP "C" ID, Service component characteristics)]	**Call Control Segment ID, Addressed party Information** [PEP "D" ID, Network address]	**Network connection 1** [Bearer "1" ID], **Remote party's bearer branch information** [(PEP "A" ID, bearer branch characteristics), [(PEP "B" ID, bearer branch characteristics), (PEP "C" ID, bearer branch characteristics)], **Remote party's service module information** [(PEP "A" ID, Service module characteristics), (PEP "B" ID, Service module characteristics), (PEP "C" ID, Service module characteristics)], **Service component list** [(Resource 1 ID)]

Processing upon receipt: When the user equipment receives this information flow, it records the commitment, and notifies the user of this commitment.

9 Detachment of a party from an existing connection

The detachment of a party from an existing connection is illustrated in this subclause of the signalling requirements. The illustrations are organized in three, based on the manner in which the requesting party is attached to the connection. The three are as follows:

1) Detachment requested by the root of the connection.

2) Detachment requested by a leaf of the connection.

3) Detachment requested by a party not associated with the connection.

For illustrative examples of detachment of a party from an existing connection, refer to Supplement 19.

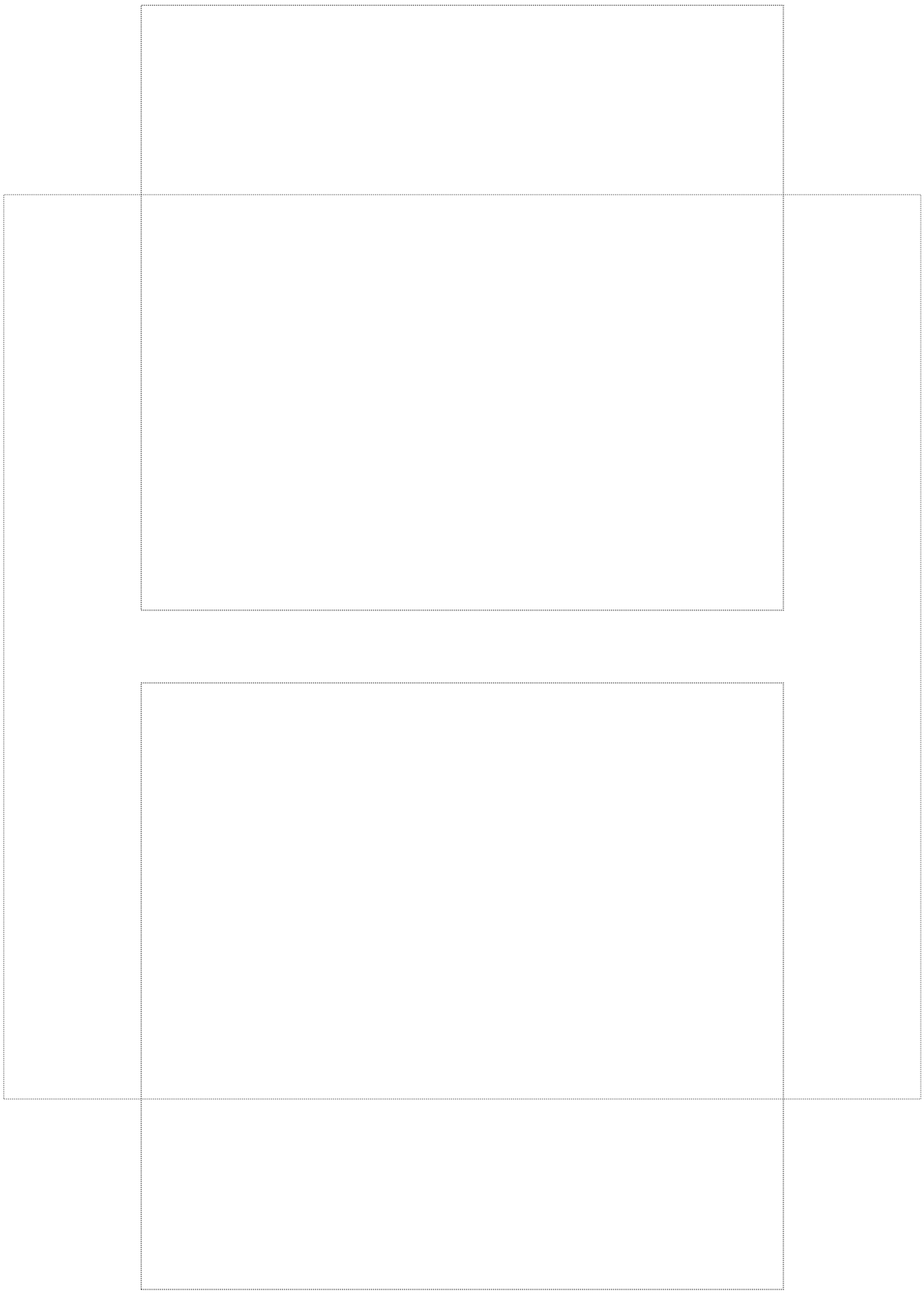
10 Release of a network connection from an existing call

Examples of the release of a connection from an existing call are contained in the following two subsections;

1. Release of a point-to-point connection

2 Release of a point-to-multipoint Connection

For illustrative examples of release of an existing connection from an existing call, refer to Supplement 19.



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