BSE and CNS Descriptions

The following section contains descriptions of BSEs and CNSs. They are arranged alphabetically by generic name in the appropriate BSA categories. The BSA categories are:

1. Circuit Switched
2. Packet Switched
3. Dedicated
4. Dedicated Network Access Link

1. Technical Descriptions for Circuit Switched Serving Arrangements

Alternate Routing (1041)

When all the circuits in an ESP's circuit switched trunk serving arrangement with alternate routing capability are busy due to traffic volume the network will attempt to complete subsequent calls to an alternate route served by that switch as previously specified by the ESP.

Generic Name of ONA Service	Product Name	BSE or CNS
Alternate Routing	AM - Alternate Routing	BSA*
	BA - Alternate Traffic Routing	BSE
	BS - Alternate Routing	BSE or CNS
	NX - Alternate Routing	BSE
	PB - Alternate Traffic Routing	BSA *
	SWB - Alternate Traffic Routing	BSE
	Qwest - Alternate Traffic Routing	BSE

FEATURE OPERATION:

Alternate routing allows different routes to overflow in different ways, even though they share the same physical trunk or circuit set. Alternate routing should always be specifiable without reference to calling line or called trunk, circuit, or line set.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS™	5ESS®	DMS-100®
Earliest Generic Release	1AE8A	5E2(2)	BCS17

2. The routing and charging function consists of interpreting the dialed digits, directing the connection to a trunk or circuit, directing the transmission of call setup data to the distant end, and determining what charge treatment to use. This process uses information associated with the calling line, dialed digit information, and route availability data.

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* For Ameritech and Pacific Bell, this is a Circuit Switched BSA Trunk Type feature

ESS is a trademark and 5ESS is a registered trademark of AT&T.

DMS is a registered trademark of Northern Telecom.

Existing stored program controlled systems translate the dialed digit combination into classes of dialed digit combinations. These classes, along with the calling line associated indicator, are translated into a charge index and a primary route index. The primary route index defines the call setup data to be transmitted, a set of trunks, circuits, and an alternate route index to be used if the initial set of trunks or circuits are unavailable.

3. The 1A ESS machine provides for the ability to have 16 Route Indexes on Route Transfer Keys (16 keys). Through the operation of these keys it is possible to transfer outgoing traffic from one trunk group to another trunk group. It is also possible to split a particular trunk group in order to control the traffic offered to a specific quantity of trunks instead of offering all traffic to all of the trunks. The actual transfer key may be either located in the 1A ESS office or located on the ESP's premises.

4. In the 5ESS, one primary route and up to four alternate routes may be specified. These routes are assigned at the establishment of initial service. The alternate routes are fixed and cannot be enabled via a key operation.

5. The DMS-100 has several methods to provide alternate routing. The software methods used are similar to the 5ESS, in that the alternate routes are fixed and do not have the potential to be controlled manually as in the 1A ESS. The type of alternate routing method to use depends on the type of trunks used for this feature. Standard trunking can have up to eight alternate routes.

6. In some regional companies, this service may be limited to trunk side access utilizing Feature Groups B and D protocol, Feature Group D protocol only, trunk side BSA - 950 option, trunk side BSA - 10XXX (and/or 101XXXX) option, or trunk side BSA 950 option and 10XXX (and/or 101XXXX) option.

7. References:

   - LSSGR FR-64 (formerly FR-NWT-000064), GR-505 Call Processing (A Module of LSSGR, FR-64), Issue 1, December 1997, (replaces TR-NWT-000505).

This service, if offered as a BSE, is associated with the Circuit Switched Trunk basic serving arrangement.

Answer Supervision With A Line Side Interface (1042)

Answer Supervision is an electrical signal passed back to the calling end of a switched telephone connection indicating that the called line has gone off hook. This signal can be used by terminal equipment (PBX, pay telephone, call diverter, etc.) connected to the calling line to determine that the call has entered the talking state and that charging may commence. Previously this signal was available on trunks, not on lines.

The Answer Supervision signal consists of a reversal of the telephone line bias voltage, the ring normally being more negative than the tip. At the time of answer or shortly thereafter, tip and ring are interchanged by the switching machine, so that the tip is now more negative than the ring. This reversal persists at least until the called line goes on hook, and possibly until the calling line goes on hook. All of the other electrical characteristics of a line equipped for answer supervision are identical to those of a normal line.

Generic Name of ONA Service	Product Name	BSE or CNS
Answer Supervision With A Line Side Interface	AM - Answer Supervision With Line Side Interface	BSE
	BA - Answer Supervision with a Line Side Interface	BSE
	BS - Answer Supervision	BSE
	PB - Answer Supervision (Line Side)	BSE
	Qwest - Answer Supervision (Line Side)	BSE

FEATURE OPERATION:

Answer Supervision is a service most useful to a "device" like a PBX or "smart" pay telephone. (This does not preclude its use on a line directly connected to a telephone set, although the battery reversal may make the set's DTMF pad inoperative during the talking state of the call.)

1. The "device" (PBX, pay telephone, etc.) goes off-hook and dials a call in the normal way.

2. After dialing is completed, the call is switched through the network over the usual array of network components, which may include tandem trunks, tandem switches, Interexchange Carriers, and finally, a terminating local switch.

3. When the called party answers, the terminating office changes the supervisory state of the incoming trunk to off-hook from on-hook.

4. This state change is passed back toward the originating local office by each intervening office and trunk.

5. The originating local office uses this state change to note the time of answer for billing purposes. It also causes the line circuit of the line (equipped for Answer Supervision) to reverse the polarity of the battery feed toward the "device" that placed the call.

6. When the called party hangs up, the state change, off-hook to on-hook, is transmitted back to the originating local office. Depending on its software realization of the feature, the originating local switch may or may not pass this signal to the "device" by changing the battery polarity back to normal. In either case the originating local switch begins "calling party hold" timing on the originating line.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	5ESS	DMS-100
Earliest Generic Release	5E8	BCS24

This feature may be available on the 1A ESS switch with custom hardware and software.

2. Answer Supervision requires a special line card in the DMS-100.

3. Battery reversal may lag actual answer by upwards of 2 seconds. This is a function of accumulation of network elements processor time (delay) in the path of the call connection.

4. Answer Supervision is not provided when calling certain types of non-billing lines.

5. Answer Supervision is not provided to connections to OSPS, TSPS or TOPS systems due to the billing for these types of calls being handled at the operator system and not at the local office. Answer Supervision is a function resulting for a local recording of the billing record.

6. Answer Supervision may be provided before actual answer when calling certain types of ACD systems.

7. Battery reversal signals are not passed by the carrier systems that are normally used for pair gain and for foreign exchange service. Answer Supervision is compatible with foreign exchange service provided over physical cable facilities.

8. Many dial long line circuits, digital loop carrier systems or non-metallic line side facilities do not pass battery supervision.

9. This service is intended to be used by compatible terminal equipment. Many DTMF telephones are polarity sensitive and do not dial when the line voltage is reversed.

10. References:

    - GR-506 LSSGR: Signaling for Analog Interfaces (A module of LSSGR, FR-64) Issue 1, June 1996, Rev. 1, November 1996 (replaces TR-NWT-000506, Issue 3)

    - SR-2275, Telcordia Notes on the Networks, Issue 4, October 2000 (replaces SR-TSV-002275, Issue 3)

    - GR-334 Switched Access Service: Transmission Parameter Limits and Interface Combinations, Issue 1, June 1994

    - TR-NWT-000335, Voice Grade Special Access Service - Transmission Parameter Limits & Interface Combinations, Issue 3, May 1993

    - Ameritech Answer Supervision With Line Side Interface Specifications, AM-TR-MKT-000071, Issue 1, December 1990

This service is associated with the Circuit Switched Line basic serving arrangement.

Automatic Callback (1043)

Automatic Callback (CLASS[SM]) feature is an *outgoing* call management feature that allows the customer to automatically place a call to the last number called. It does not matter whether the last number called was busy or idle, answered or unanswered. If the called line is busy, the called line will be checked periodically and the customer will be notified by a special ring when the called line becomes idle. The customer can use the phone for incoming and outgoing calls while waiting for the special ringback. This capability requires that both the originating and terminating central offices be equipped with Common Channel Signaling (CCS) SS7 and be interconnected by SS7.

Generic Name of ONA Service	Product Name	BSE or CNS
Automatic Callback	AM - Repeat Dialing	CNS
	BA - Repeat Call	CNS
	BS - Repeat Dialing	CNS
	NX - Repeat Dialing	CNS
	PB - Repeat Dialing	CNS or BSE
	SWB - Call Cue®	CNS
	Qwest - Continuous Redial	CNS

FEATURE OPERATION

The customer must contact the telephone company to initiate Automatic Callback service. A service order is required. Once the appropriate translations have been made to the customer's line, the customer may activate the service by using the service access code *66 (1166 for rotary dial), and may deactivate the service, to cancel any outstanding Automatic Callback requests, by using *86 (1186 for rotary dial).

Upon activation of Automatic Callback the called line is checked for busy/idle status and class of service. If the called line is idle and the class of service is permissible, call setup is attempted. If the called line is busy, the customer receives an announcement stating the called line is busy and the line will be checked periodically for busy/idle status. When the line becomes free the customer will hear a special ring. Upon answering the special ring, one of the following happens:

1. Call setup is attempted, the customer hears audible ringing while the called party receives power ringing. Or

2. The customer receives an announcement indicating the following:

   — 1A ESS & 5ESS: The called line has become busy again, hang up and try your call again. (This terminates Automatic Callback for this activation.) The customer can reactivate Automatic Callback by again using the service access code.

   — DMS-100: The called line has become busy again, monitoring of the line will resume, hang up and wait for the special ringback.

[SM] CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

® Call Cue is a registered service mark of Southwestern Bell Telephone Company.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10*	5E5	BCS28

Note: * Available on intraoffice basis with generic 1AE9.

2. The serving central office switch must be equipped with the appropriate CLASS[SM] Automatic Callback software and hardware. In order for this service to work on an interoffice basis, both the originating and terminating switches must be equipped with the CLASS and Common Channel Signaling (CCS) SS7 software and hardware and the interoffice trunks must be converted to SS7. This service is only offered on an intraLATA basis at this time.

3. This service is a "line" service and therefore cannot be assigned to subscribers with trunk terminations (i.e., PBX with DID). This service is also unavailable to customers that have denied originating treatment and multiline hunt groups that cannot have ringback directed to the calling station. In addition, because of the special ringing, this service may not work where channel banks (FX service), MFTs or bridge lifters are used (depending on circuit design).

4. The special ringing that the customer hears when call setup is being attempted consists of 2 short rings and 1 long ring in 6 seconds. Some telephone companies use this pattern for more than one service.

5. There are some digital loop carrier plug-ins that will not transmit the required special ringing.

6. The customer can have multiple Automatic Callback activations in effect concurrently.

7. Automatic Callback cannot be activated towards a line that has Call Forwarding Variable or Selective Call Forwarding activated. If the service cannot be activated, the caller is routed to a denial announcement or tone.

8. In some electronic key sets, power ringing generates a preset ringing pattern regardless of the ringing pattern generated by the originating central office. Therefore customers with these electronic sets may not be able to differentiate regular ringing for incoming calls from the special ringing for Automatic Callback.

9. The length of time the called line is monitored for busy/idle status is a telephone company settable parameter ranging from 16-45 minutes. The interval is set on a per switch basis and is generally the same throughout a regional company.

10. The customer can use the telephone for incoming and outgoing calls while waiting for the special ringback. However, the special ringback will not be attempted while the customer is using the telephone.

11. References:

    - GR-215 CLASS[SM] Feature: Automatic Callback, FSD 01-02-1250 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-NWT-000215 Issue 3 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

[SM] CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

Automatic Recall (1044)

Automatic Recall (CLASS[SM]) is an incoming call management feature that allows the customer to automatically call back the last incoming number without having to know the number that called. If the called line is busy, the called line will be checked periodically and the customer will be notified by a special ring when the called line becomes idle. This capability requires that both the originating and terminating central offices be equipped with Common Channel Signaling (CCS) SS7 and be interconnected by SS7.

Generic Name of ONA Service	Product Name	BSE or CNS
Automatic Recall	AM - Automatic Callback	CNS
	BA - Return Call	CNS
	BS - Call Return	CNS
	NX - Call Return	CNS
	PB - Call Return	CNS
	SWB - Call Return [SM]	CNS
	Qwest - Last Call Return	CNS

FEATURE OPERATION:

The customer must contact the telephone company to initiate Automatic Recall service. A service order is required. Once the appropriate translations have been made to the customer's line, the customer activates the service by dialing the service access code *69 (1169 for rotary dial), then depending on how the Local Exchange Company chooses to implement Automatic Recall, one of the following happens:

- One-Level Activation Procedure

  Upon activation using *69 (1169 for rotary dial), the called line is checked for busy/idle status and class of service. If the called line is idle and the class of service is permissible, call setup is attempted. If the called line is busy, the customer receives an announcement stating the called line is busy. The line will be checked periodically for busy/idle status and when the line becomes idle the customer will hear a special ring. Upon answering the special ring, one of the following happens:

1. Call setup is attempted, the customer hears audible ringing while the called party receives power ringing. Or

2. The customer receives an announcement indicating the following:

   1A ESS & 5ESS: The called line has become busy again, hang up and try your call again. (This terminates Automatic Recall for this activation.) The customer can reactivate Automatic Recall by again using the service access code.

[SM] CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

[SM] Call Return is a service mark of Southwestern Bell Telephone Company.

DMS-100: The called line has become busy again, monitoring of the line will resume, hang up and wait for the special ringback.

- Two-Level Activation Procedure:

  Upon activation using *69 (1169 for rotary dial), an announcement is provided informing the customer that Automatic Recall has been accessed. If the incoming number is valid, the number, date and time of the call is voiced back to the customer. (If the number is marked private then a private indication is voiced back to the customer instead of the number.) The customer is then instructed to dial "1" to activate Automatic Recall or hang up to abort the request. If the customer dials "1", the service proceeds as described above under the One-Level Activation Procedure.

To cancel all outstanding Automatic Recall requests, the customer may deactivate the service by using *89 (1189 for rotary dial).

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	**1A ESS**	**5ESS**	**DMS-100**
Earliest Generic Release	1AE10*	5E5	BCS28

Note: * Available on intraoffice basis with generic 1AE9.

2. The serving central office switch must be equipped with the appropriate CLASS[SM] Automatic Recall software and hardware. In order for this service to work on an interoffice basis, both the originating and terminating switches must be equipped with the CLASS and Common Channel Signaling (CCS) SS7 software and hardware and the interoffice trunks must be converted to SS7. This service is only offered on an intraLATA basis at this time.

3. This service is a "line" service and therefore cannot be assigned to subscribers with trunk terminations (i.e., PBX with DID). This service is also unavailable to customers that have denied originating and denied terminating treatment and multiline hunt groups that cannot have ringback directed to the calling station. In addition, because of the special ringing, this service may not work where channel banks (FX service), MFTs or bridge lifters are used (depending upon circuit design).

4. The special ringing that the customer hears when call setup is being attempted consists of 2 short rings and 1 long ring in 6 seconds. Some telephone companies use this pattern for more than one service.

5. There are some digital loop carrier plug-ins that will not transmit the required special ringing.

6. The customer can have multiple Automatic Recall activations in effect concurrently.

7. Automatic Recall cannot be activated towards a line that has Call Forwarding Variable or Selective Call Forwarding Activated. If the service cannot be activated, the caller is routed to a denial announcement or tone.

[SM] CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

8. In some electronic key sets, power ringing generates a preset ringing pattern regardless of the ringing pattern generated by the originating central office. Therefore customers with these electronic sets may not be able to differentiate regular ringing for incoming calls from special ringing for Automatic Recall.

9. The length of time the called line is monitored for busy/idle status is a telephone company settable parameter ranging from 16-45 minutes. The interval is set on a per switch basis, and is generally the same throughout a regional company.

10. The customer can use the telephone for incoming and outgoing calls while waiting for the special ringback. However, the special ringback will not be attempted while the customer is using the telephone.

11. References:

    - GR-227 CLASS[SM] Feature: Automatic Recall (A Module of LSSGR, FR-64), FSD 01-02-1260, Issue 1, June 2000 (replaces TR-NWT-000227 Issue 3 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

[SM] CLASS is a service mark of Telcordia Technologies, Inc. (formerly Bellcore)

Call Detail Recording Reports (1045)

The Call Detail Recording capability will provide the customer with a data record of all completed calls made to a designated telephone number. The call details will not be delivered in real time but as a paper printout or via magnetic tape on a weekly basis (or mutually agreed upon time interval).

Generic Name of ONA Service	Product Name	BSE or CNS
Call Detail Recording Reports	BA - Call Detail Recording Reports	BSE
	BS - Call Detail Information	BSE
	NX - Monthly Detailed Recording	AN
	SWB - Recording Service	AN
	Qwest - Access Service Billing Information	BSE

FEATURE OPERATION:

This service is the recording of the details of the customer messages and, when requested by the customer, the provision of those details to the customer. This service is ordered through the telephone company's appropriate tariffs or on an individual case basis.

When the capability is ordered the following detail will be provided: originating billing telephone number (ANI), terminating telephone number if dialed before carrier cut through (called number), connect time (time of day the call originated), elapsed time (duration of the call), date of the call. If the capability is ordered with the Voice Grade Circuit Switched BSA, the Carrier Identification Code (CIC) of the customer is also provided.

The Call Detail Report will be sorted in the following order:

Terminating Number

Originating Number

Date

Time of Day

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. Call Detail Recording capability will only record intraLATA calls.

2. The record format will be in the EMR/EMI standard format.

3. Recording is provided 24 hours per day seven days a week.

4. Telephone companies provide this service in their operating territory. This service may be provided on a state or end office basis. The information provided may vary by company.

5. Telephone companies can provide for the recording of all the customer's messages, provided that they are accessible by the telephone company's recording equipment. The recording equipment will be provided at locations selected by the telephone companies.

6. In some regional companies, this service may be limited to one, two or various combinations of Feature Group A protocol service, Feature Group B protocol service, or Feature Group D protocol service.

7. References:

   - GR-610 Message Detail Recording (MDR), FSD 02-02-1110 (A Module of LSSGR, FR-64), Issue 2, June 2000

   - GR-615 LSSGR: Generic Requirements for Message Detail Recording (MDR) Access Interfaces, FSD 02-02-1115 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000615 Issue 1 – no technical changes).

   - GR-1100 Billing Automatic Message Accounting Format (BAF) Generic Requirements, Issue 3, Revision 1 – April 1999, Revision 2 – August 1999 (replaces TR-NWT-001100, Issue 2), Issue 4 – December 1999 (replaces Issue 3 and all revisions)

This service, if offered as a BSE, is associated with the Circuit Switched Line and Trunk basic serving arrangements.

Call Forwarding - Busy Line Intraswitch (1046)

Call Forwarding Busy Line (CFBL) is a central office software capability that allows a client to have an incoming call redirected to another Directory Number (DN) if the number dialed (the client's number) is in a busy condition. The service is activated by a service order. A call forwarded due to a busy condition would always forward to the preprogrammed number (selected at the time of the service order). The called number and the redirected number must be in the same central office switch. The service is deactivated or the preprogrammed number is changed by a service order.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Busy Line Intraswitch	AM - Busy Line Transfer	CNS
	BA - Fixed Call Forwarding	CNS
	BA - Call Forwarding Busy Line/Don't Answer	CNS
	BS - Call Forwarding Busy Line	CNS
	NX - Call Forwarding 2	CNS
	PB - Call Forward Busy Line	CNS
	SWB - Call Forwarding Busy Line	CNS
	Qwest - Call Forwarding Busy Line	CNS
	Qwest - Call Forwarding Busy Line/Don't Answer	CNS

FEATURE OPERATION:

This feature is activated/deactivated by a service order. The "forward to" number is also selected and preprogrammed at the time of the service order. (Refer to the capabilities called "Call Forwarding - Busy Line or Don't Answer - Customer Control of Activation/Deactivation" and "Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number" for the services with customer control.)

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS24

2. Multiline customers can have CFBL on each line if desired.

3. Calls may be forwarded to any telephone number, including DID numbers, served by the same central office that serves the base station.

4. Subscribers may have CFBL with Call Forwarding Don't Answer (CFDA), Call Forwarding Variable (CFV), and Call Waiting (CW). If a station has CFV and CFBL or CFDA active, then CFV will override the CFBL and/or CFDA features. If a station has CW and CFBL, CW will normally take precedence over the CFBL feature. However, if the station is made busy by a make-busy key arrangement, CW is not invoked and the CFBL feature takes precedence.

5. References:

   - SR-504 SPCS Capabilities and Features (A Module of LSSGR, FR-64), Issue 1, March 1996 (formerly TR-NWT-000504)

   - GR-568 LSSGR: Series Completion, FSD 01-02-0801 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000568 Issue 1 – no technical changes).

   - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Busy Line Interswitch (1047)

Call Forwarding Busy Line (CFBL) is a central office software capability that allows a client to have an incoming call redirected to another Directory Number (DN) if the number dialed (the client's number) is in a busy condition. The service is activated by a service order. A call forwarded due to a busy condition would always forward to the preprogrammed number (selected at the time of the service order). The called number and the redirected number may be in the same or in different central office switches. The service is deactivated or the preprogrammed number is changed by a service order.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Busy Line Interswitch	AM - Busy Line Transfer	CNS
	BA - Fixed Call Forwarding	CNS
	BA - Call Forwarding Busy Line/Don't Answer	CNS
	BS - Call Forwarding Busy Line	CNS
	NX - Call Forwarding 2	CNS
	PB - Busy Call Forwarding Extended	CNS
	SWB - Call Forwarding Busy Line	CNS
	Qwest - Call Forwarding Busy Line (Expanded)	CNS
	Qwest - Call Forwarding Busy Line/Don't Answer (Expanded)	CNS

FEATURE OPERATION:

This feature is activated/deactivated by a service order. The "forward to" number is also selected and preprogrammed at the time of the service order. (Refer to the capabilities called "Call Forwarding - Busy Line or Don't Answer - Customer Control of Activation/Deactivation" and "Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number" for the services with customer control.)

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10.09*	5E2(2)	BCS24

* References to switching system generics that have not yet been released by the vendors are based on our current information about which features are planned for inclusion in those generic releases. If the vendors change the availability of any features for future generic releases that are referenced in this document, the availability of some services may be affected.

2. Multiline customers can have CFBL on each line if desired.

3. Calls may be forwarded to any telephone number, including DID numbers, served by the same or a different central office.

4. Subscribers may have CFBL with Call Forwarding Don't Answer (CFDA), Call Forwarding Variable (CFV), and Call Waiting (CW). If a station has CFV and CFBL or CFDA active, then CFV will override the CFBL and/or CFDA features. If a station has CW and CFBL, CW will normally take precedence over the CFBL feature. However, if the station is made busy by a make-busy key arrangement, CW is not invoked and the CFBL feature takes precedence.

5. References:

   - SR-504 SPCS Capabilities and Features (A Module of LSSGR, FR-64), Issue 1, March 1996 (formerly TR-NWT-000504).

   - GR-568 LSSGR: Series Completion, FSD 01-02-0801 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000568 Issue 1 – no technical changes).

   - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Busy Line or Don't Answer - Customer Control of Activation/Deactivation (1048)

This capability provides ESP's clients with the ability to activate the Call Forwarding Busy Line and Call Forwarding Don't Answer features by dialing an access code in the form of *XX. The ESP's client will be able to deactivate the Call Forwarding Busy Line and Call Forwarding Don't Answer features by dialing another access code, also in the form of *XX.

Limitations may apply, depending on the type of switching systems serving the client.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Busy Line or Don't Answer - Customer Control of Activation/Deactivation	AM - Customer Control of Busy Line Transfer or Alternate Answering	CNS
	BS - Customer Control of CF BL/DA	CNS
	NX - CallAbility[SM] Feature Access	CNS
	PB - Call Forwarding Busy Line/Don't Answer- Fixed	CNS
	Qwest - Call Forwarding BL, Customer Programmable	CNS
	Qwest - Call Forwarding DA, Customer Programmable	CNS

FEATURE OPERATION:

Customer control of Call Forwarding Busy Line/Don't Answer is a central office software capability that allows a subscriber to activate and deactivate Call Forwarding Busy Line (CFBL) and/or Call Forwarding Don't Answer (CFDA). Activation of these services allows the customer to have an incoming call redirected to a telephone number preset at the time the service was established by service order. The service is activated/deactivated by the subscriber dialing the assigned access code. Access codes are in the same format as those for Call Forwarding Variable (*XX). CFDA and CFBL may have different activation/deactivation codes. The party activating these services does not have to be in the same central office switch as the forwarded telephone number.

Also see the service called "Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number."

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10.09*	5E2(2)	BCS27

* References to switching system generics that have not yet been released by the vendors are based on our current information about which features are planned for inclusion in those generic releases. If the vendors change the availability of any features for future generic releases that are referenced in this document, the availability of some services may be affected.

2. Multiline customers can have CFBL/DA - Customer Control on each line if desired.

SM CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.

3. References:

- GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number (1049)

This capability provides the ESP's client with the ability to change the Forward-To number for Call Forwarding Busy Line by dialing an access code in the form of *XX, and to change the Forward-To number for Call Forwarding Don't Answer by dialing another access code, also in the form of *XX. Limitations may apply, depending on the type of switching system serving the client.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number	AM - Customer Control of Busy Line Transfer or Alternate Answering	CNS
	PB - Call Forwarding Busy Line/Don't Answer Programmable	CNS
	Qwest - Call Forwarding BL, Customer Programmable	CNS
	Qwest - Call Forwarding DA, Customer Programmable	CNS

FEATURE OPERATION:

This feature can be controlled (activated or deactivated) by the customer in two ways.

1. The customer dials an activation code and the remote DN or the deactivation code (i.e., Ameritech, Pacific Bell and Qwest). The codes are in the same format as Call Forwarding Variable (*XX).

   Customer control of Call Forwarding Busy Line/Don't Answer is a central office software capability that allows a subscriber to have an incoming call redirected to another Directory Number (DN) if the number dialed (the subscriber's number) is in a busy condition or is not answered. The service is activated by the subscriber dialing an activation code, much in the same manner as Call Forwarding Variable, and entering the remote number that calls will be forwarded to. The called number and the redirected number do not have to be in the same switch. The service and forwarded-to number are deactivated by dialing the deactivation code.

2. The customer dials an access number (e.g., an 800 number or a regular NPA-NXX-XXXX number from any station (i.e., NYNEX). An announcement is returned asking for the customer directory number and a security code. If the dialed directory number and security code match and the customer subscribes to CFBL, a prompt to select the feature (e.g., CFBL/DA) and the specific action (e.g., activation or deactivation) is returned. After making his change the customer can wait for a confirmation or use, at any time, the verify capability to determine the feature status and the forward to number.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10.09*	5E2(2)	BCS27

* References to switching system generics that have not yet been released by the vendors are based on our current information about which features are planned for inclusion in those generic releases. If the vendors change the availability of any features for future generic releases that are referenced in this document, the availability of some services may be affected.

2. Multiline customers can have CFBL/DA - Customer Control on each line if desired.

3. The maximum number of digits that can be programmed are: 1A ESS - 16 digits

   5ESS - 24 digits

   DMS-100 - 24 digits

4. Subscribers may have CFBL with CFDA, Call Forwarding Variable (CFV), and Call Waiting (CW). If a station has CFV and CFBL or CFDA active, then CFV will override the CFBL and/or CFDA features. In the 1A ESS Call Waiting takes precedence and does not interact with CFBL. Un-answered Call Waiting calls do not revert to CFDA in either the 1A ESS or the 5ESS.

5. References:

   - GR-586 LSSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding Don't Answer After Call Waiting (CFDA After CW) (1093)

Call Forwarding Don't Answer After Call Waiting is a central office software capability that allows a client to utilize the Call Forwarding Don't Answer (CFDA) feature even though the client's line is also equipped with Call Waiting (CW).

CFDA/CW interaction was initially designed for CW to be dominant over CFDA. For a busy line equipped with both features (CFDA and CW), receiving an incoming call invoked the CW tone, but did not transfer to the CFDA forward-to number. This resulted in the CFDA feature being effective only when the line was not busy and not answered.

This capability improves the call waiting feature by allowing subscribers with the call waiting feature to specify the way an incoming call is to be treated when a call comes in while the subscriber is currently involved in a call with another party. When the call waiting tone is heard, the subscriber has the following options:

- initiate the standard call-waiting options (ignore, flash to put the existing call on hold and answer the second call, flash to go back to the first call, etc.)
- forward the call to another preselected directory number.

The busy and call forwarding options are selected by the subscriber pressing the appropriate key on a DTMF telephone set.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding Don't Answer After Call Waiting	AM - Alternate Answer After Call Waiting	CNS
	AM - Call Forwarding With Call Waiting	CNS
	BA - Call Forwarding Don't Answer	CNS*
	BS - Call Forwarding Don't Answer	CNS*
	NX - Call Forwarding II	CNS*
	PB - Modification of Call Waiting	CNS
	Qwest - Call Waiting	CNS

FEATURE OPERATION:

The new feature interaction allows a client to subscribe to both CFDA and CW, and receive the benefits of both features. An incoming call to a busy line will invoke the CW tone. The client can place the existing call on hold and answer the call, or by not answering the call, can allow the CFDA feature to assume control of the new call and transfer it to the CFDA forward-to number.

* This capability is inherent with Call Forwarding Don't Answer in Switches which have been modified. Check wire center deployment report for availability.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	**1A ESS**	**5ESS**	**DMS-100**
Earliest Generic Release	1AE10.11	5E7	BCS32

2. This feature is activated on an office basis. The AT&T switches (1A ESS and 5ESS) have a line-by-line override parameter to accommodate any customer situations where the capability may not be desired.

3. In the DMS-100 switch, the feature only affects those CFDA and CW customers served by RES. There is no line-by-line override parameter in the DMS-100 switch.

4. The line specific CFDA features (number of rings, inter/intraoffice forwarding) will operate the same as though the line were on-hook and not answered.

5. Standard CFDA and CW operation applies.

6. References:

   - GR-571 LSSGR: Call Waiting, FSD-01-02-1201 (A Module of LSSGR, FR-64), Issue 1 – June 2000 (replaces TR-TSY-000571 Issue 1 & Revision 1 – no technical changes) [includes CFDA interaction]

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Don't Answer Intraswitch (1050)

Call Forwarding Don't Answer (CFDA) is a central office software capability that allows a client to have an incoming call redirected to another Directory Number (DN) if the number dialed (the client's number) is not answered after a user-specified number of rings (or time interval). The service is activated by a service order. The called number and the redirected number (forwarded-to number) are coded in the central office memory and can only be changed through a service order. The customer may specify the number of rings (or time interval) at the time of the service order. The customer has the option of answering the call prior to its being forwarded, as long as the call is answered within the ringing cycle (time interval) selected. The called number and the redirected number (forwarded-to number) must be in the same central office switch. The service is deactivated, the forwarded-to number changed, or the number of rings (time interval) is changed only by a service order.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Don't Answer Intraswitch	AM - Alternate Answering	CNS
	BA - Fixed Call Forwarding	CNS
	BA - Call Forwarding Busy Line/Don't Answer	CNS
	BS - Call Forwarding Don't Answer	CNS
	NX - Call Forwarding 2	CNS
	PB - Call Forwarding Don't Answer	CNS
	SWB - Call Forwarding Don't Answer	CNS
	Qwest - Call Forwarding Don't Answer	CNS
	Qwest - Call Forwarding Busy Line/Don't Answer	CNS

FEATURE OPERATION:

This feature is activated/deactivated by a service order. The "forward-to" number and the number of rings (time interval) is also selected and preprogrammed at the time of the service order. (Refer to the capabilities called "Call Forwarding - Busy Line or Don't Answer - Customer Control of Activation/Deactivation" and "Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number" for the services with customer control.)

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS24

2. Multiline customers can have CFDA on each line if desired.

3. Calls may be forwarded to any telephone number served by the same central office that serves the base station except DID numbers in the 1A ESS. Forwarding to DID numbers in the 1A ESS will be available in generic 1AE10.09*. (* References to switching system generics that have not yet been released by the vendors are based on our current information about which features are planned for inclusion in those generic releases. If the vendors change the availability of any features for future generic releases that are referenced in this document, the availability of some services may be affected.)

4. Subscribers may have CFDA with Call Forwarding Busy Line (CFBL), Call Forwarding Variable (CFV), and Call Waiting (CW). If a station has CFV and CFBL or CFDA active, then CFV will override the CFBL and/or CFDA features. If a station has CW and CFDA, CFDA will take precedence over the CW feature if the station is idle. However, if the station is busy, CW will take precedence and does not allow the CFDA feature to take effect if the waiting call is unanswered.

5. References:

   - SR-504 SPCS Capabilities and Features (A Module of LSSGR, FR-64), Issue 1, March 1996 (formerly TR-TSY-000504).

   - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Don't Answer Interswitch (1051)

Call Forwarding Don't Answer (CFDA) is a central office software capability that allows a client to have an incoming call redirected to another Directory Number (DN) if the number dialed (the client's number) is not answered after a user-specified number of rings (or time interval). The service is activated by a service order. The called number and the redirected number (forwarded-to number) are coded in the central office memory and can only be changed through a service order. The customer may specify the number of rings (or time interval) at the time of the service order. The customer has the option of answering the call prior to its being forwarded, as long as the call is answered within the ringing cycle (time interval) selected. The called number and the redirected number (forwarded-to number) may be in the same or a different central office switch. The service is deactivated, the forwarded-to number changed, or the number of rings (time interval) is changed only by a service order.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Don't Answer Interswitch	AM - Alternate Answering	CNS
	BA - Fixed Call Forwarding	CNS
	BA - Call Forwarding Busy Line/Don't Answer	CNS
	BS - Call Forwarding Don't Answer	CNS
	NX - Call Forwarding 2	CNS
	PB - Call Forwarding Don't Answer Interswitch	CNS
	SWB - Call Forwarding Don't Answer	CNS
	Qwest - Call Forwarding Don't Answer (Expanded)	CNS
	Qwest - Call Forwarding Busy Line/Don't Answer (Expanded)	CNS

FEATURE OPERATION:

This feature is activated/deactivated by a service order. The "forward-to" number and the number of rings (time interval) is also selected and preprogrammed at the time of the service order. (Refer to the capabilities called "Call Forwarding - Busy Line or Don't Answer - Customer Control of Activation/Deactivation" and "Call Forwarding - Busy Line or Don't Answer - Customer Control of Forward-To Number" for the services with customer control.)

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE10.09*	5E2(2)	BCS24

* References to switching system generics that have not yet been released by the vendors are based on our current information about which features are planned for inclusion in those generic releases. If the vendors change the availability of any features for future generic releases that are referenced in this document, the availability of some services may be affected.

2. Multiline customers can have CFDA on each line if desired.

3. Calls may be forwarded to any telephone number, including DID numbers, served by the same or a different central office.

4. The caller may hear multiple call progress tones if the remote DN is busy.

5. Subscribers may have CFDA with Call Forwarding Busy Line (CFBL), Call Forwarding Variable (CFV), and Call Waiting (CW). If a station has CFV and CFBL or CFDA active, then CFV will override the CFBL and/or CFDA features. If a station has CW and CFDA, CFDA will take precedence over the CW feature if the station is idle. However, if the station is busy, CW will take precedence and does not allow the CFDA feature to take effect if the waiting call is unanswered.

6. References:

   - SR-504 SPCS Capabilities and Features (A Module of LSSGR, FR-64), Issue 1, March 1996 (formerly TR-TSY-000504).

   - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Multiple Simultaneous Calls Interswitch (1052)

This feature provides the capability to specify the number of simultaneous incoming calls to forward from the same number to a hunt group or equivalent arrangement such as DID when the forwarding number and the hunt group (or equivalent) are served by a different central office switch.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Multiple Simultaneous Calls Interswitch	AM - Busy Line Transfer of Alternate Answer	CNS
	BA - Call Forwarding-Multiple Simultaneous Calls Interswitch	CNS
	BS - Call Forwarding Variable Multiple Simultaneous Calls	CNS
	BS - CF BL/DA Multiple Simultaneous Calls	CNS
	NX - Call Forwarding Variable	CNS
	PB - Call Forwarding Variable	CNS
	SWB - Simultaneous Call Forwarding	CNS
	Qwest - Call Forwarding Variable	CNS

FEATURE OPERATION:

The maximum number of multiple simultaneous call forwarding is Telephone Company defined on a per line basis, and on the basis of the type of call forwarding, at the time of service order entry.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	5ESS	DMS-100
Earliest Generic Release	5E2(2)	BCS28

2. This capability is available for the Call Forwarding Variable (CFV), Call Forwarding Busy Line (CFBL) and Call Forwarding Don't Answer (CFDA) features.

3. In the 5ESS switch the number of simultaneous calls allowed can range in size from one to ninety-nine. In the DMS-100 the size can range from 1 to 1024 via the Residential Enhanced Services.

4. In the DMS-100 switches, there may be some limitations on providing this for CFBL or CFDA depending on the current Generic program of the serving central office.

5. Reference for Call Forwarding Variable:

   - GR-580 LSSGR: Call Forwarding Variable, FSD 01-02-1401 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000580 Issue 1 – no technical changes).

   - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of FR-64) Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

Call Forwarding - Variable (1053)

This capability provides the ESP's client with the ability to forward all calls to a second directory number for handling. As part of the activation of the feature, an associated call is placed to the ESP's forward-to number.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Variable	AM - Call Forwarding Variable	CNS
	BA - Call Forwarding	CNS
	BS - Call Forwarding Variable	CNS
	NX - Call Forwarding	CNS
	PB - Call Forwarding Variable	CNS
	SWB - Call Forwarding	CNS
	Qwest - Call Forwarding Variable	CNS

FEATURE OPERATION:

To activate call forwarding variable with the ESP's number as the forward-to number, the ESP's client dials the call forwarding variable activation code. A recall dial tone (stutter dial tone) is provided, and then the ESP's client dials the ESP's number. When the ESP answers the call, activation is complete. (If the ESP does not answer, the customer may repeat the process within a specified amount of time, e.g., one minute, and the feature will be activated.) Depending on the type of central office switch serving the ESP's client, while call forwarding variable is active, the ESP's client's line will receive a reminder ring whenever a call is forwarded.

To deactivate the feature, the ESP's client dials the call forwarding variable deactivation code.

When call forwarding variable is active, the ESP's client's ability to originate calls will be unaffected.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE8A	5E2(2)	BCS23

2. Call Forwarding Variable will override Call Forwarding Don't Answer and Call Forwarding Busy Line if all three features are active at the same time.

3. Calls may be forwarded to any telephone number including DID numbers served by the same or a different central office.

4. References:

- GR-580 LSSGR: Call Forwarding Variable, FSD 01-02-1401 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000580 Issue 1 – no technical changes).

- GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450 (A Module of LSSGR, FR-64), Issue 1, June 2000 (replaces TR-TSY-000586 Issue 1 – no technical changes).

This service, if offered as a BSE, is associated with the Circuit Switched Line basic serving arrangement.

Call Forwarding - Variable - Activation Without Courtesy Call (1054)

This capability provides the ESP's client with the ability to activate the call forwarding variable (forward all calls) feature without completing a call to the ESP's forward-to number.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Variable - Activation Without Courtesy Call	AM - Call Forwarding Variable	CNS
	BA - Call Forwarding-Variable-Activation Without Courtesy Call	CNS
	BS - Remote Access - Call Forwarding Variable	CNS
	NX - CallAbility[SM] Feature Access	CNS
	PB - Call Forwarding Variable	CNS
	Qwest - Call Forwarding Variable Without Call Completion	CNS

FEATURE OPERATION:

To activate call forwarding variable with the ESP's number as the forward-to number, the ESP's client either dials the call forwarding variable activation code of the form *XX or an access number.

1. Dialing an activation code (i.e., Ameritech, Bell Atlantic, BellSouth, Pacific Bell and Qwest). A recall dial tone (stutter dial tone) is provided, and then the ESP's client inputs the ESP's number by dialing it. If the activation can be accomplished for the designated forward-to address, then the switch responds with confirmation tone.

2. Dialing an Access Number (i.e., NYNEX). The customer dials an access number (e.g., an 800 number or a regular NPA-NXX-XXXX number) from any station. An announcement is returned asking for the customer directory number and a security code. If the dialed directory number and security code match and the customer subscribes to the service a prompt to select the feature (e.g., CFV) and the specific action (i.e., activation) is returned. After making the change the customer can wait for a confirmation or use, at any time, the verify capability to determine the feature status and forward to number.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	5ESS
Earliest Generic Release	5E2(2)*

   * Requires Business and Residence Custom Service (BRCS).

2. When call forwarding variable is active, the ESP's client's ability to originate calls will be unaffected.

3. References:

   - GR-586 LSSGR: Call Forwarding Subfeatures, FSD 01-02-1450, Issue 1, June 2000

   - GR-580 Call Forwarding Variable FSD 01-02-1401, Issue 1, June 2000.

[SM] CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.

Call Forwarding - Variable - Remote Activation/Control (1055)

This capability gives the ESP's client the ability to activate or deactivate the call forwarding variable (forward all calls) feature from remote locations other than their base station. The signaling used to activate or deactivate the call forwarding feature from the remote location must be from a Dual Tone Multi- Frequency (DTMF) set.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding - Variable - Remote Activation/Control	AM - Call Forwarding - Variable - Remote Activation/Control	CNS
	BA - Ultra Forward	CNS
	BS - Remote Activation of Call Forwarding	CNS
	NX - CallAbility[SM] Feature Access	CNS
	PB - Call Forwarding-Variable-Remote Activation/Control	CNS
	SWB - Remote Activation of Call Forwarding	CNS
	Qwest - Remote Access Forwarding	CNS

FEATURE OPERATION:

The ESP's client has two options for changing the forward-to number from a remote station:

1. The remote activation of call forwarding variable feature provides a dedicated directory number that can be used for remote activation (i.e., Ameritech, Bell Atlantic, BellSouth, Pacific Bell, Southwestern Bell). A caller may place a call to this remote activation directory number from any station. Calls to this number are answered with a tone or announcement. The caller then dials, on a DTMF station from his/her remote location, his/her home (base station) directory number and a security code. If the dialed directory number and security code match and that customer subscribes to remote activation, confirmation tone followed by dial tone is returned. The customer then proceeds through the call forwarding activation/deactivation procedure as if at home (at the base station).

2. Dialing an Access Number (i.e., NYNEX, Qwest). The customer dials an access number (e.g., an 800 number or a regular NPA-NXX-XXXX number) from any station. An announcement is returned asking for the customer directory number and a security code. If the dialed directory number and security code match and the customer subscribes to remote activation, a prompt to select the feature (e.g., CFV) and the specific action (e.g., activation or deactivation) is returned. After entering their selection, the customer can wait for a confirmation or use, at any time, the verify capability to determine the feature status and the forward to number.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS*	5ESS*	DMS-100*
Earliest Generic Release	1AE10	5E5	BCS28

Note: * This service may be provided via a switching feature in the switch or via an adjunct processor.

[SM] CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.

2. Reference:

- SR-504 SPCS Capabilities and Features (A Module of LSSGR, FR-64), Issue 1, March 1996 (formerly TR-NWT-000504)

Call Forwarding With Variable Rings (1102)

In the event that the called telephone number is not answered within a designated parameter, normally three to four rings, the Call Forwarding Don't Answer feature automatically forwards incoming calls to a predetermined, dialable telephone number served by the same central office switch, or provides interswitch forwarding to a predetermined, dialable telephone number. This feature provides the ability to change the operative number of rings prior to call forwarding.

Generic Name of ONA Service	Product Name	BSE or CNS
Call Forwarding With Variable Rings	AM - Customer Changeable Number of Rings	CNS
	BA - Ring Count Change	CNS
	NX - CallAbility[SM] Feature Access	CNS

FEATURE OPERATION:

This feature is modified on a line basis by a service order. The number of rings (time interval) is selected at the time of the service origination or at any time the customer requests a change.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

1. This feature is available in the following central office switches:

Switch Type	1A ESS	5ESS	DMS-100
Earliest Generic Release	1AE11.03	5E6	BCS 29

2. The minimum and maximum number of rings (time interval) is limited on a per switch basis. The normal time range is 0 to 60 seconds.

3. Reference:

- GR-1520 Ring Control, FSD 01-02-2200, Issue 2, October 1994 (component of FR-64)

[SM] CallAbility is a registered service mark of NYNEX. CallAbility will be offered from selected digital switches.