Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

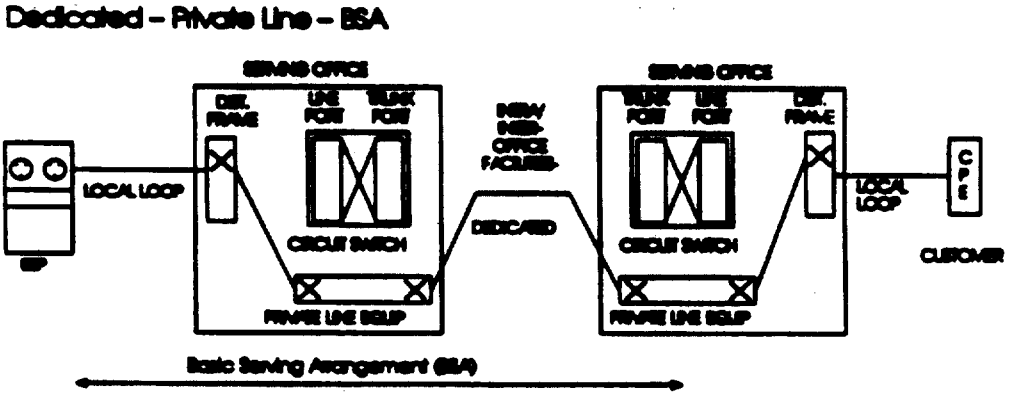
References:

- TR-NPL-000337 Program Audio Special Access and Local Channel Services, Issue 1, July 1987
- TR-TSY-000431 15 kHz Digital Audio Terminal for Program or Television Requirements and Objectives, Issue 1, October 1987
- TR-INS-000342 High-Capacity Digital Access Service - Transmission Parameter Limits and Interface Combinations, Issue 1, February 1991
- TR-NPL-000339 Wideband Analog Special Access Service - Transmission Parameter Limits and Interface Combinations, Issue 1, October 1987

3.3 Category 3, Type E - Dedicated Video BSA

The dedicated video BSA provides an ESP with a dedicated, broadband communications channel to the ESP's client. Applications may include (but are not limited to): full-time and part-time commercial broadcast quality television, noncommercial broadcast quality television, video teleconferencing, distance-learning applications, surveillance, closed-circuit television. The channel is capable of transmitting a standard 525 line/60 field monochrome or National Television Systems Committee (NTSC) color video signal and associated audio signals. The associated audio signal(s) may be either duplexed or provided as separate channels. Video services are provided between customer designated premises through Serving Wire Center(s) or between a customer designated premises and a telephone company hub.

Generic Name of BSA	GTE BSA Name
Category 3, Type E - Dedicated Video BSA	Videoband



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: 5 or 15 Hz audio channels, duplexed or separate channel audio signals, and video/audio delay difference.

Signaling:

Video services are available full-time and therefore signaling arrangements are not applicable.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes define the bandwidth and the provision of the audio signal(s) associated with a broadcast video channel. NCI codes are: (1) Total Conductors, (2) Protocol, (3) Impedance, (4) Protocol Options, and (5) Transmission Level Point (ignored for Television Special Access).

References:

- TR-TSV-000338 Television Special Access and Local Channel Services - Transmission Parameter Limits and Interface Combinations, Issue 2, August 1993

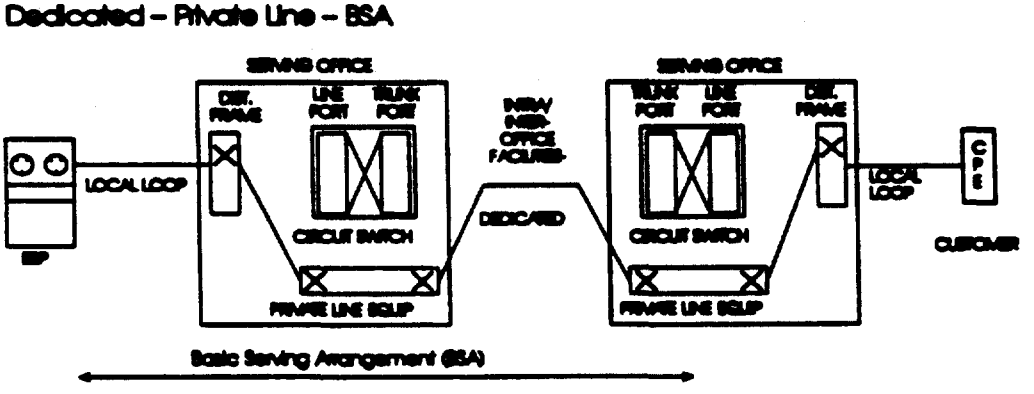
- TR-TSY-000431 15 kHz Digital Audio Terminal for Program or Television Requirements and Objectives, Issue 1, October 1987

3.4 Category 3, Type F - Dedicated Digital (< 64 kbps) BSA

The dedicated digital (< 64 kbps) BSA provides an ESP with a 4-wire digital channel to the ESP's client This serving arrangement provides for digital transmission of synchronous serial data at primary rates of 2.4, 4.8, 9.6, 19.2, or 56 kbps, plus associated secondary channel rates of 2.4, 4.8, 9.6, 19.2, or 56 kbps. Error Detection/Correction is an inherent part of this BSA.

Digital Data special access services are nonswitched channels that provide the capability to transmit digital data between two end user points of termination or and end user point of termination and a service provider point of termination.

Generic Name of BSA	GTE BSA Name
Category 3, Type F - Dedicated Digital (< 64 kbps) BSA	Digital Data Service (DDS)



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: Transfer Arrangement.

Signaling Arrangements:

These services are available full-time and therefore supervisory signaling arrangements are not applicable. The signaling service is synchronous with timing provided through the LEC's facilities to the end user on the received bit stream. Individual calls are not set up and taken down.

Transmission Capabilities:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

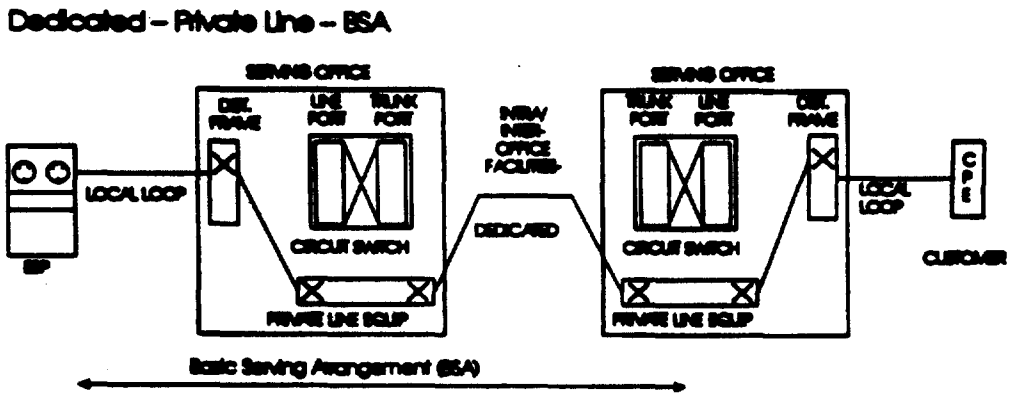
- TR-NWT-000341 Digital Data Special Access Service Transmission Parameter Limits and Interface Combinations, Issue 2, February 1993

3.5 Category 3, Type G - Dedicated High Capacity Digital (1.544 Mbps) BSA

The dedicated high capacity digital (1.544 Mbps) BSA provides an ESP with a dedicated channel. High Capacity Digital service is defined as a service that provides two-point, private-line, full duplex transmission at 1.544 Mbps isochronous serial data with a payload of 1.536 Mbps between an end user and an end user or between an end user and a LEC central office.

In some cases, this BSA can be provisioned for dedicated transport of Extended Superframe Format (ESF) data channel capability.

Generic Name of BSA	GTE BSA Name
Category 3, Type G - Dedicated High Capacity Digital (1.544 Mbps) BSA	High Capacity Digital DS1 Service



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. An example of a potential alternative may be: transfer arrangement.

Signaling:

The signaling service is isochronous with timing provided through the LEC's facilities to the end user on the received bit stream. Individual calls are not set up and taken down.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

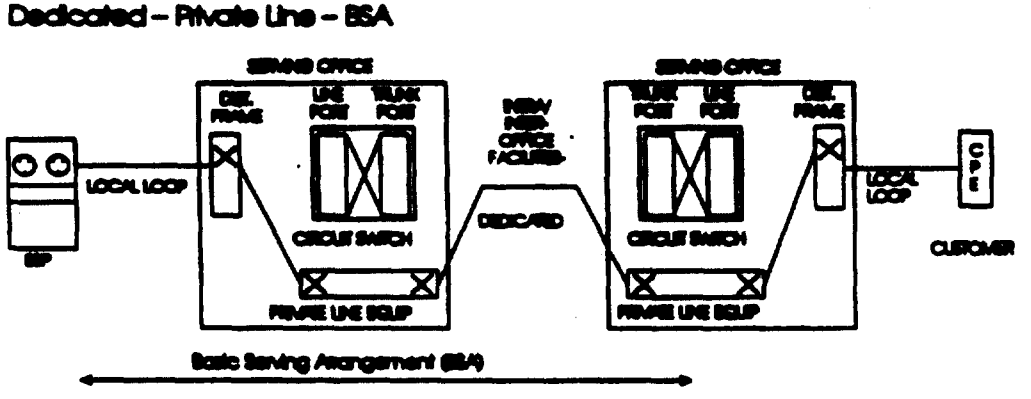
References:

- TR-INS-000342 High-Capacity Digital Special Access Service - Transmission Parameter Limits and Interface Combinations, Issue 1, February 1991
- TR-NPL-000054 High Capacity Digital Service (1.544 Mbps) Interface Generic Requirements for End Users, Issue 1, April 1989
- TR-TSY-000312 Functional Criteria for the DS1 Interface Connector, Issue 1, March 1988

3.6 Category 3, Type H - Dedicated High Capacity Digital (>1.544 Mbps) BSA

The dedicated high capacity digital (>1.544 Mbps) BSA provides an ESP with a dedicated channel to the ESP's client via a digital facility. High Capacity Digital service is defined as a service that provides two-point, private-line, transmission at speeds above 1.544 Mbps between an end user and an end user or between an end user and a LEC central office. Individual calls are not set up and taken down. The ESP must specify the desired transmission speed as an alternative with this BSA.

Generic Name of BSA	GTE BSA Name
Category 3, Type H - Dedicated High Capacity Digital (>1.544 Mbps) BSA	High Capacity Digital DS3 Service



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: transmission speed and transfer arrangement.

Signaling:

The signaling service is isochronous with timing provided through the LEC's facilities to the end user on the received bit stream. Individual calls are not set up and taken down.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

- TR-INS-000342 High-Capacity Digital Special Access Service - Transmission Parameter Limits and Interface Combinations, Issue 1, February 1991

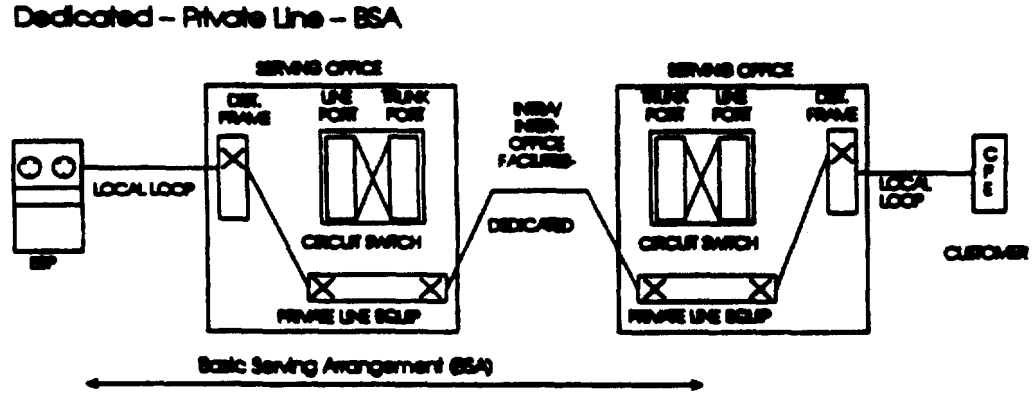
3.7 Category 3, Type I - Dedicated Alert Transport BSA

The dedicated alert transport BSA using derived local channel technology and a LEC provided scanner offers ESPs a 24 hour supervised monitoring capability using compatible local loop access lines.

The scanner continuously monitors the status of all clients. A host processor monitors all scanners and, in response to a change in status, will identify the subscriber from which the alert condition originates and notify the appropriate ESP.

This serving arrangement utilizes derived channels which comply with Underwriter's Laboratories (UL) AA and National Fire Protection Association (NFPA) requirements.

Generic Name of BSA	GTE BSA Name
Category 3, Type I - Dedicated Alert Transport BSA	Alarm Signal Transport Service



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found.

Signaling:

Dedicated serving arrangements are available full-time and therefore supervisory signaling arrangements are not applicable.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. The NCI codes for the desired service must be specified by the customer when ordering metallic services. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

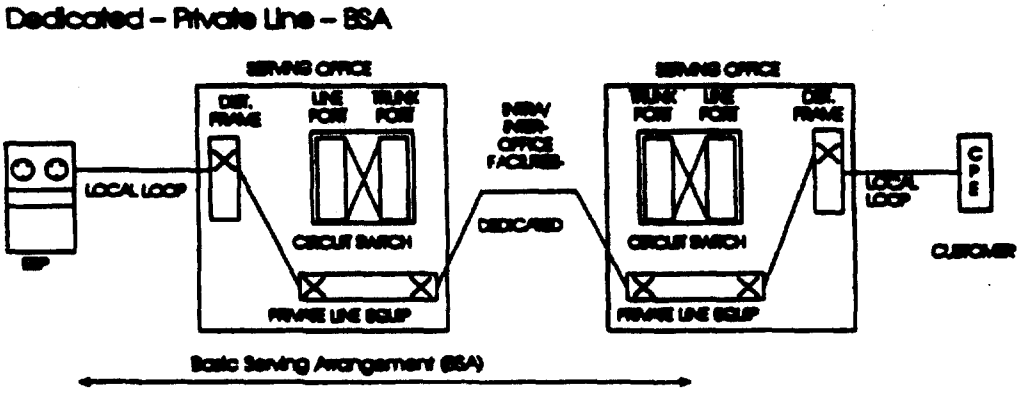
Reference:

- Not available

3.8 Category 3, Type K - Dedicated Digital (64 Kbps) BSA

Dedicated Digital (64 Kbps) Service will provide a channel for duplex four-wire transmission of synchronous serial data at 64 Kbps. The channel provides a synchronous service with timing provided by the telephone company. The 64 Kbps channel will be provided between two customer designated premises or between a customer designated premise and a telephone company serving wire center.

Generic Name of BSA	GTE BSA Name
Category 3, Type K - Dedicated Digital (64 Kbps) BSA	Digital Data Service



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found. Examples of potential alternatives may be: Transfer Arrangement.

Signaling Arrangements:

These services are available full-time and therefore supervisory signaling arrangements are not applicable. The signaling service is synchronous with timing provided through the LEC's facilities to the end user on the received bit stream. Individual calls are not set up and taken down.

Transmission Capabilities:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options. The NCI codes for the service desired must be specified by the customer when ordering. Only certain code combinations are compatible, as listed in TR-NWT-000341.

References:

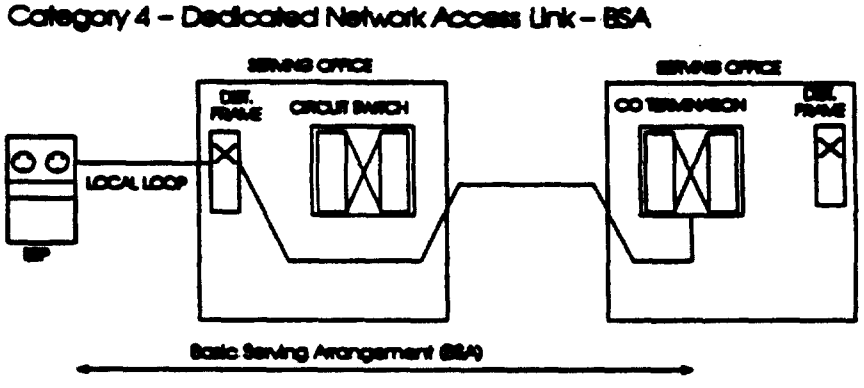
- Bellcore TR-NWT-000341 Digital Data Special Access Service - Transmission Parameter Limits and Interface Combinations, Issue 2, February 1993.

4. Category 4 - Dedicated Network Access Link BSA

The dedicated network access link (DNAL) BSA provides a dedicated data channel between the ESP's termination and a designated central office which contains the specific features required by the ESP. The DNAL is used to transmit network information or network control information from the ESP to the network (e.g., activate a message waiting indicator), or to deliver network information or network control information from the network to the ESP (e.g. calling number identification over a message desk interface). The type of DNAL BSA used will determine the bandwidth alternatives and capabilities available to the ESP.

The DNAL BSA can support one-way or two-way transmission depending on the alternatives used.

Generic Name of BSA	GTE BSA Name
Category 4 - Dedicated Network Access Link BSA	Data Link



Alternatives:

An alternative is an item that must be selected for the BSA to be technically meaningful. Alternative items may be available from some or all of the Local Exchange Carriers (LECs). Refer to the individual LEC tariff reference diskette for the reference information where LEC defined alternatives may be found.

Signaling:

Signaling capability provides for the process by which one customer premises alerts another customer premises on the same service with which it wishes to communicate. These signals are the means by which the end user initiates a request for service, holds a connection or releases a connection.

Transmission:

The subject of transmission covers a broad range of performance considerations related to the physical facilities that compose network architecture. Transmission parameters are designed to provide objective transmission performance characteristics, as perceived by the end user and LEC, between the point of termination. Transmission parameters are defined for each Network Interface (see below) supporting this BSA. These parameters are defined in the reference documentation.

Network Interfaces:

The electrical and physical interface with the LEC is described by a Network Channel Interface (NCI) code for each end user termination and each service provider termination. NCI codes are provided to aid the user in understanding the relationship of the network interface to the electrical or optical characteristics of the interface. NCI codes have four basic components: (1) number of conductors (wire or fibers), (2) protocol code, (3) nominal reference impedance code, and (4) any applicable protocol options.

References:

- TR-NPL-000335 Voice Grade Special Access Service - Transmission Parameter Limits and Interface Combinations, Issue 2, May 1990

- TR-NPL-000336 Metallic and Telegraph Grade Special Access Services - Transmission Parameter Limits and Interface Combinations, Issue 1, October 1987

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

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	GTE Product Name	BSE or CNS
Alternate Routing	Alternate 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	Earliest Generic Release
DCO	14.1
EWSD	7
GTD-5	1.6.2.1
VIDAR	7.0.1.2
DMS-10	208.1
1AESS	1AE8A
5ESS	5E2(2)
DMS-100	BCS17
#2EAX	1.2.9.1

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. 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 AT&T 1AESS 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 AT&T 1AESS office or located on the ESP's premises.

4. In the AT&T 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 NORTEL DMS-100 has several methods to provide alternate routing. The software methods used are similar to the AT&T 5ESS, in that the alternate routes are fixed and do not have the potential to be controlled manually as in the AT&T 1AESS. 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 only, trunk side BSA - 10XXX option, or trunk side BSA 950 option and 10XXX option.

7. References:

   - LSSGR (FR-NWT-000064), Call Processing Section 5, Issue 3, May 1991, Module TR-TSY-000505.

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

Automatic Callback

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.

CLASS is a service mark of Bellcore (Bell Communications Research, Inc.)

Generic Name of ONA Service	GTE Product Name	BSE or CNS
Automatic Callback	Automatic Busy 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.

TECHNOLOGICAL AND FEATURE INTERACTION CONSIDERATIONS:

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

Switch Type	Earliest Generic Release
DCO	17.2
EWSD	9
GTD-5	1.6.3.3
DMS-10	404.4
1AESS	1AE10.10.2
5ESS	5E4
DMS-100	BCS30

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(sm) 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 LEC.

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:

- TR-TSY-000215 CLASS(sm) Feature: Automatic Callback (A Module of LSSGR, FR-NWT-000064), Issue 3, June 1993.

Automatic Recall

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	GTE Product Name	BSE or CNS
Automatic Recall	Automatic 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:

o 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.

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

o 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	Earliest Generic Release
DCO	17.2
EWSD	9
GTD-5	1.6.3.3
DMS-10	404.4
1AESS	1AE10*
5ESS	5E5
DMS-100	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(sm) 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.

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 LEC.

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:

- TR-TSY-000227 CLASS(sm) Feature: Automatic Recall (A Module of LSSGR, FR-NWT-000064) Issue 3, June 1993.

CLASS is a service mark of Bellcore (Bell Communications Research, Inc.)

Call Forwarding - Busy Line Intraswitch

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	GTE Product Name	BSE or CNS
Call Forwarding - Busy Line Intraswitch	Call Forwarding Busy Line - Fixed	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	Earliest Generic Release
DCO	17
EWSD	7
GTD-5	1.6.2.1
DMS-10	404.2
1AESS	1AE8A
5ESS	5E2(2)
DMS-100	BCS24
#2EAX	1.2.9.1

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