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NEAX[®]2000 IVS²
INTEGRATED VOICE SERVER
CCIS Features and Specifications

MAY, 2000

NEC America, Inc.

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NEAX2000 IVS²

CCIS Features and Specifications

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This page is for your notes.

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Feature	X = available → = carried over to next level software	
	NEAX2000 IVS 1900 Series R2	NEAX2000 IVS ²
	Attendant Camp-On with Tone Indication - CCIS	X
Attendant Controlled Conference - CCIS	X	→
Brokerage - Hot Line - CCIS	X	→
Busy Verification - CCIS	X	→
Call Back - CCIS	X	→
Call Forwarding - All Calls - CCIS	X	→
Call Forwarding - Busy Line - CCIS	X	→
Call Forwarding - Don't Answer - CCIS	X	→
Call Forwarding - Intercept - CCIS	X	→
Call Forwarding - Override - CCIS	X	→
Call Transfer - All Calls - CCIS	X	→
Call Transfer - Attendant - CCIS	X	→
Calling Name Display - CCIS	X	→
Calling Number Display - CCIS	X	→
Centralized Billing - CCIS	X	→ Note 4
Centralized Day/Night Mode Change - CCIS Note 1	X	→
Consultation Hold - All Calls - CCIS	X	→
Deluxe Traveling Class Mark - CCIS	X	→
Dial Access to Attendant - CCIS	X	→
Direct-In Termination - CCIS	X	→
Distinctive Ringing - CCIS	X	→
Do Not Disturb - CCIS	X	→
Dual Hold - CCIS	X	→
Elapsed Time Display - CCIS	X	→
Flexible Numbering of Stations	X	→
Hands Free Answerback - CCIS	X	→
Hot Line - CCIS	X	→
House Phone - CCIS	X	→
Incoming Call Identification - CCIS	X	→
Individual Attendant Access - CCIS Note 2	X	→
LDN Night Connection - CCIS	X	→
Link Alarm Display - CCIS	X	→
Message Waiting Lamp Setting - Attendant - CCIS Note 1	X	→
Message Waiting Lamp Setting - Station - CCIS Note 1	X	→
Miscellaneous Trunk Access - CCIS	X	→
Miscellaneous Trunk Restriction - CCIS	X	→

TABLE OF FEATURES

Feature	X = available → = carried over to next level software	
	NEAX2000 IVS 1900 Series R2	NEAX2000 IVS ²
	Multiple Call Forwarding - All Calls - CCIS	X
Multiple Call Forwarding - Busy Line - CCIS	X	→
Multiple Call Forwarding - Don't Answer - CCIS	X	→
Night Connection - Fixed - CCIS	X	→
Night Connection - Flexible - CCIS	X	→
Outgoing Trunk Queuing - CCIS	X	→
Paging Access - CCIS	X	→
Restriction from Outgoing Calls - CCIS	X	→
Single-Digit Station Calling - CCIS	X	→
Station-Controlled Conference - CCIS Note 3	X	→ Note 4
Station-to-Station Calling - CCIS	X	→
Station-to-Station Calling -Operator Assistance - CCIS	X	→
Toll Restriction 3/6 Digits - CCIS	X	→
Trunk Answer from Any Station - CCIS	X	→
Trunk-to-Trunk Restriction - CCIS	X	→
Uniform Numbering Plan - CCIS	X	→
Voice Call - CCIS	X	→
Voice Mail Integration - CCIS	X	→

Note 1: *As a remote office, this feature is available on the NEAX2000 IVS² or smaller.*

Note 2: *This service is available when the Attendant Console is provided at the NEAX2400 IMX on the network.*

Note 3: *An attendant/extension of the NEAX2400 IMX must be a conference leader.*

Note 4: *This service is not available in the NEAX EXPRESS.*

ATTENDANT CAMP-ON WITH TONE INDICATION - CCIS

General Description

This feature permits the Attendant, when the desired station at another switching office is busy, to hold an incoming call in a special waiting mode. A distinctive Camp-On tone is sent to the busy station when the Attendant sets Camp-On. When that station becomes idle, it is automatically rung and connected to the waiting trunk party.

Station Application

Attendant Consoles

Operating Procedure

To activate an Attendant Camp-on with Tone Indication - CCIS from an Attendant Console:

1. Dial the desired station number at another switching office and receive busy tone.
2. Press the RELEASE key.
3. A Camp-On tone is sent to the busy station and Camp-On is set.

To cancel an Attendant Camp-on with Tone Indication - CCIS from an Attendant Console:

1. Press the LOOP key corresponding to the held call and connect to the waiting trunk party.
2. Press the DEST key and receive busy tone.
3. Press the CANCL key.

Service Conditions

1. This feature is available from an Attendant Console of either the NEAX2400 IMX or NEAX2000 IVS² through the CCIS Network.
2. This feature is limited to one call waiting per station line.
3. The maximum number of simultaneous Camp-On calls is 32.
4. Attendant Camp-On may be denied if the busy station is:
 - Dialing or in Line Lockout mode
 - Receiving a System Generated Tone
 - Being rung
 - Protected from Camp-On by Class of Service
 - Being connected to an Attendant.

When Camp-On is denied, the Attendant will receive reorder tone.

5. The connecting link between the calling party and the called party will be reserved in the normal manner, and the RELEASE key will be inoperative when the link between the two switching offices cannot be reserved.
6. All calls completed by the Attendant to a busy station are held waiting. A single 128 millisecond burst tone is directed toward the busy station every eight seconds.
7. Only the called station hears the Camp-On tone.

The linking procedure between two switching offices is as shown in [Figure 1](#):

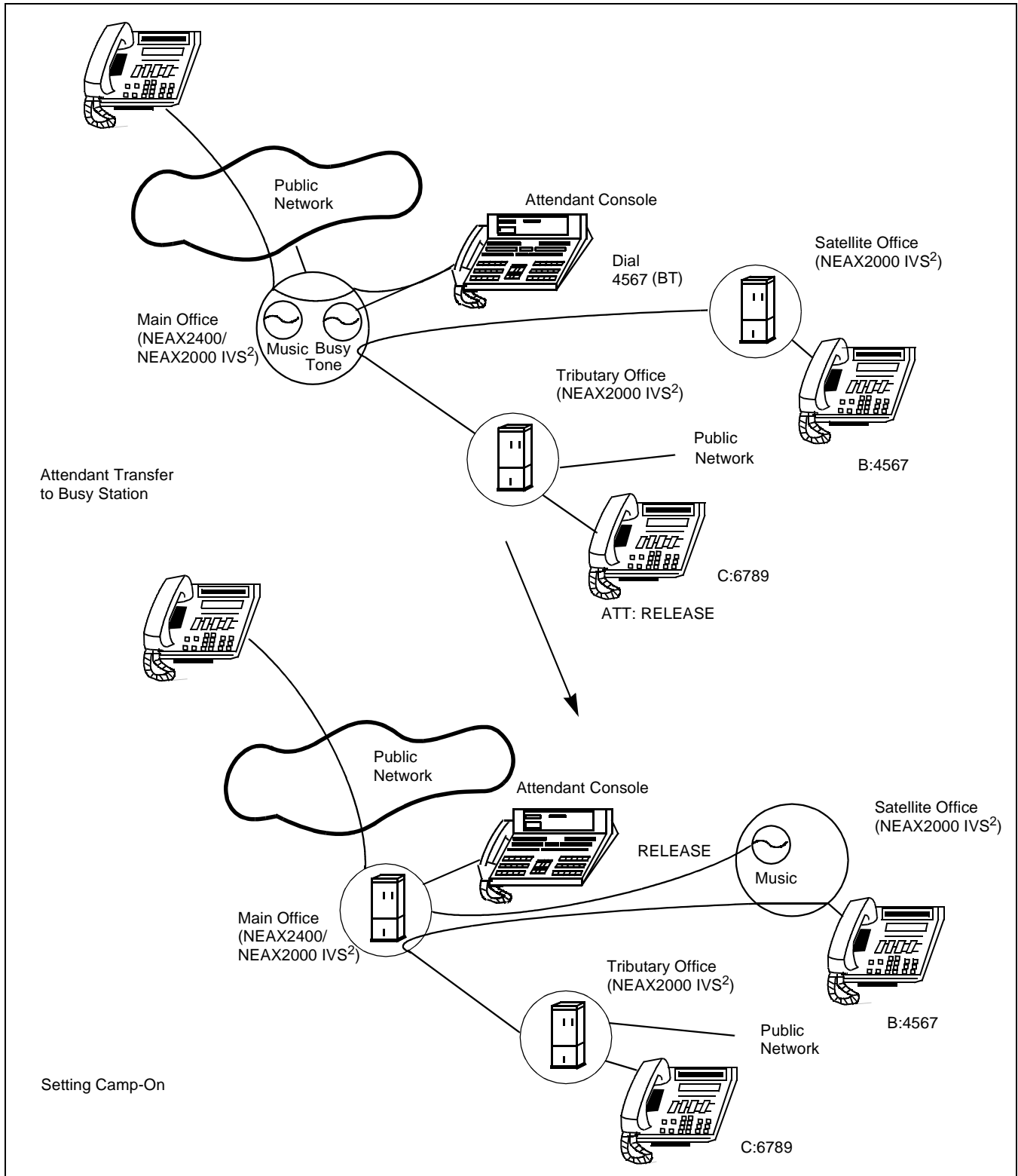


Figure 1 Linking Two Offices (1 of 2)

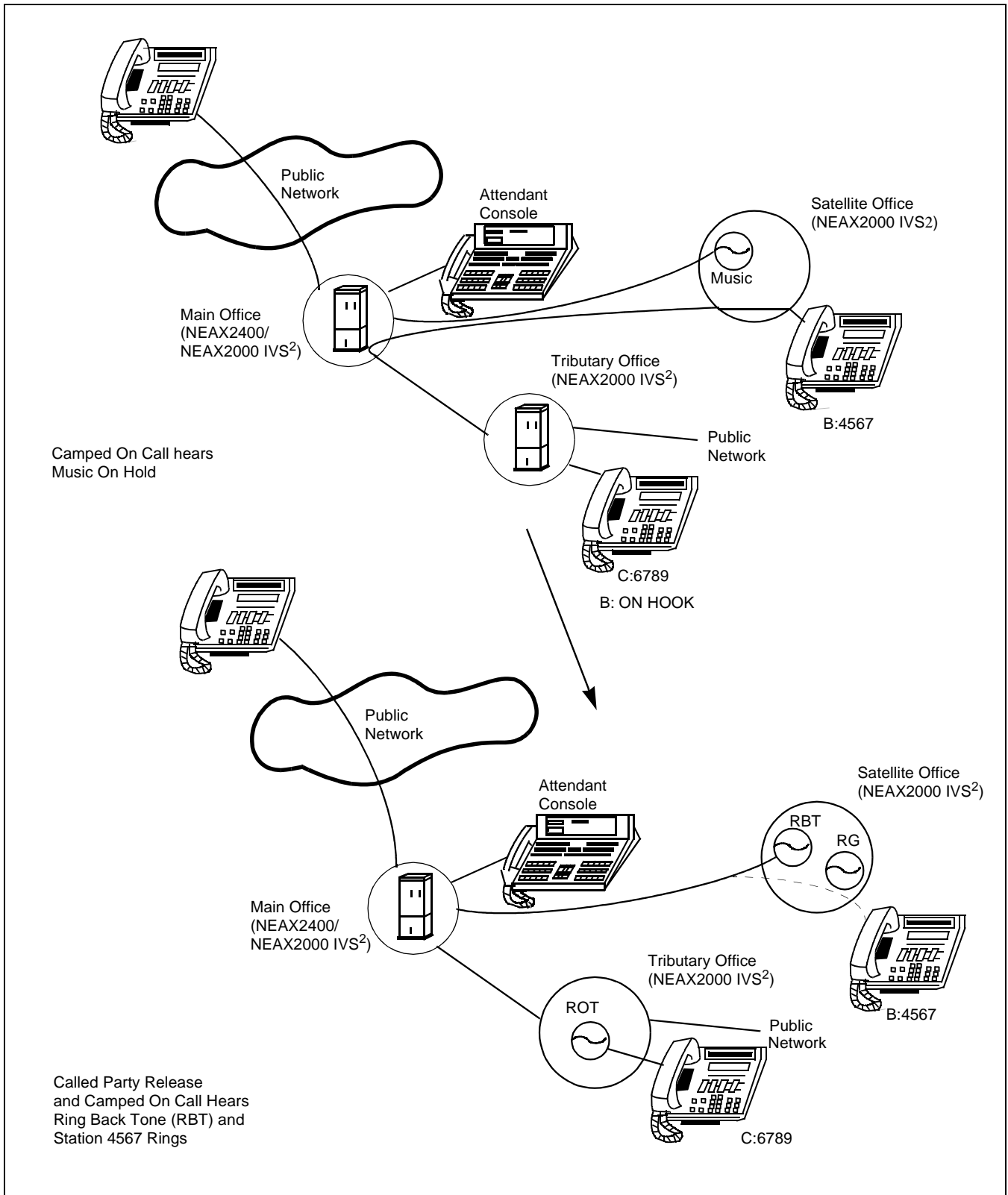


Figure 1 Linking Two Offices (2 of 2)

ATTENDANT CONTROLLED CONFERENCE - CCIS

General Description

This feature permits an Attendant (NEAX2400 IMX) to establish a conference, through CCIS, with up to eight parties of stations and/or trunks (inside and outside parties).

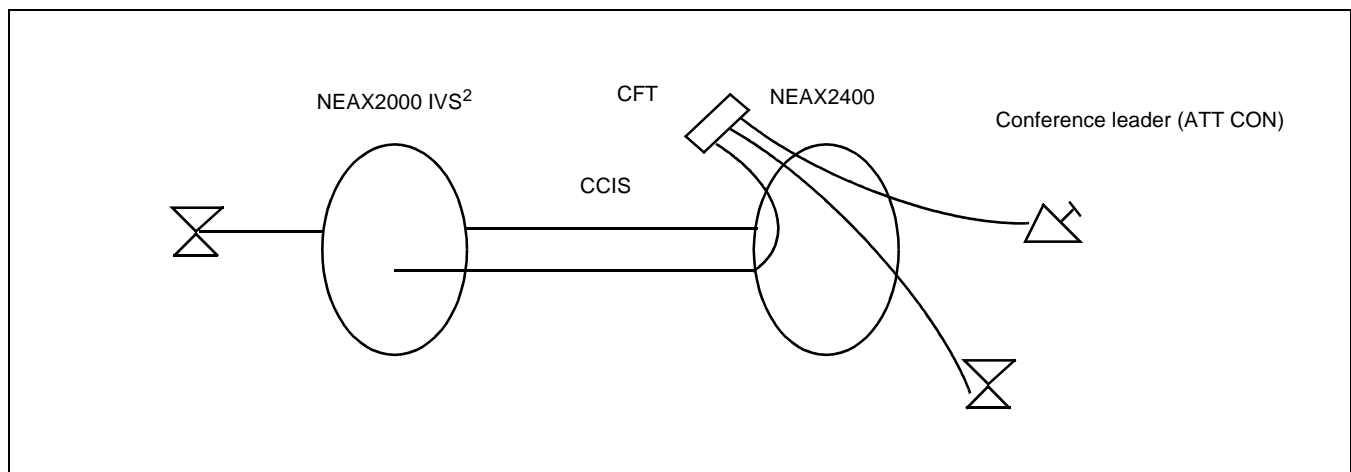
Operating Procedure

To activate an Attendant Controlled Conference - CCIS:

1. A station (conference leader) calls an Attendant (NEAX2400 IMX only) to request a conference.
2. The Attendant connects the conference leader to one of the assigned line circuits.
3. The Attendant sequentially calls all desired parties and connects them to the other assigned line circuits.
4. Once all the parties are connected, any conferee with a push-button telephone may dial a "9" to block additional participants, thereby assuring privacy.
5. If any push-button station user connected to the conference trunk dials "0", all the conferees will be disconnected. Otherwise, the conference is terminated only after all the parties hang up.
6. To be released from the conference trunk individually, a station user hangs up. The remaining conferees can continue without interruption.

Service Conditions

1. A conference unit (PA-CFTB) must be mounted on the NEAX2400 IMX.
2. Stations and Attendants of the NEAX2000 IVS² system cannot be the conference leader.



BROKERAGE - HOT LINE - CCIS

General Description

This feature provides a ringdown connection between two stations, each using a Multiline Terminal, in different offices in the CCIS Network.

Operating Procedure

To access a Brokerage - Hot Line - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key.
2. Press the line/feature key associated with the preassigned station. The destination station is automatically dialed, ringback tone is heard and the destination station answers.
3. After completing the conversation, hang up or press the Speaker key.

To make another Brokerage - Hot Line - CCIS call immediately, press another line/feature key without going on hook and off hook.

Service Conditions

Calling party:

1. Any Multiline Terminal, used for this feature, must be assigned a Primary Extension.
2. When a Brokerage - Hot Line - CCIS call is made from a Multiline Terminal with LCD, the LCD shows the destination station number.
3. The feature is applicable for inter-office connections on the CCIS Network. The destinations must be a station or an Attendant Console at different offices.
4. There is a maximum of 100 Brokerage - Hot Line - CCIS destination assignments.
5. Attendant Camp-On, Executive-Right-Of-Way, and Busy Verification can be prohibited to the Brokerage - Hot Line - CCIS connection through Class Of Service-Individual.

Called party:

1. A Brokerage - Hot Line - CCIS call can be transferred to another station using the Call Transfer feature.
2. Call Forwarding is applied whenever the destination station of the Brokerage - Hot Line - CCIS call has set Call Forwarding (All Calls, Busy and Don't Answer).
3. Station hunting works if the destination station is a pilot in a hunt group. The UCD function works if the destination station is a pilot of a UCD group.
4. When a destination is an Attendant Console, the Brokerage - Hot Line - CCIS call terminates as a Tie Line call.

BUSY VERIFICATION - CCIS

General Description

This feature permits an Attendant, via the Attendant Console on the NEAX2400 IMX or the NEAX2000 IVS², to interrupt a busy station's call at another switching office connected through CCIS.

Operating Procedure

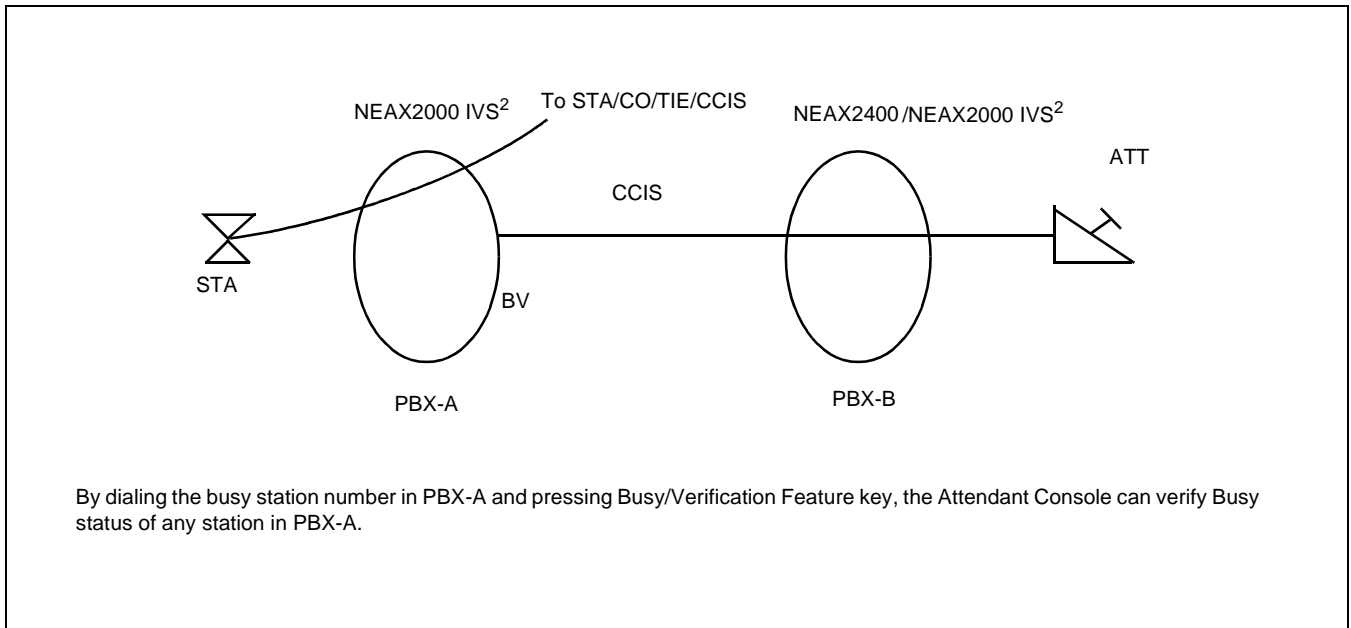
To activate a Busy Verification - CCIS:

1. Press an idle LOOP key.
2. Dial the desired station number and receive busy tone.
3. Press the BV key.
4. A two-burst tone is sent to the connected parties.
5. The Attendant may monitor or join the conversation.
6. Press the RELEASE key to disengage.

Service Conditions

1. This feature can be activated from an Attendant Console of either the NEAX2400 IMX or the NEAX2000 IVS² in the CCIS network.
2. This feature can be used to monitor two-party calls (station and trunk or another station).
3. This feature cannot be established to a busy station when the station is:
 - Dialing
 - Listening to a tone
 - Being rung
 - Protected from Busy Verification by Class of Service
 - Being connected to an Attendant

BUSY VERIFICATION - CCIS



The linking procedure between two switching offices is shown in [Figure 2](#):

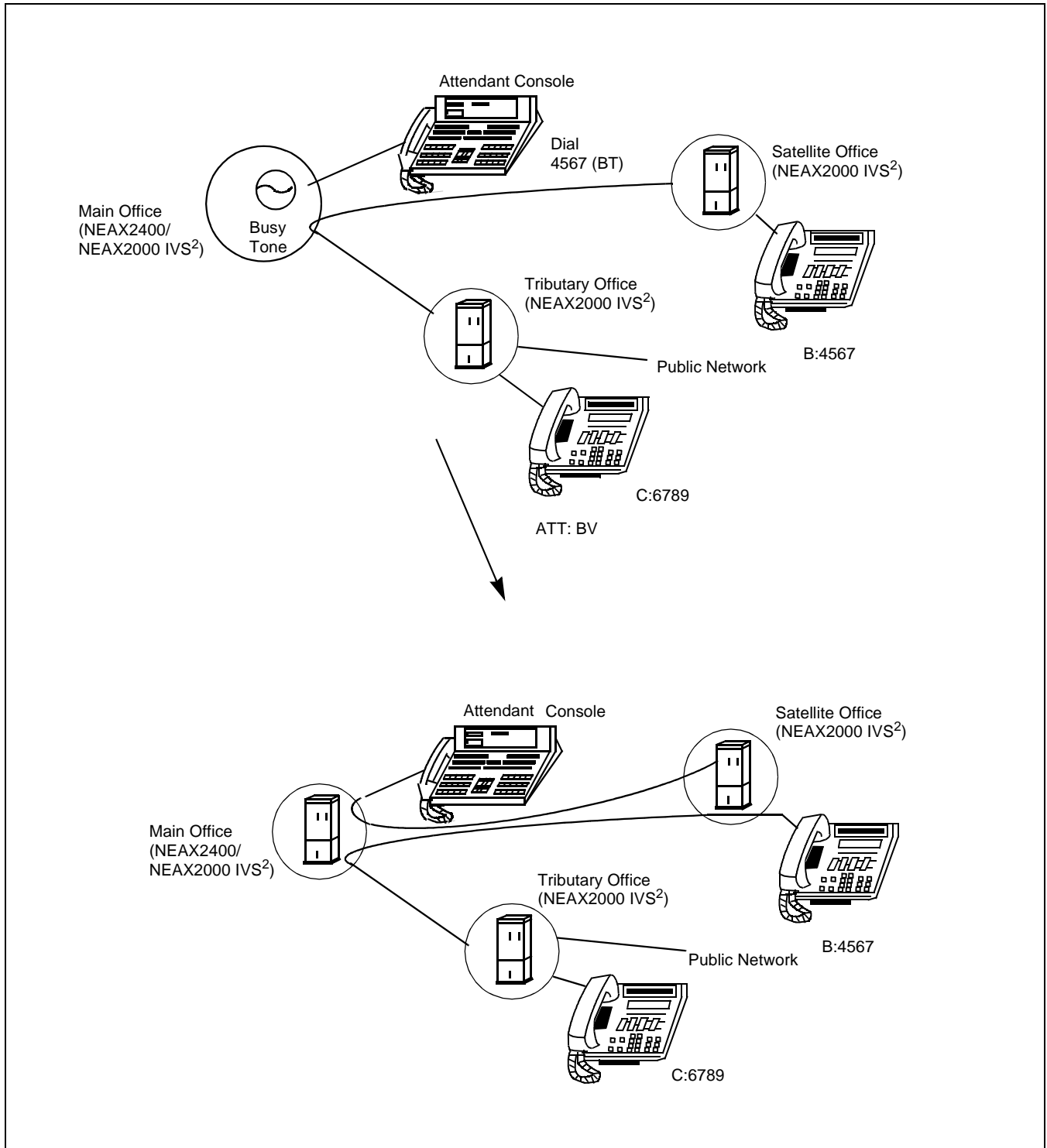
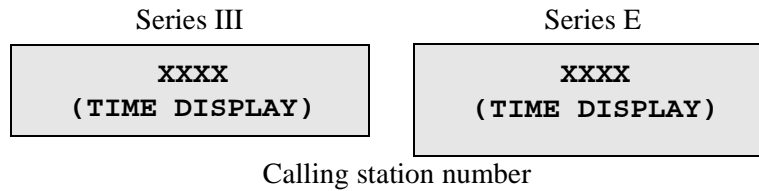


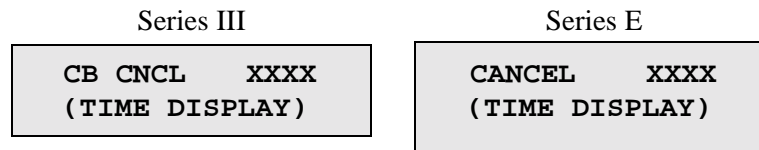
Figure 2 Linking Two Switching Offices

6. The originally called station's LCD shows:



To cancel a Call Back - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key; receive dial tone.
2. Press the Call Back feature key and receive Service Set Tone. The feature is canceled.
3. The LCD shows:



Service Conditions

1. If Call Back - CCIS is not answered within 30 seconds (at the calling station), ringing will stop and Call Back - CCIS is automatically canceled.
2. Call Back - CCIS is allowed or denied via Class Of Service.
3. Call Back - CCIS to a busy station cannot be established if that station is in the Line Lockout mode.
4. There is no time limit for Call Back - CCIS. Once Call Back - CCIS is activated, it will remain in status memory until completed or manually canceled.
5. Call Back - CCIS cannot be set to more than one station at a time.
6. A station can utilize Call Back - CCIS and Outgoing Queuing - CCIS at the same time.
7. When the setting station is called back, Station Hunting and Call Pickup will not apply.
8. A maximum of 32 stations can access this feature simultaneously.
9. A station user calling a busy station line can be automatically connected to the called station when both stations are idle. The activating station may originate and receive calls while Call Back - CCIS is active.
10. Call Back - CCIS records are lost when the system is initialized.
11. If Call Back - CCIS is activated from a NEAX2000 IVS² station and both the activating and called stations become idle, the activating station receives distinctive ringing. If the called station lift the handset before the activating station answers, ringback tone is heard at the called station and distinctive ringing is provided at the activating station. When the activating station answers, a two-party talk state is established.
12. When Call Back - CCIS is activated from a NEAX2400 IMX, both the activating and called stations will receive ringing at the same time. If either station lift the handset before the other, ringback tone is heard by the first station. When the other station answers, a two-party talk state is established.

- When the calling party dials the Call Back - CCIS feature access code or presses the CALL BACK key, if the called party goes idle (while the calling party is still off hook), the calling party hears ringback tone and the called party hears ringing. If the called party lift the handset, the parties can talk with each other.

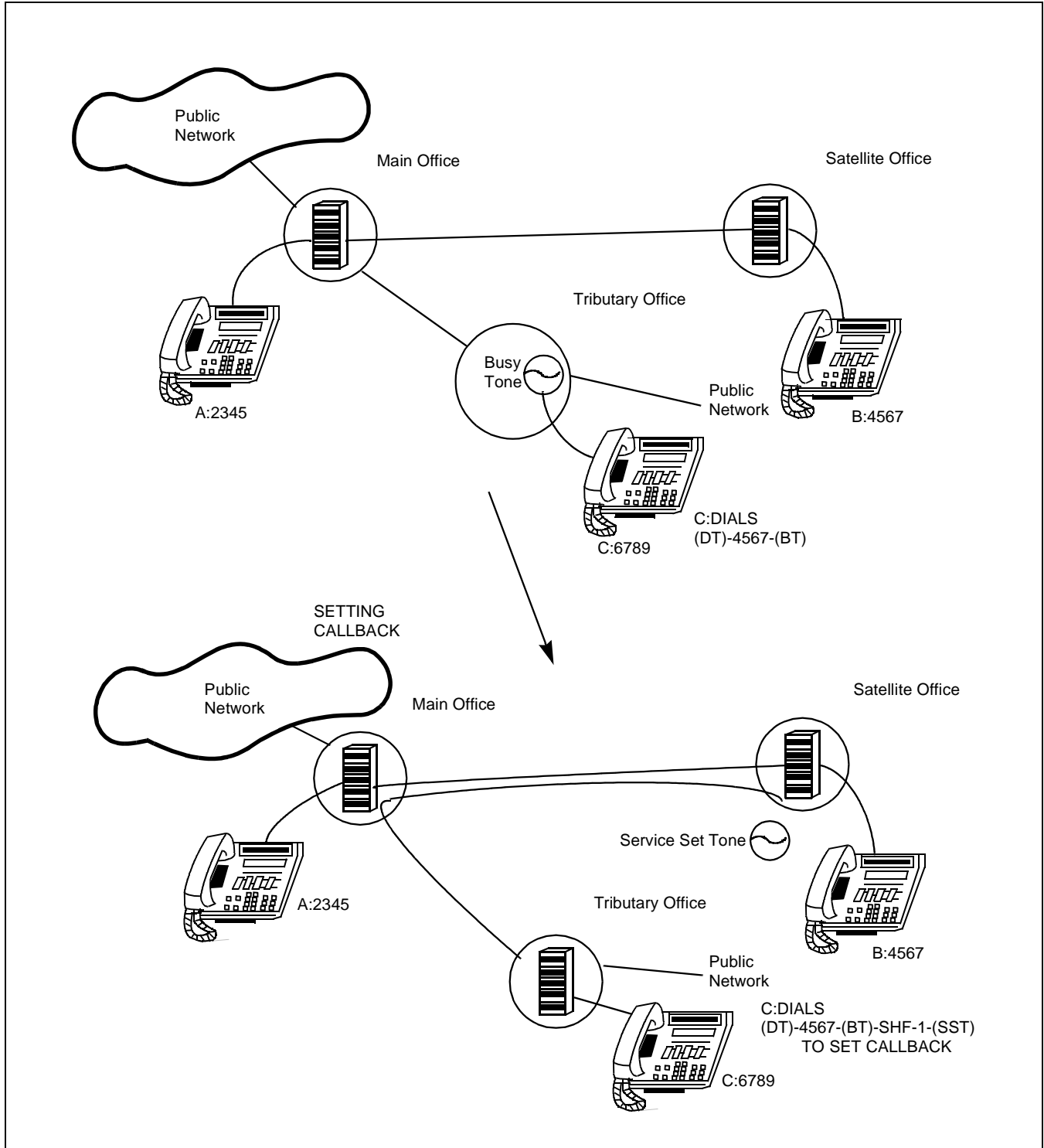


Figure 3 Call Back

14. When the calling party waits on hook after having set Call Back-CCIS, the link is established as shown in Figure 4:

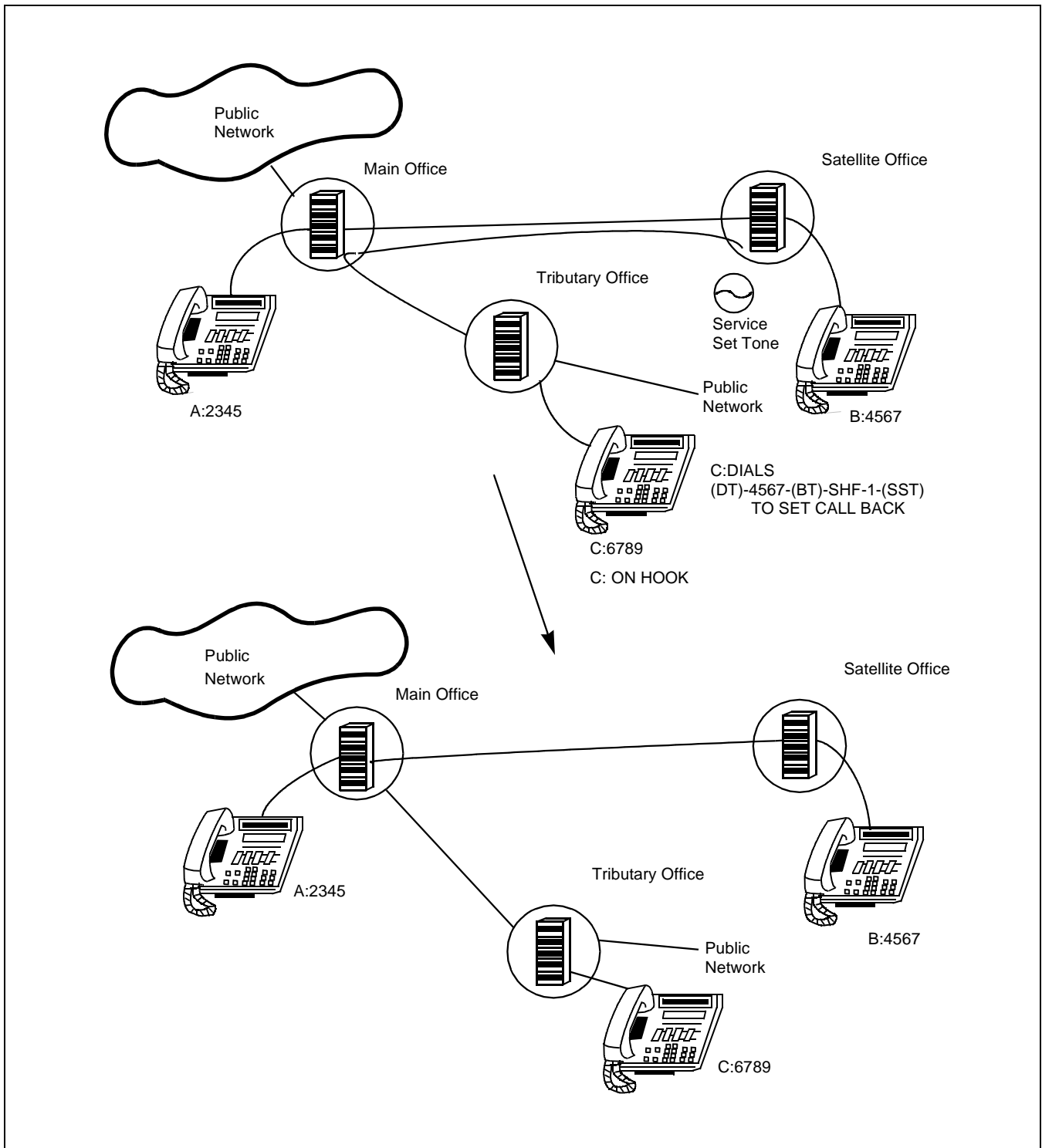


Figure 4 Established Link with Call Back

15. If the called party goes on hook while the calling party is waiting on hook for Call Back-CCIS, both the calling and called parties will be rung simultaneously, if the setting station is in the NEAX2400 IMX system.

When both parties go off hook, they can talk with each other. The party who answers first hears ringback tone. If the setting station is in the NEAX2000 IVS² system, the calling station is called first.

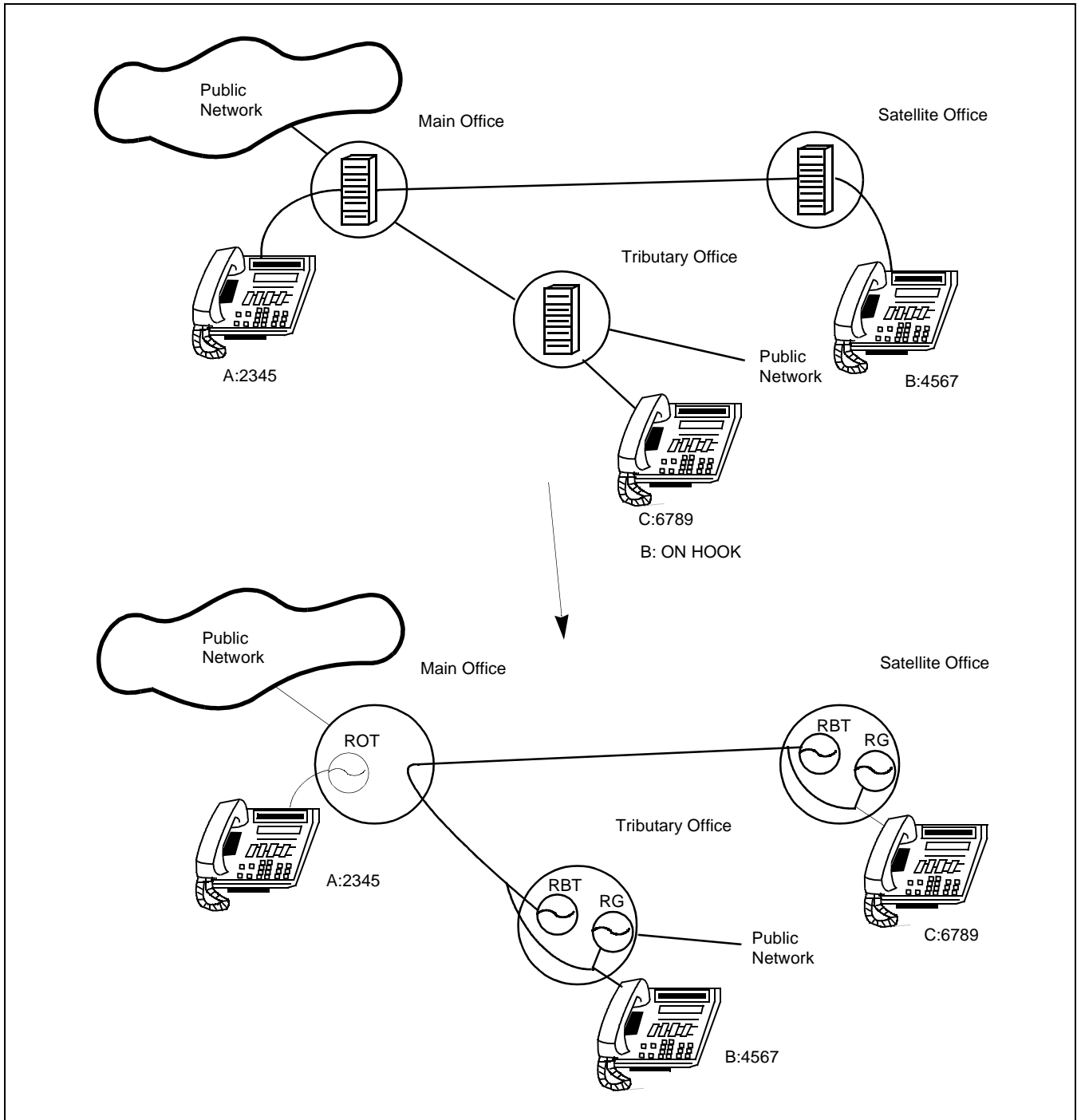


Figure 5 Call Back when On Hook

CALL FORWARDING - ALL CALLS - CCIS

General Description

This feature permits all calls destined for a particular station to be routed to another station or to an Attendant Console, in another office in the CCIS network, regardless of the status (busy or idle) of the called station. The activation and cancellation of this feature may be accomplished by either the station user or an Attendant.

Operating Procedure

To set a Call Forwarding - All Calls - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - All Calls feature access code and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone.

To cancel a Call Forwarding - All Calls - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - All Calls cancellation code and receive Service Set Tone.

To set a Call Forwarding - All Calls - CCIS from an Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding - All Calls feature access code and receive Feature Dial Tone.
3. Dial the originating station number.
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
5. Dial the desired target station number and receive Service Set Tone.
6. Press the RELEASE key.

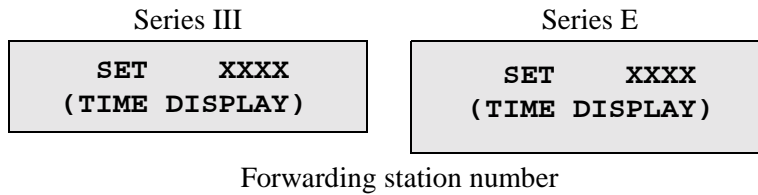
To cancel a Call Forwarding - All Calls - CCIS from an Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding - All Calls cancellation code and receive Feature Dial Tone.
3. Dial the originating station number and receive Service Set Tone.
4. Press the RELEASE key.

To set a Call Forwarding - All Calls - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key and receive dial tone.
2. Press the Call Forwarding - All Calls feature key and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.

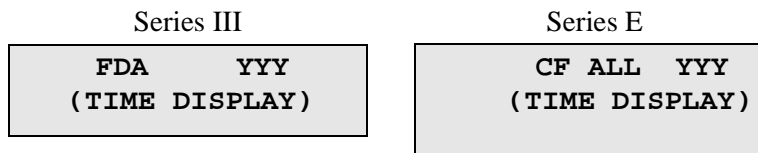
Wait approximately five seconds and receive Service Set Tone. The LED lights and the LCD shows:



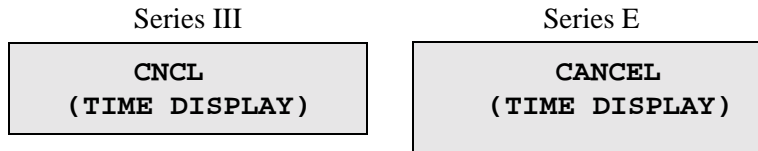
5. Replace the handset or press the Speaker key.

To cancel a Call Forwarding - All Calls - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key and receive dial tone.
2. Press the Call Forwarding - All Calls feature access key. The LCD shows:



3. Dial “*” and receive Service Set Tone. The LED of the associated feature key will go out. The LCD shows:

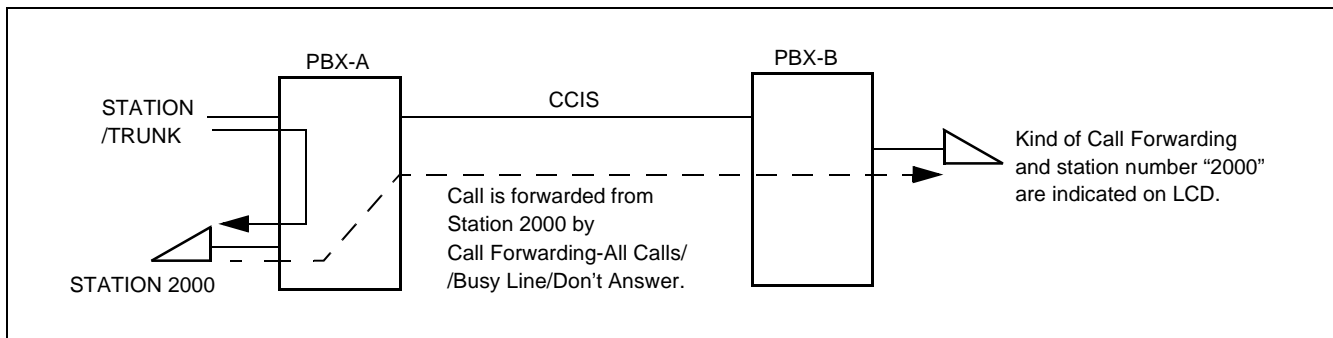


4. Replace the handset or press the Speaker key.

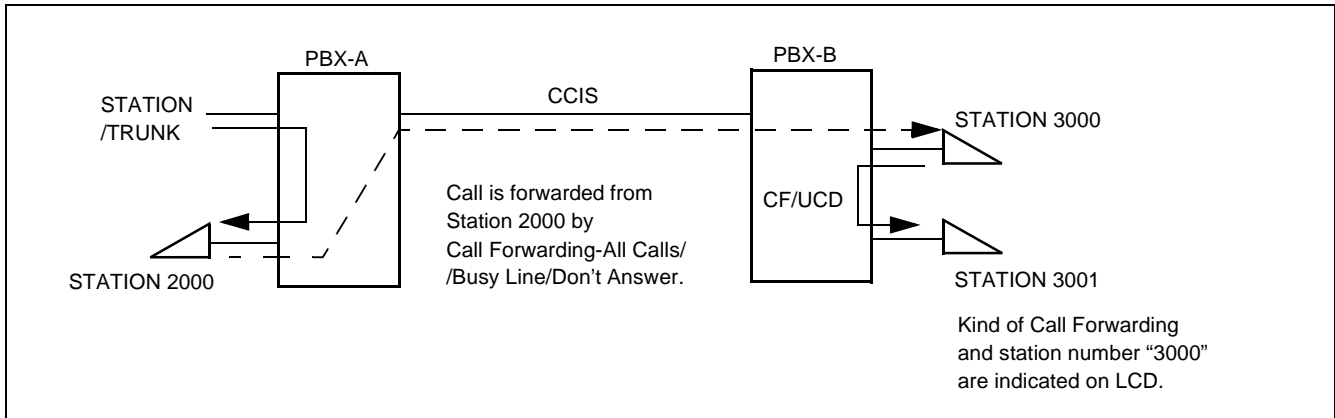
Service Conditions

1. Stations with this feature set may originate calls.
2. A maximum of 240 stations can set Call Forwarding (including -All Calls, -Busy Line, -Don't Answer - CCIS) across CCIS simultaneously.
3. Stations can be allowed or denied this feature by Class Of Service-Individual programming.
4. Call Forwarding-All Calls - CCIS can be set from a Multiline Terminal primary or secondary extension.
5. Call Forwarding-All Calls - CCIS may be set or canceled by either a station user or an Attendant. The Attendant can set or cancel this service only for a station in the same switching office.
6. Call Forwarding-All Calls - CCIS to an Attendant, when the system is in Night mode, will not be forwarded.
7. Call Forwarding-All Calls - CCIS can be used from any number of forwarding stations to the same designated station.

8. When calls are forwarded to the Attendant, the Incoming Call Identification feature does not allow the Attendant to identify the call as a forwarded call.
9. When Outgoing Trunk Queuing is provided, ringback is applied to the forwarding station and not to the designated station.
10. When a call is forwarded, the station number recorded for Station Message Detail is the forwarding station.
11. When an ACD/UCD group station activates call forwarding, only calls directed to that telephone number are forwarded. Calls directed to the ACD/UCD pilot will bypass member stations that are forwarded.
12. If the forwarding station is the pilot station and the designated station is idle, a call to the ACD/UCD group is routed immediately to the designated station. If the designated station is busy, a call to the ACD/UCD group receives a busy tone.
13. When a forwarding station places a call using the Call Back - CCIS feature, the automatic callback rings at the forwarding station, not the designated station.
14. When Attendant Camp-On is directed toward a station with Call Forwarding-All Calls - CCIS in effect, the busy designated station receives call waiting treatment if the designated station is involved in a steady two-party talking state and there is no call already waiting.
15. If a call with the Attendant Camp-On feature in effect is forwarded to a busy station which has Station Hunting, the call hunts for an idle line and then waits on the designated station if no idle line is found.
16. If either of the restriction features listed below are active for the designated station, Call Forwarding - All Calls - CCIS to that station should not be allowed. It should be noted that a non-restricted station can activate Call Forwarding - All Calls - CCIS to the stations below, but incoming trunk calls that are forwarded will not be completed (intercept arrangements will apply).
 - Fully Restricted Station
 - Inward Restricted Station
17. When a call is forwarded through CCIS by Call Forwarding - All Calls/Busy Line/Don't Answer, the kind of Call Forwarding and the station number which is setting the service can be indicated on the LCD of the forwarding destination Multiline Terminal.



18. When a call is forwarded through CCIS, and then forwarded to another station by Call Forwarding - All Calls/Busy Line/Don't Answer or UCD Hunting, the last forwarding station number or the pilot station number of UCD Group is indicated.



CALL FORWARDING - BUSY LINE - CCIS

General Description

This feature permits a call to a busy station to be immediately forwarded to a predesignated station or to an Attendant Console in another office in the CCIS network.

Operating Procedure

To set a Call Forwarding-Busy Line - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding-Busy Line feature access code and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone.

To cancel a Call Forwarding-Busy Line - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding-Busy Line cancellation code and receive Service Set Tone.

To set a Call Forwarding-Busy Line - CCIS from an Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding-Busy Line feature access code and receive Feature Dial Tone.
3. Dial the originating station number.
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
5. Dial the desired target station number and receive Service Set Tone.
6. Press the RELEASE key.

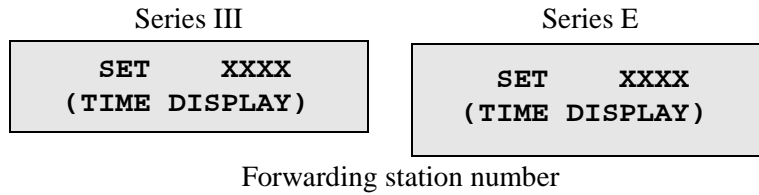
To cancel a Call Forwarding-Busy Line - CCIS from an Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding-Busy Line cancellation code and receive Feature Dial Tone.
3. Dial the originating station number and receive Service Set Tone.

To set a Call Forwarding-Busy Line - CCIS from a Multiline Terminal;

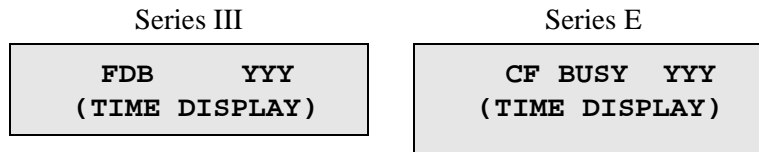
1. Lift the handset or press the Speaker key and receive dial tone.
2. Press the Call Forwarding-Busy Line feature access key and receive Feature Dial Tone.
3. Dial the desired target station number and receive Service Set Tone.
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)

5. Wait approximately five seconds and receive Service Set Tone. The LED lights and the LCD shows:

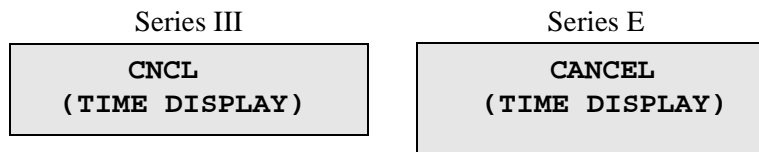


6. Replace the handset or press the Speaker key.
To cancel a Call Forwarding-Busy Line - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key and receive dial tone.
2. Press the Call Forwarding-Busy Line key. The LCD shows:



3. Dial “*” and receive Service Set Tone. The LED of the associated feature key will go out. The LCD shows:

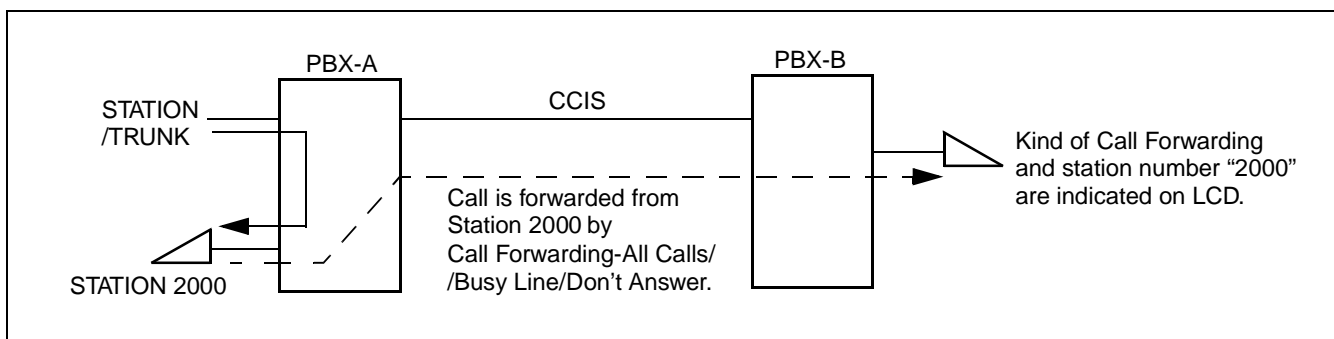


4. Replace the handset or press the Speaker key.

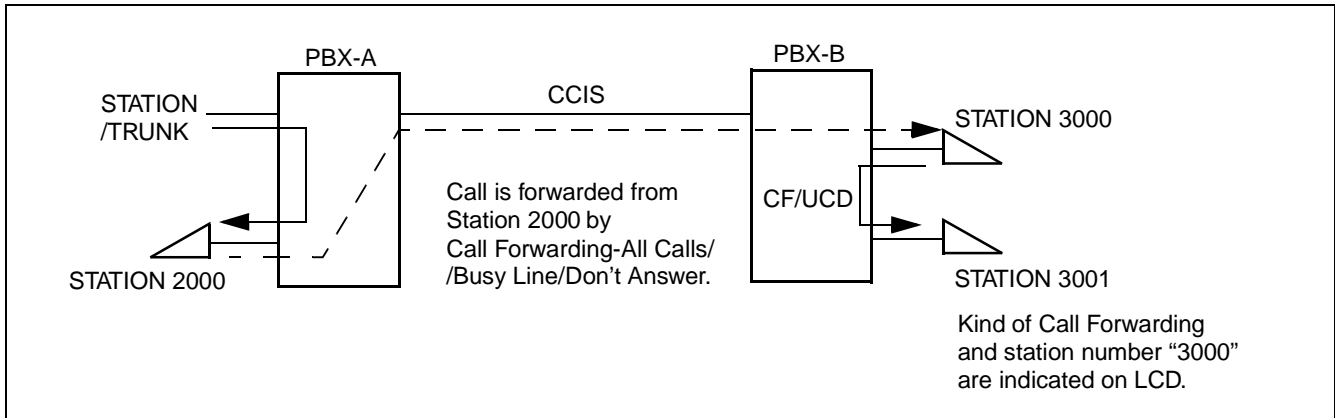
Service Conditions

1. This feature may be set and canceled by either a station user or an Attendant in the same switching office.
2. Call Forwarding-Busy Line - CCIS data remains programmed even if the system is reinitialized or a power failure occurs.
3. If the called station is the pilot of an ACD/UCD group and activates Call Forwarding-Busy Line - CCIS, the calling station will Call Forward if all ACD/UCD group stations are busy.
4. If a calling Attendant Console receives busy tone after being Call Forwarded - Busy and activates Camp - On, these services will be activated at the destination station.
5. Stations can be allowed or denied this feature by Class Of Service - Individual.
6. A station programmed for access to Call Forwarding-Busy Line - CCIS is automatically allowed Call Forwarding - Don't Answer - CCIS.
7. If separate access codes are programmed into system data for Call Forwarding-Don't Answer - CCIS and Call Forwarding-Busy Line - CCIS, separate feature access keys must be programmed on the Multiline Terminal.
8. There is a maximum of 240 stations which can set Call Forwarding (including -All Calls, -Busy Line, -Don't Answer - CCIS) across CCIS simultaneously.
9. Call Forwarding-Busy Line - CCIS can be set from a Multiline Terminal primary or a secondary extension.
10. Individual Call Forwarding-Busy Line - CCIS supersedes system Call Forwarding.

11. Call Forwarding-Busy Line - CCIS, when set in a Station Hunting group member, is effective only when the entire hunt group is busy.
12. If the forwarding number is an ACD/UCD group number and a member of the group is idle, the call rings at the idle group member's station. If all members of the group are busy, the call remains in queue waiting for a member to become available.
13. If any of the restriction features listed below are active for the designated station, call forwarding to that station should not be allowed. It should be noted that a non-restricted station can activate Call Forwarding-Busy Line - CCIS to the stations below, but incoming trunk calls that are forwarded will not be completed (intercept arrangements will apply).
 - Fully Restricted Station
 - Inward Restricted Station
14. Non-controlling ACD/UCD stations can activate Call Forwarding-Busy Line. All calls directed to the extension are forwarded.
15. Call Forwarding-Busy Line - CCIS to an operator will receive reorder tone when the system is in Night mode.
16. When the Call Forwarding-Busy Line - CCIS feature is in effect, if the forwarding station is idle and the designated station is busy, the forwarding station continues to ring.
17. Call Forwarding-Busy Line - CCIS can be used from any number of forwarding stations to the same designated station.
18. When calls are forwarded to the operator, the Incoming Call Identification feature allows the Attendant to identify the call as a forwarded call.
19. When Outgoing Trunk Queuing is provided, ringback is provided to the forwarding station and not to the designated station.
20. When a call is forwarded, the station number recorded for Station Message Detail Recording (SMDR) is the forwarding station.
21. When a call is forwarded through CCIS by Call Forwarding-All Calls/-Busy Line/-Don't Answer, the kind of Call Forwarding and the station number which is setting the service can be indicated on the LCD of the forwarding destination Multiline Terminal.



22. When a call is forwarded through CCIS, and then forwarded to another station by Call Forwarding - All Calls/Busy Line/Don't Answer or UCD Hunting, the last forwarding station number or the pilot station number of UCD Group is indicated.



CALL FORWARDING - DON'T ANSWER - CCIS

General Description

This feature permits a call to an unanswered station to be forwarded to a predesignated station or to an Attendant Console in another office, when the called station does not answer after a predetermined time period.

Operating Procedure

To set a Call Forwarding-Don't Answer - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding-Don't Answer feature access code and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone.

To cancel a Call Forwarding-Don't Answer - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding-Don't Answer cancellation code and receive Service Set Tone.

To set a Call Forwarding-Don't Answer - CCIS from an Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding-Don't Answer feature access code and receive Feature Dial Tone.
3. Dial the originating station number.
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
5. Dial the desired target station number and receive Service Set Tone.
6. Press the RELEASE key.

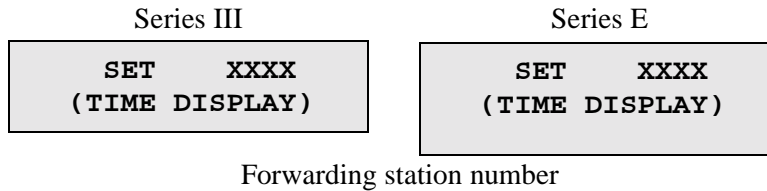
To cancel a Call Forwarding-Don't Answer - CCIS from an Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding-Don't answer cancellation code and receive Feature Dial Tone.
3. Dial the origination station number and receive Service Set Tone.
4. Press the LOOP key.

To set a Call Forwarding-Don't Answer - CCIS from a Multiline Terminal:

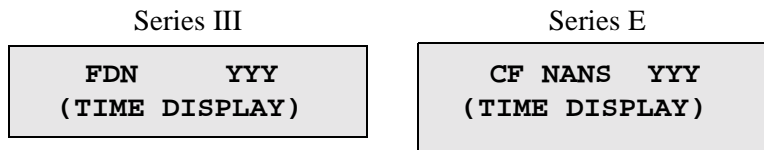
1. Lift the handset or press the Speaker key and receive dial tone.
2. Press the Call Forwarding-Don't Answer feature access key and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.

5. Wait approximately five seconds and receive Service Set Tone. The LED lights. The LCD shows:

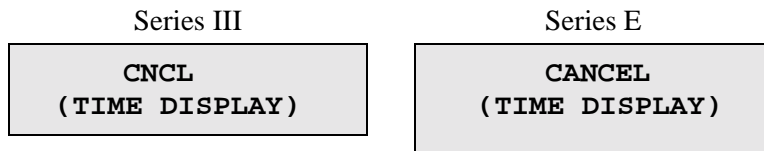


6. Replace the handset or press the Speaker key.
To cancel a Call Forwarding-Don't Answer - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key and receive dial tone.
2. Press the Call Forwarding-Don't Answer feature access key. The LCD shows:



3. Dial "*" and receive Service Set Tone. The LED of the associated feature key will go out. The LCD shows:

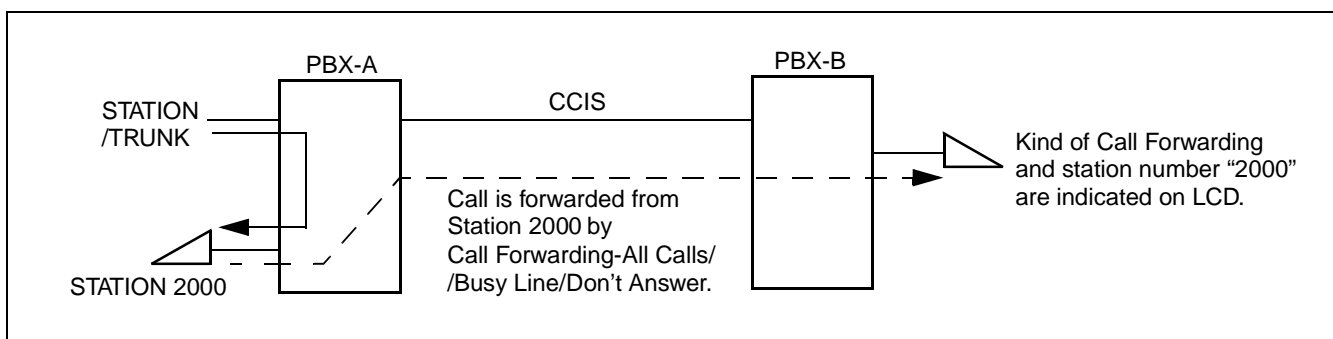


4. Replace the handset or press the Speaker key.

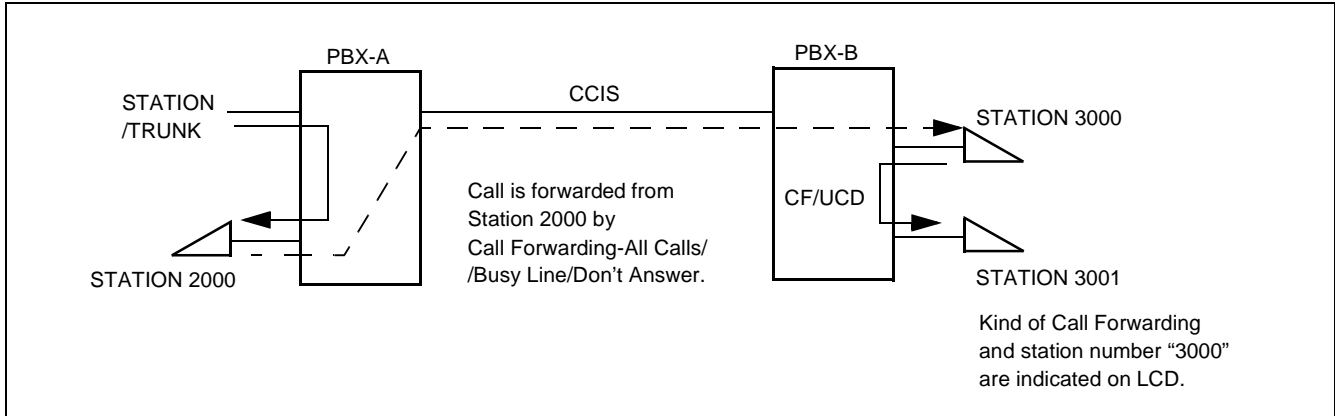
Service Conditions

1. This feature may be set and canceled by a station user or an Attendant in the same switching office.
2. Stations can be allowed or denied this feature by to Class Of Service - Individual programming in system data.
3. A station programmed for access to Call Forwarding-Don't Answer - CCIS is automatically allowed Call Forwarding-Busy Line - CCIS.
4. If separate access codes are programmed into system data for Call Forwarding-Don't Answer CCIS and Call Forwarding-Busy Line - CCIS, separate feature access keys must be programmed on Multiline Terminals to equip them with both features.
5. A maximum number of 240 stations can set Call Forwarding (including-All Calls, -Busy Line, -Don't Answer - CCIS) across CCIS simultaneously.
6. Call Forwarding-Don't Answer - CCIS can be provided on either a Tenant or an individual basis.
7. Individual Call Forwarding-Don't Answer - CCIS supersedes Tenant-basis Call Forwarding.
8. Call Forwarding-Don't Answer - CCIS is applicable to Consultation Hold - All Calls - CCIS and Call Transfer - All Calls - CCIS.
9. Call Forwarding on a system basis allows direct incoming trunk calls which encounter a don't answer condition to be forwarded to a predetermined station or the attendant console.

10. The operator answering a Call Forwarding call can identify the called station number on the Attendant Console display if the calling party line is a trunk.
11. When the Attendant extends a call to a station in the same switching office which has set Call Forwarding-Don't Answer - CCIS, the called station will ring for 30 seconds. If, after this time the call has not been answered, Automatic Recall is activated. If desired, this timing can be changed through the Variable Timing Parameter feature.
12. When the Attendant extends a call to a station in another switching office in the CCIS network, which has set Call Forwarding-Don't Answer - CCIS, the call will be forwarded if the called station does not answer within a predetermined time period.
13. If any of the restriction features listed below are active for the designated station, call forwarding to that station should not be allowed. It should be noted that a non-restricted station can activate call forwarding to the stations below, but incoming trunk calls that are forwarded will not be completed (intercept arrangements will apply).
 - Fully Restricted Station
 - Inward Restricted Station
14. If the forwarding number is an ACD/UCD group number and a member of the group is idle, the call rings at the idle station. If all members of the group are busy, the call remains in queue until a member becomes available.
15. Non-controlling ACD/UCD stations can activate Call Forwarding-Don't Answer - CCIS. Only calls to the extension number are forwarded.
16. Call Forwarding-Don't Answer - CCIS to an Attendant will continue to ring the called station when the system is in Night mode.
17. When the Call Forwarding-Don't Answer - CCIS feature is in effect, if the forwarding station is idle and the designated station is busy, the forwarding station continues to ring beyond the no answer time period.
18. Call Forwarding can be used from any number of forwarding stations to the same designated station.
19. When calls are forwarded to the operator, the Incoming Call Identification feature allows the Attendant to identify the call as a forwarded call.
20. When Outgoing Trunk Queuing is provided, ringback is provided to the forwarding station and not to the designated station.
21. When a call is forwarded, the station number recorded for Station Message Detail Recording (SMDR) is the forwarding station.
22. When a call is forwarded through CCIS by Call Forwarding-All Calls/-Busy Line/-Don't Answer, the kind of Call Forwarding and the station number which is setting the service can be indicated on the LCD of the forwarding destination Multiline Terminal.



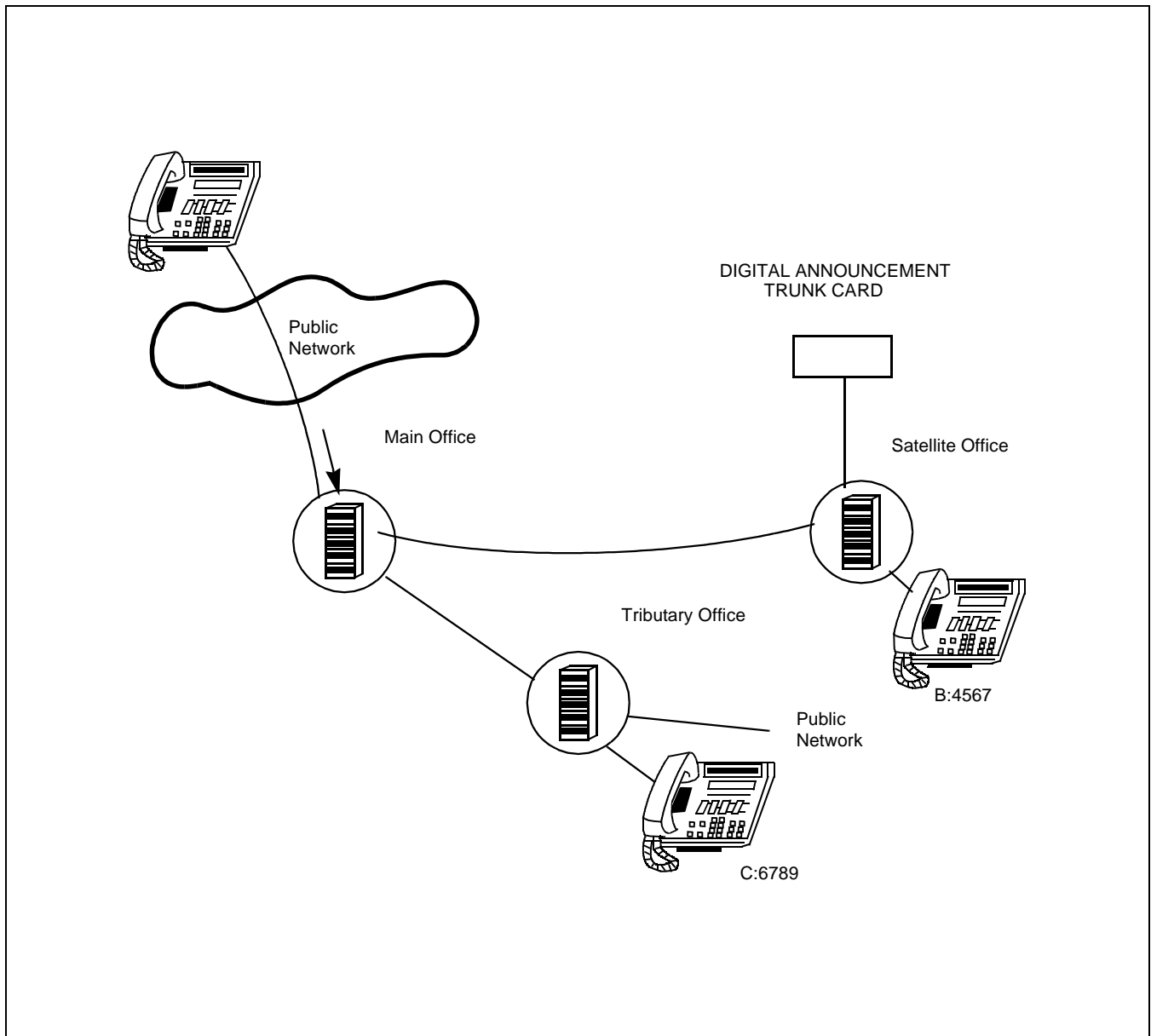
23. When a call is forwarded through CCIS, and then forwarded to another station by Call Forwarding - All Calls/Busy Line/Don't Answer or UCD Hunting, the last forwarding station number or the pilot station number of UCD Group is indicated.



CALL FORWARDING - INTERCEPT - CCIS

General Description

This feature allows calls to an inoperative number, through a CCIS trunk, to be intercepted and automatically routed to a recorded announcement informing the caller that an inoperative number was dialed and giving the Listed Directory Number for information.



Operating Procedure

No manual operation is required once this feature has been programmed in system data.

Service Conditions

1. This feature requires a Digital Announcement Trunk Card (DAT).
2. This feature is provided on a system basis.
3. Calls to restricted codes will receive reorder tone.
4. Only one common message can be provided for the different intercept conditions.
5. The following call conditions are routed to Call Forwarding - Intercept - CCIS:
 - Vacant level
 - Unassigned station number

CALL FORWARDING - OVERRIDE - CCIS

General Description

This feature allows a target station user (Station A) to call a station (Station B) which has Call Forwarding - All Calls - CCIS set.

Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is allowed to all stations in the system, except Attendant Console(s).
2. Any station which has set Call Forwarding - All Calls - CCIS can activate any feature, if the station is allowed the feature, via Class of Service.

CALL TRANSFER - ALL CALLS - CCIS

General Description

This feature allows a station user to transfer incoming or outgoing Central Office, intra-office and inter-office calls to another station in the CCIS network, without Attendant assistance.

Operating Procedure

To transfer a call in progress from a Single Line Telephone:

1. Press the hookswitch momentarily and receive Feature Dial Tone.
2. Dial the third party and receive ringback tone.
3. Wait for the third party to answer and announce the transfer while keeping the first party on Consultation Hold - All Calls - CCIS. When the station user hangs up, the first and third parties will automatically be connected.

To transfer a call in progress from a Multiline Terminal:

1. Press the Transfer key and receive Feature Dial Tone.
2. Dial the third party and receive ringback tone.
3. Wait for the third party to answer and announce the transfer while keeping the first party on Consultation Hold -ALL Calls -CCIS. When the station user hangs up, the first and third parties will automatically be connected.

Service Conditions

1. When Trunk-To-Trunk Connection is provided, an incoming or outgoing network or Tie Line call may be transferred to an outgoing network trunk, provided that the trunk can provide release supervision. The station user who transfers the call gives line control to the two remaining parties upon hanging up. Therefore, if the trunk is loop-start, Call Transfer - All Calls - CCIS from trunk to trunk will not function when loop release supervision is not provided.
2. The linking sequence between switching offices in the CCIS network is shown in the following diagrams ([Figure 6](#)).

The linking procedure between two switching offices is as follows in [Figure 6](#):

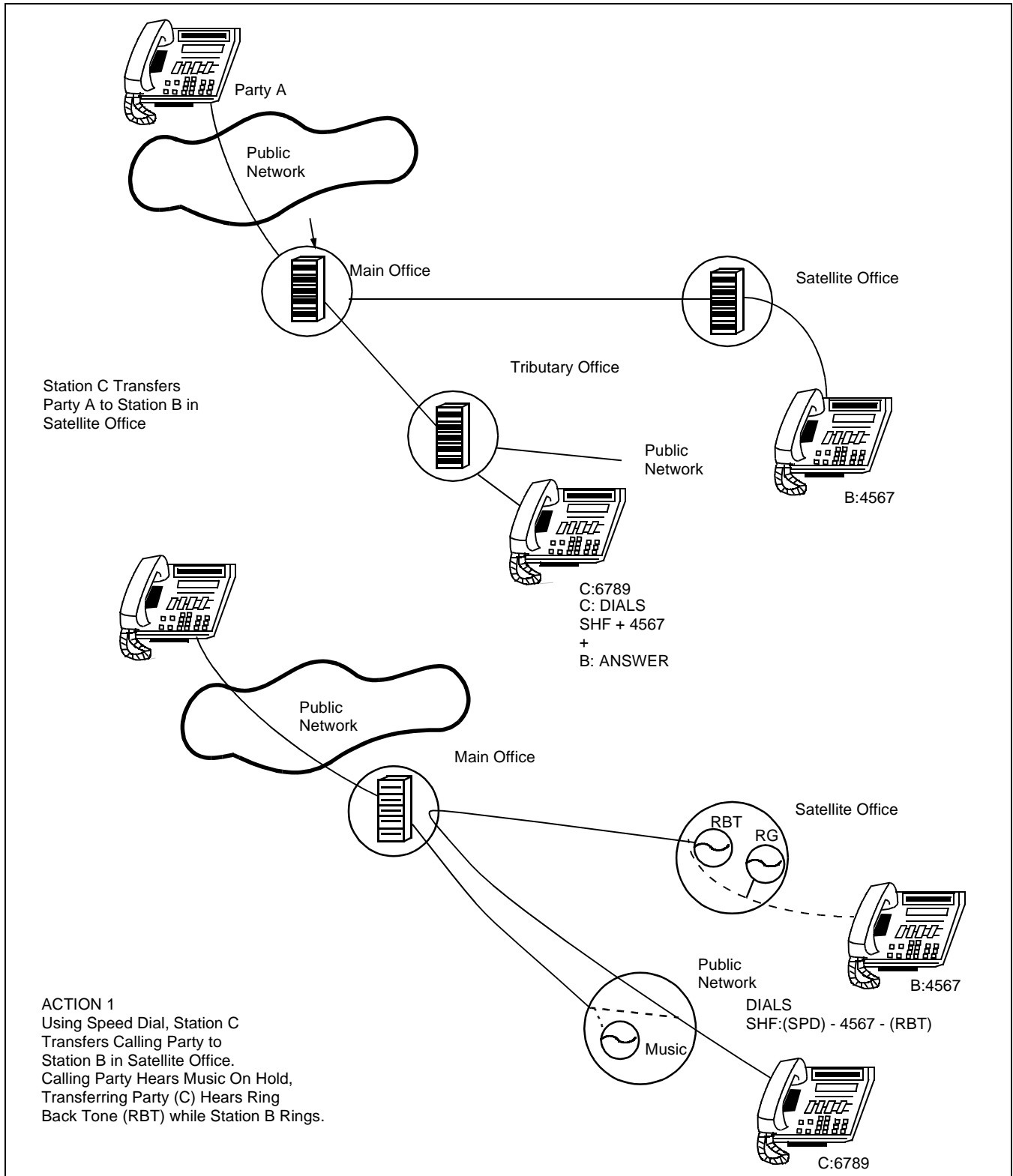


Figure 6 Linking Two Offices Using Call Transfer - All Calls (1 of 2)

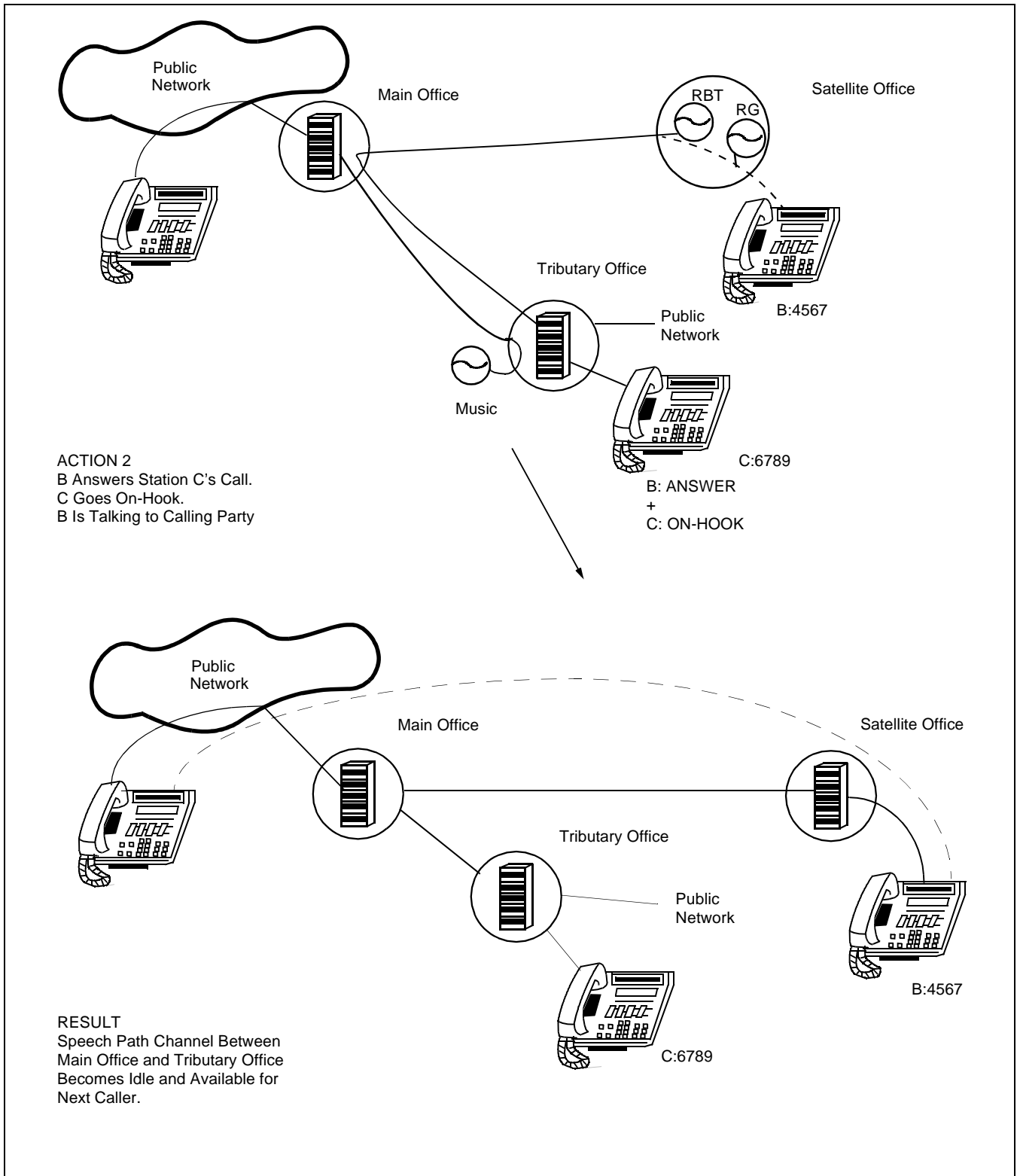


Figure 6 Linking Two Offices Using Call Transfer - All Calls (2 of 2)

CALL TRANSFER - ATTENDANT - CCIS

General Description

This feature permits a station user, while connected to a CCIS network call, to transfer a call to an Attendant Console via the CCIS network.

Operating Procedure

To transfer a call to an Attendant Console:

1. While engaged in a Central Office trunk call, press the hookswitch momentarily and receive Feature Dial Tone.
2. Dial the operator access code.
3. The ATND lamp on the Attendant Console flashes and the buzzer sounds. The station receives ringback tone.

To answer from an Attendant Console:

1. Refer to the “NEAX2400 IMX Attendant Console User Guide.”

If the station wishes to return to the Central Office trunk call while the Attendant Console is being called:

1. Press the hookswitch momentarily. The ATND lamp on the Attendant Console goes out and the buzzer stops.
2. Ringback tone ceases; the station returns to the Central Office trunk call.

Service Conditions

1. This feature is activated to an Attendant Console is in the NEAX2000 IVS² or the NEAX 2400 IMX in the CCIS network.
2. This feature is available for incoming or outgoing Central Office trunk calls and for station-to-station calls.
3. The feature allows a station user, while participating in a two-party connection (two stations or a station and a trunk), to call the operator so that the operator may transfer the call or provide other assistance as required.
4. If all registers are busy and the station user switch hook flashes, the switch hook flash is ignored by the system and the parties remain connected.

CALLING NAME DISPLAY - CCIS

General Description

This feature permits the station name of a calling or called party at another switching office, through the CCIS network, to be displayed either on a Multiline Terminal or an Attendant Console.

Operating Procedure

No manual operation is required.

Service Conditions

1. The calling/called station name (maximum of sixteen characters) is displayed on the lower line of the LCD of a Multiline Terminal or an Attendant Console.
2. The called station name will be displayed on the calling Multiline Terminal or Attendant Console during ringing period and for six seconds after the called party answers the call.
3. The calling station name will be displayed when the Multiline Terminal is ringing on its Prime Line or the Attendant Console and for six seconds after the called party answers the call.
4. If the called party is forwarded by Call Forwarding - Outside, the called name displayed at the calling Multiline Terminal or Attendant Console will be the name of the station which answers the call.
5. If the network includes the office which Calling Name Display is restricted, or is connected by no CCIS line, this feature may not be allowed.
6. If the network includes 2400 RDS, MDS, HDS, they must have L version software for Name Display to work.
7. Index 241 bit 1 in the 2400 must be set for 16 digits to display the NEAX2000 IVS² Name.
8. If 56K CCIS is used, ESF (24 multiframe) must also be used.

CALLING NUMBER DISPLAY - CCIS

General Description

This feature permits the number of a calling or called party at another switching office to be displayed either on a Multiline Terminal or an Attendant Console.

Operating Procedure

No manual operation is required.

Service Conditions

1. The called party's number (maximum of sixteen digits) will be displayed on the Multiline Terminal when the called party answers the call.
2. The calling party's number will be displayed when the Multiline Terminal is ringing on its Prime Line.
3. If the called party is forwarded via Call Forwarding - All Calls, Call Forwarding - Busy Line, etc., the called number display at the calling Multiline Terminal will be the number of the station which answers the call.
4. When a call with calling party number information (ISDN CPN/Caller-ID/T1-ANI) is received over CCIS, the information can be transferred transparently, a maximum of 16 digits can be displayed on the LCD of the Multiline Terminal, and it also can be sent to the SMDR, or MCI with ANI if provided. Below shows the conditions whether the calling party number is displayed or not when the call is transferred or forwarded to another station.
 - When the call is transferred or forwarded to the station in the same office, the LCD of the transferred/forwarded station displays the calling party number.
 - When the call is transferred to the station of another office over CCIS, the LCD, SMDR, MCI, or ANI of the transferred station does not display the calling party number.
 - When the call is forwarded to the station of another office over CCIS, the LCD of the forwarded station displays the calling party number.
5. Examples of number displays for inter-office connections are shown in the attached diagrams for the following cases:
 - Multiline Terminal to Multiline Terminal ([Figure 7](#))
 - Multiline Terminal to Attendant Console ([Figure 8](#))
 - Multiline Terminal to Trunk ([Figure 9](#))
 - Attendant Console to Multiline Terminal ([Figure 10](#))
 - Trunk to Multiline Terminal ([Figure 11](#))
 - Intermediate Station Number Display (1) ([Figure 12](#))
 - Intermediate Station Number Display (2) ([Figure 13](#))

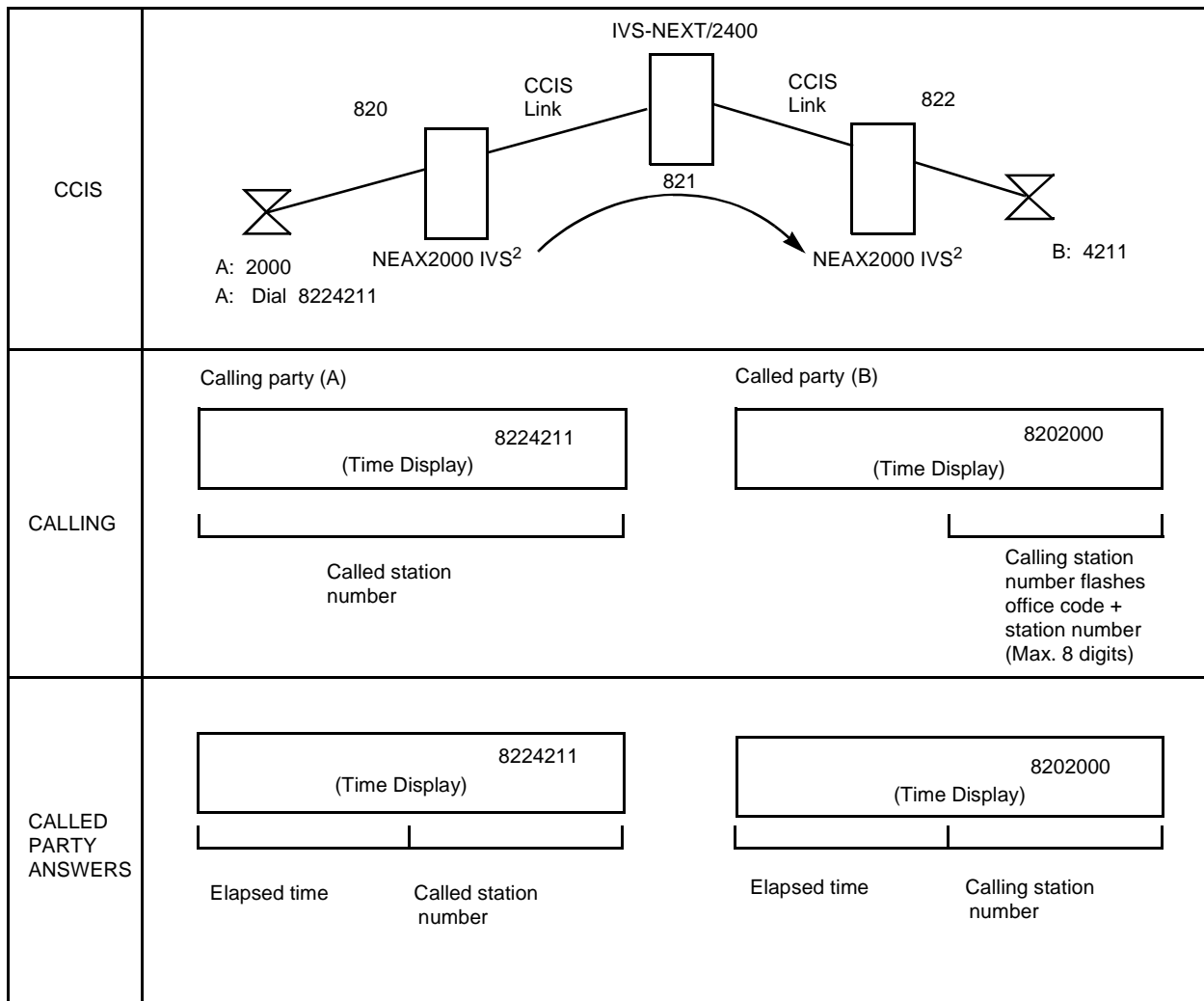


Figure 7 Inter-Office Connections for Multiline Terminal to Multiline Terminal

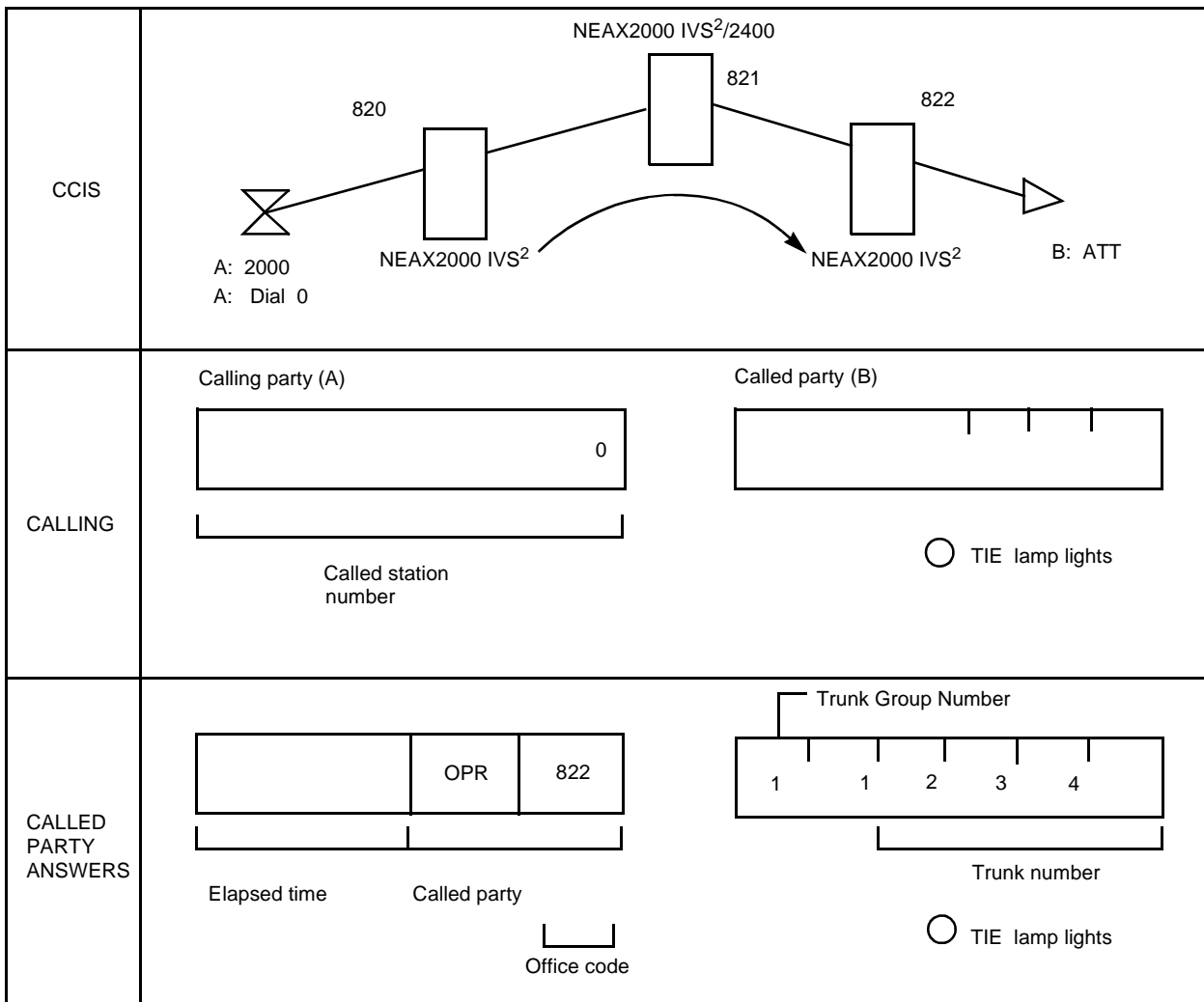


Figure 8 Inter-Office Connections for Multiline Terminal to Attendant Console

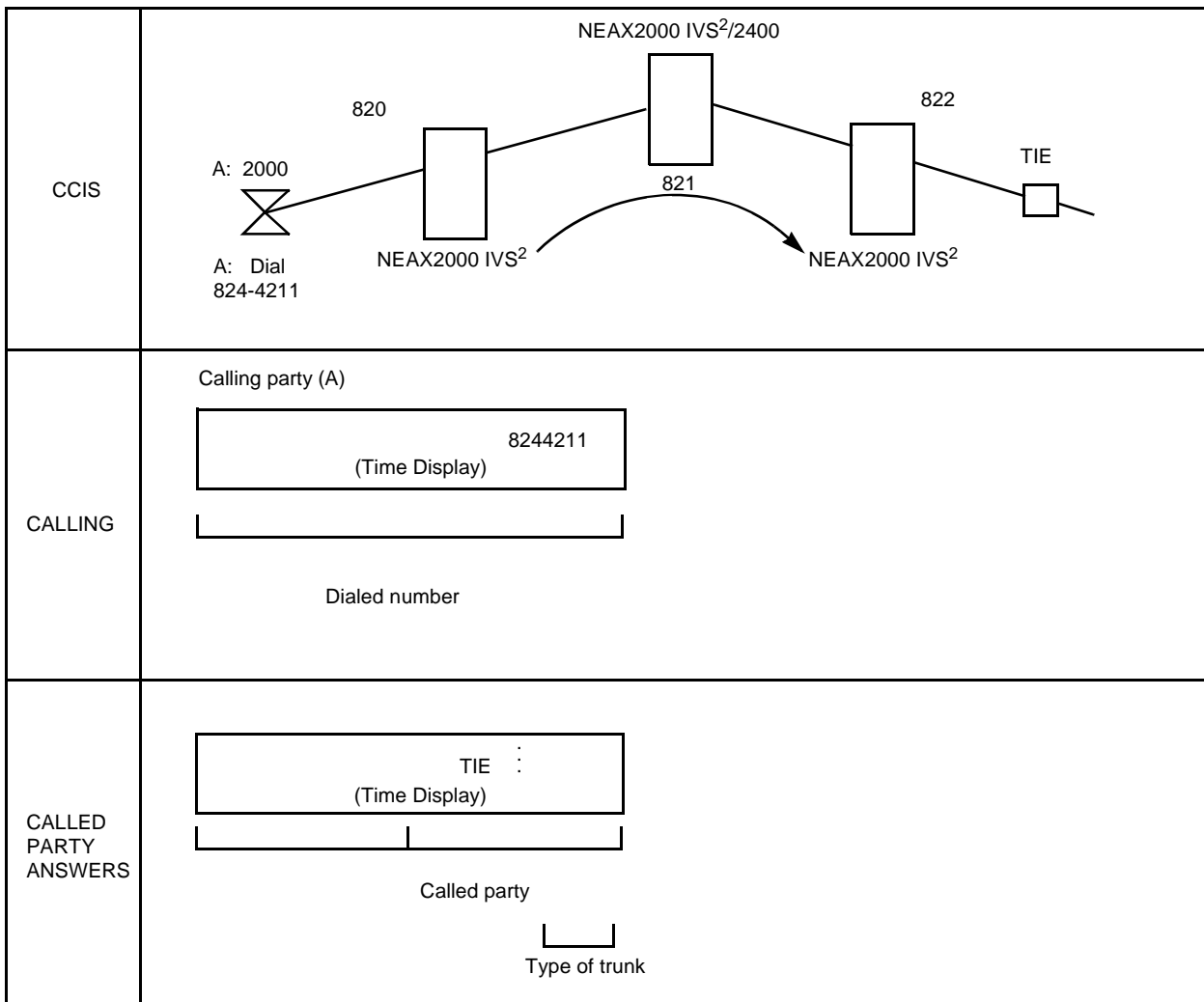


Figure 9 Inter-Office Connections for Multiline Terminal to Trunk

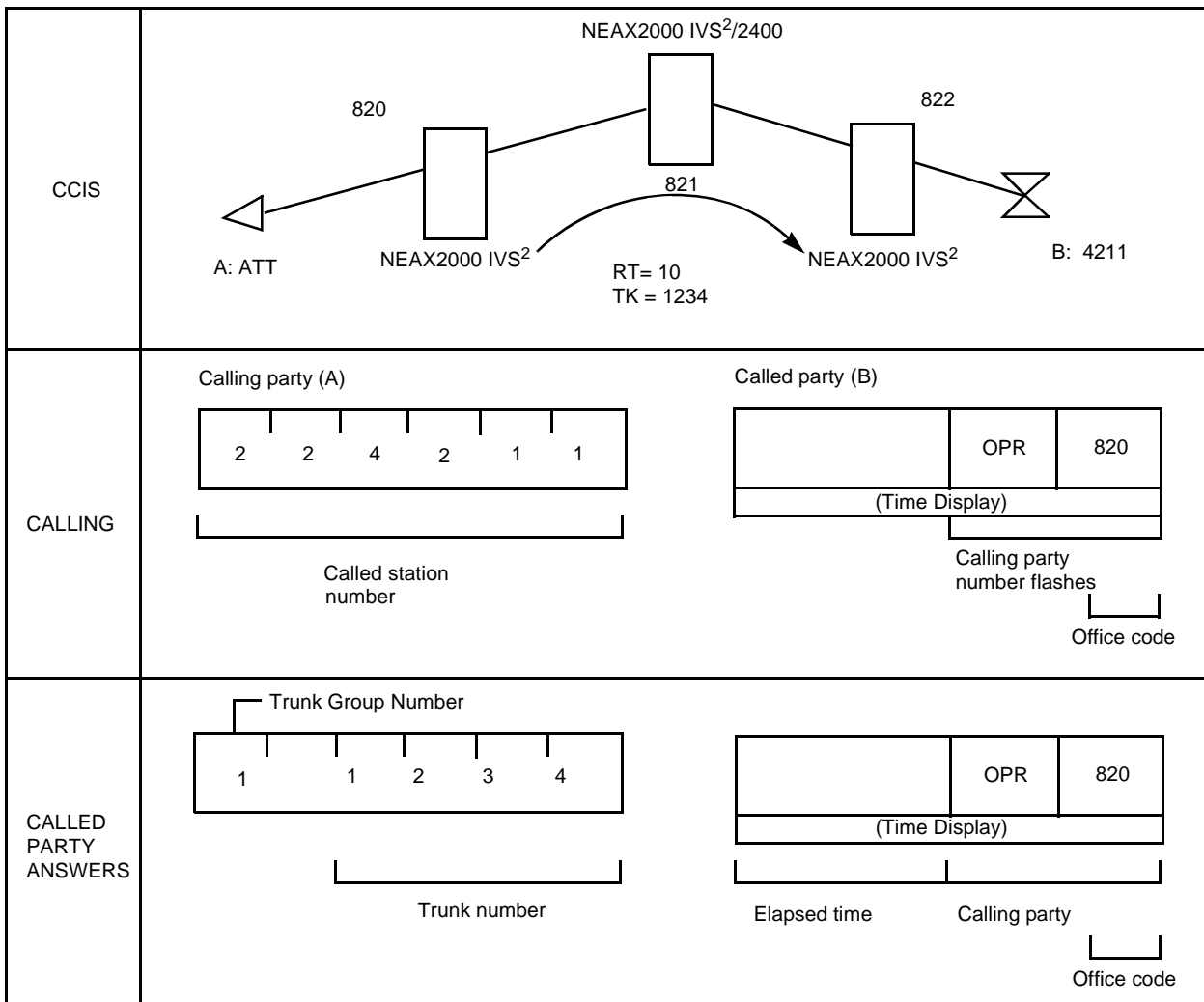


Figure 10 Inter-Office Connections for Attendant Console to Multiline Terminal

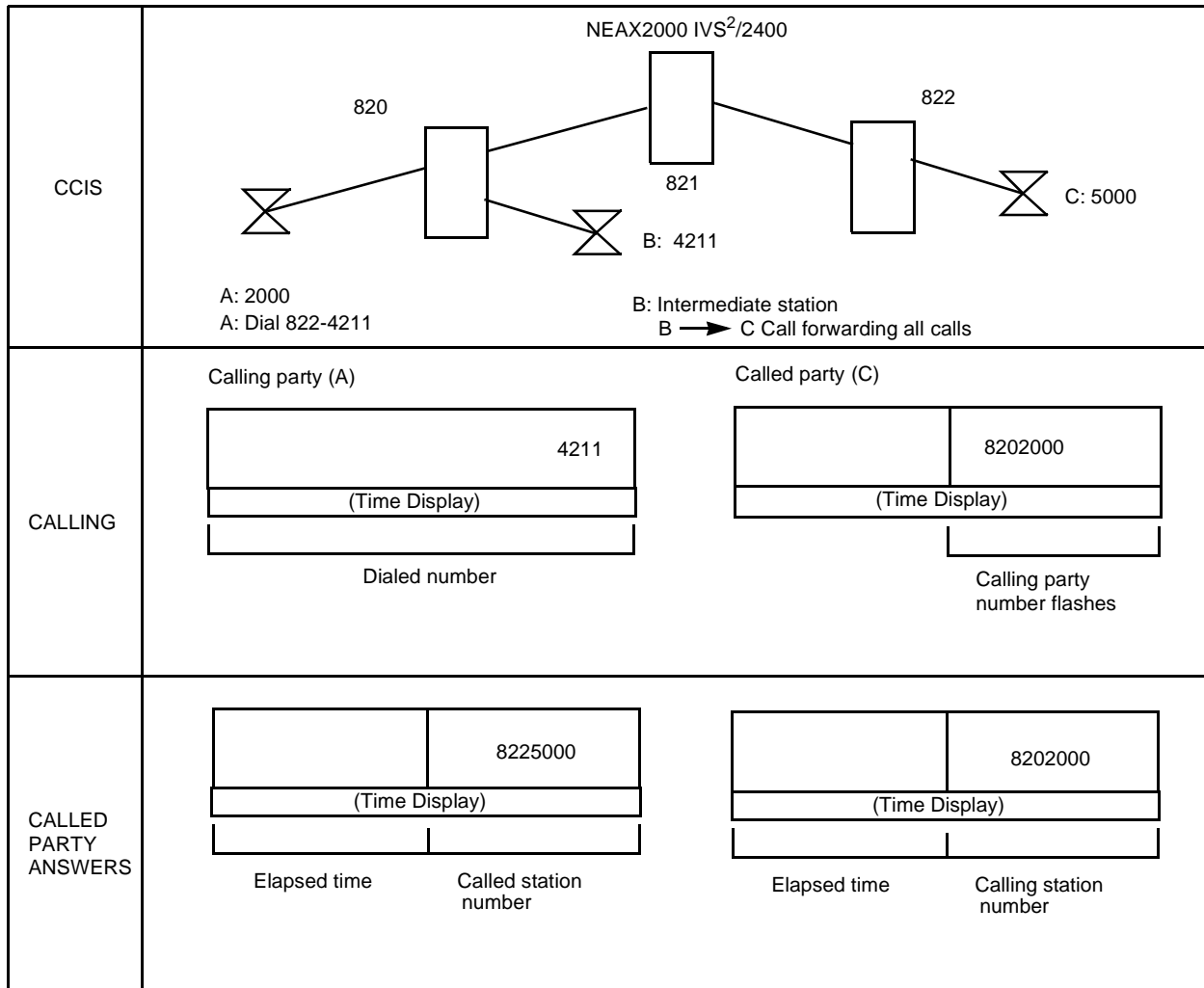


Figure 13 Inter-Office Connections for Intermediate Station Number Display (2)

CENTRALIZED BILLING - CCIS

General Description

This feature is used to collect billing information from each office within the network and to direct it to the associated center office. Billing information is then forwarded to the central billing centers via RS-232C interfaces.

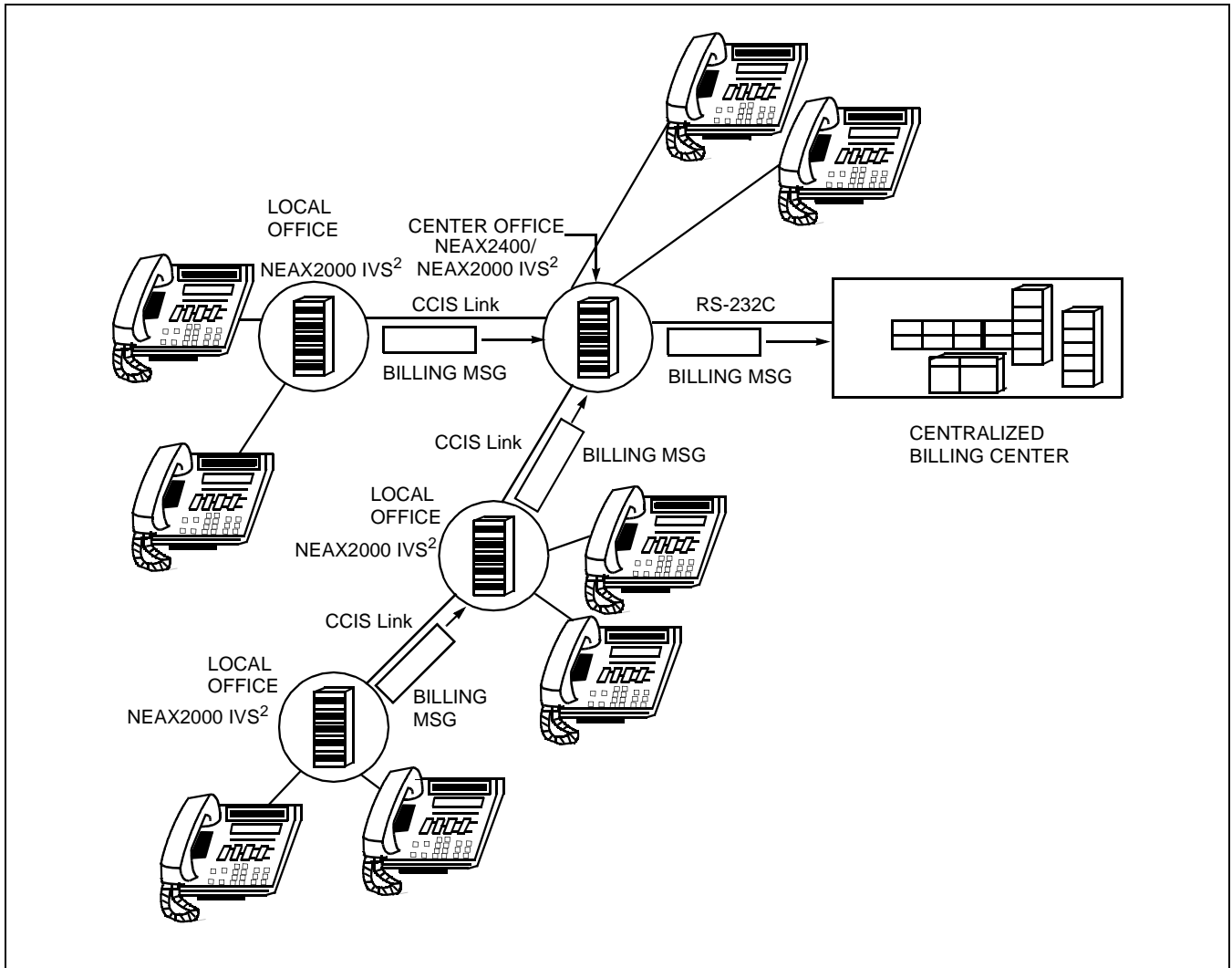
Operating Procedure

No manual operation is required. The call record outputs are produced automatically.

Service Conditions

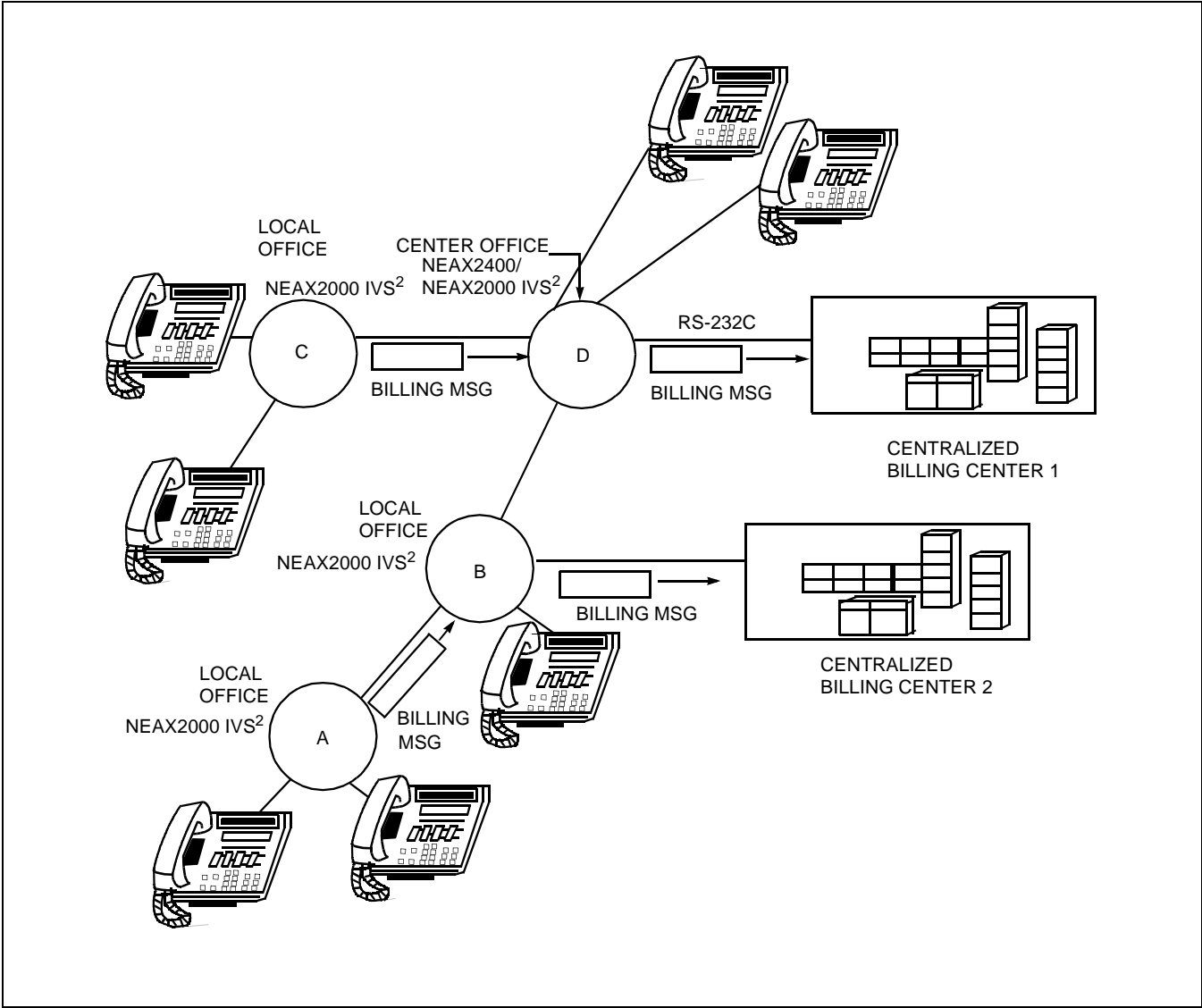
1. The NEAX2000 IVS² is generally used as a local office, however, it can be used as a center office for centralized billing if all the PBXs within the network are NEAX2000 IVS².
2. The information storage capacity of the local office is approximately 1,000 calls.
3. If billing information in excess of the above mentioned storage capacity is required for a local office, then the addition of a memory card with SRAM card allows 12,000 records of storage per system.
4. When the NEAX2000 IVS² is used as a center office, the billing information is sent to a SMDR system with NEAX2400 IMX format.
5. When the NEAX2000 IVS² is used as a center office, a maximum number of call records which can be sent to the SMDR system is about 4000 per hour at 4800 bps on the RS-232C port.
When the AP of the center office can not send the call records to the SMDR, due to such as a failure of the SMDR system, call records are stored in the memory buffer on the AP (about 500 call records). Moreover, if the memory buffer is filled, the call records are stored in an AP of a local office.
6. When a NEAX2400 is used as a center office, either the Sub Line or the My Line number can be selected by system programming to be sent to the SMDR terminal.
7. When the NEAX2000 IVS² is used as a center office, only the My Line number can be sent to the SMDR terminal.

8. Billing messages are made in each gateway to the public network.

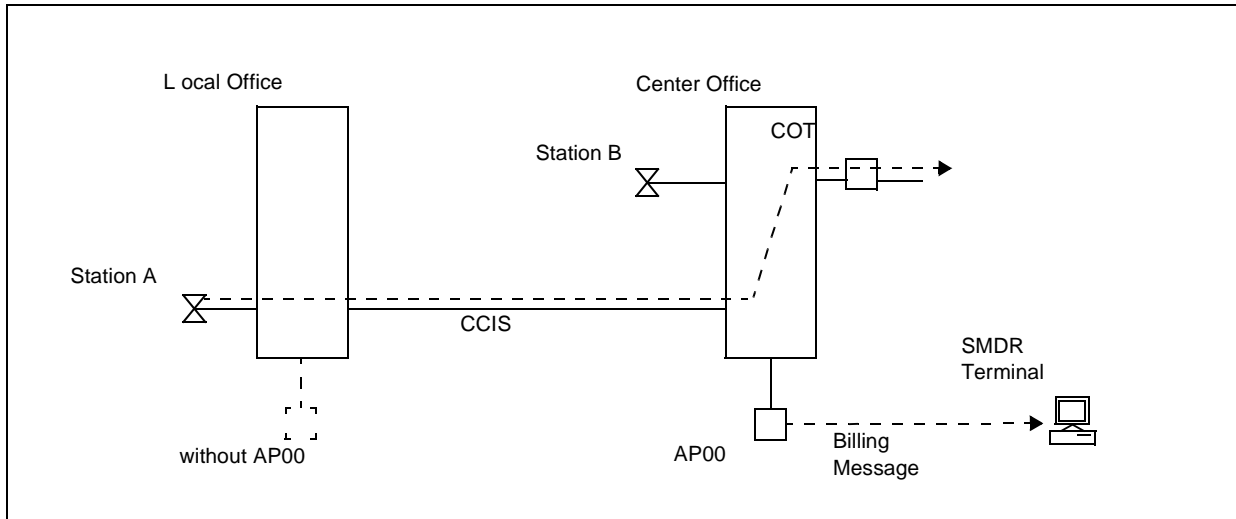


9. Billing messages at each location can be sent to Billing Center 1 or Billing Center 2.

- Example: Location A → B → Billing Center 2
- Location B → Billing Center 2
- Location C → D → Billing Center 1
- Location D → Billing Center 1



10. When a call is originated from a station (Station A) of a local office (without AP00), via a COT of a center office (with AP00), a message is sent to the center office from the local office via CCIS. According to the station number of the calling party the AP00 of the center office generates billing information to the SMDR terminal.



11. When a call is originated from a Sub Line on the Multiline Terminal station (Station A) of the local office, either the Sub Line or the Primary Extension number can be selected by system programming to be sent to the SMDR terminal.
12. When a call is originated from a station (Station B) of the center office, only the Primary Extension number can be sent to the SMDR terminal.
13. By predetermined office data, Local Office Number of the calling station can be forwarded to the center office, and output to the SMDR terminal.

CENTRALIZED DAY/NIGHT MODE CHANGE - CCIS

General Description

This feature switches the Day/Night mode of a remote office, linked to the main office NEAX2400 IMX via CCIS, in accordance with the Day/Night mode switching on the Attendant Console at the main office.

Operating Procedure

Main Office:

1. The Attendant executes Day/Night mode changeover operation using the normal Attendant Consoles (no master) method or the master Attendant Console method.
2. After a specified time, the Day/Night mode at the remote office is changed over.

Remote Office:

1. No operation is required.

Service Conditions

1. The NEAX2000 IVS² can only be used as a remote office.
2. At a remote office, only one Tenant (Tenant number 01) can use this feature.
3. When a remote office is equipped with an Attendant Console, a changeover of the remote office's Day/Night mode should not be performed from the Attendant Console of the remote office.
4. An indication on external equipment at a remote office can be provided when Day/Night mode status is changed by the Attendant Console of the main office. The external equipment is to be provided by the customer and to be connected with a PN-DK00 card. The indication is as follows:

Status	Indication
NIGHT mode	ON
DAY mode	OFF

CONSULTATION HOLD - ALL CALLS - CCIS

General Description

This feature permits a station user, within the CCIS network, to hold any incoming or outgoing public network or Tie Line call while originating a call to another station within the CCIS network.

Operating Procedure

To hold the original call and place a second call from a Single Line Telephone:

1. Press the hookswitch momentarily and receive Feature Dial Tone.
2. The original call is placed on hold and receives Music On Hold, if provided.
3. Dial the second station number and receive ringback tone.
4. The second station answers. The original call is now on Consultation Hold - All Calls - CCIS.

To return to the original call from a Single Line Telephone:

1. In any of the following cases, the calling station can return to the original call by momentarily pressing the hookswitch:
 - a. The second station called is busy.
 - b. The calling station cannot gain access to the second station due to restriction.
 - c. The second station does not answer.
2. If the second party hangs up, the calling station will automatically be returned to the original call.
3. If the originating station momentarily presses the hookswitch, a three-party Conference will be initiated.

To hold the original call and place a second call from a Multiline Terminal:

1. Press the Transfer key and receive Feature Dial Tone.
2. The original call is placed on hold and receives Music On Hold, if provided.
3. Dial the second station number and receive ringback tone.
4. The second station answers. The original call is now on Consultation Hold - All Calls - CCIS.

To return to the original call from a Multiline Terminal:

1. In any of the following cases, the calling station can return to the original call by pressing the Transfer key:
 - a. The second station called is busy.
 - b. The calling station cannot gain access to the second station due to a restriction.
 - c. The second station does not answer.
2. If the second station hangs up, the calling station will automatically be returned to the original call.
3. If the second station remains in the conversation, pressing the Transfer or Answer key returns the original call to the Multiline Terminal while the second call enters Consultation Hold -All Calls - CCIS.
4. By pressing the Conf key, a three-party conference will be initiated.

Service Conditions

When Trunk-To-Trunk Connection is provided, an outgoing exchange network or Tie Line call can be made by the station user.

DELUXE TRAVELING CLASS MARK - CCIS

General Description

This feature provides outgoing call restrictions within the CCIS network.

The following three types of restrictions are allowed:

- Deluxe Traveling Class Mark Restriction
- Route Restriction
- Numbering Restriction

Operating Procedure

No manual operation is required.

Service Conditions

1. The Route Restriction Class (RSC) of the calling party is sent to the called office as a Deluxe Traveling Class Mark (TCM), which is used for call restriction.
2. A maximum of eight restriction levels can be sent as a TCM.
3. The Transmitted Restriction Class (TRC) is used to check restrictions on calls outside the CCIS network, from a different switch.
4. The Route Restriction method is used to restrict a call based on the caller's restriction class and the selected route.
5. Numbering Toll Restriction is used to restrict a call based on the number dialed.
6. The following additional restriction features can be used by an office within the CCIS network:
 - Time of Day Change
 - Day of Week Change

DIAL ACCESS TO ATTENDANT - CCIS

General Description

This feature allows a station user to call an Attendant Console by dialing an operator call code through the CCIS network.

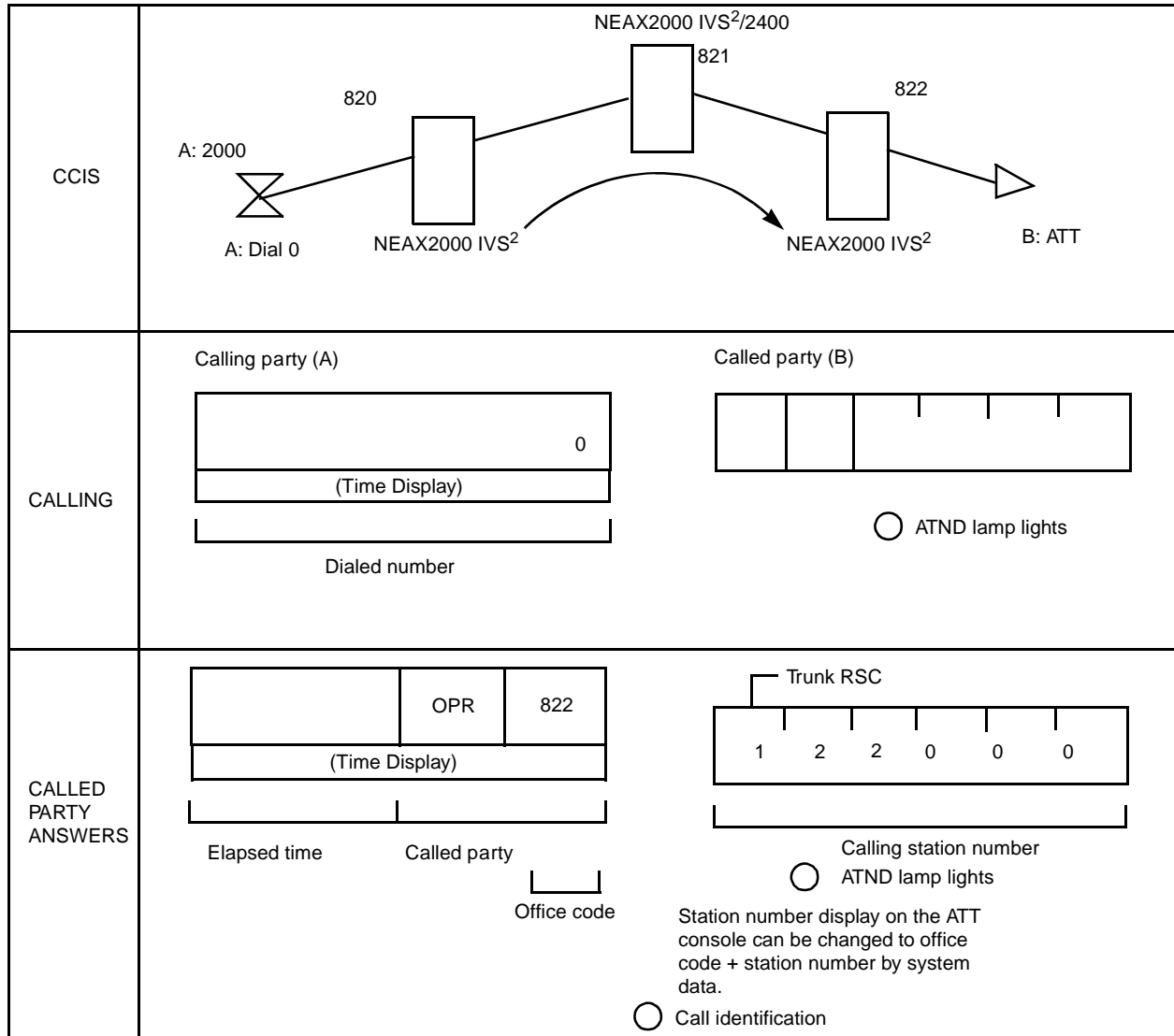
Operating Procedure

To call an Attendant Console:

1. The station user dials the operator call code and receives ringback tone.
2. The ATND lamp for Incoming Call Identification flashes on the Attendant Console; the Attendant answers the call.

Service Conditions

1. The operator call code must be an Individual Attendant Access - CCIS number.
2. This feature allows any station user or dial repeating Tie Trunk to call an Attendant Console by dialing an operator call code.
3. This feature is available when the Attendant Console is in a NEAX2000 IVS² or a NEAX2400 in the CCIS network.



DIRECT-IN TERMINATION - CCIS

General Description

This feature automatically routes incoming exchange calls through CCIS to a preassigned station in the network, without Attendant assistance.

Operating Procedure

The outside calling party dials the telephone number, as usual. The call is answered at a predetermined station, within the CCIS network, bypassing the Attendant Console.

Service Conditions

1. Bothway trunks can be used for Direct-In Termination - CCIS, however, incoming trunks are recommended.
2. It is not necessary to order special DID trunks from the telephone company. However, care should be taken in the application of Incoming Signaling Groups (Central Office Hunting).
3. Destination station numbers at another office are stored in System Speed Dialing.
4. The maximum number of destination stations is 100.
5. Call billing to the outside party starts when the incoming call connects to the CCIS trunk.
6. If the called station does not answer, after a predetermined time, the incoming call (without release signal), is automatically cut off.

DISTINCTIVE RINGING - CCIS

General Description

This feature provides distinctive station ringing patterns for terminated calls, through the CCIS network, so that a station user can distinguish between incoming internal and external calls.

Operating Procedure

No manual operation is required.

Service Conditions

1. Ringing patterns for incoming internal calls on the CCIS network:
 - a. 1 second ring, 2 seconds silence
 - b. 2 seconds ring, 4 seconds silence
2. Ringing patterns for incoming external calls on the CCIS network:
 - a. 2 seconds ring, 4 seconds silence
 - b. 2 seconds ring, 2 seconds silence
 - c. 4 seconds ring, 2 seconds silence
 - d. 1 second ring, 2 seconds silence
3. When calling a third station (Conference, Consultation - Hold, etc.), the ringing signal to the called station is the same as an incoming internal call.

DO NOT DISTURB - CCIS

General Description

This feature allows a station user to establish Do Not Disturb (DND) status on a temporary basis, during which time access to the station from CCIS calls will be denied.

Operating Procedure

To set Do Not Disturb from a Single Line Telephone or Multiline Terminal:

1. Lift the handset and receive dial tone.
2. Dial the Do Not Disturb - CCIS feature access code and receive Service Set Tone.
3. Replace the handset.

To cancel Do Not Disturb from a Single Line Telephone or Multiline Terminal:

1. Lift the handset and receive dial tone.
2. Dial the Do Not Disturb - CCIS cancellation code and receive Service Set Tone.
3. Replace the handset.

To set Do Not Disturb - CCIS from a Multiline Terminal:

1. Press the Speaker key and receive dial tone.
2. Press the Do Not Disturb feature access key, and the associated LED lights. If the Multiline Terminal is equipped with an LCD, the display will indicate SET.
3. Press the Speaker key.

To cancel Do Not Disturb - CCIS from a Multiline Terminal:

1. Press the Speaker key and receive dial tone.
2. Press the Do Not Disturb feature access key and the associated LED is extinguished. If the Multiline Terminal is equipped with an LCD, the display will indicate CNCL.
3. Press the Speaker key.

Service Conditions

1. Calls to stations that are in Do Not Disturb - CCIS mode will receive reorder tone, or on a tenant basis, can be assigned to transfer to the Attendant or a predesignated station within that PBX system.
2. A station in Do Not Disturb - CCIS mode can originate calls in the normal manner.
3. Call Forwarding can be set to a station in Do Not Disturb - CCIS.
4. A Do Not Disturb - CCIS station will be omitted from a Station Hunting chain.
5. This feature can only be set or canceled while the station is receiving internal dial tone.

6. When a Multiline Terminal is set to DND, calls to the primary and secondary extensions will not ring. Trunks programmed to ring will not do so while DND is set, but flashing LED indications are still provided. DND will not deny an Executive Override.
7. If the Do Not Disturb feature access key is pressed while connected to a trunk or station, the following interruptions are denied until that call is completed:
 - Attendant Camp-On With Tone Indication
 - Attendant Override
 - Boss - Secretary Override
 - Busy Verification - CCIS
 - Call Waiting - Terminating
 - Call Waiting - Stations
 - Voice Call - CCIS

DUAL HOLD - CCIS

General Description

This feature allows two connected Multiline Terminals to be placed on hold simultaneously over the CCIS link. This enables the held parties to answer or originate a call from a secondary extension or the idle primary extension.

Operating Procedure

To operate Dual Hold - CCIS from a Multiline Terminal:

1. The user at Station A presses the Hold key; the user at Station B is placed on hold.
2. The user at Station B presses the Hold key; the user at Station A is placed on hold.
3. Dual Hold - CCIS is now in progress.

Service Conditions

This feature is available for inter-office calls, through CCIS.

ELAPSED TIME DISPLAY - CCIS

General Description

This feature provides an LCD which shows the duration of time that a Multiline Terminal is connected to any trunk through the CCIS network.

Operating Procedure

No manual operation is required.

Service Conditions

1. The elapsed time is displayed in the left side of the LCD.
2. The elapsed time can reach a maximum of 9 hours, 59 minutes and 59 seconds, after which the clock returns to zero.
3. A continuous time display appears when a call is retrieved from Consultation Hold - All Calls - CCIS, Conference Call, Exclusive Hold and Non-Exclusive Hold retrieved by the same station.
4. When a call is transferred, the elapsed time of the party receiving the transfer begins at zero.
5. The elapsed time is not displayed when the station is in conference.

FLEXIBLE NUMBERING OF STATIONS - CCIS

General Description

This feature allows voice and data station numbers to be assigned to any instrument in the CCIS network, based solely upon numbering plan limitations.

Office location is indicated by all digits of the station number (see [Figure 14](#)).

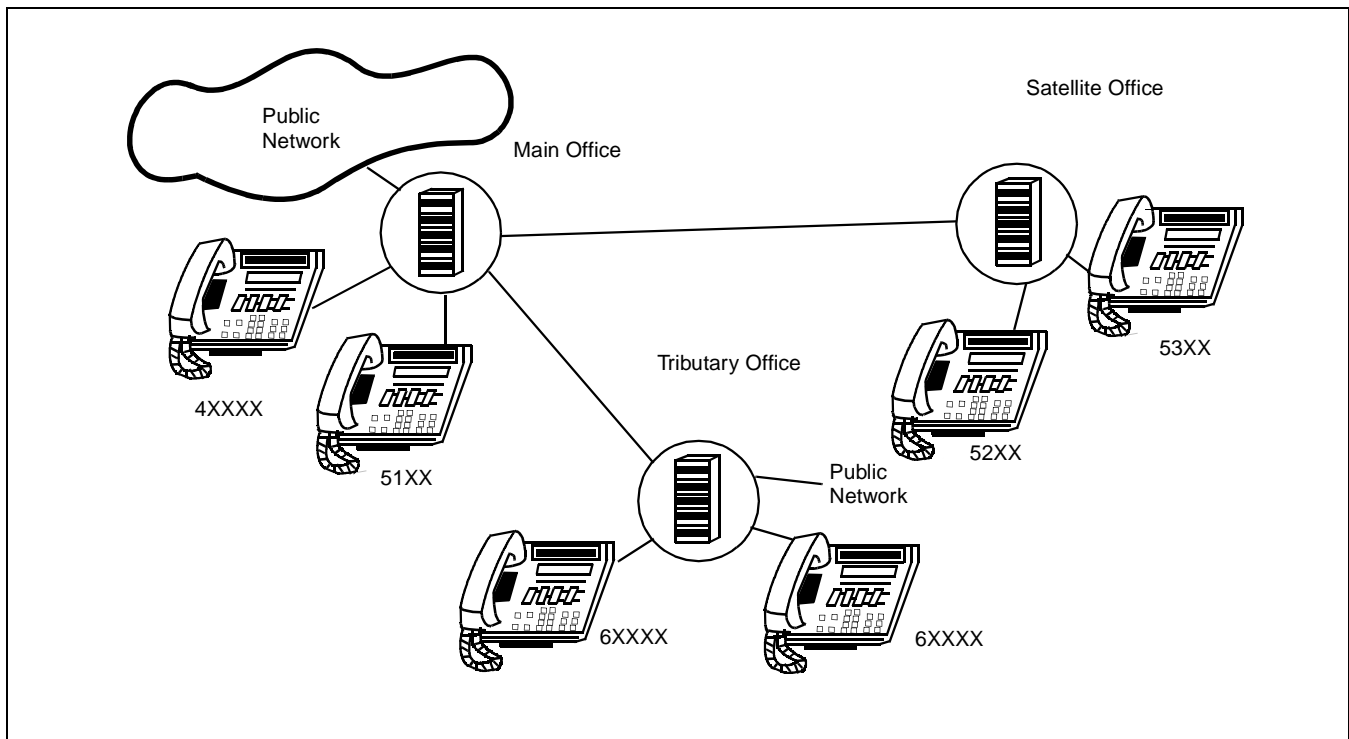


Figure 14 Office Location and Station Numbers

Operating Procedure

No manual operation is required.

Service Conditions

1. Careful consideration should be given to the network numbering plan to avoid needless loss of access codes or duplication of station numbers.
2. Tenant Service is not provided, i.e., numbers cannot be duplicated for different tenants.
3. One to eight digits can be assigned as a station number.
4. The first digit or second digit of a station number distinguishes one system from another system.

HANDS-FREE ANSWERBACK - CCIS

General Description

This feature allows a Multiline Terminal station user to respond to a voice call, through the CCIS network, without lifting the handset.

Operating Procedure

To answer a Voice Call-CCIS:

1. Press the Feature key followed by 1 to turn on the microphone; the LED associated with MIC lights.
2. Respond to the call in a hands-free manner.

Service Conditions

1. Hands-Free Answer Back - CCIS may only be utilized when responding to a Voice Call - CCIS on the primary extension of a Multiline Terminal.
2. Refer to the Voice Call - CCIS Features and Specifications for further information.

HOT LINE - CCIS

General Description

This feature allows two stations, at different nodes in the CCIS network, to be mutually associated on an automatic ringdown basis through the CCIS network.

Operating Procedure

To place a Hot Line - CCIS call:

1. The user at Station A lifts the handset.
2. Station B is rung.
3. The user at Station B lifts the handset and the connection is established.

Service Conditions

1. If both phones in a Hot Line - CCIS pair are equipped with dials, either one may transfer a Hot Line - CCIS call to another station, in the CCIS network, using the Call Transfer - All Calls - CCIS feature.
2. A maximum of 100 (inclusive) Hot Line or Brokerage Hot Line stations are permitted in the system.
3. Hot Line - CCIS assignments are programmed into system data via the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).
4. The System Speed Dialing feature is used to call the station in the other office.

HOUSE PHONE - CCIS

General Description

This feature allows selected stations to call an Attendant Console, through the CCIS network, simply by going off hook.

Operating Procedure

To call an Attendant in another office:

1. The House Phone - CCIS user lifts the handset.
2. The Attendant in another office is automatically called. The ATND lamps on the Attendant Console flash and the console buzzer sounds.

Service Conditions

1. House phones - CCIS may be equipped with or without dials.
2. House Phone - CCIS assignments are programmed into system data using the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).
3. A maximum of 100 House Phones are permitted in the system.
4. The System Speed Dialing feature is used to call an Attendant in another office.
5. This feature is available when a Attendant Console is in a NEAX2000 IVS² or a NEAX2400 in the CCIS network.

INCOMING CALL IDENTIFICATION - CCIS

General Description

This feature allows an Attendant to visually identify the type of service and/or trunk group which is arriving or waiting to be answered at the Attendant Console through the CCIS network.

Operating Procedure

No manual operation is required.

Service Conditions

1. A flashing lamp indicates a call waiting to be answered.
2. A steady lamp indicates an answered call.
3. A maximum of 12 lamp and key groups can be associated with *Incoming Call Identification*.
4. An example of lamp and key assignment is as follows:

LDN	C.O. Incoming Calls
ATND	Operator Calls
RCL	Operator Recall
ICPT	Intercept Calls
NANS	Do Not Answer Calls
BUSY	Busy Line Calls
TIE	Tie Line Incoming Calls
5. More than one Incoming Call Identification (ICI) lamp can be lit at one time on the Attendant Console. The Attendant can select any incoming call by pressing the associated key.
6. Calls can be answered via the ANSWER key for first-in, first-out priority.
7. Attendant Consoles are limited to 6 unique Incoming Call Identification indications. However, more than one incoming trunk group can be programmed for the same Incoming Call Identification.
8. Assignment of ICI lamp and key can be assigned on a trunk route basis.

INDIVIDUAL ATTENDANT ACCESS - CCIS

General Description

This feature permits a station user to call a specific Attendant Console, in the CCIS network, using an individual Attendant Identification Number.

Operating Procedure

1. The station user dials an individual Attendant Identification Number.
2. The Attendant at the directed Attendant Console receives an Incoming Call Identification indication and can answer using the normal operating procedures.

Service Conditions

1. An Attendant Identification Number must be assigned to each Attendant Console.
2. This feature is available when the Attendant Console is attached to the main NEAX2400 IMX in the CCIS network.

LDN NIGHT CONNECTION - CCIS

General Description

This feature routes Listed Directory Number (LDN) calls to a preselected station, in the CCIS network, when the Night mode has been entered.

Operating Procedure

No manual operation is required.

Service Conditions

1. The maximum number of LDNs is eight.
2. The destination party is assigned to Day/Night mode.
Examples:
 - a. There is an Attendant Console in the same office.
DAY Incoming to Attendant Console in the same office.
NIGHT Incoming to station or TAS line in the other office.
 - b. There is an Attendant Console in the other office.
DAY Incoming to Attendant Console in the other office.
NIGHT Incoming to station or TAS line in the same office.
3. When the system is in the Night mode, a DID incoming call with a LDN from another switching office through CCIS can be routed to a predesignated TAS line or station in the system.

LINK ALARM DISPLAY - CCIS

General Description

This feature provides an indication on external equipment when the CCIS link is connected/disconnected, when the system is initialized, or when the CCH is in make-busy.

Operating Procedure

No manual operation is required.

Service Conditions

1. An external equipment is to be provided by the customer and to be connected with a PN-DK00 card.
2. The indication is as follows:

<u>Status</u>	<u>Indication</u>
Link disconnected	ON
Link connected	OFF
System Initialized	ON
CCH make busy	ON

3. When the CCH is in make-busy, an external indication is provided about one minute later.

MESSAGE WAITING LAMP SETTING - ATTENDANT - CCIS

General Description

This feature allows an Attendant, in the NEAX2400 IMX system, to set or cancel a Message Waiting lamp indication, through the CCIS network, on a station in a NEAX2000 IVS² system.

Operating Procedure

To set a Message Waiting indication from the NEAX2400 IMX ATTCON:

1. Press an idle LOOP key and receive dial tone.
2. Dial the Message Waiting feature access code (maximum of three digits) and receive Feature Dial Tone.
3. Dial the station number and receive Service Set Tone.
4. Message Waiting indication is set.
5. Press the RELEASE key to return to an idle condition.

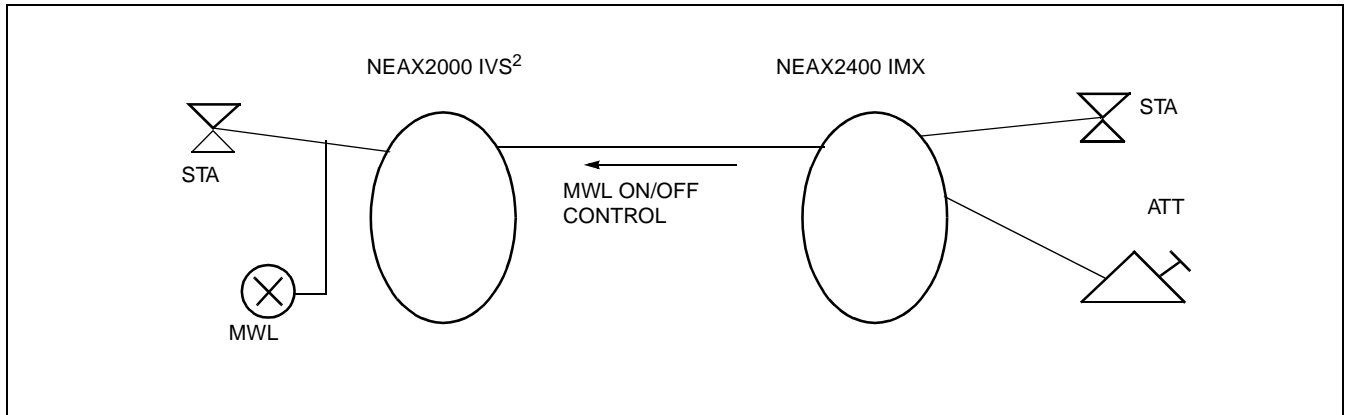
To cancel a Message Waiting indication:

1. Press an idle LOOP key and receive dial tone.
2. Dial the Message Waiting cancellation code (maximum of three digits) and receive Feature Dial Tone.
3. Dial the station number and receive Service Set Tone.
4. Message Waiting indication is canceled.
5. Press the CANCEL key to return to an idle condition.

Service Conditions

1. The Message Waiting lamp on a Single Line Telephone or a Multiline Terminal lights when this feature is activated.
2. If an Attendant attempts to set Message Waiting to a station which has already Message Waiting set, the Attendant will receive Service Set Tone.
3. Message Waiting indications are retained when the system is initialized.
4. An Attendant Console or station in the NEAX2000 IVS² system does not have the facility to set or cancel a Message Waiting lamp on a station at another switching office, through CCIS.

- 5. A LC card with the Message Waiting function is required. Single Line Telephones must be equipped with Message Waiting lamps for 70VDC.



MESSAGE WAITING LAMP SETTING - STATION - CCIS

General Description

This feature allows a station user, in the NEAX2400 IMX system, to set or cancel a Message Waiting lamp indication, through the CCIS network, to a station in the NEAX2000 IVS² system with this feature.

Operating Procedure

To set a Message Waiting indication:

1. Lift the handset and receive dial tone.
2. Dial the Message Waiting feature access code (maximum of three digits) and receive Feature Dial Tone.
3. Dial the desired station number and receive Service Set Tone.
4. Message Waiting indication is set at the station.

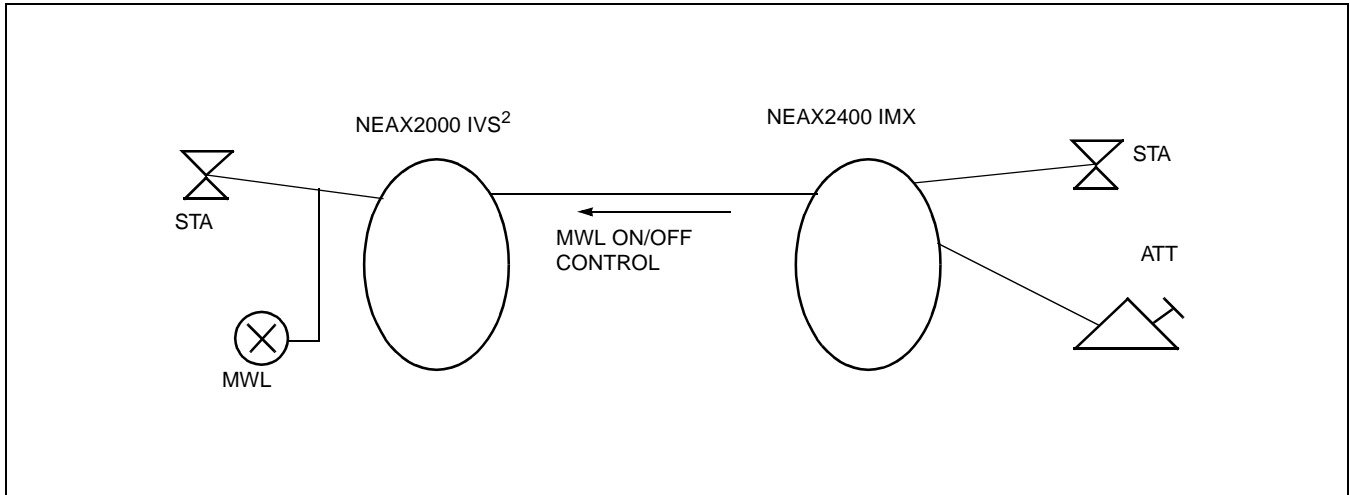
To cancel Message Waiting indication:

1. Lift the handset and receive dial tone.
2. Dial the Message Waiting cancellation code (maximum of three digits) and receive Feature Dial Tone.
3. Dial the desired station number and receive Service Set Tone.
4. Message Waiting indication at station is canceled.

Service Conditions

1. If a station attempts to set Message Waiting to a station which has already Message Waiting set, the station will receive Service Set Tone.
2. This service can be allowed or denied by Class Of Service.
3. Message Waiting indications are retained when the system is initialized.
4. Message Waiting for one station can be controlled from the Attendant Console and any other station at the same time.
5. Message Waiting cannot be activated on a Multiline Terminal virtual line.
6. An Attendant Console or station in the NEAX2000 IVS² system does not have the facility to set or cancel a Message Waiting Lamp on a station at another switching office, through CCIS.

7. If the recipient of the Message Waiting is a NEAX2000 IVS² Multiline Terminal without a Message Waiting key assigned, the LCD will indicate MSGX. When scrolling through Message Waiting indications, the station number which set the Message Waiting will not be indicated.



8. A LC card with the Message Waiting function is required. Single Line Telephones must be equipped with Message Waiting lamps for 70VDC.

MISCELLANEOUS TRUNK ACCESS - CCIS

General Description

This feature provides access to all types of external and customer-provided equipment/facilities, such as Tie Line and exchange network, along with Dictation, Paging Access - CCIS and Code Calling through the CCIS network.

Operating Procedure

No manual operation is required.

Service Conditions

1. Access to these trunk routes is allowed or denied via Class Of Service - Individual.
2. An interface circuit must be provided for each required trunk.
3. Miscellaneous Trunk Access - CCIS is programmed in system data via the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).

MISCELLANEOUS TRUNK RESTRICTION - CCIS

General Description

This feature denies certain stations and dial-repeating tie trunks access to specific trunk groups, such as Tie Line, exchange network, Dictation or Paging Access - CCIS through the CCIS network.

Operating Procedure

No manual operation is required.

Service Conditions

1. Restricted call attempts will receive reorder tone.
2. Station line access to a given miscellaneous trunk group is controlled by assigning a Route Restriction Class (RSC) to each line. There can be a maximum of eight different RSCs (1-8) per system, each of which can be programmed to restrict an assigned station from none, one, or more than one miscellaneous trunk group (maximum of 64 trunk groups).
3. This feature can be assigned to stations or dial-repeating tie trunks in Class Of Service - Individual restrictions.
4. If a station user's Class Of Service - Individual allows outgoing route completion via the Attendant, the station user can dial the Attendant access code for completion of miscellaneous trunk calls.
5. The Call Transfer - All Calls feature will operate as follows:
 - If the restricted station line is the second party, this station cannot add a trunk from which this station is restricted.
 - If the restricted station line is not the second party, the second party cannot connect the restricted station line to a trunk from which the station is normally restricted.
 - If a restricted station user calls another station, the called station cannot use the Call Transfer feature to connect the calling station to a trunk group to which the restricted station is denied dial access. If a transfer is attempted, the second party station will receive an immediate transfer recall.
6. Night Service: Restrictions can be changed for a given station when the system is in the Night mode of operation.
7. Tie Line Access: If the station user accesses a tie trunk to a distant PBX, access to outside exchanges can only be controlled by the distant PBX.
8. Miscellaneous Trunk Restriction - CCIS is programmed in system data via the Maintenance Administration Terminal (MAT) or the Customer Administration Terminal (CAT).

MULTIPLE CALL FORWARDING - ALL CALLS - CCIS

General Description

This feature allows the last hop of a Multiple Call Forwarding - All Calls sequence to be forwarded over a CCIS network to a station in another office.

Operating Procedure

To set Call Forwarding - All Calls from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - All Calls feature access code and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone.

To cancel Call Forwarding - All Calls from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - All Calls cancellation code and receive Service Set Tone.

To set Call Forwarding - All Calls from the Attendant Console:

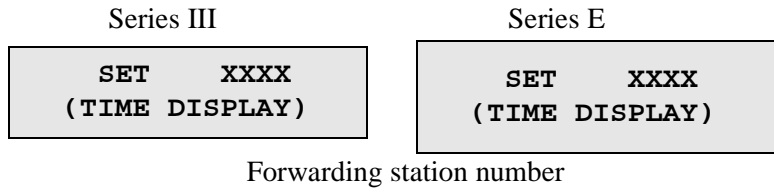
1. Press an idle LOOP key.
2. Dial the Call Forwarding - All Calls feature access code and receive Feature Dial Tone.
3. Dial the originating station number.
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
5. Dial the desired target station number and receive Service Set Tone.
6. Press the RELEASE key.

To cancel Call Forwarding - All Calls from the Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding - All Calls cancellation code and receive Feature Dial Tone.
3. Dial the originating station number and receive Service Set Tone.

To set Call Forwarding - All Calls from a Multiline Terminal:

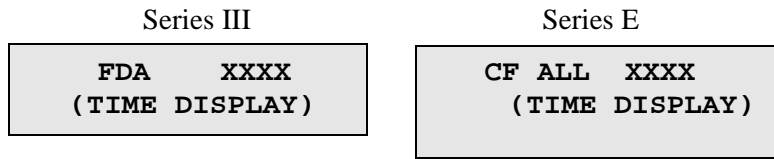
1. Lift the handset or press the Speaker key, and receive dial tone.
2. Press the Call Forwarding - All Calls feature access key and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone. The LED lights and the LCD shows:



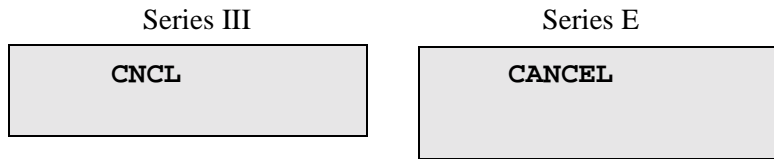
6. Replace the handset or press the Speaker key.

To cancel Call Forwarding - All Calls from a Multiline Terminal:

1. Lift the handset or press the Speaker key, and receive dial tone.
2. Press the Call Forwarding - All Calls feature key. The LCD shows:



3. Dial “*” and receive Service Set Tone. The LED of the associated feature key will go out. The LCD shows:



4. Replace the handset or press the Speaker key.

Service Conditions

1. Multiple Call Forwarding - All Calls - CCIS service can forward a call up to five times within the same office.
2. If the calling station is set as the destination in a multiple hop scenario, Multiple Call Forwarding - All Calls - CCIS will not be performed, i.e., an infinite loop will not occur.
3. If the incoming call terminates to one of the stations that has once taken part in the process of a multiple hop scenario (Busy or All Calls), Call Forwarding - All Calls - CCIS service from that station will be performed and the system will ignore further forwards, i.e., the call will terminate at the station prior to an infinite loop taking place.
4. If a station is Call Forwarding - All Calls - CCIS to another station in a different tenant and that station is Call Forwarded - Busy or All Calls - CCIS to the Attendant Console, the calling station (via CCIS) will be connected to the called station’s Attendant Console.
5. For Multiple Call Forwarding - All Calls - CCIS service, the display on a Multiline Terminal will show the terminating station number for the calling party. For the terminating station, the display on the Multiline Terminal will show the called station number and the calling party number (station or trunk).
6. If a calling station has been Call Forwarding - All Calls - CCIS five times within the same office and encounters a sixth Call Forwarding - All Calls - CCIS condition, the calling station will not be forwarded and will ring at the fifth destination.

7. If two stations have set Call Forwarding - All Calls - CCIS to each other, an incoming call will not be forwarded.
8. If the destination station in a Multiple Call Forwarding - All Calls - CCIS situation is busy and has not set Call Forwarding - Busy, the calling party will receive busy tone.
9. Multiple Call Forwarding - All Calls - CCIS and Call Forwarding - Busy - CCIS may be mixed; up to five combined multiple forwardings may occur.
10. When combining Call Forwarding - Busy and Call Forwarding - All Calls - CCIS, if the destination station is busy, then the calling party will hear busy tone after five forwards.
11. If an incoming call encounters Multiple Call Forwarding - All Calls - CCIS and the destination is the attendant, the incoming call will light the LDN lamp.
12. Each call forward over a CCIS link will impact the BHCA rating of the respective CCIS link. Please refer to the diagram on the next page.
13. When Multiple Call Forwarding - All Calls - CCIS is used, the following conditions exist:
 - a. Station A calls Station B. Station B is set to Multiple Call Forwarding - All Calls - CCIS from Station C to Station G. Multiple Call Forwarding - All Calls - CCIS occurs to station G. If Station G is idle, Station G will ring. If Station G is busy, busy tone is returned from Station G. Station A may not activate Call Back - CCIS to Station G. Please refer to the first diagram on the next page.
 - b. Station A calls station B. Station B is set to Multiple Call Forwarding - All Calls - CCIS from Station C to Station G. Multiple Call Forwarding - All Calls - CCIS does not occur to Station G. If Station F is idle, Station F will ring. If Station F is busy, busy tone is returned from Station F. Station A may not activate Call Back - CCIS to Station F. Please refer to the second diagram of [Figure 15](#).

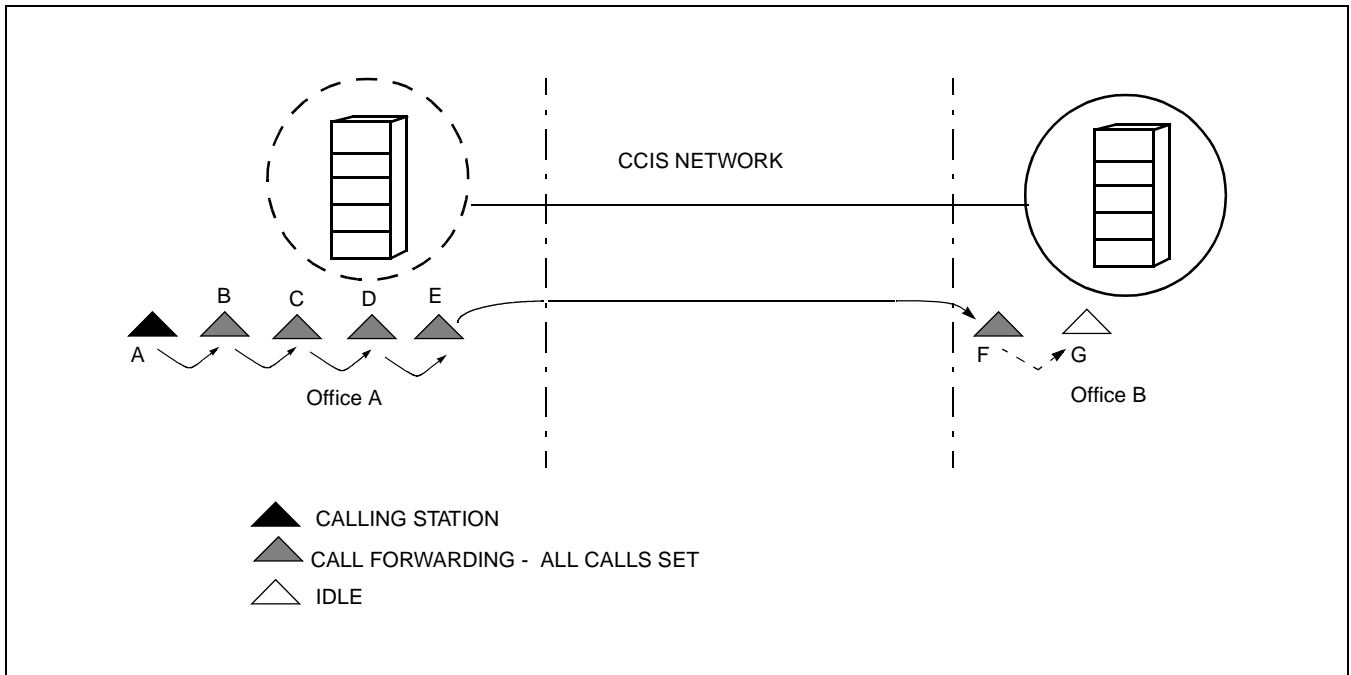


Figure 15 Multiple Call Forwarding - All Calls (1 of 2)

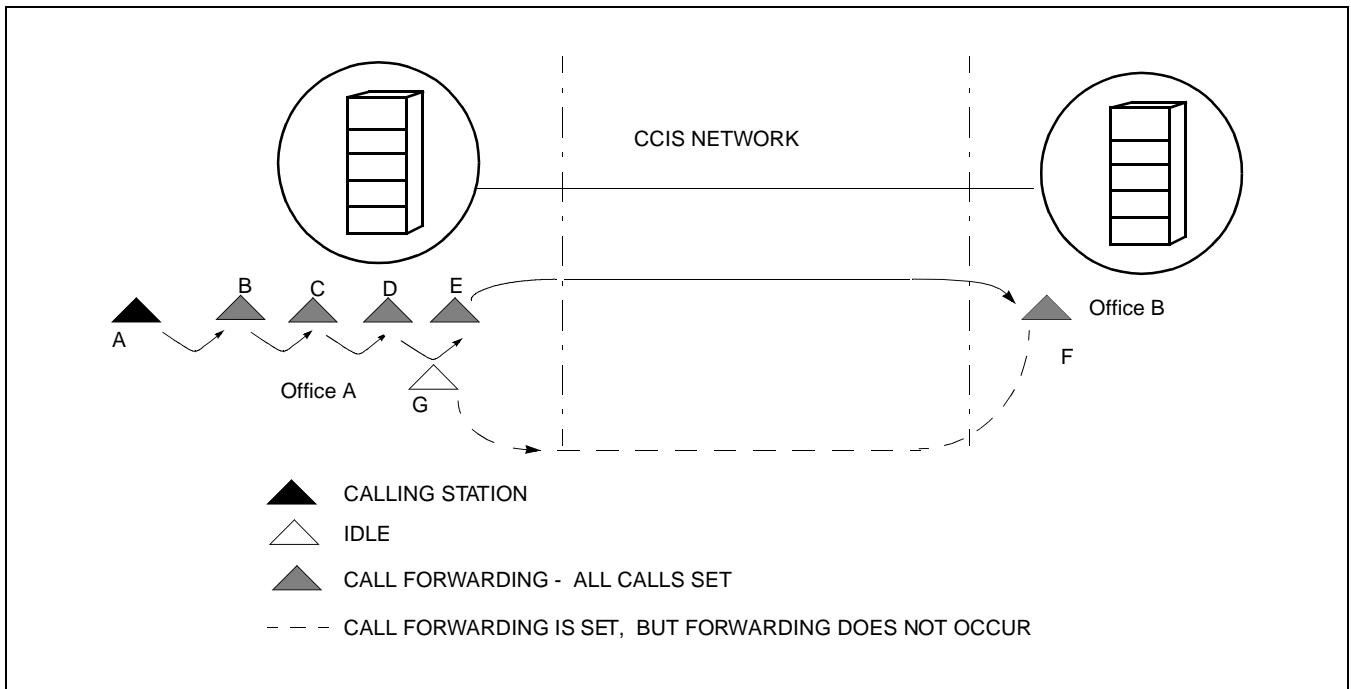


Figure 15 Multiple Call Forwarding - All Calls (2 of 2)

MULTIPLE CALL FORWARDING - BUSY LINE - CCIS

General Description

This feature allows the last hop of a Multiple Call Forwarding - Busy Line sequence to be forwarded over a CCIS network to a station in another office.

Operating Procedure

To set Call Forwarding - Busy Line - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - Busy Line feature access code and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone.

To cancel Call Forwarding - Busy Line - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - Busy Line cancellation code and receive Service Set Tone.

To set Call Forwarding - Busy Line - CCIS from the Attendant Console:

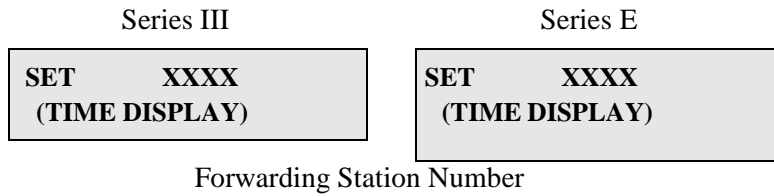
1. Press an idle LOOP key.
2. Dial the Call Forwarding - Busy Line feature access code and receive Feature Dial Tone.
3. Dial the originating station number.
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
5. Dial the desired target station number and receive Service Set Tone.
6. Press the RELEASE key.

To cancel Call Forwarding - Busy Line - CCIS from the Attendant Console:

1. Press an idle LOOP key.
2. Dial the Call Forwarding - Busy Line cancellation code and receive Feature Dial Tone.
3. Dial the originating station number and receive Service Set Tone.

To set Call Forwarding - Busy Line - CCIS from a Multiline Terminal:

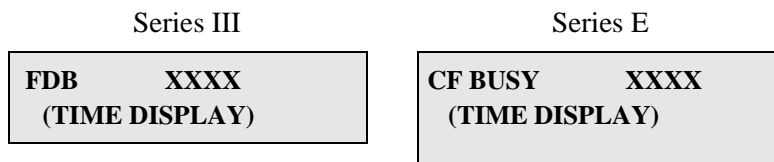
1. Lift the handset or press the Speaker key, and receive dial tone.
2. Press the Call Forwarding - Busy Line feature key and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
4. Dial the desired target station number and receive Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
5. Wait approximately five seconds and receive Service Set Tone. The LED lights and the LCD shows:



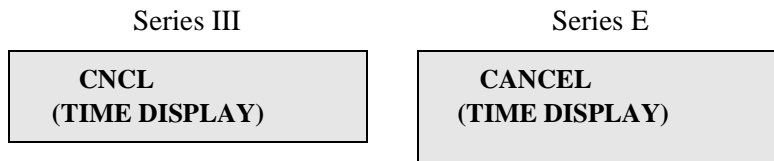
6. Replace the handset or press the Speaker key.

To cancel Call Forwarding - Busy Line - CCIS from a Multiline Terminal:

1. Lift the handset or press the Speaker key, and receive dial tone.
2. Press the Call Forwarding - Busy Line feature key. The LCD shows:



3. Dial “*” and receive service set tone. The LED of the associated feature key will be extinguished. The LCD displays:



4. Replace the handset or press the Speaker key.

Service Conditions

1. Multiple Call Forwarding - Busy Line - CCIS service can hop up to five times within the same office.
2. If the calling station is set as the destination in a multiple hop scenario, Multiple Call Forwarding - Busy Line - CCIS will not be performed, i.e., an infinite loop will not occur.
3. If the incoming call returns to one of the stations that has once taken part in the process of a multiple hop scenario, Call Forwarding - Busy Line - CCIS service from that station will not be performed.
4. If all the stations are busy in a multiple call forwarding environment, the calling station may then activate Call Back to the called station.
5. If the called station is the set as the forwarded to destination in the multiple hop service, Call Forwarding - Busy Line will not be performed at the point.
6. If a station is Call Forwarded - Busy Line to another station in a different tenant and the station is Call Forwarded - Busy Line to the Attendant Console, the calling station (via CCIS) will be connected to the called station’s Attendant Console.
7. For Multiple Call Forwarding - Busy Line service, the display on a Multiline Terminal will show the terminating station number for the calling party. For the terminating station, the display on the Multiline Terminal will show the called station number and the calling party number (station or trunk).
8. When Multiple Call Forwarding - Busy Line - CCIS is used, the following conditions exist:

- a. Station A calls Station B. Station B is set to Multiple Call Forwarding - Busy Line - CCIS from Station C to Station G. Multiple Call Forwarding - Busy Line - CCIS occurs to Station G. If Station G is idle, Station G will ring. If Station G is busy, busy tone is returned from Station G. Station A may not activate Call Back - CCIS to Station G. Please refer to the first diagram on the next page.
- b. Station A calls Station B. Station B is set to Multiple Call Forwarding - Busy Line - CCIS from Station C to Station F. Station F is Call Forwarded - Busy Line - CCIS to Station G. Multiple Call Forwarding - Busy Line does not occur to Station G. If Station F is idle, Station F will ring. If Station F is busy, busy tone is returned from Station F. Station A may not activate Call Back - CCIS to Station F. Please refer to the second diagram of [Figure 16](#).

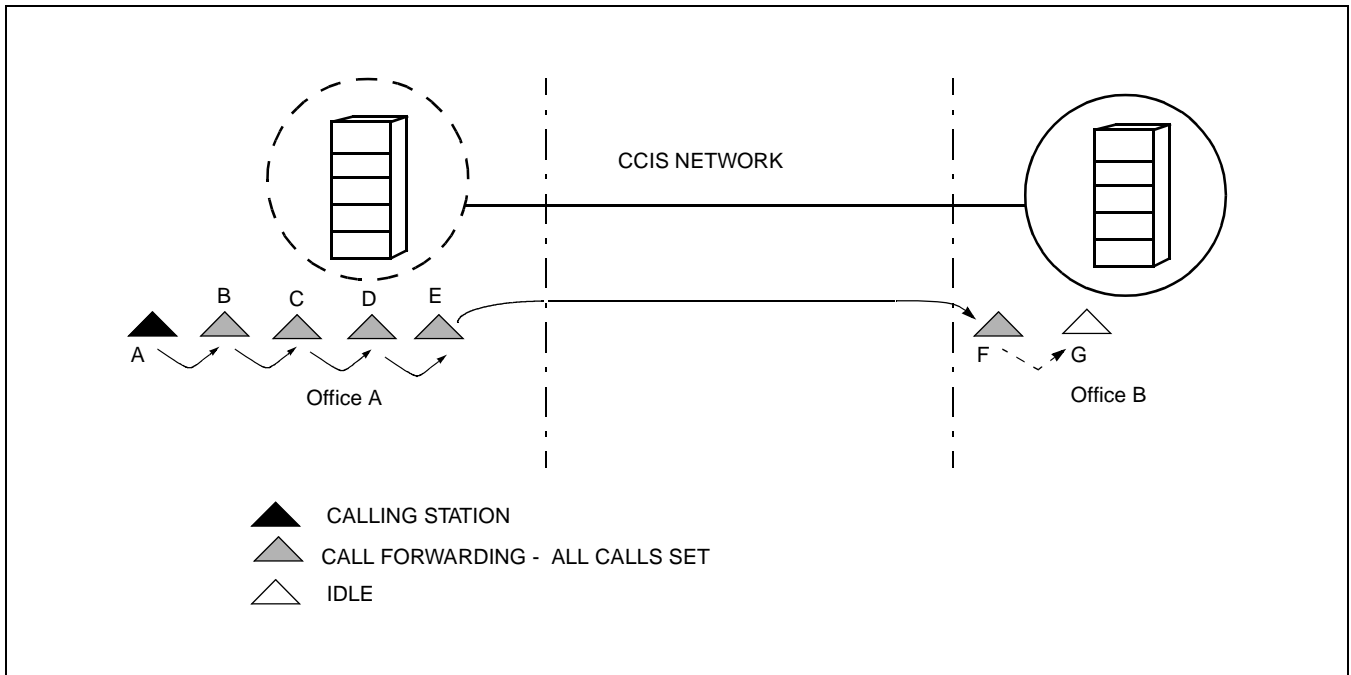


Figure 16 Multiple Call Forwarding - Busy Line (1 of 2)

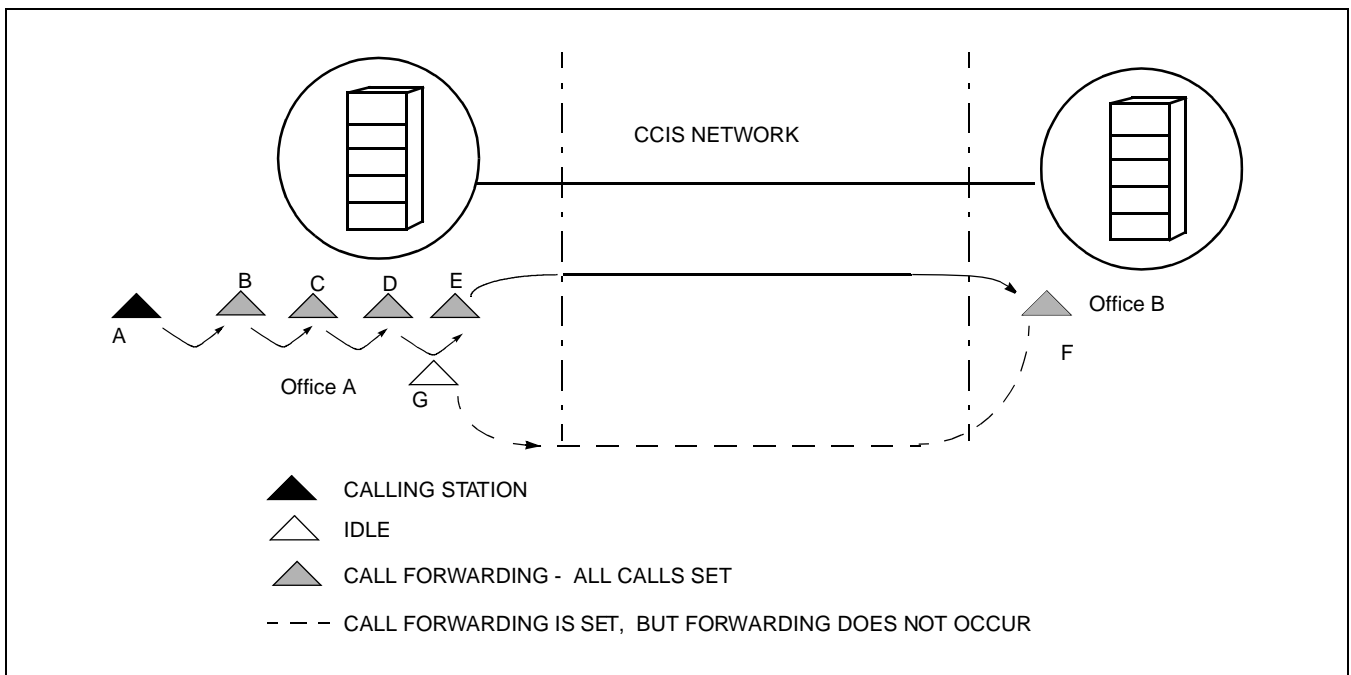


Figure 16 Multiple Call Forwarding - Busy Line (2 of 2)

MULTIPLE CALL FORWARDING - DON'T ANSWER - CCIS

General Description

This feature allows the last hop of a Multiple Call Forwarding - Don't Answer sequence to be forwarded over a CCIS network to a station in another office.

Operating Procedure

To set Call Forwarding - Don't Answer - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - Don't Answer feature access code and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone.

To cancel Call Forwarding - Don't Answer - CCIS from a Single Line Telephone:

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding - Don't Answer cancellation code and receive Service Set Tone.

To set Call Forwarding - Don't Answer - CCIS from the Attendant Console:

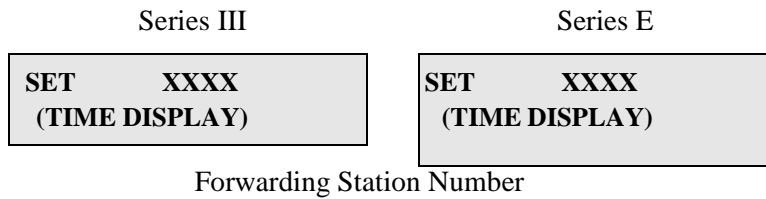
1. Press an idle LOOP key.
2. Dial the Call Forwarding - Don't Answer feature access code and receive Feature Dial Tone.
3. Dial the originating station number.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
5. Dial the desired target station number and receive Service Set Tone.
6. Press the RELEASE key.

To cancel Call Forwarding - Don't Answer - CCIS from the Attendant Console:

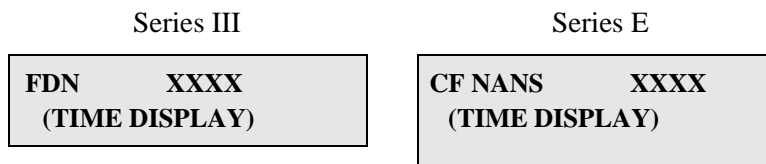
1. Press an idle LOOP key.
2. Dial the Call Forwarding - Don't Answer cancellation code and receive Feature Dial Tone.
3. Dial the originating station number and receive Service Set Tone.

To set Call Forwarding - Don't Answer - CCIS from a Multiline Terminal:

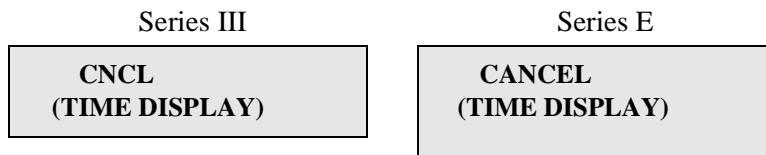
1. Lift the handset or press the Speaker key, and receive dial tone.
2. Press the Call Forwarding - Don't Answer feature key and receive Feature Dial Tone.
3. Dial the outgoing trunk access code and receive a single burst of Service Set Tone.
(This operation is required for a network using Open Numbering Plan.)
4. Dial the desired target station number and receive Service Set Tone.
5. Wait approximately five seconds and receive Service Set Tone. The LED lights and the LCD shows:



6. Replace the handset or press the Speaker key.
- To cancel Call Forwarding - Don't Answer - CCIS from a Multiline Terminal:
1. Lift the handset or press the Speaker key, and receive dial tone.
 2. Press the Call Forwarding - Don't Answer feature key. The LCD shows:



3. Dial "*" and receive Service Set Tone. The LED of the associated feature key will go out. The LCD shows:



4. Replace the handset or press the Speaker key.

Service Conditions

1. Multiple Call Forwarding - Don't Answer - CCIS service can be forwarded as many times as desired. The call will stop forwarding when it terminates to an Attendant Console or to a station that is not assigned this feature.
2. When a station encounters a Call Forwarding - Don't Answer - CCIS condition and the forwarded to station (in the same office) is busy, the system will check the status of the forwarded to busy station at intervals of approximately ten seconds.
3. Multiple Call Forwarding - Don't Answer - CCIS service can be utilized by the following incoming calls:
 - Intra - Office
 - Direct Inward Dialing (DID)
 - Direct-In Termination (DIT)
 - Night Connection
 - Hot Line
4. If a station transfers a call to another station with Call Forwarding - Don't Answer - CCIS service and releases from the connection, Recall will override Call Forwarding - Don't Answer - CCIS if the call is unanswered after a predetermined time.
5. Multiple Call Forwarding - Don't Answer - CCIS will not be activated if the calling party encounters a busy station that has activated Call Forwarding - Busy - CCIS service.

6. If a station is Call Forwarding - Don't Answer - CCIS to another station in a different tenant and that station is Call Forwarding - Don't Answer - CCIS to the Attendant Console, the calling station (via CCIS) will be connected to the called station's Attendant Console.
7. For Multiple Call Forwarding - Don't Answer - CCIS service, the display on a Multiline Terminal will show the terminating station number for the calling party. For the terminating station, the display on the Multiline Terminal will show the forwarded from station number and the calling party number (station or trunk).
8. When Multiple Call Forwarding - Don't Answer - CCIS is used, the following conditions exist:
 - a. Station A calls Station B. Station B is set to Multiple Call Forwarding - Don't Answer - CCIS from Station C to Station G. Multiple Call Forwarding - Don't Answer - CCIS occurs to Station G. Refer to the first diagram on the next page.
 - b. Station A calls Station B. Station B is set to Multiple Call Forwarding - Don't Answer - CCIS from Station C to Station F. Station F is Call Forwarded - Don't Answer - CCIS to station G. Multiple Call Forwarding - Don't Answer - CCIS does not occur to Station G. If Station F is idle, Station F will ring beyond the expiration of the Don't Answer Timer. Refer to the second diagram of [Figure 17](#).

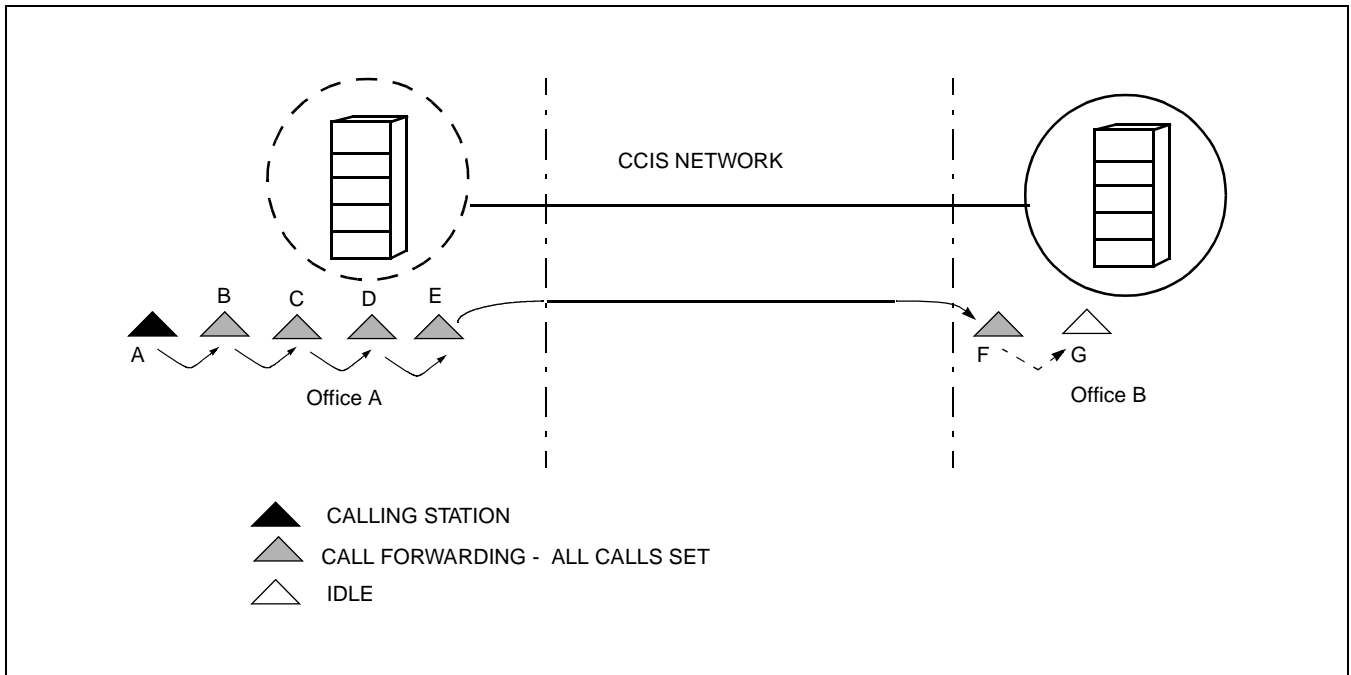


Figure 17 Multiple Call Forwarding - Don't Answer (1 of 2)

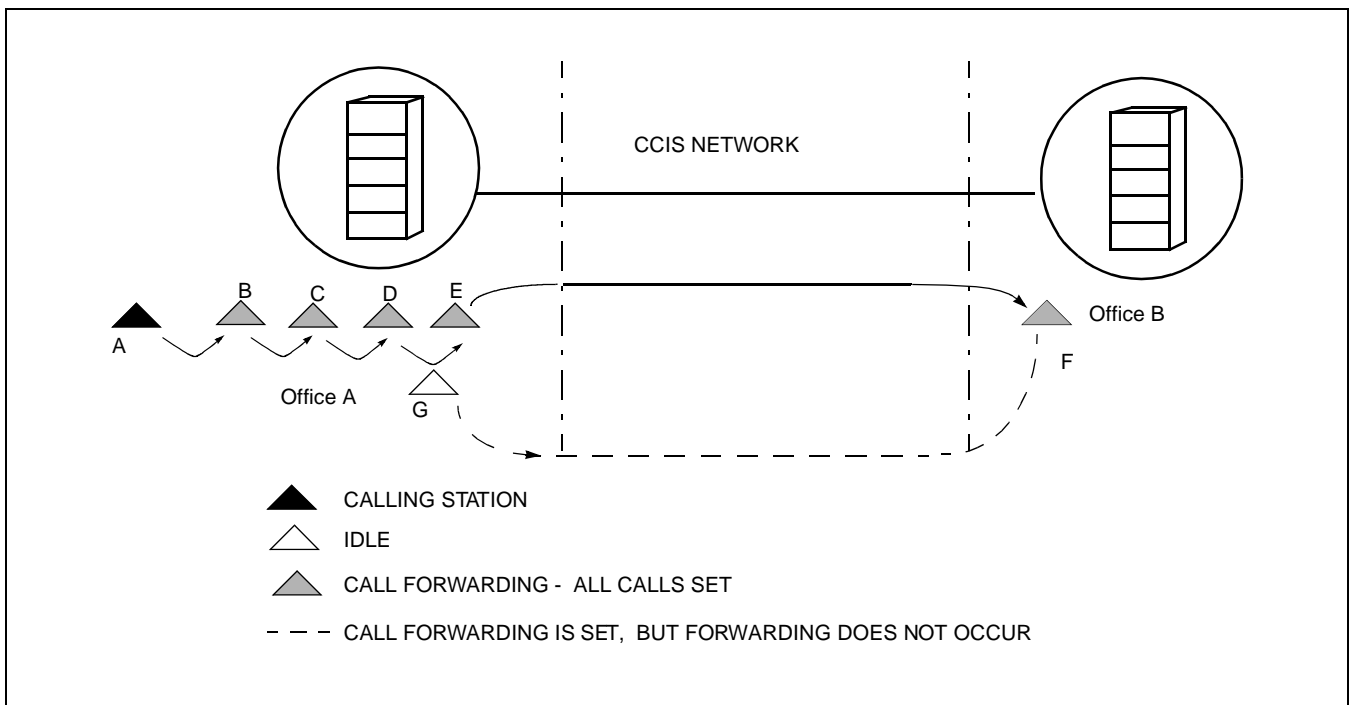


Figure 17 Multiple Call Forwarding - Don't Answer (2 of 2)

NIGHT CONNECTION - FIXED - CCIS

General Description

This feature routes calls normally directed to the Attendant Console to a preselected station in another office, through the CCIS network, when the Night mode has been entered.

Operating Procedure

To answer a Night Connection - Fixed - CCIS call:

1. An incoming call to the Attendant Console in Night mode is automatically transferred to a preselected Night Connection station belonging to a different office.
2. The calling party hears ringback tone.
3. Ring signal is sent to the Night Connection station.
4. The Night Connection station lift the handset to answer the incoming call.

Service Conditions

1. The night stations to which calls are routed are designated by Speed Calling - System.
2. There is a maximum of 100 destination stations.
3. The night stations to which calls are routed via this service can be assigned on an individual trunk basis.
4. Destination stations can be part of a Hunt Group.
5. A destination station can be changed using the Call Forwarding - All Calls - CCIS feature.
6. Call billing to the outside party starts when the incoming call connects to the CCIS trunk.
7. If the called station does not answer after a predetermined time, the incoming call (without release signal) is automatically cut off.

NIGHT CONNECTION - FLEXIBLE - CCIS

General Description

This feature provides an inter-office night connection service, via the CCIS network, when the calling station and the night station belong to different offices.

Operating Procedure

To set Night Connection - Flexible - CCIS:

1. The Attendant or fixed night station user in the destination office sets Call Forwarding - All Calls - CCIS to a station in another office.

To answer Night Connection - Flexible - CCIS calls:

1. In the Night mode, incoming calls to the Attendant Console are automatically transferred to a preselected Night Connection station belonging to a different office.
2. The calling party hears ringback tone.
3. Ring signal is sent to the Night Connection station.
4. The Night Connection station lift the handset to answer the incoming call.

Service Conditions

1. The night stations to which calls are routed via this service are designated by Night Connection - Fixed and Call Forwarding - All Calls - CCIS.
2. The night stations to which calls are routed via this service can be assigned on an individual trunk basis.
3. Destination stations can be part of a Hunt Group.
4. Destination stations are assigned on a flexible basis via the Call Forwarding - All Calls - CCIS feature.
5. Call billing to the outside party starts when the incoming call connects to the CCIS trunk.
6. If the called station does not answer after a predetermined time, the incoming call (without release signal) is automatically cut off.

OUTGOING TRUNK QUEUING - CCIS

General Description

This feature allows a CCIS network station, upon encountering an all trunk busy signal, to dial a specified access code and enter a first-in, first-out queue. As soon as a CCIS trunk becomes available, stations in the queue will be called back on a first-come, first-served basis.

Operating Procedure

To activate Outgoing Trunk Queuing - CCIS:

1. Dial the trunk access code and receive dial tone.
2. Dial the desired number and receive busy tone.
3. Press the hookswitch momentarily and receive Feature Dial Tone.
4. Dial the Outgoing Trunk Queuing - CCIS feature access code and receive Service Set Tone.
5. Replace the handset.

To cancel Outgoing Trunk Queuing - CCIS:

1. Dial the Outgoing Trunk Queuing - CCIS cancellation code and receive Service Set Tone.

Service Conditions

1. When an outgoing trunk becomes available, the user's station will ring for 30 seconds. If not answered within that time, the station will automatically be dropped from the queue.
2. The system will automatically dial out the called subscriber number when the handset is lifted.
3. Individual stations can only initiate one Outgoing Trunk Queue - CCIS at a time. Subsequent attempts will result in reorder tone.
4. Stations may be allowed or denied by Class Of Service - Individual.
5. This feature is allowed from a station without a held call.
6. This feature is not available for an Attendant Console.
7. The maximum number of simultaneous Outgoing Trunk Queues is 32.
8. Call Pickup Group cannot be used to answer a call directed to another station using the Outgoing Trunk Queuing feature.
9. Outgoing Trunk Queuing is common to all the Central Office type trunks (DDD, FX, WATS, etc.) in the system.
10. The Outgoing Trunk Queuing callback will return to the originating station, not the Call Forwarding terminating station.
11. Account Code information can be recorded on the Station Message Detail System (SMDR) when used in conjunction with Outgoing Trunk Queuing - CCIS.
12. This feature is not available under the following conditions:

- When a station user in the system encounters a situation where all the outgoing trunks from another switching office (connected through CCIS) are busy.
 - When a station user in another switching office (connected through CCIS) encounters a situation where all the outgoing trunks from the system are busy.
13. If a station user dials a station in another office, via CCIS, and encounters a situation where all the CCIS trunks are busy, the system can automatically provide an alternate route employing the Least Cost Routing (LCR) feature.

PAGING ACCESS - CCIS

General Description

This feature provides dial access to paging equipment from an Attendant Console or a station, through the CCIS network.

Operating Procedure

To access paging equipment through CCIS:

1. Lift the handset and receive dial tone.
2. Dial the Paging feature access code.
3. The connection to paging equipment is established.

Service Conditions

1. Amplifiers and speakers must be provided by the customer.
2. One trunk circuit from a Central Office Trunk (COT) circuit card is required for each Paging Access.
3. Where Tenant Service is provided, separate access codes and hardware should be provided for each tenant.
4. A maximum of three digits can be used for the Paging feature access code.

RESTRICTION FROM OUTGOING CALLS - CCIS

General Description

This feature automatically restricts users of preselected stations from placing outgoing calls and/or certain miscellaneous trunk calls through CCIS, without Attendant assistance.

Operating Procedure

No manual operation is required.

Service Conditions

1. The restricted station will automatically receive reorder tone upon attempting to place a restricted outgoing call.
2. This feature is programmed in system data from the Maintenance Administration Terminal (MAT) or Customer Administration Terminal (CAT).
3. Non-restricted stations within the system can use the Call Transfer - All Calls feature for outgoing calls to stations restricted by this feature.
4. Refer to the Class Of Service - Individual and Day/Night Class Of Service Features and Specifications for further details.
5. Station line access to a given trunk group is controlled by assigning a Route Restriction Class (RSC) to each line. There can be a maximum of eight different RSCs (1-8) per system, each of which can be programmed to restrict an assigned station from none, one, or more than one trunk route (maximum of 64 trunk routes).
6. Call Transfer - All Calls: If a restricted station user calls another station, the called station cannot use the Call Transfer feature to connect the calling station to a trunk route to which the restricted station is denied dial access. If a transfer is attempted, the second party station is rung back.
7. Tie Line Access: If the station user accesses a tie line trunk to a distant office (outside the CCIS network), access to outside exchanges can only be controlled by the distant office.
8. Conference: If a restricted station user calls another station, the called station cannot add on an outside exchange party via a trunk route in which the restricted station is denied dial access. An attempt to add on will result in a split connection, via switch hook flash.
9. Night Service: Restrictions can be changed for a given station when the system is in the Night mode of operation.

SINGLE-DIGIT STATION CALLING - CCIS

General Description

This feature allows the assignment of single-digit station numbers.

Operating Procedure

1. Lift the handset and receive dial tone.
2. Dial the single-digit preprogrammed station number.
3. The called station will be rung.

Service Conditions

1. The single-digit station number must be different from the first digit of:
 - A Trunk Access Code
 - A Service Feature Access Code
 - Other Station Numbers
2. Timing start is not available with this feature.

STATION-CONTROLLED CONFERENCE - CCIS

General Description

This feature allows any station of the NEAX2400 IMX to establish a conference among a maximum of eight parties of stations and/or trunks (inside and outside parties) of the NEAX2000 IVS² system, through CCIS.

Operating Procedure

To initiate a Station-Controlled Conference:

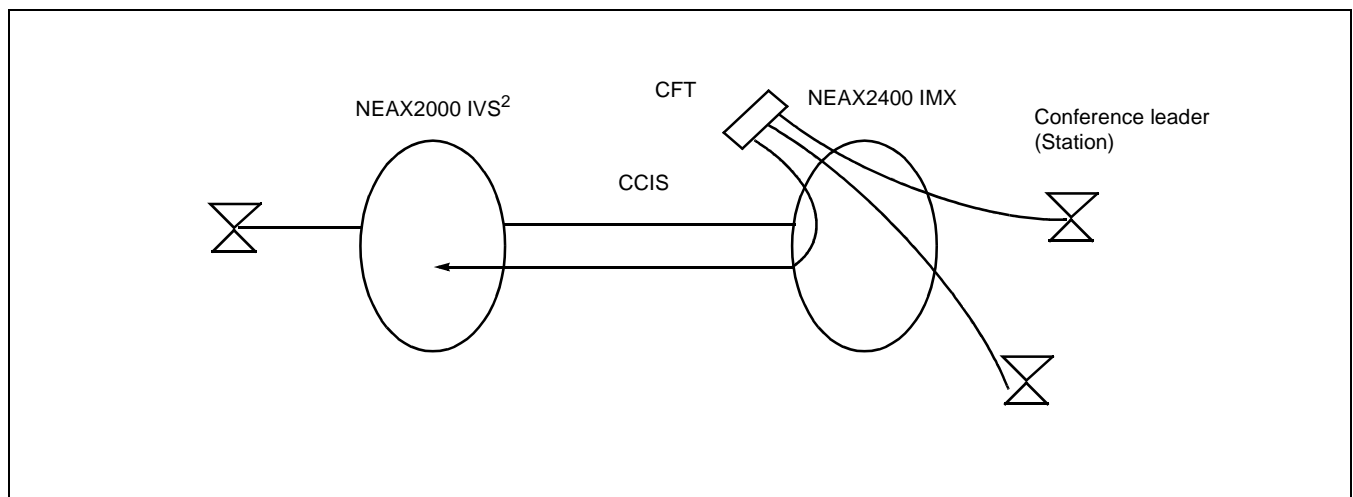
1. The station user wishing to establish the conference (the conference leader) calls all parties and advises them of the conference.
2. All participating stations then call the Conference extension number.
3. The conferees are automatically connected.
4. Any push-button station within the conference can dial “9” to lock out additional parties, thereby ensuring privacy.
5. If the conference leader desires, each participant may be transferred into the conference.

To release from a Station-Controlled Conference call:

1. If any push-button station user in the conference dials “0”, all the conferees will be disconnected. Otherwise, the conference is terminated after all the parties have hung up.
2. Any conferee can be released from the conference call by hanging up. All other conferees remain connected.

Service Conditions

1. A conference unit must be mounted in the NEAX2400 IMX.
2. Stations and Attendants of the NEAX2000 IVS² system cannot be the conference leader.



STATION-TO-STATION CALLING - CCIS

General Description

This feature permits any station user to dial another station directly through CCIS without Attendant assistance.

Operating Procedure

To place a Station-To-Station Call:

1. Lift the handset and receive dial tone.
2. Dial the desired station number.

Service Conditions

1. If the called station is off-hook, the originating station receives a busy tone. Otherwise, the called station will ring and the caller will hear ringback tone.
2. Station-To-Station Calling between tenants in the CCIS network will not be restricted.
3. The maximum number of digits per station number (not including the office code) is eight.
4. The same station numbers cannot be duplicated in the same system.
5. The release process is First Party Release.

STATION-TO-STATION CALLING - OPERATOR ASSISTANCE - CCIS

General Description

This feature allows a station user to call another station in the CCIS network, with the assistance of an Attendant Console operator.

Operating Procedure

To place a Station-To-Station Call through the Attendant Console:

1. Lift the handset and receive dial tone.
2. Dial the operator access code.
3. Relay the desired station number to the Attendant.
4. The Attendant dials the station number.
5. The calling and called parties are connected when the Attendant presses the RELEASE key.

Service Conditions

1. The Attendant may drop out of the connection either before or after the called party has answered.
2. If the called station does not answer within 30 seconds, the Automatic Recall feature will not be activated.

TOLL RESTRICTION - 3/6 DIGITS - CCIS

General Description

This feature allows the system to be programmed to restrict outgoing calls, through CCIS, according to specific Area and/or Office Codes. This restriction is determined on the basis of a three-digit Area Code or six-digit Area and Office Code numbering plan.

Operating Procedure

No manual operation is required.

Service Conditions

1. The programmed restriction pattern can consist of codes to be allowed or codes to be denied.
2. The Toll Restriction - CCIS feature is assigned on a per-line, Class Of Service - Individual basis.
3. When a toll call is denied, reorder tone is returned to the calling party.
4. The Toll Restriction feature is assigned on a per-line, Route Restriction Class (RSC), Class-Of-Service basis. When provided, this feature is applicable on a per-trunk route basis.

TRUNK ANSWER FROM ANY STATION - CCIS

General Description

This feature allows any station, not restricted from incoming calls, to answer incoming calls when the network is in Night mode.

When this feature is activated, incoming exchange network calls will activate a common alert Trunk Answer From Any Station (TAS) signal at the customer premises. By dialing a specified code, any station may answer the call and extend it to any other station, through the CCIS network, using Call Transfer - All Calls - CCIS.

Operating Procedure

To answer an incoming call in Night mode:

1. The TAS signal (bell, buzzer, etc.) sounds indicate an incoming call.
2. Lift the handset and receive dial tone.
3. Dial the TAS access code.
4. Connect to the incoming call.

Service Conditions

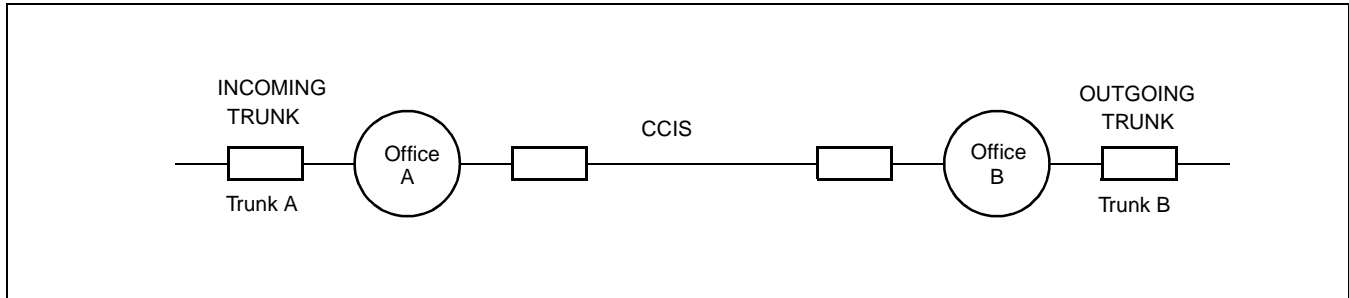
1. A Listed Directory Number (LDN) incoming call, from the main office on the CCIS network, will be forwarded to the TAS equipment.
2. A TAS indicator can be provided on a CCIS trunk route basis.
3. A maximum of eight LDNs can be assigned in the same system.
4. A LDN incoming call, from the main office in the CCIS network, will be terminated in the following order:
 - a. Night Connection - Flexible - CCIS
 - b. Night Connection - Fixed - CCIS
 - c. Trunk Answer From Any Station - CCIS
5. Individual stations can be denied access to this feature via Class Of Service - Individual.
6. A C.O. incoming call, terminating in Night mode, may be forwarded to the main office through the CCIS network.
7. This feature is a combination of the Night Connection - Fixed and Listed Directory Number Display - Attendant features.

TRUNK-TO-TRUNK RESTRICTION - CCIS

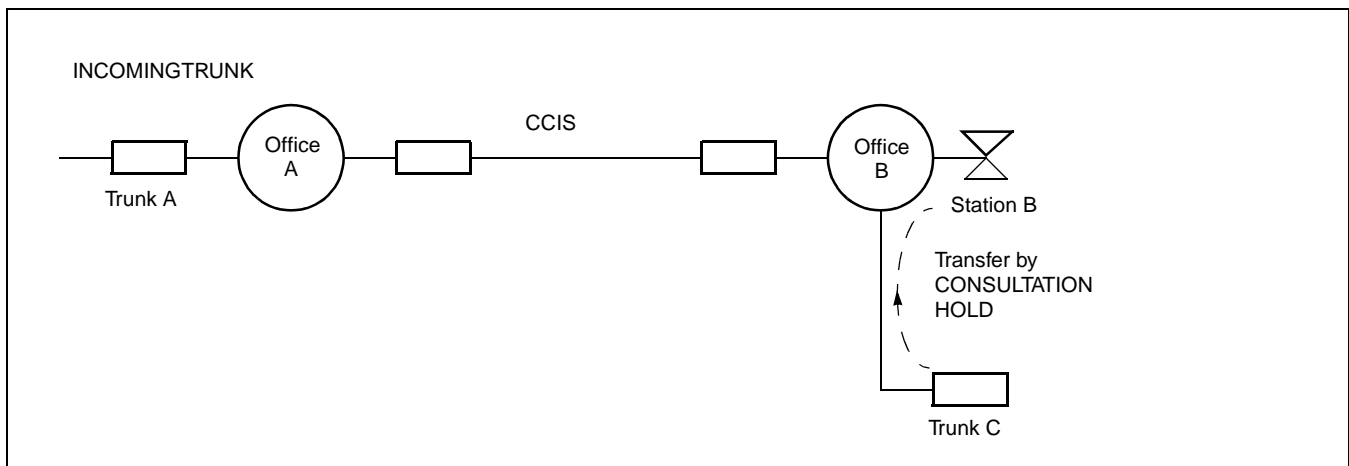
General Description

This feature allows trunk-to-trunk tandem restriction by caller's information sent from each office (e.g., caller is a trunk) through the CCIS Network.

Case 1: A tandem connection at the following office can be restricted by Trunk Restriction Class of Trunk A and Outgoing Connection Restriction data of Trunk B.



Case 2: When Station B transfers an Incoming Call through CCIS to Trunk C, a trunk-to-trunk connection can be restricted by Trunk Restriction Class of Trunk A and Outgoing Connection Restriction data of Trunk C.



Operating Procedure

No manual operation is required.

Service Conditions

1. This feature is programmed in system data on a trunk route basis.
2. When the distant office employs a NEAX2400 IMX, transfer of Trunk Restriction Class must be set in system data.

UNIFORM NUMBERING PLAN - CCIS

General Description

In a CCIS network, a Uniform Numbering Plan enables a station user to call any other station in the network. Two alternative numbering plans are provided. In the first plan, the station user dials any digit station number from three to eight. The location of the office is identified by the first one-, two-, or three-digit of the station number. In the second plan, the station user dials a one-, two- or three-digit office code and any digit station number from two to eight.

Operating Procedure

To call a station at another office using Numbering Plan 1:

1. Lift the handset and receive dial tone.
2. Dial any digit station number three to eight.
3. The call is routed to another office according to programmed routing information, and the called station rings.
4. The called station answers and the parties are connected.

To call a station at another office using Numbering Plan 2:

1. Lift the handset and receive dial tone.
2. Dial the access code for CCIS.
3. Dial the one-, two- or three-digit office code and any digit station number from two to eight.
4. The call is routed to the office designated by the office code. The called station rings.
5. The called station answers and the parties are connected.

Service Conditions

Numbering Plan 1:

1. All the station numbers must be up to eight digits in length.
2. The location of the office can be identified by one-, two-, or three-digit of the station number.

Numbering Plan 2:

1. Each office in the CCIS network is assigned a one-, two- or three-digit office code and each station in the office is assigned any digit station number from two to eight.
2. Within the same office, a station-to-station call is made by simply dialing any digit station number from two to eight.

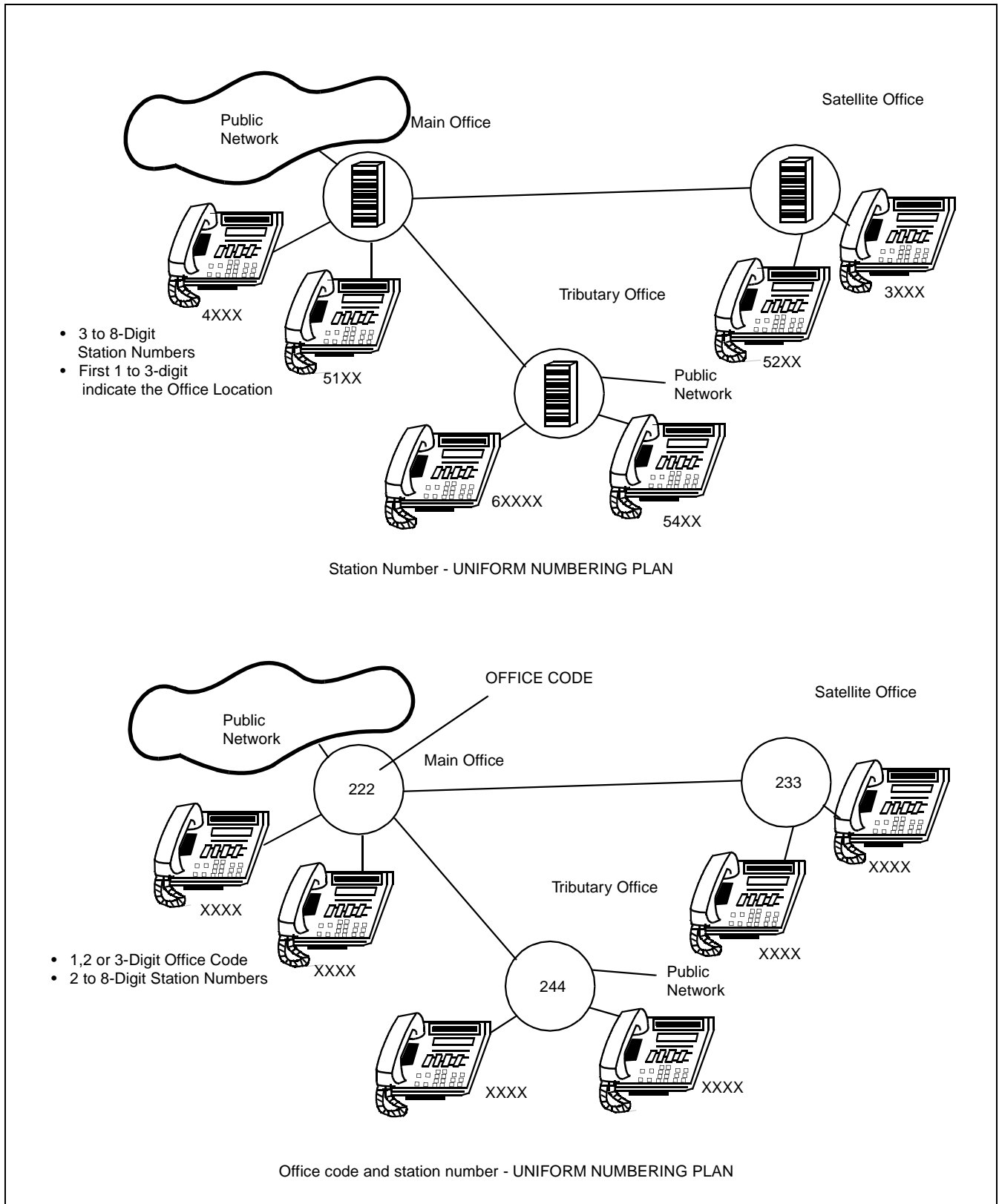


Figure 18 Uniform Numbering Plan

VOICE MAIL INTEGRATION - CCIS

General Description

This feature allows any station user in the CCIS Network to utilize the Voice Mail System (VMS) with the Message Center Interface (MCI).

Operating Procedure

To record a message into the VMS:

1. Lift the handset and receive dial tone.
2. Dial the voice mail station number and receive ringback tone.
3. Follow the instructions given by the VMS.

To retrieve a message from the VMS:

1. Lift the handset and receive dial tone.
2. Dial the voice mail station number and receive ringback tone.

The LCD shows:

[xxx]

VMS:Voice mail station number

3. Follow the instructions given by the VMS.

To set call forwarding to the VMS:

- Call Forwarding - All Calls
- Call Forwarding - Busy Line
- Call Forwarding - Don't Answer
- Split Call Forwarding - All Calls
- Split Call Forwarding - Busy Line
- Split Call Forwarding - Don't Answer

1. Lift the handset and receive dial tone.
2. Dial the Call Forwarding or Split Call Forwarding feature access code, and receive Special Dial Tone.
3. Dial the voice mail station number and receive Service Set Tone.

The LCD shows:

[SET xxxx]

VMS:Voice mail station number

To call a station number whose call forwarding is set to VMS:

1. Lift the handset and receive dial tone.
2. Dial the desired station number and receive ringback tone.

The LCD shows:

[FDA xxx]

VMS:Voice mail station number

3. Follow the instructions given by the VMS.

Service Conditions

1. Rotary telephones are denied access to the VMS.
2. Station user in either NEAX2000 IVS² or NEAX2400 may set call forward outside to the VMS. Any calls forwarded to the VMS will be directed to the personal Mail Box of the station user.
3. Once a message is left in the VMS, the VMS can send Message Waiting Indication to the forwarded station.
4. The destination station number of the VMS must be assigned in system programming for message retrieval via the Message Wait feature.
5. The station user may set, Call Forwarding-All Calls- CCIS, -Busy Line-CCIS, -Don't Answer - CCIS to transfer an incoming call to the VMS.
6. When a call is received from the CCIS trunk to the VMS, the ANI information is not added to the call connection status information even though the ANI information is sent from the network.

APPENDIX A: D^{term} FIXED FUNCTION KEYS

Series E	Series III	Description
Answer	ANS	To answer a waiting call
Conf	CNF	To establish three-way conversation
Feature	FNC	To activate terminal setup functions and to program One-Touch Speed Dial/Feature Keys
Hold	HOLD	To place an internal or external call on hold
Recall	LNR/SPD	To terminate established call and re-seize internal dial tone
Redial	RECALL	To active Last Number Call and Speed Calling
Speaker	SPKR	To control the built-in speaker which can be used for Hands Free dialing/monitoring
Transfer	TRF	To transfer established calls to another station, without attendant assistance

