AVAYA communication

DEFINITY® Communications System

Generic 1 and Generic 3
System Description and Specifications Addendum
(G3vs Customers Only)

555-230-200ADD2
Issue 3
July 1992
Dated March 1993

Disclaimer

Intellectual property related to this product (including trademarks) and registered to Lucent Technologies Inc. has been transferred or licensed to Avaya Inc.

Any reference within the text to Lucent Technologies Inc. or Lucent should be interpreted as references to Avaya Inc. The exception is cross references to books published prior to April 1, 2001, which may retain their original Lucent titles.

Avaya Inc. formed as a result of Lucent's planned restructuring, designs builds and delivers voice, converged voice and data, customer relationship management, messaging, multi-service networking and structured cabling products and services. Avaya Labs is the research and development arm for the company.

555-230-200A2
Issue 3

Notice
While reasonable effort was made to ensure that the information in this document was complete and accurate at the time of printing, Lucent Technologies can assume no responsibility for any errors. Changes and/or corrections to the information contained in this document may be incorporated into future issues.

Your Responsibility for Your System's Security
Your are responsible for the security of your system. Lucent Technologies does not warrant that this product is immune from or will prevent unauthorized use of common-carrier telecommunication services or facilities accessed through or connected to it. Lucent Technologies will not be responsible for any charges that result from such unauthorized use. Product administration to prevent unauthorized use is your responsibility and your system administrator should read all documents provided with this product to fully understand the features available that may reduce your risk of incurring charges.

Federal Communications Commission Statement
This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for a Class A computing device pursuant to Subpart J of Part 15 of FCC Rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment.

Operation of this equipment in a residential area is likely to cause interference, in which case the user at his/her own expense will be required to take whatever measures may be required to correct the interference.

TRADEMARK NOTICE
DEFINITY is a registered trademark of Lucent Technologies.

ORDERING INFORMATION

Call: Lucent Technologies Publication Center
1 800 432-6600
In Canada: 1 800 255-1242

Write: Lucent Technologies Publication Center
2855 North Franklin Road
P.O. Box 19901
Indianapolis, IN 46219-1385

Order: Document No. 555-230-200ADD2
Issue 3, July 1992

Published by
BCSystems Product Documentation Development Group
Lucent Technologies Bell Laboratories
Middletown, NJ 07748-0076

Contents

About this Document

Contents

About this Document

Overview

This addendum provides information specific to the DEFINITY® Communications System Generic 3vs switch release. Its function is as a supplement to the Generic 1 and Generic 3i information already provided in the DEFINITY System Description manual.

The majority of information contained in this document is applicable to Generic 3vs. In the interest of brevity, this addendum only includes the differences between Generic 3vs and the other switch releases already covered in the System Description document.

Introduction

This addendum describes the DEFINITY Communications System Generic 3vs (G3vs) capabilities and capacities. Since the DEFINITY Generic 3vs (G3vs) feature set is a subset of the DEFINITY Communications System Generic 3s (G3s) and DEFINITY Communications System Generic 3i (G3i) feature sets, this document focuses on the options available with G3vs and lists additional features available if you upgrade to G3i.

For a comprehensive description of the G3i system, see the *DEFINITY Communications System Generic 1 and Generic 3 System Description*, 555-230-200.

Throughout this document, the term "DEFINITY Generic 3vs" refers to the DEFINITY Communications System Generic 3vs (G3vs), the term "DEFINITY Generic 3s" refers to the DEFINITY Communications System Generic 3s (G3s), the term "DEFINITY Generic 3i" refers to the DEFINITY Communications System Generic 3i (G3i); and the term "DEFINITY Generic 3r" refers to the DEFINITY Communications System Generic 3r (G3r).

This addendum contains three sections:

- **Generic 3vs System Hardware**

  This section provides information about the system hardware, control cabinet, power supply and circuit packs. It also delineates system configuration limitations.

- **Generic 3vs Software Description**

  The second section delineates system software and explains which options are available with the two software packages: The Advantage Business Package and the Premier Business Package.

- **System Capacities**

  This section provides a table listing the system capacities for both the G3vs Premier Business Package and G3vs Advantage Business Package. The table also lists the corresponding G1, G3s, G3i, and G3r capacities.

For additional information on DEFINITY Generic 3vs, see the following documents: *DEFINITY Communications System Generic 3vs Feature Description Addendum*, 555-230-201ADD4 and the *DEFINITY Communications System Generic 3vs Implementation Addendum*, 555-230-650ADD3.

Overview

1

Contents

Overview

1

DEFINITY Generic 3vs Overview

DEFINITY Generic 3vs is a new member of the Generic 3 family of cost-effective digital communications systems designed to:

- Provide businesses with up to 80 stations and 24 trunks greater flexibility in choosing their telecommunication systems
- Provide satellite affiliates of multilocation businesses with the same telecommunication services available at larger locations using the G3s, G3i, and G3r switches.

G3vs is a convenient wall-mounted single-cabinet switch with a FLASH memory cartridge that supports all G3i features and options except for the following:

- Integrated Services Digital Network — Basic Rate Interface (ISDN-BRI)
- CallVisor Adjunct/Switch Application Interface (ASAI)
- Expansion Port Networks (EPN)
- SCC Port Cabinets
- High and Critical Reliability

In addition to providing the same strength of architecture, price performance, and investment protection as G3s, G3i, and G3r, G3vs also provides many of the G3i and G3r features and applications in packages that achieve a variety of business objectives. G3vs:

- Routes voice and data information between various endpoints (telephones, terminals, computers, etc.)

- Includes an extensive feature set (for example, Audio Information Exchange Interface and recorded announcement)
- Provides highly robust networking capabilities
- Provides flexibility that allows you to add features or to upgrade the system as business conditions change

DEFINITY Generic 3vs offers two distinct packages: the Premier Business Package (PBP) and the Advantage Business Package (ABP). Each package contains a subset of the DEFINITY Generic 3i features and options that meet specific business needs and provide flexible communication solutions.

Generic 3vs Hardware

This section provides a description of the Generic 3vs specific hardware. For specific installation information see the *DEFINITY Communications System Generic 3vs Installation and Test Addendum* 530-230-104ADD2. For information about environmental factors such as room temperature and humidity see the *DEFINITY Communications System Generic 1 and Generic 3 System Description,* 555-230-200, Chapter 12, "Environmental Requirements." For information about electrical requirements see Chapter 13, "Power and Grounding."

The G3vs Control Cabinet

G3vs uses the same universal port hardware used by DEFINITY G3i. The G3vs is housed in a wall-mounted compact single-carrier cabinet (CSCC). The hardware for G3vs consists of the following:

- A new G3vs wall-mounted cabinet. The wall-mounted compact single carrier cabinet (CSCC) has the following dimensions and requirements.

Width	26.6 inches with endcaps
Depth	13.1 inches
Height	14.1 inches
Weight	48 lbs. (22 kg) with all circuit packs in place
Minimum Wall Area[1]	The minimum recommended wall area is 40 inches (width) by 16 inches (height).
Minimum Cabinet Swing-out	The minimum distance from the wall for cabinet swing-out is 28 inches.
Wall Support Strength	The supporting wall should be able to support a minimum weight of 150 lbs.

- The reliable WP-90510 power supply
- DEFINITY port circuit packs
- The INTEL 386SX processor complex which includes the following circuit packs:

1. A total wall space of 40 inches (width) by 16 inches (height) is recommended. This will provide 8 inches of open wall space to the right of the mounting plate allowing the cabinet, when in the "open position," to be perpendicular (90°) with the wall.

   It is possible that a wall space of 32 inches by 16 inches can accommodate the cabinet. However in this case, you must ensure that there is enough room to access the circuit packs and the power supply in the cabinet.

   Additional wall space for a cross-connect field is required and is dependent upon the type of wall field hardware used.

- Processor, TN786B
- Network Control (Net Cont), TN777B
- Memory Cards, J58890TG
- Processor Interface TN765
- Various Tone Clocks — TN768, TN780, TN756

Configuration Limitations

The DEFINITY G3vs has the same configuration rules as current DEFINITY products except for the following:

- The G3vs is a one cabinet system and does not support extension of the TDM bus to additional port carriers or cabinets.
- The G3vs is only available in one configuration: standard reliability (a simplex system, single carrier with no duplication).
- G3vs does not support ISDN-BRI, ASAI, or the LAN bus.
- G3vs does not support memory expansion.
- G3vs only supports 120 VAC in North America. Outside North America, G3vs supports 120-240 VAC as required.

Accessory Power

The rear Auxiliary connector will only provide accessory power for the following hardware:

- one attendant console (3 additional consoles can be powered by separate adjunct power units such as the MSP-1 or 1145)
- one emergency transfer panel

Port Network Facilities

The G3vs cannot be configured as and does not support an EPN.

The G3vs control carrier is shown in the next figure:

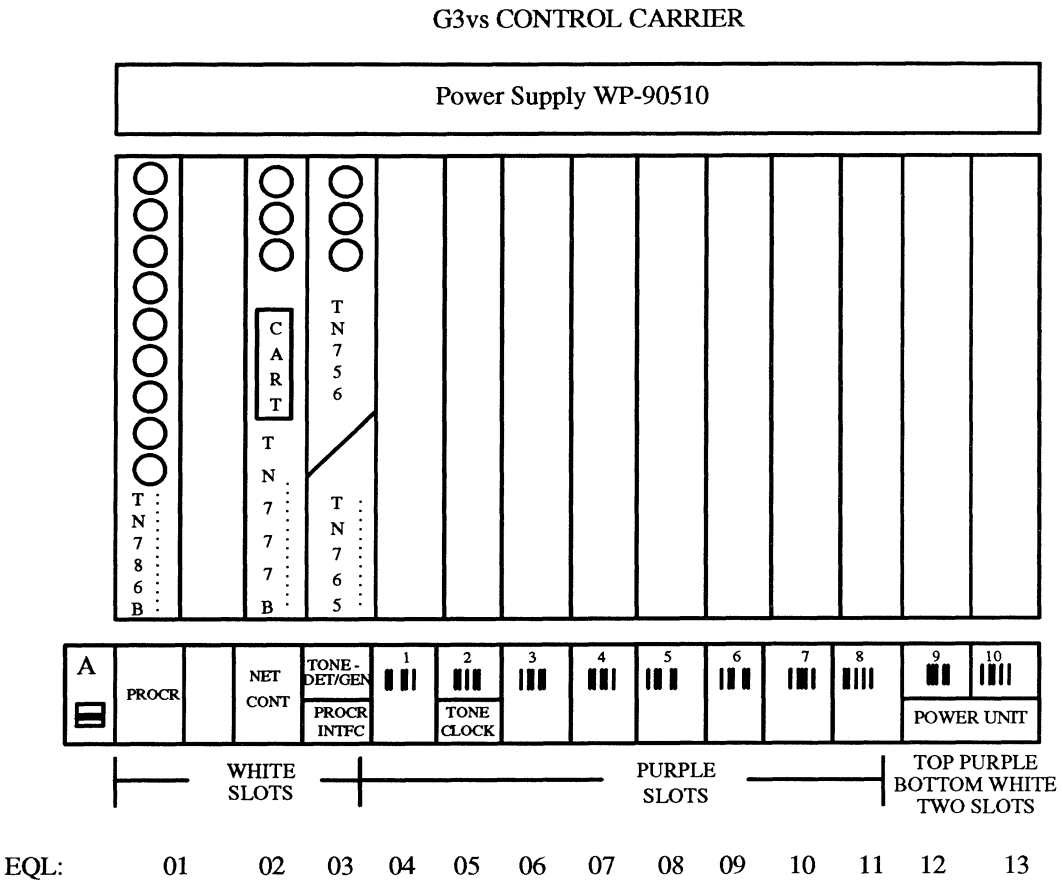

Figure 1-1. DEFINITY G3vs Control Carrier

Table 1-1. Cabinet Circuit Pack Position

DESCRIPTION	CIRCUIT PACK	CARRIER LABEL	PHYSICAL SLOT
PROCESSOR	TN786B	PROCR	01
NETWORK CONTROL	TN777B	NET CONT	02
PROCESSOR INTERFACE	TN765	PROCR INTFC (optional)	03
TONE-CLOCK	TN768/780	TONE DET-GEN/TONE-CLOCK (optional)	05
TONE DETECTOR/GENERATOR	TN756	TONE DET-GEN/TONE-CLOCK (optional)	03 or 05
UNIVERSAL PORT SLOTS			04-13
POWER UNIT (Neon)	TN755	POWER UNIT	12-13
POWER SUPPLY	WP-90510	POWER SUPPLY (AC Version)	separate chassis

NOTE:
Tone-Clock circuit pack TN768 or TN780, is placed in the Tone-Clock slot (port slot 2). Also if your system uses a Processor Interface and a Tone Detector/Generator TN756, then the Tone Detector/Generator is placed in the Tone-Clock slot (port slot 2) and the Processor Interface in the Processor Interface slot.

Use of the Processor Interface/Tone Detector is optional as is use of the Tone Clock.

DEFINITY AUDIX TN566 and TN2169 circuit packs are placed in port slots 7 through 10, (EQL 10-13). To minimize the number of slots the assembly occupies, the G3vs cabinet has been designed to accommodate DEFINITY AUDIX® in only four slots where as in other DEFINITY cabinets it uses five.

The TN755 Power Supply is not supported for use outside of North America.

Control Circuit Packs

The following control circuit packs are provided with the DEFINITY G3sv Control Cabinet.

Processor Circuit Pack (TN786B)

Manages control of the entire system and executes stored programs to perform call processing activity and maintenance. This processor also contains 7 MB of Flash ROM memory for the system generic program and 4 MB of DRAM memory for customer translations. Provides alarm LEDs for system status; monitors and controls circuit pack conditions; provides direct access to the G3-MT terminal. An asynchronous (1200/2400 bps) modem originates alarms to the remote maintenance system at the INADS and allows remote technicians to run

maintenance and administrative commands. Provides an interface to a CDR output device. Controls the emergency transfer operation and monitors the environmental sensor and control leads for a single processor operation. Provides external alarm closure.

Processor Interface Circuit Pack (TN765)

The Processor Interface circuit pack provides four data links to the TDM bus and a link through the memory bus to the processor. This circuit pack provides an interface to the DCS[2], ISDN[3], AUDIX, and CMS Interface service and allows direct access to one data link from an EIA port on the circuit pack (AC simplex systems only). The remaining data links connect to a digital line circuit and a processor or trunk data module to access a DCS, CMS, ISDN, or AUDIX application. Data links can connect to DS-1 tie trunks to access DCS or ISDN applications. Terminates BX.25 and ISDN (LAPD) protocols. A G3vs system supports one PI circuit pack, providing four data links.

Network Control Circuit Pack (TN777B)

The Network Control circuit pack provides the following functions:

- Communicates control channel messages between the processor circuit pack and the distributed network of port circuit packs on the TDM bus.
- Controls the four data channels that process and route information directly from the processor circuit pack to customer connected equipment. Some of the possible equipment connections are Call Detail Recording (CDR) devices, a system printer, an on-premises remote pooled modem or administration terminal, or an off-premises administration terminal. Some of these connections require an MPDM or a MTDM.
- Provides the time of day clock with battery back-up for power failure or low voltage conditions. This circuit pack also provides the system with a 24-hour clock used with record keeping and system maintenance.
- Monitors the status of the system clocks and alerts the processor circuit pack in the event of a failure of any clock.
- Handles all the control channel messages.
- Contains the interface for the DEFINITY memory cards.

  Customer translations are on the white label DEFINITY memory card that is inserted in the TN777B circuit pack and read into DRAM on the TN786B.
- Contains the +12 volt power supply needed for the TN786B circuit pack, memory card, and the TN777B Flash programming.

2. DCS and ISDN are only available with the PBP option; see the software section of this addendum for more information.
3. Same as above.

Tone Detector/Generator Circuit Pack (TN756)

This circuit pack provides four touch-tone receiver and two general purpose tone receivers that detect call progress tones, modem answer-back tones, transmission test tones, and noise. The TN756 provides additional tone detection capability required for Automatic Route Selection (ARS), Off-Premises (out of building) Keyboard Dialing, and Off-Premises Abbreviated Dialing. The TN756 tone generator must be replaced with a tone clock (TN768, TN780) and a tone Detector (TN748D) when the system supports DS1 (TN767, TN464, etc.) or OCM or the system requires certain country specific tones.

Tone-Clock Circuit Pack (TN768 [optional][4])

The TN768 supplies call progress tones, touch tones, answer-back tones, and trunk transmission test tones; provides 2-megahertz (MHz), 160-kilohertz (kHz), and 8-kilohertz (kHz) clocks. This circuit pack can transmit the system clock and tones on either the TDM bus A, TDM bus B, or both TDM bus A and TDM bus B. This tone-clock circuit pack contains a ring voltage alarm detection circuit.

Tone-Clock Circuit Pack (TN780 [optional][5])

This tone-clock circuit pack allows connection to an external Stratum 3 Synchronizer via the cross-connect field and provides tones required in certain countries and monitors the health of the Stratum 3 Synchronizer via the tip/ring field. In addition, the TN780, performs all the functions of the TN768 Tone-Clock circuit pack— supplying call progress tones, touch tones, answer-back tones, and trunk transmission test tones; providing 2-megahertz (MHz), 160-kilohertz (kHz), and 8-kilohertz (kHz) clocks. This circuit pack can transmit the system clock and tones on either the TDM bus A, TDM bus B, or both TDM bus A and TDM bus B.

Power Supply

The following sections describe the power supply facilities for the G3vs switch.

Power Supply Circuit Pack (WP-90510)

The power supply used in DEFINITY G3vs, WP-90510 has a total power capacity of 300W. It operates with variable phase and voltage input between 90 to 132 VAC or 180 to 264 VAC between 47 and 63Hz. Each voltage output has a separate overload protection that requires manual reset (power cycling) of the power supply if overloaded.

4. The TN756 Tone Detector/Generator is used in the basic system. If a DS-1 Interface is in the system then a TN768 Tone-Clock is required. If a Stratum 3 is in the system then a TN780 Tone-Clock is required.
5. same as previous note

Functional Arrangements

The figure below shows the functional arrangement of the DEFINITY Generic 3vs communications switch using the Time Division Multiplex (TDM) bus to switch both voice and data.

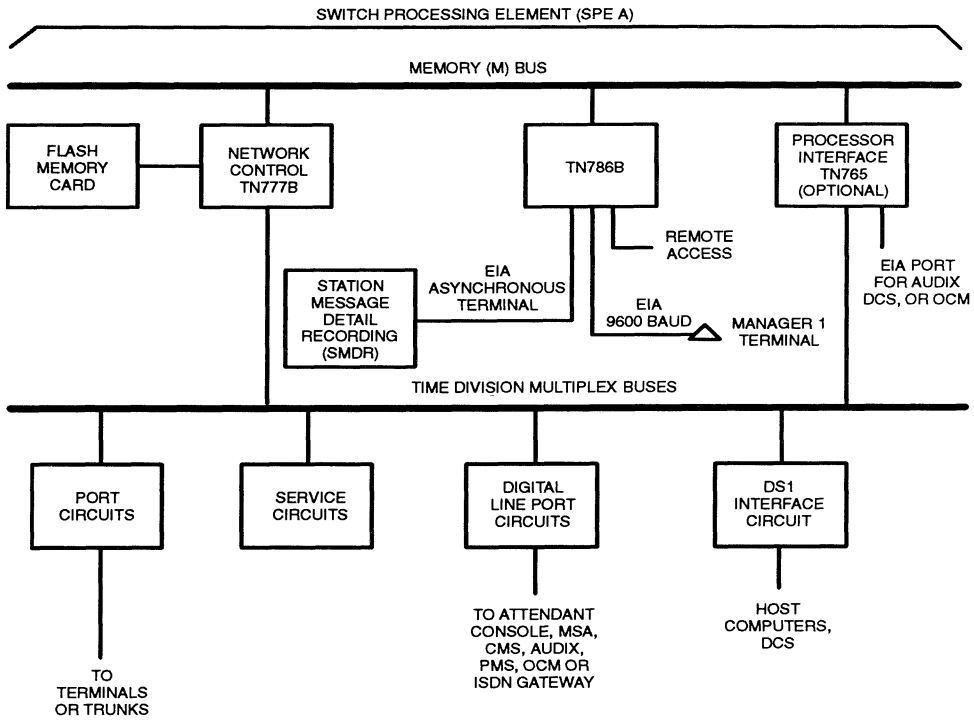

Figure 1-2. Basic Communications Switch

Generic 3vs Software Description

G3vs is available in different versions; the Advantage Business Package option (ABP) and the Premier Business Package option (PBP).

Advantage Business Package (ABP)

The Advantage Business Package option is a subset of the G3i software[6]. For information regarding specific features, see the parameters table at the end of this section. The options available with the ABP package are listed below. The features which each option provides is listed within each section.

Authorization Codes Option

This option provides the Authorization Codes feature.

NOTE:
Automatic Route Selection (ARS) Option is required with the Authorization Codes Option.

Automatic Route Selection (ARS) Option

This option provides the Automatic Route Selection feature.

Basic Call Center Option

This option provides the following features:

- System Measurements Reports
- Automatic Call Distribution
- Basic Call Management System (BCMS)

System Measurements Option

This option provides the following primary features:

- System Measurements
- Traffic Reports

If the Basic Call Center Option, shown above, is selected, the System Measurements Option is automatically provided.

6. High or critical reliability, ISDN-BRI, CallVisor ASAI Adjuncts, SCC port cabinets and EPNs are not supported. See the hardware section of this addendum for more information.

NOTE:
The security violations measurements are available with the Advantage Business Package, even when the system is configured without the System Measurements Option or the Basic Call Center Option.

Voice Mail Option

Voice Mail provides the following two features:

- Leave Word Calling
- Linked Call Coverage Paths

This option requires using one of the following AT&T voice processing adjuncts:

- AUDIX
- AUDIX Voice Power™
- AUDIX Voice Power Lodging
- DEFINITY AUDIX

Premier Business Package (PBP)

The Premier Business Package option is an enhanced version of the Advantage Business Package option[7]. The Premier Business Package option includes all the standard ABP features and several additional features that are optional or not available with ABP. The following features are included with the Premier Business Package.

- Administered Connections
- Leave Word Calling
- Linked Call Coverage Paths
- System Measurements

The following is a list of optional features available with the Premier Business Package option.

- Abbreviated Dialing Enhanced Number List
- Automatic Call Distribution (ACD)
- Answer Supervision by Call Classifier
- Automatic Route Selection (ARS)

7. PBP provides the same set of features and options as G3i with reduced capacity. See the system parameters table for more information at the end of this section. Also high or critcal reliability, ISDN-BRI, CallVisor ASAI Adjuncts, EPNs and SCC port cabinets are not supported. See the hardware section of this addendum for more information.

- ARS/AAR Partitioning
- Authorization Codes
- Basic Call Management System (BCMS)
- Call Prompting
- Call Work Codes
- Call Vectoring
- Centralized Attendant Service (CAS)
- Calling Party Number/Billing Number (CPN/BN) Adjunct
- Call Management System (CMS)
- Distributed Communication System (DCS)
- Forced Entry of Account Codes
- Integrated Services Digital Network-Primary Rate Interface (ISDN-PRI)
- Lookahead Interflow
- Private Networking
- Service Observing
- System Measurements
- Time of Day Routing (TDR)
- Uniform Dialing Plan (UDP)

For additional information regarding specific features, see the parameters table at the end of this section or the *DEFINITY Communication System Generic 1 and Generic 3 Feature Description*, 555-230-201.

System Capacities

The following table compares the maximum system capacities for the following DEFINITY Communications System configurations: G1, G3vs Advantage Business Package (ABP) and Premier Business Package (PBP), and the G3i ABP and PBP.

Customers outside of North America should read the G3vs PBP column for accurate capacity information.

Table 1-2. System Capacities for Hardware and Software Items

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Abbreviated Dialing (AD)						
AD Lists Per System	1,600	200	200	200	200	1,600
AD List Entry Size	24	24	24	24	24	24
AD Entries Per System	8,000	2,000	2,000	2,000	2,000	10,000
Enhanced List (System List)	1	NA	1	NA	1	1
Maximum entries	1,000	NA	1,000	NA	1,000	1,000
Group Lists	100	100	100	100	100	100
Maximum entries	90	90	90	90	90	90
Group lists/extension	3	3	3	3	3	3
System List	1	1	1	1	1	1
Maximum entries	90	90	90	90	90	90
Personal Lists	1,600	200	200	200	200	1,600
Maximum entries	10	10	10	10	10	10
Personal lists/extension	3	3	3	3	3	3
Applications Adjuncts						
CallVisor ASAI Adjuncts	NA	NA	NA	NA	NA	8
Asynchronous Links (EIA 232C)	5	5	5	5	5	5
CDR Output Devices	2	2	2	2	2	2
Journal/System Printer	2/1	2/1	2/1	2/1	2/1	2/1
Property Management Systems	1	1	1	1	1	1
BX.25 Physical Links	8	4	4	4	4	8
Application Processors (that is, 3B2-MCS)	1	1	1	1	1	1
AUDIX™ Adjuncts	1	1	1	1	1	1
CMS Adjuncts	1	1	1	1	1	1
ICM Adjuncts						
ISDN Gateway	1	NA	1	NA	1	1
BX.25 Processor Channels	64	64	64	64	64	64
Hop Channels	64	64	64	64	64	64

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Attendant Service						
Attendant Consoles (day/night)[1]	6/1	3/1	3/1	6/1	6/1	6/1
Attendant Console 100s Groups/Attendant	20	20	20	20	20	20
Attendant Control Restriction Groups	64	64	64	64	64	64
Centralized Attendant Service						
Release Link Trunks at Branch	99	NA	99	NA	99	99
Release Link Trunk Groups at Branch	1	NA	1	NA	1	1
Release Link Trunks at Main	400	NA	100	NA	100	400
Release Link Trunk Groups at Main[2]	99	NA	32	NA	32	99
Other Access Queues						
Maximum Number of Queues	1	1	1	1	1	1
Maximum Number of Queue Slots[3]	50	30	30	30	30	50
Queue Length	30	30	30	30	30	30
Switched Loops/Console	6	6	6	6	6	6
ARS/AAR						
AAR Patterns	254	NA	40	NA	40	254
ARS Patterns	254	20	40	20	40	254
ARS/AAR Table Entries (NPA, NXX, RXX, HNPA, FNPA)	NA	2,000	2,000	2,000	2,000	2,000
Choices per RHNPA Table	12	12	12	12	12	12
Digit Conversion Entries	180	300	300	300	300	300
ARS/AAR Digit Conversion						
Digits Deleted for ARS/AAR	NA	18	18	18	18	18
Digits Inserted for ARS/AAR	NA	18	18	18	18	18
ARS/AAR Subnet Trunking[4]						
Digits Deleted for ARS/AAR	NA	23	23	23	23	23
Digits Inserted for ARS/AAR	NA	36	36	36	36	36
Entries in HNPA & RHNPA Tables	800	1,000	1,000	1,000	1,000	1,000
FRLs	8	8	8	8	8	8
Inserted Digit Strings[5]	NA	450	450	450	450	1,200
Patterns for Measurement						
Shared Patterns for Measurement	20	20	20	20	20	20
RHNPA Tables	32	32	32	32	32	32
Routing Plans	8	8	8	8	8	8
Toll Tables	4	32	32	32	32	32
Entries per Toll Table	800	800	800	800	800	800
Trunk Groups in an ARS/AAR Pattern	6	6	6	6	6	6
UDP (Entries)	240	NA	240	NA	240	240
TOD Charts	8	8	8	8	8	8

1. There can be four consoles if there are no night consoles. Three of the four must be powered by adjunct power.
2. The number of release link trunk groups at Main is the same as the number of trunk groups in the system.
3. "Maximum number of queue slots" is referred to as "emergency access queue length" in G3i.
4. Up to seven interchange carrier digits are available.
5. This is the number of available 12-character inserted-digit-strings available for AAR/ARS preferences.

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
CallVisor ASAI						
Active Controlling Associations	NA	NA	NA	NA	250	2,000
Call Controllers per Call	NA	NA	NA	NA	1	1
Call Monitors per Call	NA	NA	NA	NA	14	14
Extension Controllers per Station Domain	NA	NA	NA	NA	2	2
Maximum Simultaneous Call Classifiers	NA	NA	NA	NA	40	40
Number of ASAI Links	NA	NA	NA	NA	4	8
Notification Requests	NA	NA	NA	NA	50	170
Simultaneous Active Adjunct Controlled Calls	NA	NA	NA	NA	75	300
Switch to Adjunct Associations	NA	NA	NA	NA	127	127
Authorization						
Authorization Codes	5,000	1,500	1,500	1,500	1,500	5,000
Classes of Restriction	64	64	64	64	64	64
Classes of Service	16	16	16	16	16	16
Length of Authorization Code	4–7	4–7	4–7	4–7	4–7	4–7
Length of Barrier Code	4–7	4–7	4–7	4–7	4–7	4–7
Length Forced Entry Account Codes	1–15	NA	1–15	NA	1–15	1–15
Restricted Call List	NA	1	1	1	1	1
Remote Access Barrier Codes	10	10	10	10	10	10
CDR Forced Entry Account Code List	1	NA	1	NA	1	1
Toll Call List	NA	1	1	1	1	1
Unrestricted/Allowed Call Lists	1	10	10	10	10	10
Total Call List Entries	10	1,000	1,000	1,000	1,000	1,000
Automatic Callback Calls	160	20	20	20	20	160
Automatic Wakeup						
Simultaneous Display Requests	10	10	10	10	10	10
Wakeup Requests per System	1,600	200	200	200	200	1,600
Wakeup Request per Extension	1	1	1	1	1	1
Wakeup Requests per 15 min. Interval	200	150	150	150	150	300
Basic CMS						
Daily Summary Reports	7	7	7	7	7	7
Measured Agents	30	75	75	75	75	200
Measured Splits	30	12	24	12	24	99
Measured Trunk Groups	32	16	32	16	32	99
Measured VDNs	NA	NA	24	NA	24	99
Reporting Periods (30 or 60 minutes)	25	25	25	25	25	25

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Call Appearances						
Bridged Images/Appearance	7	7	7	7	7	7
Call Appearances/Station[6]	54	54	54	54	54	54
Maximum Appearances per Extension	10	10	10	10	10	10
Minimum Appearances per Extension	2	2	2	2	2	2
Total Bridged Appearances	1,600	200	200	200	200	1,600
Maximum Simultaneous Off-Hook per Call[7]	5	5	5	5	5	5
Cabinets						
EPN						
MCC	1	NA	NA	NA	NA	2
SCC	4	NA	NA	NA	NA	8
Small (Upgrades only)[8]	1	NA	NA	NA	NA	2
Inter-Port Network Connectivity						
Port Networks	2	1	1	1	1	3
PPN						
MCC[9]	1	NA	NA	NA	NA	1
SCC/Enhanced Control Cabinet	4	NA	NA	4	4	4
CSCC	NA	1	1	NA	NA	NA
Remote Port Network	1	NA	NA	NA	NA	2
Call Coverage						
Coverage Answer Groups (CAGs)	200	30	30	30	30	200
Coverage Paths	600	150	150	150	150	600
Coverage Paths Included in Call Coverage Report	NA	100	100	100	100	100
Coverage Path per Station	4	4	4	4	4	4
Coverage Points in a Path	3	3	3	3	3	3
Maximum Users/Coverage Path[10]	2,900	500	500	500	500	2,900
Members per CAG	8	8	8	8	8	8

6. The number of call appearances is the sum of the primary and bridged appearances; at most 10 can be primary.
7. Does not apply to conferencing.
8. Small systems refer to the 2-carrier cabinet systems that are no longer sold to new customers.
9. MCC includes Medium Cabinet.
10. Maximum number of users per coverage path equals the number of dial plan extensions (which includes hunt groups, TEGs, and so on).

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Call Detail Recording						
CDRU Trackable Extensions	1,600	200	200	200	200	1,600
Intra-Switch Call Trackable Extensions	NA	100	100	100	100	100
Number of CDRUs/System[11]	1	1	1	1	1	1
Call Forwarding (Follow-me)						
Call Forwarded Digits (off-net)	16	16	16	16	16	16
Call Forwarded Numbers	1,600	200	200	200	200	1,600
Call Park						
Attendant Group Common Shared Extension Numbers	10	10	10	10	10	10
Number of Parked Calls	482	180	180	180	180	723
Call Pickup Groups						
Call Pickup Members/Group	50	50	50	50	50	50
Call Pickup Members/System	1,600	200	200	200	200	1,600
Number of Groups	800	100	100	100	100	800
Call Vectoring/Call Prompting						
Multiple Splits for Agent Logins	NA	NA	3	NA	3	3
Priority Levels	NA	NA	4	NA	4	4
Recorded Announcement	128	NA	128	NA	128	128
Steps per Vector	NA	NA	15	NA	15	15
Vector Directory Numbers	NA	NA	100	NA	100	500
Vectors per System	NA	NA	48	NA	48	256
Conference Parties	6	6	6	6	6	6
Simultaneous 3-way Conference Calls[12]	322	161	161	161	161	483
Simultaneous 6-way Conference Calls[13]	160	80	80	80	80	240
Data Parameters						
Administered Connections	NA	NA	24	NA	24	128
Permanent Switched Call	18	NA	NA	NA	NA	NA
Alphanumeric Dialing						
Maximum Entries	NA	50	50	50	50	200
Characters/Entry	NA	22	22	22	22	22
Digital Data Endpoints	800	75	75	75	75	800

11. The CDRU adjunct capacity is 40,000 calls per hour, and it exceeds the system call capacity for all listed systems.
12. Simultaneous 3-way Conference Call = (483 / 3)* number PNs.
13. Simultaneous 6-way Conference Call = (483 / 6)* number PNs.

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Dial Plan						
DID LDNs	8	8	8	8	8	8
Extensions[14]	2,500	500	500	500	500	2,900
Extension Number Portability[15]	240	NA	240	NA	240	240
Feature Dial Access Codes						
Number of Access Codes	70	70	70	70	70	70
Number of Digits	1–3	1–3	1–3	1–3	1–3	1–3
Integrated Directory Entries[16]	1,607	204	204	207	207	1,607
Maximum Extension Size	5	5	5	5	5	5
Minimum Extension Size	1	1	1	1	1	1
Miscellaneous Extensions[17]	900	150	150	150	150	900
Names						
Number of names[18]	3,406	448	464	448	464	3,406
Number of characters in a name	15	15	15	15	15	15
Non-DID LDNs	50	50	50	50	50	50
Prefix Extensions	Yes	Yes	Yes	Yes	Yes	Yes
Trunk Dial Access Codes						
Number of Access Codes	197	105	105	105	105	197
Number of digits	1–3	1–3	1–3	1–3	1–3	1–3
Do Not Disturb (DND)						
DND Requests per System	1,600	200	200	200	200	1,600
Simultaneous Display Requests	10	10	10	10	10	10
Facility Busy Indicators						
Buttons per Tracked Resource	100	100	100	100	100	100
Number of Indicators (Station & Trunk Groups)	2,400	450	450	450	450	2,400
Hunt Groups or Splits						
Announcements per Group	2	2	2	2	2	2
Announcements per System	64	128	128	128	128	128
Groups and/or Splits	99	12	24	12	24	99
Group Members per Group/Split	200	150	150	150	150	200
Group Members per System	500	150	150	150	150	500
Measured ACD Agents (Switch Limits)						
Agents Logged in per System	400	75	75	75	75	400
Logged-In Splits per Agent	3	3	3	3	3	3
ACD Supervisor Assist Per System[19]	99	12	24	12	24	99
Queue Slots per Group	200	200	200	200	200	200
Queue Slots per System	1,000	200	200	200	200	1,000

14. Extensions include stations, data endpoints, hunt groups, announcements, TEGs, VDNs, common shared extensions and code calling ids.
15. The numbers shown in "Extension Number Portability" are Uniform Dialing Plan (UDP) entries.
16. Integated Directory Entries = station + attendant consoles.
17. Used for PCOL groups, common shared extensions, access endpoints, administered TSCs, code calling ids, VDNs, LDNs, hunt groups, announcements, and TEGs.
18. Number of Names = number of stations + attendant consoles + trunk groups + digital data endpoints + miscellaneous extensions.
19. One supervisor assist per split.

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Intercom Translation Table (ICOM)						
Automatic/Manual and Dial						
ICOM groups per system	32	10	10	10	10	32
Auto/Manual	32	16	16	16	16	32
Dial	32	16	16	16	16	32
Members per ICOM group						
Auto	32	32	32	32	32	32
Dial	32	32	32	32	32	32
Members per System	1,024	320	320	320	320	1,024
MLDN						
Via DID	8	8	8	8	8	8
Via CO	50	50	50	50	50	50
Last Number Dialed						
Entries/System[20]	2,400	275	275	275	275	2,400
Number of Digits	16	16	16	16	16	16
Leave Word Calling (Switch-Based)						
Messages Stored[21]	2,000	450	450	450	450	2,000
Messages per User	10	10	10	10	10	10
Remote Message Waiting Indicators						
Per Extension	80	80	80	80	80	80
Per System	80	80	80	80	80	80
Simultaneous Message Retrievers	60	60	60	60	60	60
System-wide Message Retrievers	10	10	10	10	10	10
Modem Pool Groups						
Mode 2/Analog						
Group members per system	160	64	64	64	64	160
Number of groups	5	2	2	2	2	5
Members per group	32	32	32	32	32	32
Networking						
CAS Nodes	99	NA	99	NA	99	99
DCS Nodes						
BX.25 (Traditional)	20	NA	20	NA	20	20
ISDN PRI	NA	NA	20	NA	20	20
Hybrid (Integrated)	NA	NA	20	NA	20	20
UDP Nodes	240	NA	240	NA	240	240
Personal CO Lines (PCOL)						
PCOL Appearances	4	4	4	4	4	4
PCOL Lines (Trunk Groups)	40	15	15	15	15	40
PCOL Trunks Per Trunk Group	1	1	1	1	1	1

20. Last Number Dialed Entries = Stations + Digital Data Endpoints.

21. Leave Word Calling is available in the G3s ABP only if the AT&T Voice Mail Application Support Option is purchased.

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Paging						
Code Calling IDs	125	125	125	125	125	125
Loudspeaker Zones	9	9	9	9	9	9
Port Circuit Pack Slots[22]						
Per EPN						
MCC Simplex	99	NA	NA	NA	NA	99
MCC Duplex	98	NA	NA	NA	NA	98
SCC Simplex	71	NA	NA	NA	NA	71
SCC Duplex	70	NA	NA	NA	NA	70
Small Cabinet Simplex (Upgrade only)	39	NA	NA	NA	NA	39
Small Cabinet Duplex (Upgrade only)	38	NA	NA	NA	NA	38
Per PPN						
ESCC Simplex	NA	NA	NA	70	70	NA
MCC Simplex	89	NA	NA	NA	NA	89
MCC Duplex	78	NA	NA	NA	NA	78
SCC Simplex	64	NA	NA	NA	NA	64
SCC Duplex	56	NA	NA	NA	NA	56
CSCC Simplex	NA	10	10	NA	NA	NA
Recorded Announcements						
Analog Queue Slots per Announcement	150	50	50	50	50	150
Analog Queue Slots per System	150	50	50	50	50	150
Calls Connected per Announcement						
Integrated Announcement	5	5	5	5	5	5
Analog Port	5	5	5	5	5	5
Channels per Integrated Announcement Circuit Pack	16	16	16	16	16	16
Integrated Announcement Circuit Pack	1	1	1	1	1	1
Integrated Announcement Recording Time (Min:Sec)						
16 kB recording	NA	8:32	8:32	8:32	8:32	8:32
32 kB recording	4:16	4:16	4:16	4:16	4:16	4:16
Integrated Queue Slots per System	50	50	50	50	50	50
Recorded Announcements	64	128	128	128	128	128
System Administration						
Admin History File Entries	250	50	50	50	50	250
Simultaneous Administration Command	1	1	1	1	1	1
Simultaneous Maintenance Command	1	1	1	1	1	1
Simultaneous SM Sessions	5	3	3	3	3	5
Printer Queue Size	50	50	50	50	50	50

22. Only port slots are included in this count. For example, there are 99 port slots per MCC EPN cabinet of which one is dedicated for the Tone/Clock circuit pack. There may be other service circuits required which would further reduce the number of port slots available.

    In G3i carriers, a 21st slot may be equipped with service boards that do not require tip and ring connections.

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Speech Synthesis Circuit Packs	6	6	6	6	6	6
Channels per Speech Circuit Pack	4	4	4	4	4	4
Terminating Extension Groups (TEGs)						
TEGs	32	32	32	32	32	32
Users That May Share a TEG	4	4	4	4	4	4
Time Slots						
Simultaneous Circuit Switched Calls	482	180	180	180	180	723
Total Slots	1,024	512	512	512	512	1,536
Time Slots for Voice & Data[23]	966	483	483	483	483	1,449
Time Slots per Port Network	512	512	512	512	512	512
Tone Classifiers						
Call Classifier Circuit Packs	NA	NA	10	NA	10	10
Call Progress/Touch Tone Receivers	NA	NA	80	NA	80	80
Tone Detector Circuit Packs	20	10	10	20	20	20
General Purpose Tone Detectors	40	20	20	40	40	40
Touch-Tone Receivers	80	40	40	80	80	80
TTR Queue Size	4	4	4	4	4	4
Trunks						
DS1 Circuit Packs	30	8	8	8	8	30
Queue Slots for Trunks	198	32	64	32	64	198
PRI Interfaces via Processor Interface[24]	8	NA	4	NA	4	8
PRI Temporary Signalling Connections						
TSCs in System	NA	NA	164	NA	164	656
Call Associated TSCs	NA	NA	100	NA	100	400
Non Call Associated TSCs	NA	NA	64	NA	64	256
Administered TSCs	NA	NA	32	NA	32	128
Ringback Queue Slots	120	120	120	120	120	120
Total PRI Interfaces[25]	8	NA	4	NA	4	8
Trunk Groups in the System	99	16	32	16	32	99
Trunk Members in a Trunk Group	99	50	99	50	99	99
Trunks in System (incl. Remote Access)	400	50	100	50	100	400

23. 483 time slots for voice and data per port network.

24. Only one PI circuit pack is supported in the G3vs/G3s configuration (Enhanced Control Cabinet), and therefore a total of four physical links (used for BX.25 or PRI) is available.

25. In the G3i configuration, two PI circuit packs can be supported in the MCC, and therefore a total of eight physical links (used for BX.25 or PRI) are available. Since the SCC and Enhanced Control Cabinet can only support one PI circuit pack, a total of four physical links (used for BX.25 or PRI) is available in the G3i SCC, G3vs CSCC, and G3s ESCC configurations.

Table 1-2. System Capacities for Hardware and Software Items *(continued)*

Item	G1	G3vs		G3s		G3i
		ABP	PBP	ABP	PBP	
Voice Terminals						
Associated Data Modules (for example, DTDMs)	800	75	75	75	75	800
BRI Stations[26]	NA	NA	NA	50	50	1,000
Digital Stations[27]	712	80	80	200	200	1,600
Stations[28]	1,600	200	200	200	200	1,600
Station Button Capacity (K Units)[29]	NA	68.4	68.4	68.4	68.4	547.2

26. All BRI stations can be display stations.

27. All digital stations can be 7406D stations with display. The 80 station limit for G3vi has been set due to power limitations.

28. The maximum line and station capacities for G3vs system are actually software capacities. These capacities are limited by the hardware design of the G3vs CSCC, which provides ten Universal Port Slots to accomodate stations and trunks. A typical G3vs customer configuration includes up to 80 stations and 24 trunks.

29. "Station Button Capacity (K units)" replaces "Maximum Button Modules" (from pre-G3i).
    The following examples show how these units can be used. The assumption is that only three call appearances are assigned to the sets (except analog sets which have no call appearances).

    - Analog sets (for example 7104A): G3s, G3i = 62 units
    - Digital sets with 10 buttons (for example 7403D): G3s, G3i = 102 units
    - Digital sets with 34 buttons, without display (for example 7405D): G3s, G3i = 342 units
    - Digital sets with 34 buttons, with display (for example 7405D): G3s, G3i = 472 units
    - BRI sets with 17 buttons, with display (for example 7506D): G3s, G3i = 250 units

    The station button capacity can support all stations equipped as digital sets with 34 buttons, without display (for example 7405D), or all 7406D with display. For example, a total of (342 × 200) units = 68,400 units for G3vs.

Index