

Lucent Technologies
Bell Labs Innovations



DEFINITY ONE™ Communications System

Release 1.0

Installation and Upgrades

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Notice

Every effort was made to ensure that the information in this book was complete and accurate at the time of printing. However, information is subject to change.

Your Responsibility for Your System's Security

Toll fraud is the unauthorized use of your telecommunications system by an unauthorized party, for example, persons other than your company's employees, agents, subcontractors, or persons working on your company's behalf. Note that there may be a risk of toll fraud associated with your telecommunications system and, if toll fraud occurs, it can result in substantial additional charges for your telecommunications services.

You and your system manager are responsible for the security of your system, such as programming and configuring your equipment to prevent unauthorized use. The system manager is also responsible for reading all installation, instruction, and system administration documents provided with this product in order to fully understand the features that can introduce risk of toll fraud and the steps that can be taken to reduce that risk. 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.

Lucent Technologies Fraud Intervention

If you *suspect that you are being victimized* by toll fraud and you need technical support or assistance, call Technical Service Center Toll Fraud Intervention Hotline at 1 800 643-2353 or contact your local Lucent representative.

Federal Communications Commission Statement

Part 15: Class A Statement. This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio-frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference, in which case the user will be required to correct the interference at his own expense.

Part 68: Network Registration Number. This equipment is registered with the FCC in accordance with Part 68 of the FCC Rules. It is identified by FCC registration number AS593M-13283-MF-E. Refer to "Federal Communications Commission Statement" in "About This Book" for more information regarding Part 68.

Canadian Department of Communications (DOC)

Interference Information

This digital apparatus does not exceed the Class A limits for radio noise emissions set out in the radio interference regulations of the Canadian Department of Communications.

Le Présent Appareil Numérique n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de la class A prescrites dans le reglement sur le brouillage radioélectrique édicté par le ministère des Communications du Canada.

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For additional documents, refer to the section in "About This Book" entitled "Related Documents."

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European Union Declaration of Conformity

The "CE" mark affixed to the DEFINITY ONE equipment described in this book indicates that the equipment conforms to the following European Union (EU) Directives:

- Electromagnetic Compatibility (89/336/EEC)
- Low Voltage (73/23/EEC)
- Telecommunications Terminal Equipment (TTE) i-CTR3 BRI and i-CTR4 PRI

For more information on standards compliance, contact your local distributor.

Comments

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Acknowledgment

This document was prepared by Product Documentation Development, Lucent Technologies, Denver, CO.

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About This Book

This document provides procedures to install, upgrade, or make additions to a DEFINITY ONE™ Communications System (hereafter referred to as DEFINITY ONE), using the compact modular cabinet (CMC) with the TN795 circuit pack.

This document is intended for use by trained installation technicians who have Windows NT and local area network (LAN) training.

DEFINITY ONE is a high-functionality communications system for customers in the 25-40 line size or smaller with growth potential up to 168 stations. This offer provides DEFINITY® software, INTUITY® AUDIX® messaging, and DEFINITY Site Administration (DSA) on a single hardware platform.

Conventions Used in This Book

- Circuit pack codes (such as TN763D) are shown with the minimum acceptable alphabetic suffix (like the “D” in the code TN763D).

Generally, an alphabetic suffix higher than that shown is also acceptable. However, not every vintage of either the minimum suffix or a higher suffix code is necessarily acceptable.

NOTE:

Refer to Technical Monthly: Reference Guide for Circuit Pack Vintages and Change Notices for current information about usable vintages of specific circuit pack codes (including the suffix).

The following conventions describe the systems referred to in this document.

- The word system is a general term encompassing Release 1.0 and includes references to DEFINITY ONE.
- Information in this book is applicable for Release 1.0 unless otherwise specified

- DEFINITY ONE Communications System is abbreviated as DEFINITY ONE.
- Physical dimensions in this book are in inches followed by metric centimeters (cm) in parentheses. Wire gauge measurements are in AWG followed by the cross-sectional area in squared millimeters (mm²) in parentheses.

Related Documents

As supplemental information, you may want the following documents when installing a DEFINITY ONE Release 1.0 system:

- BCS Products Security Handbook, 555-025-600
- DEFINITY Enterprise Communications Server Release 7 Installation for Adjuncts and Peripherals, 555-230-125
- DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-230-502
- DEFINITY Enterprise Communications System R7 Administration for Network Connectivity 555-233-501
- DEFINITY ONE Communications System Release 1.0 Maintenance, 555-233-111
- DEFINITY ONE Communications System Release 1.0 Overview, 555-233-001
- DEFINITY Enterprise Communications Server Release 7 System Description Pocket Reference, 555-230-211
- DEFINITY Communications System and System 75 and System 85 Terminals and Adjuncts, 555-015-201
- Switch Administration for DEFINITY AUDIX, 585-300-509
- DEFINITY ONE Communications System Release 1.0 Installation Quick Reference Card, 555-233-738

How to Order Documentation

A complete list of DEFINITY ONE, DEFINITY, and AUDIX books is available in the Business Communications System Publications Catalog, 555-000-010.

You can order this document and any other documentation directly from the Lucent Technologies Business Communications System Publications Fulfillment Center at 1-317-322-6791 or toll free at 1-800-457-1235.

How to Comment on This Book

Lucent Technologies welcomes your feedback. Please fill out the reader comment card at the front of this book and return it. Your comments are of great value and help us to improve our documentation.

If the reader comment card is missing, fax your comments to 1-303-538-1741 or to your Lucent Technologies representative, and specify this document's name and number, DEFINITY ONE Communications System Release 1.0 Installation and Upgrades, 555-233-109.

Where to Call for Technical Support

	Telephone Number
Streamlined Implementation (for missing equipment)	1-800-772-5409
USA/Canada Technical Service Center	1-800-248-1234
Technical Service Center (INADS Database Administration)	1-800-248-1111
ITAC	1-303-804-3777
DEFINITY Helpline (software assistance)	1-800-225-7585
Lucent Technologies Toll Fraud Intervention	1-800-643-2353
Lucent Technologies Technical Care Center	1-800-242-2121
Lucent Technologies Corporate Security	1-800-822-9009
DEFINITY Site Administration (DSA) Domestic	1-800-242-2121
INTUITY AUDIX Helpline	1-800-242-2121
TSC Repair	1-800-242-2121
DEFINITY Maintenance and Service	1-800-242-2121
Call Accounting support	1-800-242-2121
UPS support	1-800-242-2121

Security Issues

To ensure security for customers, Lucent Technologies offers services that can reduce toll-fraud liabilities. Contact your Lucent Technologies representative for more security information.

For Software Copy Protection information, see [Chapter 9, "Troubleshooting"](#).



NOTE:

Login security is an attribute of the DEFINITY ONE Release 1.0 software.

Trademarks

This document contains references to the following Lucent Technologies trademarked products:

- AUDIX®
- CallVisor®
- DEFINITY®
- DEFINITY ONE™ Communications System
- INTUITY®

The following products are trademarked by their appropriate vendor:

- LINX™ is a trademark of Illinois Tool Works, Incorporated
- Netscape Navigator® is a registered trademark of Netscape Communications Corporation
- pcANYWHERE® is a registered trademark of Dynamic Microprocessor Associates
- Windows NT™ is a trademark, and Windows® is a registered trademark, of Microsoft Corporation.
- KeepInTouch® is a registered trademark of Paradyne Corporation
- Paradyne™ is a trademark of Paradyne Corporation
- U.S. Robotics® is a registered trademark of U.S. Robotics Corporation.

Standards Compliance

The equipment presented in this document complies with the following standards:

- ITU-T (Formerly CCITT)
- IPNS
- DPNSS
- National ISDN-1
- National ISDN-2
- ISO-9000
- ANSI
- FCC Part 15 and Part 68
- EN55022
- EN50081
- EN50082
- CISPR22
- IEC 825
- IEC 950
- UL 1459
- UL 1950
- CSA C222 Number 225
- TS001

Contact your Lucent Technologies representative for more information.

Electromagnetic Compatibility Standards

This product complies with and conforms to the following standards:

- Limits and Methods of Measurements of Radio Interference Characteristics of Information Technology Equipment, EN55022 (CISPR22), 1993
- EN50082-1, European Generic Immunity Standard
- FCC Part 15
- Australia AS3548



NOTE:

The system conforms to Class A (industrial) equipment. Voice terminals meet Class B requirements.

- Electrostatic Discharge (ESD) IEC 1000-4-2
- Radiated radio frequency field IEC 1000-4-3
- Electrical Fast Transient IEC 1000-4-4

The system conforms to the following standards:

- Electromagnetic compatibility General Immunity Standard, part 1; residential, commercial, light industry, EN50082-1, CENELEC, 1991
- Issue 1 (1984) and Issue 2 (1992), Electrostatic discharge immunity requirements IEC 1000-4-2
- Radiated radio frequency field immunity requirements IEC 1000-4-3
- Electrical fast transient/burst immunity requirements IEC 1000-4-4
- Power Harmonics IEC 61000-3-2, 1995

Anti-Static Protection



CAUTION:

When handling circuit packs or any components of a DEFINITY ONE system, always wear an anti-static wrist ground strap. Connect the strap to an approved ground such as an unpainted metal surface on the DEFINITY ONE system.

Remove/Install Circuit Packs



CAUTION:

The control circuit packs with white labels cannot be removed or installed when the power is on. The port circuit packs with gray labels (older version circuit packs had purple labels) can be removed or installed when the power is on.

Federal Communications Commission Statement

Part 68: Statement

Part 68: Answer-Supervision Signaling. Allowing this equipment to be operated in a manner that does not provide proper answer-supervision signaling is in violation of Part 68 rules. This equipment returns answer-supervision signals to the public switched network when:

- Answered by the called station
- Answered by the attendant
- Routed to a recorded announcement that can be administered by the CPE user

This equipment returns answer-supervision signals on all DID calls forwarded back to the public switched telephone network. Permissible exceptions are:

- A call is unanswered.
- A busy tone is received.
- A reorder tone is received.

Lucent Technologies attests that this registered equipment is capable of providing users access to interstate providers of operator services through the use of access codes. Modification of this equipment by call aggregators to block access dialing codes is a violation of the Telephone Operator Consumers Act of 1990.

This equipment complies with Part 68 of the FCC Rules. A label is provided on this equipment that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in devices not ringing in response to an incoming call. In most, but not all areas, the sum of RENs should not exceed 5.0. To be certain of the number of devices that may be connected to a line, as determined by the total RENs, contact the local telephone company.



NOTE:

The REN is not required for some types of analog or digital facilities.

Means of Connection (U.S.)

Connection of this equipment to the U.S. telephone network is shown in the following table.

Manufacturer's Port Identifier	FIC Code	SOC/REN/ A.S. Code	Network Jacks
Off/On Premises Station	OL13C	9.0F	RJ2GX, RJ21X, RJ11C
DID Trunk	02RV2-T	0.0B	RJ2GX, RJ21X
CO Trunk	02GS2	0.3A	RJ21X
CO Trunk	02LS2	0.3A	RJ21X
Tie Trunk	TL31M	9.0F	RJ2GX
1.544 Mbps Digital Interface	04DU9-B,C	6.0P	RJ48C, RJ48M
1.544 Mbps Digital Interface	04DU9-BN,KN	6.0P	RJ48C, RJ48M
120A2 Channel Service Unit	04DU9-DN	6.0P	RJ48C

If the terminal equipment (DEFINITY ONE system) causes harm to the telephone network, the telephone company will notify you in advance that temporary discontinuance of service may be required. But if advance notice is not practical, the telephone company will notify the customer as soon as possible. Also, you will be advised of your right to file a complaint with the FCC if you believe it is necessary.

The telephone company may make changes in its facilities, equipment, operations or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice in order for you to make necessary modifications to maintain uninterrupted service.

If trouble is experienced with this equipment, for repair or warranty information, please contact the Technical Service Center at 1-800-242-2121. If the equipment is causing harm to the telephone network, the telephone company may request that you disconnect the equipment until the problem is resolved.

It is recommended that repairs be performed by Lucent Technologies certified technicians.

The equipment cannot be used on public coin phone service or on party-line service provided by the telephone company. Connection to party line service is subject to state tariffs. Contact the state public utility commission, public service commission or corporation commission for information.

This equipment, if it uses a telephone receiver, is hearing-aid compatible.

About This Book

Federal Communications Commission Statement

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Install and Cable the Cabinet

1

This chapter describes the process you use to install and cable the cabinet in preparation for physically connecting and accessing DEFINITY ONE.

NOTE:

Physical installation of the cabinet and cabling is basically the same as the ProLogix cabinet and cabling with the exceptions of the processor interface cable (multileg cable) and the absence of the SAT terminal. Until the cabling and cabinet installation is complete, there is no need for access to any software such as SAT, etc.

This chapter is organized as follows:

- [“Check Customer’s Order” on page 1-2](#)
- [“Correct Shipping Errors” on page 1-2](#)
- [“Unpack and Inspect” on page 1-2](#)
- [“Install the System Cabinet” on page 1-6](#)
- [“Check AC Power and Ground” on page 1-12](#)
- [“Cable the System” on page 1-20](#)
- [“Install Main Distribution Frame and External Modem” on page 1-21](#)
- [“Install Equipment Room Hardware” on page 1-24](#)
- [“Set Ringing Option” on page 1-38](#)
- [“Install and Wire Telephones and Other Equipment” on page 1-40](#)
- [“Connect External Alarms and Auxiliary Connections” on page 1-52](#)
- [“Install the BRI Terminating Resistor” on page 1-55](#)
- [“Install Multi-Point Adapters” on page 1-59](#)
- [“Install Off-Premises Station Wiring” on page 1-62](#)

1 Install and Cable the Cabinet
Check Customer's Order

1-2

- ["Install Emergency Transfer Unit and Associated Telephones" on page 1-67](#)
- ["Connect Modem" on page 1-76](#)
- ["Connect Modem to Telephone Network" on page 1-75](#)
- ["Set Neon Voltage to Prevent Ring Ping" on page 1-77](#)
- ["Complete Installation" on page 1-78](#)
- ["View LEDs to Determine Power and Fan Alarm State" on page 1-78](#)

Check Customer's Order

Check the customer's order and the shipping packing lists to confirm that all equipment is present. If any equipment is missing, report this to your Lucent Technologies representative. Check the system adjuncts for damage and report all damage according to local shipping instructions.

Correct Shipping Errors

1. Red-tag all defective equipment and over-shipped equipment and return according to the nearest Material Stocking Location (MSL) instructions.
2. Direct all short-shipped reports to the nearest MSL. Contact the appropriate location for specific instructions. For streamlined implementation, call 1-800-772-5409.

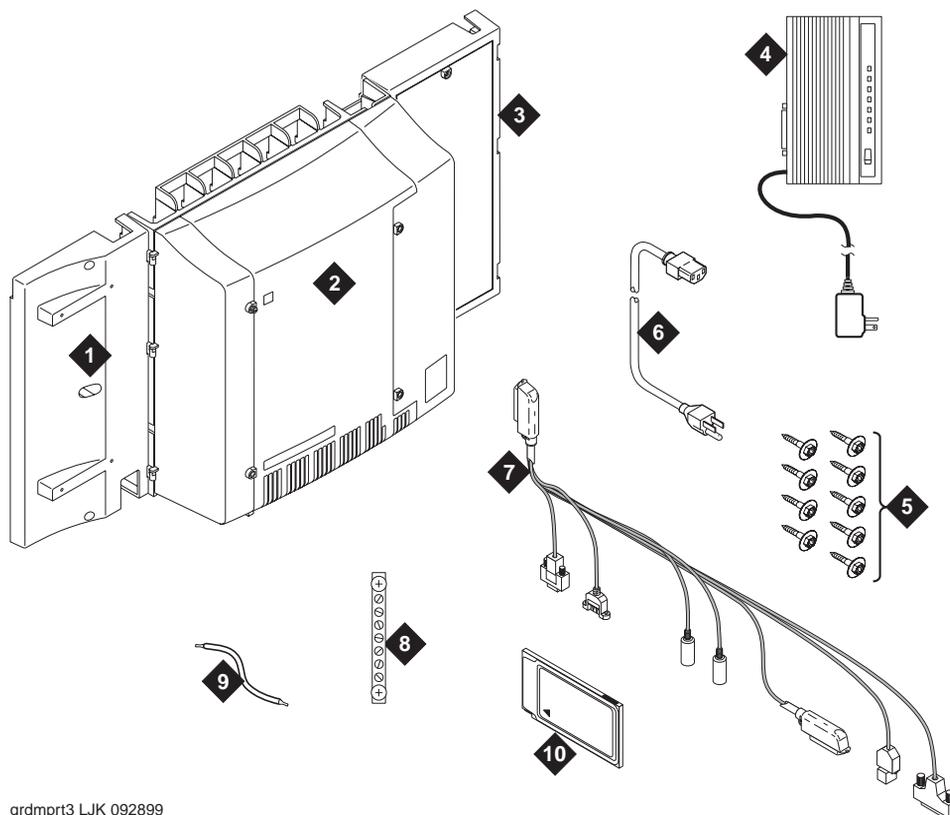
Unpack and Inspect

READ THIS FIRST!

CAUTION:

A fully loaded system weighs 58 lbs (26.3 kg). Use lifting precautions. If the doors, power unit, and circuit packs are removed, the unit weighs only 29 lbs (13.1 kg).

1. Verify the equipment received. See [Figure 1-1](#). Actual equipment may vary in appearance and may ship in separate packages.
2. Equipment comcodes are listed in [Table 1-1](#).
3. Before mounting the cabinet, remove the cabinet doors by opening them and lifting them straight up and off of the hinge pins.



qrdmprt3 LJK 092899

Figure Notes

- | | |
|---|--|
| 1. Left panel (also acts as a wall-mount <u>template</u> and as a floor mount pedestal) | 7. Processor interface cable |
| 2. CMC cabinet | 8. Single-point ground block |
| 3. Right panel | 9. 14-inch (35.5 cm) 6 AWG (#40) (16 mm ²) ground wire |
| 4. External modem (not shipped with all systems) | 10. Flash disk (backup) |
| 5. #12 x 1-inch shoulder screws | |
| 6. AC power cord (NEMA 5-15P or IEC 320) | |

Figure 1-1. Equipment Packed with the CMC Cabinet

[Table 1-1](#) lists the comcodes for equipment used with the CMC. If “Optional” is checked, this means that you may or may not need the equipment, depending on your site configuration.

1 Install and Cable the Cabinet
Unpack and Inspect

1-4

Table 1-1. Comcodes for Equipment Used with the CMC

Comcode	Description	Optional
847951662	Left Panel	
847951670	Right Panel	
847915238	Right Door	
847915246	Left Door	
601929763	Processor Interface Cable (Multileg cable)	
103557484	TN795 Processor Circuit Pack	
848320800	Hard Disk Programmed	
40763399	External Modem	X
601929920	Software CDs	
408276897	PCMCIA Ethernet Adapter Card	
408166783	Flash Disk (For Backup)	
105631527	TDM/LAN Bus Terminator (AHF110)	
706827717	Single-Point Ground Block	
H600-487	14-inch (35.5 cm) 6 AWG (#40) (16 mm ²) Green Ground Wire	
847987187	CMC 110 Cross-Connect Assembly (Main Distribution Frame) - Recommended	X
407676691	120 VAC Power Distribution Unit (145D 6-AC)	
107949364	650A Power Supply	
848082715	Fan Assembly	
407745009	Fan Air Filter	
848477634	LAN Crossover Cable (RJ45), 12-foot	
405362641	120 VAC Power Cord	
106278062	Apparatus Blank (Circuit Pack Blank) (158P)	
106606536	Integrated Channel Service Unit (ICSU) (120A2)	X
107988867	DS1 Loopback Jack (T1 Only) (700A)	X
107152969	75 Ohm DS1 Coaxial Adapter (888B)	X
403613003	157B Connecting Block ("sneak current protectors")	X
406948976	6SCP-110 Protector	X

Continued on next page

1 Install and Cable the Cabinet
Unpack and Inspect

1-5

Table 1-1. Comcodes for Equipment Used with the CMC — *Continued*

Comcode	Description	Optional
107435091	507B Sneak Current Fuse Panel	X
407216316	220029 Sneak Current Fuse	X
103970000	Main Distribution Frame Label (Code 220A)	X
104307327	C6C cable — 50-foot (15.2 m) shielded DS1 cable with 50-pin male to 15-pin male	X
104307376	C6D cable — 50-foot (15.2 m) shielded DS1 cable with 50-pin male on each end	X
104307434	C6E cable — 100-foot (30.5 m) shielded DS1 cable with 50-pin male to 50-pin female	X
104307475	C6F cable — 50-foot (15.2 m) shielded DS1 cable with 50-pin male to 3 inch (7.62 cm) stub	X
102381779	3B1A Carbon Block	X
104410147	3B1E-W Wide Gap Gas Tube	X
105514756	3C1S Analog Line Protector - Solid State	X
102904893	4B1C Carbon Block with Heat Coil	X
104401856	4B1E-W Wide Gap Gas Tube w/Heat Coil	X
104386545	4C1S Analog Line Protector - Solid State with Heat Coil	X
105581086	4C3S-75 Digital Voice Circuit Protector - Solid State	X
406144907	ITW LINX Gas Tube, Avalanche Suppress	X
901007120	ITW Linx Ground Bar (used with above)	X
406304816	ITW Linx Replacement Fuse	X
103972758	Data Link Protector (1 circuit)	X
103972733	Data Link Protector (8 circuits)	X
407063478	Electrostatic Discharge (ESD) Wrist Strap	
407691401	Z3A2 Alarm Adapter	X
	Lucent UPS	X

Install the System Cabinet

Set the Carrier Address ID

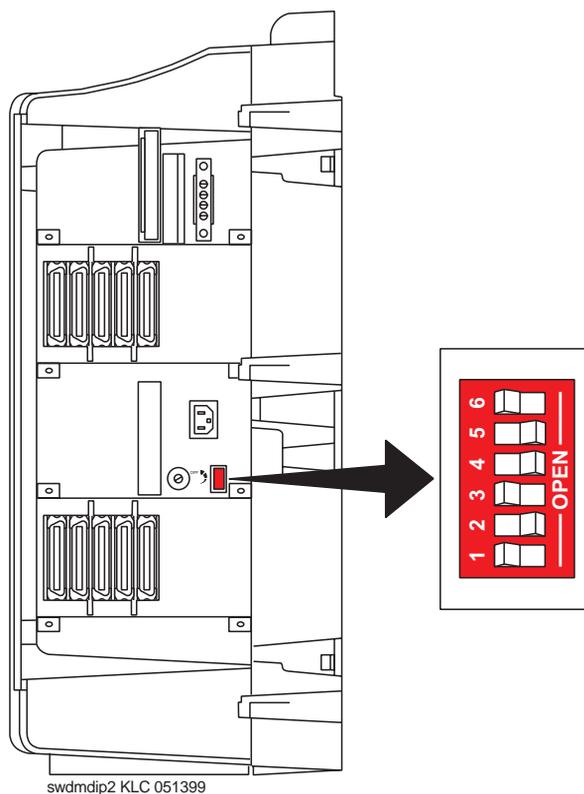


Figure 1-2. Setting Carrier Address ID (Right Side)

1. Proceed to either [“Floor-Mount the Cabinet”](#) on page 1-7 or to [“Wall-Mount the Cabinet”](#) on page 1-8.

Floor-Mount the Cabinet

The cabinet dimensions (with floor pedestal) are 28.5 in. (72.4 cm) high, 24.5 in. (62.2 cm) wide, and 12 in. (30.5 cm) deep. Maintain a service clearance of 12 in. (30.5 cm) on the left, right, and front of the cabinet.

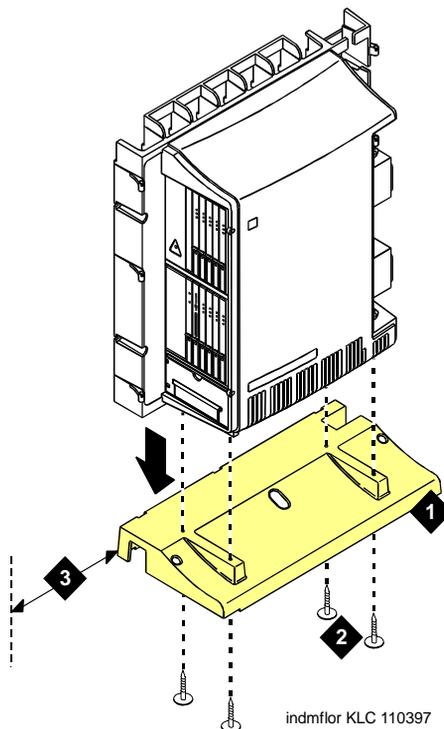


Figure Notes

- | | |
|--------------------------------------|--|
| 1. Left panel (floor-mount pedestal) | 3. 12 inches (30.5 cm) minimum from nearest object (required to service the circuit packs) |
| 2. #12 x 1-inch shoulder screws | |

Figure 1-3. Typical Floor Mount Installation

1. Proceed to ["Cable the System" on page 1-20.](#)

- 1 Install and Cable the Cabinet
Install the System Cabinet

1-8

Wall-Mount the Cabinet

CAUTION:

A fully loaded system weighs 58 lbs (26.3 kg). Use lifting precautions. If the doors, power unit, and circuit packs are removed, the unit weighs only 29 lbs (13.1 kg).

Install Plywood Backing onto Wall

The plywood and the hardware to mount the plywood are installer-provided.

NOTE:

The following plywood dimensions account for the extra space needed to install the panels on each side of the cabinet. The cabinet is 24 inches (0.6 m) wide and each panel is 12 inches (0.3 m) wide.

1. Install a 3/4-inch (2 cm) thick sheet of 2 x 4-foot (0.6 x 1.2 m) plywood horizontally onto the wall. See [Figure 1-4](#).

The top of the plywood must be at least 54 inches (137 cm) from the floor.

Install Cabinet — Wall-Mount

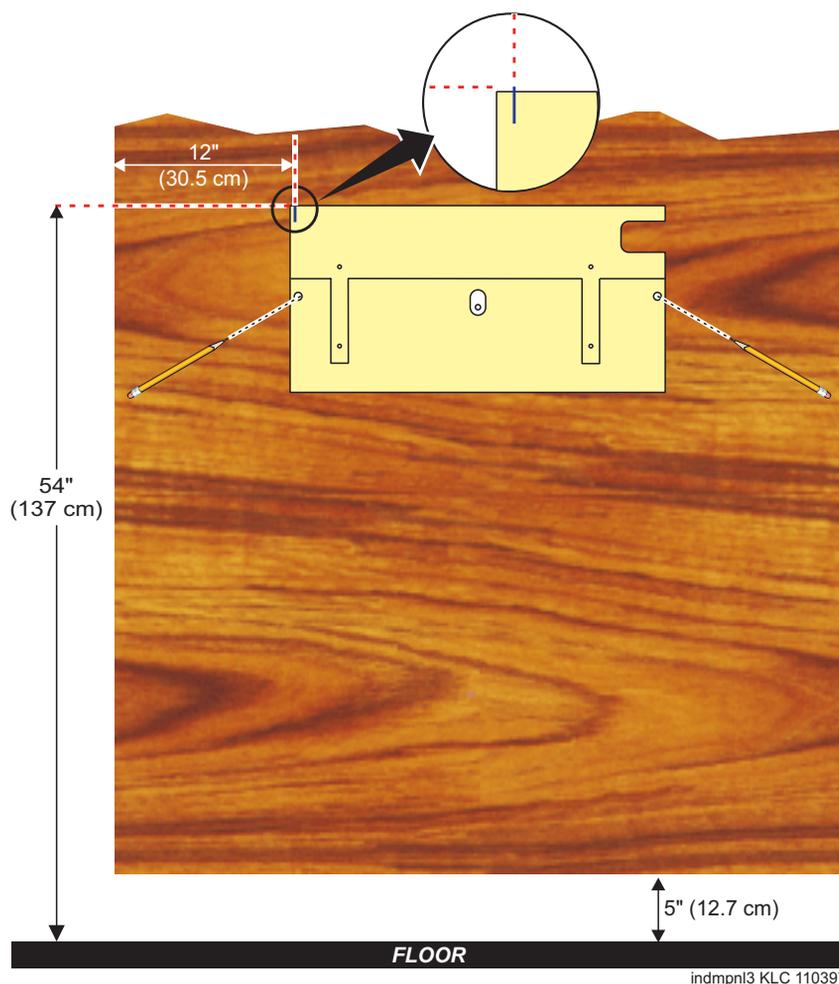


Figure 1-4. Left Panel Used as Mounting Template

1. Place the template on the wall ensuring that the top surface is level.
2. Mark two 1/8-inch (0.3-cm) pilot holes in the mounting hole locations.
3. Remove the template from the wall.
4. Drill the two pilot holes.
5. Thread two #12 x 1-inch shoulder screws partially into the holes.

6. Set the cabinet onto the wall and align the slots with the shoulder screws. See [Figure 1-5](#). Slide the cabinet to the left to hold it in place. Tighten the screws securely.

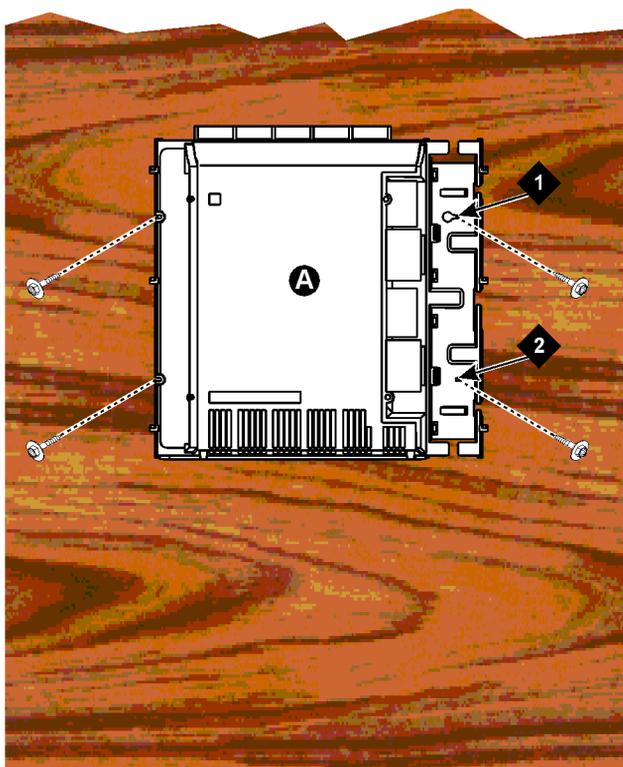


Figure Notes

1. #12 x 1-inch shoulder screws

2. #12 x 1-inch safety screw

Figure 1-5. Typical Wall-Mount Installation

7. Drill 2 lower mounting holes using the cabinet as a template.
8. Thread the 2 lower screws and tighten.



CAUTION:

Be sure the right bottom safety screw is in place and tight.

Install Left and Right Panels — Wall-Mount

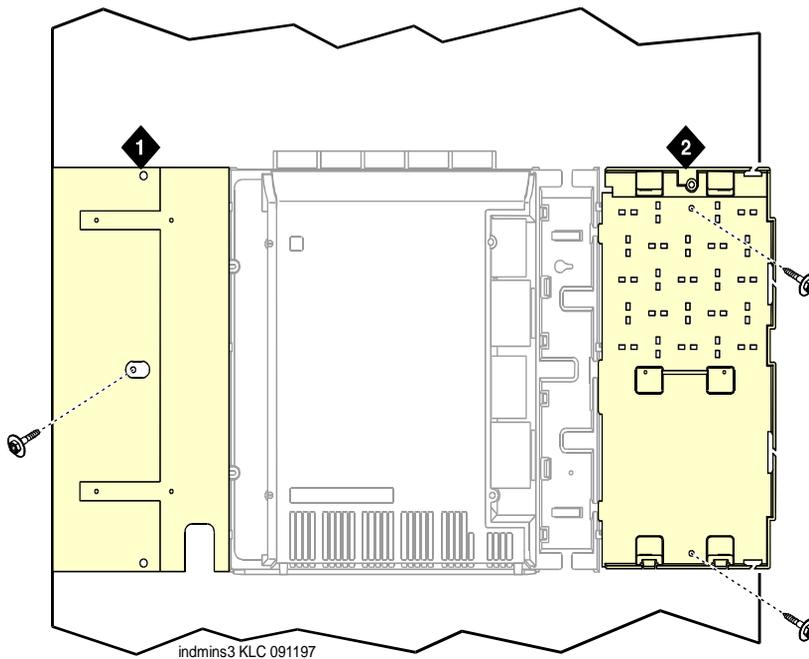


Figure Notes

1. Left panel

2. Right panel

Figure 1-6. Left and Right Panel Installation

1. Align the cutouts in the panels with the cabinet hinges.
2. Drill a 1/8-inch (0.3 cm) pilot hole into the wall and secure the panels with the #12 x 1-inch shoulder screws.

Check AC Power and Ground

CAUTION:

The AC power circuit must be dedicated to the system. The circuit must not be shared with other equipment and must not be controlled by a wall switch. The AC receptacle must not be located under the Main Distribution Frame and must be easily accessible.

CAUTION:

The latch only removes DC power from the cabinet. Unseating the power supply removes AC power from the power supply, but not from the cabinet. To remove AC power from the cabinet, pull the AC power cord from the AC appliance connector on the rear of the cabinet.

CAUTION:

System grounding must comply with the general rules for grounding provided in Article 250 of the National Electrical Code (NEC), National Fire Protection Agency (NFPA) 70, or the applicable electric code in the country of installation.

CAUTION:

AC mains wiring and testing must be performed by a qualified electrician and must conform to Article 250 of the National Electrical Code (NEC), National Fire Protection Agency (NFPA) 70, or the applicable electric code in the country of installation.

Check AC Power

Each CMC uses an auto-ranging 85 to 264 VAC power supply, 47 to 63 Hz, 330 Watts, 4.5 Amps (100-120 VAC) or 2.3 Amps (200 to 240 VAC), at 500 VoltAmps (VA).

The AC power source can be 1 phase of 120 VAC with neutral (100 VAC for Japan) with 15-Amp circuit breaker, or 1 phase of 220 or 240 VAC (200 VAC for Japan) with 10-Amp circuit breaker. The AC cord uses a NEMA 5-15P plug or an IEC 320 plug.

Before powering up the system, check the AC power in the equipment room using a KS-20599 digital voltmeter (DVM) (or equivalent).

1. Measure the AC voltage between the hot and neutral sides of the receptacle.
2. Depending on the AC power source, verify that the meter reads 90 to 132 VAC or 180 to 264 VAC. If not, have a qualified electrician correct the problem.
3. Measure the voltage between the neutral and ground sides of the receptacle.

1 Install and Cable the Cabinet
Check AC Power and Ground

1-13

4. Verify that the meter reads 0 VAC. If not, have a qualified electrician correct the problem.
5. When finished, set the AC main circuit breakers to **OFF**.

Approved Grounds

An approved ground is the closest acceptable medium for grounding the building entrance protector, entrance cable shield, or single-point ground of electronic telephony equipment. If more than 1 type of approved ground is available on the premises, the grounds must be bonded together as required in Section 250-81 of the National Electrical Code.

Grounded Building Steel — The metal frame of the building where it is effectively grounded by 1 of the following grounds: acceptable metallic water pipe, concrete encased ground, or a ground ring.

Acceptable Water Pipe — A metal underground water pipe, at least 1/2 inch (1.3 cm) in diameter, in direct contact with the earth for at least 10 feet (3 m). The pipe must be electrically continuous (or made electrically continuous by bonding around insulated joints, plastic pipe, or plastic water meters) to the point where the protector ground wire connects. A metallic underground water pipe must be supplemented by the metal frame of the building, a concrete-encased ground, or a ground ring. If these grounds are not available, the water pipe ground can be supplemented by 1 of the following types of grounds:

- Other local metal underground systems or structures — Local underground structures such as tanks and piping systems
- Rod and pipe electrodes — A 5/8-inch (1.6-cm) solid rod or 3/4-inch (2-cm) conduit or pipe electrode driven to a minimum depth of 8 feet (2.4 m)
- Plate electrodes — Must have a minimum of 2 square feet (0.185 square m) of metallic surface exposed to the exterior soil

Concrete Encased Ground — An electrode encased by at least 2 inches (5.1 cm) of concrete and located within and near the bottom of a concrete foundation or footing in direct contact with the earth. The electrode must be at least 20 feet (6.1 m) of 1 or more steel reinforcing bars or rods 1/2-inch (1.3 cm) in diameter, or at least 20 feet (6.1 m) of bare, solid copper, 4 AWG (26 mm²) wire.

Ground Ring — A buried ground that encircles a building or structure at a depth of at least 2.5 feet (0.76 m) below the earth's surface. The ground ring must be at least 20 feet (6.1 m) of 2 AWG (35 mm²), bare, copper wire.

APPROVED FLOOR GROUNDS

CAUTION:

If the approved ground is inside a dedicated equipment room, then these connections must be made by a qualified electrician.

Floor grounds are those grounds on each floor of a high-rise building that are suitable for connection to the ground terminal in the riser closet and to the cabinet single-point ground terminal. Approved floor grounds may include:

- Building steel
- The grounding conductor for the secondary side of the power transformer feeding the floor
- Metallic water pipes
- Power-feed metallic conduit supplying panel boards on the floor
- A grounding point specifically provided in the building for the purpose

Uninterruptible Power Supply

The recommended UPS (Uninterruptible Power Supply) may be used for power holdover. The type of UPS depends on the holdover requirements. Holdover times vary from less than 10 minutes to up to 8 hours. The UPS must provide surge protection for the CMC cabinet.

1. Connect the UPS to an electrical outlet capable of handling the power requirements of the cabinets:
 - a. 100 VAC, 4.5 Amps.
 - b. 120 VAC, 3.8 Amps.
 - c. 200 VAC, 2.3 Amps.
 - d. 220-240 VAC, 2.0 Amps.
2. Be sure the cabinet is connected to an “unswitched” or “always on” electrical outlet on the UPS.
3. Connect and administer the UPS. See [“Connect External Alarms and Auxiliary Connections” on page 1-52.](#)

NOTE:

If you choose to wire in the UPS as recommended, your hold over time will be 1 minute prior to an automatic shutdown.

Cabinet Power Switch

CAUTION:

The latch acts as the DC power switch and only removes DC power from the cabinet, not AC power. To remove AC power, pull the AC power cord from the appliance inlet. See [Figure 1-7](#).

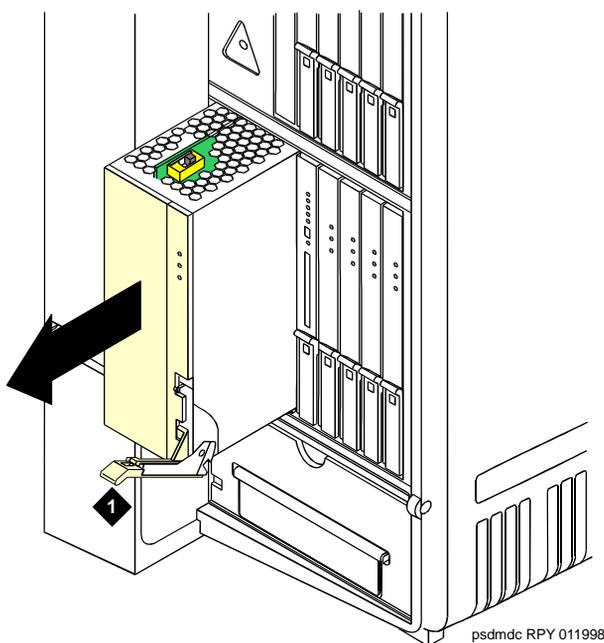


Figure Notes

1. Latch

NOTE:

The processor is a double wide board that covers both slots 1 & 2.

Figure 1-7. CMC Power Supply

Connect Cabinet Grounds and Other Grounds

The following additional grounding requirements must be met:

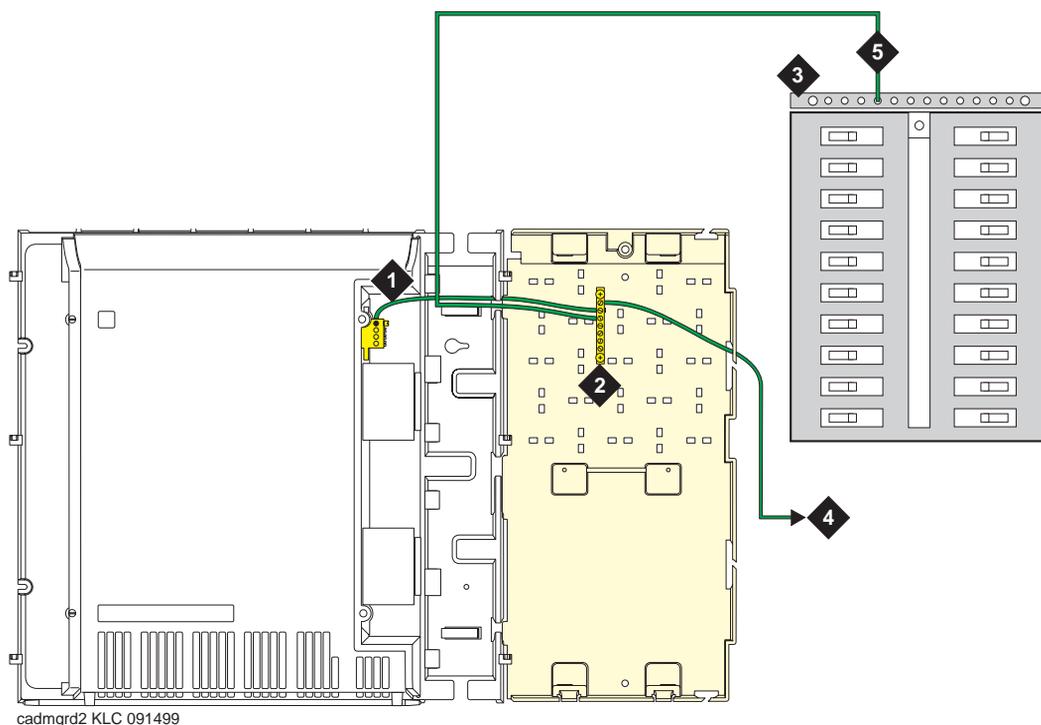


Figure Notes

1. 6 AWG (#40) (16 mm²) cabinet ground wire
2. Single-point ground block
3. AC load center single-point ground
4. 10 AWG (#25) (6 mm²) wire to coupled bonding conductor (CBC)
5. 6 AWG (#40) (16 mm²) ground wire from single-point ground block to the AC load center single-point ground

Figure 1-9. Typical Cabinet Grounding

Install Coupled Bonding Conductor

The Coupled Bonding Conductor (CBC) provides for mutual inductance coupling between the CBC and the telephone cables that are exposed to lightning. The conductor can be a 10 AWG (#25) (6 mm²) wire tie wrapped to the exposed cables, a metal cable shield around the exposed cables, or 6 spare pairs from the exposed cable.

In a high rise building, connect the CBC to an approved building ground on each floor. To provide the coupled bonding protection:

1. Connect 1 end of the conductor to a telephone cable building entrance protector ground that is connected to an approved ground.
2. Route the rest of the conductor next to the exposed telephone cables being protected until they reach the cross-connect nearest to the telephone system.
3. Position the non-exposed telephone cables at least 12 inches (30.5 cm) away from exposed telephone cables whenever possible.
4. Terminate the other end to the single-point ground block provided for the telephone system.

Connect and Route the Power Cords

CAUTION:

The AC power cord may connect to a properly rated power distribution unit, individual AC power receptacles, or to a UPS. See [Figure 1-10](#).

1. Be sure the circuit breakers at the AC load center are **OFF**.
2. Connect the cabinet to an “unswitched” or “always on” electrical outlet.

1 Install and Cable the Cabinet
Check AC Power and Ground

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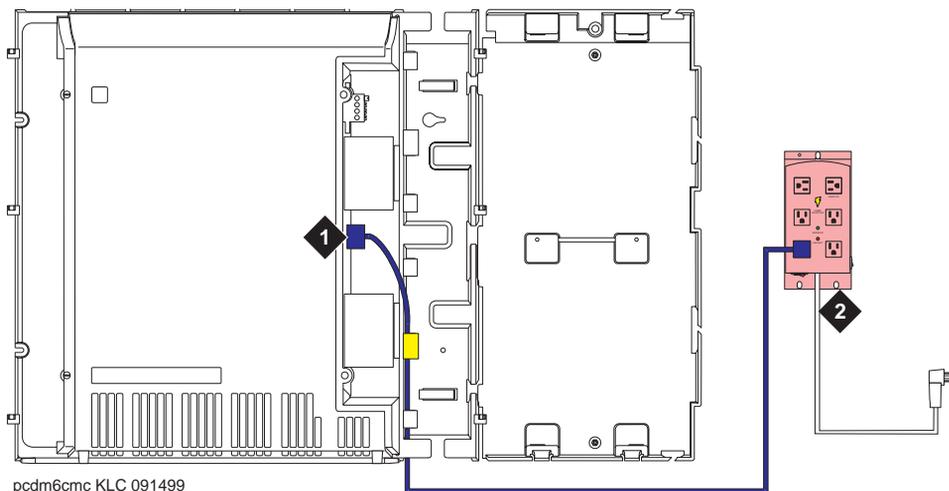


Figure Notes

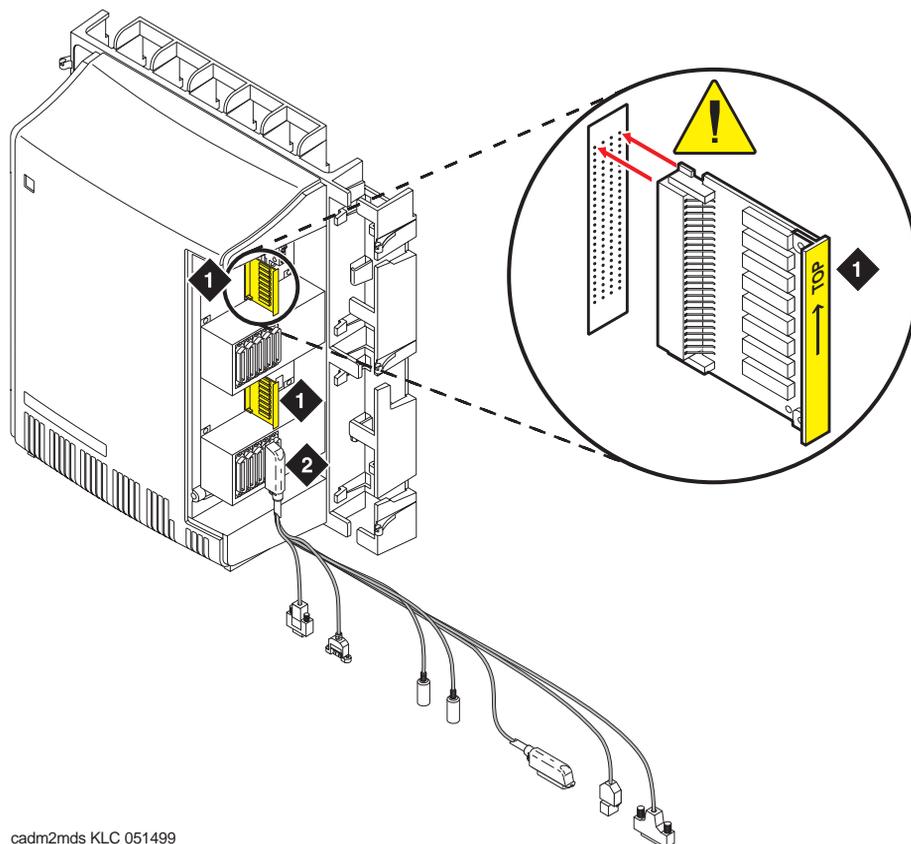
1. Cabinet AC power cord

2. Surge-protected AC power distribution unit (120 VAC systems) (optional)

Figure 1-10. Routing AC Power Cords to a Power Distribution Unit

Cable the System

Install Processor Interface Cable and TDM/LAN Bus Terminators



cadm2mnd KLC 051499

Figure Notes

1. TDM/LAN bus terminator
2. Processor interface cable

Figure 1-11. System Cable Connections

1. Connect the Processor Interface Cable to slot 2 connector behind the cabinet. See [Figure 1-11](#).
2. Install the TDM/LAN bus terminators.

- 1 Install and Cable the Cabinet
Install Main Distribution Frame and External Modem

1-21

Install Main Distribution Frame and External Modem

Install the MDF

CAUTION:

The optional MDF is a special 110 cross-connect field and is smaller than standard 110 cross-connect hardware. Do not install standard 110 hardware inside the right panel.

NOTE:

The depth of any equipment installed inside the right panel must not exceed 2.5 inches (6.3 cm), otherwise the right cover panel cannot fit over the right panel.

The optional MDF represents the trunk/auxiliary field.

- Mount the optional MDF to the right panel using the following procedure:

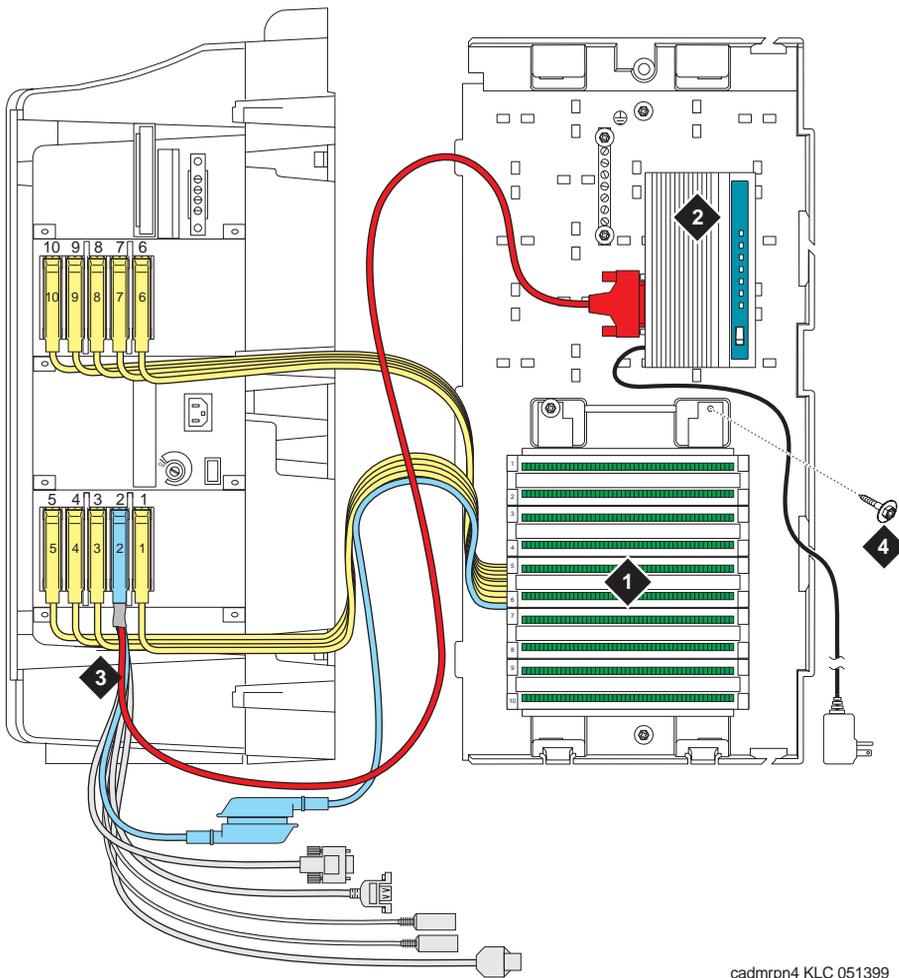
Bottom-mounted MDF with Modem

1. On the rear of the MDF, cut the cable tie securing the top 5 cables to the MDF mounting frame.
2. Mount the MDF to the right panel. See [Figure 1-12](#).
3. Secure all 10 cables to the bottom left bracket on the MDF with a cable tie.

1 Install and Cable the Cabinet

Install Main Distribution Frame and External Modem

1-22



cadmprn4 KLC 051399

Figure Notes

- | | |
|----------------------------------|--|
| 1. Main distribution frame (MDF) | 3. Processor interface cable (connect P2 to modem) |
| 2. External modem | 4. #12 x 1-inch shoulder screw |



NOTE:

There should be no cable plugged into slot 1.

Figure 1-12. Typical Bottom-Mount MDF and Modem Cable Routing

Install the External Modem

The U.S. Robotics external modem is the recommended external modem. DEFINITY ONE systems operate with this modem set to the factory default settings.



NOTE:

You may use a locally obtained, type-approved external modem (33.6 Kbps and V.34 protocol). Contact your Lucent Technologies representative for more information.



WARNING:

If you use a modem other than the U.S. Robotics modem, the modem must be configured in the software before it will recognize the modem and use it.

1. Use the hardware provided with the modem. See [Figure 1-12](#). If top-mounting MDFs, mount the external modem to the plywood in a location which allows the standard connection to the modem cable.
2. Route the modem cable (P2) from the Processor Interface Cable through the cable trough and to the modem.
3. Connect the cable to the modem. Refer to Appendix A, "Cable Pinouts" for the pinout of the modem cable.
4. Plug the modem power cord into an electrical outlet and turn on the modem.
5. Information about modem setup, administration, settings, and testing is described in ["Modem Setup and Administration" on page 9-6](#).

Install Equipment Room Hardware

Refer to DEFINITY Communications System Generic 1 and Generic 3 Main Distribution Field Design, 555-230-630, for more information.

Cross-Connect the Cabinet to the MDF

1. Cross-connect the ports on the trunk and line circuit packs to the MDF as required. See [Figure 1-14](#).

Allowable and Non-Allowable Circuit Packs

[Table 1-2](#) lists the circuit packs that can and cannot be used with Release 1.0 of DEFINITY ONE.

Table 1-2. Circuit Packs and Circuit Modules

Apparatus Code	Name	Allowable
650A	AC Power Unit	Yes
982LS	Current Limiter	No
CFY1B	Current Limiter	No
CPP1	Memory Expansion	No
ED-1E546 (TN566) (TN567)	DEFINITY AUDIX R3 System	No
ED-1E546 (TN2208) (TN2170)	CallVisor ASAI over the DEFINITY (LAN) Gateway R1	No
J58890M-1 (TN801)	CallVisor ASAI/Call Visor PC/LAN over the DEFINITY LAN Gateway R2	No
NAA1	Fiber Optic Cable Adapter Circuit Pack	Yes
TN417	Auxiliary Trunk	Yes
TN2305	ATM Trunk	Yes
TN419B	Tone-Clock	No
TN420B/C	Tone Detector	No
TN429/B/C/D	Analog Direct Inward/Outward Dialing (DIOD) Central Office Trunk	Yes

Continued on next page

1 Install and Cable the Cabinet

Install Equipment Room Hardware

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Table 1-2. Circuit Packs and Circuit Modules — Continued

Apparatus Code	Name	Allowable
TN429C	Analog Central Office Trunk	Yes
TN429D	Analog DIOD Trunk - Analog Loop Start	Yes
TN433	Speech Synthesizer	Yes
TN436B	Direct Inward Dialing Trunk	Yes
TN438B	Central Office Trunk	Yes
TN439	Tie Trunk	Yes
TN447	Central Office Trunk	Yes
TN457	Speech Synthesizer	Yes
TN459B	Direct Inward Dialing Trunk	Yes
TN464F	DS1 Interface - T1, 24 Channel - E1, 32 Channel	Yes
TN465B/C	Central Office Trunk	Yes
TN467	Analog Line	Yes
TN468B	Analog Line	Yes
TN479	Analog Line	Yes
TN553	Packet Data Line	Yes
TN556C/D	ISDN-BRI 4-Wire S/T-NT Interface	Yes
TN568	DEFINITY AUDIX Slim	No
TN570B/C	Expansion Interface	No
TN572	Switch Node Clock	No
TN573B	Switch Node Interface	No
TN574	DS1 Converter - T1, 24 Channel	No
TN577	Packet Gateway	No
TN722B	DS1 Tie Trunk	Yes
TN725B	Speech Synthesizer	Yes
TN726B	Data Line	Yes
TN735	MET Line	Yes
TN742	Analog Line	Yes
TN744B/C	Call Classifier	No

Continued on next page

1 Install and Cable the Cabinet
Install Equipment Room Hardware

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Table 1-2. Circuit Packs and Circuit Modules — Continued

Apparatus Code	Name	Allowable
TN744D	Call Classifier - Detector	Yes
TN746B	Analog Line	Yes
TN747/B	Central Office Trunk	Yes
TN748B/C/D	Tone Detector	No
TN750B	Announcement	No
TN750C	Announcement	Yes
TN753/B	Direct Inward Dialing Trunk	Yes
TN754/B/C	Digital Line 4-Wire DCP	Yes
TN755/B	Neon Power Unit	No
TN756	Tone Detector/Generator	No
TN758	Pooled Modem	Yes
TN760B/C/D/E	Tie Trunk	Yes
TN762/B	Hybrid Line	Yes
TN763B/C/D	Auxiliary Trunk	Yes
TN765	Processor Interface	No
TN767B/C/D/E	DS1 Interface - T1, 24 Channel	Yes
TN768	Tone-Clock	No
TN769	Analog Line	Yes
TN771/D	Maintenance/Test	No
TN772	Duplication Interface	No
TN775/B/C	Maintenance	No
TN776	Expansion Interface	No
TN777B	Network Control	No
TN778	Packet Control	No
TN780	Tone-Clock	No
TN787F/G/H/J/K	Multimedia Interface	No
TN788B	Multimedia Voice Conditioner	No
TN789	Radio Controller	Yes

Continued on next page

1 Install and Cable the Cabinet

Install Equipment Room Hardware

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Table 1-2. Circuit Packs and Circuit Modules — Continued

Apparatus Code	Name	Allowable
TN790B	Processor	No
TN791	Analog Line	Yes
TN792	Duplication Interface	No
TN793	Analog Line, 24-Port, 2-Wire	Yes
TN794	Network Control/Packet Interface (NetPkt)	No
TN795	Processor	Yes
TN798B	Processor	No
TN799	Control LAN (C-LAN)	Yes
TN801	LAN Gateway Interface	No
TN802/B	Internet Protocol (IP) Trunk	Yes
TN1648/B	System Access/Maintenance	No
TN1650B	Memory	No
TN1654	DS1 Converter - T1, 24 Channel/E1, 32 Channel	No
TN1655	Packet Interface	No
TN1656	Tape Drive	No
TN1657	Disk Drive	No
TN2135	Analog Line	Yes
TN2136	Digital Line 2-Wire DCP	Yes
TN2138	Central Office Trunk	Yes
TN2139	Direct Inward Dialing Trunk	Yes
TN2140B	Tie Trunk - Hungary, Italy	Yes
TN2144	Analog Line	Yes
TN2146	Direct Inward Dialing Trunk	Yes
TN2147C	Central Office Trunk	Yes
TN2149	Analog Line	Yes
TN2180	Analog Line	Yes
TN2181	Digital Line 2-Wire DCP	Yes
TN2182/B	Tone-Clock - Tone Detector and Call Classifier	No

Continued on next page

Table 1-2. Circuit Packs and Circuit Modules — Continued

Apparatus Code	Name	Allowable
TN2183	Analog Line	Yes
TN2184	DIOD Trunk	Yes
TN2185/B	ISDN-BRI 4-Wire S/T-TE Interface (Trunk Side)	Yes
TN2198	ISDN-BRI 2-Wire U Interface	No
TN2199	Central Office Trunk	Yes
TN2202	Ring Generator	No
TN2207	DS1 Interface - (T1) 24 Channel and (E1) 32 Channel	Yes
TN2209	Tie Trunk - Russia	Yes
TN2210	Tone Generator	No
TN2214/B	Digital Line, 24-Port, 2-Wire DCP - Category B only	Yes
TN2215	Analog Line, 16-Port 2-Wire - Category B only	Yes
TN2224/B	Digital Line, 24-Port, 2-Wire DCP	Yes
TN2238	ATM Trunk Interface (Multi-Mode)	No
TN2242	TTC Japanese 2Mbit Trunk	Yes
TN2301	Survivable Remote Logic Switch	No
TN2305	ATM Interface (Multi-Mode)	Yes
TN2306	ATM Interface (Single-Mode)	No
TN2308	Direct Inward Dialing Trunk	No
TN2464	DS1 Interface - T1, 24 Channel - E1, 32 Channel	Yes
TN2793	Analog Line 24-Port	Yes

Circuit Pack Installation



CAUTION:

When handling circuit packs or any components of a DEFINITY ONE system, always wear an authorized wrist ground strap. Connect the strap to the ground connector provided on the system cabinet.



NOTE:

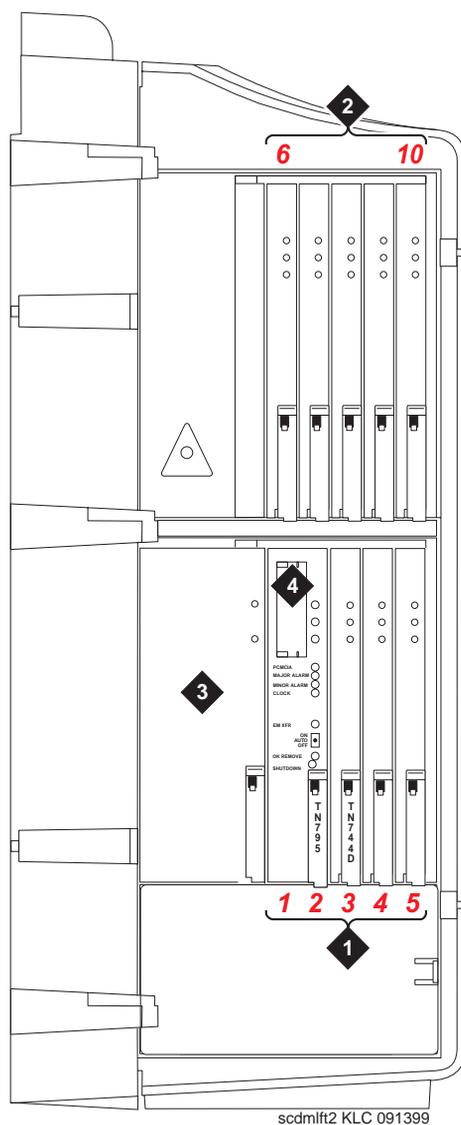
All of the circuit pack slots in the CMC are "universal slots." That is, any slot can contain any type of port circuit pack.

Circuit Pack Slot Loading

1. Install the TN795 Processor circuit pack in slot 2 of the cabinet.

Load all port circuit packs.

2. A TN744D Call Classifier/Tone Detector circuit pack is required. Install the TN744D into any port slot except for slots 1 and 2 (slot 3 is preferred but not required.)
3. See [Table 1-3](#) for the recommended circuit pack layout.



- 1. Slots 1 - 5
- 2. Slots 6 - 10
- 3. 650 Power Supply
- 4. For Flash Disk

Figure 1-13. Cabinet and Slot Numbering

1 Install and Cable the Cabinet

Install Equipment Room Hardware

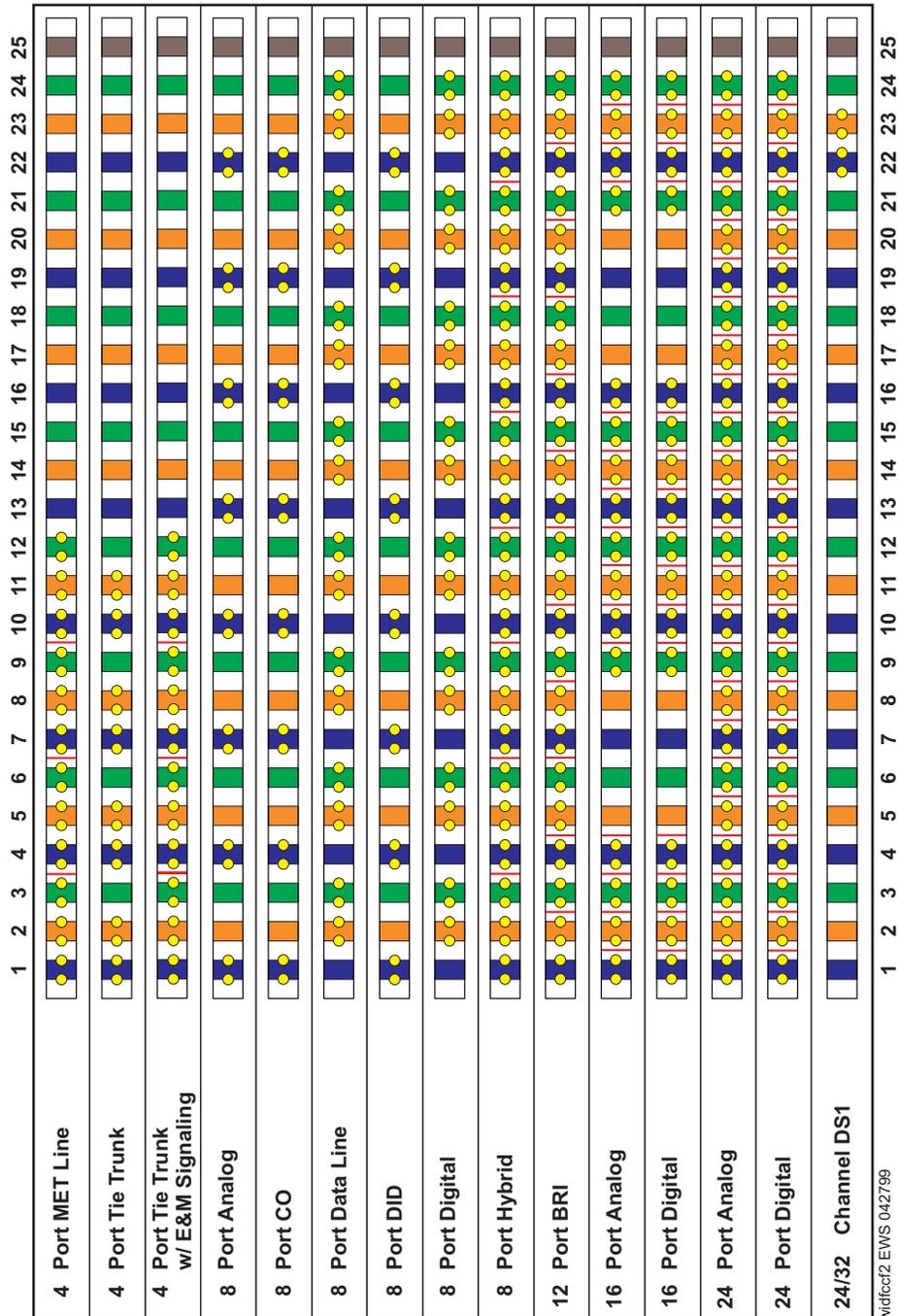
1-31

The TN795 circuit pack is reserved for slots 1 and 2 and the TN744D circuit pack can go in any of the other slots (slot 3 is recommended).

Table 1-3. Circuit Pack Installation Order (Loading)

Function	Apparatus Code	Load From	Notes
Processor	TN795	Slot 2	
Announcement	TN750C	Any slot	
Speech Synthesizer	TN725B	Any slot	
DS1/E1, ISDN PRI	TN464F, TN767E, TN2242, TN2464 (Guestworks and BCS only)	Lower Right	Maximum of 7ISDN-PRI. Total number of ISDN-PRI plus number of ISDN-BRI circuit packs must not exceed 7.
ISDN-BRI Trunk	TN2185	Lower Right	Maximum of 4
CO Trunk	TN747B, TN465C, TN2199, TN2147C, TN2138, TN438B	Lower Right	
DID Trunk	TN753, TN2139, TN2146, TN436B, TN459B	Lower Right	
Tie Trunk	TN760E, TN458, TN497, TN2140B	Lower Right	
Auxiliary Trunk	TN417	Lower Right	
Modem Pool	TN758	Lower Right	
Data Line	TN726	Upper Left	
Digital Line	TN754C, TN2181, TN2224/B, TN2214/B	Upper Left	
Analog Line	TN746B, TN2135, TN467, TN2144, TN2149, TN2180, TN2183, TN2215, TN468B, TN791	Upper Left	
Hybrid Line	TN762B	Upper Left	
MET Line	TN735	Upper Left	
Radio Controller	TN789	Upper Left	
ISDN-BRI 4-Wire S/T-NT Line (A-Law)	TN556C/D	Upper Left	

1. Cross-connect the port circuit packs to the MDF. See [Figure 1-14](#).



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Figure 1-14. Example MDF Connections

Off-Premises Circuit Protection

Protection from hazardous voltages and currents is required for all off-premises (out of building) trunks, lines, and terminal installations. Both over-voltage protection (lightning, power induction, and so forth), and sneak current protection are required. Sneak current protectors must be either UL listed/CSA certified, or must comply with local safety standards.

Sneak current protectors must have a maximum rating of 350 mA, and a minimum voltage rating of 600V, or as required by local regulations. The following devices protect the system from over-voltages:

- Analog trunks use the 507B sneak protector or equivalent. Over-voltage protection is normally provided by the local telephone company.
- Analog voice terminals use one of the following types of combined over-voltage and sneak current protection, or equivalent:
 - Carbon block with heat coil for UL code 4B1C
 - Gas tube with heat coil for UL code 4B1E-W
 - Solid state with heat coil for UL code 4C1S
- DCP and ISDN-BRI terminals use the solid state 4C3S-75 with heat coil protector, or equivalent.
- DS1/T1 circuits require isolation from exposed facilities. This isolation may be provided by a CSU (T1), or other equipment that provides equivalent protection.

Install Sneak Fuse Panels

Sneak current protection is required between the incoming RJ21X or RJ2GX network interface and the system for both trunk and off-premises circuit packs. The model 507B sneak current fuse panel, or equivalent, is recommended for sneak current protection. See [Figure 1-15](#).

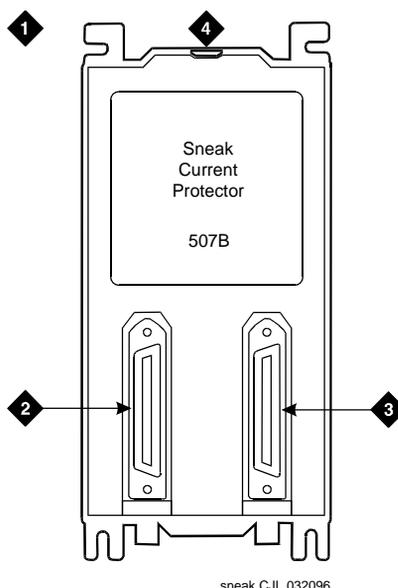


Figure Notes

- | | |
|--|--|
| 1. Sneak current protector (PEC 63210) | 3. 25-pair female connector (Out) |
| 2. 25-pair male connector (In) | 4. 220029 fuses (inside panel). Use a small screwdriver to pry top cover off |

Figure 1-15. Model 507B Sneak Fuse Panel

1 Install and Cable the Cabinet

Install Equipment Room Hardware

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Approximately 8 inches (20 cm) of horizontal wall space is required for each column of sneak fuse panels. Connector cables connect the network interface to the sneak fuse panel. Also, use 157B connecting blocks equipped with SCP-110 protectors for sneak current protection.

 **NOTE:**

Sneak current protectors with a rating of 350 mA at 600 Volts must be UL listed for United States installations and CSA certified for Canadian installations. The panel contains two 25-pair connectors, fuse removal tool, and fifty 220029 Sneak Fuses (and 2 spares). Use the SCP-110 protectors with 110-type hardware and on the 507B Sneak Fuse Panel. The SCP-110 Protectors can be ordered separately and installed on the 157B connecting block. Fifty protectors are required per block.

1. Install the 507B near the network interface or MDF with locally-obtained #12 x 3/4-inch screws (or equivalent).

[Table 1-4](#) is a pinout of the cable wiring and associated fuse numbers.

Table 1-4. Sneak Fuse Connector Pinout

Connector Pin Numbers	Pair/Fuse Number
26/1	1
27/2	2
28/3	3
29/4	4
30/5	5
31/6	6
32/7	7
33/8	8
34/9	9
35/10	10
36/11	11
37/12	12
38/13	13
39/14	14
40/15	15
41/16	16
42/17	17
43/18	18
44/19	19
45/20	20
46/21	21
47/22	22
48/23	23
49/34	24
50/25	25

Label the Main Distribution Frame

[Figure 1-16](#) shows the graphic symbols used on the supplied labels for the system, cross-connections, information outlets, and cables.

1. Write the floor and building identification on each label as required.
2. Insert the labels into the plastic holders.
3. Snap the holders into the appropriate locations on the MDF.

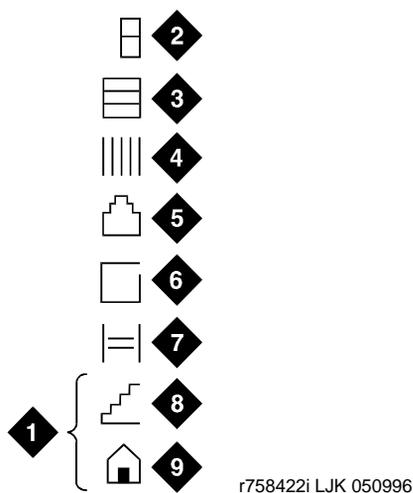


Figure Notes

- | | |
|--------------------------------------|--------------------------|
| 1. Floor and building identification | 6. Site/satellite closet |
| 2. Cabinet | 7. Tie circuit |
| 3. Carrier | 8. Floor |
| 4. Slot | 9. Building |
| 5. Information outlet | |

Figure 1-16. Label Graphic Symbols and Nomenclature

1. Label the cables as required using the supplied labels. Label code number 220A (comcode 103970000) contains all required labels.

Set Ringing Option

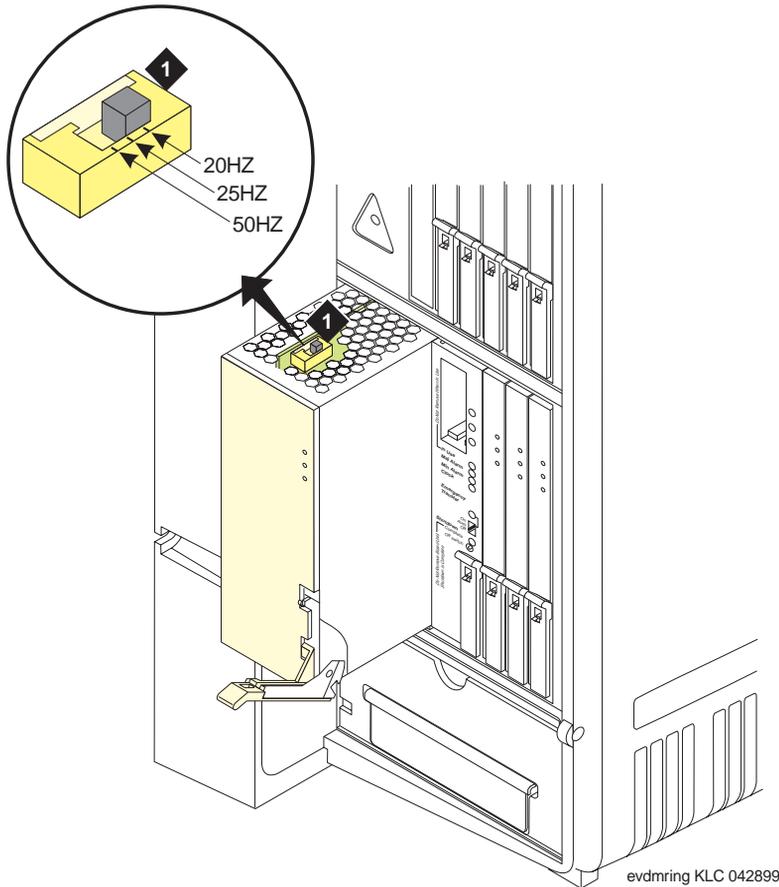


Figure Notes

1. Ringing option switch



NOTE:

Look at the Label on the side of the Power supply to see how to set switch.

Figure 1-17. Ringing Option Selection

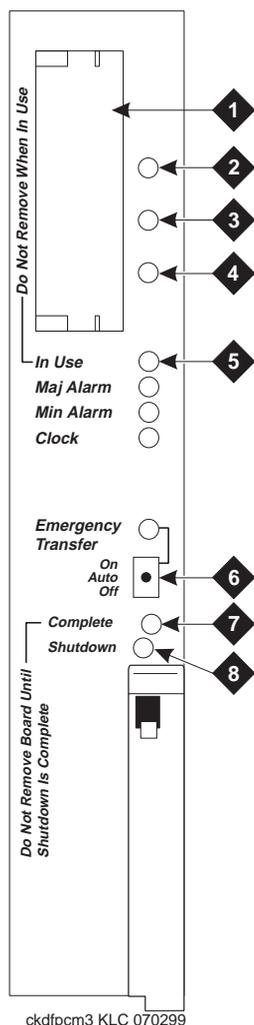


Figure Notes

- | | |
|----------------------|--|
| 1. PCMCIA slots | 6. Emergency Transfer Switch |
| 2. Red LED | 7. Complete Shutdown - safe to pull board when green LED is on |
| 3. Green LED | 8. Shutdown Switch - gracefully shuts down system |
| 4. Amber LED | |
| 5. PCMCIA In-Use LED | |

Figure 1-18. TN795 Circuit Pack Faceplate

Install and Wire Telephones and Other Equipment

NOTE:

Only 1 pair of wires is available for emergency transfer, and 1 pair of wires is available for attendant console power.

The wiring procedures are similar for most of the DEFINITY System telephones and other equipment.

This chapter provides wiring examples of these similar installation procedures. These are examples only and actual wiring procedures may vary at each site.

The system can connect to all DTE terminals. The system can have RS-232 (or EIA-232) or DCP interfaces.

All wiring pinouts for port circuit packs are in the tables at the end of this chapter.

Refer to [Figure 1-14 on page 1-32](#) for punch-down information for common circuit packs. The figure shows the colors of the punch-downs and is best viewed from CD-ROM or on-line.

After installing the hardware, the data for the system and telephone features is administered. These procedures are provided in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Telephone Connection Examples

The 302C1 Attendant Console describes a typical telephone connection. This information is typical of the 603E, 84xx (4-wire), and 94xx telephones. The attendant console always requires auxiliary (adjunct) power (-48 VDC). See [Figure 1-19](#). Only 1 console can be powered by the system through the AUX connector. The primary console should be powered from the system so it has the same power failure backup as the system.

The maximum cabling distance for the console powered from the cabinet is 350 feet (100 meters) using 24 AWG (#5) (0.26 mm²) wire.

The general steps to connect a telephone are:

1. Choose a device to connect such as a 302C1 Attendant Console.
2. Choose the port circuit pack and its carrier and slot number, such as TN754C, Carrier A, Slot 06.
3. Choose a port circuit on the port circuit pack, such as Port 05.

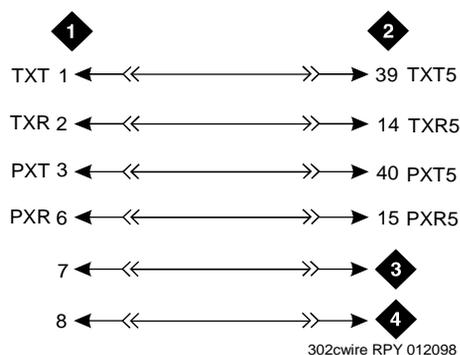


Figure Notes

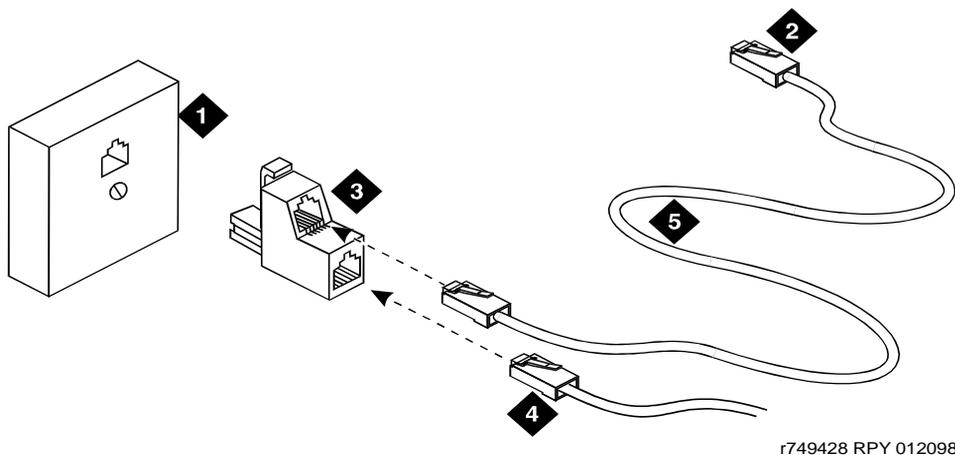
- | | |
|-------------------------------------|-------------------------------|
| 1. 302C1 attendant console | 3. -48 VDC from adjunct power |
| 2. 4-wire digital line circuit pack | 4. Ground from adjunct power |

Figure 1-19. 302C1 to Digital Line Circuit Pack Wiring

4. Install cross-connect jumpers to wire the terminal to the port circuit pack. See [Figure 1-19](#). This pinout is for a 4-wire Digital Line circuit pack.

Connect Adjunct Power

The 400B2 adapter is convenient for connecting local -48 VDC power to a modular plug. See [Figure 1-20](#).



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Figure Notes

1. Surface-mounted information outlet
2. To individual power unit (such as 1151A or 1151A2)
3. 400B2 adapter
4. To telephone
5. Destination service access point (DSAP) power cord

Figure 1-20. 400B2 Adapter Connecting to a Modular Plug

Adjunct power can be provided from the equipment room or equipment closet with 1145B power unit. The AUX connector (J1) on the processor interface cable can provide power for 1 attendant console.

Adjunct power can be provided locally at the telephone or console by the 1151A or 1151A2 Power Supply.

Analog Station or 2-Wire Digital Station Example

This example is typical of the 2-wire digital stations, 2-wire analog stations, analog CO trunks, DID trunks, and external alarms. See [Figure 1-21](#).



Figure Notes

1. 2500-type analog station
2. 2-wire analog line circuit pack

Figure 1-21. 2500-Type Analog Telephone Wiring

1. Choose a peripheral to connect (such as a 2-wire digital station).
2. Choose the port circuit pack to use and its carrier and slot number. For example, TN2183 Analog Line, Cabinet 1, Carrier C, Slot 1.
3. Choose a port circuit on the port circuit pack, for example port 3.
4. Install cross-connect jumpers to connect the pins from the 2-wire station to the appropriate pins on the port circuit pack.
5. Administer using *DEFINITY Enterprise Communications Server Release 7 Administrator's Guide*, 555-233-502.

Analog Tie Trunk Example

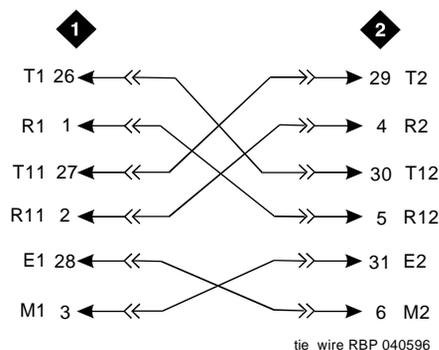


Figure Notes

1. External trunk or adapter
2. Tie trunk circuit pack

Figure 1-22. Analog Tie Trunk Wiring

1. Before installing the Tie Trunk circuit pack, set the option switches as described in [Chapter 1, "Install and Cable the Cabinet"](#).
2. Install cross-connect jumpers to connect the pins from the Tie Trunk circuit pack to the appropriate leads on the external tie trunk. Names of the tie trunk leads must be determined from the manufacturer or supplier of the external trunk circuit. The example in [Figure 1-22](#) shows a DEFINITY System tie trunk connected to a DEFINITY System tie trunk.
3. Administer on the Trunk Group Screen. See DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Digital Tie Trunk Example

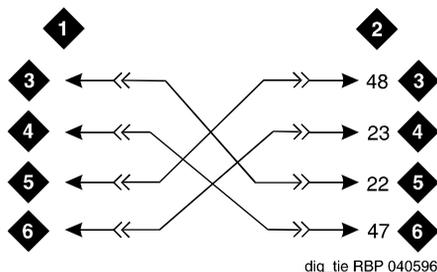


Figure Notes

- | | |
|--|------------------------------|
| 1. External trunk | 4. LO (Balanced output pair) |
| 2. DS1 interface circuit pack, position 1C06 | 5. LI |
| 3. LO | 6. LI (Balanced input pair) |

Figure 1-23. Digital Tie Trunk Wiring

1. Before installing the DS1 Interface circuit pack, set the option switches according to [Chapter 1, "Install and Cable the Cabinet"](#).
2. Install cross-connect jumpers to connect the pins from the digital trunk circuit pack to appropriate pins on the external digital trunk.
3. Administer the DS1 Interface circuit pack on the DS1 and Trunk Group Screens. See DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

DS1 Tie Trunk Example

DS1 tie trunks provide a 1.544 Mbps (T1) or 2.048 Mbps (E1) digital data service between 2 collocated systems or between the system and a data network. The following cables can be used:

- **C6C connector cable** — 50-foot (15.2-m) shielded cable with a 50-pin male connector on 1 end and a 15-pin male connector on the other end. Use to connect a DS1 tie trunk circuit pack to a Channel Service Unit.
- **C6D connector cable** — 50-foot (15.2-m) shielded cable with a 50-pin male connector on each end. Use to connect a DS1 tie trunks in collocated cabinets.
- **C6E connector cable** — 100-foot (30.5-m) shielded cable with a 50-pin male connector on 1 end and a 50-pin female connector on the other end. Use as an “extension” cable between the DS1 tie trunk circuit pack and other connector cables.
- **C6F connector cable** — 50-foot (15.2-m) shielded cable with a 50-pin male connector on 1 end and a 3 inch (7.62-cm) stub on the other end. Use to connect the DS1 tie trunk circuit pack to channel multiplexers requiring hardwired connections. See [Table 1-5](#) for a pinout.

Table 1-5. Pinout of C6F Cable

Wire Color	Lead Designation	Pin Number
White/Green	LI (High Side)	47
Green	LI	22
White/Brown	LO	48
Brown	LO (High Side)	23
White/Slate	LBACK2	49
Slate	LBACK1	24

Collocated DS1 Tie Trunks

Two DS1 tie trunk circuit packs can be in collocated systems. A DS1 tie trunk circuit pack in 1 system can connect to a DS1 tie trunk in another system. Use a C6D cable if the distance is less than 50 feet (15.24 m). If the distance is greater than 50 feet (15.24 m), use a C6E cable.

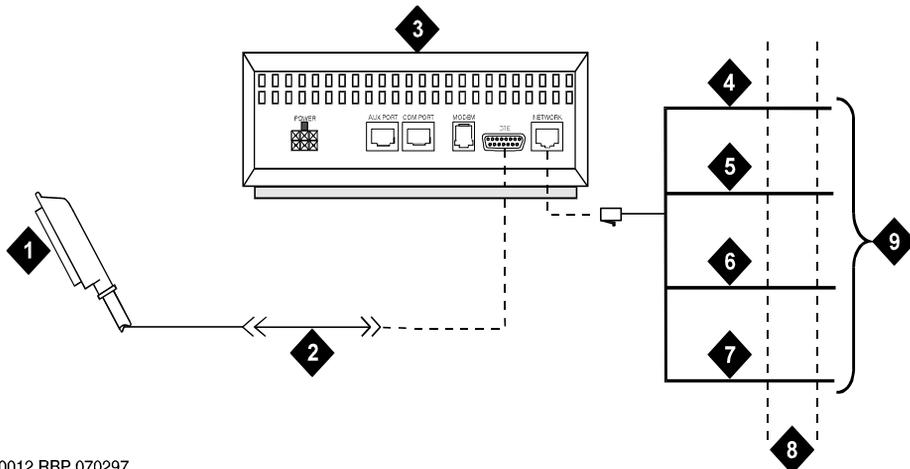


NOTE:

The maximum distance between cabinets is 1310 feet (399.3 m).

DS1 Tie Trunks Using T1 Channel Service Unit

[Figure 1-24](#) shows a DS1 tie trunk connected to an external T1 Channel Service Unit (CSU). A 120A2 enhanced Integrated Channel Service Unit (ICSU) can be used in place of a T1 external CSU. The CSU or ICSU interfaces the DS1 tie trunks with the 1.544 Mbps digital facility. Contact your Lucent Technologies representative for maximum cabling distances.



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Figure Notes

- | | |
|--|----------------------------|
| 1. To DS1 tie trunk circuit pack | 5. Ring (R) |
| 2. C6C cable (If distance is over 50 feet (15.24 m), use C6E cable.) | 6. Tip 1(T1) |
| 3. T1 external CSU or 120A2 ICSU | 7. Ring1 (R1) |
| 4. Tip (T) | 8. 1.544 Mbps T1 interface |
| | 9. To T1 carrier |

Figure 1-24. Typical Connections to Channel Service Unit

3-Pair and 4-Pair Modularity

[Figure 1-25](#) shows 3-pair and 4-pair modularity from the port circuit pack to the voice or data terminal. Most terminals connect to an information outlet (modular jack) installed at the work location.

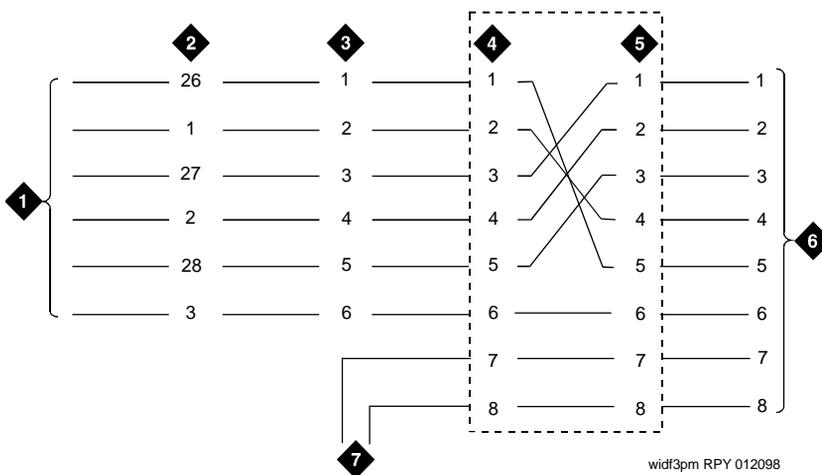


Figure Notes

- | | |
|--|---|
| 1. Port circuit pack | 5. Output from information outlet (4-pair modularity) |
| 2. 25-pair connector pins (3-pair modularity) | 6. Voice or data terminal pins |
| 3. MDF pins (3-pair modularity) | 7. Adjunct power |
| 4. Input to information outlet (4-pair modularity) | |

Figure 1-25. 3-Pair and 4-Pair Modularity

Adjunct Power Connections

[Figure 1-26](#) shows typical connection locations for adjunct power.

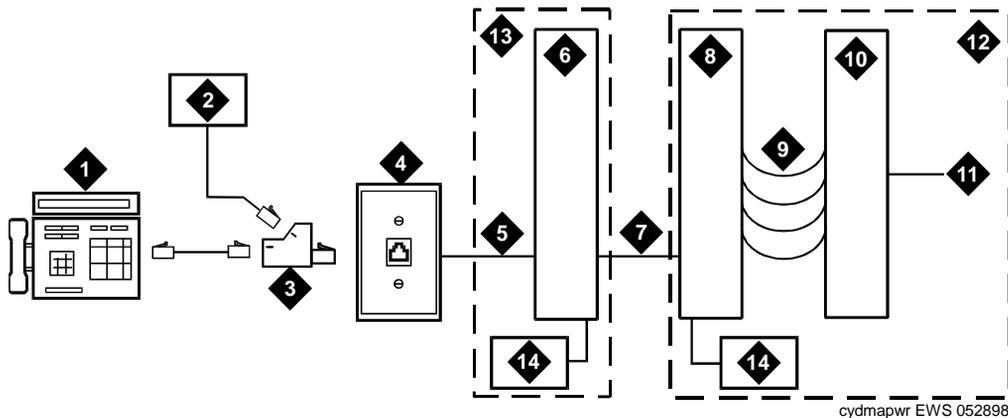


Figure Notes

1. Typical display telephone
2. Individual power supply (such as 1151A, not used if item 14 is used)
3. 400B2 adapter
4. Information outlet (modular jack)
5. 4-pair D-Inside Wire (DIW) cable
6. Satellite site or adapter location
7. 25-pair D-Inside Wire (DIW) cable
8. Station side of MDF
9. 100P6A patch cord or jumpers
10. System side of MDF
11. 25-pair cable to digital line circuit pack
12. Equipment room
13. Satellite location
14. Bulk power supply (such as 1145B).
Install at satellite location or equipment room (not both).

Figure 1-26. Example Adjunct Power Connections

Local and Phantom Power

An attendant console's maximum distance from the system is limited. See [Table 1-6](#).

Table 1-6. Attendant Console Cabling Distances

Enhanced Attendant Console (302C1)	24 AWG Wire (0.26 mm ²)		26 AWG Wire (0.14 mm ²)	
	Feet	Meters	Feet	Meters
With Selector Console				
Phantom powered	800	244	500	152
Locally powered	5000	1524	3400	1037
Without Selector Console				
Phantom powered	1400	427	900	274
Locally powered	5000	1524	3400	1037

Auxiliary Power

The nonessential functions of an attendant console and its optional 26A1 or 24A1 selector console derive power from an auxiliary power source. Provide auxiliary power for an attendant console through this cable so the console remains fully operational during short power outages.

NOTE:

Only 1 console can derive auxiliary power from the system and through the auxiliary cable located in the trunk/auxiliary field.

A console's maximum distance from its auxiliary power source is:

- 800 feet (244 m) for a 302A1
- 350 feet (107 m) for a 301B1 and 302C1

An attendant console can also derive auxiliary power from:

- Individual 1151A or 1151A2 power supply
- MSP-1 power supply
- 258A-type adapters
- Bulk power supplies such as the 1145A1

Install Attendant Console — Optional

1. Position the attendant console in the desired location and connect the modular cord to the information outlet.
2. Install labels per the Attendant Console form and Display Module form assignments.
3. Install a Digital Line circuit pack in the assigned carrier slot (if required).
4. Administer the Attendant Console forms in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Hard-Wire Bridging

CAUTION:

Bridging or paralleling these endpoints can cause electrical damage to the consoles or cause the circuit pack to remove power from the consoles.

Analog type hard-wire bridging is not allowed for 4-wire (only) DCP endpoints. This is because hard-wire bridging provides no way of combining the digital output of 2 bridged DCP sets. Also, a bridged endpoint causes the added load to degrade the DCP signal.

Dual Wiring of 2-Wire and 4-Wire Endpoints

Do not simultaneously wire a 2-wire and 4-wire endpoint to the same equipment location in an MDF, even though they connect to different colored wire pairs. The system uses separate circuit packs to interface 2- and 4-wire endpoints, and none are capable of interfacing both.

Install 26B1 Selector Console — Optional

1. Connect the supplied 3-foot (0.9 m) D8AC cable to the modular jack on the bottom of the 26B1 Selector Console.
2. Route the cable to the attendant console and connect to the DXS/BLF jack.
3. Attach labels according to the Attendant Console form.
4. Administer the console using DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Connect External Alarms and Auxiliary Connections

NOTE:

The AUX connector is part of the Processor Interface cable assembly (J1). When the wiring and administration is complete, give these wiring records to your Customer System Administrator for troubleshooting purposes.

Alarm Input

Alarms can be generated on adjunct equipment, sent to the DEFINITY ONE system, and recorded and reported as “external alarms.”

CAUTION:

Pins 26 and 1 on the AUX connector are dedicated to the UPS alarm input. Using these pins for other alarm inputs will cause the DEFINITY ONE system to reset.

1. Connect 1 major alarm input wire pair and 1 minor alarm input wire pair to the auxiliary field from the AUX connector (J1 on Processor Interface Cable). See [Table 1-7](#) and [Figure 1-27 on page 1-53](#).

Table 1-7. Alarm Inputs at AUX Connector

Alarm Input Type	Color	AUX Connector
Minor	White-Blue	AP1 (Pin 27)
	Blue-White	Ground (Pin 2)
Major (UPS)	White-Orange	AP2 (Pin 26)
	Orange-White	Ground (Pin 1)

Alarm Output

The system provides a relay contact closure that can operate a customer-provided alarm, such as a light or bell. The circuitry and power source are customer- provided. The alarm device must not exceed a rating of more than 30 VAC RMS or 60 VDC at 0.75 Amps.

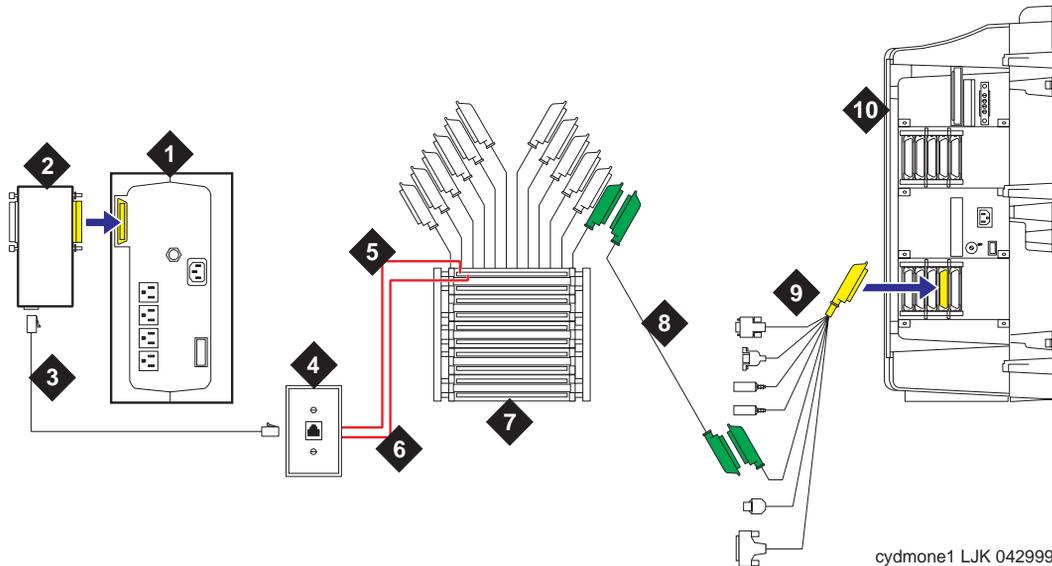
1. Connect the external alarm output. See [Table 1-8](#).
2. Type **change system-parameters maintenance** and press Enter.

3. Change the "CPE Alarm Activation Level" field to the desired alarm level and press Enter.

Table 1-8. Alarm Output at AUX Connector

Alarm Output Type	Color	AUX Connector
EXTALMA	Violet-Green	(Pin 48)
EXTALMB	Green-Violet	(Pin 23)

UPS Alarm Connection



cydmone1 LJK 042999

Figure Notes

1. Lucent UPS
2. Z3A2 alarm adapter
3. RJ45 (D8W) cable
4. 103A or modular jack
5. Pin 26, white-orange
6. Pin 1, orange-white
7. MDF
8. 25-pair cable
9. Processor interface cable (AUX connector)
10. DEFINITY ONE

Figure 1-27. UPS Connection to DEFINITY ONE

Emergency Transfer and Auxiliary Power



NOTE:

Only 1 emergency transfer power panel and 1 auxiliary power connection is provided per system.

Connect emergency transfer power and auxiliary power as shown in [Table 1-9](#). Auxiliary power includes power to an attendant console or adjunct device.

Table 1-9. Emergency Transfer and Auxiliary Power

Power Type	Color	AUX Connector
Emergency Transfer	Black-Blue	XFER48 (Pin 36)
	Blue-Black	Ground (Pin 46)
Adjunct -48 VDC	Brown-Yellow	ACC48A (Pin 19)
	Yellow-Brown	Ground (Pin 44)

Telephone Pin Designations

[Table 1-10](#) provides port circuit pack and telephone pin designations.

Table 1-10. Port Circuit Pack and Telephone Pin Designations

Pin on Modular Plug	4-wire; 302C1, 8400-Series, 603E, 9403, 9434	2-wire; 302C1, 8400-Series, 603E, 9403, 9410, 9434	8510T BRI (with adjunct speaker phone)	Analog Station, Modem	Z3A1 & Z3A2 ADU, Data Module
1	TXT				TXT
2	TXR			T	TXR
3	PXT		TXT	R	PXT
4		T	PXR		
5		R	PXT		
6	PXR		TXR		PXR
7	-48VDC	(-48VDC)	(-48VDC)		
8	GRD	GRD	GRD		
circuit pack	4-wire digital (8 ports)	2-wire digital (16 or 24 ports)	4-wire BRI Trunk Side	Analog line (16 or 24 ports)	Data Line
	PX	PBX transmit	T	Tip	(A)
	TX	Terminal transmit	R	Ring	(B)

1 Install and Cable the Cabinet

Install the BRI Terminating Resistor

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Install the BRI Terminating Resistor

The resistors balance the cable plant between the receiver and the transmitter on the interface. When using the TN2198 ISDN-BRI 2-Wire U Interface circuit pack, an NT1 is required. A terminating resistor is always required near the terminal when the BRI S-type interface circuit pack (TN556 BRI 4-Wire S-NT Line circuit pack) is used (see #5ESS Switch Integrated Services Digital Network Customer Premises Planning Guide, 533-700-100).

The resistor is built into the NT1 and can be 1 of 3 values, depending on the configuration and the distance from the NT1 to the ISDN terminal. The resistor value is controlled from the NT1. A terminating resistor adapter may be needed near the terminal and can be placed in the satellite closet or work location.

CAUTION:

The 440A4 terminating resistor and 110RA1-12 terminating resistor block are UL listed. Most new installations are the 110RA1-12 terminating resistor block. The following installation instructions should be observed.

- Never install telephone wiring during a lightning storm.
- Never install telephone jacks in wet locations unless the jack is specifically designed for wet locations.
- Never touch uninsulated wires or terminals unless the telephone line has been disconnected at the network interface.
- Use caution when installing or modifying telephone lines.

Terminating Resistor Adapter

[Figure 1-28](#) shows an 8-pin 440A4 terminating resistor adapter. The adapter has an 8-wide plug at 1 end, a short cord, and an 8-wide jack at the opposite end.

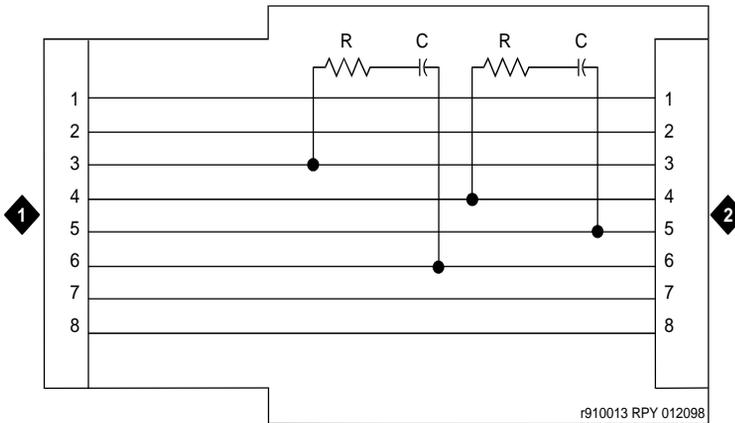


Figure Notes

1. 8-wide plug

2. 8-wide jack

Figure 1-28. 8-Wide Terminating Resistor Adapter (440A4)

Closet Mounted (110RA1-12)

The 110RA1-12 terminating resistor block consists of twelve 2-pair circuits and provides the 100 Ohm termination used for ISDN-BRI circuits.

[Figure 1-29](#) shows the wiring of the 110RA1-12. Three rows of 110D 4-connector blocks contain resistors and capacitors. The bottom row is designated as the input row and the top and middle rows are designated as the output rows. The circuit assembly is mounted on a standard 110A 100-pair mounting base.

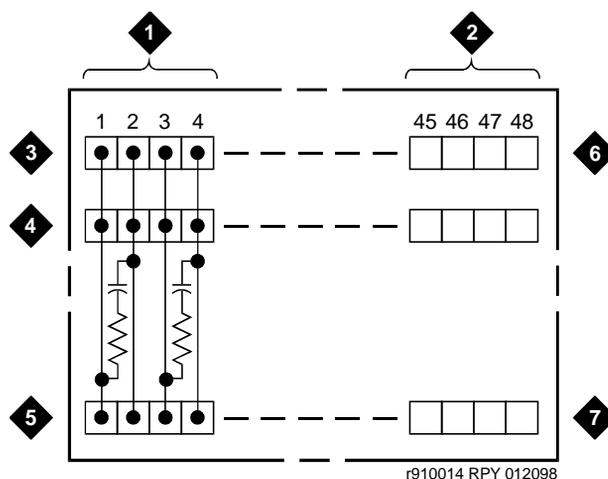


Figure Notes

- | | |
|-------------------|---|
| 1. Circuit 1 | 5. Input row "C" |
| 2. Circuit 12 | 6. Only first circuit shown to all 12 circuits (2APR) per block |
| 3. Output row "A" | 7. 110D 4-connector block |
| 4. Output row "B" | |

Figure 1-29. Terminating Resistor Block (110RA1-12)

1 Install and Cable the Cabinet

Install the BRI Terminating Resistor

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Figure 1-30 shows the wiring connections for the 110RA1-12 terminal block. The TN556 BRI switch port is terminated to bottom row C.

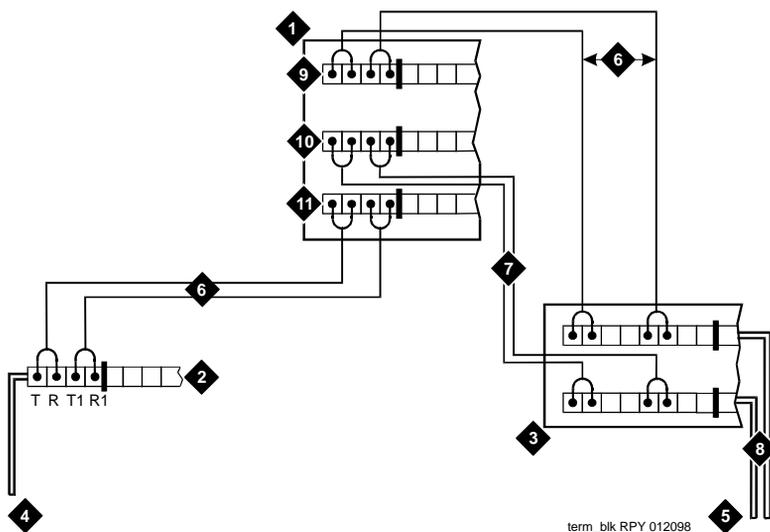


Figure Notes

- | | |
|---|-----------------------------|
| 1. Part of terminating resistor block | 7. Basic multi-point option |
| 2. White or purple field | 8. 4-pair horizontal cables |
| 3. Part of 4-pair blue field | 9. Row "A" |
| 4. From ISDN T-interface circuit (2-pair) | 10. Row "B" |
| 5. To ISDN S/T-interface terminals | 11. Row "C" |
| 6. 2-pair cross-connect | |

Figure 1-30. Typical Installation of Terminating Resistor Block

For point-to-point wiring, the top row connects to the blue station field. The pair connects from the 110RA1-12 to the standard 4-pair circuit. Pair 1 from the 110RA1-12 is connected to Pair 1 of the station field, and Pair 2 is connected to Pair 3 of the station field.

Two terminal basic multi-point applications are accommodated by connecting row B (output) to the second terminal common to the multi-point circuit.

Install Multi-Point Adapters

Use multi-point adapters to provide signal fanout of the T-interface. BR851-B or the 367A perform fanout at the work station. These adapters support more than 1 ISDN terminal per horizontal 4-pair D-inside wire (DIW). To support multiple horizontal runs, a MDF with multiple common rows performs fanout in the satellite closet. The 110RA1-12 provides fanout for two horizontal runs and contains the 100 Ohm terminating resistor. Use this for basic multi-point or point-to-point with terminating resistor in the closet. Other fanout blocks include the 110AB1-025M and the 110AB1-050M.

BR851-B Adapter (T-Adapter)

The BR851-B supports 2 terminals on 1 multi-point BRI at the work station and is used to fanout transmission and power. See [Figure 1-31](#).

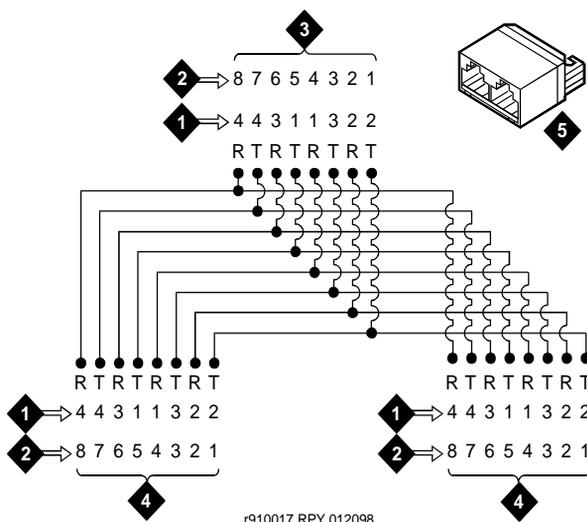


Figure Notes

- | | |
|------------------------|-----------------------------|
| 1. Wire pairs | 4. Female |
| 2. Pin numbers | 5. T-Type adapter (BR851-B) |
| 3. Modular plug (male) | |

Figure 1-31. Wiring Diagram of BR851-B

367A Adapter

The 367A adapter provides fanout for up to 7 terminals. See [Figure 1-32](#).

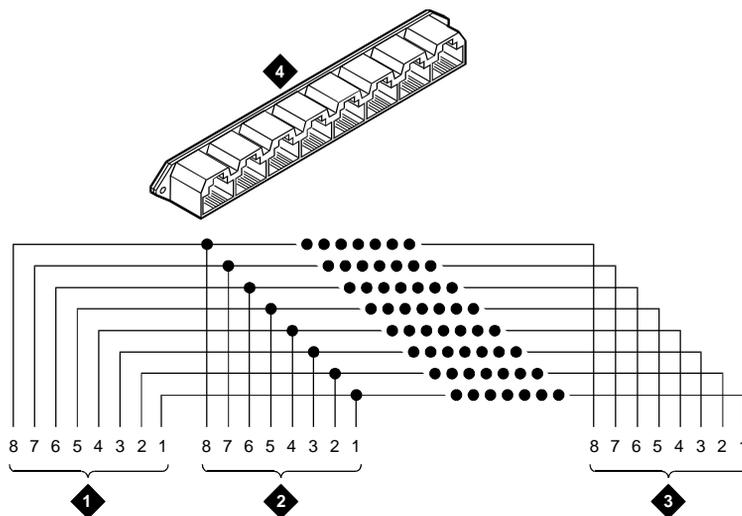


Figure Notes

- 1. Jack 1
- 2. Jack 2

- 3. Jack 8
- 4. 367A adapter

Figure 1-32. Wiring Diagram of 367A Adapter

Basic Multi-Point Installation Distances

Figure 1-33 provides cabling information for fanout of ISDN-BRI multi-point installations. In Figure 1-33, the terminating resistor is located in the satellite closet. All distances assume 24 AWG (0.26 mm²) D-Inside Wire (DIW).

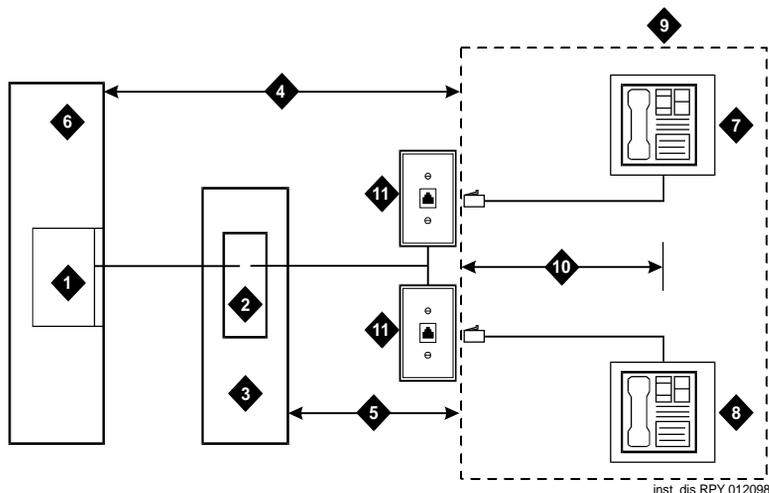


Figure Notes

- | | |
|--|---|
| 1. S-interface source (TN556) | 6. System cabinet |
| 2. Terminating resistor | 7. Terminating endpoint 1 |
| 3. Satellite closet | 8. Terminating endpoint 2 |
| 4. Maximum distance from S-interface source to work location (1600 feet) (488 m) | 9. Work location |
| 5. Maximum distance from satellite closet to work location (250 feet) (76 m) | 10. Maximum distance from information outlet to terminating endpoint (33 feet) (10 m) |
| | 11. Information outlet |

Figure 1-33. Basic Multi-point with One Work Location

Install Off-Premises Station Wiring

The cabling for off-premises stations is provided by the local telephone company. These stations can appear on any of the RJ21X network interfaces provided for the CO trunks.

CAUTION:

Use only an FCC-approved (or equivalent) analog type telephone (such as a 2500-type) as an off-premises station. The TN746B and TN2183 Analog Line circuit packs can be connected to off-premises stations.

1. Install an A25D cable between the RJ21X network interface and a sneak fuse panel.
2. At the MDF, connect jumper wires between 1 row/connecting block in the green field and up to 3 rows/connecting blocks in the purple field to concentrate the analog line pairs.
3. Connect an A25D cable between the sneak fuse panel and the terminal block connector associated with the green row in Step 2.
4. Install a green label on the terminal block to identify the remote location.
5. Administer per DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Install Off-Premises or Out-of-Building Stations

Out-of-building campus stations are those telephones not physically located in the same building as the equipment room but are located on the same property.

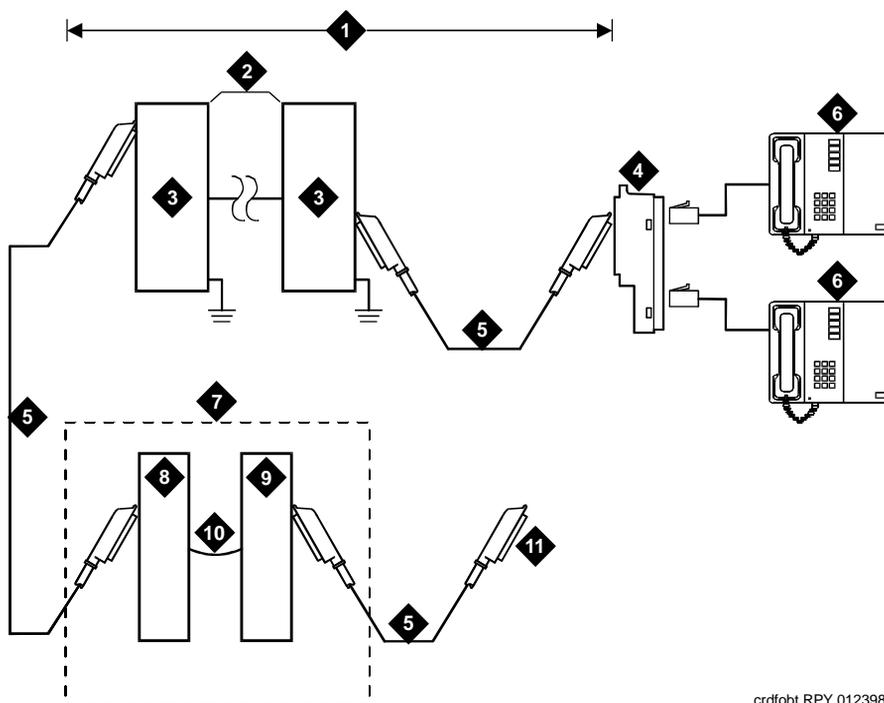
Analog Off-Premises Stations

[Figure 1-34](#) shows the connections for 1 to 8 off-premises analog telephones. Only analog telephones connected to TN742, TN746B, TN2183, or TN769 Analog Line circuit packs can be installed out-of-building.

The maximum distance from the system cabinet to the out-of-building voice terminal is 6000 feet (1828.8 meters) using 24 AWG (0.26 mm²) wire.

1 Install and Cable the Cabinet

Install Off-Premises Station Wiring



crdfobt RPY 012398

Figure Notes

- | | |
|--|---|
| 1. Locally engineered cables | 7. Part of MDF |
| 2. Out-of-building wiring | 8. Station side (white field) |
| 3. Multi-pair protector units (primary protectors with heat coils or equivalent with sneak current protection) | 9. System side (purple field) |
| 4. 356A adapter | 10. Cross-connect jumpers |
| 5. B25A cable | 11. To analog line circuit pack (TN2183, TN769, TN742, or TN746B) |
| 6. Out-of-building analog telephones | |

Figure 1-34. Connections for 1 to 8 Out-of-Building Analog Telephones

1 Install and Cable the Cabinet

Install Off-Premises Station Wiring

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Figure 1-35 shows the connections for up to 24 off-premises analog telephones. Concentrations of analog line pairs are used at both buildings to minimize the off-premises wiring required. At the MDF, jumpers must be connected between 1 row/connecting block in the white field and up to 3 rows/connecting blocks in the purple field. At the station location, a WP-90929, List 1 Concentrator Cable is used. There are 8 station appearances on each of the 3 fingers of the concentrator cable.

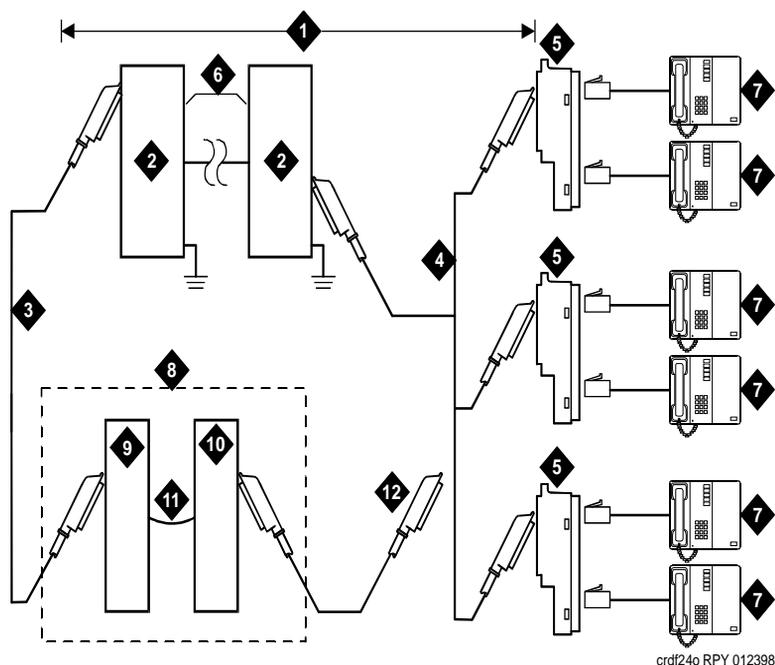


Figure Notes

- | | |
|--|---|
| 1. Locally engineered cables | 7. Out-of-building analog telephones |
| 2. Multi-pair protector units (primary protectors with heat coils or equivalent with sneak current protection) | 8. Part of MDF |
| 3. B25A cable | 9. Station side (white field) |
| 4. Concentrator cable (WP90929 List 1) | 10. System side (purple field) |
| 5. 356A adapter | 11. Cross-connect jumpers |
| 6. Out-of-building wiring | 12. To TN2183, TN769, TN742, or TN746B analog line circuit pack |

Figure 1-35. Connections to 24 Out-of-Building Telephones

Circuit Protectors

Carbon block, or equivalent protection is required at both building entrances. Also sneak current protection is required. Protection can be provided by a 4-type protector or a 3-type protector plus a separate sneak current protector. The 4-type protector is equipped with a heat coil.

The 4-type protector is the preferred device. For installations not using primary protection, 4-type protectors should always be used. When the 3-type protector is already installed, a separate sneak current protector is required. The multi-pair protector units and the off-premises cabling must be locally engineered. Connectorized multi-pair protector units (female 25-pair connector) are recommended. [Table 1-11](#) shows the recommended protectors.

Table 1-11. Analog Line Circuit Protectors

Protectors		
Primary ¹	Primary (with heat coil)	Sneak Current Protectors ¹
3B1A (carbon)	4B1C (carbon)	220029 Fuse
3B1E-W (wide-gap gas tube)	4B1E-W (wide-gap gas tube)	SCP-1
3C1S (solid state)	4C1S (solid state)	

-
1. The 3-type protectors should only be used if they are already part of the existing protection system. A sneak current protector is always required when a 3-type primary protector is used.
-

The maximum range of out-of-building analog telephones (500-, 2500-, or 7100-types) connected to an analog line circuit pack should be such that the maximum loop resistance does not exceed 1300 Ohms.

The following voice terminals cannot be installed in an exposed environment:

- 7300-type voice terminals connected to TN762 Hybrid Line circuit packs
- Multi-button Electronic Telephone (MET) sets connected to TN735 MET Line circuit packs
- Analog telephones connected to TN746 Analog Line circuit packs

Refer to [Table 1-1 on page 1-4](#) for circuit protector ordering information (comcodes).

Digital Out-of-Building Telephones

Protection is required at both building entrances for digital out-of-building voice terminals. There are 2 different types of protectors that can be used to protect digital voice terminals and digital line circuit packs. The 2 protectors to use are the 4C3S-75 Enhanced protector and the ITW Linx Enhanced Protector. These units provide primary and sneak current protection. The 4C3S-75 is equipped with a heat coil for sneak current protection. The ITW Linx is equipped with replaceable fuses for sneak current protection.

The 4C3S-75 is only used with Vintage 14 or newer TN754 circuit packs. The 4C3S-75 can be used on all vintages of the TN754B circuit packs. The ITW Linx may be used on all vintages of the TN754 circuit packs. [Table 1-12](#) lists the approved protectors.



NOTE:

The TN2181 (2-Wire 16 Port Digital Line circuit pack) may not be approved for some out-of-building uses. Contact your Lucent Technologies representative for more information.

Table 1-12. Digital Voice Circuit Protectors

Circuit Pack	Enhanced Primary Protector (With Sneak Current Protection)
TN754B/C all vintages	4C3S-75 or ITW Linx
TN2181	4C3S-75 or ITW Linx
TN2224	4C3S-75 or ITW Linx

When possible, all new and reused wiring installations should use blocks that accept the standard 5-pin plug-in 4C3S-75 protector. However, this may not be cost-effective in some cases. For these installations, the ITW Linx protector may be installed. An example of this is where screw-type carbon block protectors (or other plug-in-compatible types) are in place and it is too costly to re-terminate the outside plant cable on a 5-pin mounting block for only a few out-of-building terminals.

The ITW Linx Enhanced Protector may be installed in series with existing primary protection. Note the 4C3S-75 protector cannot be installed in series with other types of primary protection. It must be installed as the only protection on the line entering the building. For the 4C3S-75 protector, various 25-, 50-, and 100-pair protector panels are equipped with 110-type connecting blocks and/or RJ21X connectors. The ITW Linx Enhanced Protector mounts directly on connecting blocks and requires a separate ground bar.

The maximum range for out-of-building digital voice terminals is 3400 feet (1036 m) when using 24 AWG (0.26 mm²) wire and 2200 feet (670 m) when using 26 AWG (0.14 mm²) wire. The range can extend to 5000 feet (1524 m) using 24

1 Install and Cable the Cabinet
Install Emergency Transfer Unit and Associated Telephones

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AWG (0.26 mm²) wire or 4000 feet (1219 m) using 26 AWG (0.14 mm²) wire with the use of a data link protector. The protector is an isolating transformer used to remove phantom power on the system side and re-introduce it on the terminal side.

When a protector is used, the voice terminal must be locally powered by an external power supply or through the AC power cord provided with some of the 7400-type voice terminals. The protector is installed on the equipment side of the protection in both buildings.

Refer to [Table 1-1 on page 1-4](#) for circuit protector and data link protector comcodes.

Install Emergency Transfer Unit and Associated Telephones

 **NOTE:**

Install only 1 emergency transfer power panel per system.

Emergency transfer capability is provided by an 808A Emergency Transfer Panel (or equivalent) mounted next to the trunk/auxiliary field. See [Figure 1-36](#). Also refer to [Table 1-9 on page 1-54](#) for the pinout of the AUX (J1) connector.

Use analog telephones for emergency transfer. The 500 and 2500 type telephones can also be used as normal extensions. Emergency transfer capability may be provided on analog CO and Wide Area Telecommunications Service (WATS) trunks.

The transfer panel provides emergency trunk bypass or power-fail transfer for up to 5 incoming CO trunk loops to 5 selected station sets. The 808A equipment's Ringer Equivalency Number (REN) is 1.0 Amp.

At the MDF, the unit is controlled by a connection to a yellow terminal row/connecting block in the trunk/auxiliary field. The unit is controlled by -48 VDC from the EM TRANS RELAY PWR terminals.

Install the Emergency Transfer Panel

The 808A Emergency Transfer Panel is used in the following installation example.

1. Install the transfer panel on any mounting frame in either a vertical or horizontal position. The housing has ears for screw-mounting and cutouts for snap-mounting the unit in an 89-type mounting bracket.



NOTE:

Install the panel so it can be accessed only by authorized personnel. The location must meet standard environmental considerations such as temperature, humidity, and so forth.

2. Verify dial tone is present at each trunk circuit.

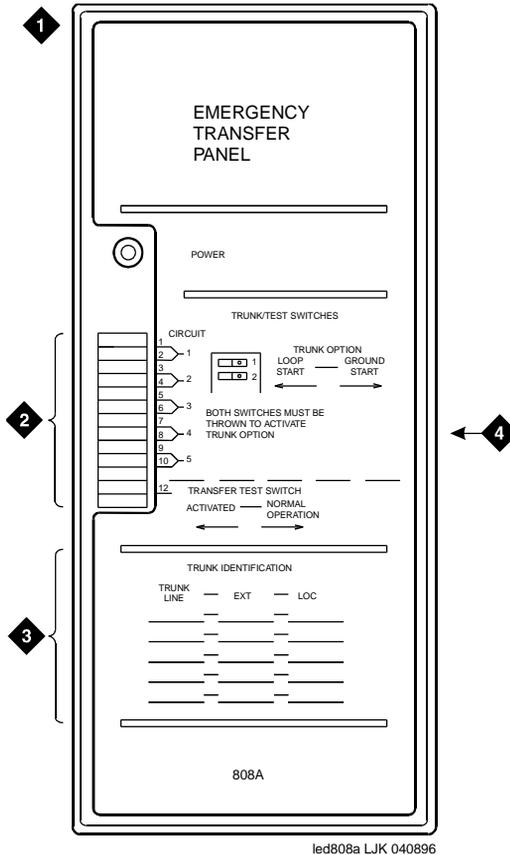


Figure Notes

- | | |
|-------------------------------------|-------------------------------|
| 1. 808A emergency transfer panel | 3. Trunk identification label |
| 2. Circuit start selection switches | 4. 25-pair male connector |

Figure 1-36. 808A Emergency Transfer Panel

1 Install and Cable the Cabinet

Install Emergency Transfer Unit and Associated Telephones

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3. Locate the circuit start selection switches. See [Figure 1-36](#). These are the first 10 two-position switches on the left side of the 808A. The switches set each of the 5 incoming trunk lines to either loop start or ground start. Two switches are used for each of the 5 circuits; switches 1 and 2 are used for circuit 1, switches 3 and 4 are used for circuit 2, and so forth. See [Table 1-13](#).

For loop start, set the switches to the **left**. For ground start, set the switches to the **right**.

Table 1-13. Trunk/Test Switches

Switch Number	Circuit Number
1	1
2	1
3	2
4	2
5	3
6	3
7	4
8	4
9	5
10	5
11	Not Used
12	Test Switch

4. Connect a 25-pair cable between the male RJ21 25-pair connector on the 808A and the yellow field on the MDF. [Table 1-14](#) shows the pinouts.
5. Make cross-connections for each emergency trunk/emergency station pair. See [Figure 1-37](#) and [Figure 1-38](#).
6. On the trunk identification label at the bottom of the panel, record the trunk line, extension, and location for each circuit.
7. To each voice terminal designated as an emergency terminal, attach a label identifying it as such. The labels are provided with the unit.
8. Check the system for normal operation as follows:
 - a. Place the test switch (switch 12) in NORMAL OPERATION.
 - b. Ensure the power supply is providing -48 VDC at 80 mA maximum. The power LED should be ON.

1 Install and Cable the Cabinet
Install Emergency Transfer Unit and Associated Telephones

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- c. Check wiring connections.
- d. Verify there is dial tone on all emergency transfer sets.

Table 1-14. Pin Assignments for 25-Pair Connector on 808A

Pin	Color	Designation	Connector/Description
26	W-BL	TTC1	Tip-PBX Trunk Circuit 1
1	BL-W	RTC1	Ring-PBX Trunk Circuit 1
27	W-O	TTK1	Tip-CO Trunk Circuit 1
2	O-W	RTK1	Ring-CO Trunk Circuit 1
28	W-G	TLC1	Tip-PBX Line Port 1
3	G-W	RLC1	Ring-PBX Line Port 1
29	W-BR	TST1	Tip-Emergency Terminal 1
4	BR-W	RST1	Ring-Emergency Terminal 1
30	W-S	TTC2	Tip-PBX Trunk Circuit 2
5	S-W	RTC2	Ring-PBX Trunk Circuit 2
31	R-BL	TTK2	Tip-CO Trunk Circuit 2
6	BL-R	RTK2	Ring-CO Trunk Circuit 2
32	R-O	TLC2	Tip-PBX Line Port 2
7	O-R	RLC2	Ring-PBX Line Port 2
33	R-G	TST2	Tip-Emergency Terminal 2
8	G-R	RST2	Ring-Emergency Terminal 2
34	R-BR	TTC3	Tip-PBX Trunk Circuit 3
9	BR-R	RTC3	Ring-PBX Trunk Circuit 3
35	R-S	TTK3	Tip-CO Trunk Circuit 3
10	S-R	RTK3	Ring-CO Line Port 3
36	BK-BL	TLC3	Tip-PBX Line Port 3
11	BL-BK	RLC3	Ring-PBX Line Port 3
37	BK-O	TST3	Tip-Emergency Terminal 3
12	O-BK	RST3	Ring-Emergency Terminal 3
38	BK-G	TTC4	Tip-PBX Trunk Circuit 4
13	G-BK	RTC4	Ring-PBX Trunk Circuit 4
39	BK-BR	TTK4	Tip-CO Trunk Circuit 4
14	BR-BK	RTK4	Ring-CO Trunk Circuit 4

Continued on next page

Table 1-14. Pin Assignments for 25-Pair Connector on 808A — *Continued*

Pin	Color	Designation	Connector/Description
40	BK-S	TLC4	Tip-PBX Line Port 4
15	S-BK	RLC4	Ring-PBX Line Port 4
41	Y-BL	TST4	Tip-Emergency Terminal 4
16	BL-Y	RST4	Ring-Emergency Terminal 4
42	Y-O	TTC5	Tip-PBX Trunk Circuit 5
17	O-Y	RTC5	Ring-PBX Trunk Circuit 5
43	Y-G	TTK5	Tip-CO Trunk Circuit 5
18	G-Y	RTK5	Ring-CO Trunk Circuit 5
44	Y-BR	TLC5	Tip-PBX Line Port 5
19	BR-Y	RLC5	Ring-PBX Line Port 5
45	Y-S	TST5	Tip-Emergency Terminal 5
20	S-Y	RST5	Ring-Emergency Terminal 5
46	V-BL	COM1	Common 1 Relay Contact
21	BL-V	NO1	Normally Open 1 Contact
47	V-O	NC2	Normally Closed 2 Contact
22	O-V	NC1	Normally Closed 1 Contact
48	V-G	COM2	Common 2 Relay Contact
23	G-V	NO2	Normally Open 2 Contact
49	V-BR		
24	BR-V		
50	V-S	GRD	Ground From PBX
25	S-V	-48PX	-48V from Alarm Panel (AUX Cable)

9. Check the system for emergency transfer operation as follows:
 - a. Place the test switch (switch 12) in the ACTIVATED position.
 - b. The power LED should be OFF.
 - c. Verify there is CO dial tone for all emergency transfer sets.

Figure 1-38 shows the connections at the trunk/auxiliary field for a telephone used for emergency transfer and as a normal extension.

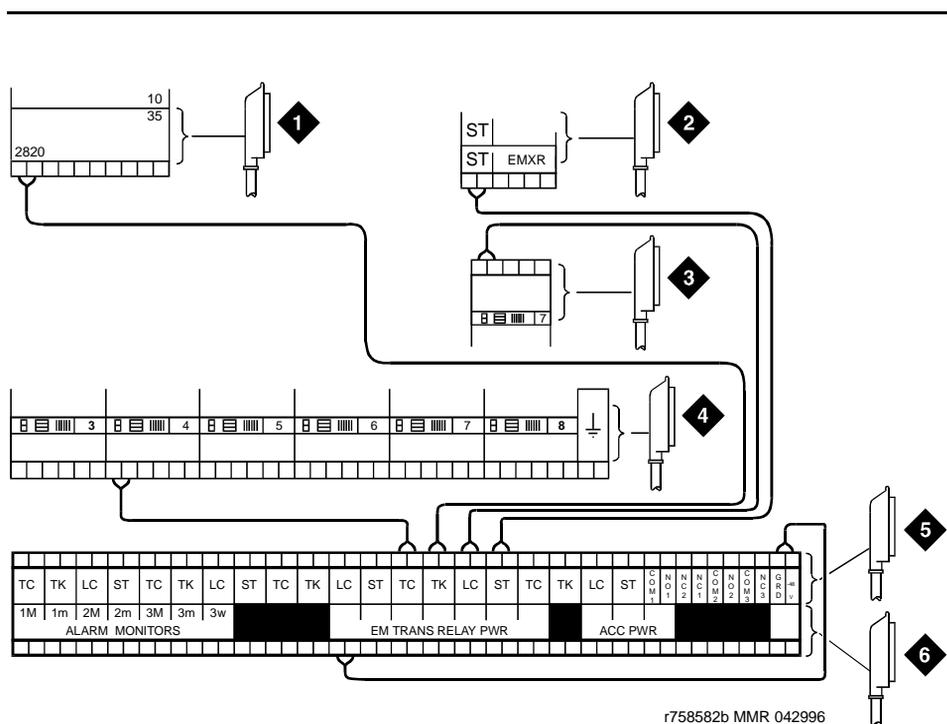


Figure Notes

- | | |
|-----------------------------------|-------------------------------------|
| 1. To network interface facility | 4. To CO trunk circuit pack |
| 2. To blue or white station field | 5. To power transfer unit |
| 3. To analog line circuit pack | 6. To control carrier AUX connector |

Figure 1-38. Connections for Telephone Used for Emergency Transfer and as Normal Extension

Install Telephone for Power Transfer Unit

Trunk/Auxiliary Field: Telephone Used Only for Emergency Transfer

1. Connect a pair of wires between the -48V and GRD terminals on the yellow emergency transfer row/connecting block and the EM TRANS RELAY PWR terminal. See [Figure 1-37](#).
2. Connect CO trunk leads from the purple field to the TC terminals on the yellow emergency transfer row/connecting block for each trunk.
3. Connect CO trunk leads from the green field to the TK terminals on the yellow emergency transfer row/connecting block for each trunk.
4. Connect the ST leads on the yellow emergency transfer row/connecting block for each emergency transfer telephone to the ST terminal appearance in the yellow trunk/auxiliary field. The ST terminal leads should be terminated on the following pairs: 1, 4, 7, 10, 13, 16, 19, or 22 (the first pair of any 3-pair group).
5. Connect the ST leads from the terminal in Step 4 to the assigned terminal in the blue or white station distribution field.

Trunk/Auxiliary Field: Telephone Used for Emergency Transfer and as Normal Extension

1. Connect a pair of wires between the -48V and GRD terminals on the yellow emergency transfer row/connecting block to the EM TRANS RELAY PWR terminal. See [Figure 1-38](#).
2. Connect CO trunk leads from the purple field to the TC terminals on the yellow emergency transfer row/connecting block for each trunk.
3. Connect CO trunk leads from the green field to the TK terminals on the yellow emergency transfer row/connecting block for each trunk.
4. Connect telephone leads from the purple analog line board row/connecting block to the LC terminals on the yellow emergency transfer row/connecting block for each telephone.
5. Connect ST leads on the yellow emergency transfer row/connecting block for each emergency transfer telephone to the ST terminal appearance in the purple trunk/auxiliary field.
6. Connect the ST leads from the terminal in Step 5 to the assigned terminal in the blue or white station distribution field.

Telephone Installation

1. Connect the telephone to the information outlet.
2. Install patch cords/jumper wires between the system side and the station side of the station distribution field on the MDF.

Connect Modem

The U.S. Robotics® external modem is the recommended external modem for Release 1.0. A locally obtained, type-approved external modem may be used. Contact your Lucent Technologies representative for information.

If any other Robotics modem is installed, refer to the setup instructions provided with that modem.

External Modem Option Settings

Use [Table 1-16](#) to check or set the 8 option switches on the U.S. Robotics modem.

Table 1-16. U.S. Robotics Model External Modem Switch Settings

Switch	Setting	Function
1	OFF (Up)	DTR (Data Terminal Ready) override
2	OFF (Up)	Verbal result codes (text-formatted feedback characters such as connected or no carrier)
3	ON (Down)	Enable result codes
4	OFF (Up)	Displays keyboard commands (local echo)
5	OFF (Up)	Sets auto answer
6	OFF (Up)	CD (Carrier Detect) override (modem sends CD signal on connect, drops CD on disconnect)
7	OFF (Up)	Power-on and ATZ reset software defaults (loads Y or Y1 configuration from NVRAM)
8	ON (Down)	AT (Attention) command set recognition (enables recognition, smart mode)

The modem is pre-configured and should work correctly. See [“Modem Setup and Administration” on page 9-6](#) for procedures on how to verify that the correct defaults are set; how to configure the modem, if necessary; and how to test the modem.

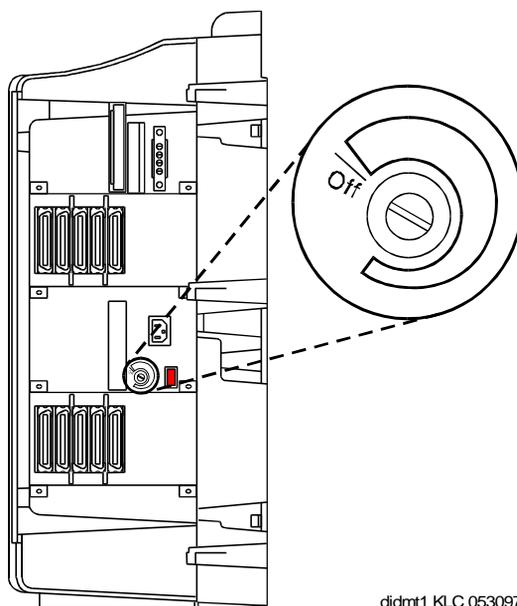
Set Neon Voltage to Prevent Ring Ping

NOTE:

If the ringing option is set to 50 Hz, neon voltage is not available. If 25 Hz is selected, the maximum voltage is 120 volts. Refer to [“Set Ringing Option” on page 1-38](#).

NOTE:

Set the control to OFF if there are no neon message waiting lamps or if LED message lamps are used. See [Figure 1-40](#).



didmt1 KLC 053097

Figure 1-40. Setting the Neon Voltage

1. Call a telephone with a neon message indicator and leave a message.
2. Check for “ring ping” (single ring pulse) each time the lamp flashes (approximately every 3 seconds).
3. Adjust the control clockwise in small increments until the ring ping stops. Be sure that the message lamp still lights when the adjustment is finished.

Complete Installation

1. Enter **logoff** and press Enter to prevent unauthorized changes to data.
2. Set the left and right doors onto the hinge pins and close the doors. The doors must be closed to prevent EMI emissions. Tighten the door screws.
3. Set the right cover panel onto the right panel and secure. Do not use force.

View LEDs to Determine Power and Fan Alarm State

Use the LEDs on the front of each power unit to determine its state.

1. [Table 1-17](#) shows the LED and alarm conditions. Ring voltage and neon bus output do not activate alarm status.

Table 1-17. LED and Alarm Conditions

Condition	LED Status	Alarm State	Fan Alarm
Normal	Red off Yellow on	open	high
No Input Power	Red off Yellow off	closed	open
One or More DC Outputs Present	Red on Yellow off	closed	no state
Fan Alarm	Red on Yellow off	closed	low

Connectivity and Access to DEFINITY ONE

2

This chapter provides background information on connectivity and access. Its purpose is to aid understanding and implementation of subsequent chapters. There are no installation procedures in this chapter.

This chapter is organized as follows:



NOTE:

Physical installation connections are primarily made via PCMCIA. Other connections are alternate methods shown for completeness.

- [“Physical Connections” on page 2-2](#)
 - [“Via a PCMCIA Ethernet \(NIC\) Network Connection” on page 2-2](#)
 - [“Via Local Monitor/Mouse/Keyboard” on page 2-2](#)
 - [“Via RAS \(Modem\) Dial Up” on page 2-3](#)
 - [“Via Customer LAN” on page 2-7](#)

The following access methods are based on the task and/or situation:

- [“Access Methods” on page 2-8](#)
 - [“Via a Telnet Session” on page 2-8](#)
 - [“Via a Web Browser Session” on page 2-10](#)
 - [“Via pcANYWHERE” on page 2-13](#)
- [“System Administration/DEFINITY Site Administration \(DSA\)” on page 2-17](#)
- [“DEFINITY ONE Lucent Personnel Logins” on page 2-19](#)

This chapter first shows the procedures for physical connection to DEFINITY ONE. Once you are physically connected to DEFINITY ONE, you must access the system. Several ways to access the system are provided.

(See [Appendix H](#) for a tear-out “cheat sheet” detailing physical connection and access methods, and login information.)



NOTE:

Detailed descriptions of the operation of the Microsoft Windows operating system and environments are beyond the scope of this document. Please refer to your Microsoft documentation for details concerning the Windows 95/98 and Windows NT systems.

Physical Connections

Via a PCMCIA Ethernet (NIC) Network Connection

Follow the procedure, [“Connect the Laptop Computer to DEFINITY ONE” on page C-2](#), in [Appendix C, “Miscellaneous Procedures”](#). PCMCIA is the preferred procedure for making the physical connection.

Via Local Monitor/Mouse/Keyboard

This access method is used when plugging the monitor into DEFINITY ONE making it look like a PC. The processor interface cable is on slot 2 of DEFINITY ONE. Customers have their own monitor/mouse/keyboard setup.

1. Plug in the monitor to the processor interface on the back of DEFINITY ONE.
2. Plug in the mouse to the processor interface on the back of DEFINITY ONE.
3. Plug in the keyboard to the processor interface on the back of DEFINITY ONE.



NOTE:

If these devices are plugged in while the system is running, you must reboot so that the system will recognize these peripherals. After the first time, they are hot pluggable.

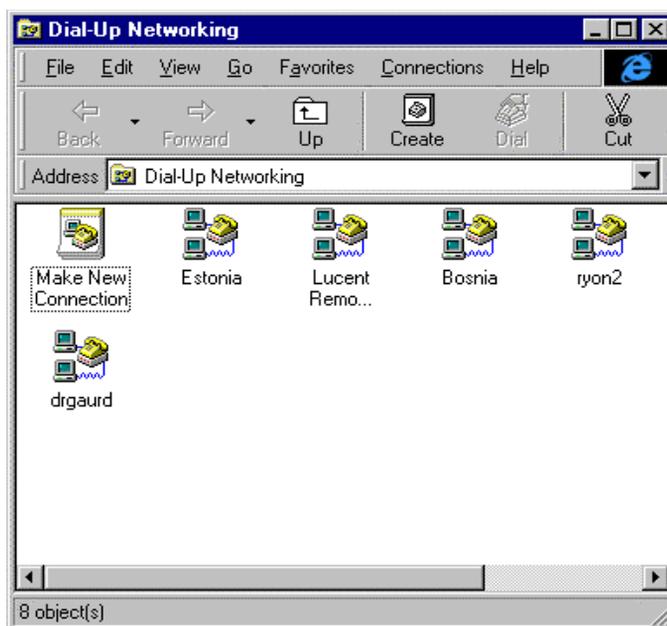
After entering your login and password, you receive the DEFINITY ONE desktop.

Via RAS (Modem) Dial Up

This connection method is used by the technician, INADS, or the customer to dial in remotely using a modem. On DEFINITY ONE, the Windows NT Remote Access Subsystem (RAS) is listening for incoming calls from COM1, to which a modem is connected. Setting up this connection from a Services laptop computer is a standard Windows NT dial up networking operation and is illustrated in the following procedure.

1. On the laptop computer, double click **My Computer**.
2. Double click **Dial Up Networking**.

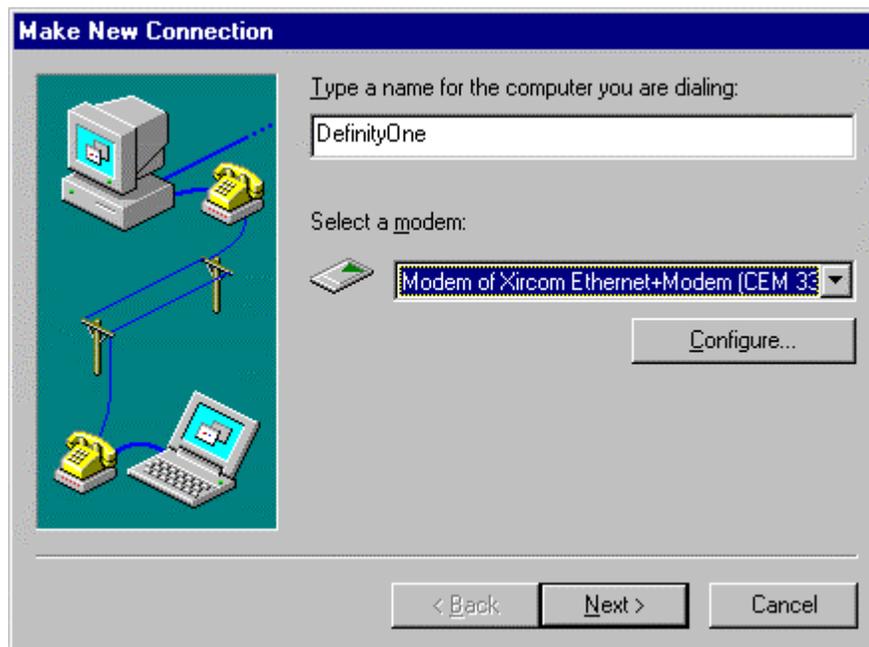
A screen similar to the following appears:



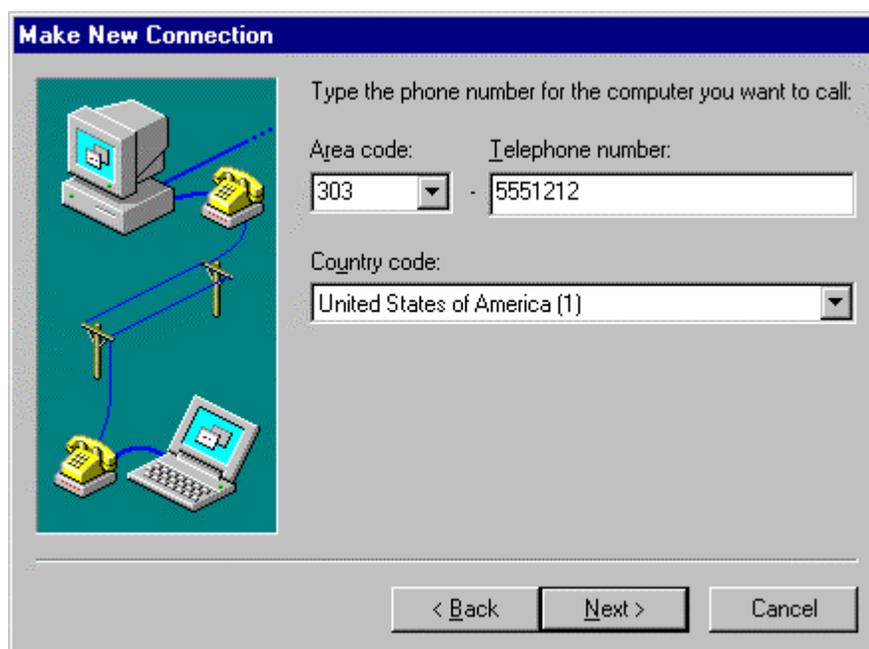
⇒ NOTE:

If you have not already created a connection icon for DEFINITY ONE, do the following:

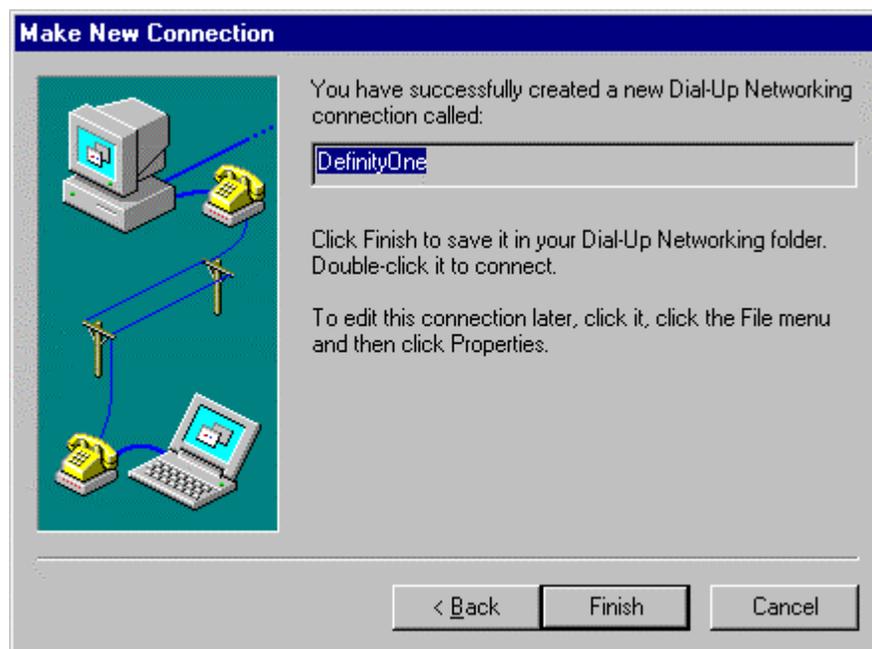
1. Double click on "Make New Connection".



2. Enter the name of the computer you are dialing (be sure to select the appropriate modem).
3. Click Next.
4. Enter the area code and phone number of the system you are calling, then click Next.

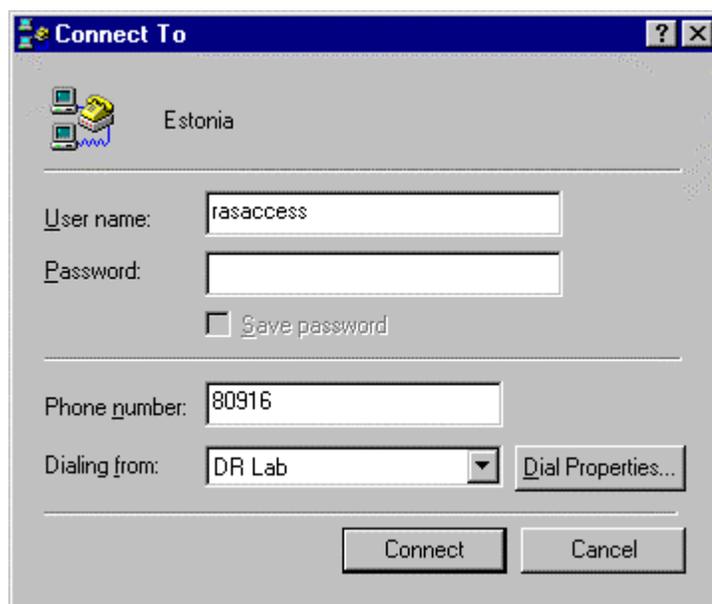


5. Click Finish. Your new icon will appear in the Dial-Up Networking screen.



3. Double click the machine name to which dial up networking has been administered. For these example screen shots, the machine name is "estonia".

A screen similar to the following appears:



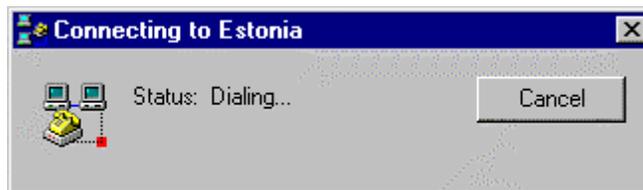
The user name and password set up on this screen must be **rasaccess** with the appropriate password. Note that the password will be the same for each DEFINITY system being contacted. Click Connect.

4. A screen similar to the following appears.



This is a prompt for a network password that is not needed unless disks will be mounted, etc. Leave the domain entry blank and click **OK**.

5. Click **Connect**.



This popup screen indicates that the laptop is trying to dial the DEFINITY ONE server.

After a connection is established, a screen similar to the following appears:



This indicates that the dial up connection to the DEFINITY ONE system is established and the laptop has joined the DEFINITY ONE LAN.

Once the dial up connection is established, the caller must use one of the access methods. See [“Access Methods” on page 2-8](#).

Via Customer LAN

It is up to the customer to install their own LAN. The customer's LAN connects to the ethernet jack of the processor interface cable. See [“Administer Customer's LAN Interface” on page 3-10](#) to configure DEFINITY ONE as a node on the customer's network.

Access Methods

Via a Telnet Session

This access method is used by Lucent technicians to:

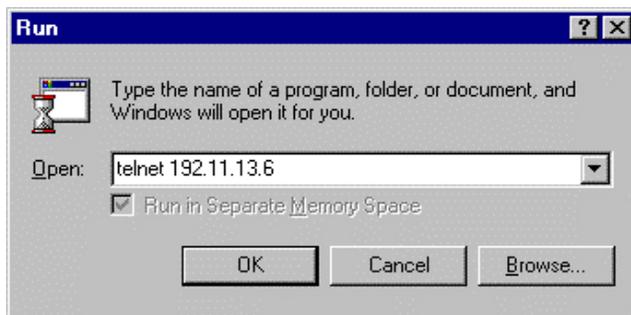
- register DEFINITY ONE with INADS
- activate license files
- execute GAS commands from a bash shell
- access DEFINITY ONE SAT session
- set up the IP address for DEFINITY ONE using setip command

See [Appendix C, “Connect to SAT Session via Telnet”](#) for information on connecting to SAT via Telnet.

⇒ NOTE:

The IP address will be different depending on the type of physical connection established. Refer to the [Chapter H, “Installer’s Connectivity Quick Reference Tear-Out Sheet”](#).

1. On the laptop, click **Start > Run** from the Windows task bar. The **Run** dialog box displays.



2. Enter `telnet {DEFINITY ONE IP Address}`. Click OK.
A Telnet session will open on your desktop.

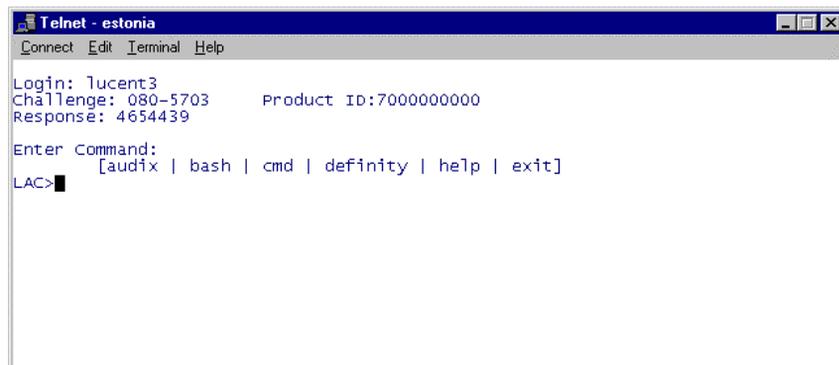
⇒ NOTE:

At this point, there are two different scenarios depending on whether the license file has already been installed.

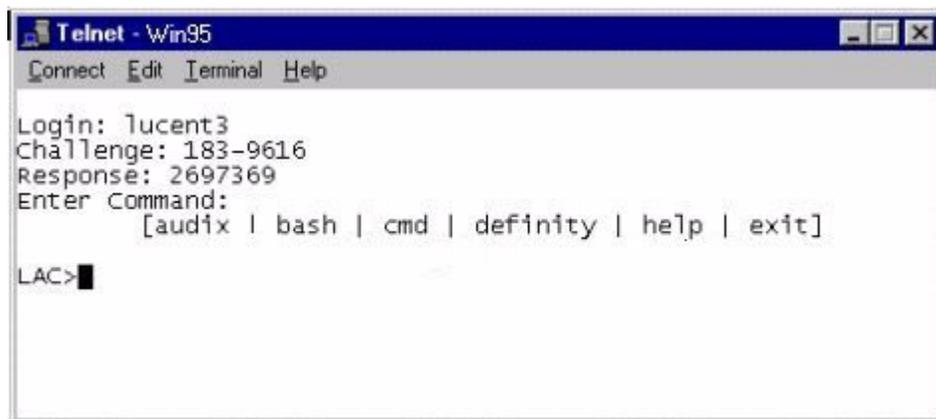
- a. If there is no license file, you will be prompted for your login and password. The only valid login is **lucent3**. Use the appropriate password and continue to step 3.



- b. If the license file has been installed, you will receive a challenge response instead of a password prompt as shown in the figures below. Use any valid Lucent login. See ["DEFINITY ONE Lucent Personnel Logins" on page 2-19](#) for a list of valid logins. Continue to step 3.



3. Enter your User Name and Password at the prompts. Once the Lucent Access Control (LAC) process accepts your inputs, you will be admitted into the system.
4. Enter a command to continue.



Via a Web Browser Session

Customers or Lucent personnel can use this method of access to DEFINITY ONE (Windows NT or Windows 95 on their PC) to:

- administer DEFINITY and AUDIX
- backup and restore
- shut down the system
- activate and stop pcANYWHERE
- download DSA and Message Manager

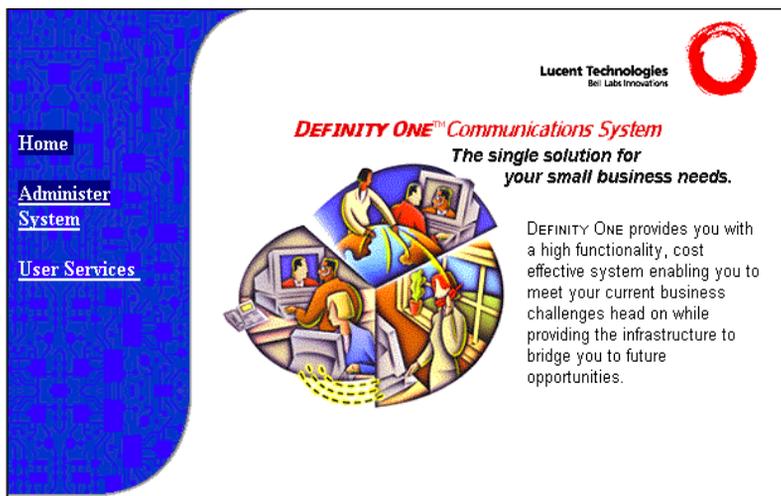
The software can be downloaded to the technician's laptop or a computer on the customer's network. The web browser provides a single point from which to start administration activity.

You can use the web browser interface once a physical connection is established.

1. Open your web browser.
2. Verify that you are not using a proxy server:
 - If you are using Netscape, click **Edit > Preferences > Advanced > Proxies** and make sure that **Direct Connection to the Internet** is checked.
 - If you are using Internet Explorer, click **View > Internet Options > Connection** and make sure that **Bypass Proxy Server for Local (Intranet) Addresses** is checked.

3. Type **http:// <ip address>** in the address area of the web browser. See [Appendix H, "Installer's Connectivity Quick Reference Tear-Out Sheet"](#).

The ProductName home page is displayed.



4. Click **Administer System**.

You receive a screen similar to the following:

Username and Password Required

Enter username for august.dr.lucent.com at
august.dr.lucent.com:

User Name:

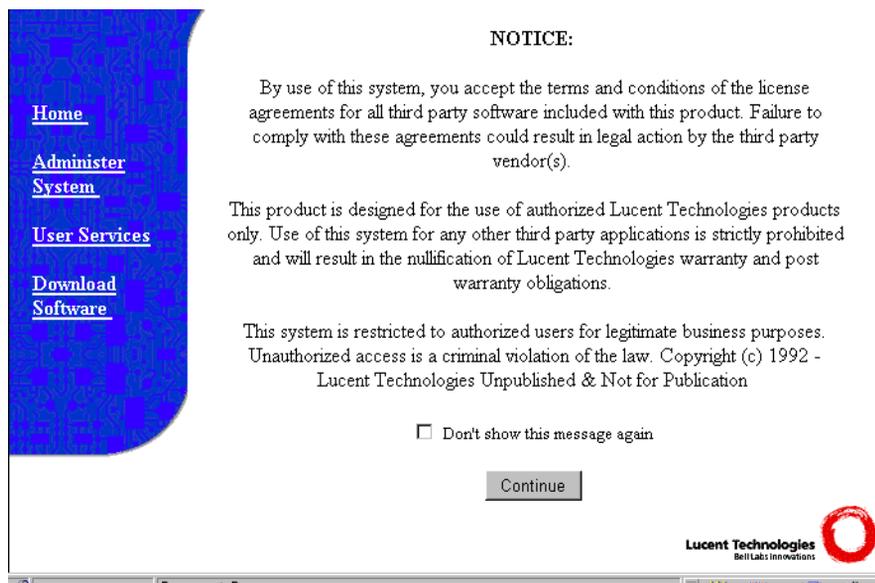
Password:

OK Cancel

5. Type your user name and password. Click OK.

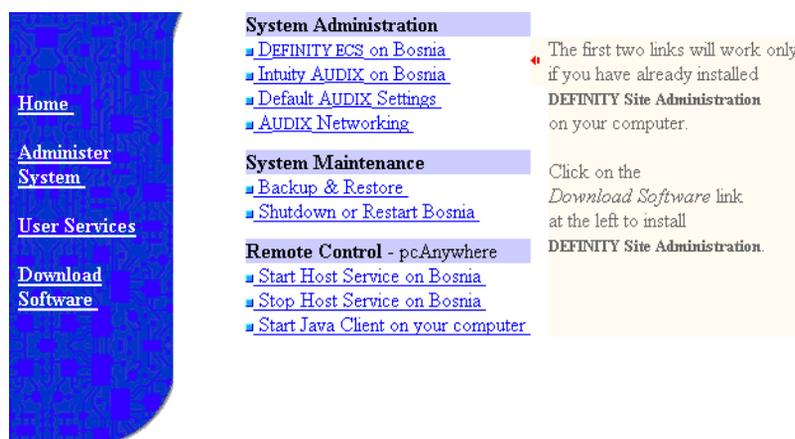
6. You receive the following screen:

You receive a Notice screen similar to the following:



7. After reading the screen, click **Continue**.

Once permissions have been granted, you are able to navigate freely through the system and you receive the following screen:



Via pcANYWHERE

The following procedures describe how to start pcANYWHERE® on DEFINITY ONE and how to start a client session from the laptop computer.

CAUTION:

Be certain to turn off pcANYWHERE when done.

Start the pcANYWHERE Application on DEFINITY ONE

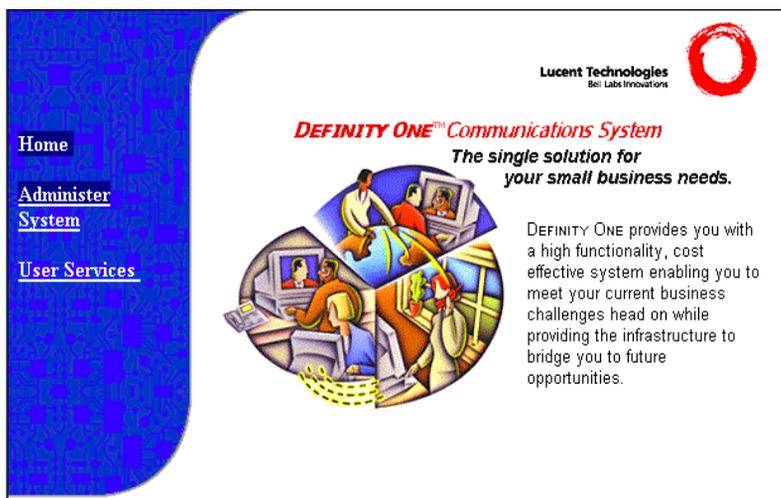
The customer or Lucent personnel uses pcANYWHERE whenever direct access to Windows NT desktop on DEFINITY ONE is required for such actions as

- mapping drives
- accessing NT operations
- upgrading software

In order to access pcANYWHERE:

1. Bring up your browser (Netscape or Internet Explorer) and verify that you are not using a proxy server:
 - If you are using Netscape, click **Edit > Preferences > Advanced > Proxies** and make sure that **Direct Connection to the Internet** is checked.
 - If you are using Internet Explorer, click **View > Internet Options > Connection** and make sure that **Bypass Proxy Server for Local (Intranet) Addresses** is checked.
2. In the browser window, type:
http://<IP address>

You receive the DEFINITY ONE home page.



Lucent Technologies
Bell Laboratories

DEFINITY ONESM Communications System
*The single solution for
your small business needs.*

DEFINITY ONE provides you with a high functionality, cost effective system enabling you to meet your current business challenges head on while providing the infrastructure to bridge you to future opportunities.

Home
Administer System
User Services

3. Click **Administer System** in the left pane.
You will be prompted for a login and password.
4. Use **lucent3** as the login and type the appropriate password.
5. On the resulting administration screen, click Start Host Service to activate the pcANYWHERE host.

⇒ **NOTE:**

This can also be accomplished through the pcANYWHERE GAS command in a bash shell. See [Appendix G, "GAS Commands in the bash shell"](#).

Start a pcANYWHERE Client Session from the Laptop Computer



NOTE:

There are two ways to start a pcANYWHERE client session. If pcANYWHERE is installed on the laptop, use this procedure.



NOTE:

If you don't have pcANYWHERE on your laptop computer, you can use pcANYWHERE through the Java client provided through the web interface. See the next procedure, "[Start a pcANYWHERE Java Client Session Via the Web Browser](#)" on page 2-16.

1. Click **Start > Programs > pcANYWHERE**.
2. Within pcANYWHERE, if you have a client icon for DEFINITY ONE, double click this icon. Otherwise create one as follows:
 - a. On the **pcANYWHERE** screen, click **Remote Control**.
 - b. Click **Add Remote Control Item**.
 - c. Give the new remote control item a unique name.



NOTE:

Once this icon is created, it can be used to connect to any DEFINITY ONE, so a generic name is best.

- d. Click **Next**.
- e. Select **tcp/ip** as the connection device.
- f. In the machine name field, type **<IP address>**.
- g. Click **Next**.



NOTE:

You may check the **Automatically begin remote session upon wizard completion** box if you want to bring up the session as you exit the wizard.

- h. Click **Finish**.
- i. If you did not check the box in step [g](#), double click the newly created icon.

A connection to DEFINITY will be established.
- j. When prompted for a login ID use **lucent3**.

- k. Leave the domain entry blank.
- l. When prompted for a password, enter the appropriate password.

The Windows NT desktop of the DEFINITY ONE system will be displayed on the laptop.

When using pcANYWHERE, the Windows NT desktop overlays the Windows 95 desktop, it is sometimes difficult to know which desktop screen is being referenced. For example, to access the **Start** menu of the laptop's Windows 95 desktop, you may have to scroll the Windows NT desktop up or down using the scroll bar on the right side of the pcANYWHERE screen. You may want to temporarily reduce the pcANYWHERE screen when access to the Windows 95 desktop is required.

Start a pcANYWHERE Java Client Session Via the Web Browser

This is one of the two ways to start a pcANYWHERE Client Session. See the previous procedure, "Start a pcANYWHERE Session from the Laptop Computer" for the other way.

1. Start your web browser. Refer to the procedure in this chapter, "Start a Web Browser Session."
2. Click **Start Java Client** on your computer.

NOTE:

You do not have to have any pcANYWHERE software loaded on your PC or laptop. Your web browser needs to be either Netscape Navigator version 4.1 or later or Internet Explorer version 4.0 or later. The Java client is known as "pcANYWHERE EXPRESS."

A license agreement appears.

3. Click **Yes**.

NOTE:

If you click **No** to this message or any other message, or if you reject anything at any time, a connection will not be made. If you click **Back** on the web browser window, a screen appears on which other actions (including attempting to reconnect) can be performed.

A warning that the Java applet is requesting additional privileges may appear. It is trying to contact the DEFINITY ONE server. If this happens, click the **Grant** button. Also click **Remember this decision** if you do not want to see this warning again.

A connect window appears, asking you to choose which system to connect to. Only one TCP/IP host will be shown: **<IP address>** (unless you are connected via the customer's LAN).

4. Highlight this and click **Connect**.

If no hosts are shown, the pcANYWHERE server on DEFINITY ONE is probably not running. If this is the case, make sure that you activated pcANYWHERE properly. If you are sure that it is running, enter **<IP address>** in the Host Name: field and click **Connect**.

A “Connecting to Host” window appears for a while, and is replaced by a “Security Dialog” window.

5. Type the **Login Name** and **Password**. Use **lucent3** and its password.

Another “Connecting to Host” window appears for a while and then the web browser window contains a view of the DEFINITY ONE’s main console screen.

The screen will probably be larger than the web browser window and so scroll bars will show and can be used to look at different parts. The **Full Screen** icon in the top toolbar can be clicked and the DEFINITY ONE screen becomes as large as the PC or laptop’s screen and scroll bars are no longer needed. When this is done, the toolbar is hidden, and the right arrow button in the upper left corner can be clicked to display the toolbar again.

 **WARNING:**

Changing the window size of your web browser window (by dragging a corner or maximizing) or going to other links with that window will either disconnect the session or attempt to run a new session. Use only the controls on the pcANYWHERE EXPRESS toolbar until you are ready to disconnect.

 **NOTE:**

To continue to use the web browser while you are connected through pcANYWHERE EXPRESS, use the web browser’s new window feature.

6. Click the **End Session** icon to cause a confirmation window to appear.

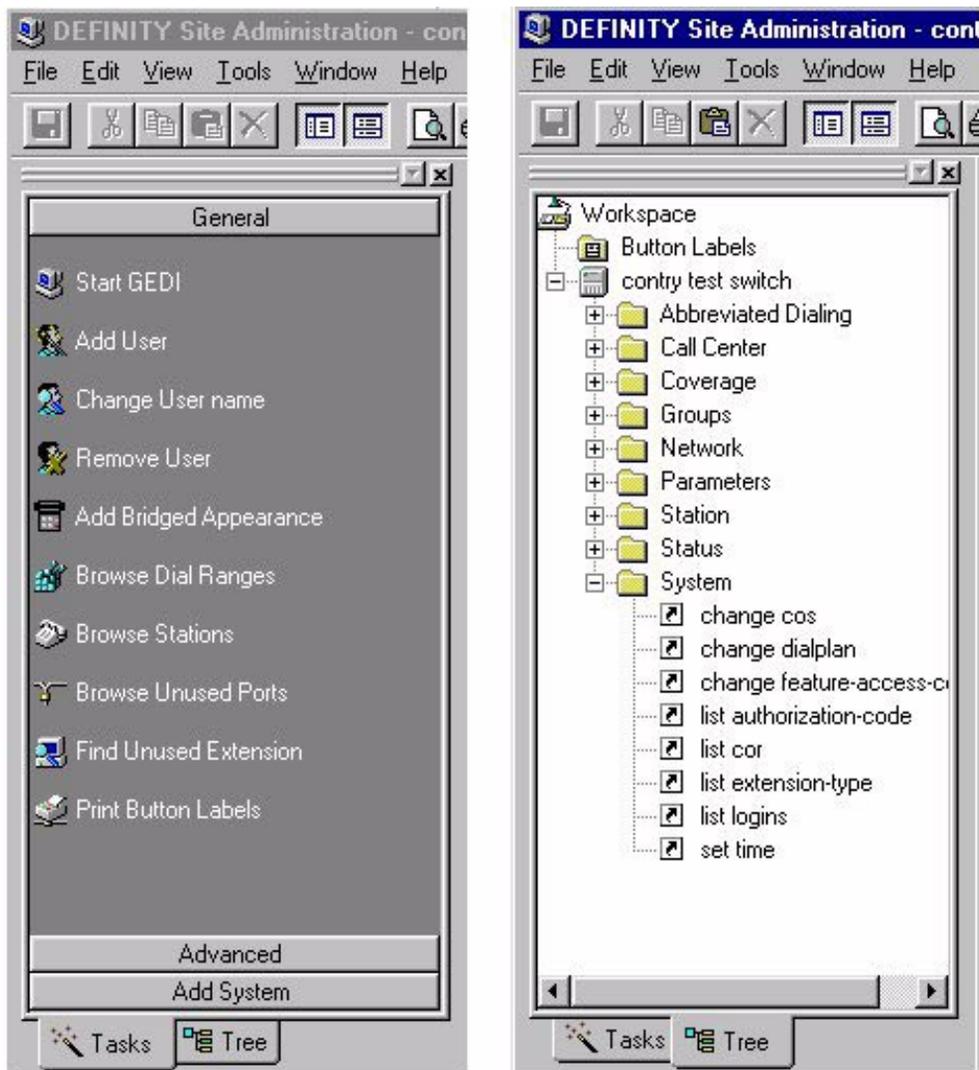
7. Click “Yes” to disconnect from DEFINITY ONE and allow the web browser window to be used again.

System Administration/DEFINITY Site Administration (DSA)

DSA provides standard Windows look and feel for performing basic switch administration. This includes wizards, tabbed windows, menus, and dockable windows. Customers who use DSA may administer telecommunications equipment as only a portion of their job responsibilities, and few users will be expert users.

DSA offers customers a graphically-enhanced command line interface (called the Graphically Enhanced DEFINITY Interface, or GEDI) and a terminal emulation mode for SAT administration.

Commands available in the DEFINITY ONE system are accessible from the DSA application. Once the application is connected to the switch, commands can be entered on the command line in a similar way to using the SAT screen, or commands can be selected from the command lists appearing in the left frame of the screen, as shown in the screen below.



Use the Help key for a list of options.

Click the Help menu for help with DSA. For further information regarding the operation of the DSA application, refer to [“System Administration/DEFINITY Site Administration \(DSA\)”](#) on page 2-17

DEFINITY ONE Lucent Personnel Logins

These are the DEFINITY ONE logins for Lucent personnel. See [“Enable Customer Logins” on page 3-5](#) for further information on logins.

Logins to Enter System	Logins to Enter DEFINITY	Logins to Enter AUDIX
lucent1	dinit	atsc
lucent2	dinads	acraft
lucent3	dcraft	acraft

- Each row of logins has the same password. For example, the **lucent1**, **dinit**, and **atsc** logins all have the same password.
- The lucent logins are used for web browser and pcANYWHERE access.
- All logins can be used for Telnet access.
- The **d** and **a** logins (columns 2 and 3) are used for DSA access.

2 Connectivity and Access to DEFINITY ONE
DEFINITY ONE Lucent Personnel Logins

2-20

System Initialization

3

This chapter provides the tasks needed to initialize the DEFINITY ONE system. This chapter is organized as follows:

- [“Power Up and Observe LEDs” on page 3-2](#)
- [“Connect the Laptop Computer to DEFINITY ONE” on page 3-2](#)
- [“Use the setip Command” on page 3-2](#)
- [“Start a Telnet Session” on page 3-2](#)
- [“Verify the Software Version Number” on page 3-2](#)
- [“Determine the Serial Number” on page 3-3](#)
- [“Obtaining a License File” on page 3-3](#)
- [“Resolve Alarms” on page 3-4](#)
- [“Place a Test Call” on page 3-4](#)
- [“Enable Customer Logins” on page 3-5](#)
- [“Administer DEFINITY ONE” on page 3-9](#)
 - Set the Time/Day on DEFINITY ONE
 - Check System Status from bash
 - DEFINITY Commands
 - Modem Set-up
- [“Set Up Call Accounting” on page 3-12](#)
- [“Administer DEFINITY for AUDIX Initialization” on page 3-14](#)
- [“AUDIX Administration” on page 3-22](#)
- [“Download Message Manager and DSA” on page 3-24](#)

Power Up and Observe LEDs

See [“LED Boot Sequence” on page E-1](#).

Connect the Laptop Computer to DEFINITY ONE

For this procedure, see [“Connect the Laptop Computer to DEFINITY ONE” on page C-2](#).

Use the setip Command

For this procedure, see [“setip Command” on page G-3](#).

Start a Telnet Session

Refer to [“Via a Telnet Session” on page 2-8](#) for an explanation of how to start a Telnet session.

Verify the Software Version Number

1. From the bash command shell, enter `swversion` and press `Enter`. This will display information about the version of software running on the system. The first line will display a string like:

```
Release=G3V7c.00.0.030.0
```

which shows the load number of the software; in this case, load 30.
2. Remove the CD-ROM that was shipped with the system in the door of the cabinet. Verify that the load number stamped on the CD-ROM matches the load number found in step 1.
3. If the load numbers match, continue with determining the serial number. If the load numbers do not match, the system software may need to be updated before proceeding further. Refer to [“Update Software” on page 5-1](#). If the software on the hard drive is newer than the software on the CD-ROM, then escalate the problem.

Determine the Serial Number

1. From the bash command prompt, type **serialnumber** and press Enter.
The serial number is read and displayed.
2. Be sure that the serial number matches the label on the front of the circuit pack. If it doesn't match, use the serial number you obtained from the software mechanism — not from the label.

Obtaining a License File

The procedure required for the installation technician to obtain a license file includes tasks performed by both the technician and the DEFINITY Database Administration (DBA) Group at INADS.

1. Connect to the Laptop Computer following the procedure, [“Connect the Laptop Computer to DEFINITY ONE” on page C-2](#).
2. Establish a Telnet session following the procedure [“Via a Telnet Session” on page 2-8](#).
3. At the LAC prompt, enter the **bash** command.
4. Call (800) 248-1234 and press the numbers for the INADS administrator group (**6** and then **2**).
5. Ask for the license file by supplying the following information:
 - Human Resources ID (HRID)
 - DOSS order number
 - TN795 serial number
 - Installation Location (IL) code
 - INADS modem telephone number

You will be assigned a RAS IP address by the database administrator at INADS.

6. Execute the **setip** command on DEFINITY ONE by typing **setip ras =** and the INADS IP address. See [“setip Command” on page G-3](#) and [“Setting the Name of the Switch” on page C-15](#).
7. Reboot the system, using the **reboot nice** command in the bash shell.
8. Notify INADS that the system is ready to be dialed into. The INADS database group will establish connection to the system and download the license file.
9. Register adjuncts if applicable. Inform INADS if there are any other products to be registered, such as DEFLAN, CMS, etc., especially if there are products that should alarm to INADS. Also tell INADS if there are any external devices to alarm off the switch.

The **installconfig** command takes information from the license file and causes the system to reboot. After the system starts again, DEFINITY ONE's IDs with new passwords are set that correspond to what was in the install file. The control file has the serial number of the TN795 circuit pack and is valid only on this circuit pack. The control file cannot be used to activate software on any other DEFINITY ONE system.

The system is ready and all applications on the DEFINITY ONE platform are automatically started by the Watchdog process.

The DEFINITY ONE Emergency Transfer light goes out.

The installation is complete. Since translations were not removed, they are still present on the system. A restore is not needed during the normal installation.

Since the system rebooted, the browser and pcANYWHERE connections will be lost.

Resolve Alarms

Resolve any alarms using DEFINITY ONE Communications Server Maintenance, 555-233-111.

Check System Status

See [“bash Commands” on page G-1](#) for information about bash commands that are used in installation and administration.

1. Bring up a bash shell.
2. To verify system health, execute **d1stat** and **alarmstat**.

Place a Test Call

1. From any telephone connected to a digital line circuit pack, call any nearby telephone connected to an analog line circuit pack.
2. Verify that the dial tone, ringing pattern, and talk path are acceptable.
3. Place a call through the Central Office (outside call) to any nearby telephone.
4. Verify that the dial tone, ringing pattern, and talk path are acceptable.

Enable Customer Logins

This section contains information on

- [“Enable AUDIX logins” on page 3-5](#)
 - [net user commands](#)
- [“Enable Customer Web Logins” on page 3-6](#)
- [“Enable DEFINITY Logins” on page 3-6](#)
 - [Forced Password Aging \(DEFINITY-Specific\)](#)
 - [Logoff Notification \(DEFINITY-Specific\)](#)

See [Appendix B, “Set Up and Use of Customer Logins”](#) for information and procedures on

- AUDIX logins for customer accounts (vm, sa, browse)
- customer logins to the web interface
- user level logins within DEFINITY

Enable AUDIX logins

See [“Windows NT Logins for the Customer” on page B-2](#) for information on logins. Appendix B includes further information on the AUDIX logins sa, vm, and browse, and the uses of each login as well as AUDIX commands accessible to each login.

net user commands

The net user commands are used to manipulate NT level logins on the DEFINITY ONE system. These commands are used to administer NT user logins on the command line rather than through the User Manager. Use of these commands eliminates the need to use pcANYWHERE to administer user logins.

The net user commands can be used to add new logins, change passwords on existing logins, or simply to enable/disable existing NT accounts. Execute the following commands from a bash shell:

To change the password of an existing login,
net user username newpassword

To enable an existing login that is disabled,
net user username /active

The sa, vm, and browse logins already exist. Assign them new passwords and enable them.

Enable Customer Web Logins

When the system leaves the factory, the only login that has access to the web interface is the login NTAdmin. The customer may wish to create additional logins; for example, to access the Message manager. See [“Windows NT Logins for the Customer” on page B-2](#).

Enable DEFINITY Logins

Release 1.0 provides enhanced login/password security by adding a security feature that allows users to define their own logins/passwords and to specify a set of commands for each login.

- The system allows up to 14 simultaneous connections (logins) to DEFINITY ONE. (DEFINITY can have 5 connections, AUDIX can have 2 connections, and the rest of the connections are reserved for shell commands.)
- Each DEFINITY ONE login name can be customized
 - Logins must be 3 to 6 alphabetic/numeric characters, or a combination of both.
 - A password must be from 4 to 11 characters in length and contain at least 1 alphabetic and 1 numeric symbol.

Password aging is an optional feature that the super-user administering the logins can activate (see below).

NOTE:

If several users are logging in and out at the same time, a user may see the message: `Transient command conflict detected; please try later`. After the “users” have completed logging in or out, the terminal is available for use.

Forced Password Aging (DEFINITY-Specific)

- The password for each login can be aged starting with the date the password was created, or changed, and continuing for a specified number of days (1 to 99).
- 7 days before the password expiration date, the user is notified that the password is about to expire at the login prompt.
- When the password expires the user is required to enter a new password into the system before logging in.

3 System Initialization Enable Customer Logins

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- If a login is added or removed, the “Security Measurement” reports are not updated until the next hourly poll, or a **clear measurements security-violations** command is entered.
- Once a non-super-user has changed the password, the user must wait 24 hours to change the password again.

Logoff Notification (DEFINITY-Specific)

Security is enhanced by providing a logoff notification screen to a system administrator at log off while either the facility test call or remote access features are still administered. The administrator can be required to acknowledge the notification before completing the logoff process. Logoff notification is administered on the Login Administration screen.

Super_User (DEFINITY)

Release 1.0 of DEFINITY ONE is delivered to the customer with one customer “super-user” login/password defined. The customer is required to administer additional login/passwords as needed. The super-user login has full customer permissions and can customize any login created.

Login permissions for a specified login can be set by the super-user to block any object that may compromise switch security. Up to 40 administration or maintenance objects commands can be blocked for a specified login id.

Administer Login Command Permissions

Users with super-user permissions can set the permissions of the logins they create. The Command Permissions Categories form displays fields to which a user with super-user permissions can give or limit access. These commands are divided into three categories:

- Common Command
- Administration Commands
- Optional Maintenance Commands

Each of the three main categories have subcategories listed under them that when set to **y** give permission to use the command sets associated with that category. When the Command Permissions Categories form is displayed for a login, the subcategories fields appear with the fields set to give the login full permissions for that login type. The super-user administering login permissions can set any of these field to deny access to a command category for the specified login. If the super-user making the assignments has full super-user permissions and would like to limit permissions for a category, the super-user

can do so by entering **y** in the `Additional Restrictions` field located under the `Administration Category` section of the `Command Permissions Categories` form.

For information about login names, login groups, and WEB access rights, see [Appendix B, "Set Up and Use of Customer Logins"](#).

The net user commands are used to manipulate NT level logins on the DEFINITY ONE system. For information about net user commands, see "[net user commands](#)" on page 3-5.

DEFINITY Commands for User Login

DEFINITY commands refer to the set of commands that execute under the DEFINITY application running on the `ProductName` system platform and can be accessed through the SAT terminal emulator or the DEFINITY Site Administration application.

These commands are grouped into three command categories. Each of the three command categories has a group of command subcategories listed under them, and each command subcategory has a list of command objects that the commands acts on. A super-user can set a user's permissions to restrict or block access to any command in these categories. These categories are displayed on the `Command Permissions Categories` form. The three main categories are:

- **Common Commands**
 - Display Administrative and Maintenance Data
 - System Measurements
- **Administration Commands**
 - Administer Stations
 - Administer Trunks
 - Additional Restrictions
 - Administer Features
 - Administer Permissions
- **Maintenance Commands**
 - Maintain Stations
 - Maintain Trunks
 - Maintain Systems
 - Maintain Switch Circuit Packs
 - Maintain Process Circuit Packs

If your password has expired, you see the message:

```
Login: telmgr

Password:
Your Password has expired, enter a new one.

Reenter Current Password:

        New Password:

Reenter New Password:
```

Figure 3-1. Password Expiration Screen

If your password is within 7 days of the expiration date, you see:

```
WARNING: Your password will expire in X days
```

Administer DEFINITY ONE

DEFINITY ONE Commands

DEFINITY ONE bash commands are useful for administration and installation tasks. These commands are allowed for the lucent1 login. Refer to [“bash Commands” on page G-1](#), and DEFINITY ONE Communications System Maintenance, 555-233-111 (also on the documentation CD), for information about these commands.

Set Date/Time/Time Zone (Windows NT)

1. Connect to DEFINITY ONE desktop by following the procedure, [“Via Local Monitor/Mouse/Keyboard” on page 2-2](#) or [“Via a PCMCIA Ethernet \(NIC\) Network Connection” on page 2-2](#).
2. Click **Settings > Control Panel**.
You receive the Control Panel screen.
3. Click **Date/Time**.
You receive the **Date/Time Properties** screen.
4. Do the following:
 - a. Select the correct day, month, and year.
 1. Go to the **Time** box.
 2. Select the hour using the up and down arrow.

3 System Initialization
Administer DEFINITY ONE

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3. Select the minutes using the up and down arrow.
4. Select AM or PM using the up and down arrow.

The seconds start at the beginning of the minute.

b. Click **Time Zone**.

1. Select the correct time zone.

If you are in an area that does not go on daylight savings time, uncheck the box before **Automatically adjust clock for daylight savings change**.

Administer Customer's LAN Interface

It is up to the customer to install their own LAN. The customer's LAN connects to the ethernet jack of the processor interface cable. See "[setip Command](#)" on [page G-3](#) for more information on the **setip** command from the command line interface. You can also use the Windows NT method to change interface parameters.

The customer provides:

- IP address
- Subnet mask
- Default gateway

In the event that a customer needs a new IP address, customers can access the NT desktop via pcANYWHERE.

Change Customer Options

Refer to DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502, to view a sample screen.

The following DEFINITY features are part of the basic software package and do not require activation. They default to **y** (yes) on the Optional Features form.

- ARS/AAR Partitioning
- Emergency Access to Attendant
- Service Observing

 **NOTE:**

A **lucent1** login is required to change customer options. Contact your regional Customer Software Administrator (CSA) to perform this function.

3 System Initialization
Administer DEFINITY ONE

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1. In a SAT session or DSA window, type **change system-parameters customer-options** and press Enter.
2. Using the customer order, enable the optional features purchased by the customer (as shown by PEC codes on the customer order).
3. Press Enter when finished to submit the form.
4. Log off and then log back in to set the customer option changes.
5. Type **save translations**.

Set Up Your System

You are now ready to follow procedures to launch your system including:

- Setting up dial plans, feature access codes (FACs), and extension ranges
- Adding extensions for users
- Setting up special features
- Setting up routing
- Assigning and changing users

See [“Configure DSA” on page 7-7](#) to set up DSA.

For more information, see

- DEFINITY System’s Little Instruction Book for Basic Administration, 555-230-727
- DEFINITY System’s Little Instruction Book for Advanced Administration, 555-233-712
- DEFINITY System’s Little Instruction Book for Basic Diagnostics, 555-233-713
- DEFINITY Enterprise Communications Server Release 7 Administrator’s Guide, 555-233-502
- The on-line DSA help

Add Translations

1. Refer to DEFINITY Enterprise Communications Server Release 7 Administrator’s Guide, 555-233-502, to add new terminals.

Administer Telephone Features

1. Administer these features (DEFINITY Translations, AUDIX Mailboxes, etc.) per customer order via one of two ways:
 - a. DSA (web)

DSA must be installed on the laptop or remote PC that is connected to the system

Connect the PCMCIA card with the laptop or through Remote PC using the web browser (Windows Explorer or Netscape).
 - b. Lucent Access Control (LAC) [telnet]

(For direct SAT access without going through DSA)

Telnet to DEFINITY ONE through the LAC to receive the SAT screen. See the procedure ["Start a Telnet Session" on page 3-2.](#)

Set Up Call Accounting

Lucent Technologies provides the following call accounting products to help reduce telephone expenses, optimize resources, assign costs, identify abuse, and clearly understand telephone expenses and convey that understanding to others:

- Telecommunications Management System (TMS)
- Call Accounting System NT (CAS-NT)
- Call Accounting System (CAS) for Windows

The following is an example of how to set up one of these products, Call Accounting System (CAS) for Windows, a comprehensive call accounting package that runs on your PC as a Windows application. It receives Call Detail Records (CDRs) from a switch on premises and processes the information into management reports. DEFINITY ONE creates the CDR file where the CDR records are written the file is put into a directory. CAS for Windows is widely compatible and requires little maintenance, even while collecting data, generating reports, and managing remote data collection sites.

CAS for Windows needs access to come across the network to access the file and directory with full read and write permissions. DEFINITY ONE has to share the CDR directory with full permissions. This procedure will only work if you have a keyboard and monitor, pcANYWHERE, or have already mapped your PC to the drive on DEFINITY ONE.



NOTE:

Depending on the customer's specific network, the setting up of CAS for Windows access will vary. See your system/network administrator to ensure that proper permissions are set up for your file and directory.

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Set Up Call Accounting

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1. From the DEFINITY ONE desktop, right click **Start**, either locally or through pcANYWHERE.
2. Click **Explore**.
You receive the **Windows Explorer** screen.
3. Click **+** by the D drive.
You receive the D drive folders.
4. Click **+** by **Lucent Data**.
You receive the **Lucent Data** folders.

5. Click **Cdr**.

If cdr has been enabled in the switch, you see two files, cdr.out and cas.in.

The CAS for Windows (CDR Collection device) obtains the CDR records from cas.in and then removes that file. The current CDR records are placed in cdr.out. When this file reaches a certain size, the cdr.out file is renamed cas.in. CAS for Windows obtains those CDR records from cas.in as more current records are placed in cdr.out.

In order for CAS for Windows to remove cas.in, the CDR folder must be shared with permissions granted to the user login under which CAS for Windows is running.

6. Right click **cdr**.
7. Click **Properties**.
8. Click **Sharing**.
You receive the **CDR Properties** screen.
9. Click **Shared As**.
10. Click **Permissions**.
You receive the **Access Through Shared Permissions** screen.
You see that **Everyone / Full Control** is highlighted.
11. Click **OK**.
You receive the **Properties** screen.
12. Click **Security**.
13. Click **Permissions**.
You receive the **Directory Permissions** screen.
14. Click **Add**.
You receive the **Add Users and Groups** screen and see the groups.
15. Click **Show Users**.

3 System Initialization

Administer DEFINITY for AUDIX Initialization

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16. Highlight the login under which CAS for Windows will be running. (See the LAN administrator if you do not know the user.)
17. Click **Add**.
 You see the user in the **Add Names** box.
18. Click **Full Control** under **Type of Access**.
19. Click **OK**.
 You receive the **Directory Permissions** screen.
20. Click **OK**.
 You receive the **CDR Properties** screen.
21. Click **OK**.
 You see the hand on **cdr** that means sharing.

Administer DEFINITY for AUDIX Initialization

Check Dial Plan

1. At the SAT or DSA window, type **disp dial**.

You receive the Dial Plan Record form, which should have the correct local node number and extension length.

```

display dialplan
                                DIAL PLAN RECORD
                                Local Node Number: 13
                                ETA Node Number:
                                ETA Routing Pattern:
Uniform Dialing Plan: 4-digit
UDP Extension Search Order: local-extensions-first
FIRST DIGIT TABLE
First      Length
Digit - 1 -   - 2 -   - 3 -   - 4 -   - 5 -   - 6 -
1:
2:
3:          extension
4:
5:
6:
7:          dac
8:
9: dac
0:
*: fac          fac
#: fac          fac
    
```

Command: █

2. Make note of the local node number (first digit) and the extension length. The number of digits or the local node number can only be changed through the web interface.
3. Press F1 [Cancel].

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Administer DEFINITY for AUDIX Initialization

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Check Hunt Groups

1. At the SAT or DSA window, type **list hunt group**.

You receive the Hunt Groups form.

```
list hunt-group group
                                     HUNT GROUPS
Grp Grp
No. Name/                               Grp   ACD/  Que No.  Cov  Notif/  Dom  Message
   Ext                                Type  MEAS  Uec  MCH   Siz Mem  Path  Ctg Adj  Ctrl Center
-----
1  monroe voice hunt
   2000                                ucd-mia n/-  n  none 8   8      n      A
2  paradox voice hunt
   2600                                ucd-mia n/-  n  none 8   8      n      n
3  rockville voice hunt
   2650                                ucd-mia n/-  n  none 6   8      n      n

Command successfully completed
Command: █
```

2. Note the following information about the AUDIX hunt group:

- Grp No.
- Grp Name
- Ext.

3. Press F1 [Cancel].

Check Class of Service

1. At the SAT or DSA window, type **disp cos**.

You receive the Class of Service form.

```
display cos
                                     CLASS OF SERVICE
                                     0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Auto Callback                        n y y n y n y n y n y n y n
Call Fwd-All Calls                    n y n y y n n y y n n y y n n y
Data Privacy                          n y n n n y y y n n n n y y y
Priority Calling                       n y n n n n n n n y y y y y y
Console Permissions                   n n n n n n n n n n n n n n n
Off-hook Alert                        n n n n n n n n n n n n n n n
Client Room                           n n n n n n n n n n n n n n n
Restrict Call Fwd-Off Net              y y y y y y y y y y y y y y y
Call Forwarding Busy/DA               n n n n n n n n n n n n n n n
Personal Station Access (PSA)         n n n n n n n n n n n n n n n
Extended Forwarding All               n n n n n n n n n n n n n n n
Extended Forwarding B/DA              n n n n n n n n n n n n n n n
Trk-to-Trk Transfer Override          n n n n n n n n n n n n n n n
QSIG Call Offer Originations          n n n n n n n n n n n n n n n

Command: █
```

2. Find the COS you plan to use for the AUDIX port stations, it is usually COS 5.
3. Make sure that Data Privacy and Restrict Call Fwd-Off Net are set to y.

3 System Initialization

Administer DEFINITY for AUDIX Initialization

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4. Make sure the other fields are set to **n**.
5. Press F1 [Cancel].

Check Class of Restriction

1. At the SAT or DSA window, type **disp cor 1**, where **1** is the COR you plan to use for the AUDIX port stations.

You receive the Class of Restriction form.

```

display cor 1                                     Page 1 of 4
                CLASS OF RESTRICTION

COR Number: 1
COR Description: audix

FRL: 7                                           APLT? y
Can Be Service Observed? n                       Calling Party Restriction: none
Can Be A Service Observer? n                     Called Party Restriction: none
Time of Day Chart: 1                             Forced Entry of Account Codes? n
Priority Queuing? n                               Direct Agent Calling? n
Restriction Override: none                       Facility Access Trunk Test? n
Restricted Call List? n                          Can Change Coverage? n

Access to MCT? y                                 Fully Restricted Service? n
Category For MFC ANI: 7
Send ANI for MFE? n
MF ANI Prefix:
Hear System Music on Hold? y                     PASTE (Display PBX Data on Phone)? n
Can Be Picked Up By Directed Call Pickup? n
Can Use Directed Call Pickup? n
Group Controlled Restriction: inactive
    
```

2. Make sure that the COR has an FRL of **7** to allow for Outcalling and Fax Print.
3. Make sure that Calling Party Restriction is set to **none**.
4. Make sure that Time of Day Chart is set to **1**.
5. Press F7 [Next Page].

You receive page 2 of the Class of Restriction form.

6. Press F7 [Next Page].

You receive page 3 of the Class of Restrictions form.

```

display cor 1                                     Page 3 of 4
                CLASS OF RESTRICTION

CALLING PERMISSION (Enter "y" to grant permission to call specified COR)

0? y  12? y  24? y  36? y  48? y  60? y  72? y  84? y
1? y  13? y  25? y  37? y  49? y  61? y  73? y  85? y
2? y  14? y  26? y  38? y  50? y  62? y  74? y  86? y
3? y  15? y  27? y  39? y  51? y  63? y  75? y  87? y
4? y  16? y  28? y  40? y  52? y  64? y  76? y  88? y
5? y  17? y  29? y  41? y  53? y  65? y  77? y  89? y
6? y  18? y  30? y  42? y  54? y  66? y  78? y  90? y
7? y  19? y  31? y  43? y  55? y  67? y  79? y  91? y
8? y  20? y  32? y  44? y  56? y  68? y  80? y  92? y
9? y  21? y  33? y  45? y  57? y  69? y  81? y  93? y
10? y 22? y  34? y  46? y  58? y  70? y  82? y  94? y
11? y 23? y  35? y  47? y  59? y  71? y  83? y  95? y
    
```

3 System Initialization

Administer DEFINITY for AUDIX Initialization

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7. Make sure that all fields are set to **y** so there are no restrictions.

**NOTE:**

Pay attention to toll fraud issues.

8. Press F1 [Cancel].

Add Stations

This procedure sets up stations for AUDIX ports.

1. At the SAT or DSA window, type **add sta <number>**, where **number** is the station you want to use for the first AUDIX port.

You receive the Station form.

```
change station 2001                               Page 1 of 3
                                     STATION
Extension: 2001                                Lock Messages? n      BCC: 0
Type: 2500                                     Security Code: _____ TN: 1
Port: 01A1201                                Coverage Path 1: _____ COR: 1
Name: monroe_up#1                            Coverage Path 2: _____ COS: 5
                                             Hunt-to Station: _____ Tests? n

STATION OPTIONS
Off Premise Station? n                        Message Waiting Indicator: _____
```

2. Type **2500** in the Type field.
3. Type **01A1201** in the Port field.

**NOTE:**

This is a virtual port used to communicate between DEFINITY and AUDIX.

4. Type a name in the Name field.
5. Enter the correct COR and COS.
6. Make sure that Tests? is set to **n**.
7. Press F7 [Next Page].

3 System Initialization

Administer DEFINITY for AUDIX Initialization

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You receive page 2 of the Station form.

```

change station 2001                                     Page 2 of 3
STATION
FEATURE OPTIONS
  LWC Reception: audix
  LWC Activation? n
  CDR Privacy? n
  Redirect Notification? n
  Per Button Ring Control? n
  Bridged Call Alerting? n
  Switchhook Flash? y
  Ignore Rotary Digits? n
  H.320 Conversion? n
  Coverage Msg Retrieval? n
  Auto Answer: none
  Data Restriction? n
  Call Waiting Indication? n
  Att. Call Waiting Indication? n
  Distinctive Audible Alert? n
  Adjunct Supervision? y
  Per Station CPN - Send Calling Number? _
  Audible Message Waiting? n
    
```

8. Make sure that LWC Reception is set to **audix**.
9. Make sure that all other fields, except for Switchhook Flash and Adjunct Supervision are set to **n**.
10. Press F7 [Next Page].

You receive page 3 of the Station form.

```

change station 2001                                     Page 3 of 3
STATION
SITE DATA
  Room: _____
  Jack: _____
  Cable: _____
  Floor: _____
  Building: _____
  Headset? n
  Speaker? n
  Mounting: d
  Cord Length: 0
  Set Color: _____

ABBREVIATED DIALING
  List1: _____      List2: _____      List3: _____

HOT LINE DESTINATION
  Abbreviated Dialing List Number (From above 1, 2 or 3): _
  Dial Code: ____

  Line Appearance: call-appr
    
```

11. Make sure that Line Appearance is set to **call-appr**.
12. Press F3 [Enter].
13. Type **duplicate station <number>**, where **number** is the station you set up for the first AUDIX port.

3 System Initialization
 Administer DEFINITY for AUDIX Initialization

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8. You receive page 2 of the Hunt Group form.

```

add hunt-group next                                     Page 2 of 10
                                     HUNT GROUP
                                     Message Center: audix
                                     _____

Calling Party Number to INTUITY AUDIX? n
                                     LWC Reception: none
                                     _____

First Announcement Extension: _____ Delay (sec): ____
    
```

9. Make sure that Message Center is set to **audix**.
10. Press TAB.
 The field Calling Party Number to INTUITY AUDIX field appears.
11. Make sure that this field is set to **n**.
12. Make sure that LWC Reception is set to **none**.
13. Press F7 [Next Page].

You receive page 3 of the Hunt Group form.

```

add hunt-group next                                     Page 3 of 10
                                     HUNT GROUP
Group Number: 4      Group Extension: 2900      Group Type: ucd-mia
Member Range Allowed: 1 - 200      Administered Members (min/max): 0 / 0
                                     Total Administered Members: 0

GROUP MEMBER ASSIGNMENTS
Ext      Name                                     Ext      Name
1: 2001                                     14: _____
2: 2002                                     15: _____
3: 2003                                     16: _____
4: 2004                                     17: _____
5: 2005                                     18: _____
6: 2006                                     19: _____
7: 2007                                     20: _____
8: 2008                                     21: _____
9: _____                                22: _____
10: _____                               23: _____
11: _____                               24: _____
12: _____                               25: _____
13: _____                               26: _____

At End of Member List
    
```

14. Type the extensions of the 8 stations you entered before.
15. Press F3 [Enter].

Change Coverage Path

1. At the SAT or DSA window, type **add cov pa 1**.

You receive the Coverage Path form.

```

add coverage path 2                                     Page 1 of 1
                                COVERAGE PATH
                                Coverage Path Number: 2
                                Next Path Number: ____ Hunt after Coverage? n
                                                                Linkage
COVERAGE CRITERIA
Station/Group Status   Inside Call   Outside Call
Active?                n             n
Busy?                  y             y
Don't Answer?          y             y           Number of Rings: 3
All?                   n             n
DND/SAC/Goto Cover?   y             y
COVERAGE POINTS
Terminate to Coverage Pts. with Bridged Appearances? n
Point1: h4           Point2: ____   Point3: ____
Point4: ____         Point5: ____   Point6: ____
    
```

2. Make sure that Number of Rings is set to **3**.
3. Make sure that Point1 is set to the AUDIX hunt group that you previously set up.
4. Press **F3 [Enter]**.

Add Test Phones

1. At the SAT or DSA window, type **add sta next**.

```

add station next                                       Page 1 of 4
                                STATION
Extension: 2009                                         Lock Messages? n      BCC: 0
Type: 6408D+                                           Security Code: ____   TN: 1
Port: ____                                              Coverage Path 1: 2    COR: 1
Name: test station 1                                     Coverage Path 2: ____ COS: 1
                                                                Hunt-to Station: ____
STATION OPTIONS
Data Module? n                                           Personalized Ringing Pattern: 1
Speakerphone: 2-way                                       Message Lamp Ext: 2009
Display Language: english                                 Mute Button Enabled? y
    
```

2. Type the type of phone you are using in the Type field.
3. Type the port in the Port field.
4. In the Coverage Path 1 field, type the number of the coverage path you just created or changed.
5. Fill in any other appropriate fields.

AUDIX Administration

This section provides information about AUDIX commands and administering AUDIX initialization. For additional information about AUDIX administration, refer to the AUDIX Administration PDF files on the Documentation CD and DEFINITY ONE Communications System AUDIX Command Line Administration Quick Reference, 555-233-737.

AUDIX Commands

Commands available to change system settings and subscriber information in the AUDIX application are executable from the AUDIX command prompt. Users access the AUDIX command prompt from the DSA or Telnet interface. To view a list of commands, click **F6 [Choices]**, from the command prompt. You receive the following AUDIX screen:

```
monroe           Active           Alarms: none           Logins: 1
- add            to enter new administrative records
audit           to validate system data
change          to modify existing administrative records
copy            to copy announcements and fragments
display         to display administrative records and maintenance logs
exit            to exit from AUDIX administration and maintenance
get             to request remote updates
help            to display available types of help
list            to produce reports
logoff         to log off the system
print           to send the command output to the attached printer
remove          to remove administrative records
reset           to restart or shutdown the Messaging Core
test            to test alarm origination or outcall
toggle          to toggle the function key settings
trace           to turn on amis trace

enter command: |
```

Adding an AUDIX Subscriber

After completing the machine level translations, subscribers must be added to the DEFINITY ONE system. The following forms detail the addition of AUDIX subscribers. Bring up the AUDIX forms via DSA or Telnet.

1. Start at the AUDIX command prompt screen.
2. Enter the command Add Subscriber and the extension number that the new subscriber will use.
3. Enter the data for the subscriber on page 1 of the Add Subscriber Form as detailed in Table 3-1 on page 23.

Add Subscriber Form, page 1

```

monroe           Active           Alarms:   wA           Logins: 1
add subscriber 2600                                     Page 1 of 2

                                SUBSCRIBER

      Name: Jones, John                                Locked? n
      Extension: 2600                                   Password:
      COS: class01                                     Miscellaneous 1:
Switch Number:                                       Miscellaneous 2:
      Community ID:                                   Miscellaneous 3:
Secondary Ext:                                       Miscellaneous 4:
      Account Code:                                   Covering Extension:
                                                Broadcast Mailbox?

      Email Address:

Press [ENTER] to execute or press [CANCEL] to abort
enter command: add subscriber 2600
    
```

Table 3-1. Field Definitions for Add Subscriber Screen, Page 1

Field	Valid Input	Description
Name	Subscribers Name	This is the name of the subscriber. In the example above: Jones, John
Extension	Extension number	This is the extension number assigned on the Definity for the subscriber
Password	Can be alpha or numeric	Subscribers password. Input a temporary password and instruct the new subscriber to change their password when they log in to AUDIX
COS	class00 to class11	Class of service; contains features that a AUDIX subscriber could be enabled to use. Setup the Class of Service on the system before adding subscribers.

4. Press F3 [Enter] to save the information.

When adding subscribers to AUDIX, the preferred method is to first set up a Class of Service (COS) for a group of AUDIX subscribers. Using this method the data is filled in for you on page 2 of the Add Subscriber form. The following is an example of page 2 of the Add Subscriber form.

3 System Initialization

Download Message Manager and DSA

3-24

Add Subscriber Form, page 2

```
monroe           Active           Alarms:   wA           Logins: 1
add subscriber 2600                                     Page 2 of 2

                SUBSCRIBER CLASS OF SERVICE PARAMETERS
Addressing Format: extension           Login Announcement Set: System
System Multilingual is OFF           Call Answer Primary Annc. Set: System
Call Answer Language Choice? n       Call Answer Secondary Annc. Set: System

PERMISSIONS
Type: call-answer           Announcement Control? n           Outcalling? n
Priority Messages? y           Broadcast: none           IMAPI Access? y
IMAPI Message Transfer? y           Fax Creation? y           Trusted Server Access? y

INCOMING MAILBOX           Order: fifo           Category Order: nuo
Retention Times (days), New: 10           Old: 10           Unopened: 10
OUTGOING MAILBOX           Order: fifo           Category Order: unfda
Retention Times(days), File Cab: 10           Delivered/Nondeliverable: 10

Voice Mail Message (seconds), Maximum Length: 1200 Minimum Needed: 32
Call Answer Message (seconds), Maximum Length: 1200 Minimum Needed: 8
End of Message Warning Time (seconds):
Maximum Mailing Lists: 25           Total Entries in all Lists: 250
Mailbox Size (seconds), Maximum: 1200           Minimum Guarantee: 0
Press [ENTER] to execute or press [CANCEL] to abort
enter command: add subscriber 2600
```

Download Message Manager and DSA

Install Message Manager

See [Chapter 8, "Message Manager Installation"](#) for instructions on installing Message Manager.

Download DSA



NOTE:

The IP address will be different depending on the type of physical connection has been established.

1. Bring up your browser (**Start > Programs > Netscape** or **Internet Explorer**).
2. Type **http:// <IP address>** in the address area of the web browser.

3 System Initialization

Download Message Manager and DSA

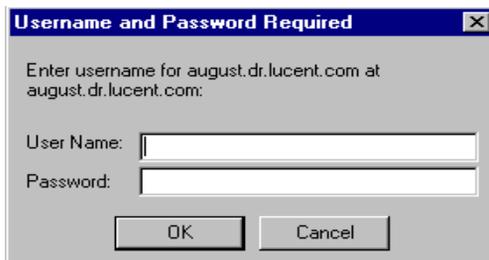
3-25

The ProductName home page is displayed:



3. Click **Administer System**.

You receive a screen similar to the following:



4. Type your user name and password.



NOTE:

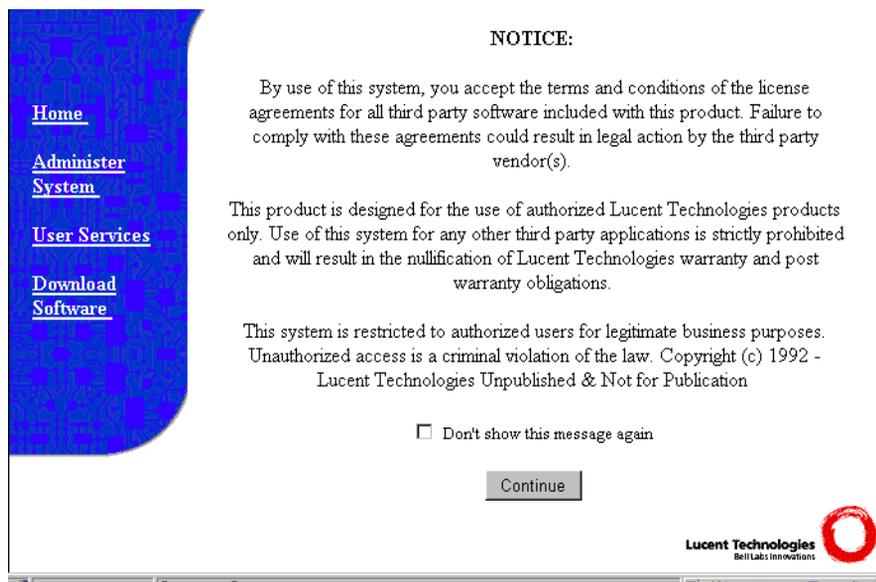
If you are in Services, use a Services login (**lucent1**, **lucent2**, or **lucent3**) and use the NT passwords from the LAC password/ASG challenge. The customer uses a customer login such as NTadmin.

3 System Initialization

Download Message Manager and DSA

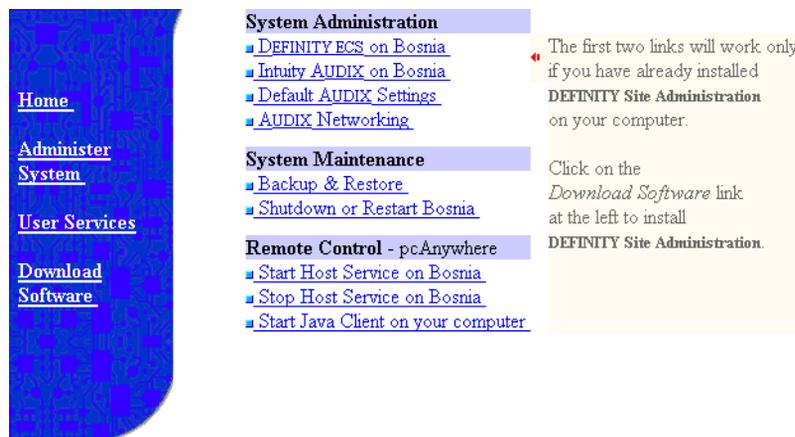
3-26

5. You receive the following screen:



6. After reading the screen, click **Continue**.

You receive the following screen:



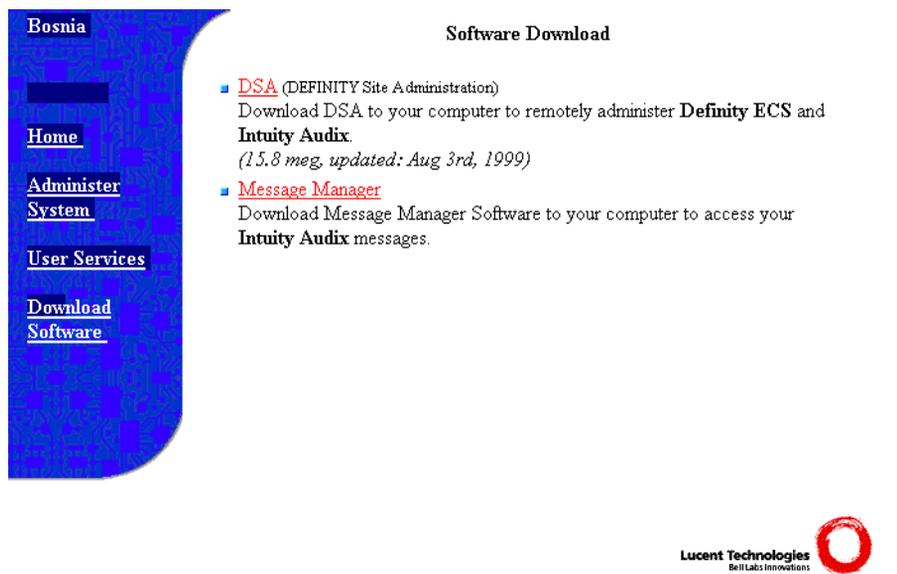
7. Click **Download Software** in the left pane.

3 System Initialization

Download Message Manager and DSA

3-27

You receive the Software Download screen.



8. Click **DSA**.

You receive the Save As dialog box.

9. Choose a destination.

You receive the Saving Location screen that shows that DSA is being saved to the drive you chose. When it is finished saving DSA, you return to the Software Download screen.

10. Go to the drive to which you saved DSA and double click on the application.

You receive the Unpacking DEFINITY Site Administration screen and a Welcome screen.

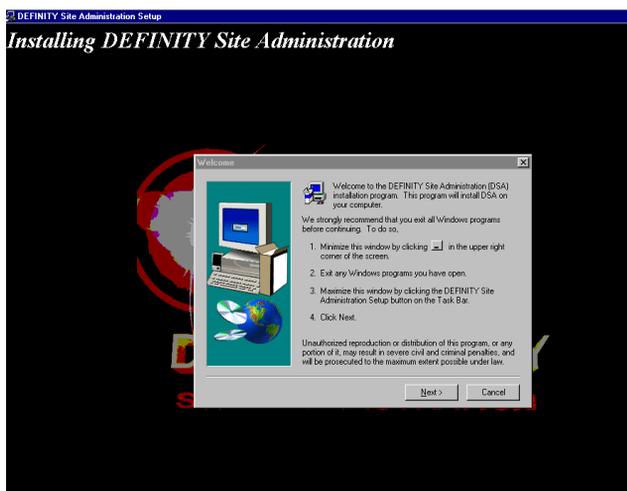
11. Click **Next**.

3 System Initialization

Download Message Manager and DSA

3-28

12. You receive the DEFINITY Site Administration screen that includes a Installing screen and related information.



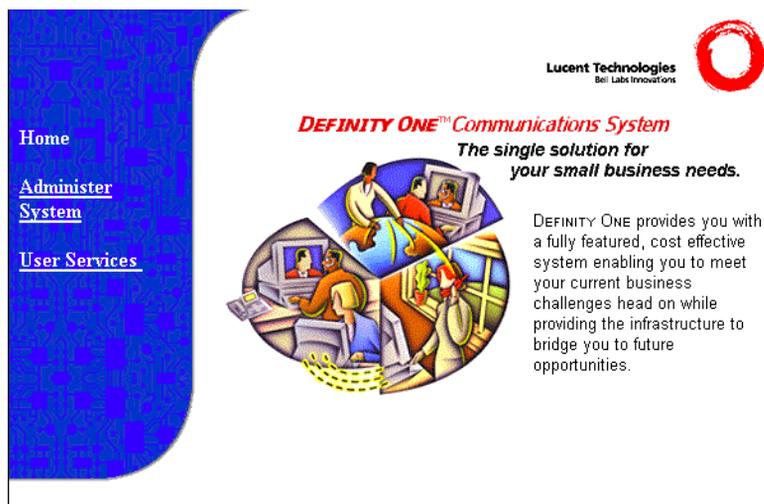
Press Next.

13. You receive a setup dialog box that prompts you to "please wait."
14. Click **Finish** when the "please wait" message disappears.

You receive a README file that contains useful information about DSA. DSA is installed on your PC and a DSA icon appears under **Start > Programs > DEFINITY Site Administration**.

Start a DSA Session

1. Bring up your browser (**Start > Programs > Netscape or Internet Explorer**).
2. Type **http:// <IP address>** in the address area of the web browser.
The ProductName home page is displayed:



3. Click **Administer System**.

You receive a screen similar to the following:

Username and Password Required

Enter username for august.dr.lucent.com at august.dr.lucent.com:

User Name:

Password:

OK Cancel

4. Type your user name and password.

⇒ NOTE:

If you are in Services, use a Services login (**lucent1**, **lucent2**, or **lucent3**) and use the NT passwords from the LAC password/ASG challenge. The customer uses a customer login such as ntdadmin.

3 System Initialization

Download Message Manager and DSA

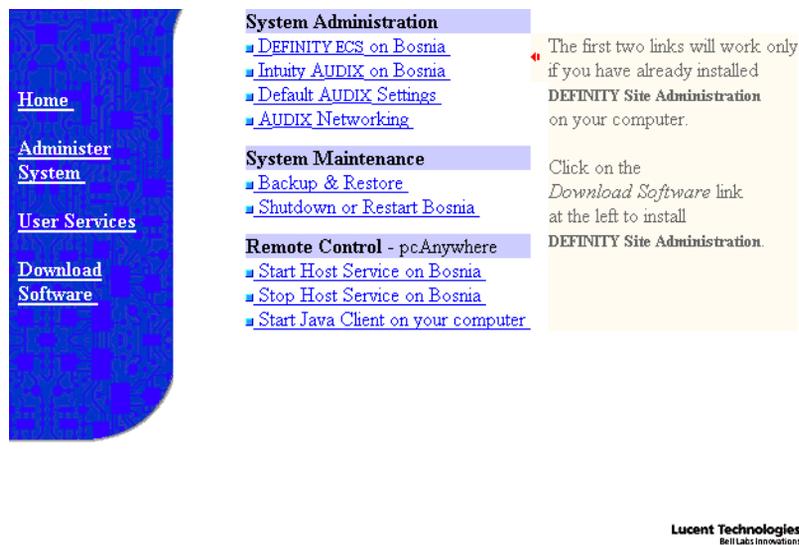
3-30

5. You receive the following screen:



6. After reading the screen, click **Continue**.

You receive the following screen:



7. Click **DEFINITY ECS** or **INTUITY AUDIX** on <machine name> in the right pane.

This will launch DSA.

3	System Initialization	
	Download Message Manager and DSA	3-31

8. Set up daily automatic backups of AUDIX. These could be to a PCMCIA card, or preferably, to a directory on your server. See [“Perform Scheduled Backup \(Web\)”](#) on page C-30.

Scheduling Backups

See [“Perform Backup”](#) on page C-17.

3	System Initialization	
	<i>Download Message Manager and DSA</i>	3-32

AUDIX Digital Networking

4

This chapter provides the information you need to administer digital networking after the initial system administration is complete. See INTUITY AUDIX Administration for further information.

This chapter is organized as follows:

- [“Initial Administration Tasks” on page 4-1](#)
- [“Viewing the Feature Options Window” on page 4-3](#)
- [“Changing the Number of Administered Remote Users” on page 4-4](#)
- [“Administering Networking Channels” on page 4-5](#)
- [“Changing Local Machine Information” on page 4-6](#)
- [“Adding a Remote Machine” on page 4-11](#)
- [“Performing a Full Remote Update” on page 4-18](#)
- [“Resetting Automatic Deletion of Nonadministered Remote Users” on page 4-19](#)
- [“Viewing Remote Extensions” on page 4-19](#)

Initial Administration Tasks

The following tasks need to be performed as part of the initial administration process. The Initial Administration Tasks table shows the tasks in sequential order. Some of the tasks are performed by the technician at the time of installation. Confirm that each of the tasks was performed. If not, you must

complete the task. The design center provides the information for completing the administration. Ensure that you have design center specifications for TCP/IP, network channels, the local machine, and all remote machines.

Table 4-1. Initial Administration Tasks

Task	Description	Screens, Windows, or Commands
Complete Windows NT and switch administration (normally done by the technician at the time of installation).	Define the machine name, TCP/IP address, and the switch to work with AUDIX digital networking.	Windows NT Settings screens and Switch screens
View digital networking settings. See “Viewing the Feature Options Window” on page 4-3.	Verify that the purchased digital networking options are correctly displayed.	List Configuration Window
Verify or change the number of administered remote users (normally done by the technician at the time of installation). See “Changing the Number of Administered Remote Users” on page 4-4.	Define the number of administered remote users to be equal to or greater than the number of all mailboxes on all remote systems.	System Parameters Limits Screen
Administer network channels (normally done by the technician at the time of installation). See “Administering Networking Channels” on page 4-5.	Enable the channels to create a communication link between the ACCX card and the switch or the LAN card and the LAN.	Networking Channel Administration Window
Change the local machine. “Changing Local Machine Information” on page 4-6.	Define local machine information for digital networking.	Machine Profile Screen; Local Machine Administration Window
Add a remote machine or change a remote machine (normally done by the technician at the time of installation). See “Adding a Remote Machine” on page 4-11.	On the local machine, define information about each remote machine, including the machine name, password, connection type, and dial string.	Digital Network Machine Administration Window; Machine Profile Screen
Administer the AUDIX system on the remote machines.	On each remote machine, define information about the local machine.	Remote Machine Profile Screen of the remote machine
Perform a full remote update. See “Performing a Full Remote Update” on page 4-18.	Manually run a remote update for each remote machine to bring the network up to date immediately.	get remote update command

Table 4-1. Initial Administration Tasks

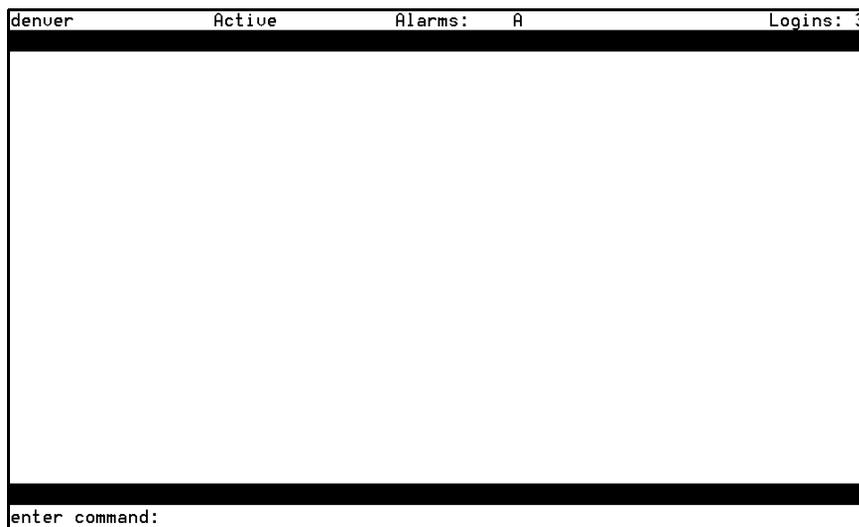
Task	Description	Screens, Windows, or Commands
Set automatic deletion of nonadministered remote users. See “Resetting Automatic Deletion of Nonadministered Remote Users” on page 4-19.	Sets the system to delete nonadministered remote users automatically.	System Parameters Features Screen
View remote extensions. See “Viewing Remote Extensions” on page 4-19.	Check that remote users were added to the local database.	List Remote Extensions Screen
Record remote machine names.	Record the names of remote systems so that local users hear voiced confirmations when addressing messages to users on those remote systems.	Use the telephone to perform this task.

Viewing the Feature Options Window

View the Feature Options Window to see the purchased options for digital networking. This window is display only. It can be changed only by certified Lucent Technologies personnel.

To display the Feature Options window:

1. Start at the AUDIX Command Prompt Screen.



Screen 4-1. AUDIX Command Prompt Screen

- At the `enter` command: prompt, enter **list configuration**

The system displays the List Configuration Screen.

```

hessville      Active      Alarms: M      Logins: 1
list configuration      Page 1
LIST CONFIGURATION

Configuration Option      Value
-----
Audix Application      ON
DCS                    ON
Fax                    ON
High speed digital ports  N/A
Low speed digital ports  N/A
Max Number of IMAPI Sessions  6
Multilingual           ON
SCSI Disk Mirroring     N/A
TCPIP digital ports     1
Text-to-Speech Sessions  2
Trusted Servers        6
hours_of_speech        30
voice_ports            8

Press [NextPage], [PreuPage] or [Cancel]
enter command: list configuration
    
```

Screen 4-2. List Configuration Screen

- Contact your Lucent Technologies representative if you need more than the enabled number of ports or if you want to add TCP/IP networking.

Changing the Number of Administered Remote Users

The number of administered remote users must be equal to or greater than the total number of mailboxes on all remote systems with which this local system networks.

To change the number of administered remote users:

- Start at the AUDIX Command Prompt Screen.
- Enter **change system-parameters limits** at the `enter` command: prompt.

The system displays the System-Parameters Limits Screen.

```

Active           Alarms: MmWA           Logins: 3
change system-parameters limits           Page 1 of 1
SYSTEM-PARAMETERS LIMITS

MESSAGE LIMITS
Message Lengths, Maximum (seconds): 1200   Minimum (tenths of seconds): 10
Messages, Total In All Mailboxes: 50000    Awaiting Delivery: 5000

ADMINISTRATION LIMITS
Subscribers, Local: 15000   Administered Remote: 1000
Lists, Total Entries: 200000   Lists/Subscriber: 100   Recipients/List: 250

enter command: change system-parameters limits
    
```

Screen 4-3. System-Parameters Limits Screen

3. Enter the number of remote users in the Administered Remote: field.
4. Press F3 [Enter] to save the information in the system database.

The cursor returns to the command line, and the system displays the following message:

Command Successfully Completed.

5. Enter **exit** or another administrative command at the enter command: prompt.

Administering Networking Channels

You must enable the network channels before the local AUDIX system can exchange voice messages over the digital network. Enabling the channels creates a communication link between the ACCX card and the switch or between the LAN card and the LAN and/or the wide area network (WAN).

To enable the network channels:

1. Start at the DEFINITY ONE main page from Internet Explorer or Netscape, and select **Administer System > AUDIX Networking > Administrative Menu > Network Channel Administration**.

The system displays the Network Channel Administration Window.

Network Channel Administration			
Channel	Type	Channel Status	Channel Configuration
1	TCP/IP	DISABLE	<input type="radio"/> Enable <input checked="" type="radio"/> Disable
2	TCP/IP	ENABLE	<input checked="" type="radio"/> Enable <input type="radio"/> Disable

Help Save Cancel

Screen 4-4. Network Channel Administration Window

2. In the Channel Configuration column, click **Enable** for each channel.
3. Click **Save**.

The system takes a few seconds to change the hardware configuration. When the process finishes, the system displays a confirmation message.

Changing Local Machine Information

You can change local machine information on the Machine Profile Screen for the Local Machine and on the Local Machine Administration Window.



NOTE:

If you change the local machine profile, contact all remote network administrators and inform them of the changes.

Changing the Local Machine Profile

To update the machine profile:

1. Start at the AUDIX Command Prompt Screen.
2. Enter **change machine** at the `enter command:` prompt.

The system displays the Machine Profile Screen for the Local Machine, Page 1.

```

Active           Alarms: MmWA           Logins: 2
change machine   Page 1 of 2
MACHINE PROFILE

Machine Name: drmid10      Type: local      Location: local
Voiced Name? n           Extension Length: 5
Voice ID: 0              Default Community: 1

ADDRESS RANGES
Prefix      Start Ext.  End Ext.    Warnings
1: _____ 36000      37999
2: _____
3: _____
4: _____
5: _____
6: _____
7: _____
8: _____
9: _____
10: _____

enter command: change machine
    
```

Screen 4-5. Local Machine Profile Screen, Page 1

- Complete the fields on this screen using the information from the table below.



NOTE:

The Machine Name, Type, Location, Extension Length, and Voice ID fields are display only and cannot be changed except via the web page.

Table 4-2. Field Definitions; Local Machine Profile Screen, Page 1

Field	Valid Input	Procedure/Description
Machine Name	Display only	Displays the Machine Name for the local machine. This value comes from the network settings in Windows NT.
Machine Type	Display only	Displays local.
Location	Display only	Displays local.
Voiced Name?	y = yes n = no	The Voice Name field contains an n until you record a name for the machine. This field automatically changes to y when you record a name for the machine.

Table 4-2. Field Definitions; Local Machine Profile Screen, Page 1

Field	Valid Input	Procedure/Description
Extension Length	an integer, 3 through 10	Enter the length of extensions on the local system. The value you enter must match the extension length in your dial plan.
Voice ID	Display only	Displays a system-assigned identifier that you must use to identify the machine if you decide to record machine names.
Default Community	an integer, 1 through 15	If you have administered your system to use community sending restrictions, enter the default community number for your user population.
Prefix	0 to 21 alphanumeric characters	Prefixes can be used on the local machine, but they limit the functionality and are not recommended. For a detailed discussion of the use and implications of prefixes, see the AUDIX Fax Administration documentation.
Start Ext.	a 3-digit to 10-digit string	<p>Enter the starting extensions for the ranges of telephone numbers used on the local system. (Designate a block of switch extensions that can be used at the local system when assigning users.)</p> <p>For example, if your system uses extensions between 2000 and 3000, enter 2000 in the <code>Start Ext.</code> field.</p> <p>Up to 10 different ranges can be specified to pinpoint the exact set of extension blocks used by the local system. The length of the start and end extension must agree with the <code>Extension Length</code> field. For a 5-digit extension, the default is 00000 to 99999.</p>
End Ext.	a 3-digit to 10-digit string	<p>Enter the ending extensions for the ranges of telephone numbers used on the local system.</p> <p>For example, if your system uses extensions between 2000 and 3000, enter 3000 in the <code>End Ext.</code> field.</p>
Warnings	Display only	This field displays a warning when a duplication or overlap of an extension range for another machine is being assigned.

- When you have finished entering information on this screen, press **F7** [**NextPage**].

The system displays Machine Profile Screen for the Local Machine, Page 2.

```

Active           Alarms: MmWA           Logins: 2
change machine   Page 2 of 2
MACHINE PROFILE

Allow Automatic Full Updates? y
    Updates:   In? y           Out? y
    Network Turnaround? y

enter command: change machine
    
```

Screen 4-6. Local Machine Profile Screen, Page 2

- Complete the fields on this screen using the information provided in the following table.

Table 4-3. Field Definitions; Local Machine Profile Screen, Page 2

Field	Valid Input	Description
Allow Automatic Full Updates	y = yes n = no	If you enter y , the local AUDIX system automatically requests full updates from remote systems. If you enter n , the local AUDIX system does not automatically request full updates from remote systems.
Updates: In?	y = yes n = no	If you enter y , this local AUDIX system will accept updated user database information from any remote machine (the Updates In field must also be set to y on the remote Machine Profile screen setup on the local AUDIX system for each remote machine). If you enter n , the local AUDIX system will not accept updates from any remote machine regardless of the entry on the remote Machine Profile screen. Set this field to y only after testing the network end-to-end during initial administration.

Table 4-3. Field Definitions; Local Machine Profile Screen, Page 2

Field	Valid Input	Description
Updates: Out?	y = yes n = no	<p>If you enter y, updates to user database information for local users are sent to a remote machine (the <code>Updates Out</code> field must also be set to y on the remote Machine Profile screen set up on the local AUDIX system for each remote machine).</p> <p>If you enter n, updates will not be sent to any remote machine regardless of the entry for this field on the remote Machine Profile screen. Set this field to yes only after testing the network end-to-end during initial administration.</p>
Network Turnaround	y = yes n = no	<p>To disable this feature system-wide, enter n on the local Machine Profile screen.</p> <p>To enable the feature, enter y on the local Machine Profile screen <i>and</i> on the appropriate remote Machine Profile screens on this local system.</p> <p>If enabled, a network connection that originated from this local AUDIX system is allowed to turn around after the local AUDIX system has sent all of its network data to any remote machine. The remote machine may then return update information, voice mail, and status on the same connection.</p>

- When you finish updating the local machine information, press **F3 [Enter]** to save the information in the system database.

The cursor returns to the command line, and the system displays the following message:

Command Successfully Completed.

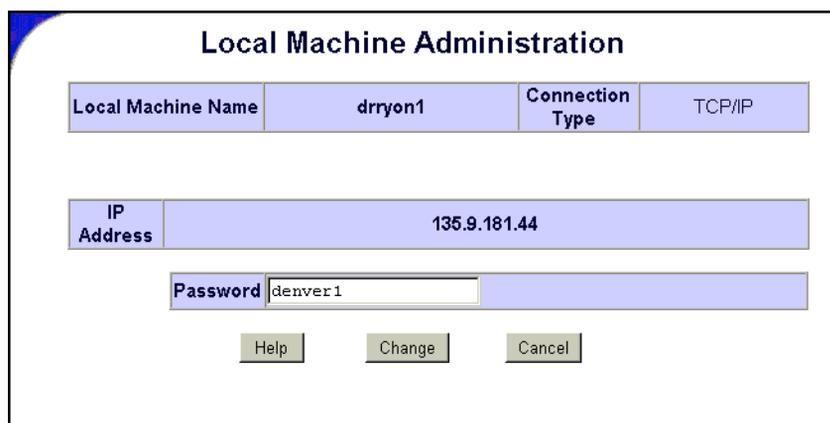
- Enter **exit** or another administrative command at the `enter` command prompt.

Completing the Local Machine Administration Window

To view the local machine information:

1. Start at the DEFINITY ONE home page from the web browser and select **Administer System > AUDIX Networking > Administrative Menu > Local Machine Administration**

The system displays the Local Machine Administration Window.



The screenshot shows a web-based interface titled "Local Machine Administration". It contains three main input fields:

- Local Machine Name:** A field containing the text "drryon1".
- Connection Type:** A field containing the text "TCP/IP".
- IP Address:** A field containing the text "135.9.181.44".

Below these fields is a **Password** field containing the text "denver1". At the bottom of the window are three buttons: "Help", "Change", and "Cancel".

Screen 4-7. Local Machine Administration

2. Change the password if necessary.

You cannot change the value in any fields except the `Password` field. To change other values, see ["Changing the Local Machine Profile" on page 4-6](#).

3. Click **Save**.

The system updates the information and displays a confirmation message.

Adding a Remote Machine

If you want users on the local machine to be able to exchange messages with AUDIX users on another machine, you must provide information to the local machine about the remote machine.

⇒ NOTE:

The AUDIX system accepts only one local machine. Do not attempt to add a second local machine. Use the instructions in this section only to add remote machines.

Completing the Digital Network Machine Administration Window (via Web Browser)

To enter information for connecting to the remote machine:

1. Start at the DEFINITY ONE home page and select **Administer System > AUDIX Networking > Administrative Menu > Remote Machine Administration > Digital Machine Administration**
2. On the Digital Machine Administration screen, click **Add New Machine**.

The system displays the Digital Machine Administration window.

Machine Name	Connection type
<input type="text"/>	TCP/IP

IP Address
<input type="text"/>

Message Transmission Schedule (hh:mm, 00:00 - 23:59)

	Start	End	Interval
1.	<input type="text"/>	<input type="text"/>	<input type="text"/>
2.	<input type="text"/>	<input type="text"/>	<input type="text"/>
3.	<input type="text"/>	<input type="text"/>	<input type="text"/>

Send Multimedia Messages ?	Machine Type
<input type="text" value="Yes"/>	<input type="text" value="INTUITY 4.0 or Later"/>

Password
<input type="text"/>

Buttons: Help Add Change Delete Cancel Rename

Screen 4-8. Digital Machine Administration window

3. Complete the fields in this window using the information provided in the Field Definitions; Digital Network Machine Administration table.

Table 4-4. Field Definitions; Digital Network Machine Administration

Field	Valid Input	Procedure/Description
Machine Name	1 to 10 alphanumeric characters; see guidelines at right	Enter the unique name of the remote machine. Each remote machine must have a unique name, not only from other remote machines, but from all machines on the network, including fax call delivery machines and the local AUDIX.
TCP/IP Address	Numeric address string in the format nnn.nnn.nnn.nnn	The IP address of the remote machine.
Message Transmission Schedule	24-hour clock time in the format <i>hh:mm</i>	Start Time — Enter the starting time for a message transmission period to the remote system, such as <i>00:01</i> for 1 minute after midnight. End Time — Enter the ending time for a message transmission period to the remote system, such as <i>23:59</i> for 1 minute before midnight. Interval — Enter the interval at which the local AUDIX system will call this remote system, such as <i>00:05</i> for every 5 minutes. The AUDIX system checks the queue at this interval and calls the remote system if something is in the queue for this remote system. It is recommended that you stagger start times and intervals for each remote system so the local AUDIX system is not trying to call all remote systems at the same time.
Password	5-digit to 10-digit alphanumeric characters	Enter the password exactly as it is administered on the remote system.
Send Multimedia Messages?	yes no	Select yes if the remote machine will accept multimedia messages (such as fax and text messages). Select no if the remote machine will not accept multimedia messages.
Machine Type	See description at right	Enter the machine type. To see a list of valid machine types, click the dropdown arrow and select the appropriate machine type from the available types.

4. When you finish entering information for a remote machine, click **Save**.
The system adds the information and displays a confirmation message.
5. Add another remote machine if needed.

Completing the Machine Profile Screen for the Remote Machine (via AUDIX)

Use the Machine Profile screen to enter networking information required for each remote machine, such as address ranges and remote update information.

To enter networking information on the Machine Profile Screen:

⇒ NOTE:

The Digital Network Machine Administration window must be completed for a remote machine before completing the Machine Profile screen for that machine.

1. Start at the AUDIX Command Prompt Screen.
2. Enter **change** machine remote_machine_name at the `enter command:` prompt.

The system displays the Machine Profile Screen for a Remote Machine, Page 1.

Active	Alarms: MmWA	Logins: 2
change machine drbig10		Page 1 of 2
MACHINE PROFILE		
Machine Name: drbig10	Type: VEX	Location: remote-digital
Voiced Name? n		Extension Length: 5
Voice ID: 1		Default Community: 1
ADDRESS RANGES		
Prefix	Start Ext.	End Ext. Warnings
1: _____	53000	56999
2: _____	_____	_____
3: _____	_____	_____
4: _____	_____	_____
5: _____	_____	_____
6: _____	_____	_____
7: _____	_____	_____
8: _____	_____	_____
9: _____	_____	_____
10: _____	_____	_____
enter command: change machine drbig10		

Screen 4-9. Remote Machine Profile Screen, Page 1

⇒ NOTE:

If you do not know the names of the remote machines, enter **list machines** at the `enter command:` prompt. The system displays a list of all machines administered on the system.

3. Complete the fields in this window using the information provided in the Field Definitions; Remote Machine Profile Screen, Page 1 table.

⇒ NOTE:

The Machine Name, Type, Location, and Voice ID fields are display only and cannot be changed.

Table 4-5. Field Definitions; Remote Machine Profile Screen, Page 1

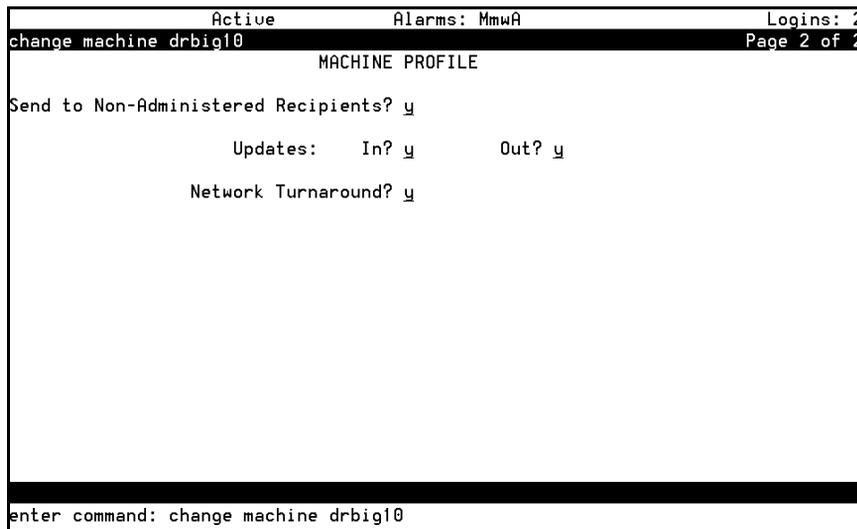
Field	Valid Input	Description
Machine Name	Display only	Displays the machine name for this remote machine entered on the Digital Network Machine Administration window.
Type	Display only	Displays the machine type for this remote machine entered on the Digital Network Machine Administration window.
Location	Display only	Displays the location <code>remote-digital</code> .
Voiced Name?	y = yes n = no	The Voice Name field contains an n until you record a name for the machine. This field automatically changes to y when you record a name for the machine.
Extension Length	An integer from 3 to 10	Enter the length of extensions on the local system. The value you enter must match the extension length in your dial plan.
Voice ID	Display only	Displays a system-assigned identifier that you must use to identify the machine if you decide to record machine names.
Default Community	An integer from 1 to 15	If you have administered your system to use community sending restrictions, enter the default community number for your user population.

Table 4-5. Field Definitions; Remote Machine Profile Screen, Page 1

Field	Valid Input	Description
Prefix	0 to 21 alphanumeric characters	<p>Enter the prefix digits. A user enters the prefix before the remote user's extension when addressing voice messages. To simplify this task, use a short, descriptive prefix. The total length of the prefix plus the extension must not exceed 25 characters. The system uses the prefix only to identify users. It is not used for dialing out, so it does not need to match an area code or office code. The following are examples of possible prefixes:</p> <ul style="list-style-type: none"> n No prefix — The prefix is required only when one or more of the remote users share the same extension numbers as the local users (the extension ranges of the two systems overlap). If there are no overlapping extension numbers, a prefix is not needed. n Public network access code — When addressing a message to a remote user, the local user enters the remote user's number as if placing a call to that user. n Location code — This method simplifies addressing messages by requiring only an alphanumeric code in front of the extension number. Location codes are shorter and often easier to remember.
Start Ext.	A 3-digit to 10-digit string	<p>Enter the starting extensions for the ranges of telephone numbers used on the local system. (Designate a block of switch extensions that can be used at the local system when assigning users.)</p> <p>For example, if your system uses extensions between 2000 and 3000, enter 2000 in the <i>Start Ext.</i> field.</p> <p>Up to 10 different ranges can be specified to pinpoint the exact set of extension blocks used by the local system. The length of the start and end extension must agree with the <i>Extension Length</i> field. For a 5-digit extension, the default is 00000 to 99999.</p>
End Ext.	A 3-digit to 10-digit string	<p>Enter the ending extensions for the ranges of telephone numbers used on the local system.</p> <p>For example, if your system uses extensions between 2000 and 3000, enter 3000 in the <i>End Ext.</i> field.</p>
Warnings	Display only	<p>This field displays a warning when a duplication or overlap of an extension range for another machine is being assigned.</p>

4. Press F7 [NextPage].

The system displays Machine Profile Screen for a Remote Machine, Page 2.



5. Complete the fields in this window using the information provided in the Field Definitions; Remote Machine Profile Screen, Page 2 table.

Table 4-6. Field Definitions; Remote Machine Profile Screen, Page 2

Field	Valid Input	Description
Send to Non-Administered Recipients?	y = yes n = no	Enter y if the system will attempt to deliver messages to non-administered remote recipients. Enter n if messages cannot be sent to nonadministered recipients.
Updates: In?	y = yes n = no	Enter y if the local system will accept updated database information from the remote system (the <code>Updates Out</code> field must also be set to y on the local Machine Profile screen). Set to y only after testing the network end-to-end during initial administration.
Updates: Out?	y = yes n = no	Enter y if the local system will send updated database information to the remote system (the <code>Updates In</code> field must also be set to y on the local Machine Profile screen). Set to y only after testing the network end-to-end during initial administration.

Table 4-6. Field Definitions; Remote Machine Profile Screen, Page 2

Field	Valid Input	Description
Network Turnaround	y = yes n = no	<p>If you are conducting an acceptance test, enter n.</p> <p>After the acceptance tests, enter y if a network connection that originated from this remote system is allowed to turn around after the remote system has sent all of its network data to the local system.</p> <p>The local system may then return update information, voice mail, and status on the same connection. This feature reduces toll charges and increases the efficiency of the system in networks with more than 10 machines.</p> <p>The <code>Network Turnaround</code> field must be set to y on the local Machine Profile screen for this feature to work between the local system and the remote system.</p>

6. Press **F3** [Enter] to save the information.

The cursor returns to the command line, and the system displays the following message:

Command Successfully Completed.

7. Press **F3** [Cancel] to return to the command line.
8. Enter **exit** or another administrative command at the `enter command:` prompt.

Performing a Full Remote Update

If you have the system set to perform automatic daily updates, you only need to perform the full remote update to update the system after making changes to remote machine connections or to verify changes of data you just entered.

To update the remote user information immediately:

1. Start at the AUDIX Command Prompt Screen.
2. Enter **get remote update machine_name** at the `enter command:` prompt, where `machine_name` is the name of the remote machine.
 The system displays the Remote Update Request confirmation screen.
3. Press **F3** [Enter] to continue.
 The cursor returns to the command line, and the system displays the following message:
 Command Successfully Completed.
4. Enter **exit** or another administrative command at the `enter command:` prompt.

Resetting Automatic Deletion of Nonadministered Remote Users

To conserve server space by automatically deleting nonadministered remote users:

1. Start at the AUDIX Command Prompt Screen.
2. Enter **change system-parameters features** at the `enter` command prompt.
The system displays the System-Parameters Features, Page 1 screen.
3. Press **F7 [NextPage]** three times to display the System-Parameters Features, Page 4 screen.
4. In the `Days without Activity:` field, type the number of days. Type 0 if you do not want to automatically delete nonadministered remote subscribers.
5. In the `Even If on a Mailing List?` field, type `n` to retain information for nonadministered remote subscribers that are on a subscriber's mailing list.
6. Press **F3 [Enter]** to save the changes.
The cursor returns to the command line, and the system displays the following message:
`Command Successfully Completed.`
7. Enter **exit** or another administrative command at the `enter` command prompt.

Viewing Remote Extensions

To verify that remote subscriber information was updated in the local machine database, view the remote extensions:

1. Start at the AUDIX Command Prompt Screen.
2. Enter **list remote-extensions machine_name** at the `enter` command prompt, where the `machine_name` is the local machine of the remote subscribers.
The system displays the List Remote Extensions screen.
3. Press **F7 [NextPage]** to display additional pages of the list.
4. Press **F1 [Cancel]** to return the cursor to the command line.
5. Enter **exit** or another administrative command at the `enter` command prompt.

Update and Repair Procedures

5

This chapter provides the tasks needed to upgrade and repair the DEFINITY ONE system.

This chapter is organized as follows:

- [“Update Software” on page 5-1](#)
- [“Replace the TN795 Circuit Pack” on page 5-3](#)
- [“Replace the Hard Disk” on page 5-4](#)
- [“Replace the PCMCIA Flash Disk \(Hot Pluggable\)” on page 5-5](#)
- [“Access Diskeeper Software to Defragment the Disk” on page 5-5](#)

Update Software

This procedure is used to upgrade a new version of software. All Lucent applications must be stopped during an upgrade.

The DEFINITY and AUDIX translations and the NT registry must be saved and backed up before starting. Use [“Perform Immediate Backup \(Web\)” on page C-21](#) to get the translations to the network drive or to the flashdisk.



NOTE:

The serial number of the TN795 circuit pack is stamped on the circuit pack and is stored electronically in the firmware. The electronic version is checked by the software during an installation.

Two special control files must be present on the system before it will provide service. One of these files is a password file containing passwords and ASG keys for the login IDs used by Services. The second file is a license file that is used to

control which application will run and which features these applications will provide. Both of these files are encrypted and both files are specific to a particular serial number of the processor board. During installation, these two files are received together in an “install” file that is used by the **installconfig** command during system setup.

1. Click **Network Neighborhood**.
2. Share the laptop CDROM drive.
3. Connect the laptop computer using the procedure, [“Connect the Laptop Computer to DEFINITY ONE” on page C-2](#) in Appendix C, Miscellaneous Procedures.
4. Telnet to the LAC in a console bash session using the procedure, [“Via a Telnet Session” on page 2-8](#) in Chapter 2, Connectivity, and bring up a bash shell.
5. At the prompt, type **shutdown Audix** to shut down AUDIX before backing up AUDIX. Wait for the bash prompt to return; this will take about 3 minutes.
6. Use the **d1stat** command to check the status of the AUDIX shutdown.
7. After AUDIX is shut down, type exit.
8. From the LAC prompt, type DEFINITY. Use the NTT terminal type.
9. From the DEFINITY command line, type **save translations** to save DEFINITY translations.
10. After the save of DEFINITY translations is complete, save and back up all translations by following the appropriate backup procedure under [“Perform Immediate Backup \(Web\)” on page C-21](#) in Appendix C.
11. Start a pcANYWHERE session using the procedure, [“Via pcANYWHERE” on page 2-13](#) in Chapter 2, Connectivity and Access to DEFINITY ONE.
12. You receive the DEFINITY ONE desktop.
13. Click on Start: Run: bash to bring up a console bash shell on the DEFINITY ONE.
14. In the console bash, type **shutdown all** to stop any running system applications.
15. In the console bash, use the **d1stat** command to check the status of the shut down.
16. Map the CD-ROM from the laptop to DEFINITY ONE using the procedure, [“Map DEFINITY ONE to the Laptop Computer’s CD-ROM Drive” on page C-13](#) in Appendix C, Miscellaneous Procedures.
17. Click **Start** on the NT desktop and start a command prompt.
18. Click Run and type **f:\setup**, where **f** is the drive letter that refers to the CD-ROM. Click OK.
19. When prompted to overwrite customer data, click **No**.

20. If prompted to overwrite a read-only file, click **Yes**.
The install process takes approximately 20 minutes.
21. When the installation completes, click **Finish**.
22. Manually reboot the system by pressing the shutdown button on the TN795. When the shutdown LED is steadily lit, power cycle. Wait 5-8 minutes for the system to come back up.
23. Check for dial tone.

 **NOTE:**

Install a new license file (**installconfig**) if the processor board has been changed or the software is upgraded to a major new release, following the procedure, [“Obtaining a License File” on page 3-3](#) in Chapter 3, Installation Procedures. Do not reboot until the **installconfig** procedure is complete.

Replace the TN795 Circuit Pack

 **NOTE:**

Anytime the TN795 circuit pack is changed out, either for repair or upgrade, a new license file must be obtained and the installconfig process must be used (DEFINITY and INTUITY AUDIX will not start if the license file does not have the correct TN795 serial number).

1. Shut down the system. (Refer to the procedure, [“Shut Down” on page C-44](#) in Appendix C, Miscellaneous Procedures.)
2. Remove the TN795 circuit pack.
3. Remove the hard disk from the failed TN795 circuit pack.
4. Insert the hard disk onto the new TN795 circuit pack.
5. Boot the system.

Follow the procedures to install a new license file, including running the **setip** command. See the procedure, [“Obtaining a License File” on page 3-3](#) in Chapter 3, System Initialization, for more details.

 **NOTE:**

The system will boot but the DEFINITY One applications will not start running because the serial number on the disk does not match the serial number on the board.

Because the hard disk is reused, the system has the old password file that was on the system before the board failed. You must obtain the appropriate password from the TSO to log in.

Replace the Hard Disk

1. Shut down the system. (See the procedure, [“Shut Down” on page C-44](#) in Appendix C, Miscellaneous Procedures.)
2. Remove the TN795 circuit pack
3. Remove the failed hard disk from the TN795 circuit pack
4. Insert the new hard disk onto the board, making sure to use the appropriate hard disk for the given circuit pack and software release.

The disk comes pre-loaded with all the necessary DEFINITY ONE software; however, the DEFINITY ONE applications will not run until you install the new license file. See step 9.

5. Once the system has rebooted, connect the services laptop computer to DEFINITY ONE using the procedure, [“Connect the Laptop Computer to DEFINITY ONE” on page C-2](#) in Appendix C, Miscellaneous Procedures.
6. Telnet to the LAC using the procedure, [“Via a Telnet Session” on page 2-8](#) in Chapter 2, Connectivity and Access to DEFINITY ONE.
7. Log in and run a bash session.

The browser will prompt for a login and password. Because the new hard disk does not have a password file, the system reverts back to the factory default login of **lucent3**.

8. Execute **swversion** and verify that the load of software on the hard drive matches that on the customer's CD. If it is not, follow the procedure, [“Update Software” on page 5-1](#).
9. Bring up your favorite browser on the laptop and load the DEFINITY ONE Home Page. See the procedure, [“Via a Web Browser Session” on page 2-10](#) in Chapter 2, Connectivity and Access to DEFINITY ONE, for information about how to start a web browser.
10. Navigate the browser to the backup and restore screens.

The browser will prompt for a login and password. Because the new hard disk does not have a password file, the system reverts back to the factory default login of **lucent3**.

11. Follow the steps for restoring the customer's data. The customer may have backed up to their local network or the PCMCIA flash disk.

If the customer backed up to the PCMCIA flash disk, then restoring will restore whatever was backed up last. If the registry was backed up, then the restore will update LAN information allowing DEFINITY ONE to be seen from the customer's network.

If the customer backed up to the local network or failed to back up the registry, then you need to run setip with the cust option to re-establish DEFINITY ONE on the customer's network.

5 Update and Repair Procedures

Replace the PCMCIA Flash Disk (Hot Pluggable)

5-5

12. After restoring, follow the procedures to install a new license file, including running the **setip** command. See the procedure, "[Obtaining a License File](#)" on page 3-3 in Chapter 3, System Initialization, for more details.

After installing the license file, the system restarts and all applications load.

13. The logins and passwords will have been updated by the **installconfig** command.
14. Note that the NT logins of **vm**, **sa**, **browse**, and **NTadmin** will be reset to their factory defaults. Tell the customer to reset these passwords and re-install any other NT accounts they may have created.

 **NOTE:**

The DEFINITY-specific customer logins should still work as they were restored with the restore done earlier.

15. If it is necessary, upgrade the software on the disk by following the steps in the procedure, "[Update Software](#)" on page 5-1. If an upgrade is necessary, upgrade the software before installing the new license file.

Replace the PCMCIA Flash Disk (Hot Pluggable)

1. Verify that disk is not in use (check LED on front panel).
2. Unplug old disk and insert new disk.
3. Run translation backup to verify health.

Access Diskeeper Software to Defragment the Disk

Diskeeper software is a program that automatically defragments the disk. The C drive is defragmented once every Sunday at 3:00 a.m., and the D drive twice every day between 2:00 a.m. and 4:00 a.m.

Change the Default Times on Diskeeper

These times may be changed. To manually defragment the disk, set up a schedule, or view a help file, a control GUI is available. Access this GUI by:

1. From the DEFINITY ONE desktop, click **Start > Programs > Executive Software > Diskeeper**.

You receive the Diskeeper Menu and can re-administer the program.

2. Select Set It and Forget It.
3. Select Partition Scheduler.

- 5 Update and Repair Procedures
Access Diskkeeper Software to Defragment the Disk 5-6
 4. The Select Set It and Forget It - Partition Scheduling window appears.
 5. Set new times for automatic defragging; this will change the default times.
 6. Click Start.
 7. Click Close.

Hardware Additions

6

This chapter provides the tasks required to install some equipment associated with upgrading an existing DEFINITY ONE system.

For more information about installing adjuncts and peripheral devices, refer to DEFINITY Enterprise Communications Server Release 7 Installation for Adjuncts and Peripherals, 555-230-125.

This chapter is organized as follows:

- [“Add Circuit Packs” on page 6-2](#)
- [“Add CO, FX, WATS, and PCOL” on page 6-2](#)
- [“Add DID Trunks” on page 6-3](#)
- [“Add Tie Trunks” on page 6-4](#)
- [“Add DS1 Tie and OPS” on page 6-6](#)
- [“Add Speech Synthesis” on page 6-6](#)
- [“Add Code Calling Access” on page 6-6](#)
- [“Add Pooled Modem” on page 6-7](#)
- [“Multiple Integrated Recorded Announcement” on page 6-9](#)
- [“Add ISDN-PRI” on page 6-10](#)
- [“Add IP Trunk” on page 6-12](#)

Add Circuit Packs

When installing additional features or equipment, it may be necessary to install additional circuit packs. To see a list of allowable circuit packs, see Chapter 1, "Install and Cable the Cabinet," ["Allowable and Non-Allowable Circuit Packs" on page 1-24](#). This is a general procedure to use when adding features or equipment that require adding circuit packs.

1. Log onto the system and answer **y** to the Suppress Alarm Origination question during login.
2. Install the circuit pack into the carrier.
3. Type **change circuit-pack**.
4. Verify the circuit pack appears in the listing.
5. If the circuit pack code is not present, type the code manually in the proper slot.
6. Type **test board long** command to test the board.
7. Log off the system after the addition (and any required administration) is complete.

For information about administering circuit packs and other equipment, refer to DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Add CO, FX, WATS, and PCOL

Requirements

Each Central Office (CO), Foreign Exchange (FX), Personal Central Office Line (PCOL), or Wide Area Telecommunications Service (WATS) trunk connects to 1 port of either an 8-port TN747B or to 1 of several CO trunk circuit packs.

Installation

1. Determine the port assignment of the trunk from Trunk Group form.

EXAMPLE:	Port Number	3	A	07	01
		Cabinet	Carrier	Slot	Circuit
		(Port Network)	(or Compact Modular Cabinet)		

2. Install a TN747B or a CO Trunk circuit pack in the assigned carrier slot (if an additional circuit pack is required).
3. Administer the forms listed under CO, FX, WATS, or PCOL Trunk Group in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Add DID Trunks

Requirements

Each Direct Inward Dial (DID) trunk connects to 1 port DID Trunk circuit pack or to 1 port of an assortment of DID trunk circuit packs.

Installation

1. Determine the port assignment of the trunk from Trunk Group form.

EXAMPLE:	Port Number	1	A	07	01
		Cabinet	Carrier	Slot	Circuit
		(Port Network)	(or Compact Modular Cabinet)		

2. Install a DID Trunk circuit pack in assigned carrier slot (if an additional circuit pack is required).
3. Administer forms listed under "DID Trunk Group" in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Add Tie Trunks

Requirements

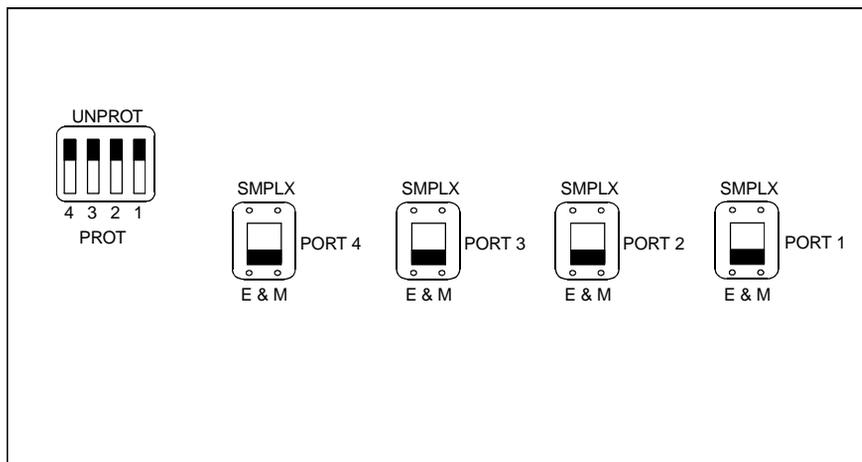
Each tie trunk connects to 1 port of a 4-port tie trunk circuit pack or to an assortment of international tie trunk circuit packs.

Installation

1. Determine the port assignment of the trunk from Trunk Group form.

EXAMPLE:	Port Number	3	A	02	01
		Cabinet	Carrier	Slot	Circuit
		(Port Network)	(or Compact Modular Cabinet)		

2. Install tie trunk or an international tie trunk circuit pack in assigned carrier slot (if an additional circuit pack is required).
3. For customer-owned (not leased) tie-trunk facilities (such as campus environments), tie trunk circuit packs provide signaling capabilities beyond those specified by the industry-wide E&M standard. Use [Figure 6-1](#) and [Table 6-1](#) to choose the preferred signaling format, set switches on the circuit pack, and administer the port.
4. Administer forms listed under "Tie Trunk Group" in the DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.



r758183 RBP 050896

Figure 6-1. Tie Trunk Circuit Packs (Component Side)

Table 6-1. Tie Trunk Option-Switch Settings and Administration

Installation Situation		Preferred Signaling Format		E&M/SMPLX Switch	Prot/Unprot Switch	Administered Port
Circumstance	To	System	Far-End			
Collocated	DEFINITY	E&M Type 1 Compatible	E&M Type 1 Standard	E&M	Unprotected	Type 1 Compatible
Inter-Building	DEFINITY	Protected Type 1 Compatible	Protected Type 1 Standard Plus Protection Unit	E&M	Protected	Type 1 Compatible
Collocated	Net Integrated	E&M Type 1 Standard	Any PBX	E&M	Unprotected	Type 1

Add DS1 Tie and OPS

The TN2313 DS1 Tie Trunk and TN767B (or later) DS1 Interface circuit packs provide connections to a 1.544 Mbps DS1 facility (T1) as 24 independent 64 kbps trunks.

The TN2313 DS1 Tie Trunk, TN767B (or later) DS1 Interface, and TN464C (or later) DS1 Interface circuit packs provide connections to a 2.048 Mbps DS1 facility (E1) as 32 independent 64 kbps trunks.

Service Interruption

1. Since the addition of DS1 tie-trunk service may require a service interruption, notify the customer in advance as to when the addition will occur.

Add Speech Synthesis

The TN725B Speech Synthesizer circuit pack is required when the Voice Message Retrieval, Automatic Wakeup, or Do Not Disturb features are activated. The TN725B circuit pack does not require administration.

1. Determine the port assignment of the Speech Synthesizer circuit pack being added.
2. Install the TN725B Speech Synthesizer circuit pack in the designated carrier slot.

Add Code Calling Access

The tones for the Code Calling feature are generated by the TN2182/B Tone-Clock circuit pack in the port networks.

1. Install a TN763B/C/D Auxiliary Trunk circuit pack or a TN457 Speech Synthesizer circuit pack and connect for Loudspeaker Paging. The Code Calling Access feature shares the same ports as Loudspeaker Paging. An Auxiliary Trunk circuit pack provides 4 ports for Loudspeaker Paging and Code Calling Access.
2. Administer the form listed under "Code Calling Access" in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Add Pooled Modem

Modem Pooling supports two types of conversion resources: "integrated" and "combined."

The integrated type requires a TN758 Pooled Modem circuit pack for each two conversion resources provided.

The combined type requires a port on a digital Line circuit pack and a port on either an 8-port or 16-port analog line circuit pack for each conversion resource provided.

1. Determine the port assignment of the circuit packs to be added (if required).
2. Install the appropriate circuit packs in assigned carrier slot (if required).
3. For Paradyne 3800 Series modems:
 - a. Type **AT&F&D2&S4\ID3S2=128x7V2S7=60S85=1** and press Enter.
 - b. Type **ATY0S10=100S78=2M0E0\N1&W** and press Enter.
4. For other types of modems, refer to the vendor's documentation.

Settings for Modem Connected to Data Module

1. Type **add data-module next** and press Enter.
2. Type **pdm** in the `Type` field.
3. Type **x** in the `Port` field.
4. Type **dte** in the `Connected to` field and press Enter.
5. Type **add station next** and press Enter.
6. Type **2500** in the `Type` field.
7. Type **x** in the `Port` field.
8. Type **n** in the `Tests` field and press Enter.
9. Type **add modem-pool next** and press Enter.
10. Type **combined** in the `Group Type` field.
11. Type **5** in the `Hold Time (min)` field.
12. Type **two-way** in the `Direction` field.
13. Type **9600** in the `Speed` field.
14. Type **Full** in the `Duplex` field.
15. Type **async** in the `Synchronization` field.
16. Type the port pair assignments in the `Analog` and `Digital` fields and press Enter.

Settings for Modem Connected to the Data Terminal Equipment (DTE)

1. Type **add station next** and press Enter.
2. Type **2500** in the `Type` field.
3. Type the port assignment in the `Port` field and press Enter.

Table 6-2. 7400A Options — Attention Control Modems

Set Option Display	Option	Setting
Set 300 Speed?	300	Note 1
Set 1200 Speed?	1200	Note 1
Set 2400 Speed?	2400	Note 1
Set 4800 Speed?	4800	Note 1
Set 9600 Speed?	9600	Note 1
Set 19200 Speed?	19200	Note 1
Set AT Control?	AT	ON
Set CI Lead?	CI	Note 2
Set CI2 Lead?	CI2	Note 2
Set CH Lead	CH	Note 2
Set CH2 Lead?	CH2	Note 2
Set LL Lead?	LL	Note 2
Set REMOTE Loop?	REMLOOP	Grant
Set RL Lead?	RL	Note 2
Set SIGLS Disc?	SIGLS DISC	ON
Set TM Lead?	TM	Note 2



NOTE:

1. Set speed to match remote modem. At least one speed must be set ON.



NOTE:

2. Set to match remote modem.

Multiple Integrated Recorded Announcement

TN750C Announcement Circuit Pack

The TN750C circuit pack contains on-board flash memory that provides internal backup of announcements. Thus, the TN750C circuit pack does not need the save and restore processes.

The TN750C circuit pack can replace a TN750 or TN750B. The difference in operation is that the TN750C automatically restores and reports the availability of announcements from its own internal flash memory in 5 minutes, rather than the 40 minutes for the TN750 or TN750B.

If a circuit pack already has announcements in its flash memory, the yellow LED flashes as the announcements copy to the voice RAM.

Add TN750C Circuit Packs

1. Insert the TN750C into a vacant slot in a carrier.
2. Administer new announcements to that TN750C slot by executing the **change announcements <location>** command.
3. Record the announcements, as described in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.
4. Wait until the announcements copy from voice RAM to the on-board flash memory (the yellow LED on the TN750C starts and then stops flashing). This takes about 10 minutes.

Move a Single Announcement to Another Announcement Circuit Pack

1. Enter the **change announcements** command to change the circuit pack locations of a particular announcement. (You may also change the compression rate at this time.)
2. Re-record the announcement, as described in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Add ISDN-PRI

T1 (North American)

1. Use a TN767F or TN767E (or later version) circuit pack to set up an ISDN PRI trunk. Make sure that the dip switch on the board is set for 24 channels. If you are using Facility Associated Signaling (FAS), 23 channels are available to be used as trunk group members. Channel 24 must be used to create a signaling group for the trunk groups. If you are using Non Facility Associated Signaling (NFAS), it is possible to use all 24 channels for trunk group members in some instances.
2. To create a PRI trunk, do the following:
 - a. Enter **ADD DS1** (board location) at the SAT terminal session.
 - b. Enter the required information on the DS1 form.
 - c. Create a signaling group using the **ADD SIG NEXT** command. If you are using FAS signaling, use the 24th channel on your DS1 board as the D-channel for your signaling group. If you are using NFAS signaling, enter **N** in the associated signaling field. List the trunk board location in the Trunk Board field.
 - d. Create a trunk group by using the **ADD TRUNK NEXT** command:
 1. Fill in the required information on the Trunk Group Form pages.
 2. Fill in the port locations of the trunk members on the Trunk Group Member page.
 3. Enter the correct signaling group number.

E1 (International)

1. Use a TN464F circuit pack. Make sure the dip switch on the board is set for 30 channels (E-1). If you are using Facility Associated Signaling (FAS), 29 channels are available to be used as trunk group members. Channel 16 must be used to create a signaling group for the trunk groups. If you are using Non Facility Associated Signaling (NFAS), it is possible to use all 30 channels for trunk group members in some instances.
2. To create a trunk group, do the following:
 - a. Determine the slot assignment of the circuit packs that will be added.
 - b. Install the DS1 interface circuit pack in the assigned carrier slot.
 - c. Enter **ADD DS1** (board location) at the SAT terminal session.
 - d. Enter the required information on the DS1 form.

- e. Create a signaling group using the **ADD SIG NEXT** command. If you are using FAS signaling, use the 16th channel on your DS1 board as the D-channel for your signaling group. If you are using NFAS signaling, enter **N** in the associated signaling field. List the trunk board location in the Trunk Board field.
- f. Create a trunk group by using the **ADD TRUNK NEXT** command:
 1. Fill in the required information on the Trunk Group Form pages.
 2. Fill in the port locations of the trunk members on the Trunk Group Member page.
 3. Enter the correct signaling group number.

Add Circuit Packs

1. Determine the slot assignment of the circuit packs to be added.
2. Install the DS1 Interface circuit pack in the assigned carrier slot.

Install Cables

1. Install cables from the cabinet to the MDF as required.

Enter Added Translations

1. Administer the forms listed under "Integrated Services Digital Network — Primary Rate Interface" in DEFINITY Enterprise Communications Server Release 7 Administrator's Guide, 555-233-502.

Resolve Alarms

1. Examine the alarm log. Resolve any alarms that may exist using DEFINITY ONE Communications System Release 1.0 Maintenance, 555-233-111.

Save Translations

1. Enter **save translation** and press Enter. This instructs the system to take all translation information in memory and write it to the translation cards.
2. Update backup cards, if necessary.

Add IP Trunk

The DEFINITY IP Trunk lets you integrate LAN applications into your DEFINITY communications network. It is implemented using the TN802B MAPD which is a Windows NT server residing on a circuit pack inside the DEFINITY ONE.

Installing the DEFINITY IP Trunk involves the following steps:

1. [Prepare for Installation](#)
2. [Check your Shipment](#)
3. [Connect the Modem \(Optional\)](#)
4. [Connect the IP Trunk Server to Your Local Area Network](#)

Prepare for Installation

Have the following ready before your shipment arrives on site.

- Three adjoining, unoccupied slots in the DEFINITY ECS
The IP-trunk circuit pack occupies only one slot, but it needs the two slots to its left for clearance.
- A 10/100 BaseT Ethernet connection into your local area network
- A valid, unused IP address on your network that can be assigned to the IP Trunk server
- A technician's laptop computer
- A mouse, keyboard, and VGA monitor with Windows NT loaded for use during the installation of the server
- An analog telephone line reserved for the IP-trunk diagnostic modem
- A valid international telephone number reserved for the IP-trunk diagnostic modem
- Symantec pcANYWHERE software
This third-party application lets Lucent support personnel control the MAPD processor remotely, via the modem, during maintenance and troubleshooting.
- AC power outlets for the modem and monitor

Check your Shipment

When your DEFINITY IP Trunk order arrives at your site, check the contents.

1. Before you open the shipping carton, inspect it for damage. If the box is damaged, do not open it. Inform the shipping company, and ask for instructions on filing a claim.

2. If the box is undamaged, check the contents against the packing slip. Check the condition of each component, and note any damage or shortages on the packing slip. The carton should contain the following for each IP Trunk ordered:

- TN802B MAPD circuit pack
- US Robotics Sportster 56K external modem

The modem lets Lucent support personnel remotely maintain and troubleshoot your system.

- TN802B external cable assembly

The TN802B external cable assembly is a bundle of cables with an amphenol connector at the end of the bundle and various PC-type connectors (VGA, USB, mouse, keyboard, Ethernet, modem, and COM2) at the ends of the individual cables. See [Figure 6-2](#). It should be labeled at the point where the bundle enters the amphenol connector.

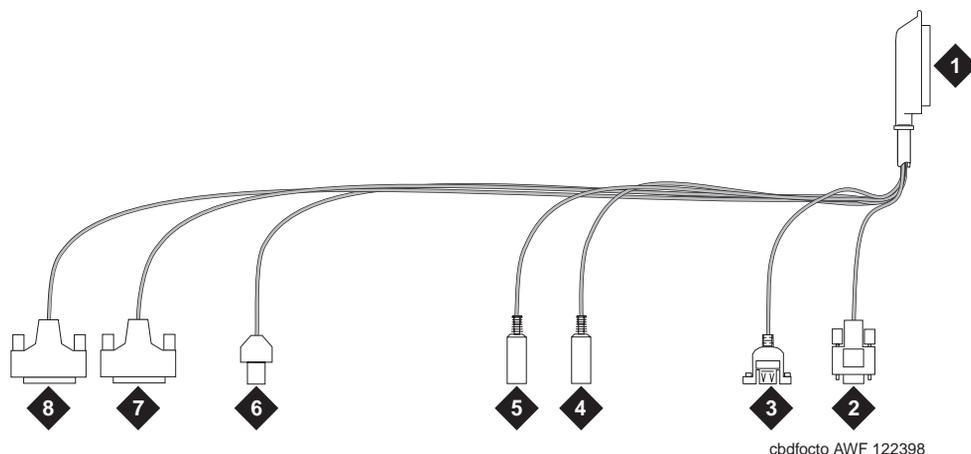


Figure Notes

- | | |
|-------------------------------|------------------------|
| 1. To P1 on cabinet backplane | 5. To mouse |
| 2. To VGA monitor | 6. To Ethernet |
| 3. To USB (not used) | 7. To modem (optional) |
| 4. To keyboard | 8. To COM2 (not used) |

Figure 6-2. TN802B External Cable Assembly

Install the TN802B MAPD

The TN802B circuit pack is hot-swappable, so you do not need to power down the carrier.

1. Make sure that there is room to install the TN802B circuit pack. To accommodate the width of the circuit pack, you must have at least 3 adjacent slots free. (If you can put the TN802B circuit pack in slot 7, you must have 2 adjacent slots.)
2. Insert the TN802B circuit pack in the rightmost of the three slots you reserved for IP trunking.
3. Connect the P1 amphenol connector on the TN802B external cable connector to the leftmost backplane connector looking from the rear (of the 3 slots required for the TN802B).

Connect the Modem (Optional)

The modem lets Lucent technicians service and troubleshoot your system remotely.

1. Connect the RS232 port of the modem to the MODEM cable of the TN802B external cable assembly.
2. Connect an analog telephone line to the leftmost analog-line port on the modem.
3. Make sure that the modem's DIP switches are set as indicated in [Figure 6-3](#).
4. Plug the modem into an AC power outlet.

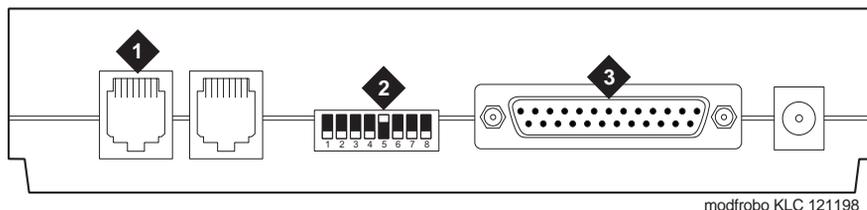


Figure Notes

1. Connect analog line here.
2. DIP switch 5 must be up.
3. Connect MODEM connector here.

Figure 6-3. External Modem Connections

Connect the IP Trunk Server to Your Local Area Network

Connect the Ethernet Cable

1. Connect the network cable to the ethernet connector on the TN802B external cable assembly.

Connect a Monitor

You need a VGA monitor to log onto the Windows NT Server and to configure the network software.

1. Attach a VGA monitor to the VGA cable of the TN802B external cable assembly.
2. Attach the keyboard to the KEYBOARD cable of the TN802B external cable assembly.
3. Attach the mouse to the MOUSE cable of the TN802B external cable assembly.
4. Plug the monitor into an AC power receptacle, and turn it on.

Log onto the IP Trunk Server

Log onto the IP Trunk server as follows.

1. Press the CTRL, ALT, and DELETE keys simultaneously.
2. Type **administrator** in the `User Name` field.
3. Leave the `Password` field blank, and click OK.
4. After logging on for the first time, change the administrator password and, if desired, the user name, to ensure security. See your Windows NT Server documentation for details.

Assign a Server Name and Domain Name

Windows NT Server identifies servers using a server name plus a domain name that locates the named server in a particular part of the network. The TN802B is shipped with a generic server name and a generic domain name. You should assign replacement names that are meaningful within your network.

1. Click **My Computer** from the Windows NT desktop.
2. Click **Control Panel** in the My Computer window.
3. Click **Network** in the Control Panel window.
4. Click **Identification**, then **Change**.
5. Type the new name in the `Computer Name` box.

6. Type the name you chose for the IP-trunk domain in the Domain box.
7. Click **OK > OK**.
8. Click **Close**.
9. When prompted, choose one of the following options:
 - If you have not administered IP addresses, click **No**.
 - If you have administered IP addresses, restart Windows NT so that the new names take effect.

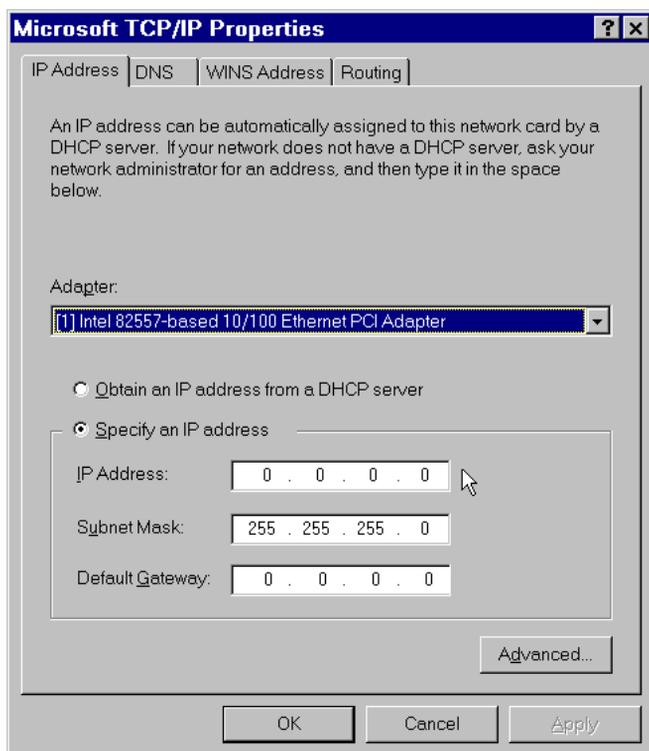
Check Network Services

When the server restarts, make sure that the required network services have started correctly.

1. Click **My Computer** from the Windows NT desktop.
2. Click **Control Panel** in the My Computer window.
3. Click **Network** in the Control Panel window.
4. Click **Services** in the Network window.
5. Make sure that the following services are listed:
 - Computer Browser
 - Microsoft Internet Information Server 2.0 needed
 - NetBIOS Interface
 - RPC Configuration
 - Server
 - Workstation
6. Click **Protocols**, and examine the Network Protocols. TCP/IP should be the only protocol listed.
7. Click **OK**.

Assign an IP Address

1. Click **My Computer** from the Windows NT desktop.
2. Click **Control Panel** in the My Computer window.
3. Click **Network** in the Control Panel window.
4. Click **Protocols** in the Network window.
5. Click **TCP/IP Protocol** from the list.
6. Click **Properties** in the Network window.



7. Click **Specify an IP address**.
8. Type a valid IP address for the IP Trunk server in the `IP Address:` field.
9. Type the appropriate subnet mask in the `Subnet Mask:` field.
10. If you use gateways, type the IP address of the default gateway for the IP Trunk server in the `Default Gateway:` field.
11. Click **OK**.
12. If Windows NT responds with the "At least one of the adapter cards has an empty primary WINS address. Do you want to continue?" message, click **Yes**.
13. Click **Bindings** to make the changes.

NetBIOS Interface, Server, and Workstation should now be enabled. If any are disabled (marked a red circle with a line through it), review the network-configuration steps above for omissions or errors.
14. Click **Close**.
15. Restart your computer.

Test the Connection to the LAN

You test IP connections by pinging the IP trunk server and pinging a known computer connected to your network.

1. In the Windows task bar, click **Start > Programs > Command Prompt**.
2. At the command prompt, type **ping nnn.nnn.nnn.nnn** (where **nnn.nnn.nnn.nnn** is the IP address of the IP trunk server).
 - If everything is configured correctly, the system replies with the following:
Reply from nnn.nnn.nnn.nnn: bytes=32 time<##ms TTL=###
 - If you receive no reply, verify the IP-address information and check the connectivity including the cabling.
3. At the command prompt, type **ping nnn.nnn.nnn.nnn** (where **nnn.nnn.nnn.nnn** refers to the IP address of another computer on the network).
 - If you have connectivity, the system replies with the following:
Reply from nnn.nnn.nnn.nnn: bytes=32 time<##ms TTL=###
 - If you receive no reply, verify the IP-address information and check the connectivity including the cabling. Consult your IP-network administrator.
4. Type **exit** and press Enter.

Test the Modem

1. Check for dial tone.

Set up Network-Trust Relationships

After all DEFINITY IP Trunk servers are in their own domain, establish trust relationships between domains to allow for remote administration. To establish trust relationships, refer to your Windows NT Server 4.0 documentation.

Administer the IP Trunk

The TN802 circuit pack is now installed in the DEFINITY carrier and connected to the IP network. You can now use the Configuration Manager software (pre-installed on the TN802 hard disk) and DEFINITY ECS switch administration software to prepare the IP Trunk for use. Refer to the DEFINITY ECS Release 7 Administrator's Guide for more information.

7

DEFINITY Site Administration (DSA)

This chapter provides information about DSA, the system management tool that is integrated into the platform itself. See [“Download DSA” on page 3-24](#) in “System Initialization.”

This chapter is organized as follows:

- [“Interactions with Switches and Voicemail Systems” on page 7-2](#)
- [“What You Can Do with DSA” on page 7-3](#)
- [“Components of DSA” on page 7-4](#)
- [“How DSA Works” on page 7-6](#)
- [“DSA Help” on page 7-7](#)
- [“Configure DSA” on page 7-7](#)
 - [“Adding DEFINITY ONE Switch Administration item” on page 7-8](#)
 - [“Adding DEFINITY ONE Voice Mail Administration item” on page 7-15](#)

As previously stated, the DEFINITY ONE applications are pre-loaded on the hardware platform. The actual set up of customer translations are administered through a common system management tool, DSA, which is integrated into the platform itself.

DSA is an all-purpose telecommunications management tool aimed at small- to mid-sized companies, such as small businesses, motels, and branch offices of larger companies.

Interactions with Switches and Voicemail Systems

DSA is a Windows 95/98 and NT application and is not client-server based. This means it communicates directly with switches and AUDIX systems via one of the following:

- Through a direct hardware connection within a DEFINITY ONE computer
- Through a direct hardware connection (a cable running from the COM port on the PC to the switch)
- Over a network
- With a modem or data module

When you use DEFINITY ONE as it is shipped to you, you will connect to switches and voicemail systems through the direct hardware connection in the DEFINITY ONE computer. To optimize the efficiency of DEFINITY ONE and DSA, and because administrators may not want to work directly on the DEFINITY ONE computer, it is recommended that you install DSA software on a separate computer and connect to the switch in any of the other three ways listed above.

If you choose to install DSA on a separate computer, the computer you install it on must fulfill the following requirements:

Windows 95/98 configuration:

- Processor: 486/Pentium
- RAM: 16MB/32 MB
- Available Disk Space: 100 MB minimum
- CD-ROM
- Printer port: Standard PC printer port or network connection
- Available Serial Ports: One free serial port or network connection is required for a connection to the switch
- TCP/IP Network: Optional, depending on configuration
- Display: SVGA with minimum screen resolution of 800 x 600

Windows NT configuration:

- Processor: Pentium
- RAM: 64 MB
- Available Disk Space: 100 MB minimum
- CD-ROM
- Printer port: Standard PC printer port or network connection

- Available Serial Ports: One free serial port or network connection is required for a connection to the switch
- TCP/IP Network: Optional, depending on configuration
- Display: SVGA with minimum screen resolution of 800 x 600

What You Can Do with DSA

You can use DSA to perform any type of switch administration activities (except for the “monitor” commands). Switch administration activities include:

- Adding phones to the system, including identifying which extensions or ports are available
- Scheduling activities to run at a later date and time
- Scheduling activities to run repeatedly
- Assigning telephone feature buttons
- Creating or modifying coverage paths
- Adding or modifying hunt groups
- Administering pickup groups
- Administering bridged appearances
- Resolving and monitoring alarms
- Changing a user's personal information, such as the name, set type, location, etc.
- Moving or removing agents or stations
- Determining how well/whether a station is operating
- Testing stations or trunks
- Setting up vectors
- Performing AUDIX administration activities, including setting up a voicemail account for a new phone

Setting up a voicemail account is part of the DSA User Administration wizard. For all other AUDIX tasks, administrators must use DSA's terminal emulation feature to open an AUDIX terminal emulation window.

You can also perform specific DSA administration activities. These activities will help you set up DSA to communicate with switches and AUDIXes, organize telecommunications data, and specify how you want DSA to work. These activities include:

- Setting up direct, modem/data module, and network connections between DSA and switches or AUDIX systems
- Entering DSA-specific data, such as time-out intervals, number of times to retry tasks, and other system options
- Using the history, schedule, and connection viewers to track the status of administration tasks
- Organizing systems and task shortcuts in the browser tree

Components of DSA

DSA provides a central window that allows access to switches and AUDIX systems. The pictures below show the main DSA screen.

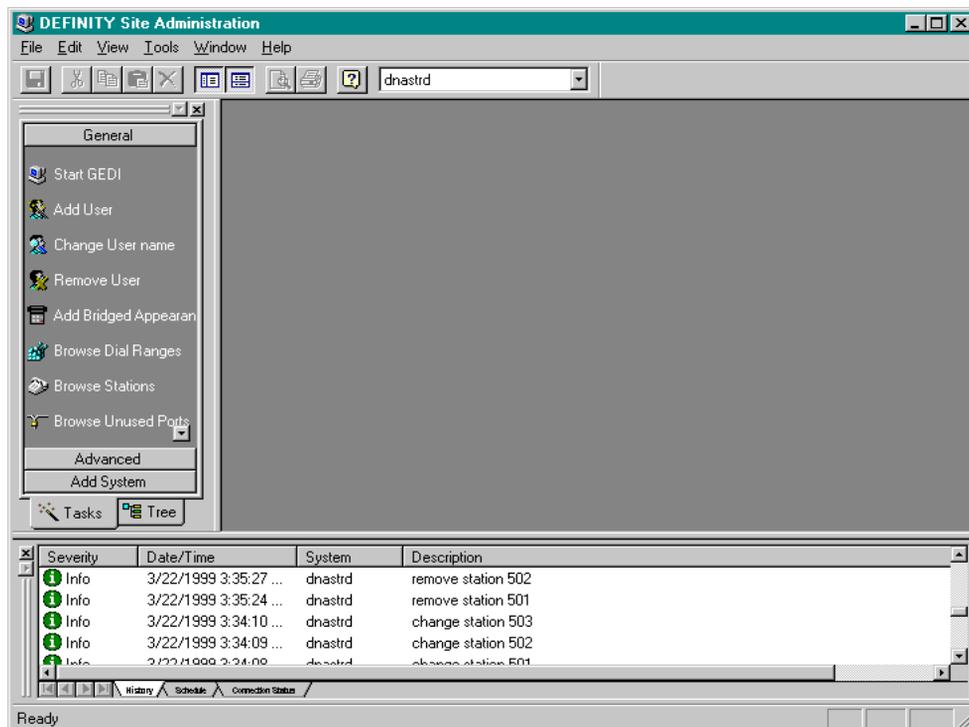


Figure 7-1. DSA Window with Tasks Pane and Status Viewer or History Pane

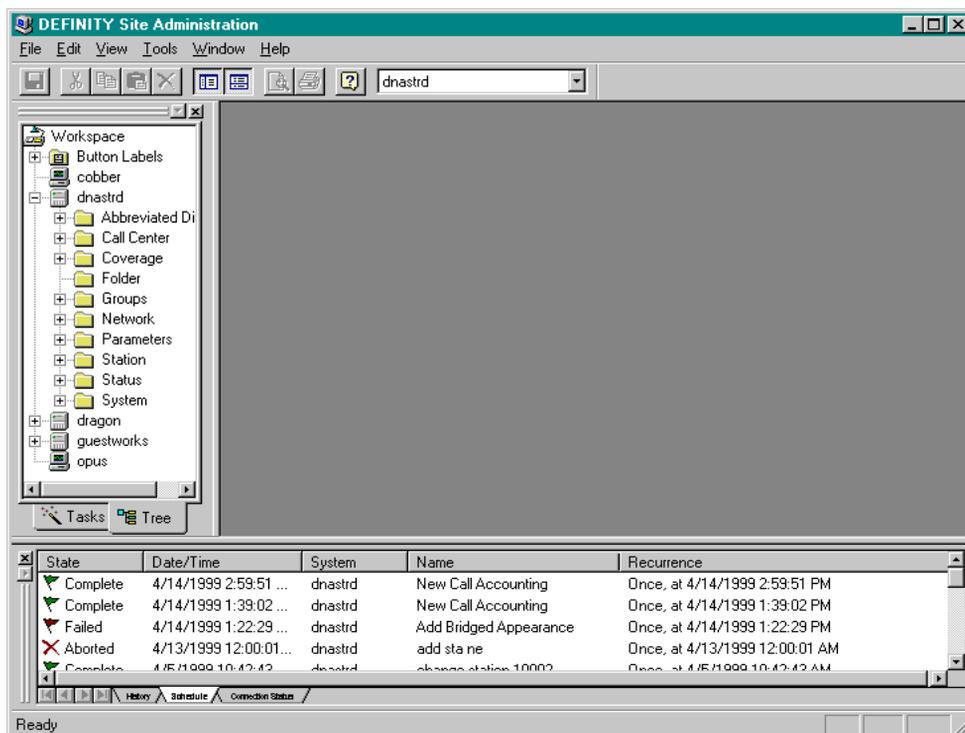


Figure 7-2. DSA Window with Tree Pane and Status Viewer or Schedule Pane

As a default setting, the left-pane shows the task wizards that DSA offers for performing frequent tasks. Users can use task wizards to create common tasks and schedule those tasks to run on the system and/or save the tasks to the DSA browser tree. Users can create the following tasks with the task pane:

- Start GEDI- Any administration activity that can be accomplished with the Graphically Enhanced DEFINITY interface (GEDI), and includes almost all DEFINITY administration
- User Administration- Adding phones, removing phones, and changing a phone user's name in DEFINITY and AUDIX
- Find and Replace- changing, finding, or removing something across an entire switch
- Import Data- Copy and paste data from a spreadsheet to a grid in DSA
- Export Data- Save switch data to an external file
- Use Template- Add objects, such as a phone, to a switch, using an existing template
- Create New Template- Create a template to use when adding objects to the switch

- Add Bridged Appearance- Create a bridged call appearance on a phone
- Generate Call Accounting- Select call accounting data and save it as an external file
- Browse Dial Ranges- View the dialing ranges specified by a switch's dial plan
- Find Unused Extension- Search a switch for the next available extension after a specified extension
- Browse Unused Ports- View a list of unused ports on a switch.
- Browse Stations- View a selected or complete list of stations on a switch
- Monitor Trunks- Tell DSA to periodically check for out-of-service trunks and notify the user
- Start Emulation- Access a switch or AUDIX via terminal emulation
- Add Switch- Set up a connection from DSA to a DEFINITY switch
- Add Voice Mail System- Set up a connection from DSA to an AUDIX system
- Print Button Labels

Clicking the Tree tab on the left-pane displays the DSA browser tree. This tree is a Windows Explorer-like view of all of the switches and AUDIX systems connected to DSA, the tasks a user has created, and the button label templates. Users can:

- Expand nodes in the tree
- Move items
- Cut, copy, or delete items
- Add or paste items to the tree
- Rename items
- Change an item's properties
- Connect to a switch

How DSA Works

In DSA, any switch or AUDIX administration activity you perform is called a task. When you use DSA to perform a switch or AUDIX administration task, you enter the task into DSA and then tell DSA when to run the task. For example, if you want to add a phone to the system for a new employee, you create a task in DSA that adds the phone (and, optionally, the associated voicemail account), and then you tell DSA whether you want to add the new phone immediately or at a later time.

When the task runs, DSA connects to the appropriate switch or AUDIX, runs the task, and displays feedback about the task in the schedule tab. Depending on the instructions from the user, DSA will either disconnect from the switch or make the connection idle when it is finished running the task.

DSA Help

DSA provides the following information to help administrators:

- Guided tour. The guided tour orients users to the DSA interface, explains what the different areas of the DSA screens are for, and orients users to what DSA is and how to get started. Users can launch the Guided Tour by choosing Guided Tour from the Help menu.
- Online Help with Demonstrations. The online help system tells how to administer DSA, how to perform basic switch administration and troubleshooting, and how to connect to an AUDIX. Many topics include a Show Me button. When a user clicks Show Me, a short animated demonstration of the task plays. To open the help system, choose Contents from the Help menu.
- Show Me demonstrations. Users can launch a list of Show Me demonstrations by choosing Show Me from the Help menu.
- Connection support. Clicking Help on a connection error message will launch a series of troubleshooting screens to walk users through solving common connection problems.

Configure DSA

When DSA is initially installed on a client machine, it will need to be configured to communicate with both the switch application (DEFINITY) as well as the voice mail applications (AUDIX) on the DEFINITY ONE platform.

The first time you run DSA it will ask you if you want to create a new entry for the Switch. If you answer yes to creating a new switch, DSA will pop up a window titled Switch Properties. Once you have filled this out and applied it, DSA will ask you if you want to create a new entry for a voice mail application. If you say yes to this, DSA will pop up a screen titled Voice Mail System Properties. Once you fill this out and apply it, you will have configured both your Switch access and your voice mail access through DSA to DEFINITY ONE.

If you want to create a new entry for a different system, you may do so as follows.

Adding DEFINITY ONE Switch Administration item

For a new Switch configuration item click on file > new > Switch. A screen similar to the one below will appear.

Switch Properties

System

System name:

Login

Login manually to system

Login name:

Password:

Password (again):

Access Security Gateway (ASG)

Secret key:

Connections

Type	Dial/Host	Port	Device

Add... Properties... Remove

OK Cancel Help

1. Enter a name in the System name field. If you are a technician configuring DSA on your laptop, use a generic name, as you will be able to use this connection item for all DEFINITY ONE machines connected over the PCMCIA physical connection.
2. Enter a login name and Password.

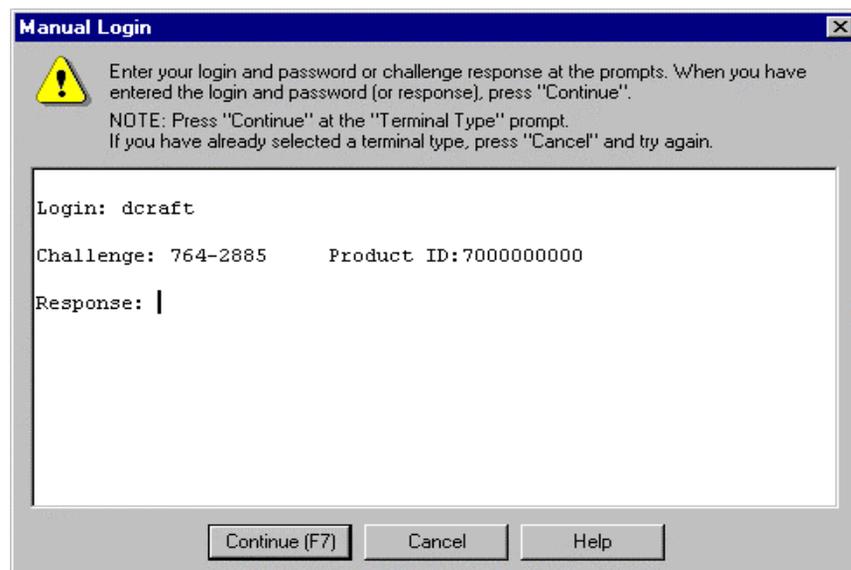
For Lucent Personnel enter one of the dxxxx logins (dinit, dinads, dcraft) depending on the level of access desired along with the appropriate password. The password will be unique for each DEFINITY ONE system.

For non-lucent personnel, enter your valid DEFINITY login with its appropriate password. See ["Enable DEFINITY Logins" on page 3-6](#).

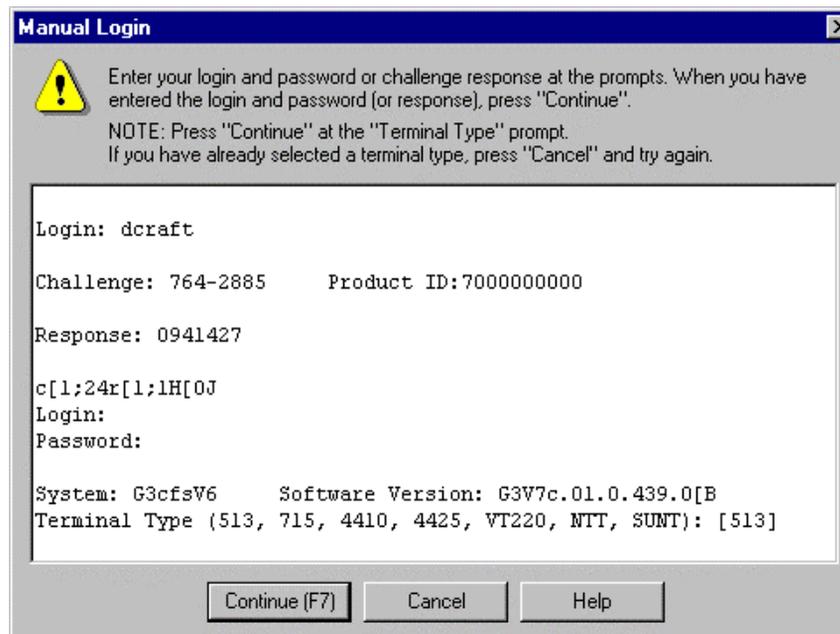
Log in to DEFINITY with ASG enabled

If the system is ASG-enabled, then click the **login manually to system** check box. When you try to initiate a connection, an emulator screen will pop up, prompting for login.

Log in as dxxxx. You will be issued a challenge; respond correctly.



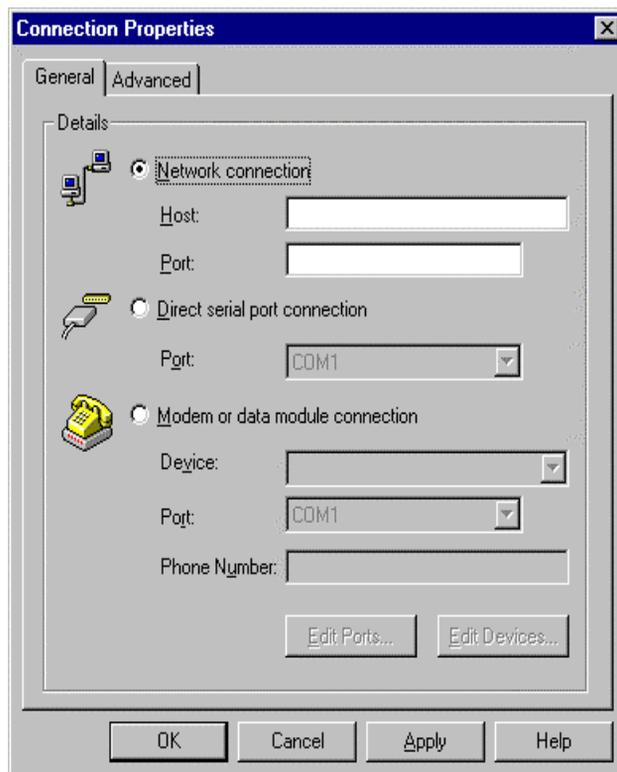
If you respond successfully, you will start to see data scroll by. The system will ask for terminal type; do NOT enter a terminal type. Simply click on the Continue button at the bottom of the screen as in the screen below.



Once you have populated the fields on the Switch Properties page, the screen should look similar to the one below.



3. Click on the Add button at the bottom of the screen. This is used to add a physical connection mechanism from the client machine to the DEFINITY ONE. Clicking on the Add button will pop up a screen similar to the one below.



⇒ NOTE:

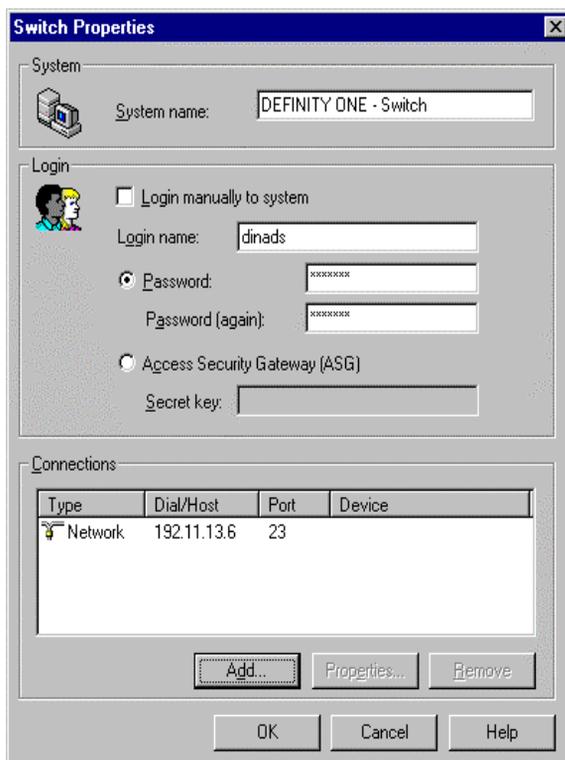
Regardless of the physical connection used, i.e., local monitor/keyboard/mouse, PCMCIA, RAS modem or customer LAN, THE CONNECTION TYPE IS ALWAYS A NETWORK CONNECTION.

⇒ NOTE:

By default the Modem or data module connection radio button is highlighted. Be sure to click on the network connection radio button.

4. Host: For the host address, enter the IP address that is commensurate with the physical connection mechanism used to connect to the DEFINITY ONE. See [“Installer’s Connectivity Quick Reference Tear-Out Sheet” on page H-1.](#)
5. Port: For the port number, ALWAYS use port 23.

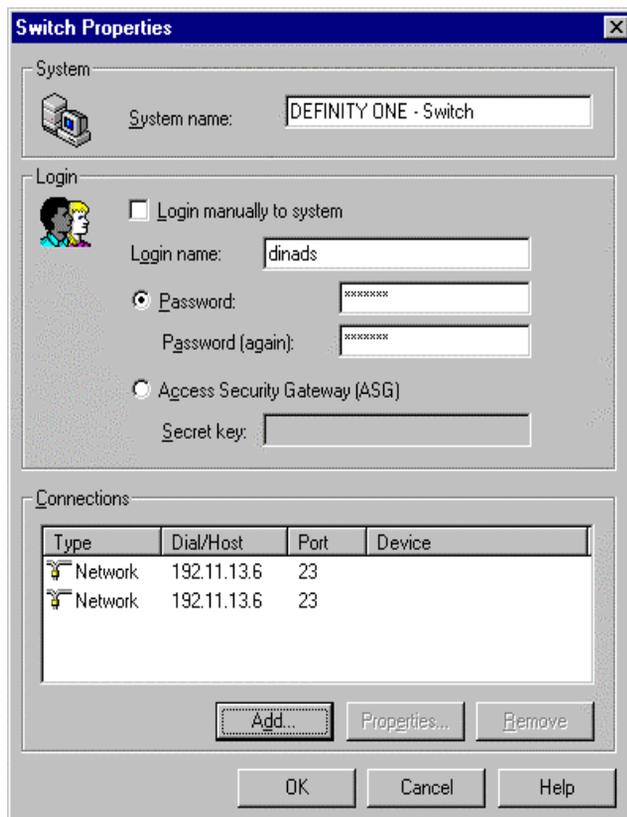
6. Click on the Apply followed by OK. This will dismiss the Connection Properties page and put you back at the Switch Properties page, similar to the one below.



⇒ NOTE:

For a Switch (DEFINITY) connection, add two identical connection entries by repeating steps 3,4,5 and 6. This will allow you to use the wizards.

After having created the second Network connection item, your Switch Properties screen should look similar to the one below.

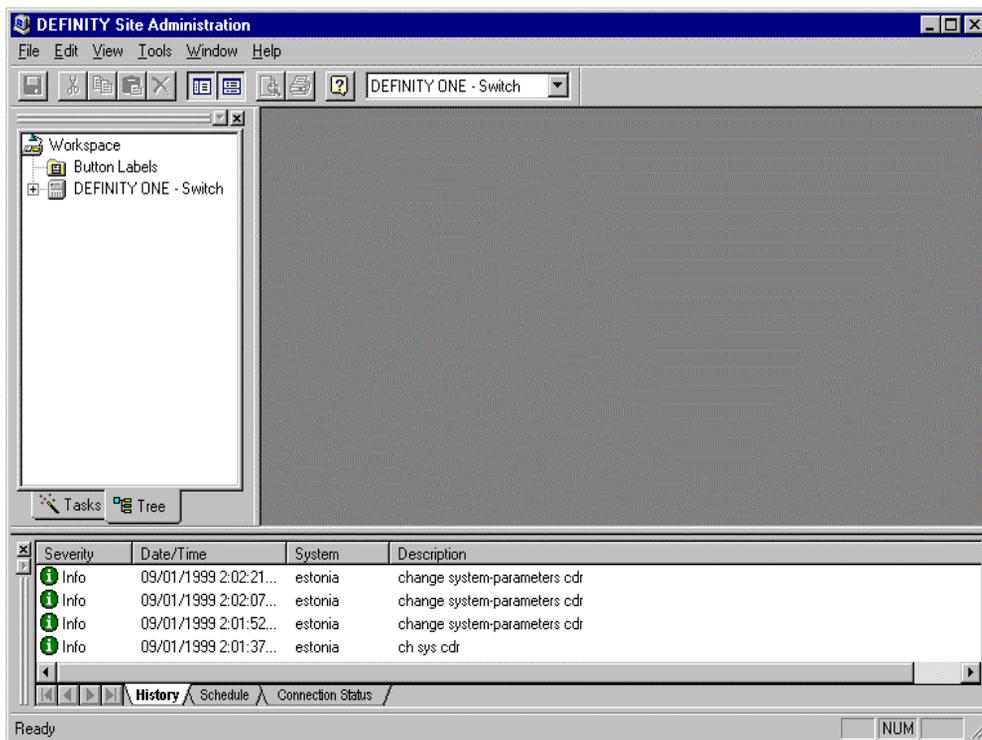


7. Click on the ok button to complete the addition of the Switch item.

7 DEFINITY Site Administration (DSA)
Configure DSA

7-14

By clicking on the Tree tab on the DSA window, you can see the newly added DEFINITY ONE Switch Administration item. The screen will look similar to the one below.



Adding DEFINITY ONE Voice Mail Administration item

For a new Voice Mail Administration item, click on file > new > Voice Mail System. A screen similar to the one below will appear.

Voice Mail System Properties

System

System name:

Login

Login manually to system

Login name:

Password:
Password (again):

Access Security Gateway (ASG)

Secret key:

Connections

Type	Dial/Host	Port	Device
------	-----------	------	--------

Add... Properties... Remove

OK Cancel Help

1. Enter a name in the System name field. For technicians that are configuring DSA on their laptops, use a generic name, as you will be able to use this connection item for all DEFINITY ONE machines connected over the PCMCIA physical connection.
2. Enter a login name and Password.

For Lucent Personnel enter one of the axxx logins (atsc or acraft) depending on the level of access desired along with the appropriate password.

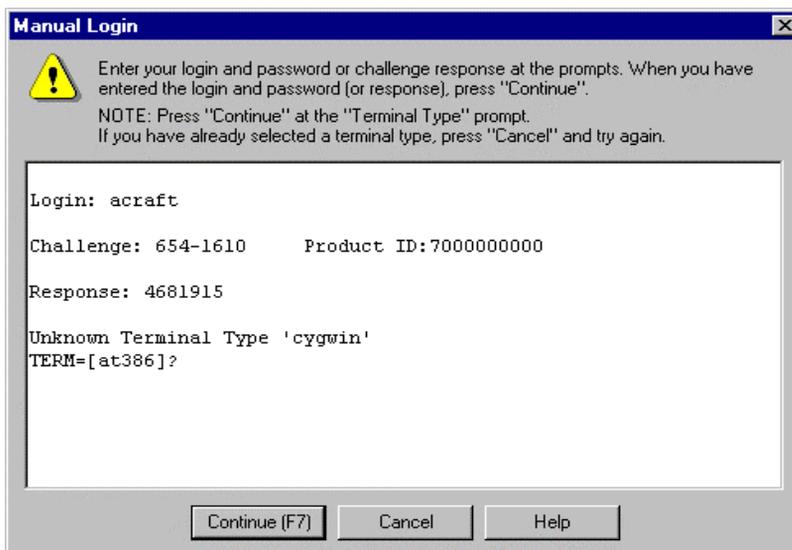
For non-lucent personnel enter one of the valid AUDIX Customer logins (sa, vm, or browse) along with the appropriate password.

Log in to AUDIX with ASG enabled

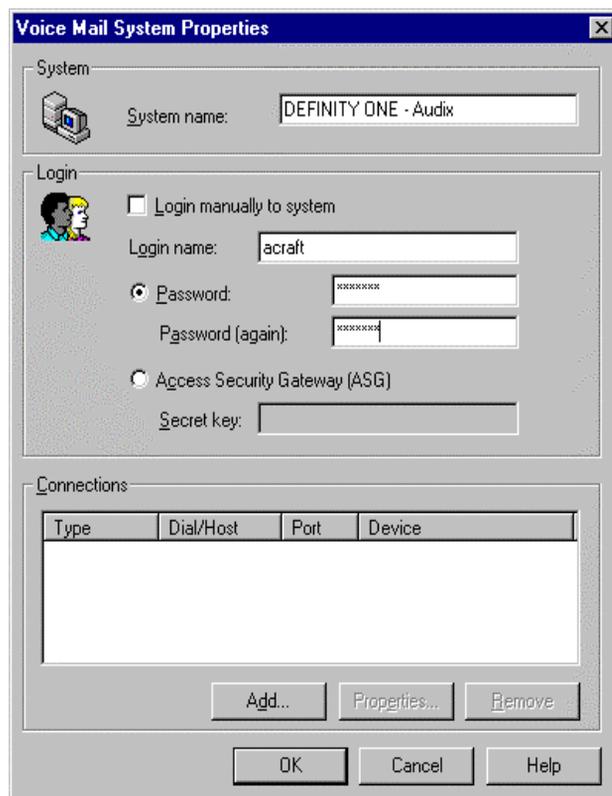
If the system is ASG-enabled, then you must click the `login` manually to `system` check box. When you try to initiate a connection, an emulator screen will pop up, prompting for login.

Log in as `axxxx`. You will be issued a challenge to which you must respond correctly.

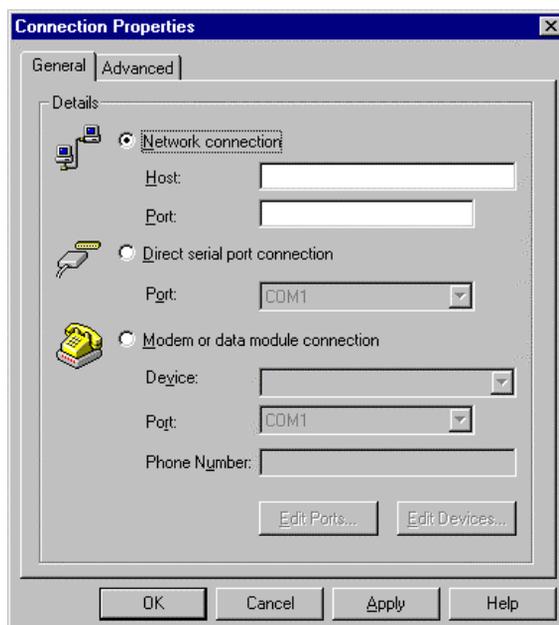
The system will ask for terminal type; do NOT enter a terminal type. Simply click on the Continue button at the bottom of the screen.



Once you have populated the fields on the Voice Mail System Properties page, the screen should look similar to the one below.



3. Click on the Add button at the bottom of the screen. This is used to add a physical connection mechanism from the client machine to the DEFINITY ONE. Clicking on the Add button will pop up a screen similar to the one below.



⇒ NOTE:

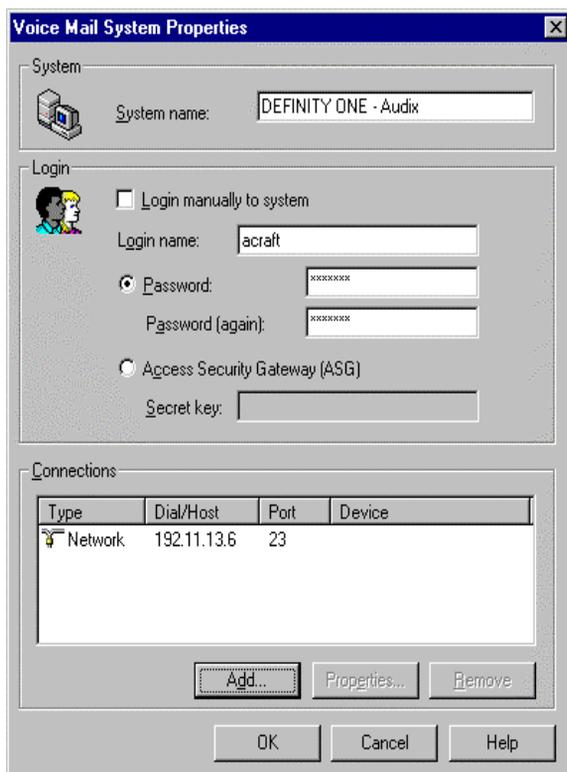
Regardless of the physical connection used i.e., Local monitor/keyboard/mouse, PCMCIA, RAS modem or customer LAN, THE CONNECTION TYPE IS ALWAYS A NETWORK CONNECTION.

⇒ NOTE:

By default the Modem or data module connection radio button is highlighted be sure to click on the network connection radio button.

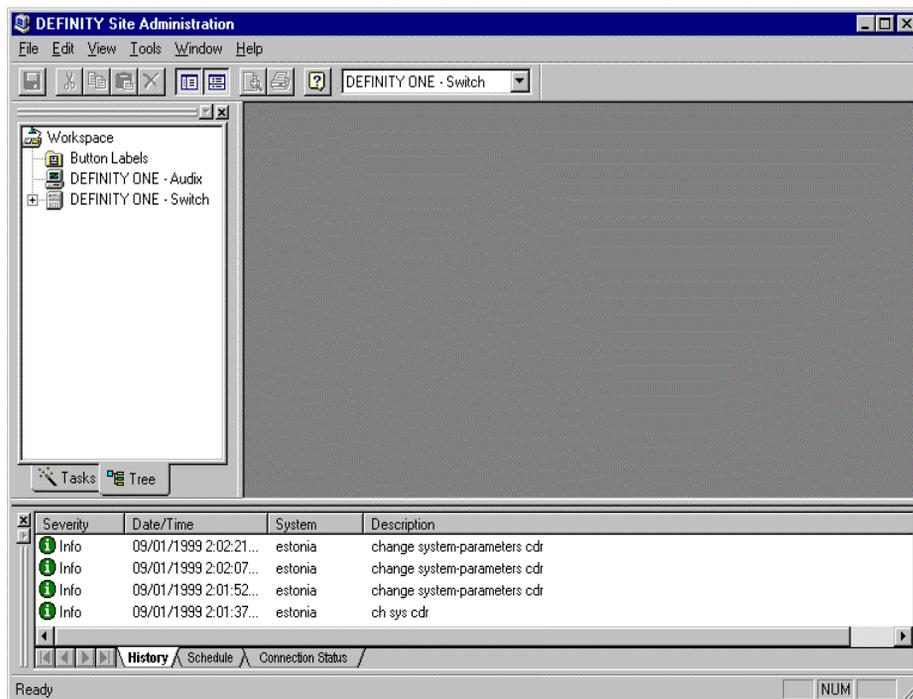
4. Host: For the host address, enter the IP address that is commensurate with the physical connection mechanism used to connect to the DEFINITY ONE. See [Chapter H, "Installer's Connectivity Quick Reference Tear-Out Sheet"](#).
5. Port: For the port number, ALWAYS use port 23.

6. Click on Apply followed by OK, this will dismiss the Connection Properties page and put you back at the Voice Mail Properties page, similar to the one below.



7. Click on the OK button to complete the addition of the Voice Mail System Administration item.

By clicking on the Tree tab on the DSA window you can see the newly added DEFINITY ONE Switch Administration item. The screen will look similar to the one below.

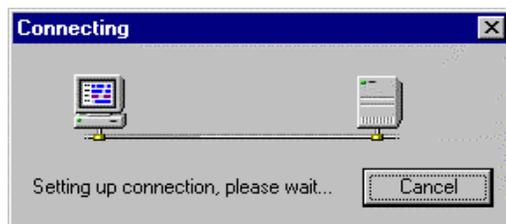


Starting a Switch Administration Session

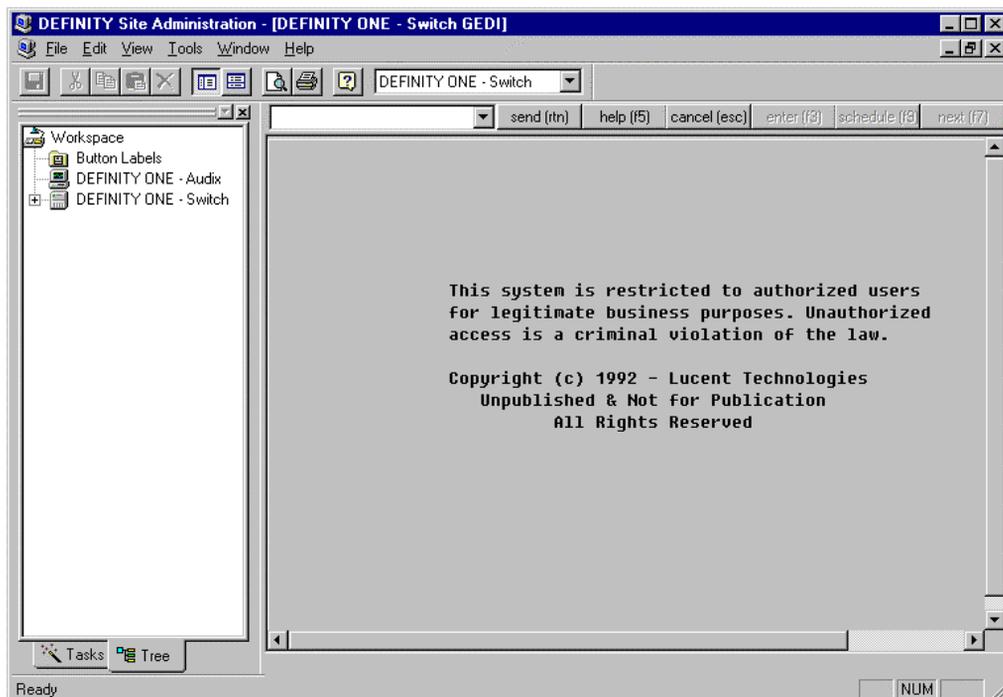
To Launch a GEDI session:

1. Click on the tree tab of the DSA window
2. Right click on the newly created Switch Item (DEFINITY ONE - Switch in our example)
3. Click on General
4. Click on Start GEDI

While the connection is being established, a screen similar to the one below will be displayed.



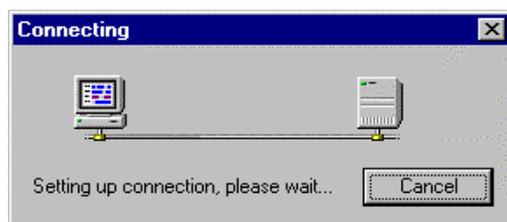
Once the connection has completed, a screen similar to the one below will display.



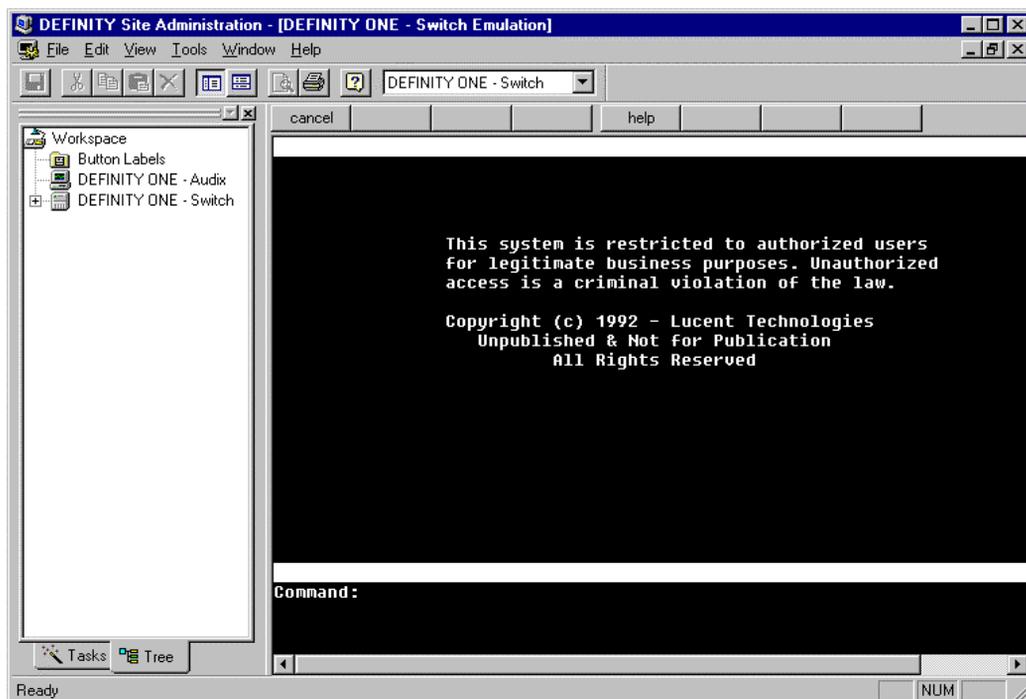
To Launch an emulation session:

1. Click on the tree tab of the DSA window
2. Right click on the newly created Switch Item (DEFINITY ONE - Switch in our example)
3. Click on Advanced
4. Click on either 4410 Emulation or 513 Emulation

While the connection is being established, a screen similar to the one below will be displayed.



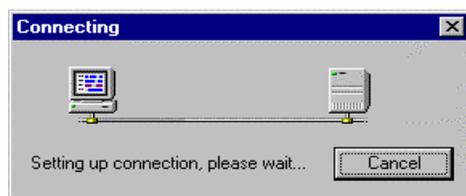
Once the connection has completed, a screen similar to the one below will display.



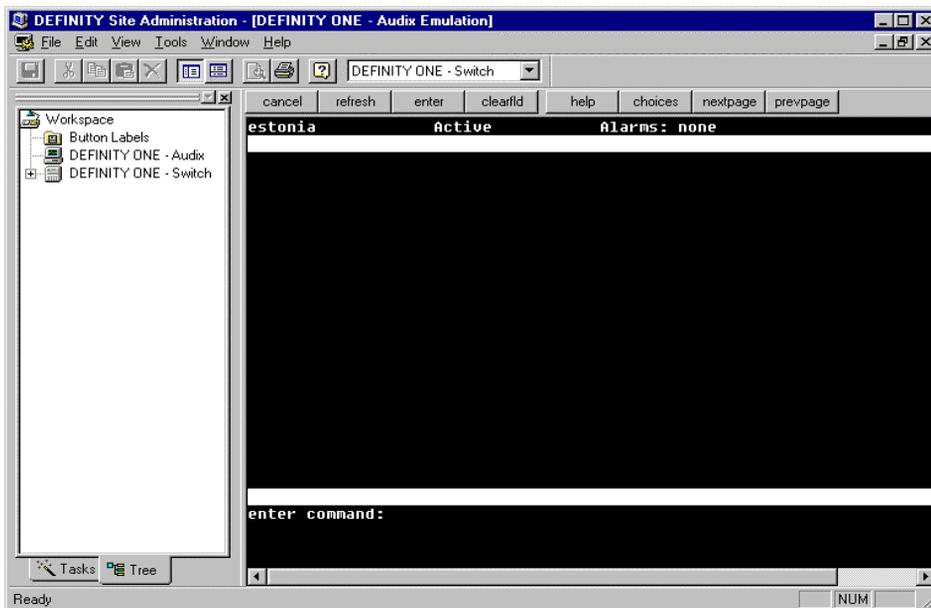
Starting a Voice Mail Administration Session

1. Click on the tree tab of the DSA window
2. Right click on the newly created Voice Mail System Item (DEFINITY ONE - AUDIX in our example)
3. Click on either 4410 Emulation or 513 Emulation

While the connection is being established, a screen similar to the one below will be displayed.



Once the connection has completed, a screen similar to the one below will display.



7 DEFINITY Site Administration (DSA)
Configure DSA

7-24

Message Manager Installation

8

This chapter provides the tasks required to install Message Manager.

This chapter is organized as follows:

- [“Introduction” on page 8-1](#)
- [“Pre-Installation Considerations” on page 8-2](#)
- [“Installation to a Client PC” on page 8-8](#)

Introduction

Lucent Technologies INTUITY Message Manager is a tool for handling multimedia messages through the convenience of a personal computer (PC).

Message Manager allows you to access the AUDIX messaging system visually through a local area network (LAN) connection. The AUDIX system is referred to as the "AUDIX server" when it connects to a LAN.

This chapter describes the process for installing client copies of Message Manager on the PCs of individual AUDIX users.

Standard Features

This Windows-based application provides the following features:

- Visual display of your AUDIX mailbox, with the ability to play voice messages, view faxes and text messages, and launch or export file attachments, through a simple graphic interface

- A Personal Address Book for storing addresses and important information on your PC, independent of the AUDIX server
- Personal folders for sorting and storing messages on your PC, independent of the AUDIX server
- Soundcard support for playing and recording messages and greetings on your PC, depending on availability of soundcard, speakers, and microphone.
- Remote, off-site access to your messages through a high-speed modem and TCP/IP (PPP) access to your LAN, depending on hardware availability
- The ability to receive, create, and send text messages and attached files
- Fax messaging, depending on the release and configuration of your AUDIX server. Users can receive, forward, delete, print, or create fax messages.

Related Documentation

The following information is available:

- To prepare your AUDIX system for Message Manager, refer to the Message Manager section of the AUDIX electronic documentation.
- You can provide a Quick Reference Card to your users. Use the Guide Builder program to create a customized guide that describes the features and use of AUDIX and Message Manager.
- When Message Manager users select About Your System... from the Help menu, they are viewing the custom.txt file. As the system administrator, you can revise the custom.txt file to include any information you think will be useful to your subscribers. See ["Updating Your Site-Specific Information" on page 8-17.](#)

Pre-Installation Considerations

This section describes Message Manager Release 4.5 installation prerequisites and the installation choices for setting up and running Message Manager.

PC Requirements

Verify you have the following minimum hardware and software:

- One of the following compatible operating systems:
 - Windows NT Version 3.51, with Service Pack 5
 - Windows NT Version 4.0
 - Windows 95

- Minimum of a 486, 66 MHz PC with 16 Mbytes of RAM and 19 Mbytes of available hard disk storage (assuming a Personal Address Book with 400 entries). Exceptions:
 - The tutorial requires an additional 10 Mbytes of disk storage.
 - Your operating system may recommend additional RAM for better performance (for example, 32 Mbytes of RAM for Windows NT).
- VGA or higher monitor (color recommended)
- LAN interface card
- Windows Sockets (WINSOCK.DLL) access to TCP/IP (either through a NetWare Loadable Module or TCP/IP protocol stack)
- Recommended: Mouse supported by Microsoft Windows
- For remote access: Microsoft Windows-compatible soundcard with speakers and a microphone
- Optional: Speakerphone, telephone headset, or a Microsoft Windows-compatible soundcard with speakers, microphone, or a computer headset for hands-free operation

Installation Prerequisites

Before you install Message Manager, make sure your PC and LAN are ready to support Message Manager as follows:

- On your PC, log into the network and bring up Microsoft Windows.
- Get a server name or TCP/IP address of a machine in your network from your LAN administrator, then run the ping program from a DOS prompt in Windows ("ping" the address or name). A ping from the DOS shell without Windows running is not a good test. Ask your LAN administrator how to access or use this utility if you need help.
- If the ping fails or the system hangs, install Message Manager and click on the Message Manager Help icon in the Message Manager program group. Search for "General Troubleshooting" for additional options.
- If you install a shared copy of Message Manager for users to run on the LAN and copy Message Manager software to a LAN server for easy distribution, the executable Message Manager software and the copy of the software CD must be in different directories.
- For Windows NT, you must have administrative privileges or be logged in as Administrator to successfully install the fax package.

Operating System Considerations

The Message Manager Setup program automatically tailors Message Manager to work with the operating system installed on your PC. Operating system considerations include:

- Message Manager Release 4.5 runs as a 32-bit application on Windows 95 and Windows NT (NT version 3.51 requires Service Pack 5).
- Message Manager Release 4.5 cannot run on Windows 3.1, 3.11, or NT 3.51 that lacks Service Pack 5. To run Message Manager on a 16-bit system, obtain Message Manager Release 4.3.
- If you change operating systems, you must reinstall Message Manager. Also, if your PC is set up to run multiple operating systems (such as Windows NT and Windows 95), Message Manager must be installed separately for each operating system.

Select Installation Type

Several methods of installation and operation are available for Message Manager. As you are completing the install process, you will need to designate what type of installation you want for your site.

- Single User Install. You can install a copy of Message Manager on each user's PC using either of the following distribution methods:
 - Share or copy the CD that was included in your installation package.
 - Download compressed Message Manager files from the DEFINITY Office browser interface or your intranet.
- Copy from LAN Server. You can install a copy of Message Manager on your PC by accessing the software through a LAN file server. This method allows administrators to easily distribute Message Manager through a LAN rather than passing around the CD or downloading compressed files. See [“Installing Message Manager from a LAN Server” on page 8-14.](#)
- Run from LAN Server. All users on a LAN server share a single copy of Message Manager. Because the Message Manager software exists only on the LAN file server, it can be easily updated by the LAN administrator. See [“Installing and Accessing a Shared Copy of Message Manager” on page 8-10.](#)
- Automated Installation. You can start an automatic installation to load users' computers with an entire set of application software, including Message Manager, as defined by your company. This method allows administrators to easily distribute a uniform set of user software to all computers. See [“Using the Automated Installation Process” on page 8-15.](#)

Table 8-1. Advantages and disadvantages of installation and operation choices

Install Method	Advantages	Disadvantages
Single user install from a CD	<ul style="list-style-type: none"> ■ Fast load for users with slow LAN connection (remote access). 	<ul style="list-style-type: none"> ■ Administrator cannot password-protect the CD. ■ Requires CD distribution at each update
Single user install via browser download	<ul style="list-style-type: none"> ■ Users can install the software themselves. ■ Stand alone executable that only requires temporary LAN access during install. 	<ul style="list-style-type: none"> ■ Increases network traffic during installation
LAN distribution	<ul style="list-style-type: none"> ■ Fast load for users with LAN connection. ■ Secure — directory can be password-protected. ■ No CD to manage. ■ Users easily updated if software changes. 	<ul style="list-style-type: none"> ■ Requires disk space on LAN server ■ Increases network traffic during installation
Shared copy on LAN	<ul style="list-style-type: none"> ■ Saves disk space on user's computers. ■ Secure — software can be password-protected. ■ No diskettes to manage ■ Users easily updated if software changes 	<ul style="list-style-type: none"> ■ Requires disk space on LAN server ■ Can greatly increase network traffic ■ May have much slower execution speed, depending on LAN performance
Automated installation	<ul style="list-style-type: none"> ■ Simplest install for users ■ Administrator resources required only initially ■ Fast load for users with slow LAN connection (remote access) 	<ul style="list-style-type: none"> ■ System administrator must custom-build, load and distribute installation media. ■ Requires software media distribution at each update

Upgrade Considerations

If you're upgrading from an earlier release of Message Manager to Release 4.5, you'll be able to choose whether you want to replace your existing version of Message Manager or keep two versions of Message Manager installed on the same PC.

Before Installation

Make a backup copy of the following directories and their contents:

- Workbench (Workbnch)
- Personal Folders (default names are PF1, PF2, PF3, PF4, and PF5)
- Address Book (PBOOK.MDB)

During Installation

- Close all Windows programs, including your current version of Message Manager.
- To save a copy of your current Message Manager software, select a new directory name and program group when you install Release 4.5
- When you install the Message Manager "basic" software, it removes any Message Manager fax print drivers from the computer. Also, although you can have two releases of Message Manager on the computer, you can only have one set of fax print drivers.
- After you install the basic software, install (or reinstall) the fax software that corresponds with the Message Manager release you will use for faxing.

After Installation

- The first time you open Message Manager Release 4.5, you'll be asked to choose whether to convert your existing workbench and personal folders to the new release.
 - If you convert them, the messages in them can no longer be accessed by earlier releases of Message Manager.
 - If you do not convert your personal folders, you must set up new personal folders in Release 4.5 under the main screen File menu. To later convert a personal folder, select the folder as one of your Release 4.5 personal folders.

- If you choose to keep a previous version of Message Manager, Release 4.5 uses the Address Book, Personal folders, and Workbench files located in the directory that was established with the previous version of Message Manager. To protect your files from accidental deletion, use File Manager or Explorer to copy the following directories and files into the directory where you install Release 4.5:
 - PF1, PF2, PF3, PF4, and PF5 (and their contents). Then select Set Personal Folder Properties from the File menu to set each new file location.
 - Workbench (and its contents). Then use Select Workbench Directory from the File menu to set the new file location.
 - PBOOK.MDB. To set the new location, open the Personal Address Book, select Open from the File menu, browse to the new location, and select PBOOK.MDB.
- The installation process provides several shortcut icons in the Message Manager Windows program group and Start menu. The following icons are valid for Message Manager Release 4.5:
 - Fax Cover Page Wizard
 - Help - US English
 - Message Manager
 - Personal Address Book
 - ReadMe

Uninstalling Message Manager

Previous versions of Message Manager stay on your system until you replace or remove them. The way that you uninstall Message Manager depends on which release of Message Manager you wish to remove:

- To remove Message Manager Release 4.3 or earlier, you can overwrite the files by loading Message Manager 4.5 into the same directory, or you can delete the Message Manager directory and files. See [“Upgrade Considerations” on page 8-6](#).
- To remove Message Manager Release 4.5 or later, you can remove the application by running `unwise.exe` from the Message Manager directory.

Installation to a Client PC

During the installation process, you will have to designate the following:

- Which installation type to perform
- Which parts of the application to install (basic and/or fax packages). For Windows NT, you must be logged in as Administrator to successfully install the fax package.
- Whether users will run Message Manager from their PCs or share a copy from the LAN. See ["Select Installation Type" on page 8-4](#).
- Whether to back up files (in the case of upgrades and reinstalls)

Single User Installation Process

The default method of installation is from a CD or intranet site to a single PC. The installation table in this chapter assumes that you are installing to a single PC. Other install and operation methods (install from a LAN, run shared copy from a LAN, and automated install) are described in subsequent sections.

1. Perform one of the following:
 - Obtain the Installation CD.
 - From the DEFINITY Office browser page or an intranet site designated by your system administrator, download the Message Manager software file to a temporary directory on the PC. Use File Explorer to double-click the downloaded file to decompress it.
 - Navigate to a LAN directory designated by your system administrator.
2. Run setup.exe.
3. Complete the steps listed in the following table to install Message Manager Release 4.5.

Table 8-2. Single User Install Screens

Screen Name	Notes
Welcome	
License File	
Tell Me About...	<p>Included on your Message Manager CD are the following information tools:</p> <ul style="list-style-type: none"> ■ Install description ■ User Overview/Tutorial ■ Documentation
Select Installation Type	<p>The following installation choices are described in “Select Installation Type” on page 8-4:</p> <ul style="list-style-type: none"> ■ Single User Install (Continue with the instructions in this table.) ■ Shared Installation (Go to “Installing and Accessing a Shared Copy of Message Manager” on page 8-10.) ■ Copy for LAN Installation (Go to “Installing Message Manager from a LAN Server” on page 8-14.) ■ Automated Installation is available, although it is not a selection on the Installation Type screen. (Go to “Using the Automated Installation Process” on page 8-15.)
Important! message	<p>You should close any open software applications. For Windows NT, you must have administrative privileges or be logged in as Administrator to successfully install the fax package.</p>
Select Destination Directory	<p>If you want to load the program in a directory other than the default, browse to the directory of your choice. If you want to create a new directory, type the path for the new directory in the Select Destination Directory dialog box.</p>
Backup Replaced Files	<p>Backed up files are saved in the Backup directory. Personal Folders, Workbench, and Address Book files are not automatically backed up; see “Upgrade Considerations” on page 8-6.</p>
Select Components	<p>For a complete installation, select Message Manager and FAX. To add fax to a previous installation, just select FAX.</p>

Continued on next page

Table 8-2. Single User Install Screens — *Continued*

Screen Name	Notes
Enter FAX Information	If you selected FAX on the Select Components screen, you may enter the Server ID and Extension. The information determines which AUDIX mailbox opens when the user creates a fax. You can select Options/Preferences in Message Manager to add or update this information at a later time.
Ready to Install, Installation Status Indicator	When you click Next on the Ready to Install screen, you'll see the Status Indicator and a listing of the installed files.
hints.txt	The hints.txt screen contains a description of each program group icon.
Installation Complete, Restart dialog box	The newly installed Message Manager will take effect when you restart the computer.

Continued on next page

4. Restart Windows to complete the installation process.

Installing and Accessing a Shared Copy of Message Manager

For this method of installation, the system administrator installs a single, shared executable copy of the software on a LAN server, customizes certain files, then installs (or notifies users to install) Message Manager to individual PCs. When users install Message Manager to individual PCs, a minimal set of files are loaded, including msg_mgr.ini, Personal Folders, and the Message Manager print driver if the fax package is installed.

When a user double clicks the Message Manager icon, the application is loaded from the server to the client computer's RAM. The user can leave Message Manager running throughout the day without affecting other users.

1. Run setup.exe.
2. Complete the steps listed in the following table to install Message Manager Release 4.5 on the LAN server.

Table 8-3. Shared Installation Setup.exe Screens

Screen Name	Notes
Welcome	
License File	
Tell Me About...	<p>Included on your Message Manager CD are the following information tools:</p> <ul style="list-style-type: none"> ■ Install description ■ User Overview/Tutorial ■ Documentation
Select Installation Type	Select Shared Installation. Installation choices are described in “Select Installation Type” on page 8-4.
Important! message	You should close any open software applications. For Windows NT, you must have administrative privileges or be logged in as Administrator to successfully install the fax package.
Select Destination Directory	Designate or create the directory on your LAN server that will contain the Message Manager software. If you want to load the program in a directory other than the default, browse to the directory of your choice. If you want to create a new directory, type the path for the new directory in the Select Destination Directory dialog box.
Backup Replaced Files	Backed up files are saved in the Backup directory. Personal Folders, Workbench, and Address Book files are not automatically backed up; see “Upgrade Considerations” on page 8-6.
Select Components	For a complete installation, select Message Manager and FAX. To add fax to a previous installation, just select FAX.
Enter FAX Information	For Shared Installations, you should leave these fields blank. The information determines which AUDIX mailbox opens when the user creates a fax. You can select Options/Preferences in Message Manager to add or update this information at a later time.

Continued on next page

Table 8-3. Shared Installation Setup.exe Screens — Continued

Screen Name	Notes
Ready to Install, Installation Status Indicator	When you click Next on the Ready to Install screen, you'll see the Status Indicator and a listing of the installed files.
hints.txt	The hints.txt screen contains a description of each program group icon.
Installation Complete, Restart dialog box	The newly installed Message Manager will take effect when you restart the computer.

3. Customize any of the following text files to suit the needs of your users:
 - custom.txt is the file that Message Manager users see when they select About Your System... from the Message Manager Help menu. See [“Updating Your Site-Specific Information” on page 8-17.](#)
 - hints.txt contains a description of each program group icon.
4. Install (or instruct your users to install) the necessary user files and print driver to each individual PC by navigating over the LAN to the shared directory (created during the LAN server install above) and running the SH_Setup.exe program. The following table includes a description of the SH_Setup.exe install process.

Table 8-4. Shared Installation SH_Setup.exe Screens

Screen Name	Notes
Welcome	
License File	
Important! message	You should close any open software applications. For Windows NT, you must have administrative privileges or be logged in as Administrator to successfully install the fax package.

Continued on next page

Table 8-4. Shared Installation SH_Setup.exe Screens — Continued

Screen Name	Notes
Select Destination Directory	A minimal set of files must be loaded on the client PC. If you want to load the program in a directory other than the default, browse to the directory of your choice. If you want to create a new directory, type the path for the new directory in the Select Destination Directory dialog box.
Backup Replaced Files, Select Backup Directory	If you want to back up the replaced system files, you can accept the default directory or browse to the directory of your choice. If you want to create a new directory, type the path of the new directory in the Select Destination Directory dialog box Personal Folders, Workbench, and Address Book files are not automatically backed up; see “Upgrade Considerations” on page 8-6.
Select Components	For a complete installation, select Message Manager and FAX. To add fax to a previous installation, just select FAX.
Enter FAX Information	If you selected FAX on the Select Components screen, you may enter the Server ID and Extension. The information determines which AUDIX mailbox opens when the user creates a fax. You can select Options/Preferences in Message Manager to add or update this information at a later time.
Ready to Install, Installation Status Indicator	When you click Next on the Ready to Install screen, you’ll see the Status Indicator and a listing of the installed files.
hints.txt	The hints.txt screen contains a description of each program group icon.

5. Restart Windows to complete the installation process.

Installing Message Manager from a LAN Server

For this method of installation, the system administrator copies and decompresses the software from the CD to a LAN server, customizes certain files, then installs (or notifies users to install) Message Manager Release 4.5 to individual PCs.

1. Run setup.exe.
2. Complete the steps listed in the following table to copy and decompress the installation files.

Table 8-5. Copy for LAN Installation Screens

Screen Name	Notes
Welcome	
License File	
Tell Me About...	Included on your Message Manager CD are the following information tools: <ul style="list-style-type: none"> ■ Install description ■ User Overview/Tutorial ■ Documentation
Select Installation Type	Select Copy for LAN Installation. Installation choices are described in “Select Installation Type” on page 8-4.
Select Destination Directory	Browse to or type the path for the directory in the Select Destination Directory dialog box.
Ready to Install, Installation Status Indicator	When you click Next on the Ready to Install screen, you’ll see the Status Indicator and a listing of the installed files.
hints.txt	The hints.txt screen contains a description of each program group icon.

3. Customize any of the following text files to suit the needs of your users:
 - custom.txt is the file that Message Manager users see when they select About Your System... from the Message Manager Help menu. See [“Updating Your Site-Specific Information” on page 8-17.](#)
 - docs.txt describes the electronic user documents and is viewable during the install process.
 - hints.txt contains a description of each program group icon.

- install.txt describes the install choices and is viewable during the install process.
 - readme.txt contains late-breaking information about Message Manager Release 4.5 and is viewable at the end of the Single User Install process.
 - tutorial.txt describes the computer-based Overview tutorial and is viewable during the install process.
4. Install (or instruct your users to install) the application to each individual PC by navigating over the LAN to the shared directory and performing the [“Single User Installation Process” on page 8-8.](#)

Using the Automated Installation Process

For this method of installation, the system administrator updates the silent.txt (template) file and installs the software over the LAN to users' computers.

1. Copy the silent.txt text from the Message Manager Release 4.5 CD to your computer. The file contains the following text:

rem This is the Prototype Silent Install Settings File

**rem This file is used to create a Silent Installation of
rem Message Manager version 4.5**

**rem To use this settings file, invoke the installation
rem as follows:**

rem

rem <path>\Setup.EXE /M=<path2>\Silent.TXT

rem

rem Where <path> is the location of the Setup.EXE installation

rem executable

rem and <path2> is the location of the Silent.TXT file being

rem used

**rem Following are the Variables and values required for
rem installation. Spelling and Capitalization are
rem CRITICAL!**

**rem Following line is required - do not change
SILENT=1**

**rem Following line is required - do not change
INSTALLTYPE=A**

**rem Following line is required - do not change
LANGUAGES=A**

8 Message Manager Installation
Installation to a Client PC

8-16

```
rem Following is for "What to Install"
rem
rem use A for Basic, B for FAX, AB for both
COMPONENTS=AB
```

```
rem Following is used only for FAX install
rem
rem Provide the values for the FAX Server and Extension
rem Spelling is critical
rem
rem if left blank, install will use the previous values
rem from the msg_mgr.INI file (if present)
FAXSERVER=
FAXEXTENSION=
```

```
rem Following is for Installation Location
rem
rem Directory location for Installation
rem
rem Example - MAINDIR=C:\MSG_MGR
rem Example - MAINDIR=C:\Program Files\Lucent\Message Manager
MAINDIR=C:\Program Files\Lucent\Message Manager
```

```
rem Following is for Backup of replaced files during
rem installation
rem
rem Use A for True, B for False
DOBACKUP=A
rem Following is for backup directory
rem If backup is not selected, file name is not used
BACKUP=C:\Program Files\Lucent\Message Manager\backup
```

```
rem Following is the Name of the Program Manager Group
rem for Message Manager installation.
rem Spelling is critical
GROUP=Message Manager
```

```
rem Following is the re-boot flag
rem Windows must be re-booted before using Message Manager
rem Setting this flag will cause the install to query the
rem user about the reboot
rem Clearing this flag will not reboot, and will not ask
rem the user
rem Use S for System Reboot (recommended), W for Windows
rem reboot, and nothing for no reboot.
RESTART=S
```

```
rem End of silent install parameters
```

2. Customize your copy of silent.txt to specify the following:
 - COMPONENTS
 - FAXSERVER
 - FAXEXTENSION
 - MAINDIR
 - DOBACKUP
3. Follow the instructions in silent.txt to invoke the automatic installation process.

Updating Your Site-Specific Information

Message Manager Release 4 and later allows users or administrators to update a custom file with site-specific information such as the AUDIX server ID, prefixes, text-addressing format, feature-access codes, and help numbers. Users access the custom file by selecting About Your System from the Help menu on the Message Manager main screen.

To update the default custom file or supply your own quick-reference file:

1. Access the directory where you installed Message Manager Release 4.5.
2. Locate the default custom.txt file template automatically provided with Message Manager. To update this file:
 - Open the custom.txt file using any ASCII text editor.
 - Follow the instructions in the template and save the file.
3. To install your own custom file of a different type (such as .doc or .hlp):
 - Move or rename the default custom.txt file template.
 - Put your custom file in the same directory as the executable Message Manager msg_mgr.exe file. Your file must be named custom.
 - If you use a file type other than .txt, you must have a computer application associated with that extension, or the custom file will not run.

Updating the custom file varies according to your installation setup:

- Users who share a copy of Message Manager on a LAN server all access the same custom file, either the default template or the system administrator's version. If the administrator later updates the custom file, all users automatically access the new version the next time they run Message Manager.
- Users who install their own copy of Message Manager on a PC from a LAN server initially get the custom file (either the default or the administrator's version) from the server. If this file is later updated, users must manually copy it from the server or reinstall Message Manager.
- Users who install Message Manager by CD must update their custom files independently. The administrator may provide a modified custom file for users to copy into their application directory after installation (distributed on diskette, as an attached file, or through a LAN server). If you do this, include directions for users to rename or remove the old or default custom.txt file.

Troubleshooting

9

This chapter provides troubleshooting information specific to the installation process. This information will include problems that:

- are new and have never been worked through before
- can happen after new installation
- can happen after installation when installation has worked and something goes wrong

This chapter is organized as follows:

- [“Install Wizard Error Messages” on page 9-1](#)
- [“Platform Troubleshooting Commands” on page 9-5](#)
- [“Modem Setup and Administration” on page 9-6](#)

Install Wizard Error Messages

The following are error messages that could occur while using the DEFINITY ONE installation wizard.

Error Message	Possible Explanation/Remedy
Unable to set the registry default root to HKEY_LOCAL_MACHINE	The registry key HKEY_LOCAL_MACHINE is not accessible from the install wizard. Make sure that the registry key is accessible.
DEFINITY ONE is still running. Please shut it down. Then start the install again.	The install wizard cannot execute while DEFINITY ONE is running. The following command, shutdown all , shuts down all the applications related to DEFINITY ONE. Execute this command and after it completes, rerun the install wizard.
Unable to shut the CornerStone logger down. Please shut it down manually and restart the install program.	Execute C:\LucentSoftware\CornerStone\mtcelbin\csShutdownlog.exe . Then execute the command C:\LucentSoftware\CornerStone\bin\cslog_server.exe -UnregServer . This should shut down the CornerStone logger. Then rerun the install wizard.
Unable to register the following files xxxx,yyyy,.....	This indicates that the install program is unable to self register the mentioned files. Register the DLLs manually using the command regsvr32 .
Unable to Reboot machine. Please reboot now.	This indicates that the install wizard tried to reboot the machine, but was not successful for some reason. It tried to reboot the machine because some of the files were not installed properly (they might be in use). The installer must manually push the shutdown button on the front of the TN795 and power cycle.
Unable to set xxxx:yyy from [ffff].	This indicates that install wizard had trouble reading the key yyyy from section xxxx in the ini file ffff. Check the following things: <ul style="list-style-type: none"> ■ The ini file ffff should be in the same directory as Setup.exe (install wizard). ■ The ini file ffff should have read permissions. ■ The ini file ffff has the section xxxx and a value for the key yyyy.
Unable to determine screen resolution.	Escalate.

Error Message	Possible Explanation/Remedy
Screen resolution must be at least 640x480.	The install wizard requires that the screen resolution be at least 640x480.
Unable to determine the operating system.	Escalate.
Unable to determine the operating system version.	Escalate.
Operating system must be Window NT 4.0.	This indicates that the underlying OS is not Windows NT 4.0.
You must have administrator privileges to run this program.	This indicates that the installer doesn't have administrative privileges.
Unable to get the free disk space on X drive.	Escalate.
Not enough space on X drive for new install. Space required is Y.	There isn't enough space on X drive for a new installation. Free up some space and make sure that there is at least Y MB space on drive X.
Not enough space on X drive for an upgrade. Space required is Y.	There isn't enough space on X drive for an upgrade. Free up some space and make sure that there is at least Y MB space on drive X.
Unable to parse path.	Escalate.
Unable to remove last slash from path.	Escalate.
Unable to get current path.	Escalate.
Unable to create [XXXX].	Escalate.
A target directory could not be created.	Make sure that the path is syntactically correct and you have access rights to the target drive.
Unable to allocate the memory required to complete the copy file process.	Terminate as many running applications as possible to free memory.
Not enough disk space on the target drive to copy the files.	Free disk space on the target drive.
Unable to open the input file.	Make sure the source file is a valid filename, and that the source file as well as the target directory exist.

Error Message	Possible Explanation/Remedy
Unable to copy the requested file.	Escalate.
Target file is read-only.	Remove the read-only attribute from the target file and try again.
A self-registering file did not register successfully.	Escalate.
Unknown error.	Escalate.
Unable to copy file [X].	Escalate.
Unable to get directory name.	Escalate.
Unable to parse directory.	Escalate.
Unable to create Substring section list.	Escalate.
Unable to open file X.	Escalate.
Unable to merge [X] into the Registry.	Escalate.

The following are warnings that may be generated by the installconfig wizard. Attempt to manually resolve these. They are not significant errors. Make notes in the log book and continue.

- Unable to get the AUDIX extension length.
- Unable to add DSA shortcut to Start Menu.
- Unable to reset AUDIX extension length to xxxx.
- Unable to get file size.
- Unable to get the product version from the last install.
- Unable to create directory.

Platform Troubleshooting Commands

The following commands may be useful in troubleshooting.

alarmorig	turns on alarm origination from the GAM (INADS)
alarmstat	gives global alarm (GAM, DEFINITY, AUDIX) status (for technician/TSC)
cleargamalarm	clears alarms after analysis (for technician/TSC)
d1stat	displays status of all application groups running on the system
environment	displays temperature and voltage levels on the TN795 board
ftpserv	installs patches and license files (INADS)
gamalarmstat	displays GAM alarms (for technician/TSC)
installconfig	installs license file (INADS)
lucent help	list all commands
oss	sets telephone numbers for outgoing INADS calls
reboot	reboots system (for technician/TSC)
restartcause	displays the restart causes for system (for technician/TSC)
serialnumber	displays the serial number (for technician/TSC)
setip	displays network parameters
shutdown	shuts down the system or applications

See [“bash Commands” on page G-1](#) for more information on commands. More detailed strategic analysis of each command is located in the DEFINITY ONE Maintenance Manual.

Modem Setup and Administration

To check settings and test the external modem, refer to the following procedures:

- [“Configure Modem” on page 9-6](#)
- [“Verify INADS Modem Settings” on page 9-6](#)
- [“Verify External Modem Option Settings” on page 9-6](#)
- [“Configure a Different External Modem” on page 9-7](#)
- [“Test the External Modem” on page 9-9](#)

Configure Modem



NOTE:

The modem (U.S. Robotics Model) is preconfigured and should work correctly.

Verify INADS Modem Settings

No External Modem Installed

If there is no External Modem connected to INADS, that is, there is no Alarm Origination to INADS, follow this procedure.

1. Enter **display system-parameters maintenance** and press Enter.
2. Verify that the Alarm Origination Activated to OSS Numbers field is set to **n** and press Enter.
3. Verify that Cleared Alarm Notification and Restart Notification are set to **n**.

External Modem Installed

1. Enter **display system-parameters maintenance** and press Enter.
2. Verify that the *Alarm Origination Activated to OSS Numbers* field is set to **y** and press Enter.
3. Verify that the Cleared Alarm Notification and Restart Notification fields are set to **y**.

Verify External Modem Option Settings

1. Follow the procedure *Start a pcANYWHERE Client Session from the Laptop Computer to connect to pcANYWHERE*.
2. Click **Start > Settings > Control Panel**.

3. Double click **Modems**.
You receive a **Modem Properties** screen that should show the US Robotics 336K FAX Ext modem.
4. Click **Next**.
You receive another **Modem Properties** screen.
5. Verify that the port the modem is attached to is COM1.
6. Click **Next**.
You receive another **Modem Properties** screen.
7. Right click **Properties**.
8. You receive the **Properties** screen.
Verify that the defaults for speed and speaker volume are set.
9. Click **Connection**.
10. Verify that **Databits** is 8, **Parity** is none, and **Stop bits** is 1.
11. Click **Advanced**.
You receive the **Advanced Connection Settings** screen.
12. Verify that the defaults are set.
13. Click **OK > Close**.

Configure a Different External Modem

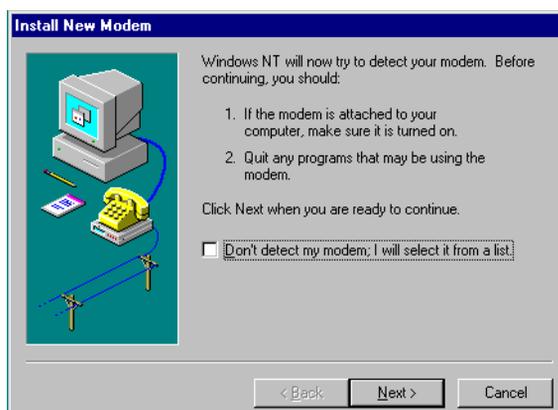


NOTE:

This procedure is only necessary if you choose not to use the modem shipped with the system.

1. Follow the procedure Start a pcANYWHERE Client Session from the Laptop Computer to connect to pcANYWHERE.
2. Click **Start > Settings > Control Panel**.
3. Double click **Modems**.

You receive the **Modem Properties** screen.



4. Put a check by **Don't detect my modem. I will select it from a list.**
5. Click **Next.**

You receive an **Install New Modem** screen.

6. Click **Add.**

You receive another **Install New Modem** screen.

7. Click on the manufacturer (3COM Corp) and the model (US Robotics 336K FAX Ext).
8. Click **Next.**
9. Highlight the port the modem is attached to (COM1).
10. Click **Next.**

You receive the **Modem Setup** screen that tells you that you need to restart the modem before you can use it.

11. Click **Finish > OK.**

You receive another **Install New Modem** screen that tells you that your modem has been set up successfully. Then you receive the **Modem Properties** screen.

Once the modem is installed, it needs to be configured.

12. Right click **Properties.**

You receive the **Properties** screen.

13. Click **OK** to accept the defaults for speed and speaker volume.
14. Click the **Connection** tab.
15. Click **OK** to accept the defaults For **Data bits (8)**, **Parity (none)**, **Stop bits (1)**, and Call Preference.
16. Click the **Advanced** button.

You receive the **Advanced Connection Settings** screen.

17. Click **OK** to accept the defaults.
18. Click **OK > Close**.
You receive the **Modem Properties** screen.
19. Click **Close**.
You receive the message "Dial-up Networking needs to be configured because the list of installed modems has changed. Would you like to do this now?"
20. Click **Yes**.
21. You receive the **Remote Access Setup** screen that confirms that the modem is configured.

Test the External Modem

1. At the SAT session, type **change system parameters maintenance**, and press **Enter** or **Submit**.
2. Make sure that the Test Remote Access Port? field is set to **y**.
3. Type **test pr-maintenance** and press **Enter** or **Submit**.
4. Verify that test 230 passes.

See DEFINITY Enterprise Communications System R7 Administration for Network Connectivity (555-233-501) for more information.

9	Troubleshooting <i>Modem Setup and Administration</i>	9-10
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Security and Copy Protection

10

This chapter provides information about security and software copy protection.

This chapter is organized as follows:

- [“Security Checklist” on page 10-1](#)
- [“Software Copy Protection Mechanisms” on page 10-2](#)

Security Checklist

The Lucent provided applications shall satisfy the requirements contained in the *Security Standards Checklist*, Compas ID 52302, when loaded on DEFINITY ONE to the same extent that they do presently. The Windows NT operating system will not be modified. All available options and features within the Windows NT operating system shall be activated in such a way as to meet or exceed the requirements of the *Security Standards Checklist*. However, there may be instances where the Windows NT operating system does not support specific requirements of the check list. Discovered cases of feature outage in Windows NT shall be documented and a policy written to address each one which shall include a request to Microsoft for a Windows NT enhancement.

Software Copy Protection Mechanisms

This section provides information about software copy protection mechanisms for installation, repair, and upgrade procedures as they relate to the TSC/COE

The opportunity to copy the software from one machine to another is more of an issue with DEFINITY ONE's Windows NT platform running the three primary applications (DEFINITY, AUDIX, and DSA) than it would be on a proprietary system.

The objective of security measures is to add a level of impedance (time, money, expertise, etc.) in the process to discourage people from copying something for which they do not have permission. It is always possible for someone to break into a system to which they have physical access. There are two types of software protection in the DEFINITY ONE environment: feature protection and copy protection.

Feature Protection

Feature protection protects specific feature capabilities or capacities within an application. It controls what capabilities are provided by the application once it is allowed to run. For example, DEFINITY has a feature called Translation copy protection and supports a "customer options" administration form to tailor DEFINITY operation to a specific customer.

Copy Protection

Copy protection attempts to prevent the copying of software from one machine to another for the purpose of providing service on the second machine without paying Lucent for the privilege. It attempts to prevent an application from running at all.

A special mechanism in association with the license file on DEFINITY ONE prevents the software from running on other systems.

Cable Pinouts



This appendix provides TN760D Tie Trunk and TN464E/F option settings, connector and cable diagrams, and pinout charts.

This chapter is organized as follows:

- [“TN760E Tie Trunk Option Settings” on page A-1](#)
- [“TN464F Option Settings” on page A-4](#)
- [“Connector and Cable Diagrams —Pinout Charts” on page A-6](#)

TN760E Tie Trunk Option Settings

The TN760E Tie Trunk circuit pack interfaces between 4 tie trunks and the TDM bus. Two tip and ring pairs form a 4-wire analog transmission line. An E and M pair are DC signaling leads used for call setup. The E-lead receives signals from the tie trunk and the M-lead transmits signals to the tie trunk.

To choose the preferred signaling format ([Table A-1](#) and [Table A-2](#)), set the switches on the TN760D and administer the port using [Figure A-1](#) and [Table A-3](#).

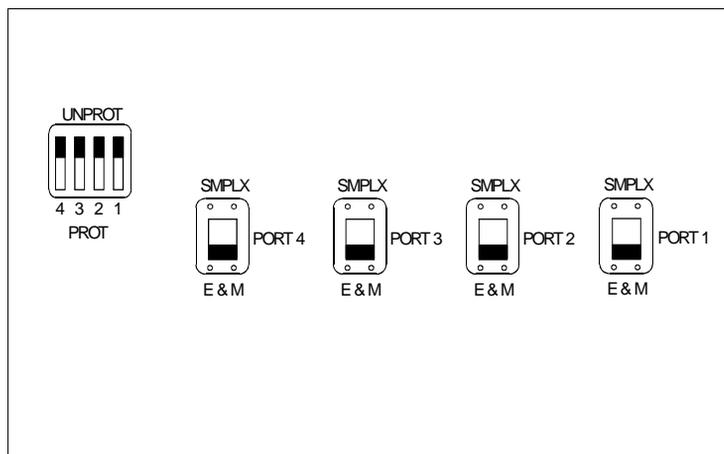
Table A-1. Signaling Formats for TN760E

Mode	Type
E & M	Type I Standard (unprotected)
E & M	Type I Compatible (unprotected)
Protected	Type I Compatible, Type I Standard
Simplex	Type V
E & M	Type V
E & M	Type V Revised

Table A-2. Signaling Type Summary

Signaling Type	Transmit (M-Lead)		Receive (E-Lead)	
	On-Hook	Off-Hook	On-Hook	Off-Hook
Type I Standard	ground	battery	open ¹ /battery	ground
Type I Compatible	open ¹ /battery	ground	ground	open ¹ /battery
Type V	open ¹ /battery	ground	open	ground
Type V Reversed	ground	open	ground	open

1. An open circuit is preferred instead of battery voltage.



r758183 RBP 050896

Figure A-1. TN760D Tie Trunk Circuit Pack (Component Side)

Table A-3. TN760E Option Switch Settings and Administration

Installation Situation		Preferred Signaling Format		E&M/SMPLX Switch	Prot/Unprot Switch	Administered Port
Circumstance	To	System	Far-End			
Collocated	DEFINITY	E&M Type 1 Compatible	E&M Type 1 Standard	E&M	Unprotected	Type 1 Compatible
Inter-Building	DEFINITY	Protected Type 1 Compatible	Protected Type 1 Standard Plus Protection Unit	E&M	Protected	Type 1 Compatible
Collocated	Net Integrated	E&M Type 1 Standard	Any PBX	E&M	Unprotected	Type 1

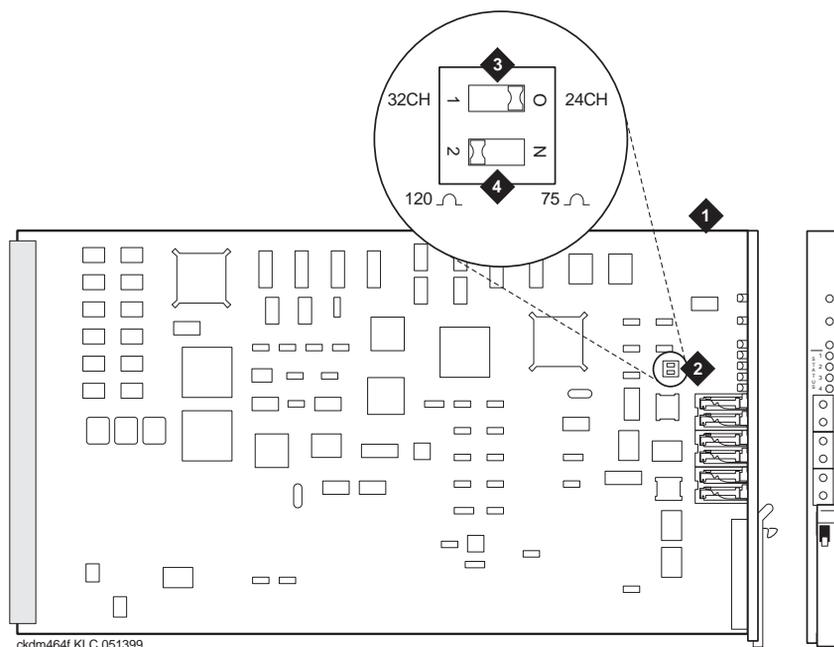
TN464F Option Settings

The TN464E/F DS1/E1 Interface - T1/E1 circuit pack interfaces between a 24- or 32-channel Central Office/ISDN or tie trunk and the TDM bus.

Set the switches on the circuit pack to select bit rate and impedance match. See [Table A-4](#) and [Figure A-2](#). If the top switch setting is set to 32 Channel, then you need set the lower switch setting to either 120 Ohm or 75 Ohm.

Table A-4. Option Switch Settings on TN464F

120 Ohms	Twisted pair
75 Ohms	Coaxial requiring 888B adapter
32 Channel	2.048 Mbps
24 Channel	1.544 Mbps



okdm464f KLC 051399

Figure Notes

1. TN464F
2. Option Switch
3. 24/32 Channel Selector (24CH shown)
4. 75/120 Ohm Selector (120 Ohm shown)

Figure A-2. TN464E/F Option Settings

Connector and Cable Diagrams — Pinout Charts

See [Table A-5](#) for typical lead designations. The circuit packs and auxiliary equipment are classified as shown in the following tables.

Table A-5. Lead and Color Designations

Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
1	W-BL	26	102
2	BL-W	01	002
3	W-O	27	103
4	O-W	02	003
5	W-G	28	104
6	G-W	03	004
7	W-BR	29	105
8	BR-W	04	005
9	W-SL	30	106
10	SL-W	05	006
11	R-BL	31	107
12	BL-R	06	007
13	R-O	32	108
14	O-R	07	008
15	R-G	33	109
16	G-R	08	009
17	R-BR	34	110
18	BR-R	09	010
19	R-SL	35	111
20	SL-R	10	011
21	BK-BL	36	112
22	BL-BK	11	012
23	BK-O	37	113
24	O-BK	12	013

Continued on next page

Table A-5. Lead and Color Designations — *Continued*

Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
25	BK-G	38	302
26	G-BK	13	202
27	BK-BR	39	303
28	BR-BK	14	203
29	BK-SL	40	304
30	SL-BK	15	204
31	Y-BL	41	305
32	BL-Y	16	205
33	Y-O	42	306
34	O-Y	17	206
35	Y-G	43	307
36	G-Y	18	207
37	Y-BR	44	308
38	BR-Y	19	208
39	Y-SL	45	309
40	SL-Y	20	209
41	V-BL	46	310
42	BL-V	21	210
43	V-O	47	311
44	O-V	22	211
45	V-G	48	312
46	G-V	23	212
47	V-BR	49	313
48	BR-V	24	213
49	V-SL	50	300
50	SL-V	25	200

Processor External Cable Pinout

[Table A-6](#) shows the pinout for the Processor External Cable.

Table A-6. Processor External Cable Pinout

Signal Name	Processor (P1) (Amphenol Connector)	AUX (J1)	Modem (P2)	Mouse	Keyboard	USB	VGA	Ethernet
ACC48A	12	19						
AP1 (alarm in)	2	26						
AP2 (alarm in)	27	27						
EXTALMA	4	48						
EXTALMB	3	23						
XFER48	38	36						
GROUND	25	1						
MOD-CTS	21		5					
MOD-DCD	46		8					
MOD-DSR	8		6					
MOD-DTR	7		20					
MOD-GRD	20		1 & 7					
MOD-RTS	34		4					
MOD-RXD	33		3					
MOD-TXD	45		2					
MOUSE-DAT	18			1				
MOUSE-GRD	31			3				
MOUSE-VCC	6			4				
MOUSE-CLK	5			5				
KYBD-DAT	30				1			
KYBD-GRD	17				3			
KYBD-VCC	16				4			
KYBD-CLK	29				5			
USB-VCC	15					1		
USB-DAT-	40					2		

Continued on next page

Table A-6. Processor External Cable Pinout — Continued

Signal Name	Processor (P1) (Amphenol Connector)	AUX (J1)	Modem (P2)	Mouse	Keyboard	USB	VGA	Ethernet
USB-DAT+	42					3		
GRD	41					4		
VGA-RED	49						1	
VGA-GREEN	47						2	
VGA-BLUE	23							
GRD	10						5	
GRD	48						6	
GRD	46						7	
GRD	24						8	
VGA-PWR	35						9	
GRD	36						10	
VGA-HSYNC	37						13	
VGA-VSYNC	11						14	
ETH-RD+	44							3
ETH-RD-	19							6
ETH-TD+	32							1
ETH-TD-	7							2
RX-	28							
TX+	13							
TX-	14							
RX+	39							
NC	—							
NC	—							
GROUND	50							
NC	—							
—	43							
NC	—							

Continued on next page

A Cable Pinouts

Connector and Cable Diagrams — Pinout Charts

Table A-6. Processor External Cable Pinout — Continued

Signal Name	Processor (P1) (Amphenol Connector)	AUX (J1)	Modem (P2)	Mouse	Keyboard	USB	VGA	Ethernet
NC	—							
NC	—							
—	1							



NOTE:

AUX is a 50-pin receptacle, Modem is a 25-pin D-sub plug, Mouse is a 6-pin miniature DIN receptacle, Keyboard is a 6-pin miniature DIN receptacle, USB is a type A receptacle, VGA is a 15-pin D-sub receptacle, and Ethernet is an 8-pin jack.

Table A-7. Port Circuit Pack Lead Designations

Cross-Connect Pin	TN742/B TN747B TN753 TN769 TN2147 TN465	TN754 TN726	TN760/B TN760C TN760D TN2209	TN762/B	TN763 TN763B TN763C	TN735	TN767B TN464E TN2207	TN746/B TN2183 TN2215	TN793 TN2793 TN2224/B TN2214
1	T.1		T.1	T.1	T.1	T.1	C_5	T.1	T.1
2	R.1		R.1	R.1	R.1	R.1		R.1	R.1
3		TXT.1	T1.1	TXT.1	SZ.1	BT.1	C_ENAB	T.2	T.2
4		TXR.1	R1.1	TXR.1	SZ1.1	BR.1		R.2	R.2
5		PXT.1	E.1	PXT.1	S.1	LT.1	C_SYNC*	T.3	T.3
6		PXR.1	M.1	PXR.1	S1.1	LR.1		R.3	R.3
7	T.2		T.2	T.2	T.2	T.2	C2D-DATA	T.4	T.4
8	R.2		R.2	R.2	R.2	R.2	RDATA*	R.4	R.4
9		TXT.2	T1.2	TXT.2	SZ.2	BT.2	TDATA*		T.5
10		TXR.2	R1.2	TXR.2	SZ1.2	BR.2	TRSYSNC		R.5
11		PXT.2	E.2	PXT.2	S.2	LT.2	GRD		T.6
12		PXR.2	M.2	PXR.2	S1.2	LR.2	SCLK*		R.6
13	T.3		T.3	T.3	T.3	T.3			T.7
14	R.3		R.3	R.3	R.3	R.3			R.7
15		TXT.3	T1.3	TXT.3	SZ.3	BT.3			T.8
16		TXR.3	R1.3	TXR.3	SZ1.3	BR.3	PAHER*		R.8
17		PXT.3	E.3	PXT.3	S.3	LT.3		T.5	T.9
18		PXR.3	M.3	PXR.3	S1.3	LR.3	C_48V	R.5	R.9
19	T.4		T.4	T.4	T.4	T.4		T.6	T.10
20	R.4		R.4	R.4	R.4	R.4		R.6	R.10

A Cable Pinouts

Connector and Cable Diagrams — Pinout Charts

Table A-7. Port Circuit Pack Lead Designations — Continued

Cross-Connect Pin	TN742/B TN747B TN753 TN769 TN2147 TN465	TN754 TN726	TN760/B TN760C TN760D TN2209	TN762/B	TN763 TN763B TN763C	TN735	TN767B TN464E TN2207	TN746/B TN2183 TN2215	TN793 TN2793 TN2224/B TN2214
21		TXT.4	T1.4	TXT.4	SZ.4	BT.4	C_P2SCLK	T.7	T.11
22		TXR.4	R1.4	TXR.4	SZ1.4	BR.4	LI (RX)	R.7	R.11
23		PXT.4	E.4	PXT.4	S.4	LT.4	LO* (TX)	T.8	T.12
24		PXR.4	M.4	PX4.4	S1.4	LR.4	LBACK1	R.8	R.12
25	T.5		T.5	T.5	T.5	T.5	GND	T.9	T.13
26	R.5		R.5	R.5	R.5	R.5	C_5V	R.9	R.13
27		TXT.5	T1.5	TXT.5	SZ.5	BT.5		T.10	T.14
28		TXR.5	R1.5	TXR.5	SZ1.5	BR.5		R.10	R.14
29		PXT.5	E.5	PXT.5	S.5	LT.5		T.11	T.15
30		PXR.5	M.5	PXR.5	S1.5	LR.5	C_RST	R.11	R.15
31	T.6		T.6	T.6	T.6	T.6		T.12	T.16
32	R.6		R.6	R.6	R.6	R.6		R.12	R.16
33		TXT.6	T1.6	TXT.6	SZ.6	BT.6	RDATA		T.17
34		TXR.6	R1.6	TXR.6	SZ1.6	BR.6	TDATA		R.17
35		PXT.6	E.6	PXT.6	S.6	LT.6	TRSYNC		T.18
36		PXR.6	M.6	PXR.6	S1.6	LR.6	GRD		R.18
37	T.7		T.7	T.7	T.7	T.7	SCLK		T.19
38	R.7		R.7	R.7	R.7	R.7			R.19
39		TXT.7	T1.7	TXT.7	SZ.7	BT.7			T.20
40		TXR.7	R1.7	TXR.7	SZ1.7	BR.7			R.20
41		PXT.7	E.7	PXT.7	S.7	LT.7	GRD	T.13	T.21
42		PXR.7	M.7	PXR.7	S1.7	LR.7		R.13	R.21
43	T.8		T.8	T.8	T.8	T.8	C_PRES*	T.14	T.22
44	R.8		R.8	R.8	R.8	R.8		R.14	R.22
45		TXT.8	T1.8	TXT.8	SZ.8	BT.8		T.15	T.23
46		TXR.8	R1.8	TXR.8	SZ1.8	BR.8	DC2_DATA	R.15	R.23
47		PXT.8	E.8	PXT.8	S.8	LT.8	LI* (RX)	T.16	T.24
48		PXR.8	M.8	PXR.8	S1.8	LR.8	LO (TX)	R.16	R.24
49	GRD	GRD	GRD	GRD	GRD	GRD	LBACK2	GRD	GRD
50	GRD	GRD	GRD	GRD	GRD	GRD	GRD	GRD	GRD

* Denotes high side of line.

Table A-8. DS1 Interface Cable H600-307 (and C6C)

50-Pin			15-Pin		
Pin	Color	Designation	Pin	Color	Designation
02	W-BL				
03	BL-W				
47	W-G	LI (High)	11	W-G	LI (High)
22	G-W	LI	03	G-W	LI
48	W-BR	LO	09	W-BR	LO
23	BR-W	LO (High)	01	BR-W	LO (High)
49	W-SL	LOOP2	06	W-SL	LOOP2
24	SL-W	LOOP1	05	SL-W	LOOP1

All other pins are empty.

[Table A-9](#) shows the pinouts for the TN2185 ISDN-BRI 4-wire S Interface.

Table A-9. TN2185 ISDN-BRI — 4-Wire S Interface Pinout

Port	Signal	Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
1	TXT.1	1	W-BL	26	102
	TXR.1	2	BL-W	01	002
	PXT.1	3	W-O	27	103
	PXR.1	4	O-W	02	003
2	TXT.2	5	W-G	28	104
	TXR.2	6	G-W	03	004
	PXT.2	7	W-BR	29	105
	PXR.2	8	BR-W	04	005
3	TXT.3	9	W-SL	30	106
	TXR.3	10	SL-W	05	006
	PXT.3	11	R-BL	31	107
	PXR.3	12	BL-R	06	007
4	TXT.4	13	R-O	32	108
	TXR.4	14	O-R	07	008
	PXT.4	15	R-G	33	109

Continued on next page

Table A-9. TN2185 ISDN-BRI — 4-Wire S Interface Pinout — *Continued*

Port	Signal	Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
	PXR.4	16	G-R	08	009
5	TXT.5	17	R-BR	34	110
	TXR.5	18	BR-R	09	010
	PXT.5	19	R-SL	35	111
	PXR.5	20	SL-R	10	011
6	TXT.6	21	BK-BL	36	112
	TXR.6	22	BL-BK	11	012
	PXT.6	23	BK-O	37	113
	PXR.6	24	O-BK	12	013
7	TXT.7	25	BK-G	38	302
	TXR.7	26	G-BK	13	202
	PXT.7	27	BK-BR	39	303
	PXR.7	28	BR-BK	14	203
8	TXT.8	29	BK-SL	40	304
	TXR.8	30	SL-BK	15	204
	PXT.8	31	Y-BL	41	305
	PXR.8	32	BL-Y	16	205

[Table A-10](#) shows the pinout for the TN793 and TN2793 24-Port Analog Line circuit pack.

Table A-10. TN793 Analog Line Circuit Pack Pinout

Port	Signal	Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
1	T.1	1	W-BL	26	102
	R.1	2	BL-W	01	002
2	T.2	3	W-O	27	103
	R.2	4	O-W	02	003
3	T.3	5	W-G	28	104
	R.3	6	G-W	03	004

Continued on next page

Table A-10. TN793 Analog Line Circuit Pack Pinout — *Continued*

Port	Signal	Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
4	T.4	7	W-BR	29	105
	R.4	8	BR-W	04	005
5	T.5	9	W-SL	30	106
	R.5	10	SL-W	05	006
6	T.6	11	R-BL	31	107
	R.6	12	BL-R	06	007
7	T.7	13	R-O	32	108
	R.7	14	O-R	07	008
8	T.8	15	R-G	33	109
	R.8	16	G-R	08	009
9	T.9	17	R-BR	34	110
	R.9	18	BR-R	09	010
10	T.10	19	R-SL	35	111
	R.10	20	SL-R	10	011
11	T.11	21	BK-BL	36	112
	R.11	22	BL-BK	11	012
12	T.12	23	BK-O	37	113
	R.12	24	O-BK	12	013
13	T.13	25	BK-G	38	302
	R.13	26	G-BK	13	202
14	T.14	27	BK-BR	39	303
	R.14	28	BR-BK	14	203
15	T.15	29	BK-SL	40	304
	R.15	30	SL-BK	15	204
16	T.16	31	Y-BL	41	305
	R.16	32	BL-Y	16	205
17	T.17	33	Y-O	42	306
	R.17	34	O-Y	17	206

Continued on next page

Table A-10. TN793 Analog Line Circuit Pack Pinout — *Continued*

Port	Signal	Cross-Connect Pin	Color	Amphenol Pin	Backplane Pin
18	T.18	35	Y-G	43	307
	R.18	36	G-Y	18	207
19	T.19	37	Y-BR	44	308
	R.19	38	BR-Y	19	208
20	T.20	39	Y-SL	45	309
	R.20	40	SL-Y	20	209
21	T.21	41	V-BL	46	310
	R.21	42	BL-V	21	210
22	T.22	43	V-O	47	311
	R.22	44	O-V	22	211
23	T.23	45	V-G	48	312
	R.23	46	G-V	23	212
24	T.24	47	V-BR	49	313
	R.24	48	BR-V	24	213
25		49	V/SL	50	314
50		50	SL/V	25	214

A Cable Pinouts

Connector and Cable Diagrams — Pinout Charts

Table A-11. Circuit Pack and Auxiliary Equipment Classifications

Analog Line (8)	2-Wire Digital & Analog Line (16) and (24)	Data Line & Digital Line 4-Wire	Digital Line 2-Wire 24 Ports	Hybrid Line	MET ¹ Line	AUX Trunk	Central Office Trunk	Central Office Trunk 3-Wire		Tie Trunk	DS1 Tie Trunk	Four Port DIOD ³
								Central Office Trunk	DID/ DIOD ² Trunk			
TN467	TN2149	TN726B	TN2224	TN762	TN735	TN417	TN429	TN2199	TN429	TN478	TN483	TN2184
TN432	TN2135	TN754B		TN762B		TN763	TN493		TN2139	TN458	TN722	
TN431	TN468B	TN564B				TN763D	TN422		TN459B	TN449	TN767	
TN411B	TN448	TN413					TN421		TN436B	TN760D	TN722B	
TN742	TN746						TN438B		TN753	TN760C	TN464F	
TN769	TN746B						TN447		TN2146	TN434	TN2207	
	TN2181						TN465C		TN414	TN415	TN2464	
	TN2183						TN747B			TN2209		
	TN793						TN2138					
	TN2793						TN2147C					
	TN2215						TN2148					
	TN791											
	TN2214											

1. MET = Multibutton Electronic Telephone
2. DID/DIOD = Direct Inward Dialing/Direct Inward Outward Dialing
3. DIOD = Direct Inward Outward Dialing

Table A-12. Circuit Pack and Auxiliary Equipment Leads (Pinout Charts)

Color	Connector Pin Numbers	Analog Line 8 ports	2-Wire Digital Line and Analog Line 16 ports	Data Line and Digital Line 4-wire	Digital Line 2-Wire 24 Ports	Hybrid Line	MET Line	AUX Trunk	CO Trk	CO Trunk 3-wire	DID/DIOD Trunk	Tie Trk	DS1 Tie Trunk	Four Port DIOD
W-BL	26	T1	T1		T1	V1T1	T1	T1	T1	A1	T1	T1		T1
BL-W	01	R1	R1		R1	V1R1	R1	R1	R1	B1	R1	R1		R1
W-O	27		T2	TX1	T2	CT1	TX1	SZ1				T11		
O-W	02		R2	TXR1	R2	CR1	TXR1	SZ11				R11		
W-G	28		T3	PXT1	T3	P-1	PXT1	S1				E1		
G-W	03		R3	PXR1	R3	P+1	PXR1	S11		C1		M1		
W-BR	29		T4		T4	V1T2	T2	T2	T2	A2	T2	T2		T2
BR-W	04		R4		R4	V1R2	R2	R2	R2	B2	R2	R2		R2
W-S	30			TX2	T5	CT2	TX2	SZ2				T12		
S-W	05			TXR2	R5	CR2	TXR2	SZ12				R12		
R-BL	31			PXT2	T6	P-2	PXT2	S2				E2		
BL-R	06			PXR2	R6	P+2	PXR2	S12		C2		M2		
R-O	32				T7	V1T3	T3	T3	T3	A3	T3	T3		T3
O-R	07				R7	V1R3	R3	R3	R3	B3	R3	R3		R3
R-G	33			TX3	T8	CT3	TX3	SZ3				T13		
G-R	08			TXR3	R8	CR3	TXR3	SZ13				R13		
R-BR	34			PXT3	T9	P-3	PXT3	S3				E3		
BR-R	09			PXR3	R9	P+3	PXR3	S13		C3		M3		
R-S	35				T10	V1T4	T4	T4	T4	A4	T4	T4		T4
S-R	10				R10	V1R4	R4	R4	R4	B4	R4	R4		R4
BK-BL	36			TX4	T11	CT4	TX4	SZ4				T14		

Continued on next page

Table A-12. Circuit Pack and Auxiliary Equipment Leads (Pinout Charts)

Color	Connector Pin Numbers	Analog Line 8 ports	2-Wire Digital Line and Analog Line 16 ports	Data Line and Digital Line 4-wire	Digital Line 2-Wire 24 Ports	Hybrid Line	MET Line	AUX Trunk	CO Trk	CO Trunk 3-wire	DID/DIOD Trunk	Tie Trk	DS1 Tie Trunk	Four Port DIOD
BL-BK	11		R7	TXR4	R11	CR4	TXR4	SZ14				R14		
BK-O	37		T8	PXT4	T12	P-4	PXT4	S4				E4		
O-BK	12		R8	PXR4	R12	P+4	PXR4	S14				M4		
BK-G	38	T5	T9		T13	V1T5			T5		T5			
G-BK	13	R5	R9		R13	V1R5			R5		R5			
BK-BR	39		T10	TXT5	T14	CT4								
BR-BK	14		R10	TXR5	R14	CR4								
BK-S	40		T11	PXT5	T15	P-5								
S-BK	15		R11	PXR5	R15	P+5								
Y-BL	41	T6	T12		T16	V1T6			T6		T6			
BL-Y	16	R6	R12		R16	V1R6			R6		R6			
Y-O	42			TXT6	T17	CT6								
O-Y	17			TXR6	R17	CR6								
Y-G	43			PXT6	T18	P-6								
G-Y	18			PXR6	R18	P+6								
Y-BR	44	T7			T19	V1T7			T7		T7			
BR-Y	19	R7			R19	V1R7			R7		R7			
Y-S	45			TXT7	T20	CT7								
S-Y	20			TXR7	R20	CR7								
V-BL	46		T13	PXT7	T21	P-7								
BL-V	21	R13	R13	PXR7	R21	P+7								
V-O	47	T8	T14		T22	V1T8			T8		T8		LI*	

Continued on next page

Table A-12. Circuit Pack and Auxiliary Equipment Leads (Pinout Charts)

Color	Connector Pin Numbers	Analog Line 8 ports	2-Wire Digital Line and Analog Line 16 ports	Data Line and Digital Line 4-wire	Digital Line 2-Wire 24 Ports	Hybrid Line	MET Line	AUX Trunk	CO Trk	CO Trunk 3-wire	DID/DIOD Trunk	Tie Trk	DS1 Tie Trunk	Four Port DIOD
O-V	22	R8	R14		R22	V1R8			R8		R8		LI	
V-G	48		T15	TXT8	T23	CT8							LO	
G-V	23		R15	TXR8	R23	CR8							LO*	
V-BR	49		T16	PXT8	T24	P-8							LBACK2	
BR-V	24		R16	PXR8	R24	P+8							LBACK1	
V-S	50													
S-V	25													

Continued on next page

The wire colors in this chart apply only to B25A and A25B cables. H600-307 cable colors are not shown.

The following abbreviations apply for all circuit packs unless otherwise noted:

- T,R PBX transmit voice T Tip(A) Green
- T1,R1 PBX receive voice R Ring(B) Red
- M PBX transmit signal S Sleeve
- E PBX receive signal PX PBX transmit
- TX Terminal transmit
- LI, LI* Digital Trunk IN LO, LO*Digital Trunk OUT

The following wire colors apply in the above chart:

- W White S Slate (Grey)
- BL Blue R Red
- O Orange BK Black
- G Green Y Yellow
- BR Brown V Violet

A Security and Copy Protection
 Software Copy Protection Mechanisms

A-20

Set Up and Use of Customer Logins

B

This chapter provides information about the setup and use of customer logins.

This chapter is organized as follows:

1. [“Windows NT Logins for the Customer” on page B-2](#)
 - [“NT Login Types for the Customer” on page B-3](#)
 - [“Enabling Windows NT Customer Logins” on page B-7](#)
2. [“DEFINITY Logins for the Customer” on page B-8](#)
3. [“Installing and Setting Up DSA on Your Workstation” on page B-8](#)
 - [“Installing DSA” on page B-8](#)
 - [“Configuring DSA” on page B-9](#)
4. [“Downloading Message Manager” on page B-9](#)

Windows NT Logins for the Customer

When DEFINITY ONE ships from the factory, several Windows NT login groups and associated logins are pre-installed for customer use. See [Table B-1](#).

The login IDs in the last two columns of Table B-1 are for customer use. These logins have default passwords when the system ships and should be changed by the customer or the installation technician during installation. The following information describes how these logins are used and how they should be administered.

Table B-1. Windows NT Logins

Windows NT Login Group	Logins for Customer Use	
	User Name	Default Password
Administrators	NTadmin	NTadmin1
Guest - disabled	--	--
lucent	--	--
officeadmin	1	
officeuser	2	
Power Users	--	--
Users	browse	browse1
	vm	browse1
	sa	browse1

-
1. To be administered
 2. To be administered
-

 **WARNING:**

The logins in the Lucent group of Table B-1 are for the exclusive use of Lucent Technologies Services personnel. These logins are established and updated automatically by Lucent software. **DO NOT ALTER THESE LOGINS IN ANY MANNER.** To do so may render the system unserviceable and may require a partial or complete reinstallation of the software by Lucent personnel.

NT Login Types for the Customer

Administrator Login

- NTadmin

This is a standard Windows NT administrator account. It is used to allow the customer to administer network parameters and similar functions.

AUDIX Logins

- browse

This login is used in the Voice Messaging application on the DEFINITY ONE system. Also see the INTUITY AUDIX documentation or [Table B-2](#) for a list of commands accessible to this login. When the system ships, this login is disabled. It must be enabled and a password must be chosen before it can be used.

- vm

This login is used in the Voice Messaging application on the DEFINITY ONE system. Also see the INTUITY AUDIX documentation or [Table B-2](#) for a list of commands accessible to this login. When the system ships, this login is disabled. It must be enabled and a password must be chosen before it can be used.

- sa

This login is used in the Voice Messaging application on the DEFINITY ONE system. It has full customer administration privileges. Also see the INTUITY AUDIX documentation or [Table B-2](#) for a list of commands accessible to this login. When the system ships, this login is disabled. It must be enabled and a password must be chosen before it can be used.

NOTE:

On a stand-alone INTUITY AUDIX system, the login "sa" normally produces a menu. This feature is not supported on DEFINITY ONE. All logins result in a Forms Screen interface.

NOTE:

See [Table B-2](#) for the different privileges for the three AUDIX logins - sa, vm, browse.

Customer Web Access Logins

The following login groups are used for web access.

- Officeadmin

This is a login group that has no login IDs installed when the DEFINITY ONE system leaves the factory. It is used to facilitate access via the DEFINITY ONE web interface. Members in this group have selected

administrative privileges in the system via the web interface. The NTadmin account may be used to establish an account in this group. Generally, an account in the Officeadmin group is used to download DSA from the DEFINITY One Web page.

- Officeuser

This is a login group that has no login IDs installed when the DEFINITY ONE system leaves the factory. It is used to facilitate download of client software such as Message Manager. Members of this group have no access other than for client download. The NTadmin account may be used to establish an account in this group. Generally, an account in the Officeuser group is use to download Message Manger from the DEFINITY One Web page.

- anonymous

The anonymous login is established for very limited access via the DEFINITY ONE web interface. This login can be used to load a software patch on to DEFINITY One. Details are shown in [Table B-3](#).

See [Table B-2](#) for the privileges of the three Web access logins.

Table B-2. AUDIX Commands Versus Logins for browse, vm, and sa

Command	Login		
	sa	vm	browse
add	✓	✓	
audit	✓	✓	
change	✓	✓	
copy	✓		
display	✓	✓	✓
exit	✓	✓	✓
get	✓	✓	
help	✓	✓	✓
list	✓	✓	✓
logoff	✓	✓	✓
print	✓	✓	✓
remove	✓	✓	
reset	✓		
test	✓	✓	✓
toggle	✓	✓	✓
trace	✓	✓	✓

Table B-3 details the use of login groups for web access.

Table B-3. Web Access Rights/Officeadmin and Officeuser Access

Directory	use	Login Group	Permissions
c:\LucentWeb\Public	DEFINITY ONE Home Page	anonymous	read
		officeuser	read
		officeadmin	read
		administrators	full control
		lucent	full control
c:\LucentWeb\admin\audix\html	AUDIX networking HTML pages	anonymous	none
		officeuser	none
		officeadmin	read
		administrators	full control
		lucent	full control
c:\LucentWeb\admin\audix\cgi	AUDIX networking cgi scripts	anonymous	none
		officeuser	none
		officeadmin	execute
		administrators	full control
		lucent	full control
c:\LucentWeb\admin\user\html	Pages for non administrator users e.g. download	anonymous	none
		officeuser	read
		officeadmin	full control
		administrators	read
		lucent	full control
c:\LucentWeb\admin\user\cgi	cgi scripts for non administrator users. e.g. download	anonymous	none
		officeuser	execute
		officeadmin	execute
		administrators	full control
		lucent	full control
c:\LucentWeb\admin\html	Platform HTML pages	anonymous	none
		officeuser	none
		officeadmin	read
		administrators	read
		lucent	full control
c:\LucentWeb\admin\cgi	platform cgi scripts	anonymous	none
		officeuser	none
		officeadmin	execute
		administrators	execute
		lucent	full control
c:\LucentWeb\AdminAll\html	Restricted html pages. e.g. activate pcANYWHERE	anonymous	none
		officeuser	none
		officeadmin	none
		administrators	full control
		lucent	full control
c:\LucentWeb\AdminAll\cgi	Restricted html pages. e.g. activate pcANYWHERE	anonymous	none
		officeuser	none
		officeadmin	none
		administrators	full control
		lucent	full control

Enabling Windows NT Customer Logins

Enabling customer logins can only be done by an Administrator.

Activate pcANYWHERE

1. On a workstation connected to the DEFINITY ONE LAN, bring up a web browser and bring up the DEFINITY ONE web page. Click **Administer System** on this web page and then login as NTadmin using the default password NTadmin1. On the administration page click **Activate pcANYWHERE**.

A pcANYWHERE client must be installed on the workstation. This client may be purchased from a local supplier or Symantec Corporation and installed on the workstation. Alternately, a JAVA client may be downloaded from the DEFINITY ONE administration page. This is the same page where the pcANYWHERE host is activated in step 1.

2. Activate the pcANYWHERE client on the workstation.
3. Login to the DEFINITY ONE system, again using the NTadmin account.

Setup Login Accounts

1. Start the NT user manager on the DEFINITY One desktop (Start > Programs > Administrative Tools > User Manager)
2. Change the password for the NTadmin account.
3. Activate and set passwords for the browse, vm, and sa accounts.
4. Create three Windows NT accounts in the Officeadmin group for three application administrators. These accounts can be used to download DSA software. The NTadmin account can also be used for this purpose, but, in general it should be used for NT administration only. The account names can be chosen as desired. For this example they are called D1user1, D1user2, and D1user3.
5. Create one Windows NT account in the Officeuser group to allow download of the INTUITY Message Manager Software. The NTadmin account can also be used for this purpose, but, in general, it should be used for NT administration only. The account name can be chosen as desired. For this example it is called D1WEB.
6. Disconnect from pcANYWHERE.

DEFINITY Logins for the Customer

In addition to the logins that are maintained in the Windows operating system, there are customer level logins within the DEFINITY application, but which do NOT appear as Windows logins. Table B-4 shows these logins. The default password should be changed by the customer during installation. Refer to ["Enable Customer Logins" on page 3-5](#) for the details of setting up the DEFINITY customer logins.

Table B-4. DEFINITY Customer Logins

DEFINITY Customer Logins	Comments	Default Password
defty1	This is the customer level "super user" login within the DEFINITY application. Its use should be restricted to the system administrator. This login can be used to create additional DEFINITY logins within DEFINITY. See the DEFINITY command add login .	

Installing and Setting Up DSA on Your Workstation

Installing DSA

Downloading DSA can only be done by an Administrator.

The steps required to obtain the DEFINITY Site Administration (DSA) software from the DEFINITY ONE system are as follows:

1. On a workstation where DSA is to be installed, bring up a web browser and bring up the DEFINITY ONE web page. Click **Administer System** on this web page and then login as NTadmin using the appropriate password. On the administration page, click **Download Software**.
2. On the resulting Web page, click on the selection to download DSA. Select an appropriate directory on your workstation to save the self extracting file that will be downloaded. This file can be placed in any temp directory, as desired.

3. When the download completes, close all applications on your workstation, locate the file that was downloaded, and double click it to start executing.
4. Follow the screen prompts to install DSA on your workstation. DSA will install an icon on your desktop.

Configuring DSA

See [“Configure DSA” on page 7-7](#) for instructions on how to configure DSA. When prompted for logins use your customer logins where appropriate - vm, sa, or browse for AUDIX and defty1 or other DEFINITY customer accounts for DEFINITY.

Downloading Message Manager

The steps required to obtain the INTUITY Message Manager software from the DEFINITY ONE system are as follows:

1. On the desktop where Message Manager is to be installed, activate your favorite browser and bring up the home page for the DEFINITY ONE system.

The name or IP address of the DEFINITY ONE system must be obtained from the administrator of the customer's network where DEFINITY ONE is installed.

2. On the DEFINITY ONE home page, click **User Services**.
3. When prompted for a user ID, type **D1WEB** and use the password supplied by your system administrator.

Holders of more privileged accounts may also use their IDs, for example, NTADMIN, D1user1, etc.

4. Click **Download Message Manager**.

This will download a self-extracting file to your desktop.

5. When the download is complete, exit all applications on your desktop and double click the file that was downloaded.
6. Follow the prompts to complete the installation. See [“Installing Message Manager from a LAN Server” on page 8-14](#).

B Set Up and Use of Customer Logins
Downloading Message Manager

B-10

Miscellaneous Procedures

C

This appendix provides several procedures you will use in the installation process. This appendix is organized as follows:

- Connectivity
 - [“Connect the Laptop Computer to DEFINITY ONE” on page C-2](#)
 - [“Verify the Connection from DEFINITY ONE to the Laptop Computer” on page C-11](#)
 - [“Restore the Laptop Settings” on page C-11](#)
 - [“Map DEFINITY ONE to the Laptop Computer’s CD-ROM Drive” on page C-13](#)
- [“Setting the Name of the Switch” on page C-15](#)
- [“Connect to SAT Session via Telnet” on page C-16](#)
- Backup and Restore
 - [“Perform Immediate Backup \(Command Line\)” on page C-18](#)
 - [“Perform Immediate Backup \(Web\)” on page C-21](#)
 - [“Perform Scheduled Backup \(Command Line\)” on page C-28](#)
 - [“Perform Scheduled Backup \(Web\)” on page C-30](#)
 - [“Perform Restore \(Command Line\)” on page C-35](#)
 - [“Perform Restore \(Web\)” on page C-37](#)
 - [“View Backup Results \(Web\)” on page C-40](#)
 - [“View Contents of Backup Location \(Web\)” on page C-42](#)
- [“Shut Down” on page C-44](#)

Connect the Laptop Computer to DEFINITY ONE

This procedure describes a connection between a technician's laptop computer (hereafter in this procedure referred to as "laptop") and a DEFINITY ONE system via a PCMCIA ethernet card in the TN795 circuit pack within the DEFINITY ONE system.

The following shows the equipment needed for the technician's laptop computer.

Table C-1. Required Technician's Laptop Equipment Checklist

Part Number	Description	Quantity
	Laptop computer with PCMCIA network interface card (NIC)	1
3CCFE575BT (cabled version, has an RJ45 on end of cable) or 3CXFE57B5T(X jack)	PCMCIA NIC with RJ45 connector for DEFINITY ONE	1
846943306	Cable assembly to connect NICs: <ul style="list-style-type: none"> ■ D8W cable ■ RJ45 coupler (BRIA4P) ■ RJ45 crossover cable (approx. 6 inches) 	1

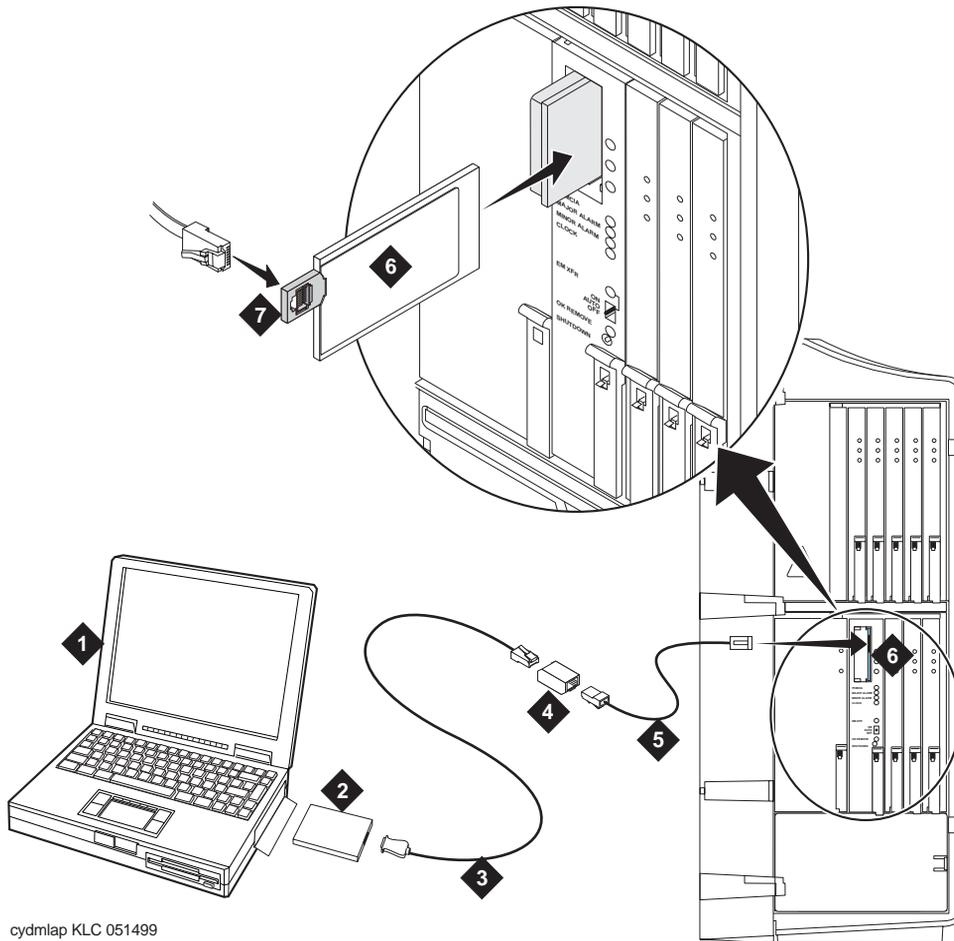
 **NOTE:**

Anytime that you change any information, be sure to record both the old information and the new information.

The DEFINITY ONE system is configured at the factory to act as an endpoint of a private LAN with a PC.

 **WARNING:**

You must use the "3COM Megahertz 10/100 LAN CardBus" PCMCIA ethernet card. This card has either part number 3CCFE575BT or 3CXFE575BT, depending on the cable arrangements. Other types of cards do not work. You must use a special crossover cable, comcode 846943306. See [Figure C-1](#).



cydmlap KLC 051499

Figure Notes

1. Laptop computer
2. PCMCIA NIC
3. D8W cable
4. RJ45 coupler (BRIA4P)
5. RJ45 crossover cable, (comcode 846943306)
6. PCMCIA NIC (3CXFE575BT shown)
7. RJ45 connector

Figure C-1. Laptop Connectivity

C Miscellaneous Procedures

Connect the Laptop Computer to DEFINITY ONE

C-4

1. Make sure the power is off on the laptop and insert a PCMCIA ethernet card into the laptop.

This ethernet card can be any brand or model desired. A card with 100 Megabit capability will provide faster response.

2. Insert a 3COM Megahertz 10/100 LAN CardBus Network Interface Card into the PCMCIA slot of the DEFINITY ONE system to which the connection will be made.

The DEFINITY ONE system will normally be powered up and running. It is NOT necessary to power it down before inserting the PCMCIA disk card.

 NOTE:

If you will be performing backup procedures, insert a new PCMCIA card in the free slot in the TN795 circuit pack. Do not unplug the flash disk.

3. Using the RJ45 crossover cable (comcode 846943306), a RJ45 coupler (BRIA4P) and a D8W cable, connect the 3COM card in the TN795 circuit pack to the ethernet card in the laptop.

 NOTE:

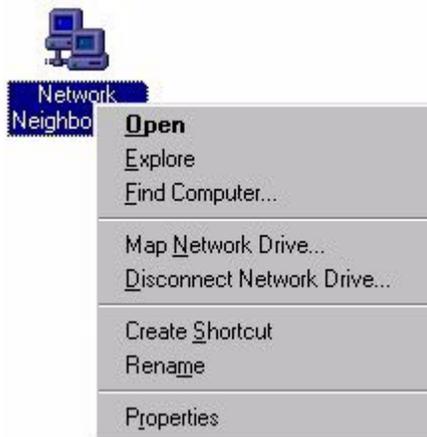
The green LED on the 3COM Megahertz 10/100 LAN Card Bus PC card plugged into the TN795 circuit pack of the DEFINITY ONE system should be on, indicating physical connectivity. If one of the LEDs is not lit, this indicates that there is an open circuit between the laptop computer and DEFINITY ONE.

4. Power up the laptop and start Windows 95 or 98.

You receive the desktop window.

5. Right click **Network Neighborhood** to configure the network PCMCIA interface to communicate to the DEFINITY ONE system.

A menu similar to the following appears.

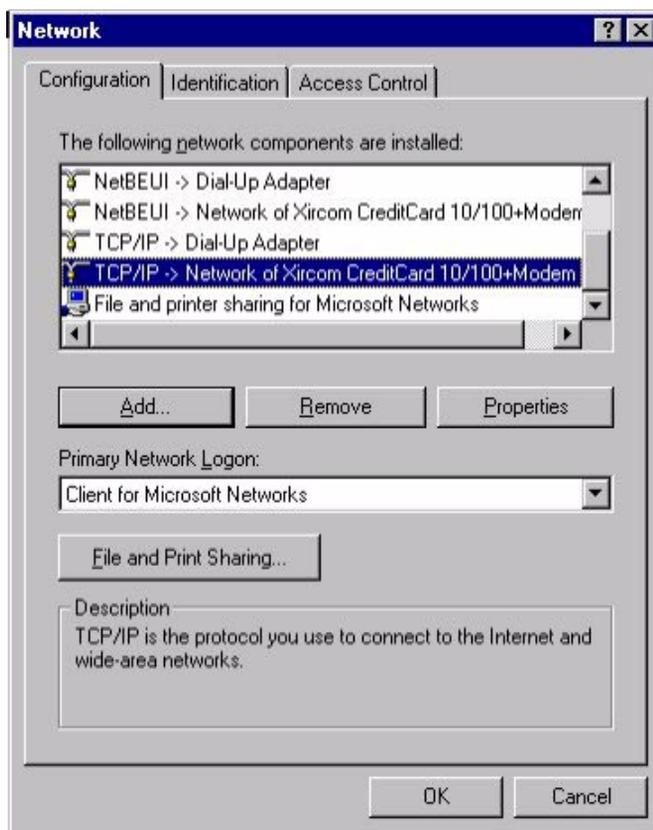


⇒ NOTE:

The following details are for a particular version of Windows 95. Your system may have screens that are slightly different, depending on the version of Windows. The top LED on the 3COM NIC indicates a 10-MHz connection speed and the bottom LED indicates a 100-MHz connection speed. If there is no light, this indicates an open connection and a problem exists.

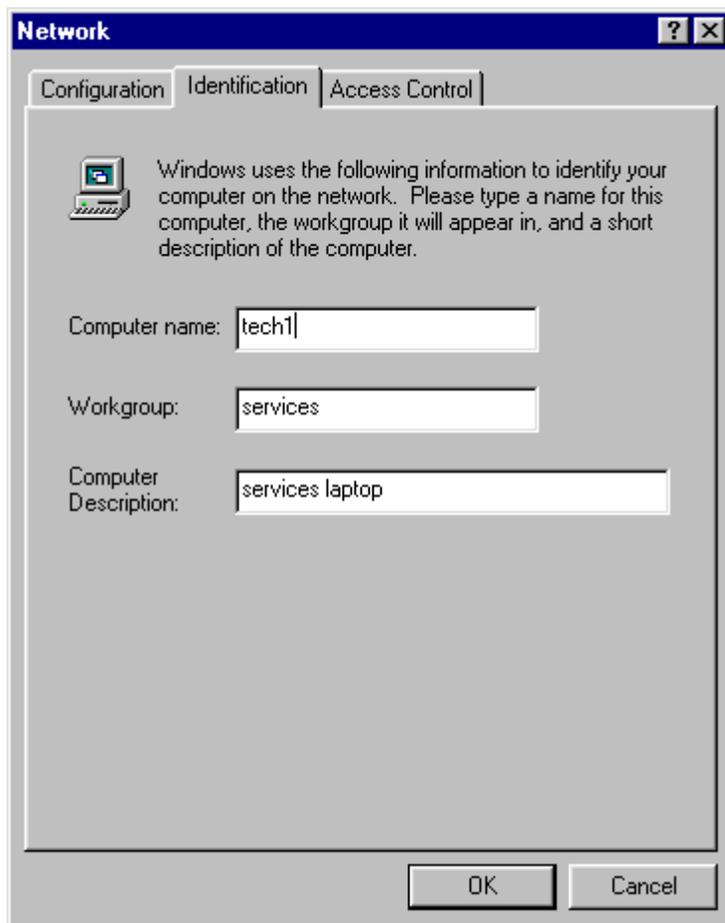
6. Click **Properties**.

A screen similar to the following appears:



7. Click the **Identification** tab.

A screen similar to the following appears:



8. Record the Computer name and Workgroup entries. In the above screen these are tech1 and services, respectively.

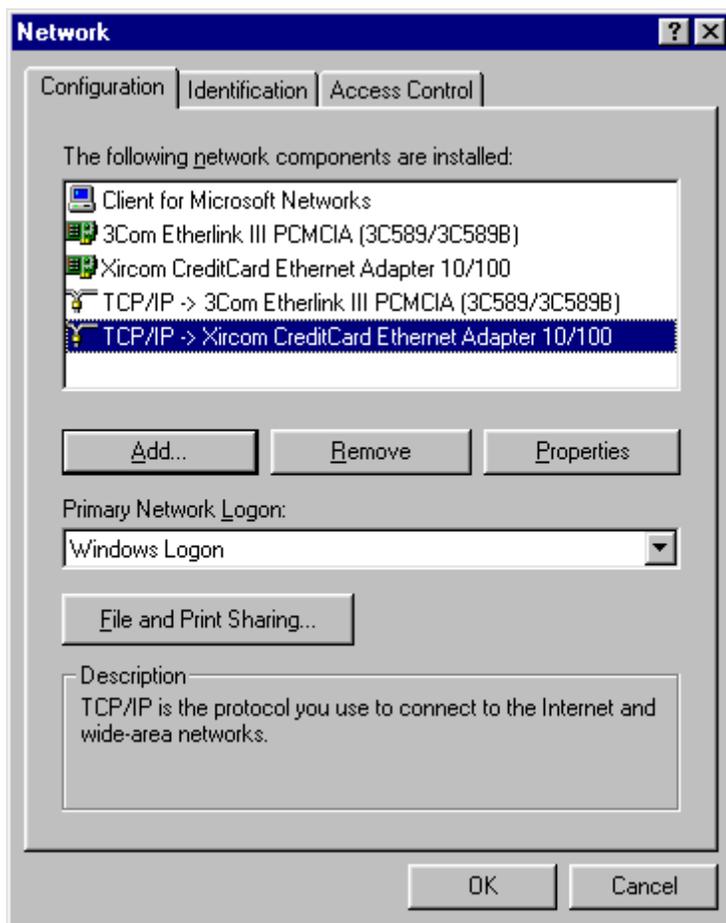
This information is needed for certain operations, such as software installation.

⇒ NOTE:

The technician's laptop will be set up with the Computer name "CSE" and the Workgroup "OEM."

9. Do NOT click **OK**.
10. Click the **Configuration** tab.

A screen similar to the following appears. The contents of this screen will vary, depending on the configuration of the laptop. Select the entry corresponding to the PCMCIA ethernet card inserted in step 1.



11. Click **File and Print Sharing** to make file and print sharing active.
12. A screen similar to the one following appears.

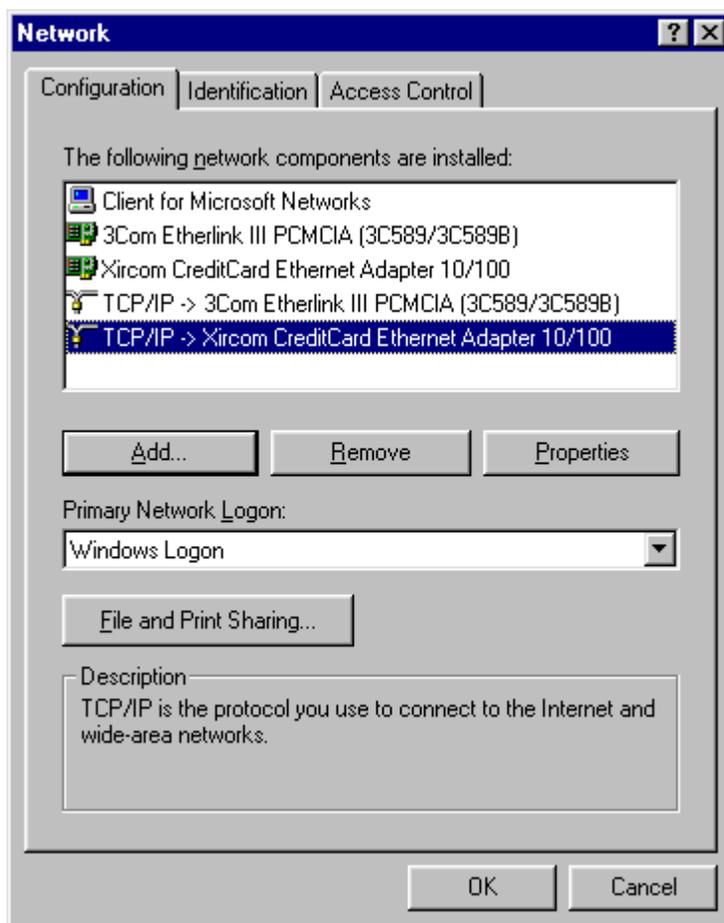


Make sure that you have checked the line:

I want to be able to give others access to my files

13. Click **OK**.

You return to the following screen:



- If the “Windows Logon” is not your Primary Network Logon, click the pull-down menu for the Primary Network Logon and select **Windows Logon**.

⇒ NOTE:

Before continuing, record the current settings on the Access Control tab. This information will be needed to restore your laptop after you have completed work with DEFINITY ONE.

14. Click **Access Control** and make sure that **Share Level Access Control** is selected.
15. Click **OK**.

If a warning screen appears notifying you that all connections to shared directories will be disabled, select Yes to have the connections restored after a restart.

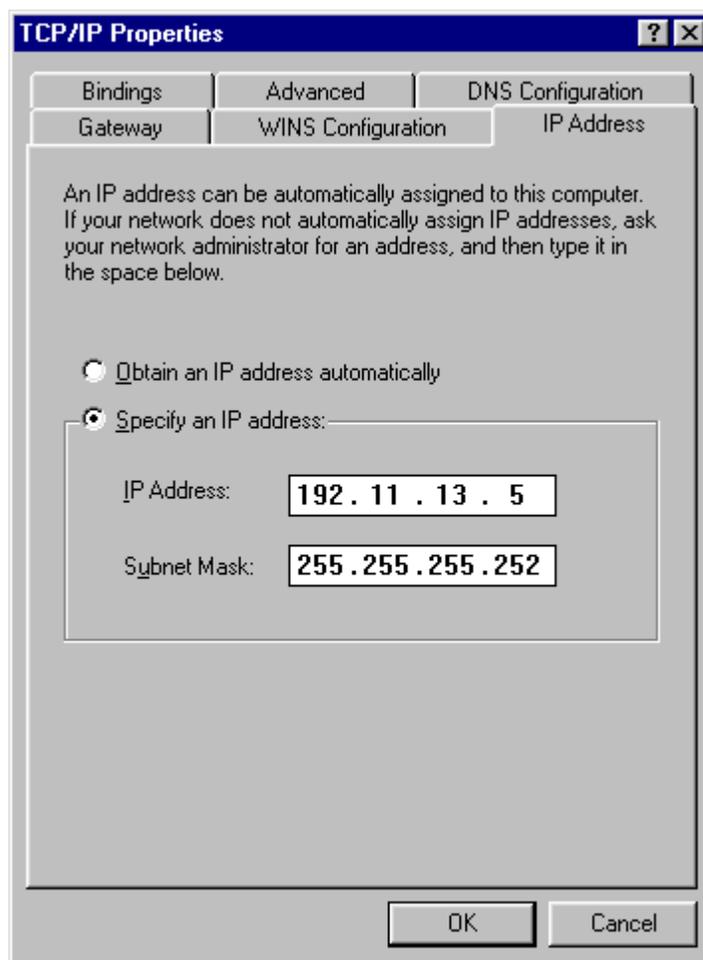
A screen appears asking if you want to restart your computer now. Select No.

16. Right click on Network Neighborhood and select **Properties** to return to the **Network** screen.

Select **TCP/IP Xircom CreditCard Ethernet Adapter 10/100**.

17. Click **Properties**.

A screen similar to the following appears. Click the **IP Address** tab.



18. Record each entry in every tab before proceeding.

You will need this information to restore your laptop to its current settings once you have completed your work with the DEFINITY ONE system.

19. Make sure that **Specify an IP address** is selected. Type **192.11.13.5** as the **IP Address** and **255.255.255.252** as the **Subnet Mask**.
20. Click on the DNS configuration tab. Click the Disable DNS radio button.

C Miscellaneous Procedures

Verify the Connection from DEFINITY ONE to the Laptop Computer

C-11

21. Click on the WINS configuration tab. Click the Disable WINS Resolution radio button.
22. Click on the Gateway tab. If a gateway is shown, record the gateway number. Highlight the gateway and select Remove.
23. Click **OK** at this and any following windows.

A screen similar to the following appears:



24. Click **Yes** to restart your computer.
25. When the laptop reboots, verify that your laptop is now connected to the DEFINITY ONE system. See [“Verify the Connection from DEFINITY ONE to the Laptop Computer” on page C-11.](#)

Verify the Connection from DEFINITY ONE to the Laptop Computer

1. On the laptop computer, start a DOS shell by clicking **Start > Programs > MS-DOS**.
2. In the resulting DOS window type **ping 192.11.13.6** and press Enter.

A series of four responses similar to the following that indicates a successful response should appear:

```
Reply from 192.11.13.6 bytes=32 time=1ms TTL=128
```

3. If you receive a timeout response, check cabling or review the previous setup steps. Also verify that the LEDs on the front panel of the TN795 circuit pack indicate that DEFINITY ONE is operating normally.

Restore the Laptop Settings

This procedure will restore the settings on the technician's laptop computer to what they were prior to connecting to the DEFINITY ONE system.

1. At the laptop, right click on Network Neighborhood. Select Properties.
2. A dialogue box titled Network should appear.

3. On the Configuration tab click on the File and Print Sharing button. Make sure the "I want to be able to give others access to my files" is checked.

Click the pull-down menu for the Primary Network Logon, and select **Client for Microsoft Networks**.

4. Click on the Identification tab, enter the Computer name and workgroup that was recorded earlier.
5. Click on the Access Control tab, check the boxes as appropriate so that this screen matches its earlier settings.
6. Click on the Configuration tab.
 - If a dialog box appears notifying you that the security provider could not be found, click **Yes**.
 - If a dialog box called "Authenticator type" appears, select **Windows NT Domain**, and click **OK**.

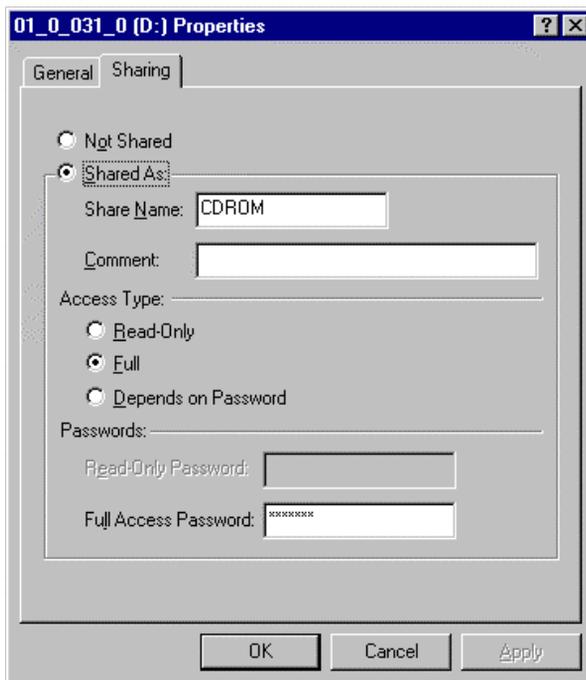
In the List Box titled "The following network components are installed", double-click on the component that was modified earlier. This should be the TCP/IP Xircom CreditCard Ethernet Adapter 10/100.

7. A screen titled TCP/IP Properties should appear.
8. Enter the original IP address and subnet mask recorded earlier.
9. Click on the DNS Configuration tab, enable DNS and enter the appropriate information that was recorded earlier.
10. Click on the WINS Configuration tab, enable WINS and enter the appropriate information that was recorded earlier.
11. If a gateway was used, be sure to click on the Gateway tab and enter the appropriate information that was recorded earlier.
12. Click on OK to close this and any following dialog boxes.
13. A screen will appear asking if you want to restart your computer. Click Yes.

When the system re-boots it should be back to its original settings.

Map DEFINITY ONE to the Laptop Computer's CD-ROM Drive

1. On the laptop, double click on My Computer. Right click the CDROM drive icon.
2. Select Sharing from the pop-up menu, a screen similar to the one below will appear:



3. By default the Not Shared radio button will be checked. Be sure to click on the Shared As radio button. Enter a Share Name and click on the Full radio button beneath the Access Type section.
4. Clicking the Full radio button will enable the Full Access Password text box at the bottom of the screen. Be sure to enter a password into this text box.



NOTE:

This password will be needed when mapping the network drive from the DEFINITY ONE back over to the laptop.



5. On the resulting screen, you may accept the drive letter indicated or select a new one. In the Path field, enter \\xxxx\CDROM where xxxx is the name of the laptop as recorded in a procedure earlier in this chapter. CDROM is the Share Name that was used when the CD-ROM drive was shared.
6. Leave the Connect As field blank, make sure to uncheck the Reconnect at logon check box.
7. Clicking OK will result in the following dialogue box prompting for login and password information.
8. Leave the Connect As field blank and enter the password used earlier when the CD-ROM drive was shared.
9. Click OK

At this time DEFINITY ONE has a drive (E in our case) mapped back over to the laptop's CD-ROM drive.

Setting the Name of the Switch

Setting the NT name

To set the machine name, in a bash shell, type `setip name=machineName`. Please limit the machine name to 10 characters. `Setip` will allow you to enter more characters, however AUDIX will only display the first 10 characters of the machine name in its administration window.

Ex: `setip name=mysite`

After having set the machine name, the `setip` command will display the old settings as well as the new settings.

The machine will need to be rebooted for the changes to take effect. To re-start the machine, from a bash shell, run `reboot nice`.

Updating AUDIX Machine Name

Once NT reboots and the changes take effect, you will need to update AUDIX. To do this, bring up the DEFINITY ONE web page using your favorite browser. Click on the Administer System hot link to make the web page prompts you for login and password. Use the `lucent3` login with the new password supplied by INADS.

Next click on the AUDIX Networking hot link. When that page loads, click on the Administrative Menu hot link. Finally click on the Local Machine Administration hot link to load the Local Machine Administration web page. Click the change button in the middle of the page to make AUDIX re-populate its databases with the current settings.

You can now exit the web pages. However, for this change to take effect, you will need to stop and re-start AUDIX.

Re-starting AUDIX

Establish a telnet session to a bash shell on the DEFINITY ONE. At the shell prompt, execute a shutdown AUDIX command. When it completes, execute a start AUDIX. Once AUDIX is re-started, it will be aware of the new machine name.

Updating Definity Machine Name

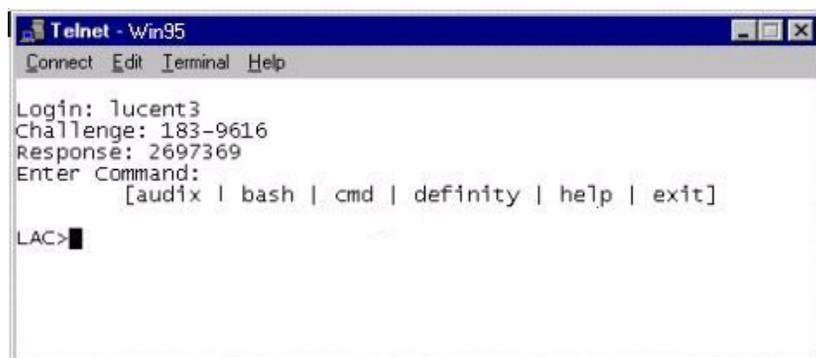
When the system is up and running, bring up a definity SAT session, using either telnet or DSA. Login as dinit (lucent1 will grant the same permissions) with the appropriate password.

Do a change system-parameters features, go to the 4th page, and change the switch name to match the NT and AUDIX switch names already administered.

Connect to SAT Session via Telnet

This method of access to DEFINITY ONE is used primarily by technicians who use one of the services logins. Bash commands can be used. This connection type will be used to install the license file, register DEFINITY ONE to INADS, and set up the IP address for DEFINITY ONE using the **setip** command. The SAT monitor can be used to administer and debug DEFINITY ONE.

1. After you have been admitted to the DEFINITY ONE system, enter a command to continue. See ["Via a Telnet Session" on page 2-8](#).



```
Telnet - Win95
Connect Edit Terminal Help
Login: lucent3
Challenge: 183-9616
Response: 2697369
Enter Command:
      [audix | bash | cmd | definity | help | exit]
LAC>
```

2. In this example, the command entered was **definity**. The screen below shows the initial DEFINITY SAT screen.



```
Telnet - Win95
Connect Edit Terminal Help
Login:
Password:
system: G3craV7      software version: G3V7c.00.0.423.0
Terminal type (513, 715, 4410, 4425, VT220, NTT, SUNT): [513] NTT
```

The screen shows login and password fields. You are automatically logged in to the DEFINITY SAT session by the LAC.

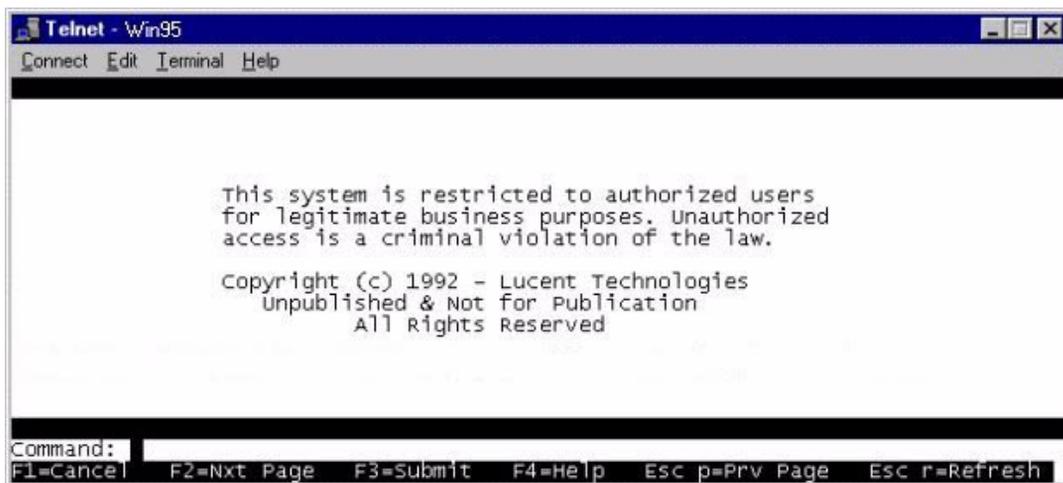
3. Enter the terminal type.

⇒ NOTE:

Two new terminal types have been added: NTT and SUNT.

- Use NTT from a Windows platform.
- Use SUNT from a Sun Microsystems platform.

Once the terminal type has been entered, the following screen is displayed:



```
Telnet - Win95
Connect Edit Terminal Help

This system is restricted to authorized users
for legitimate business purposes. Unauthorized
access is a criminal violation of the law.

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Unpublished & Not for Publication
All Rights Reserved

Command:
F1=Cancel F2=Nxt Page F3=Submit F4=Help Esc p=Prv Page Esc r=Refresh
```

Once you are logged in as user lucent1, lucent2, or lucent3, you have the ability to exit the DEFINITY SAT session and start an AUDIX session without having to re-authenticate again.

At this point, you may have administration activities to perform. You may have to set or verify customer options. See [“How DSA Works” on page 7-6](#). See also [“Download DSA” on page 3-24](#).

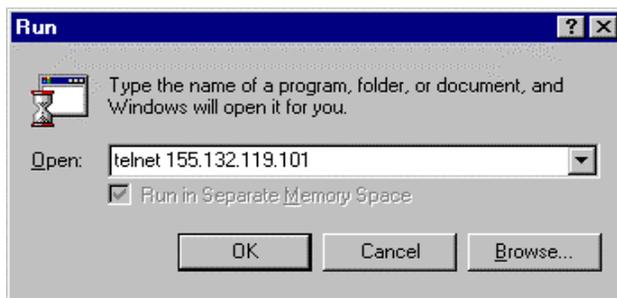
Perform Backup

Backup is a safety step in case of later problems. The following procedures describe immediate and scheduled backup procedures from the command line and from the web browser.

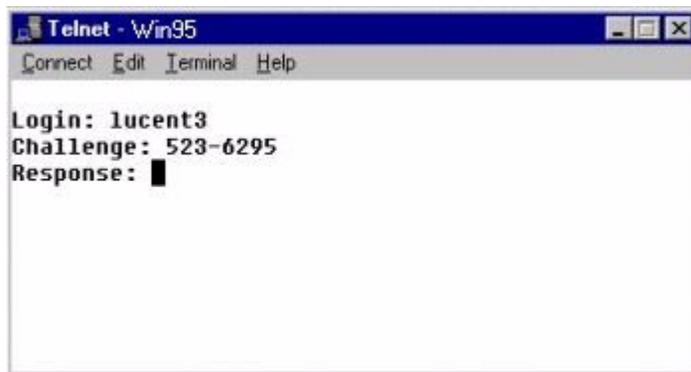
You should have put a new PCMCIA disk in the remaining free slot on the TN795 circuit pack if you will be backing up to this device. Otherwise obtain a network location from the customer to which you can do the backup.

Perform Immediate Backup (Command Line)

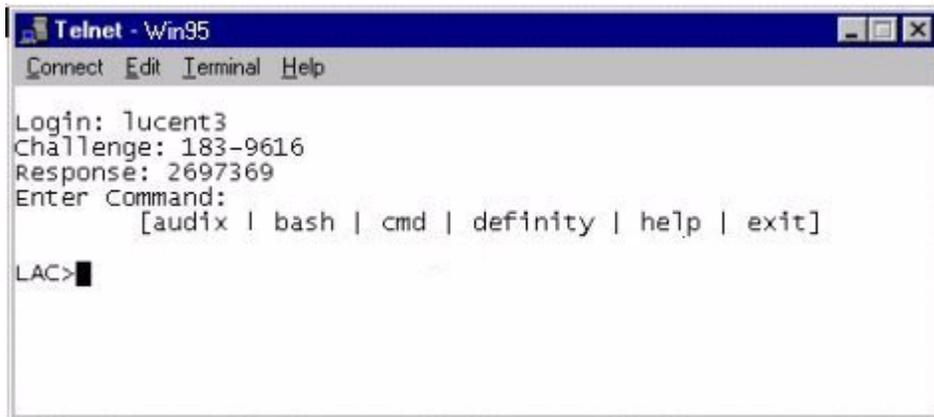
1. Do one of the following:
 - a. If you are Using a LAN resident PC that is not DEFINITY ONE and it is connected to the same LAN as DEFINITY ONE, click **Start > Run** from the Windows task bar. The **Run** dialog box displays:



1. Enter `telnet {DEFINITY ONE Name, or IP Address}`. Click OK.
2. A telnet session will open on your desktop. Enter your User Name and Password at the prompts.



Once the Lucent access control (LAC) process accepts your inputs, you will be admitted into the DEFINITY ONE system.

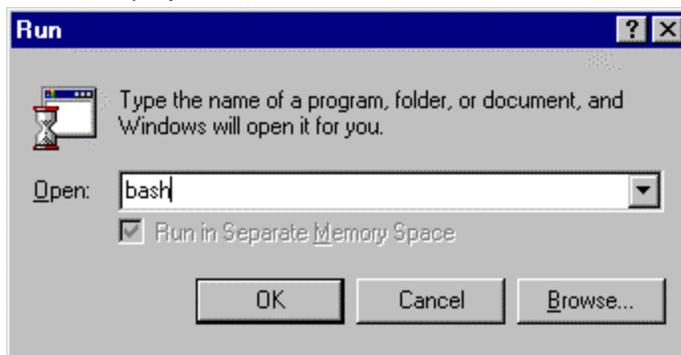


3. Type **bash** and press Enter.

You receive your machine name and login ID as your prompt.

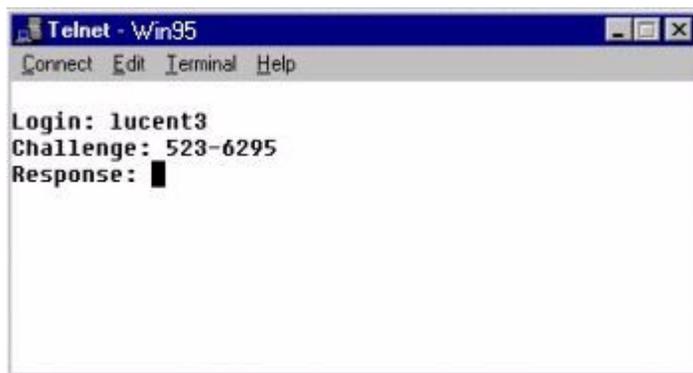
OR:

- b. If you are at a DEFINITY ONE desktop, log in to Windows NT. Click **Start > Run** from the Windows task bar. The **Run** dialog box displays.



1. Enter **bash** and click OK.

2. A telnet session will open on your desktop. Enter your User Name and Password at the prompts.



Once the LAC accepts your inputs, you will be admitted into the ProductName system.



NOTE:

Regardless of which way you logged in, proceed with the following steps.

2. Type **d1backup** <data-set> <destination> and press Enter.

The parameter to type for data-set indicates what is to be backed up. It will be one or more of the following (separate multiple choices with a space):

parameter	meaning
deftran	DEFINITY Translations
vmnamtran	Voice Names and Translations
vmmsgtran	Message Bodies and Translations
vmannounce	Announcement Sets
vmnammsgtran	Voice Names, Messages, and Translations
registry	NT registry

The destination will be **pcmcia** or a directory name.

If you type a directory name, you must have mapped a network drive in the F: drive. You can do this from Windows Explorer or by issuing a command from the bash prompt. If you mapped a network drive, you need to disconnect from it after completing this procedure.

An example of how to type information to backup is:

```
LAC:> d1backup deftran vmnamtran pcmcia
```

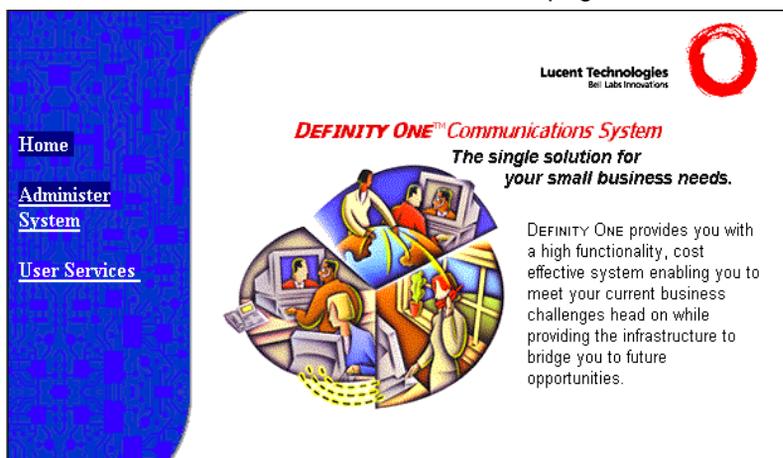
⇒ NOTE:

When you start executing this command, you will experience a delay of about 1 to 2 minutes because AUDIX Networking is shutting down and performing audits on AUDIX databases. When the backup procedure finishes, AUDIX Networking starts again.

Perform Immediate Backup (Web)

1. Type `http://<IP address>` in the address area of the web browser.

You receive the DEFINITY ONE Home page.



2. Click **Administer System**.

You receive a screen similar to the following:



3. Type your login ID and password.

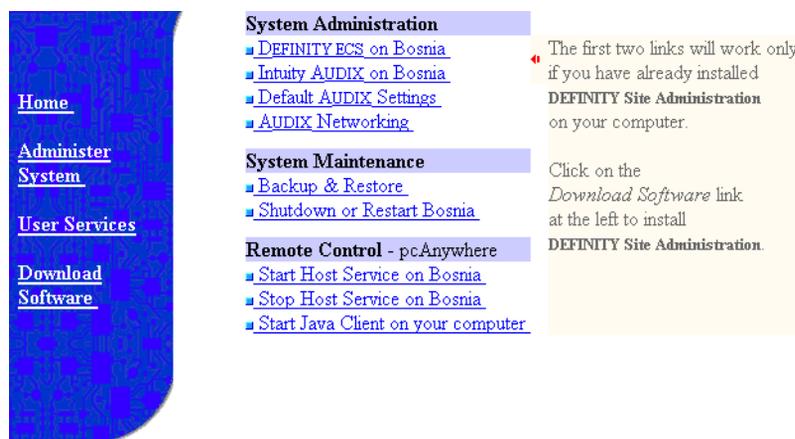
The login ID that you use must have the correct backup permissions. That login ID must be a member of the **Administrator's** login group.

You receive a Notice screen similar to the following:



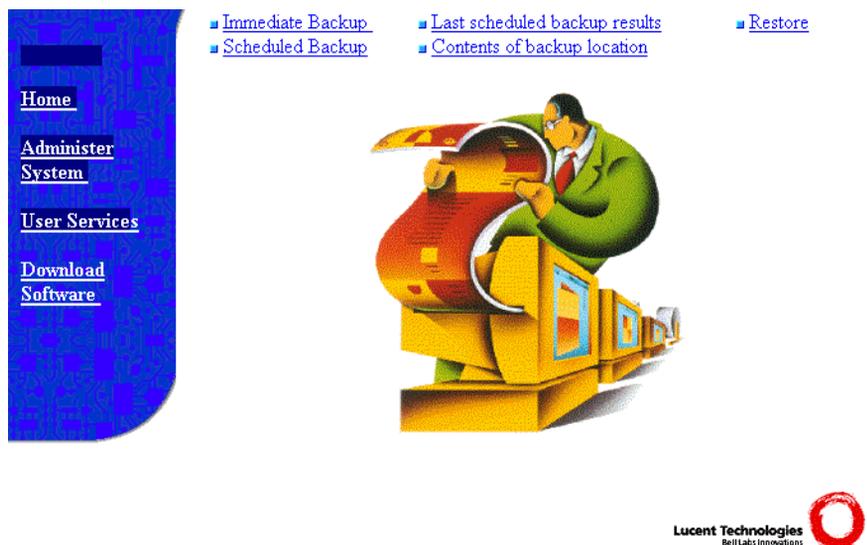
4. Click **Continue**.

You receive the following screen:



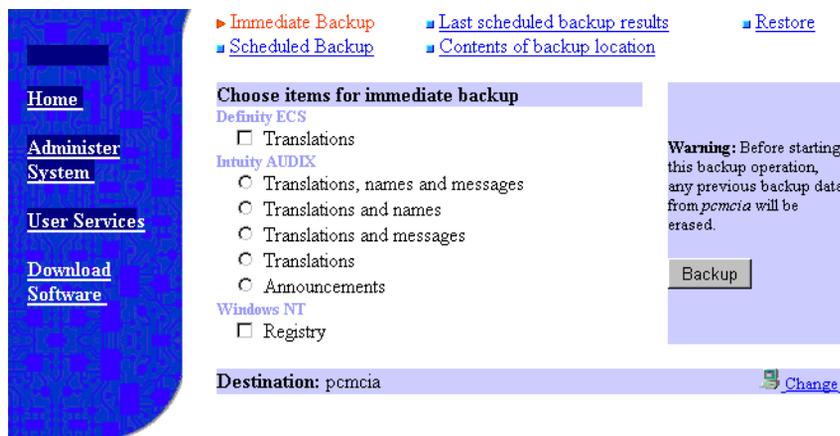
5. Click **Backup & Restore**.

You receive the following screen:



6. Click **Immediate Backup**.

You receive the following screen:



7. Specify what you want backed up (DEFINITY ECS Translations, INTUITY AUDIX information, and Windows NT Registry). You can back up this information either to the pcmcia flashdisk or to a drive on your network

If you want to back up information to the pcmcia flashdisk (default destination):

- a. Check the boxes next to the items that you want to back up to your flashcard. If you select DEFINITY Translations, AUDIX Translations and Names, and Windows NT Registry, this information will all fit on the flashcard in the following order:

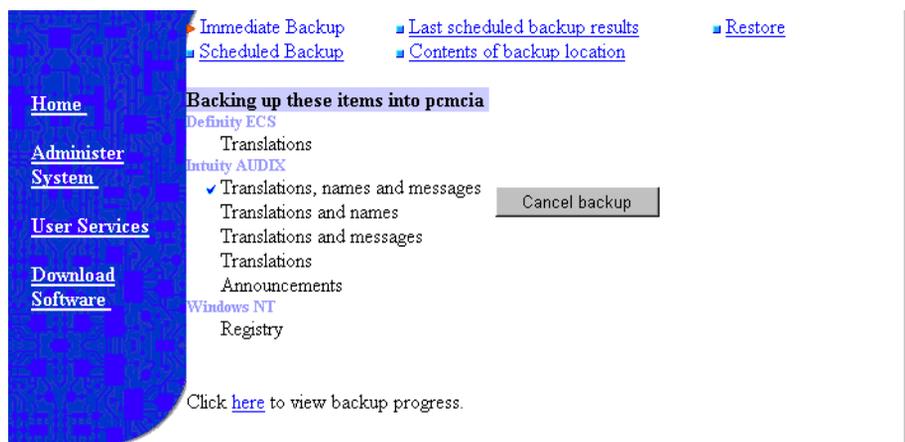
- Windows Registry
- DEFINITY Translations
- AUDIX Translations and Names

If you select information other than the above information, some of the information may not fit on the flashcard. It will be put on the flashdisk in the following order:

- Windows NT Registry
- Translations
- Names
- Announcements
- Messages (these may not be backed up)

- b. Click **Backup**.

You receive the following screen:



You see **Click here to view backup progress** at the bottom of this screen.

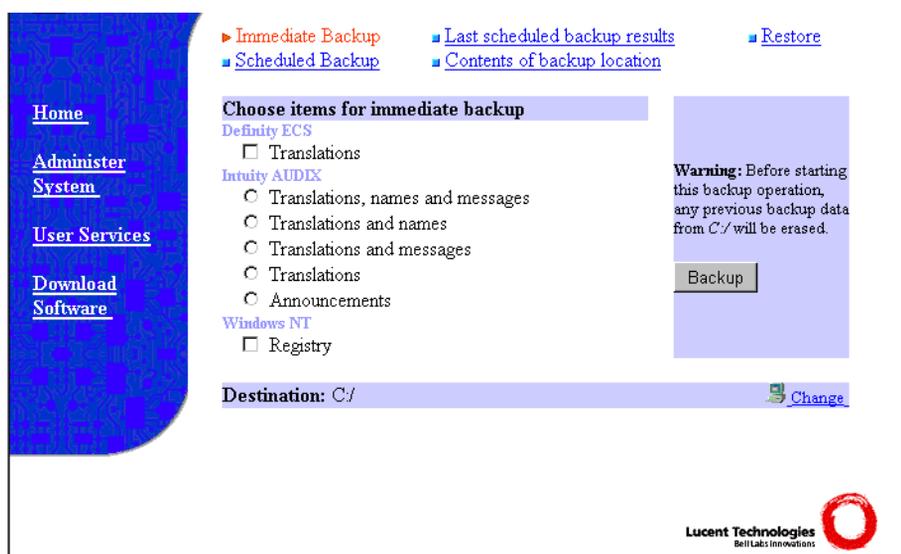
Click on this message and you receive a new browser screen with the current backup progress messages.

⇒ NOTE:

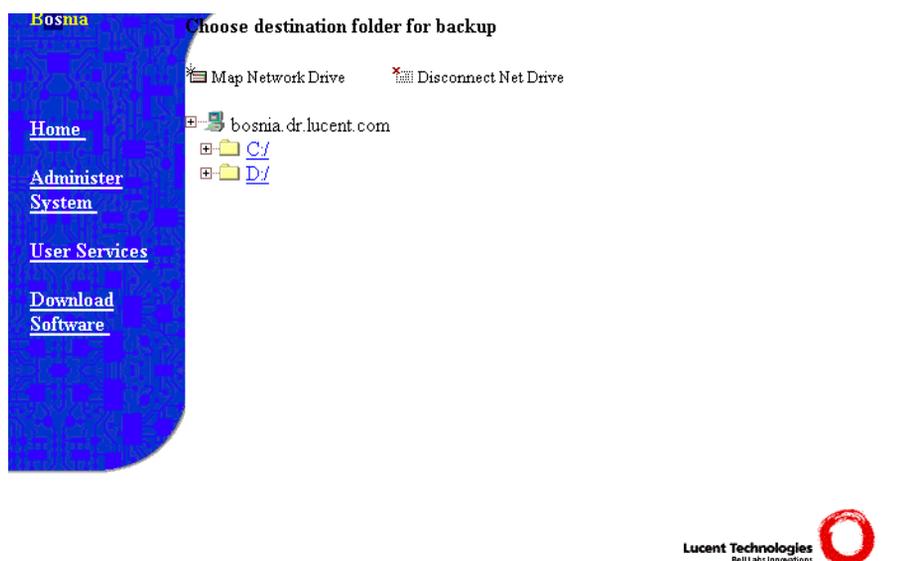
You will experience a delay of about 1 to 2 minutes because AUDIX Networking is shutting down and performing audits on AUDIX databases. However, you will see the backup progress on the screen during this delay. When the backup procedure finishes, AUDIX Networking starts again.

If you want to back up to a drive on your network:

- a. Click **Change** near the Destination label.



You receive the following screen:

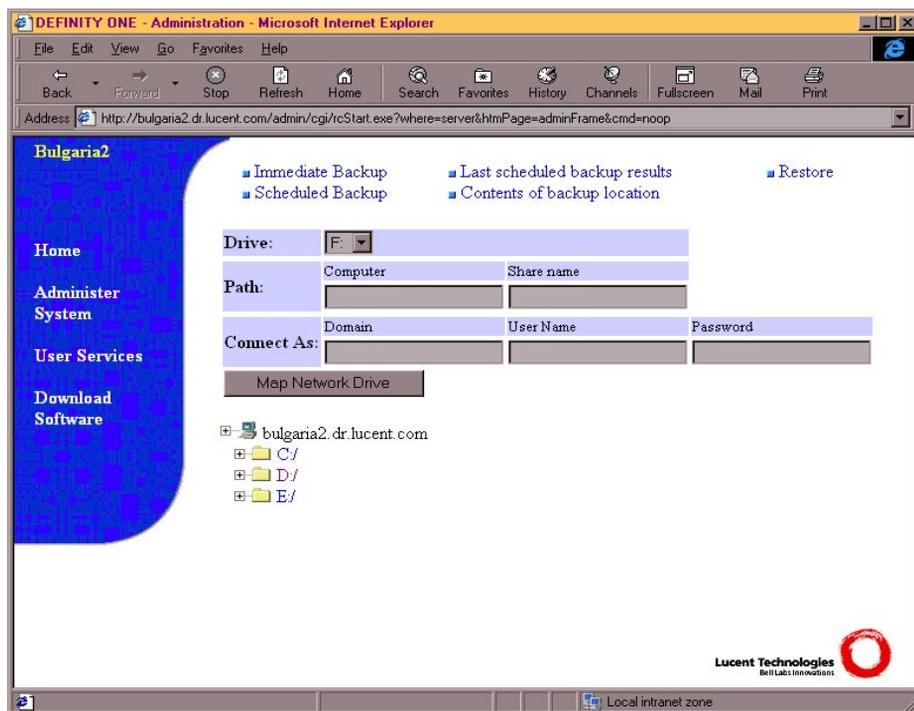


You see any drives you have mounted. You will not see the **E:** drive if the flashcard is not inserted.

⇒ NOTE:

You can now choose one of the drives you have mounted or you can mount one by clicking on **Map Network Drive** and following the prompts.

- b. Click on the actual drive letter — not on the icon to the left.
- You will receive the following screen:



You see that the destination is changed from the default destination to the drive you selected.

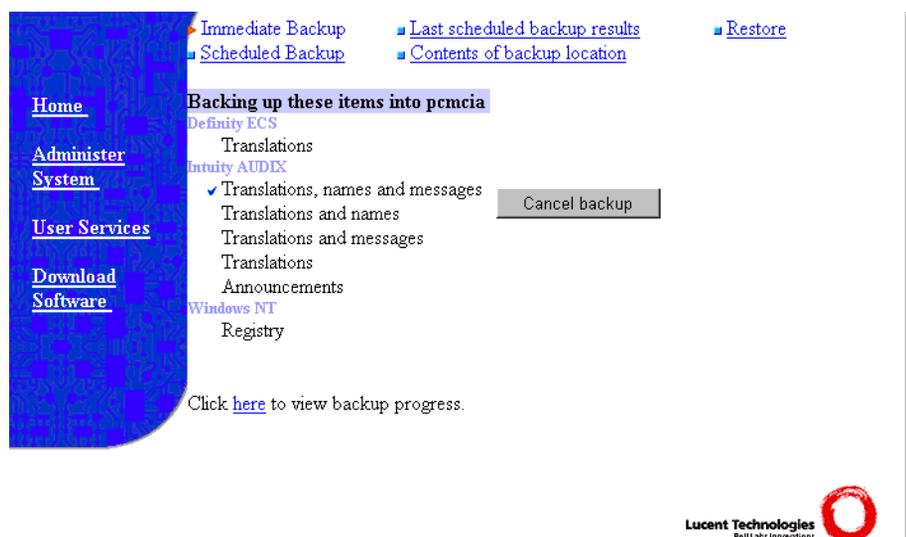
- c. Check the boxes next to what you want to be backed up to your flashcard. If you select DEFINITY ECS Translations, AUDIX Translations and Names, and Windows NT Registry, this information will be put on the drive in the following order:
 - Windows Registry
 - DEFINITY Translations
 - AUDIX Translations and Names

If you select information other than the above information, it will be put on the drive in the following order:

- Windows NT Registry
- Translations
- Names
- Announcements
- Messages

d. Click **Backup**.

You receive the following screen:



You see **Click here to view backup progress** at the bottom of this screen.

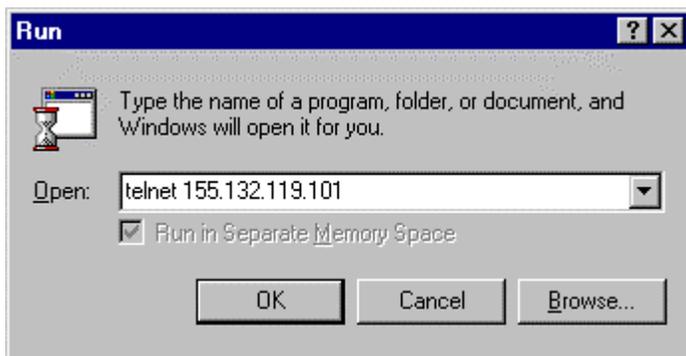
Click on this message and you receive a new browser screen with the current backup progress messages.

⇒ NOTE:

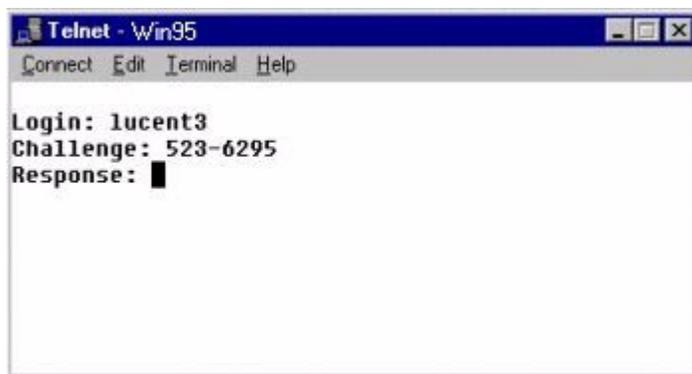
You will experience a delay of about 1 to 2 minutes because AUDIX Networking is shutting down and performing audits on AUDIX databases. However, you will see the backup progress on the screen during this delay. When the backup procedure finishes, AUDIX Networking starts again.

Perform Scheduled Backup (Command Line)

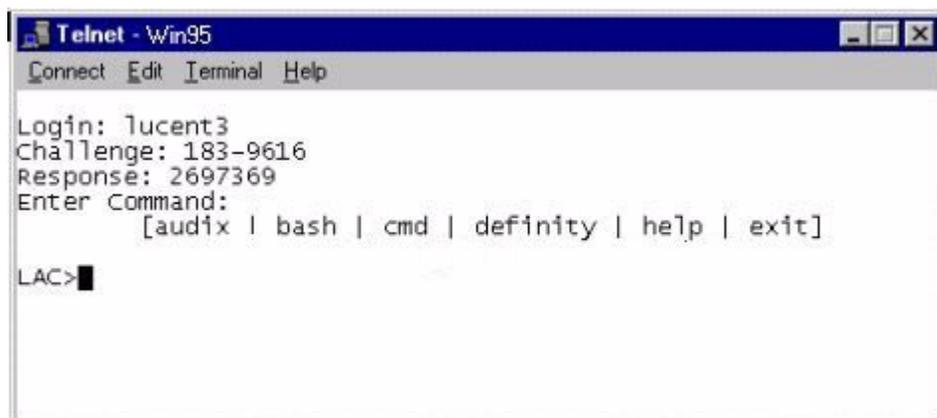
1. Click **Start > Run** from the Windows task bar. The Run dialog box displays.



2. Enter `telnet {DEFINITY ONE IP Address}`. Click OK.
3. A telnet session will open on your desktop. Enter your User Name and Password at the prompts.



Once the access control process (LAC) accepts your inputs, you will be admitted into the ProductName system.



4. Type `bash` and press `Enter`.

You receive your machine name and login ID as your prompt.

5. Type `backupsource <data set>` and press `Enter`.

The parameter to type for data-set indicates what is to be backed up. It will be one or more of the following (separate multiple choices by a space):

parameter	meaning
deftran	DEFINITY Translations
vmnamtran	Voice Names and Translations
vmmsgtran	Message Bodies and Translations
vmannounce	Announcement Sets
vmnammsgtran	Voice Names, Messages, and Translations
registry	NT registry

6. Type `backupparams <days> <time> <destination>` and press `Enter`.

This indicates when to backup and where to put the information.

The parameter to type for `<days>` will be 1 through 7, 1 day or multiple days (1 is for Sunday, 2 is for Monday, etc., and 7 is for Saturday). The parameter to type for `<time>` will be in military time, for example, 14:03 (2digits:2digits). The parameter to type for `<destination>` will be `pcmcia` or a directory name.

If you type a directory name, you must have mapped a network drive. You can do this from Windows Explorer or by issuing a command from the bash prompt. If you mapped a network drive, you need to disconnect from it after completing this procedure.

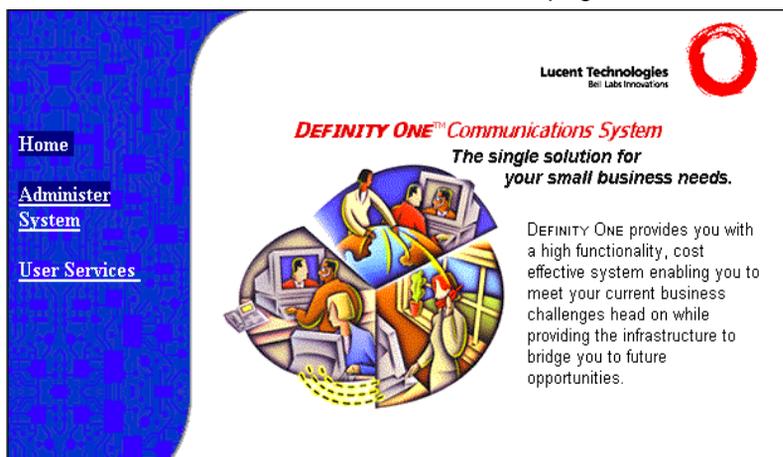
7. Type `autobackup -y` and press `Enter`.

This signals to the system to perform the backup at the scheduled time and creates a scheduled entry.

Perform Scheduled Backup (Web)

1. Type **http://<IP address>** in the address area of the web browser.

You receive the DEFINITY ONE Home page.



2. Click **Administer System**.

You receive the following screen:

The image shows a dialog box titled "Username and Password Required". The text inside says "Enter username for august.dr.lucent.com at august.dr.lucent.com:". There are two input fields: "User Name:" and "Password:". At the bottom, there are "OK" and "Cancel" buttons.

3. Type your login ID and password and click **OK**.

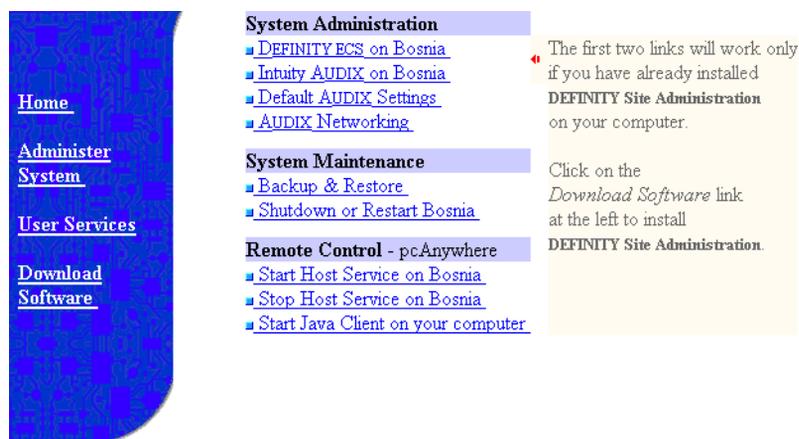
The login ID that you use must have the correct backup permissions. You must be a member of the **Administrator's** login group.

You receive a Notice screen similar to the following:



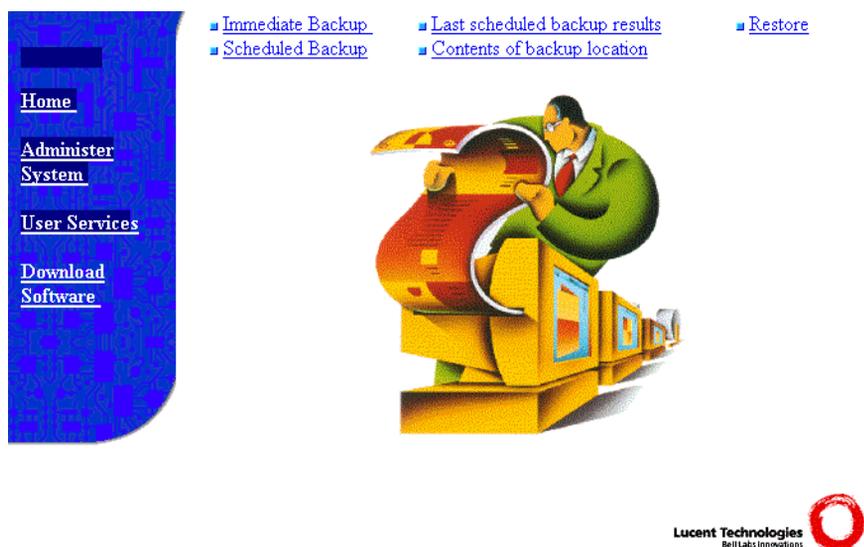
4. Click **Continue**.

You receive the following screen:



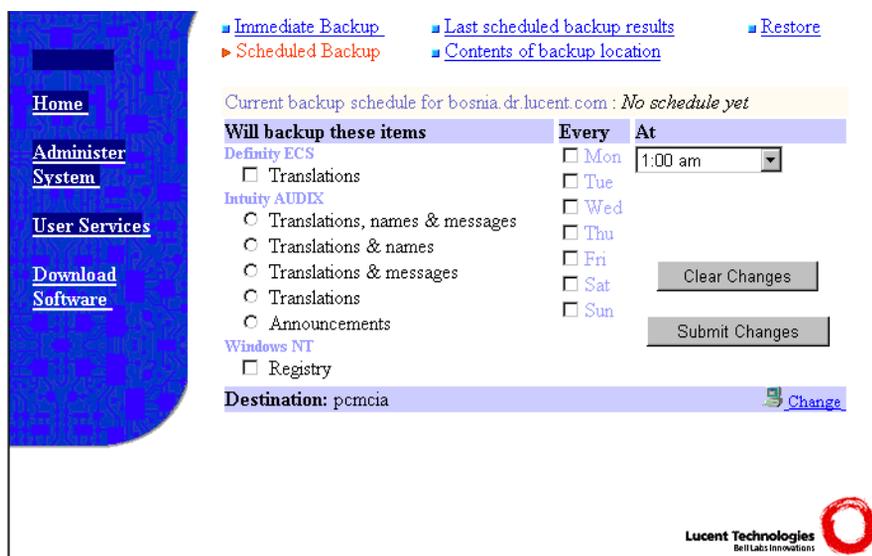
5. Click **Backup & Restore**.

You receive the following screen:



6. Click **Scheduled Backup**.

You receive the following screen:



7. Specify what you want backed up (DEFINITY Translations, INTUITY AUDIX information, and Windows NT Registry). Do one of the following:

a. If you want to back up information to the flashdisk (default destination):

1. Check the boxes next to what you want to be backed up to your flashcard. If you select DEFINITY Translations, AUDIX Translations and Names, and Windows NT Registry, this information will all fit on the flashcard in the following order:

- Windows Registry
- DEFINITY Translations
- AUDIX Translations

If you select information other than the above information, some of the information may not fit on the flashcard. It will be put on the flashdisk in the following order:

- Windows NT Registry
- Translations
- Names
- Announcements
- Messages

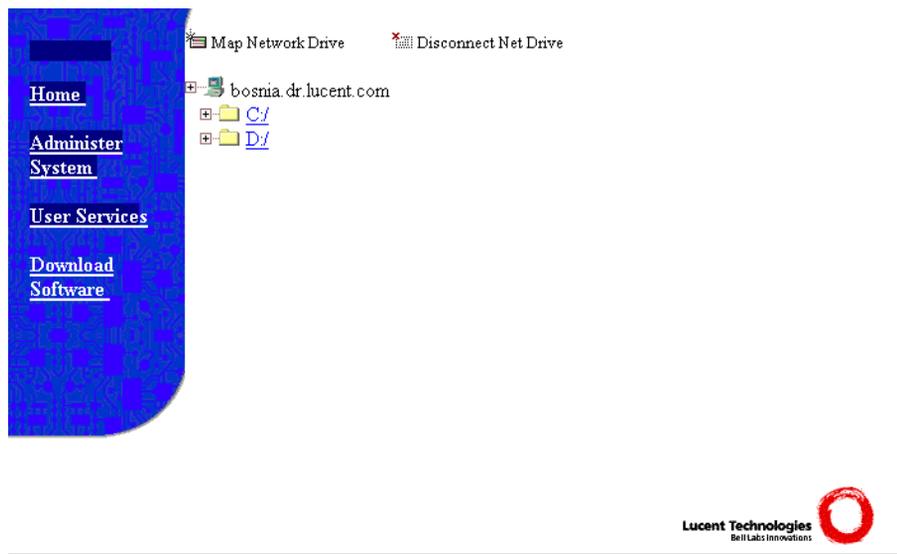
2. Check the boxes next to the days and time you want to schedule the backup. You can schedule any combination of days at the same time.

3. Click **Submit Changes**.

You receive confirmation of your request.

- b. If you want to back up to a drive on your network:
 - 1. Click **Change** near the Destination label (shown in step 6 of this procedure).

You receive the following screen:



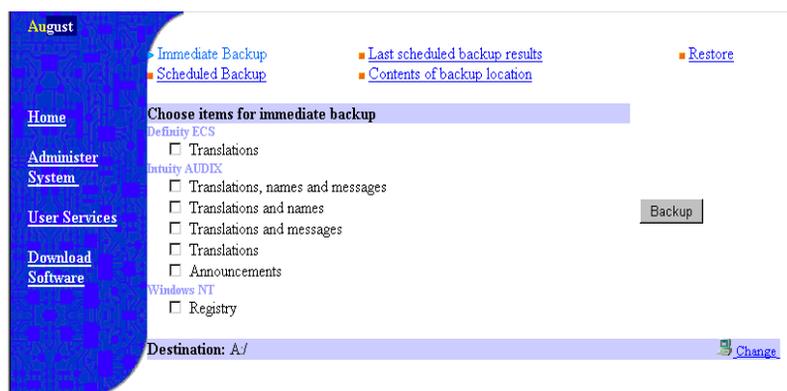
You see any drives you have mounted.

⇒ NOTE:

You can now choose one of the drives you have mounted or you can mount one by clicking on **Map Network Drive**.

- 1. Click on the actual drive letter — not the icon to the left.

You receive the following screen **<update screen>**:



You see that the destination is changed from the default destination to the drive you selected.

2. Check the boxes next to what you want to be backed up to your flashcard. If you select DEFINITY Translations, AUDIX Translations and Names, and Windows NT Registry, this information will be put on the drive in the following order:

- Windows Registry
- DEFINITY Translations
- AUDIX Translations

If you select information other than the above information, it will be put on the drive in the following order:

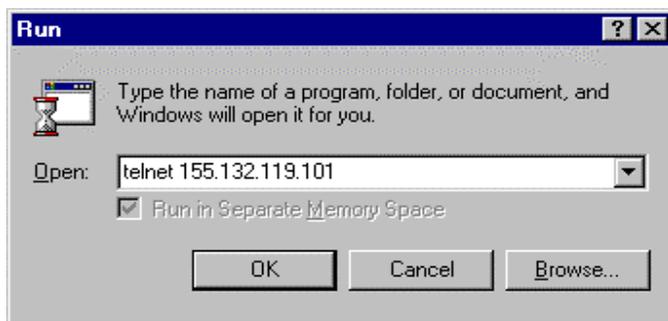
- Windows Registry
- Translations
- Names
- Announcements
- Messages

3. Click **Submit Changes**.

You receive confirmation of your request.

Perform Restore (Command Line)

1. Click **Start > Run** from the Windows task bar. The Run dialog box displays.

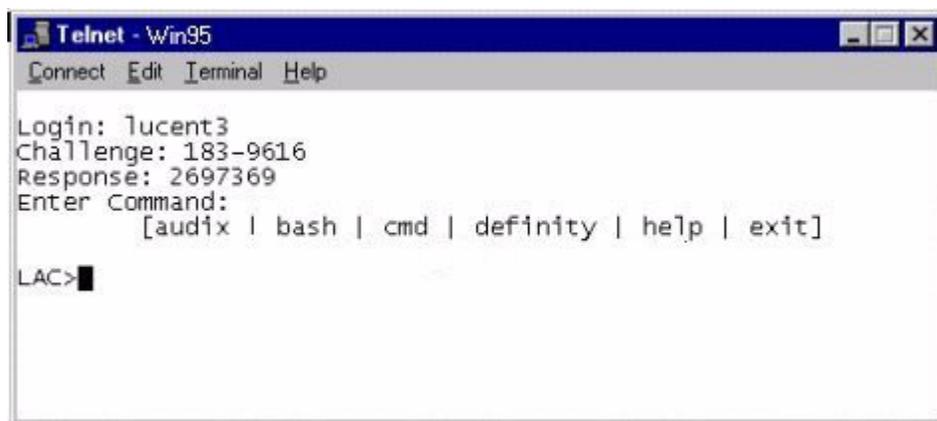


2. Enter `telnet {DEFINITY ONE IP Address}`. Click OK.

- A telnet session will open on your desktop. Enter your User Name and Password at the prompts.



Once the access control process (LAC) accepts your inputs, you will be admitted into the ProductName system.



- Type **d1restore** <destination> <data-set> and press Enter.

The parameter to type for data-set indicates what is to be backed up. It will be one or more of the following (separate multiple choices by a space):

parameter	meaning
deftran	DEFINITY Translations
vmnamtran	Voice Names and Translations
vmmsgtran	Message Bodies and Translations
vmannounce	Announcement Sets
vmnammsgtran	Voice Names, Messages, and Translations
registry	NT registry

The destination will be **pcmcia** or a directory name.

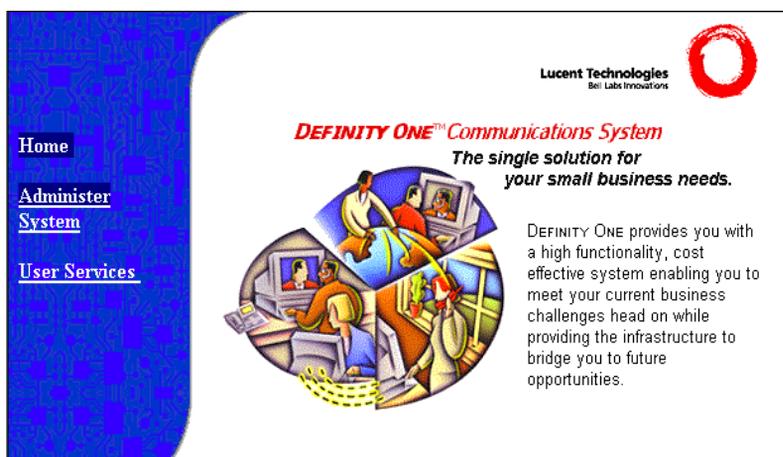
If you type a directory name, you must have mapped a network drive. You can do this from Windows Explorer or by issuing a command from the bash prompt. If you mapped a network drive, you need to disconnect from it after completing this procedure.

Make sure that the data-set information corresponds with the contents of the media (flashcard or network drive). Otherwise, nothing will be restored.

Perform Restore (Web)

1. Type **http://<IP address>** in the address area of the web browser.

You receive the DEFINITY Home page.



2. Click **Administer System**.

You receive a screen similar to the following:

The image shows a dialog box titled "Username and Password Required" with a close button (X) in the top right corner. The text inside the dialog box reads: "Enter username for august.dr.lucent.com at august.dr.lucent.com:". Below this text are two input fields: "User Name:" followed by a text box, and "Password:" followed by a text box. At the bottom of the dialog box are two buttons: "OK" and "Cancel".

3. Type your login ID and password.

The login ID that you use must have the correct backup permissions. You must be a member of the **Administrator's** login group.



NOTE:

You need to be a member of the **Administrator's** login group to restore some AUDIX files.

You receive the following screen:

System Administration

- [DEFINITY ECS on Bosnia](#)
- [Intuity AUDIX on Bosnia](#)
- [Default AUDIX Settings](#)
- [AUDIX Networking](#)

System Maintenance

- [Backup & Restore](#)
- [Shutdown or Restart Bosnia](#)

Remote Control - pcAnywhere

- [Start Host Service on Bosnia](#)
- [Stop Host Service on Bosnia](#)
- [Start Java Client on your computer](#)

The first two links will work only if you have already installed DEFINITY Site Administration on your computer.

Click on the *Download Software* link at the left to install DEFINITY Site Administration.



4. Click **Backup & Restore**.

You receive the following screen:

August

- [Immediate Backup](#)
- [Scheduled Backup](#)
- [Last scheduled backup results](#)
- [Contents of backup location](#)
- [Restore](#)

5. Click **Restore**.

You receive the following screen:



You now have to specify what you want restored (DEFINITY translations, INTUITY AUDIX information, and Windows NT Registry). The information you choose has to be on the backup disk or drive (everything you click must be in the backup file). Otherwise, nothing will be restored.

A restore process cannot be scheduled.

⚠ WARNING:

Before you complete the restore process, it will shut down your applications. After the restore completes, AUDIX will remain shut down, so you will need to start AUDIX again manually or reboot the entire operating system. It is recommended that you reboot after a restore procedure.

6. Click **Restore**.

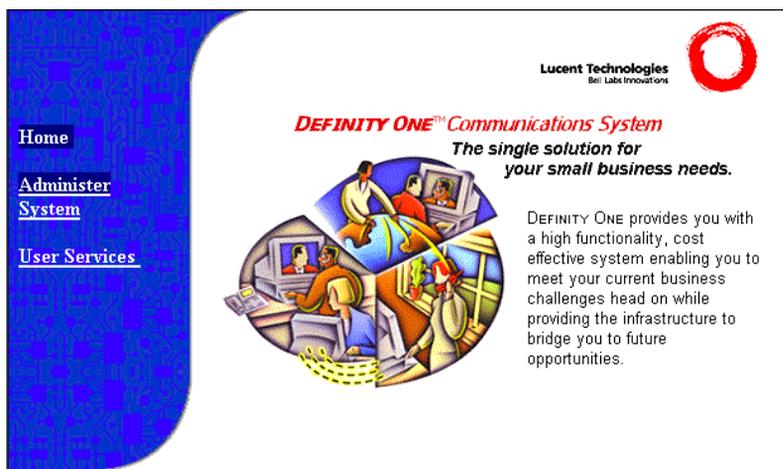
You receive confirmation of your request.

You see “Click here to see restore progress” at the bottom of this screen.

Click on this message and you receive a new browser screen with the current restore progress messages.

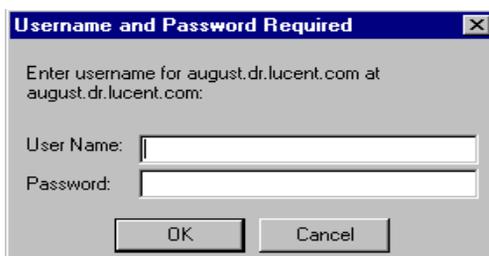
View Backup Results (Web)

1. Go to the DEFINITY Home page:



2. Click **Administer System**.

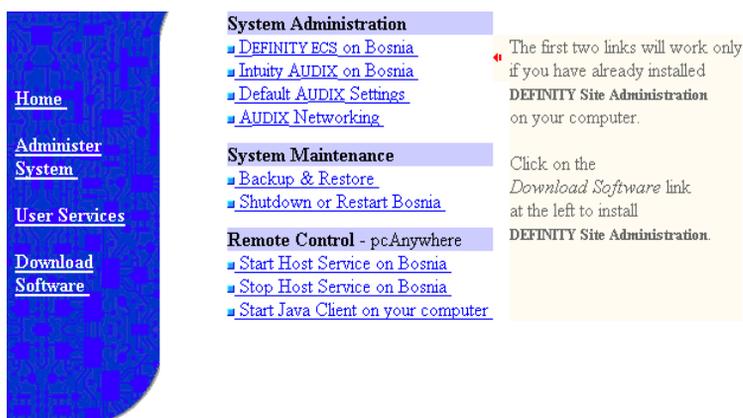
You receive a screen similar to the following:



3. Type your login ID and password.

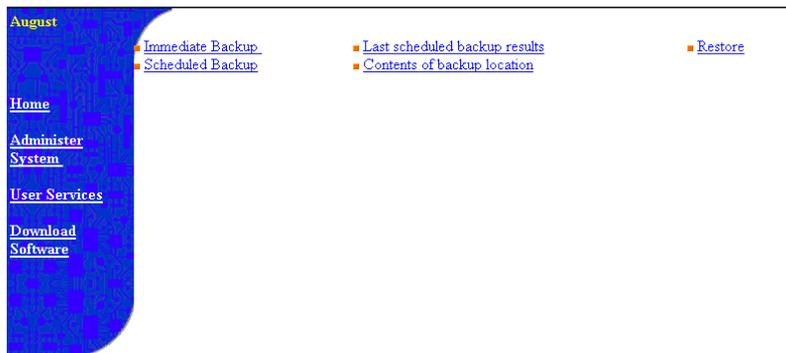
The login ID that you use must have the correct backup permissions. You must be a member of the Officeadmin login group.

You receive the following screen:



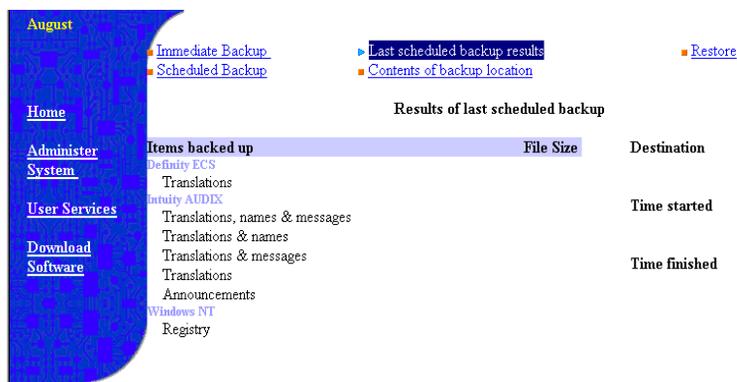
4. Click **Backup&Restore**.

You receive the following screen:



5. Click **Last scheduled backup results**.

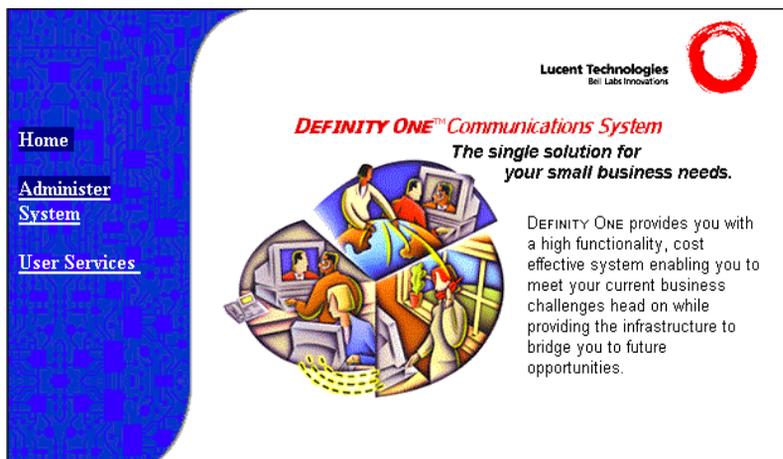
You receive the following screen:



You receive the status of the last backup.

View Contents of Backup Location (Web)

1. Go to the DEFINITY ONE Home page:



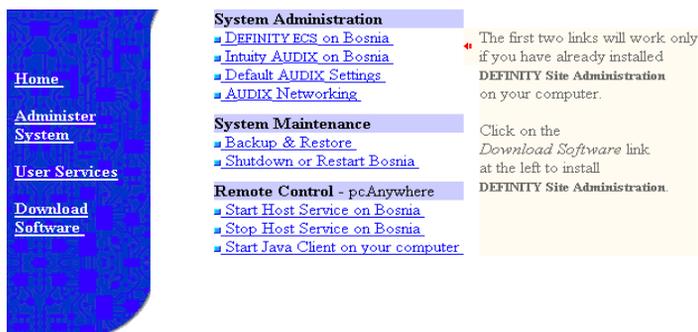
2. Click **Administer System**.
3. You receive a screen similar to the following:



4. Type your login ID and password.

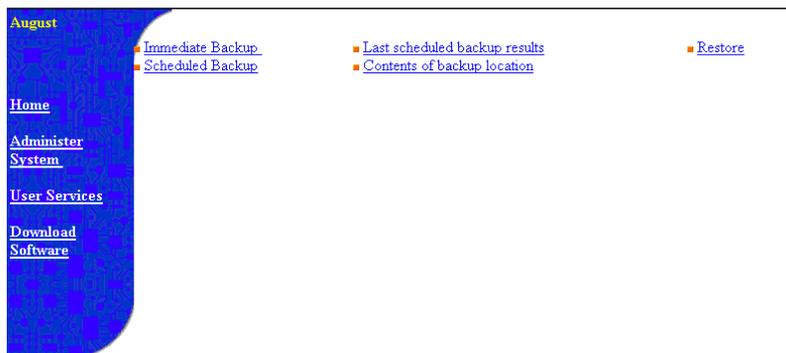
The login ID that you use must have the correct backup permissions. You must be a member of the Officeadmin login group.

You receive the following screen:



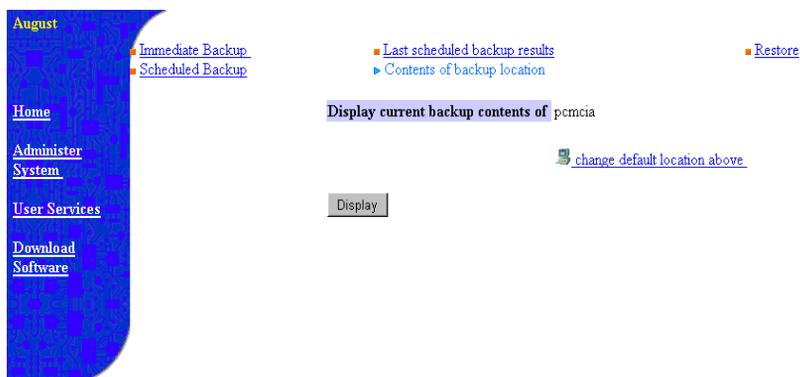
5. Click **Backup&Restore**.

You receive the following screen:



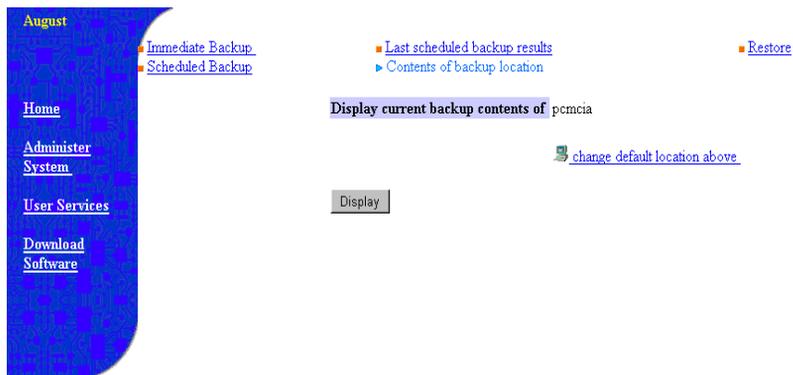
6. Click **Contents of backup location**.

You receive a screen similar to the following:



7. Click **Display** to see the contents of the PCMCIA file.

You receive a screen similar to the following:



You see the current backup contents.

Shut Down

NOTE:

All running processes must be shut down before upgrading software. You must to back all translations before you shut down, follow the backup procedures in this chapter.

1. Go to pcANYWHERE using the procedure in Chapter 2, Connectivity and Access, ["Via pcANYWHERE" on page 2-13](#)
2. Type **shutdown all** from a bash session.
You will receive confirmation of the shutdown completion.
3. After the prompt returns, verify the shutdown by viewing the Windows NT event log: press **Start > Programs > Administration Tools > Event Viewer**.
4. Close the bash session.

Recovery

D

This chapter provides information about system recovery. This chapter is organized as follows:

- [“DEFINITY ONE System Level Shutdown and Restart” on page D-2](#)
- [“DEFINITY Software Reset \(Recovery\)” on page D-4](#)
- [“Reset System 1 \(DEFINITY Warm Start\)” on page D-5](#)
- [“Reset System 2 \(DEFINITY Cold Start\)” on page D-5](#)
- [“Reset System 3 \(DEFINITY Reboot\)” on page D-5](#)
- [“Reset System 4 \(DEFINITY Reboot\)” on page D-6](#)
- [“Reset System 5 \(System Reboot\)” on page D-6](#)

When the system is initially powered up, or when an existing system experiences a catastrophic fault that interrupts its basic functions, the system reboots.

DEFINITY ONE System Level Shutdown and Restart

The following table presents system level shutdown and restart actions that can be initiated by the system technician, the customer, and by hardware. The state of the shutdown and restart actions is indicated by the state of the LEDs on the TN795 processor circuit pack (See Appendix E). More details about the use of the user commands can be found in the DEFINITY ONE Maintenance Manual, 555-233-111.

Table D-1. Shutdown and Restart Actions

Action	Entry	Originated by	Action	Notes
1. "reboot nice"	command line entry from a bash session	technician	Shuts down all applications with campon to wait for AUDIX users to logoff. The system restarts automatically.	Used for a system reboot after changing an NT level parameter that requires a system reboot. This may take an unacceptably long time due to campon of AUDIX logons.
2. "reboot immediate"	command line entry from a bash session	technician	Shuts down all applications without waiting for AUDIX users to log off. The system restarts automatically.	Used for a system reboot with a guaranteed reboot time of a few minutes. This action does not wait for AUDIX users to be logged off from AUDIX.
3. "shutdown all"	command line entry from a bash session	technician	Shuts down application software while leaving NT up. An optional "campon" option may be used to wait for AUDIX users to log off.	Used for system upgrade. The campon option may cause an unacceptable wait time. The "start all" command can be used to restart the application software.

Continued on next page

Table D-1. Shutdown and Restart Actions

Action	Entry	Originated by	Action	Notes
4. "shutdown audix"	command line entry from a bash session	technician	Shuts down AUDIX while leaving DEFINITY and NT up. An optional "campon" option may be used to wait for AUDIX users to log off.	Used to shut down AUDIX if the machine name is changed. The "start audix" command can be used to restart AUDIX. The campon option may cause an unacceptable wait time.
5. "shutdown system"	command line entry from a bash session	technician	Shuts down the system without restarting it. An optional "campon" option may be used to wait for AUDIX users to log off. The system does not restart automatically.	Used to shut down the system in preparation for removing AC power or removing the TN795 Processor circuit pack. The campon option may cause an unacceptable wait time. The system can be restarted only by removing and restoring power or reseating the TN795.
6. "delayed shutdown" button	web page from a web browser	technician/customer	Wait for AUDIX users to log off before starting a system shutdown. The system may or may not restart automatically, depending on a "restart" option.	Used to shut down the system in preparation for removing AC power or removing the TN795 Processor circuit pack

Continued on next page

Table D-1. Shutdown and Restart Actions

Action	Entry	Originated by	Action	Notes
7. "immediate shutdown" button	web page from a web browser	technician/customer	Do not wait for AUDIX users to log off before starting a system shutdown. The system may or may not restart automatically, depending on a "restart" option.	Used to shut down the system in preparation for removing AC power or removing the TN795 Processor circuit pack
8. shutdown button on the faceplate of the TN795 processor board	Faceplate of the TN795 processor board	technician/customer	Shut down the system after closing all applications. The system will not restart automatically.	Used to shut down the system in preparation for removing AC power or removing the TN795 Processor circuit pack. The system can be restarted only by removing and restoring power or reseating the TN795.
9. Detection of the loss of AC power by the UPS	Wiring from the UPSZ3A2 alarm adapter to the Major Alarm lead on the TN795	Loss of AC power for more than one minute	Shut down the system after closing all applications. The system will restart automatically upon restoration of AC power.	Provides a graceful shutdown when AC power is lost for more than one minute.

DEFINITY Software Reset (Recovery)

There are severe reset levels available to restart DEFINITY software. These resets can be user initiated with the **reset system n** command (where n is the reset level). They may also be automatically initiated by system software in response to certain error conditions.

A system is reset due to a loss of power, or through:

- Reset commands entered during a SAT terminal session.
- Maintenance software, from which the system can reset itself. (This process starts when certain software and hardware errors are detected by the software.)



WARNING:

When the system is rebooted or reset at level 2, 3, 4, or 5, all voice terminal and attendant console features are adversely affected. Users should be advised of services that are lost and that, as a result, must be reactivated.

The SAT display and circuit pack LEDs indicate the progress of the recovery process.

Reset System 1 (DEFINITY Warm Start)

- This recovery takes about 60 seconds.
- All software is reset.
- All stable phone calls remain up.
- In-progress calls are dropped.
- No new calls can be made during this time.

Reset System 2 (DEFINITY Cold Start)

The following are reset:

- All software
- TDM Bus
- All Port circuit packs

All telephone sessions are dropped. Telephones begin to reconnect to the switch within 60 seconds.

Reset System 3 (DEFINITY Reboot)

This is the same as Reset System 4 (see below). This command is retained for consistency with other DEFINITY products.

D Recovery

DEFINITY Software Reset (Recovery)

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Reset System 4 (DEFINITY Reboot)

- Emergency Transfer is invoked in this reset.
- System processes are reloaded from hard disk into memory
- All port circuit packs are reset.
- All telephone sessions are dropped.

Telephones begin to reconnect to the switch within 60 seconds.

Reset System 5 (System Reboot)

This is the same as Reset System 4 (see above).

LED Boot Sequence/TN795 Processor



This chapter provides information about the LED boot sequence of the TN795 circuit pack.

This chapter is organized as follows:

- [“LED Boot Sequence” on page E-1](#)
- [“TN795 Processor Circuit Pack” on page E-1](#)
- [“TN795 Processor Circuit Pack LEDs \(after booting\)” on page E-2](#)
- [“LED States” on page E-5](#)

LED Boot Sequence

TN795 Processor Circuit Pack

When power is first applied to DEFINITY ONE, or when the system reboots, the LEDs on the TN795 circuit pack will light according to this sequence:

1. All lights on the TN795 will rapidly blink in sequence, from bottom to top (also known as “racing lights”).
2. Within 1 minute, the second light from the top will blink green:
 - When the LED is more on than off it indicates BIOS loading
 - More off than on indicates NT loading
3. The third LED from the top will blink amber to indicate application firmware loading.
4. When firmware is loaded, the LEDs will blink in sequence again (racing lights), then all LEDs will light and then go off.

The DEFINITY ONE system is now under normal operating conditions. When the system is operating normally you will see

- The amber LED (third from the top) will blink quickly once every 10 seconds, indicating the firmware/NT watchdog processes are communicating.
- Another blinking LED (clock) flashes when the firmware for the clock is communicating.

Any other LEDs that are illuminated indicate an alarm or problem with DEFINITY ONE. For more information about alarms, see chapter 4, DEFINITY ONE Alarms in DEFINITY ONE™ Communications System Maintenance, 555-233-111.

The emergency transfer LED is on if a reset 4 occurs or if power is cycled.

TN795 Processor Circuit Pack LEDs (after booting)

The front panel has two groups of LEDs. One group indicates the status of the pack, and the other group (which includes the Major, Minor, and Warning alarms) reflects maintenance conditions in the entire system.

- Red (alarm)—the system has detected a fault in this circuit pack.

NOTE:

Alarms on the PROCR, PR-MAINT, SW-CTL, and PKT-INT maintenance objects are indicated by the red LED on the Processor circuit pack.

- Green (test)—the system is running tests on this circuit pack.
- Amber — in an operating system, this LED indicates that the handshaking between the firmware and the NT operating system is occurring by flashing briefly once every 10 seconds.
- PCMCIA (amber) - the flash disk is in use
- MAJOR ALARMS (red)
- MINOR ALARMS (red)
- CLOCK (amber) — blinks once every 4 seconds.

- EM XFER (red)—indicates emergency transfer has been invoked



NOTE:

If the AC power cord is unplugged, the emergency transfer feature invokes, however the EMERGENCY TRANSFER LED (red) is not lit due to loss of AC power. The system gracefully shuts down in about 3 minutes.

- OK REMOVE (green) — steady indicates that it is OK to remove the TN795 processor circuit pack.



WARNING:

DO NOT REMOVE the TN795 circuit pack unless the **Complete Shutdown** LED is illuminated. Failure to heed this warning may result in loss of data and/or damage to equipment.

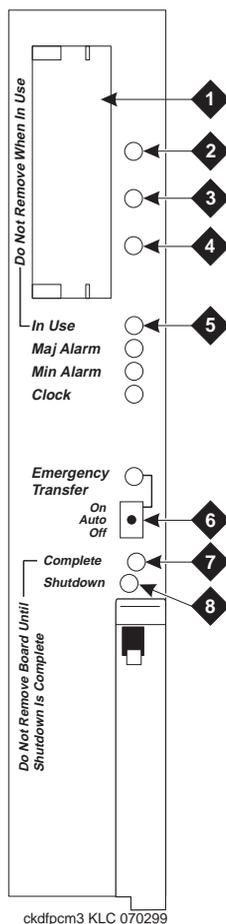


Figure Notes

- | | |
|----------------------|--|
| 1. PCMCIA slots | 6. Emergency Transfer On/Auto/Off switch |
| 2. Red LED | |
| 3. Green LED | 7. Complete Shutdown - safe to pull board when green LED is on |
| 4. Amber LED | 8. Shutdown switch - gracefully shuts down system |
| 5. PCMCIA In Use LED | |

Figure E-1. TN795 Circuit Pack Faceplate

LED States

The following table summarizes the TN795 circuit pack LED states.

Table E-1. TN795 Circuit Pack LED States

LED Name	LED Color	Power-on Reset	860 Core Test in Progress	860 Core Test Finished, RM Initialized	PC BIOS Boot	PC OS Boot	Firmware Download	Jump to Application Firmware	SPE Up	Shutdown in Progress	Shutdown Complete	860 Core Test Failed	Pentium BIOS Update	Factory Diagnostic Start	Factory Diagnostic Mode
TN795 CP Alarm	red	on	on	Racing LEDs	on	on	on	Racing LEDs	sw	on	on	on	on	on	on
TN795 Test	green	off	on		flash 1	flash 3	off		sw	sw	off	on	flash 2	on	flash 4
TN795 In Use	yellow	off	off		off	off	flash 2		flash 4	sw	off	on	flash 2	off	flash 4
PCMCIA	yellow	on	on		sw	sw	sw		sw	sw	on	off	on	on	on
Major Alarm	red	off	off		off	off	off		sw	sw	off	off	off	on	on
Minor Alarm	red	off	off		off	off	off		sw	sw	off	off	off	on	on
Clock Status	yellow	off	off		off	off	off		clk	clk	off	off	off	on	on
ETR	red	on	on		on	on	on		sw	sw	on	on	on	on	on
OK to Remove	green	off	on		on	off	off		off	flash 3	on	on	off	on	on

flash1— 800ms ON, 200ms OFF
 flash2— 500ms ON, 500ms OFF
 flash3— 200ms ON, 800ms OFF
 flash4— 200ms OFF on every sanity heartbeat
 flash5— 1 sec ON, 1 sec OFF
 sw— Software Controlled
 clk— Similar to the TN2182 Tone/Clock LED

E LED Boot Sequence/TN795 Processor
LED Boot Sequence

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Status LEDs



This chapter provides information about the Status LEDs.

This chapter is organized as follows:

- [“Attendant Console LEDs” on page F-1](#)
- [“Other Circuit Packs” on page F-1](#)
- [“Circuit Pack Status LEDs” on page F-2](#)
- [“Power Supply LEDs” on page F-3](#)

Attendant Console LEDs

The console has two red LEDs, labeled ALM and ACK. The left LED lights steadily when there is a Major or Minor alarm at the switch cabinet. The right LED lights steadily if the alarm has been successfully reported to INADS. If the system is unable to report the alarm to INADS, the LED flashes; signaling the attendant to call INADS and report the alarm. If a modem is used, the system calls INADS automatically.

Other Circuit Packs

You may see some LEDs on power up on the other circuit packs. Under normal operation, you should not see LEDs lit on the circuit packs, with the following exception: A solid green LED on any circuit pack indicates that diagnostic tests are being executed on that circuit pack.

Circuit Pack Status LEDs

Each circuit pack has three LEDs on the front panel visible at the front of the carrier. On all circuit packs, except the 650A Power Unit, the LEDs indicate:

1. Red (alarm) — If the circuit pack is communicating with the system, the system has detected a fault in this circuit pack. An on-board alarm for this circuit pack is displayed in the Alarm Log.

The circuit pack also lights this LED when either the circuit pack has not yet initialized communication with the system or when the circuit pack loses contact with the system and stops functioning (circuit pack is said to be “in reset”). In these cases, there may not be an alarm in the Alarm Log. To determine if the red LED is lit because the circuit pack is not in contact with the system, issue the **list configuration board PCSS** command, where PCSS refers to the slot containing this circuit pack. If the system does not detect the circuit pack, this command returns `Identifier not assigned` or `no board`.

If the circuit pack has just been inserted, the system may still be initializing the circuit pack. If, after 5 minutes, the circuit pack still has not initialized communications with the system, check the MO for any special instructions. If the MO does not provide the needed information, perform the following steps:

- Check the Error Log for TONE-BD and TDM-BUS errors. Enter **test tdm 1 test tone-clock**. Follow appropriate sections for any TONE-BD and TDM-BUS errors.
- Reseat the suspect circuit pack.



WARNING:

Reseating the TN795 may be very destructive. This should be done only if the Complete Shutdown LED is illuminated. Otherwise, you must shut down before reseating.

Wait 5 minutes. Then issue the **list configuration board PCSS** command. If the result indicates that the system still has not registered the circuit pack, go to next step.

- If the system seems to be functioning correctly, but the circuit pack does not start communicating with the system, replace the circuit pack.
2. Green (test)—the system is running tests on this circuit pack.

3. Yellow (busy)—indicates that the circuit pack is in use.

⇒ NOTE:

A port circuit pack also lights its red LED when it performs initialization tests (for example, when the circuit pack is initially inserted into the system). If all initialization tests pass, the red LED is turned off. If any initialization tests fail, the red LED remains lighted and the circuit pack is not placed into service.

During the various states of operation (start-up testing, normal operation, circuit failure, and so forth) circuit pack status LED indications appear as shown in [Table F-1](#).

Table F-1. Control and Port Circuit Pack Status LEDs

Equipment Type	LED	Description
Port Circuit Packs	Red	On briefly during power up, circuit pack reseating, resetting, and system reset. Steadily on if circuit pack fails start-up test or fails while in use. Off during normal operation.
	Green	Briefly on during circuit pack testing following power up, circuit pack reseating, and system reset. On during periodic, scheduled, and system technician demanded testing. Off during normal operation.
	Yellow	On when any port in the circuit pack is in use, otherwise, off.

Power Supply LEDs

Table 1-6 shows the LED and alarm conditions for the 650A Power Supply. Ring voltage and neon bus output do not activate alarm status.

Table F-2. LED and Alarm Conditions

Condition	LED Status	Alarm State
Normal	Red off; Yellow on	Open
No input power	Red off; Yellow off	Closed
DC output not present (except Neon)	Red on; Yellow off	Closed
Fan alarm	Red on; Yellow on	Closed

GAS Commands in the bash shell



This chapter provides information about bash (Bourne Again Shell) commands that are used in the installation process. It also includes information on the setip command. These commands are not available to the customer.

bash Commands

The following commands are useful for administration and installation tasks. These commands are allowed for the lucent logins. After choosing the bash shell, type the name of the command. Refer to DEFINITY ONE Communications System Maintenance, 555-233-111 for more detailed information.

Table G-1. Bash Commands for lucent Logins

Command	Description
alarmorig	Turns on alarm origination from the GAM (INADS)
alarmstat	Gives global alarm status (major, minor, or none) for the GAM, DEFINITY, and AUDIX
cleargamalarm	Clears alarms after analysis

Continued on next page

Table G-1. Bash Commands for lucent Logins

Command	Description
d1stat	<p>Displays the status of all the applications groups running on the system.</p> <p>Lists all the processes associated with an application that is only partially up and the status of each process (+ => up and - => down).</p> <p>Lists all the processes associated with an application regardless of its state.</p>
environment	Temperature and supply displays voltages on TN795
ftpserv	Enables the ftp service
gamalarmstat	<p>Displays GAM alarm information formatted as follows:</p> <p>mm/dd/yyyy = month/day/year</p> <p>NT Event Log Name= System Security Application</p> <p>Alarm Source= NT GAM LAC GSK VFM GAS</p> <p>NT Event Type = Error Warn Info</p> <p>Alarm Type = Major Minor</p> <p>Event ID= Event field in NT Event Log</p> <p>ACKed= ACKed, NACKED, FAILURE, NO_OSS_RESPONSE</p>
installconfig	Installs license file (INADS)
lucent help	Lists all commands
net user	Used to add/activate logins, change passwords
oss	Sets telephone numbers for outgoing INADS calls
pcANYWHERE	<p>If no argument is given, pcANYWHERE will start. If ? is typed, help is displayed, if -v is typed, the version of the command is displayed, and if -c is typed, pcANYWHERE is stopped.</p>

Continued on next page

Table G-1. Bash Commands for Lucent Logins

Command	Description
reboot	Reboots system as follows: nice: Shuts down applications and Windows NT in a graceful manner immediate: reboots the system without waiting for the applications to shut down, causing possible loss of voice messages that are being recorded and all calls drop
restartcause	Displays the restart causes for system (for technician/TSC)
serialnumber	Reads and displays the serial number of the circuit pack
setip	Sets the IP address, subnet mask, and default gateway of the LAN interface to the customer's LAN (out the splitter cable). Turns on RAS. Reboot is required for this to take effect.
shutdown	Shuts down: all: Lucent DEFINITY ONE applications system: all Lucent DEFINITY ONE applications and Windows NT appname: the name of the application to be shut down camp-on: (AUDIX feature) notifies users that a system shutdown will happen and waits for users to end their sessions before shutting down.

setip Command

The setip command is used from a bash shell to set certain NT specific settings. To get to a bash shell, telnet to the DEFINITY ONE over any interface, login, and select the bash option. Once you are in a bash shell you can run setip. Note setip settings require a reboot before taking effect, as such please set all necessary parameters before issuing the reboot command.

To display current settings:

Run `setip` with no parameters, this will display the current system settings.

`Setip` allows you to set the customer's LAN address along with subnet mask, gateway, DNS and WINS settings. It also allows you to set the machine name and the RAS IP addresses.

Setting the machine name in NT:

To set the machine name, in a bash shell, type `setip name=machineName`. Please limit the machine name to 10 characters. `Setip` will allow you to enter more characters, however AUDIX will only display the first 10 characters of the machine name in its administration window.

Ex: `setip name=mysite`

After having set the machine name, the `setip` command will display the old settings as well as the new settings.

NOTE:

You will also need to set the host name. See ["Setting DNS addresses and Host Name:" on page G-5](#)

Setting RAS IP address:

To set the RAS IP address, in a bash shell, type `setip ras=ip-address`, where `ip-address` is the dotted IP address.

Ex: `setip ras=10.21.053`, NOTE: INADS will provide this IP address.

NOTE:

This command not only sets the RAS IP address, it also starts the service. Turn off RAS service if system is set up without a modem.

After having set the RAS IP address, the `setip` command will display the old settings as well as the new settings.

Setting the customer's LAN, DNS and WINS information:

Setting LAN address:

To set the customer LAN address please get the IP address, subnet mask, and default gateway addresses from the customer. Next from a bash shell, run the `setip cust=ip-addr,netmask[,gateway]`. Note the gateway address is optional but the ip-address and subnet mask are required.

Ex: `setip cust=155.9.162.121,255.255.255.0,155.9.162.2`

After having set the customer's IP address, the `setip` command will display the old settings as well as the new settings.

Setting DNS addresses and Host Name:

If the customer is using DNS you can set DNS information with the `setip dns=name, domain-name, primary-ns-ip-addr[, secondary-ns-ip-address]`. This will set the DNS host name, domain name, and set the list of name server IP addresses.

Note that the customer may have one, two, or more different domain name servers (DNS).

Ex: `setip dns=CustomerHost, CustomerDomain.com, 155.9.1.10, 155.9.15.14`

After having set the customer's DNS IP addresses, the `setip` command will display the old settings as well as the new settings.

Setting WINS addresses:

If the customer is using WINS you can set WINS information with the `setip wins=[ip-addr-primary[, ip-addr-backup]]`. This will set the IP address of the primary and secondary IP addresses for the windows NetBios on the TCP name server.

Ex: `setip wins=155.9.145.1, 155.9.145.4`

After having set the customer's WINS IP address, the `setip` command will display the old settings as well as the new settings.

Once you have set all the appropriate settings for your location, from a bash shell run `reboot nice` to restart the machine with the new settings.

Other Commands

ftpserv command

The ftpserv command is executed from a bash shell and is used to turn on and off the file transfer protocol on the DEFINITY ONE. If you attempt to ftp into the DEFINITY ONE and you get a connection refused message, then ftp is not running.

To turn on ftp from a bash shell type: ftpserv

To turn off ftp from a bash shell type: ftpserv -c

pcanywhere command

The pcanywhere command is used to turn on and off the pcAnywhere host service.

To turn pcAnywhere on, from a bash shell, type: pcanywhere.

To turn pcAnywhere off, from a bash shell, type: pcanywhere -c.

rasdrop command

The rasdrop command is executed from a bash shell, it causes the Remote Access Server (RAS) service to be stopped and started again. There is a two minute delay from the time the command is executed till the service is toggled.

d1stat command

The d1stat command is used from a bash shell to determine what percentage of the system is up and running. To determine what applications are running or what state of “upness” the applications are in, you can run the d1stat command from a bash shell.

Ex. estonia-lucent1>d1stat

```
NTras          2/ 2 UP
NTweb          1/ 1 UP
pcAnywhere     0/ 1 DOWN
NTconsole      2/ 2 UP
NTplatform     6/ 6 UP
NT             11/11 UP
CoResServ      5/ 5 UP
DEFINITY       51/51 UP
CornerStone    4/ 4 UP
AUDIX          15/33 PARTIALLY UP
AUDIXNet       0/ 5 DOWN
MISC           24/ 0 UP
nero-lucent1>
```

net user commands

The net user commands are used to manipulate NT level logins on the DEFINITY ONE system. The net user commands can be used to add new logins, change passwords on existing logins, or simply to enable/disable existing NT accounts.

To add a new user execute the following command from a bash shell

```
net user username password
```

To change the password of an existing login, execute the following command from a bash shell

```
net user username newpassword
```

To enable an existing login that is disabled, execute the following command from a bash shell

```
net user username /active
```

G GAS Commands in the bash shell
Other Commands

G-8

Installer's Connectivity Quick Reference Tear-Out Sheet



This appendix provides is a tear-out quick reference sheet about connectivity including physical connection, access, and login information.

Physical Connection	IP Address
Local Monitor/Mouse/Keyboard	127.1
PCMCIA Network Connection	192.11.13.6
RAS Modem (Dial-up)	10.21.0.X (X is Customer Dependent — Lucent Assigns)
Customer's LAN	Customer Dependent

Once you are connected, there are several ways to access DEFINITY ONE, as shown in the next table.

Access Method	
Telnet	<ip addr> [Start > Run...]
DSA	using appropriate ip-addr's
Web Browser	http://<ip-addr>
pcANYWHERE	lucent1, lucent2, lucent3

The following table shows Lucent Personnel Login information.

Logins to Enter System	Logins to Enter DEFINITY	Logins to Enter AUDIX
lucent1	dinit	atssc
lucent2	dinads	acraft
lucent3	dcraft	acraft

- Each row of logins has the same password. For example, the **lucent1**, **dinit**, and **atsc** logins all have the same password.
- The lucent logins are used for web browser and pcANYWHERE access.
- All logins can be used for Telnet access.
- The **d** and **a** logins (columns 2 and 3) are used for DSA access.

Glossary

A

AC

1. Alternating current.
2. See [analog](#).

Access Security Gateway (ASG)

A feature built into the Lucent Access Control (LAC) module that authenticates and protects logins to the LAC.

administer

To access and change parameters associated with the services or features of a system.

analog

The representation of information by continuously variable physical quantities such as amplitude, frequency, and phase. See also [digital](#).

analog data

Data that is transmitted over a digital facility in analog (PCM) form. The data must pass through a modem either at both ends or at a modem pool at the distant end.

analog telephone

A telephone that receives acoustic voice signals and sends analog electrical signals along the telephone line. Analog telephones are usually served by a single wire pair (tip and ring). The model-2500 telephone set is a typical example of an analog telephone.

ASCII (American Standard Code for Information Interchange)

The standard code for representing characters in digital form. Each character is represented by an 8-bit code (including parity bit).

Audio Information Exchange (AUDIX)

A fully integrated voice-mail system. Can be used with a variety of communications systems to provide call-history data, such as subscriber identification and reason for redirection.

AUDIX

See [Audio Information Exchange \(AUDIX\)](#).

B

Basic Rate Interface (BRI)

A standard ISDN frame format that specifies the protocol used between two or more communications systems. BRI runs at 192 Mbps and provides two 64-kbps B-channels (voice and data) and one 16-kbps D-channel (signaling). The D-channel connects, monitors, and disconnects all calls. It also can carry low-speed packet data at 9.6 kbps.

Bash (Bourne Again Shell)

Unix-like command line interpreter.

C

cabinet

Housing for racks, shelves, or carriers that hold electronic equipment.

cable

Physical connection between two pieces of equipment (for example, data terminal and modem) or between a piece of equipment and a termination field.

cable connector

A jack (female) or plug (male) on the end of a cable. A cable connector connects wires on a cable to specific leads on telephone or data equipment.

call accounting system (CAS)

This software feature provides recording, costing, and reporting of call detail records. Recording includes the capability to set record discard criteria that allow the customer to specify the data recorded. Costing uses tariff databases and user-defined parameters. Reporting produces both periodic reports for individual users, organizations, accounts, user-defined criteria, and demand statistics.

Call Detail Recording (CDR)

Textual Representation of call traffic

carrier

An enclosed shelf containing vertical slots that hold circuit packs.

CAS

Call Accounting System

central office (CO)

The location housing telephone switching equipment that provides local telephone service and access to toll facilities for long-distance calling.

central office (CO) codes

The first three digits of a 7-digit public-network telephone number in the United States.

central office (CO) trunk

A telecommunications channel that provides access from the system to the public network through the local CO.

circuit

1. An arrangement of electrical elements through which electric current flows.
2. A channel or transmission path between two or more points.

circuit pack

A card on which electrical circuits are printed, and IC chips and electrical components are installed. A circuit pack is installed in a switch carrier.

communications system

The software-controlled processor complex that interprets dialing pulses, tones, and keyboard characters and makes the proper connections both within the system and external to the system. The communications system itself consists of a digital computer, software, storage device, and carriers with special hardware to perform the connections. A communications system provides voice and data communications services, including access to public and private networks, for telephones and data terminals on a customer's premises. See also [switch](#).

compact modular cabinet (CMC)

The chassis and shelf hardware used to support the DEFINITY ONE hardware platform, derived from (actually the same as) the DEFINITY ProLogix cabinet.

D

digital

The representation of information by discrete steps. See also [analog](#).

digital trunk

A circuit that carries digital voice and/or digital data in a telecommunications channel.

E

E1

A digital transmission standard that carries traffic at 2.048 Mbps. The E1 facility is divided into 32 channels (DS0s) of 64 kbps information. Channel 0 is reserved for framing and synchronization information. A D-channel occupies channel 16.

G

GEDI

Graphically Enhanced DEFINITY interface. Is an enhanced system access terminal (SAT) with a Windows look.

Global Administration Subsystem (GAS)

A module that provides command line access to certain administration and maintenance functions needed by services tools and provides administration support for parameters in the DEFINITY ONE system that are not otherwise provided by the DEFINITY ONE applications.

Global Alarm Module (GAM)

A Windows NT process that coordinates alarm reporting for the DEFINITY ONE platform. Its primary functions are to accept and forward alarms from the applications, generate alarms for Windows NT, and manage the communication links to the Operations Support Systems (OSSs) via the Windows NT TAPI interface.

Global Sanity Keeper (GSK)

A module that ensures that all authorized Lucent applications are executing on a DEFINITY ONE server. It contains two major components, a watchdog process and a license server.

Glue Application/Module

A DEFINITY ONE application whose purpose is to integrate functionality for most or all other DEFINITY ONE applications. Examples include Watchdog, Lucent Access Control (LAC), Global Alarm Module (GAM), Global Administration Subsystem (GAS), and Backup/Restore.

Graphical User Interface (GUI)

The use of pictures rather than just words to represent the input and output of a program. A program with a GUI runs under some windowing system (for example, X Window System, Microsoft Windows, Acorn RISC OS, and NEXTSTEP). The program displays certain icons, buttons, dialogue boxes etc., in its windows on the screen and the user controls it mainly by moving a pointer on the screen (typically controlled by a mouse) and selecting certain objects by pressing buttons on the mouse while the pointer is pointing at them.

I

Integrated Services Digital Network (ISDN)

A public or private network that provides end-to-end digital communications for all services to which users have access by a limited set of standard multipurpose user-network interfaces defined by the CCITT. Through internationally accepted standard interfaces, ISDN provides digital circuit-switched or packet-switched communications within the network and links to other ISDNs to provide national and international digital communications. See also [Integrated Services Digital Network Basic Rate Interface \(ISDN-BRI\)](#) and [Integrated Services Digital Network Primary Rate Interface \(ISDN-PRI\)](#).

Integrated Services Digital Network Basic Rate Interface (ISDN-BRI)

The interface between a communications system and terminal that includes two 64-kbps B-channels for transmitting voice or data and one 16-kbps D-channel for transmitting associated B-channel call control and out-of-band signaling information. ISDN-BRI also includes 48 kbps for transmitting framing and D-channel contention information, for a total interface speed of 192 kbps. ISDN-BRI serves ISDN terminals and digital terminals fitted with ISDN terminal adapters. See also [Integrated Services Digital Network \(ISDN\)](#) and [Integrated Services Digital Network Primary Rate Interface \(ISDN-PRI\)](#).

Integrated Services Digital Network Primary Rate Interface (ISDN-PRI)

The interface between multiple communications systems that in North America includes 24 64-kbps channels, corresponding to the North American digital signal level-1 (DS1) standard rate of 1.544 Mbps. The most common arrangement of channels in ISDN-PRI is 23 64-kbps B-channels for transmitting voice and data and 1 64-kbps D-channel for transmitting associated B-channel call control and out-of-band signaling information. With nonfacility-associated signaling (NFAS), ISDN-PRI can include 24 B-channels and no D-channel. See also [Integrated Services Digital Network \(ISDN\)](#) and [Integrated Services Digital Network Basic Rate Interface \(ISDN-BRI\)](#).

INTUITY AUDIX

The INTUITY AUDIX application resides on DEFINITY ONE with the Cornerstone platform to provide subscriber messaging capabilities, including call answering and voice mailbox services.

INTUITY Message Manager

A Windows-based software product that allows INTUITY AUDIX users to receive, store, and send their voice/fax messages from a PC. The software also enables users to create and send multimedia messages that include voice, fax, text, and file attachment components

ISDN

See [Integrated Services Digital Network \(ISDN\)](#).

L

LED

See [light-emitting diode \(LED\)](#).

License Server

A component of the Global Sanity Keeper (GSK) that looks for a special encrypted control file whose contents indicate which serial number of the TN795 Processor card is permitted to execute on and which application are allowed to run. If the file is not present, no licenses are granted. If the file is present, the license information is read from the file.

light-emitting diode (LED)

A semiconductor device that produces light when voltage is applied. LEDs provide a visual indication of the operational status of hardware components, the results of maintenance tests, the alarm status of circuit packs, and the activation of telephone features.

local area network (LAN)

A networking arrangement designed for a limited geographical area. Generally, a LAN is limited in range to a maximum of 6.2 miles and provides high-speed carrier service with low error rates. Common configurations include daisy chain, star (including circuit-switched), ring, and bus.

Lucent Access Control (LAC)

A module that governs maintenance access to the Lucent application software.

M

maintenance

Activities involved in keeping a telecommunications system in proper working condition: the detection and isolation of software and hardware faults, and automatic and manual recovery from these faults.

major alarm

An indication of a failure that has caused critical degradation of service and requires immediate attention. Major alarms are automatically displayed on LEDs on the attendant console and maintenance or alarming circuit pack, logged to the alarm log, and reported to a remote maintenance facility, if applicable.

memory

A device into which information can be copied and held, and from which information can later be obtained.

minor alarm

An indication of a failure that could affect customer service. Minor alarms are automatically displayed on LEDs on the attendant console and maintenance or alarming circuit pack, sent to the alarm log, and reported to a remote maintenance facility, if applicable.

modem

A device that converts digital data signals to analog signals for transmission over telephone circuits. The analog signals are converted back to the original digital data signals by another modem at the other end of the circuit. (MODulator-DEMulator)

multileg cable, also called an octopus cable or a splitter cable

Processor interface cable

N

node

A switching or control point for a network. Nodes are either tandem (they receive signals and pass them on) or terminal (they originate or terminate a transmission path).

NT Operating System

The Windows 32-bit operating system engineered by Microsoft. NT Servers provided centralized security, fault tolerance and additional connectivity while managing NT Workstations over a network.

O

Oryx API (OAPI)

Terminates the Oryx calls from the DEFINITY application and converts them to Windows NT primitives. Provides information through optical calls (for example, time of day and RYON board serial number) and supports the DEFINITY SAT interface.

OSS

Operations Support System

OSSI

Operational Support System Interface

P

PCMCIA

Personal Computer Memory Card International Association

port

A data- or voice-transmission access point on a device that is used for communicating with other devices.

port network (PN)

A cabinet containing a TDM bus and packet bus to which the following components are connected: port circuit packs, one or two tone-clock circuit packs, a maintenance circuit pack, service circuit packs, and (optionally) up to four expansion interface (EI) circuit packs in DEFINITY ECS.

Each PN is controlled either locally or remotely by a switch processing element (SPE).

port-network connectivity

The interconnection of port networks (PNs), regardless of whether the configuration uses direct or switched connectivity.

Primary Rate Interface (PRI)

A standard ISDN frame format that specifies the protocol used between two or more communications systems. PRI runs at 1.544 Mbps and, as used in North America, provides 23 64-kbps B-channels (voice or data) and one 64-kbps D-channel (signaling). The D-channel is the 24th channel of the interface and contains multiplexed signaling information for the other 23 channels.

processor interface cable

octopus cable, splitter cable, or multileg cable. See chapter 1.

processor port network (PPN) control carrier

A carrier containing the maintenance circuit pack, tone/clock circuit pack, and SPE circuit packs for a processor port network (PPN) and, optionally, port circuit packs.

R

remote maintenance board (RMB)

A board provided in adjunct processors that intelligently monitors the system hardware for health status. These include environmental conditions, PC heartbeat, and sanity checks. The RMB functionality also allows modem access to the TN parent board.

RS-232C

A physical interface specified by the Electronic Industries Association (EIA). RS-232C transmits and receives asynchronous data at speeds of up to 19.2 kbps over cable distances of up to 50 feet.

S

Sanity Keeper

See Global Sanity Keeper.

single-carrier cabinet

A combined cabinet and carrier unit that contains one carrier. See also [multileg cable, also called an octopus cable or a splitter cable](#).

Station Message Detail Recording (SMDR)

This software feature transmits detailed information on all incoming and outgoing calls on specified trunk groups through an switch processing element (SPE) port to an external output device, that logs the data. SMDR is one facet of the more general Call Detail Recording (CDR) feature.

switch

Any kind of telephone switching system. See also [communications system](#).

switch-processing element (SPE)

A complex of circuit packs (processor, memory, disk controller, and bus-interface cards) mounted in a PPN control carrier. The SPE serves as the control element for that PPN and, optionally, for one or more EPNs.

system administrator

The person who maintains overall customer responsibility for system administration. Generally, all administration functions are performed from the Management Terminal. The switch requires a special login, referred to as the system administrator login, to gain access to system-administration capabilities.

T

TCP/IP

Transmission Control Protocol/Internet Protocol

V

Virtual Fabric Manager (VFM)

A module that allows the use of DEFINITY ECS code in a hardware environment that differs from the one for which it was designed. One side of the VFM talks to DEFINITY ECS in protocols it understands and changes these into methods and messages to perform needed operations in the DEFINITY ONE environment.

W

Watchdog

A component of the Global Sanity Keeper (GSK) that is responsible for starting up the DEFINITY ONE application software, including the downloading of the MPC860 application firmware. Watchdog is the first DEFINITY ONE process to run.

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