

## Appendix 1



**NRC MUTUAL AID AND RESTORATION COMPENDIUM PROJECT**  
**Telecommunications Network Emergency**  
**Mutual Aid and Restoration Agreements Questionnaire**

1. Company Name \_\_\_\_\_

Type of company:

- RBOC
- Independent Local Carrier
- Interexchange Carrier
- Alternate Service Provider
- Cellular Service Provider
- Other Utility
- Equipment Vendor
- Network User
- Other (specify) \_\_\_\_\_

2. Does your company participate in a *formal* telecommunications network emergency mutual aid or service restoration agreement with any telecommunications company?

- No
- Yes:
  - Bellcore Client Companies Agreement for National Security Emergency Preparedness (NSEP) Resource Allocation
  - Other(s) \_\_\_\_\_

3. If your company participates in any formal agreement besides the Bellcore NSEP Agreement, which of the following is covered?

Name of Agreement \_\_\_\_\_  
 (If there is more than one agreement please make copies of this questionnaire and fill out one for each.)

A.  Lending of resources, including:

- Transportable Equipment
  - Emergency generators
  - Mobile (i.e., trailer mounted) switching equipment
  - Mobile fiber optic transmission equipment
  - Mobile cellular systems
  - Microwave systems
  - Satellite terminals
  - Mobile coin telephone banks
  - Other (specify) \_\_\_\_\_
- Vehicles
- Supplies
  - Circuit packs
  - Cable
  - Other (specify) \_\_\_\_\_
- Manpower
- Other (specify) \_\_\_\_\_

B.  Sharing of network facilities:

- Dark fiber
- Fiber optic transmission systems
- Cellular Network
- Other \_\_\_\_\_

4. The other parties to the agreement include:

- RBOC
- Interexchange Carrier
- Alternate Service Provider
- Cellular Service Provider
- Other Utility
- Equipment Vendor
- Network User
- Other \_\_\_\_\_

5. Does your company have any *informal* mutual aid and restoration agreements?

Yes       No

Please describe the nature of those agreements:

6. Who may we contact for additional information about your company's agreements?

7. Additional comments:

Prepared by: \_\_\_\_\_  
Name  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Company  
\_\_\_\_\_  
Street  
\_\_\_\_\_  
City, State ZIP  
\_\_\_\_\_  
(      )  
Telephone

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Please return (by fax or mail) by November 6, 1992 to: Robert N. Dawson  
Fax: (212) 346-2232  
Tel: (212) 766-3040

New York Telephone Company  
140 West Street, Room 1150  
New York NY 10007

## Appendix 2.1



**AGREEMENT BETWEEN**

**BELLCORE CLIENT COMPANIES**

**FOR**

**NATIONAL SECURITY EMERGENCY PREPAREDNESS (NSEP)**

**RESOURCE ALLOCATION**

This Agreement is entered into as of \_\_\_\_\_, 19\_\_  
amongst BellSouth Services Incorporated  
Cincinnati Bell Telephone Company  
Ameritech Services, Inc.  
The Southern New England Telephone Company  
Pacific Bell  
Southwestern Bell Telephone Company  
Bell Atlantic Network Services, Inc.  
Telesector Resources Group, Inc.  
U S West Communications

collectively the Bellcore Client Companies (hereinafter BCC).

WHEREAS, any BCC (Requester), during a NSEP emergency as hereinafter defined, may reasonably request from any other BCC (Provider), taking into consideration the size and resource capabilities of the Provider, supplies, portable equipment, motor vehicles and/or personnel and;

WHEREAS, the BCC's desire to agree to the terms which will govern such emergency provision of supplies, portable equipment, motor vehicles and/or personnel;

NOW, THEREFORE, the parties mutually agree to the following:

1. DEFINITIONS.

National Security Emergency Preparedness (NSEP)

Emergency: As declared by the Government of the United States, any event or crisis (local, national, or international) which causes or could cause injury or harm to the population, damage to or loss of property, or degrades or threatens the NSEP posture of the United States.

A NSEP emergency may be initiated by:

- a) Invocation of Section 706 of the Communications Act
- b) Presidential declaration
- c) National Communications Service Certification of an emergency
- d) Bellcore exercise of Plan of Reorganization authority (POR)

Supplies: As used in this Agreement, supplies pertain to those items which are on the shelf, in inventory, and/or have not been placed in use or service. Examples include cable, wire, circuit packs, switches, etc.

Portable equipment: As used in this Agreement, portable equipment is equipment which is intended to be easily transportable from one location to another. Examples include portable HF radio transceivers, radio towers, portable switches, portable generators, etc.

Motor vehicles: As used in this Agreement, motor vehicles are company vehicles, including automobiles, vans, construction trucks, trenchers, pole trailers, airplanes, helicopters etc.

2. Applicability. This Agreement will apply to the provision, during a NSEP emergency, of supplies, portable equipment, motor vehicles and/or personnel by any BCC (Provider) to any other BCC (Requester). This Agreement is not intended to govern non-emergency business arrangements between the parties. This Agreement does not obligate any BCC to become a Provider unless directed to do so by Bellicore pursuant to the POR. If a BCC agrees to become a Provider, the terms of this Agreement will govern.

3. Supplies. Upon presentation of an invoice from the Provider, which in no event shall be later than ninety (90) days after the shipment of supplies to the Requester, the Requester will pay the following for supplies provided under this Agreement:

- a. Invoice Cost - The actual invoice cost or current replacement cost to the Provider for the item or items involved, whichever is higher.
- b. Transportation - The actual cost of transporting the item or items to the negotiated location.
- c. Administrative Cost - All of Provider's costs, calculated on a fully loaded labor rate basis, associated with responding to the request and reordering such supplies (replenish inventory).
- d. Contribution - A contribution factor applied on the total of the cost factors enumerated above (subparagraphs 3a. - 3c.) equal to the FCC prescribed rate of return for interstate services on the date of the bill.

4. Portable Equipment. Upon presentation of an invoice from the Provider, which in no event shall be later than ninety (90) days after the return of the borrowed equipment to the Provider, the Requester will pay the following for portable equipment provided under this Agreement:

- a. Transportation - The actual cost of transporting the equipment from the Provider to the negotiated location and the return of said equipment to the Provider upon completion of the project.
- b. Administrative Cost - All of Provider's costs, calculated on a fully loaded labor rate basis, associated with responding to the request for such equipment.
- c. Rental Fee - To be quoted to the Requester by the Provider at the time of the request. Such fees shall be reasonable.
- d. Contribution - A contribution factor applied on the total of the cost factors enumerated above (subparagraphs 4a - 4b) equal to the FCC prescribed rate of return for interstate services on the date of the bill.
- e. Return of Equipment - The Requester agrees to return to the Provider portable equipment provided by the Provider pursuant to the terms of this Agreement in the same condition as received, except for wear associated with normal usage. In the event equipment is

returned damaged or in inoperable condition, the Requester shall reimburse the Provider for the actual cost of placing such equipment in service and restoring such equipment to its original condition at the time of the loan. If loaned equipment is damaged beyond repair, the Requester shall reimburse the Provider for the actual replacement cost of such equipment, less depreciation.

5. Motor Vehicles. Motor vehicles will be furnished with the tools and standard test equipment appropriate for the vehicle's intended use. An inventory sheet will accompany each loaned vehicle.

Any additional supplies or portable equipment to accompany the motor vehicle as specified by the Requester will be provided in accordance with the terms set forth in Paragraph 3, Supplies, and Paragraph 4, Portable Equipment, above.

Upon presentation of an invoice from the Provider, which in no event shall be later than ninety (90) days after the return of the borrowed motor vehicles, tools, and test equipment to the Provider, the Requester will pay the following as to motor vehicles, tools and test equipment provided under this Agreement:

- a. Transportation - The actual cost of transporting the motor vehicles, tools and test equipment from the Provider to the negotiated location and the return of said motor vehicles, tools and test equipment to the Provider upon completion of the project.
- b. Administrative Cost - All of Provider's costs, calculated on a fully loaded labor rate basis, associated with responding to the request for such motor vehicles, tools and test equipment.
- c. Rental Fee - To be quoted to the Requester by the Provider at the time of the request. Such fees shall be reasonable.
- d. Contribution - A contribution factor applied on the total of the cost factors enumerated above (subparagraphs 5a - 5b) equal to the FCC prescribed rate of return for interstate services on the date of the bill.
- e. Return of Motor Vehicles, Tools or Test Equipment. The Requester agrees to return to the Provider motor vehicles, tools and test equipment provided by the Provider pursuant to the terms of this Agreement in the same

condition as received, except for wear associated with normal usage. In the event a motor vehicle, tool, or test equipment is returned damaged or in inoperable condition, the Requester shall reimburse the Provider for the actual cost of placing such motor vehicle, tool or test equipment in service and restoring such motor vehicle, tool or test equipment to its original condition at the time of the loan. If the motor vehicle, tool or test equipment is damaged beyond repair, the Requester shall reimburse the Provider for the actual replacement cost of such motor vehicle, tool or test equipment, less depreciation.

6. Personnel. In consideration of the Provider sending certain employees to the Requester to aid in its response to an emergency situation, the Provider and the Requester agree to the following:

- a. The Requester will pay the Provider at intervals determined by the Provider, which in no event shall be later than ninety (90) days after the return of the Provider's employees, employee travel and living expenses, and fully loaded labor costs, including any overtime for work or travel, as calculated in accordance

with the Provider's then current prevailing method of fully allocating costs and securing appropriate rates of return on assets for services rendered for parties other than its owners.

- b. The actual amount invoiced to the Requester will be the sum of the labor costs and employee expenses.
- c. The Requester will not advance any funds to the Provider's employees.
- d. The Provider will make travel arrangements for its employees.
- e. The Requester will make living arrangements for the Provider's employees with billing established as specified by the Provider. The Provider will reimburse said employees and bill the Requester for all living expenses in accordance with the Provider's then current policy for reimbursement of employee expenses, including accommodations, meals, laundry, telephone calls home, etc.

f. Unless otherwise specified in the then-in-effect collective bargaining agreement applicable to the Provider's employees, and in the event that the Provider's employees are required by the Requester for more than thirty (30) consecutive days, the Requester will allow at least four consecutive days off at three-week intervals to allow for travel home and will reimburse the Provider for associated travel expenses.

The Provider, coordinating with the Requester, will make arrangements for travel home by its employees. At its option and as may be specified in the then-in-effect collective bargaining agreement applicable to said employee, the Provider may substitute travel expenses for an individual designated by the employee to visit the employee in lieu of expenses for an employee's trip home. The Provider will not bill the Requester for employee living expenses incurred during the period allotted for trips home.

- g. Holidays which are recognized by the Provider will be non-scheduled days for the Provider's employees or, if worked, will be billed to the Requester at the Provider's currently applicable labor rates for holidays worked.
- h. The Requester will treat employees of the Provider in accordance with the terms of the Provider's then-in-effect collective bargaining agreement applicable to said employees.
- i. The employees of the Provider will bring with them only those tools, standard test equipment and work related vehicles which are requested and considered necessary by the Requester and which the Provider, in its absolute discretion, agrees to provide. The provision of said supplies and equipment shall be governed by the terms set forth in this Agreement.
- j. At all times throughout this Agreement, no employee of the Provider shall be deemed to be an employee or agent of the Requester; provided, however that in the event employment by the Provider or the terms of such employment, do not comply with the laws or regulations of the state in which the work

which is the subject of this agreement is being performed, the Provider's employees shall be deemed to be the Requester's employees for the sole purpose of complying with such laws and/or regulations; and provided further that if, for any reason, the employees in such circumstances are not legally recognized as employees of the Requester, then the Requester will indemnify the Provider for any claims, demands, suits, judgments, or damages and the costs and expenses incident thereto (including reasonable attorneys' fees and expenses) incurred by the Provider and arising out of such non-compliance. The Provider is an independent contractor of the Requester and is wholly responsible for withholding or payment of all applicable Federal, State and Local income taxes and other payroll taxes and deductions with respect to employees of the Provider, including contributions from employees of the Provider as are authorized or required by law. Any insurance of the Provider applicable to its employees shall be deemed to be in effect for such time as employees covered by this agreement are considered employees of the

Provider and the Provider will continue to make all payments necessary under any existing arrangements which apply to these employees.

7. Invoice Support Documentation. Provider shall maintain in accordance with generally accepted accounting principles complete and accurate records of all amounts billed to and payments made by Requester hereunder. Provider shall provide supporting documentation concerning any disputed invoice or payment within thirty (30) days after Requester notifies Provider of a dispute. Payments made under this Agreement shall be subject to final adjustment as determined during such review. Provider shall retain such records for a period of three (3) years from the expiration of this Agreement or such length of time as may be required by any federal, state or local law, ordinance or regulation, whichever is longer.

8. Confidential/Proprietary Information. Any specifications, drawings, sketches, models, samples, tools, computer or other apparatus programs, technical or business information or data, written, oral or otherwise (all hereinafter designated "Information") furnished to the Provider or its employees under this Agreement or in contemplation of this Agreement shall remain the property of the Requester. All copies of such Information in written, graphic or other tangible form shall be returned to the Requester at its request. Unless such Information was previously known to Provider or its employees,

free of any obligation to keep it confidential, or has been or is subsequently made public by the Requester or a third party, such information shall be kept confidential by the Provider and its employees at all times during and after their employment with said company; and shall be used only for the purpose for which it is disclosed to the Provider or its employees, shall be protected and safeguarded according to appropriate company security regulations, shall not be disclosed or communicated to any third party for any reason, and shall not be used by the Provider or its employees on its or their own behalf or on the behalf of any third party, and may not be used for any other purpose except such terms as may be agreed to between the Provider and Requester in writing.

9. Indemnification. Subject to applicable law, the Requester will defend, indemnify and hold the Provider harmless from any and all claims, demands, suits, judgments, or damages and the costs and expenses incident thereto (including reasonable attorneys' fees and expenses) incurred by the Provider for or on account of damage to property, or death or injury of any person or persons arising out of, or resulting from the use of supplies, equipment and motor vehicles provided by the Provider or acts or omissions of either the Provider's or the Requester's employees in connection with the services rendered by the Provider pursuant to this Agreement. Provider shall promptly notify Requester of

any claim, loss, or demand for which Requester is responsible under this clause and shall cooperate with Requester to facilitate the defense of any such claim.

10. Invoicing and Payment. Invoices shall be submitted in duplicate to the address specified herein and shall reference this Agreement. Invoices shall provide the following information:

- a) the actual invoice cost or replacement cost of any supplies provided
- b) cost of transportation for supplies or portable equipment
- c) administrative costs
- d) rental fee for any loaned equipment
- e) labor costs for Provider's employees and travel and living expenses
- f) contribution factor

11. Payment Terms. Invoices shall be payable net thirty (30) days from invoice date.

12. Authority. Each party hereto represents that it is duly organized, validly existing and in good standing in the state in which each is organized, and has the requisite power and authority to execute this Agreement, to perform hereunder, and that the person signing this Agreement is authorized by his or her respective company to do so.

13. Choice of Law. This Agreement shall be administered in accordance with the laws of the State to which supplies, portable equipment, motor vehicles and/or personnel are destined, and the validity and effect of this Agreement shall be determined in accordance with those laws.

14. Compliance with Laws. This Agreement shall be subject to all valid applicable laws, orders, rules and regulations. The business of the parties shall be conducted in a manner consistent with the Modification of Final Judgment, as amended, United States v. Western Electric Co., et al., 552 F. Supp. 131 (D.D.C. 1982) aff'd sub nom. Maryland v. United States, 103 S. Ct. 1240 (1983) (hereafter referred to as MFJ) to the extent that the MFJ applies. In the event this Agreement or any of the provisions hereof, or the operations contemplated hereunder, are found to be inconsistent with or contrary to the MFJ or to any applicable laws, rules or regulations, the latter shall be deemed to control and, if commercially practicable, this Agreement shall be regarded as modified accordingly and shall continue in full force and effect as so modified. If such modified agreement is not commercially practicable, in the opinion of any party, the parties agree to meet promptly and discuss any necessary amendments or modifications of this Agreement. If amendments or modifications cannot be agreed upon, any obligation of the Provider to provide further services will cease. The Provider will be compensated as heretofore provided.

15. Assignment. None of the parties shall assign, subcontract, or otherwise transfer its rights or obligations under this Agreement except with the prior written consent of the other parties, said consent will not be unreasonably withheld. Any attempted assignment not assented to in the manner as prescribed herein shall be void.

16. Entire Agreement. This Agreement constitutes the entire understanding of the parties, and there shall be no verbal or other agreement except as included herein and except as may be amended by an agreement in writing signed by each of the parties hereto.

17. Counterparts. This Agreement may be executed simultaneously in two or more counterparts, each of which shall be deemed original, but all of which shall constitute one and the same instrument.

18. Termination. Any party may, upon thirty (30) days prior written notice to all the parties, terminate its participation in this Agreement for any reason or no reason. Any party so terminating its participation shall be liable to the other parties for goods delivered and services rendered to the terminating party prior to the date of termination. In the event

of termination of participation by any party, this Agreement shall remain in full force and effect as to the remaining parties.

19. Survival of Obligations. The parties' obligations under this Agreement which by their nature are intended to continue beyond the termination or expiration of this Agreement shall survive the termination or expiration of this Agreement.

20. Effective Date. This Agreement becomes effective when signed by at least two parties as to those parties and becomes effective as to additional parties when signed by additional parties. This Agreement will continue in effect unless terminated in accordance with the terms and conditions of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives to be effective between the signing parties as of, the date executed by the parties hereto.

**AMERITECH SERVICES, INC.**

**BELLSOUTH SERVICES  
INCORPORATED**

By \_\_\_\_\_

By \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_



## Appendix 2.2

**MUTUAL AID AGREEMENT AMONG  
TELECOMMUNICATION INTEREXCHANGE CARRIERS  
AND LOCAL EXCHANGE COMPANIES IN CALIFORNIA  
FOR  
EMERGENCY RESOURCE ALLOCATION**

**This mutual aid agreement (hereafter referred to as the Agreement) is applicable where supplies, portable equipment, motor vehicles and/or personnel are being provided by one participating California telecommunication utility (TU) to another TU with coordination either through the State of California Office of Emergency Services - Chief of Utilities or directly between the involved telecommunication companies.**

**An emergency situation may or may not be declared an emergency by the State Government, but in fact may be declared an emergency by the requesting TU.**

**In the event of a member or State declared emergency, this Agreement constitutes a commitment by any signature TU (hereafter referred to as the Provider) to provide supplies, portable equipment, motor vehicles and/or personnel to another TU (hereafter referred to as the Requester) when such a request is deemed by the Provider to be within his capability. This Agreement shall not preclude the TUs from entering into other business arrangements for the sale of supplies, portable equipment and/or motor vehicles.**

**This Agreement is entered into amongst:**

**PACIFIC BELL**

**GTE CALIFORNIA INCORPORATED**

**CONTEL OF CALIFORNIA, INC.**

**US SPRINT COMMUNICATIONS COMPANY LIMITED PARTNERSHIP**

**MCI TELECOMMUNICATIONS CORPORATION**

**AT&T OF CALIFORNIA**

**collectively comprising the California Telecommunications Utilities, hereinafter individually referred to as a TU.**

**WHEREAS, any TU, during an emergency as hereinafter defined, may request from any other TU supplies, portable equipment, motor vehicles and/or personnel and;**

**WHEREAS, the TUs desire to agree to the terms which will govern such emergency provision of supplies, portable equipment, motor vehicles and/or personnel;**

**NOW, THEREFORE, the parties mutually agree to the following:**

**1. DEFINITIONS**

**Emergency: An event as declared by the Governor of California, any City or County or any TU responding thereto which seriously damages a portion of the telecommunications network beyond the response/restoral capability of the responsible TU.**

**Supplies:** Those items which are on the shelf or in inventory, and are not in use or service. Examples include cable, wire, circuit packs, switches, etc.

**Portable Equipment:** Equipment which is intended to be easily transportable from one location to another. Examples include portable HF radio transceivers, radio towers, portable switches, portable generators, etc.

**Motor Vehicles:** Vehicles used by a TU, including automobiles, vans, construction trucks, trenchers, pole trailers, etc.

**Provider:** Any TU which may supply to another TU supplies, portable equipment, motor vehicles and/or personnel during an emergency.

**Requester:** Any TU which may request from another TU supplies, portable equipment, motor vehicles and /or personnel during an emergency.

**Telecommunications Equipment:** Equipment, other than customer premises equipment, used by a carrier to provide telecommunications services.

## **2. APPLICABILITY**

This Agreement will apply to the Emergency provisioning of supplies, portable equipment, motor vehicles and/or personnel by the Provider to any Requester. This Agreement does not govern non-Emergency business arrangements between the parties. When a TU agrees to become a Provider, the terms of this Agreement will govern.

**3. SUPPLIES**

Every reasonable effort will be made by the Provider to submit a bill to the Requester within ninety (90) days after the shipment of supplies. The Requester will pay the following for supplies provided under this Agreement:

- a. Invoice Cost - The actual invoice cost or current replacement cost to the Provider for the item or items involved, whichever is higher.
- b. Transportation - The actual cost of transporting the item or items to the negotiated location.
- c. Administrative Cost - All of the Provider's costs, calculated on the Provider's fully loaded labor rate basis, associated with responding to the request and reordering such supplies.
- d. Contribution - A contribution factor applied on the total of the cost factors enumerated above (subparagraphs 3a. - 3c.) equal to the annualized rate for 30 day commercial paper graded AA or AAA as published in the Wall Street Journal as near as practicable to the date of the bill.

**4. PORTABLE EQUIPMENT**

Every reasonable effort will be made by the Provider to submit a bill to the Requester within ninety (90) days after the return of the borrowed equipment. The Requester will pay the following for portable equipment provided under this Agreement:

- a. **Transportation** - The actual cost of transporting the equipment from the Provider to the negotiated location and the return of said equipment to the Provider upon completion of the project.
  
- b. **Administration Cost** - All of the Provider's costs, calculated on a fully loaded labor rate basis, associated with responding to the request for such equipment.
  
- c. **Contribution** - A contribution factor applied on the total of the cost equal to the annualized rate for 30 day commercial paper graded AA or AAA as published in the Wall Street Journal as near as practicable to the date of the bill.
  
- d. **Return of Equipment** - The Requester agrees to return to the Provider portable equipment provided by the Provider pursuant to the terms of this Agreement in the same condition as received, except for wear associated with normal usage. In the event equipment is returned damaged or in inoperable condition, the Requester shall reimburse the Provider for the actual cost of placing such equipment in service and restoring such equipment to its original condition at the time of the loan. If loaned equipment is damaged beyond repair, as determined by the Provider, the Requester shall reimburse the Provider for the actual replacement cost of such equipment, less depreciation.

- e. Rental Fee - To be quoted to the Requestor by the Provider at the time of the request. The Rental Fee will include the contribution at the time of the quotation.

5. MOTOR VEHICLES

Motor vehicles will be furnished with the tools and standard test equipment appropriate for the vehicle's intended use. An inventory sheet will accompany each loaned vehicle.

Any additional supplies or portable equipment to accompany the motor vehicle as specified by the Requester will be provided in accordance with terms set forth in Paragraph 3, Supplies, and Paragraph 4, Portable Equipment, above.

Every reasonable effort will be made by the Provider to submit a bill to the Requester within ninety (90) days after the return of the borrowed motor vehicles, tools, and test equipment. The Requester will pay the following as to motor vehicles, tools and test equipment provided under this Agreement:

- a. Transportation - The actual cost of transporting the motor vehicles, tools and test equipment from the Provider to the negotiated location and the return of said motor vehicles, tools and test equipment to the Provider upon completion of the project.
- b. Administrative Cost - All of the Provider's costs, calculated on the Provider's fully loaded labor rate basis, associated with responding to the request for such motor vehicles, tools and test equipment.

- c. **Contribution** - A contribution factor applied on the total of the cost equal to the annualized rate for 30 day commercial paper graded AA or AAA as published in the Wall Street Journal as near as practicable to the date of the bill.
- d. **Return of Motor Vehicles, Tools or Test Equipment** - The Requester agrees to return to the Provider motor vehicles, tools and test equipment provided by the Provider pursuant to the terms of this Agreement in the same condition as received, except for wear associated with normal usage. In the event a motor vehicle, tool, or test equipment is returned damaged or in inoperable condition, the Requester shall reimburse the Provider for the actual cost of placing such motor vehicle, tool or test equipment in service and restoring such motor vehicle, tool or test equipment to its original condition at the time of the loan. If the motor vehicle, tool or test equipment is damaged beyond repair, as determined by the Provider, the Requester shall reimburse the Provider for the actual replacement cost of such motor vehicle, tool or test equipment, less depreciation.
- e. **Rental Fee** - To be quoted to the Requester by the Provider at the time of the request. The Rental Fee will include the contribution at the time of quotation.

## 6. **PERSONNEL**

Every reasonable effort will be made by the Provider to submit a bill to the Requester within ninety (90) days after the return of the Provider's employees. The Requester will pay the following as to personnel loaned:

- a. **Employee travel and living expenses, and fully loaded labor costs, including any overtime for work or travel, as calculated in accordance with the Provider's then current prevailing method of fully allocating costs and securing rates of return equal to the annualized rate for 30 day commercial paper graded AA or AAA as published in the Wall Street Journal as near as practicable to the date of the bill.**
- b. **The actual amount invoiced to the Requester will be the sum of the loaded labor costs, employee expenses, and contribution.**
- c. **The Requester will not advance any funds to the Provider's employees without prior consent of the Provider.**
- d. **The Provider will make travel arrangements for its employees.**
- e. **The Requester will make living arrangements for the Provider's employees with billing established as specified by the Provider. The Provider will reimburse said employees and bill the Requester for all living expenses in accordance with the Provider's then current policy for reimbursement of employee expenses, including accommodations, meals, laundry, telephone calls home, etc.**
- f. **Unless otherwise specified in the then-in-effect employee agreement or manual and/or collective bargaining agreement applicable to the Provider's employees, and in the event that the Provider's employees are required by the Requester for more than thirty (30) consecutive days, the Requester will allow at least four (4) consecutive days off at**

three-week intervals to allow for travel home and will reimburse the Provider for associated travel expenses. The Provider, coordinating with the Requester, will make arrangements for travel home by its employees. At its option and as may be specified in the then-in-effect employee agreement or manual and/or collective bargaining agreement applicable to said employee, the Provider may substitute travel expenses for an individual designated by the employee to visit the employee in lieu of expenses for an employee's trip home. The Provider will not bill the Requester for employee living expenses incurred during the period allotted for trips home.

- g. Holidays which are recognized by the Provider will be non-scheduled days for the Provider's employees or, if worked, will be billed to the Requester at the Provider's currently applicable labor rates for holidays worked.
- h. The Requester will treat employees of the Provider in accordance with the terms of the Provider's then-in-effect employee agreement or manual and/or collective bargaining agreement applicable to said employee.
- i. The employees of the Provider will bring with them only those tools, standard test equipment and work related vehicles which are requested and considered necessary by the Requester and which the Provider, in its absolute discretion, agrees to provide.

j. At all times throughout this Agreement, no employee of the Provider shall be deemed to be an employee or agent of the Requester; provided, however that in the event employment by the Provider or the terms of such employment, do not comply with the laws or regulations of the state in which the work which is the subject of this Agreement is being performed, the Provider's employees shall be deemed to be the Requester's employees for the sole purpose of complying with such laws and/or regulations; and provided further that if, for any reason, the employees in such circumstances are not legally recognized as employees of the Requester, then the Requester will indemnify the Provider for any claims, demands, suits, judgments, or damages and the costs and expenses incident thereto (including reasonable attorneys' fees and expenses) incurred by the Provider and arising out of such non-compliance. The Provider is an independent contractor of the Requester and is wholly responsible for withholding or payment of all applicable Federal, State and Local income taxes and other payroll taxes and deductions with respect to employees of the Provider, including contributions from employees of the Provider as are authorized or required by law. Any insurance of the Provider applicable to its employees shall be deemed to be in effect for such time as employees covered by this Agreement are considered employees of the Provider and the Provider will continue to make all payments necessary under any existing arrangements which apply to these employees.

7. REQUEST FOR RETURN OF PERSONNEL AND EQUIPMENT

The Provider may demand the return of the any or all motor vehicles, portable equipment or personnel, without cause, by giving two weeks notice to the Requester. Should the Provider become involved in an Emergency, the Provider may demand the immediate return of such motor vehicles, portable equipment and personnel, without such two week notice.

In all cases, the Requester will keep the Provider informed of the anticipated return date of the motor vehicles, portable equipment and personnel. The Requester and Provider will jointly make the necessary arrangements for the return of said assets.

8. AUDIT

Provider shall maintain in accordance with generally accepted accounting principles complete and accurate records of all amounts billed to and payments made by Requester hereunder. Provider shall provide supporting documentation concerning any disputed invoice or payment within thirty (30) days after Requester notifies Provider of a dispute. Payments made under this Agreement shall be subject to final adjustment as determined during such review. Provider shall retain such records for a period of three (3) years from the expiration of this Agreement or such length of time as may be required by any federal, state or local law, ordinance or regulation, whichever is longer.

9. CONFIDENTIAL/PROPRIETARY INFORMATION

Any specifications, drawings, sketches, models, samples, tools, computer or other apparatus programs, technical or business information or data, written, oral or otherwise (all hereinafter designated "Information") furnished under this

Agreement shall remain the property of the disclosing party. All copies of such Information in written, graphic or other tangible form shall be returned to the disclosing party at its request. Unless such Information was previously known to receiving party or its employees, free of any obligation to keep it confidential, or has been or is subsequently made public by the disclosing party or a third party, or has been independently developed by the receiving party, such Information shall be kept confidential by the Provider and its employees at all times during and after their employment with said company. All such information shall be used only for the purpose for which it is disclosed, shall be protected and safeguarded according to security regulations, shall not be disclosed or communicated to any third party for any reason, and shall not be used by the receiving party or its employees on its or their own behalf or on the behalf of any third party, and may not be used for any other purpose except as may be agreed to between the disclosing and receiving parties in writing.

#### **10. INDEMNIFICATION**

Subject to applicable law, the Requester will defend, indemnify and hold the Provider harmless from any and all claims, demands, suits, judgments, liabilities, obligations, penalties or damages and the costs and expenses incident thereto (including reasonable attorneys' fees and disbursements) incurred by, imposed on, or asserted against the Provider in any way arising out of or relating to the use of supplies, portable equipment and motor vehicles provided by the Provider or acts or omissions of either the Provider's or the Requester's employees in connection with the services rendered by the Provider pursuant to this Agreement. Provider shall promptly notify Requester of any claim, loss, or damage for which Requester is responsible under this

paragraph and shall cooperate with Requester to facilitate the defense or settlement of any such claim.

11. INVOICING AND PAYMENT

Invoices shall be submitted within the timeframes previously specified herein and shall reference this Agreement. Invoices shall provide the following information:

- a. the actual invoice cost or replacement cost of any supplies provided
- b. cost of transportation for supplies or portable equipment
- c. administrative costs
- d. rental fee for any loaned equipment
- e. labor costs for Provider's employees and travel and living expenses
- f. contribution factor

Prior to Requester finalizing its request for services, Requester has the right to ask the Provider what the costs for the services will be, including the fully loaded labor rate.

12. PAYMENT TERMS

Invoices shall be payable net thirty (30) days from receipt date, unless the Requester notifies the Provider of a bona fide dispute in writing within that time frame.

13. AUTHORITY

Each party hereto represents that it is duly organized, validly existing and in good standing in the state in which each is organized, and has the requisite

power and authority to execute this Agreement and to perform hereunder, and that the person signing this Agreement is authorized by his or her respective company to do so.

14. CHOICE OF LAW

This Agreement shall be administered in accordance with the laws of the State of California.

15. COMPLIANCE WITH LAWS

This Agreement shall be subject to all valid applicable laws, orders, rules and regulations. In the event this Agreement or any of the provisions hereof, or the operations contemplated hereunder, are found to be inconsistent with or contrary to any applicable laws, rules or regulations, the latter shall be deemed to control and, if commercially practicable, this Agreement shall be regarded as modified accordingly and shall continue in full force and effect as so modified. If such modified agreement is not commercially practicable, in the opinion of any party, the parties agree to meet promptly and discuss any necessary amendments or modifications of this Agreement. If amendments or modifications cannot be agreed upon, any party may terminate.

16. ASSIGNMENT

None of the parties shall assign, subcontract, or otherwise transfer its rights or obligations, except to any parent, subsidiary or affiliate which is a California certificated Interexchange Carrier or Local Exchange Carrier. Any other attempted assignment shall be void.

17. NON-EXCLUSIVITY

This Agreement is not an exclusive agreement for the provision of emergency resources. Any party may provide emergency resources to entities not a party to this agreement, and any party may enter into agreements similar to this with other entities. A California certificated Interexchange Carrier or Local Exchange Carrier may be added as a party to this agreement upon request.

18. MFJ COMPLIANCE

This Agreement is subject to any restrictions imposed by the Modification of Final Judgment (MFJ), entered on August 24, 1982, by the U. S. District Court for the District of Columbia in United States v. Western Electric Co., Inc., Civil Action No. 82-0192, as well as the Final Judgment (FJ), entered on December 21, 1984, by the U. S. District Court for the District of Columbia in United States v. GTE Corp., Civil Action No. 83-1298, including any modification or interpretations thereof respectively, and any other judicial, regulatory or legislative requirements. Should the participation of any party in this agreement require a waiver of the MFJ or FJ, that party may immediately terminate.

19. SPECIAL MFJ PROCEDURE

To the extent that this agreement may make Telecommunications Equipment or facilities available to an Interexchange carrier from a local exchange carrier which is subject to the MFJ, special procedures will be followed to ensure MFJ compliance. On a coordinated basis, and prior to the provision of any services or equipment hereunder, the Interexchange carrier and local exchange carrier involved will inform the MFJ court and the Department of Justice of the emergency circumstances surrounding the request for facilities, as well as the involved party's capability and willingness to satisfy the request. The local

exchange carrier's General Counsel (or delegate) shall have sole authority on behalf of the local exchange carrier to coordinate and approve such requests made to that entity. A requesting interexchange carrier will provide appropriately authorized personnel to coordinate its requests and make direct contacts to the MFJ court and Department of Justice.

**20. ENTIRE AGREEMENT**

This Agreement constitutes the entire agreement of the parties, and shall not be modified or amended except by a writing signed by all parties.

**21. COUNTERPARTS**

This Agreement may be executed in two or more counterparts, each of which shall be deemed original, but all of which shall constitute one and the same instrument.

**22. TERMINATION**

Any party may, upon thirty (30) days prior written notice to all the parties, terminate its participation in this Agreement for any reason or no reason. Any party so terminating its participation shall be liable to the other parties for goods delivered and services rendered to the terminating party prior to the date of termination. In the event of termination of participation by any party, this Agreement shall remain in full force and effect as to the remaining parties.

**23. NOTICES**

Notices under this agreement shall be directed to the representatives signing this agreement on behalf of each respective party unless another point of contact has been designated in writing.

**24. DISPUTE RESOLUTION**

- a. If a dispute arises out of or relates to this Agreement, and if such dispute cannot be settled through negotiation, the parties agree first to try in good faith to settle the dispute by mediation under the Commercial Mediation Rules of the American Arbitration Association, before resorting to arbitration, or some other dispute resolution procedure.
- b. If the parties cannot resolve the dispute by mediation as discussed in paragraph a. above, any controversy or claim arising out of or relating this Agreement, shall be settled by binding arbitration in accordance with the Commercial Arbitration Rules of the American Arbitration Association, and judgment upon the award rendered by the arbitrator(s) may be entered in any court having jurisdiction thereof.
- c. Nothing in paragraphs a. or b. above shall prevent the parties from mutually agreeing to use an alternative means to resolve the dispute, such as a "mini-trial" or other procedure, whether or not it is sponsored by the American Arbitration Association. However, if the parties cannot mutually agree to such an alternative procedure, the preceding paragraphs are binding.

**25. EFFECTIVE DATE**

This Agreement becomes effective when signed by at least two parties and becomes effective for additional parties when signed by those additional

parties. This Agreement will continue in effect unless terminated in accordance with the terms and conditions of this Agreement.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be executed by their duly authorized representatives to be effective as to each signing party as of the date on which it signs.

PACIFIC BELL - Signature on file in Emergency  
Preparedness Organization

GTE CALIFORNIA INCORPORATED - Signature on file in Emergency  
Preparedness Organization

CONTEL OF CALIFORNIA, INC. - Signature on file in Emergency  
Preparedness Organization

US SPRINT COMMUNICATIONS - Signature on file in Emergency  
COMPANY LIMITED PARTNERSHIP Preparedness Organization

MCI TELECOMMUNICATIONS - See attached letter

AT&T - Letter of Support pending

## **Appendix 2.3**

BELLSOUTH TELECOMMUNICATIONS, INC. AND

INTEREXCHANGE CARRIER EMERGENCY PREPAREDNESS AND RESTORATION

AGREEMENT OF UNDERSTANDING

FOR ALABAMA

AUGUST 25, 1992

## BACKGROUND

Several disastrous events in the last few years have prompted an increased awareness of the need for cooperative emergency planning. Among these events are the recent Los Angeles earthquake, hurricane Hugo, the Hinsdale, Illinois central office fire, and seismic activity along the New Madrid fault. Many companies have developed emergency plans to protect employees, ensure service continuity, and provide for the orderly restoration of service when necessary.

Members of the telecommunications industry, including Local Exchange Companies (LECs), Interexchange Carriers (ICs), and other telecommunications carriers, are increasingly aware of the need for cooperative interaction to ensure the survivability and/or restoration of critical communications services in the event of a major network catastrophe.

Representatives of BellSouth Telecommunications and interexchange carriers have formed a Committee to develop an Agreement of Understanding to give direction to the interaction between our companies in emergency situations. The primary purpose of the agreement is to establish a spirit of cooperation and provide for the orderly restoration of telecommunication services in the event of a major network failure.

BELLSOUTH TELECOMMUNICATIONS, INC. ("BST") AND  
INTEREXCHANGE CARRIER ("IC") EMERGENCY PREPAREDNESS  
AND RESTORATION AGREEMENT OF UNDERSTANDING FOR ALABAMA

This BST AND IC EMERGENCY PREPAREDNESS AND RESTORATION AGREEMENT OF UNDERSTANDING FOR ALABAMA ("Agreement") is an agreement between active members of the Alabama BST and IC Emergency Preparedness and Restoration Committee as presently constituted. The purpose of the Agreement is to delineate minimum requirements for cooperative interaction between BST and member ICs to ensure the survivability and/or orderly restoration of critical communication services in the event of a major network catastrophe. We agree to the following cooperative interaction and procedures in the event of a major network emergency:

1. The need for an orderly approach to network restoration dictates that we prioritize these activities beginning with the most critical. Therefore, emergency restoration will be prioritized in the following order:
  - A. The first responsibility of BST and the individual ICs will be to maintain and/or restore the integrity of our respective telecommunications networks.
  - B. BST will restore those circuits designated as Telecommunications Service Priority (TSP) facilities based on the restoration priority levels assigned by the National Communications System. If the ICs have special access trunks assigned with TSP priority codes, then these facilities will be restored based on the priority codes assigned and provided to BST.
  - C. Essential government services, such as the Birmingham Emergency Management Office and the Federal Emergency Management Agency (FEMA), will be given next priority.
  - D. In addition to TSP and government services, priority restoration treatment will be given to public services such as hospitals, fire, police, utilities (gas, water and electricity), etc.

2. Restoration of critical communications services to our collective customers is our primary consideration. Billing considerations will be of secondary importance if interim measures are required to restore service.
3. Initial trouble reports to BST will be called in to the service center where IC-related maintenance problems and trouble reports are normally handled, i.e., the local Special Service Center (SSC) or Switching Control Center (SCC). If these are unavailable, the BST Emergency Operations Center (EOC) for the appropriate district should be called. The next attempt should be to the area EOC and then to the BST Birmingham EOC in consonance with the attached BST contact list.
4. Initial emergency contact for AT&T will be the AT&T Network Operations Center in New Jersey. Subsequent contacts will be to the appropriate district as delineated on the attached AT&T contact list.
5. Initial emergency contact for MCI will be to the MCI Eastern Area Surveillance Center. Subsequent contacts will be to the appropriate district as delineated on the attached MCI contact list.
6. Initial emergency contact for Sprint will be to the Sprint Command Headquarters - Atlanta. Subsequent contacts will be made to the Sprint Network Operations Center - Atlanta and then to the Birmingham district in consonance with the attached Sprint contact list.
7. Initial emergency contact for LDDS will be to the LDDS Network Control Center in Jackson, MS. Subsequent contacts will be to the appropriate Alabama district contacts on the attached LDDS contact list.
8. Initial emergency contact for DeltaCom/Southern Interexchange will be to [to be provided by DeltaCom].
9. Emergency restoration activities by BST and ICs may include but are not limited to:
  - \* The import of mobile switching units.
  - \* Public service announcements, operator referrals, and/or recorded messages from failed carriers directing callers to available 10XXX numbers.
  - \* Redirecting switched access trunks from failed carriers to available carriers, as agreed between the two companies, when facilities and manpower resources are available or can be made available.

10. We agree to make surplus emergency equipment such as generators, etc. available to other Exchange Carriers and Interexchange Carriers for disaster recovery, provided the equipment is not needed for emergency use within our respective companies or committed by prior agreements.

A "Resource Allocation Agreement" on National Security Emergency Preparedness has been developed to provide for emergency lending and borrowing of personnel, vehicles and equipment between BST and the other six Regional Bell Operating Companies plus Cincinnati Bell and Southern New England Telephone. Availability of emergency equipment may be restricted by similar agreements by other Local Exchange Companies and Interexchange Carriers.

Requests for BST emergency equipment should be channeled through the BellSouth Headquarters Emergency Control Center. The contact telephone number is listed in the enclosed emergency contact list.

11. In order to expedite restoration activities, requests for circuit additions and/or other services required for emergency restoration may be made via telephone to the ICs respective Interexchange Customer Service Center (ICSC). The request can then be expedited through the Area ISC team. The attached ICSC contact list should be used for this purpose. Escalation contacts are also listed if the appropriate ICSC cannot be contacted.
12. It will be the responsibility of the BST State Access Market Manager (SAMM) to maintain and distribute current emergency contact lists as necessary.
13. Parties to the Agreement will meet as deemed necessary by members of the Committee, to maintain the integrity of this Agreement.

This Agreement and the terms contained herein do not establish any contractual obligation or duties on the parties herein and no such obligation or duty is intended or implied. The signatories hereto agree to act in cooperation with each other should a major emergency situation occur.

## Appendix 2.4





BST - IC  
EMERGENCY PREPAREDNESS  
AND RESTORATION AGREEMENT  
OF UNDERSTANDING

NOVEMBER 18, 1991

TABLE OF CONTENTS

BACKGROUND.....	1
AGREEMENT OF UNDERSTANDING.....	2 - 4
AT&T EMERGENCY CONTACTS.....	5 - 6
MCI EMERGENCY CONTACTS.....	7
U.S SPRINT EMERGENCY CONTACTS.....	8
LDDS EMERGENCY CONTACTS.....	9
BELLSOUTH TELECOMMUNICATIONS INC. EMERGENCY OPERATIONS CENTERS (EOC).....	10
BELLSOUTH TELECOMMUNICATIONS INC. INTEREXCHANGE CARRIER SERVICE CENTERS (ICSC).....	11
INDEPENDENT COMPANY EMERGENCY CONTACTS: GENERAL TELEPHONE CO. - UNITED TELEPHONE SYSTEMS .....	12
EMERGENCY MANAGEMENT AGENCY CONTACTS .....	13
COMMITTEE MEMBERS .....	14
CONCURRENCE LETTERS .....	APPENDIX

**TENNESSEE**  
**BELLSOUTH TELECOMMUNICATIONS INC.\INTEREXCHANGE CARRIER**  
**EMERGENCY PREPAREDNESS\RESTORATION COMMITTEE**

**BACKGROUND**

With the occurrence of various disastrous events in the last two years, such as the Los Angeles earthquake, hurricane Hugo, the central office fire at Hinsdale, Illinois and increased seismic activity along the New Madrid fault, has come an increased awareness of the need for emergency planning. Many companies, including those in the telecommunications industry have developed emergency plans to protect employees, ensure service continuity and provide for the orderly restoration of service when necessary. In the telecommunications industry we have also become conscious of the need for cooperative interaction between Local Exchange Companies (LEC's), Interexchange Carriers (IC's) and other telecommunications carriers to ensure the survivability and/or restoration of critical communication services in the event of a major network catastrophe.

It is with this awareness that BellSouth Telecommunications Inc., AT&T, MCI, U.S Sprint and LDDS formed a committee in October 1990 to discuss service restoration alternatives and develop an "Agreement of Understanding" for interaction between IC's and between IC's and BST in emergency situations. The primary purpose of the agreement is to establish a spirit of cooperation and provide for the orderly restoration of telecommunication services should a major network failure occur.

While earthquakes are the primary concern in Tennessee, other emergency situations include fires, floods and other catastrophic occurrences which can cause pervasive network failures. This agreement is restricted to Tennessee, however, members of the Committee who have multistate responsibility strongly recommend that a similar agreement of understanding be adopted on an individual state basis in all BST states.

**TENNESSEE  
BELLSOUTH TELECOMMUNICATIONS INC.\INTEREXCHANGE CARRIER  
EMERGENCY PREPAREDNESS\RESTORATION  
AGREEMENT OF UNDERSTANDING**

**September 24, 1991**

This is an agreement between active members of the Tennessee BST/IC Emergency Preparedness\Restoration Committee as presently constituted. The purpose of the "Agreement" is to delineate minimum requirements for cooperative interaction between BST and member Interexchange Carriers, i.e., AT&T, MCI, U. S Sprint and LDDS, to ensure the survivability and/or orderly restoration of critical communication services in the event of a major network catastrophe. We agree to the following cooperative interaction and procedures in the event of a major network emergency.

1. The need for an orderly approach to network restoration dictates that we prioritize these activities beginning with the most critical. Therefore, emergency restoration will be prioritized in the following order:
  - A. The first responsibility of BST and the individual IC will be to maintain and/or restore the integrity of our respective telecommunications networks.
  - B. BST will work to restore IC special access trunks with current priority codes assigned by the National Security Emergency Preparedness (NSEP) Committee first. This will be done in consonance with the level of priority assigned.
  - C. Critical state and local Emergency Management Agencies which includes the Tennessee Emergency Management Agency (TEMA) will be given next consideration.
  - D. Telecommunications will be restored to public entities which are required to maintain public health, safety and order. These will include hospitals, ambulance, police etc.
2. Restoration of critical communications services to our collective customers is our primary consideration. Billing considerations will be of secondary importance if interim measures are required to restore service.

3. Initial trouble reports to BST will be called in to the service center where maintenance problems and trouble reports are normally handled, i.e., the local Special Service Center (SSC) or Switching Control Center (SCC). If these are unavailable, the BST Emergency Operations Center (EOC) for the appropriate district should be called. The next attempt should be to the area EOC then to the BST Birmingham EOC in consonance with the attached BST contact list.
4. Initial Emergency contact for AT&T will be the AT&T Network Operations Center - New Jersey. Subsequent contacts will be to the appropriate district as delineated on the attached AT&T contact list.
5. Initial Emergency contact for MCI will be to the MCI Eastern Area Surveillance Center. Subsequent contacts will be to the appropriate district as delineated on the attached MCI contact list.
6. Initial Emergency contact for U.S Sprint will be to the U. S Sprint Command Headquarters - Atlanta. Subsequent contacts will be made to the U.S Sprint Network Operations Center - Atlanta then to the Nashville district in consonance with the attached U. S Sprint contact list.
7. Initial Emergency contact for LDDS will be to the LDDS Network Control Center - Jackson, Mississippi. Subsequent contacts will be to appropriate Tennessee District contact on page 10.
8. Emergency restoration activities by BST and ICs may include but are not limited to:
  - \* The import of mobile switching units.
  - \* Public service announcements, operator referrals, and/or recorded messages directing callers to available 10XXX numbers from failed Carriers.
  - \* Redirecting switched access trunks from failed Carriers to available Carriers, as agreed between the two companies, when facilities and manpower resources are available or can be made available.
9. BST and ICs agree to make surplus emergency equipment such as generators, etc. available for loan between communications companies. Emergency equipment loans will not extend longer than the duration of the emergency without further agreement between the two parties. It will be the responsibility of the lender and borrower of emergency equipment to maintain records of equipment loaned or borrowed.
10. In order to expedite restoration activities, requests for circuit additions and/or other services required for emergency

restoration may be made via telephone to the ICs respective Interexchange Carrier Service Center (ICSC). The request can then be expedited back through the Area ISC Team. The attached ICSC contact list should be used for this purpose. Escalation contacts are also listed if the appropriate ICSC cannot be contacted.

11. It will be the responsibility of the BST State Access Market Manager (SAMM) to maintain and distribute current emergency contact lists as necessary.
12. This Committee will meet annually, or more often if deemed necessary by members of the Committee, to maintain the integrity of this Emergency Preparedness\Restoration Agreement.

This agreement and the terms contained herein do not establish any contractual obligation or duties on the parties herein and no such obligation or duty is intended or implied. The signatories hereto to act in cooperation with each other should a major emergency situation occur.

## Appendix 2.5



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AGREEMENT OF THE NEW YORK CITY METROPOLITAN REGION  
MUTUAL AID AND RESTORATION CONSORTIUM

THIS AGREEMENT, made as of February 18, 1992, is by and among American Telephone and Telegraph Company, Cable & Wireless Communications, Inc., Eastern Microwave Inc., Litel, Local Area Telecommunications, Inc. (LOCATE), MCI Telecommunications Corporation, Metropolitan Fiber Systems of New York, Inc., New Jersey Bell Telephone, New York Telephone Company, RCI Network Services, Inc., Teleport Communications, US Sprint Communications Company Limited Partnership, Western Union ATS, Inc. and WilTel, Inc., the common carriers which provide telecommunications transport services in the New York City Metropolitan Region (collectively referred to herein as the "Consortium" or "Consortium Members;" individually referred to herein as a "Member of the Consortium").

WITNESSETH:

WHEREAS, in August 1990, Mayor David N. Dinkins formed a public-private task force to explore ways to enhance the reliability of New York City's telecommunications network;

WHEREAS, the members of the Mayor's Task Force on Telecommunications Network Reliability (hereinafter "Task Force") have a strong interest in ensuring that New York City's telecommunications network will be able to meet the continuing needs of the business and institutional communities under all reasonably foreseeable circumstances;

WHEREAS, the members of the Task Force, in light of the commonly held interest in a secure universal telecommunications network, formed a Mutual Aid and Restoration Subgroup (hereinafter "Subgroup") to pursue avenues involving mutual assistance and shared arrangements;

WHEREAS, the Subgroup developed procedures whereby Consortium Members may commit to assist other Consortium Members in the event of a critical disruption to their telecommunications networks supporting the New York City Metropolitan Region;

WHEREAS, each Member of the Consortium agrees to follow the procedures developed by the Subgroup;

WHEREAS, it is the intent of the Consortium that this Agreement be administered consistent with all applicable Federal, state and local laws, orders, writs, judgments, decrees, rules and regulations.

NOW, THEREFORE, the parties hereto, in consideration of the terms, conditions and agreements set forth herein, agree as follows:

I. SCOPE AND TERM OF AGREEMENT

This Agreement establishes procedures, terms and conditions for the restoration of wideband high capacity telecommunications transmission facilities in the New York City Metropolitan Region. This Agreement shall commence on the Effective Date and shall continue through December 31, 1998, unless sooner terminated

pursuant to Section VIII of this Agreement. The date by which any two Members of the Consortium have signed this Agreement shall be the "Effective Date."

## II. DEFINITIONS

**ALERT:** A loss of critical wideband high capacity intrastate and/or interstate telecommunications within New York City or into and out of New York City for two (2) hours or less that may be capable of being restored by the FAILED COMMON CARRIER(S) utilizing its (their) own spare/protect channels. An ALERT may be called by the Commissioner of the New York City Department of Telecommunications and Energy or his or her designee ("Commissioner") or by the FAILED COMMON CARRIER(S) with the concurrence of the Commissioner.

**EMERGENCY:** A loss of critical wideband high capacity intrastate and/or interstate telecommunications within New York City or into and out of New York City that cannot be restored by the FAILED COMMON CARRIER(S) within two (2) hours by utilizing its (their) own spare/protect channels. An EMERGENCY may be called by the Commissioner or by the FAILED COMMON CARRIER(S) with the concurrence of the Commissioner.

**EMERGENCY RESTORATION SERVICE:** Service that is provided by the RESTORAL COMMON CARRIER(S) to the FAILED COMMON CARRIER(S) during an EMERGENCY.

FAILED COMMON CARRIER(S): Any Consortium Members whose facilities are the subject of an ALERT or EMERGENCY.

RESTORAL COMMON CARRIER(S): Any Consortium Members that provide EMERGENCY RESTORATION SERVICE.

DAY: A period of twenty-four (24) consecutive hours.

### III. FACILITIES

3.1 The restoration procedures to be utilized by Members of the Consortium in the event of a critical telecommunications disruption to the New York City Metropolitan Region are set forth in Appendix A. Each Member of the Consortium shall authorize and assign one or more representatives and/or designate a network control center (or other monitoring office) to receive notice of any ALERT or EMERGENCY called by the Commissioner. The current representatives and centers are identified in Appendix B. Prior to assigning a new representative or designating a new control center to receive notice of any ALERT or EMERGENCY, a Member of the Consortium shall notify the Commissioner and other Consortium Members of the new contact information and the effective date of the change.

3.2 The RESTORAL COMMON CARRIER(S) will make wideband high capacity transmission facilities available to the FAILED COMMON CARRIER(S) to the extent the RESTORAL COMMON CARRIER(S) deem the wideband high capacity transmission facilities are available. If deemed available by the RESTORAL COMMON CARRIER(S), such wideband

high capacity transmission services may be made available to the FAILED COMMON CARRIER(S) on a DS3 Interface, a higher capacity interface, or fiber optic system that is acceptable to the FAILED COMMON CARRIER(S). The FAILED COMMON CARRIER(S) shall pay to the RESTORAL COMMON CARRIER(S) charges as stated in Section V. The RESTORAL COMMON CARRIER(S) will have no obligation to provide EMERGENCY RESTORATION SERVICE beyond seven (7) consecutive DAYS.

3.3 Should the RESTORAL COMMON CARRIER(S) need the transmission capacity that it is providing to the FAILED COMMON CARRIER(S) during an EMERGENCY, the RESTORAL COMMON CARRIER(S) may reclaim the capacity immediately and make reasonable efforts to notify promptly the FAILED COMMON CARRIER(S).

3.4 The obligations of the Consortium Members under this Agreement are subject to all applicable Federal, state and local laws, rules, regulations, orders, writs, decrees and judgments, including, but not limited to, those of the Federal Communications Commission, New York State Public Service Commission, New Jersey Board of Public Utilities and United States District Court for the District of Columbia.

#### IV. TRANSMISSION PLANS

Commencing upon the Effective Date of this Agreement, the Consortium Members will cooperate with one another to develop transmission plans to facilitate the implementation of EMERGENCY RESTORATION SERVICE in the New York Metropolitan Region.

V. CHARGES FOR EMERGENCY RESTORATION SERVICE

During the first seven (7) consecutive DAYS of EMERGENCY RESTORATION SERVICE, the RESTORAL COMMON CARRIER(S) will charge the FAILED COMMON CARRIER(S) reasonable and customary out-of-pocket expenses.

After the first seven (7) consecutive DAYS of EMERGENCY RESTORATION SERVICE, the FAILED COMMON CARRIER(S) and the RESTORAL COMMON CARRIER(S) may negotiate for the continuation of service, including the terms and conditions on which it shall be provided.

VI. PRIORITY/PRECEDENCE

When an EMERGENCY is called by the Commissioner for more than one FAILED COMMON CARRIER, and sufficient wideband high capacity transmission facilities to restore the failed facilities are not available, the RESTORAL COMMON CARRIER(S) with the concurrence of the Commissioner will allocate the available facilities between and among the FAILED COMMON CARRIERS.

VII. LIMITATION

Restoral is limited to the existing, in-service capacity of the FAILED COMMON CARRIER(S) that is affected by an EMERGENCY,

and is not made available under this Agreement for network expansion or for new installations of service.

VIII. WITHDRAWAL FROM THE CONSORTIUM/TERMINATION OF THE AGREEMENT

Any Member of the Consortium may terminate its participation in this Agreement at any time and withdraw from the Consortium upon ten days notice to all other Consortium Members and to the Commissioner.

This Agreement shall terminate upon the withdrawal of twelve or more Members of the Consortium pursuant to this Section.

IX. RESTORAL SERVICE PROVISION

The services provided by the RESTORAL COMMON CARRIER(S) to the FAILED COMMON CARRIER(S) may be subject and pursuant to the applicable Federal and state tariffs of the RESTORAL COMMON CARRIER(S) governing such services and the FAILED COMMON CARRIER(S) may be deemed the customer(s) of the RESTORAL COMMON CARRIER(S) for services provided under this Agreement. This Agreement incorporates by reference the terms and conditions of such applicable tariffs as applied to services furnished hereunder including, without limitation, the limitation of liability provisions. Should any signatory to this Agreement opt to file a tariff, copies of that tariff will be provided to all other signatories.

X. LIABILITY

The FAILED COMMON CARRIER(S) shall hold harmless the RESTORAL COMMON CARRIER(S) from all claims relating to the EMERGENCY RESTORATION SERVICE that are not the direct result of gross negligence or willful misconduct on the part of the RESTORAL COMMON CARRIER(S).

In no event shall any party to this Agreement be liable to any other party for indirect, incidental, consequential, exemplary, reliance or special damages, including, without limitation, damages for lost profits, regardless of the form of action whether in contract, indemnity, warranty, strict liability or tort.

XI. CONFIDENTIAL/PROPRIETARY INFORMATION

Any specifications, drawings, sketches, models, samples, tools, computer or other apparatus programs, technical or business information or data, written, oral or otherwise (all hereinafter designated "Information") furnished under this Agreement shall remain the property of the disclosing Member of the Consortium. All copies of such Information in written, graphic or other tangible form shall be returned to the disclosing Member of the Consortium at its request. Unless such Information was previously known to the receiving Member of the

Consortium or its employees free of any obligation to keep it confidential, or has been or is subsequently made public by the disclosing Member of the Consortium or a third party, or has been independently developed by the receiving Member of the Consortium, such Information shall be kept confidential by the receiving Member and its employees. All such Information shall be used only for the purpose for which it is disclosed, shall be protected and safeguarded according to security regulations, shall not be disclosed or communicated to any third party for any reason, and shall not be used by the receiving Member of the Consortium or its employees on its or their own behalf or on the behalf of any third party, and may not be used for any other purpose except as may be agreed to between the disclosing and receiving Members of the Consortium in writing.

XII. AMENDMENTS

This Agreement may be amended only in writing by an instrument signed by a duly authorized representative of each Member of the Consortium.

XIII. GOVERNING LAW

This Agreement shall be deemed to be executed in the City of New York, State of New York, and shall be governed in all

respects, including validity, interpretation and effect, and construed in accordance with the laws of the State of New York.

XIV. NOTICES

All notices required under this Agreement (except the notices referred to in Sections 3.1 and 3.3) shall be in writing sent by registered or certified mail, return receipt requested, to the addresses shown in Appendix B attached hereto or to such other addresses as Consortium Members may hereafter designate in writing. The required notice shall be deemed to have been given when mailed.

Any notice given pursuant to Section 3.1 shall be served as stated in Appendix A.

Any notice the RESTORAL COMMON CARRIER(S) is required to give to the FAILED COMMON CARRIER(S) pursuant to Section 3.3 shall be served by personal delivery, overnight delivery service or facsimile transmission to the representative(s) or center identified in Appendix B. Such notice shall be deemed given when it is received.

XV. GOVERNMENT APPROVALS

The performance of this Agreement by Consortium Members is contingent upon the obtaining and continuance of such governmental approvals, consents, authorizations, licenses, and permits as may be required or deemed necessary. The Consortium Members shall use their best reasonable efforts to obtain and ensure continuance of such approvals, consents, authorizations, licenses, and permits as may be necessary to provide EMERGENCY RESTORATION SERVICE.

XVI. RELATIONSHIP

This Agreement shall not constitute, create, give effect to or otherwise imply a joint venture, partnership or formal business organization of any kind. The common enterprise of the Consortium Members shall be limited to the express provisions of the Agreement.

XVII. ASSIGNMENT

During the term of this Agreement, any Consortium Member(s) may upon notice to the other Consortium Members and the Commissioner and without their consent, sell, assign, transfer or dispose of its rights or obligations under this Agreement to a

XVII. ASSIGNMENT

legal successor or subsidiary of, or a corporation or entity controlling or under the same control as such party.

XVIII. CONSORTIUM MEMBERS

Additional New York City Metropolitan Regional Common Carriers may join the Consortium upon consenting to the terms and conditions of this Agreement.

XIX. MISCELLANEOUS TERMS

This Agreement may be executed in counterpart originals.

Appendix A

NYC Metropolitan Regional Common Carrier and Mutual Aid  
Restoration Procedure - Outline

1. A common carrier determines that critical high capacity telecommunications facilities have failed within New York City or into and out of New York City.
2. The FAILED COMMON CARRIER commences its internal restoral procedure and concurrently notifies the New York City Department of Telecommunication and Energy Commissioner's Office of an ALERT, a possible EMERGENCY.
3. After concurrence, the Commissioner's Office contacts the New York Telephone Company's Network Surveillance Maintenance and Administration Center ("NSMAC") on 212-693-3000 and announces, "This is a Mutual Aid and Restoration ALERT".
4. The NSMAC will immediately contact all of the participating common carriers according to the 7X24 emergency contact list. The NSMAC will give the common carriers the conference call telephone number to dial in order to join the restoration conference. The NSMAC will secure the conference call as soon as all invited common carriers including the FAILED COMMON CARRIER are connected. The conference call number will not be distributed until required due to security purposes.
5. The participants are expected to have the authority and ability to represent their company and to commit restoral facilities. The RESTORAL COMMON CARRIERS relate to the

FAILED COMMON CARRIER the spare transmission facilities that they can make available for seven days (Reasonable and customary out-of-pocket labor expenses and/or applicable tariff rates will be charged for EMERGENCY RESTORATION SERVICE.) (If the facilities are subsequently needed by the RESTORAL COMMON CARRIER, they are returned immediately to the RESTORAL COMMON CARRIER upon notice to the FAILED COMMON CARRIER.) The FAILED COMMON CARRIER selects the restoral facilities that it desires. The FAILED COMMON CARRIER asks the RESTORAL COMMON CARRIER(s) to prepare for possible restoral plans (without charge) and will advise the RESTORAL COMMON CARRIER(s) in less than two hours if it will follow through with the emergency restoral. So far this is just an ALERT. If the FAILED COMMON CARRIER cannot restore on its own within two hours the ALERT becomes an EMERGENCY as follows.

6. If the FAILED COMMON CARRIER determines that it cannot restore within the two hour threshold it contacts the Commissioner's Office and relates that the ALERT should be escalated to an EMERGENCY. After concurrence, the Commissioner's Office contacts the NSMAC to instruct the RESTORAL COMMON CARRIER(s) that this is an EMERGENCY and to follow through with the restoration. Should the FAILED COMMON CARRIER realize at the onset that it would not be able to restore within the two hour time frame an EMERGENCY is called immediately and the ALERT procedure is ignored. If

the FAILED COMMON CARRIER does not contact the NSMAC within two hours the NSMAC will take the initiative and contact the FAILED COMMON CARRIER to follow through.

7. If the FAILED COMMON CARRIER is unable to restore within seven days, then it must negotiate with the RESTORAL COMMON CARRIER(s) for additional service.
8. The FAILED COMMON CARRIER will keep the Commissioner of the Department of Telecommunications and Energy and the NSMAC advised of the EMERGENCY and the progress to repair.
9. Once the EMERGENCY is over the FAILED COMMON CARRIER will report same to the Commissioner. The Commissioner will contact NSMAC, which will contact the carriers, relate the good news and return to status quo.
10. Definitions:

**ALERT:** A loss of critical wideband high capacity intrastate and/or interstate telecommunications within New York City or into and out of New York City for two (2) hours or less that may be capable of being restored by the respective FAILED COMMON CARRIER utilizing its own spare/protect channels.

**DAY:** A period of twenty-four (24) consecutive hours.

**EMERGENCY:** A loss of critical wideband high capacity intrastate and/or interstate telecommunications within New York City or into and out of New York City that cannot be restored by a FAILED COMMON CARRIER within two hours by utilizing its own spare/protect channels.

**EMERGENCY RESTORATION SERVICE:** Service provided by a

RESTORAL COMMON CARRIER to a FAILED COMMON CARRIER during an emergency.

FAILED COMMON CARRIER: The common carrier whose facilities are the subject of an ALERT or an EMERGENCY.

RESTORAL COMMON CARRIER: Any common carrier that provides EMERGENCY RESTORAL SERVICE.

## Appendix 3



Mobile Switching Trailer Equipment

Bell Atlantic

Bell Atlantic has 4 Carrier Emergency Restoration Trailers (CERT).  
The specifications are as follows:

CERT 1 - 10 Systems of SLC - 96  
2 Telco System 828F Multiplexers  
2 Kentrox 7620 MK1 Repeater shelf  
10 Westcom 3423 - Repeaters  
1 Sparton Alarm System

CERT 2 - Same as above except 1 - LM23 Multimode Multiplexer

NOTE: CERT 1 and 2 will operate on metallic or fiber cable. The  
multiplexer can be set up as single or multi-mode.

CERT 3&4- 2 Systems of SCL - 96  
16 Systems of SLC series 5  
1 AT&T SXSS Repeater Shelf  
10 AT&T 231G Repeaters  
2 DDM 1000 Multiplexers

NOTE: CERT 3 & 4 will operate on metallic or fiber cable. The DDM  
1000 mux will operate with single or multi mode cable.

Portable Optical Restoration Trailer (PORT)

System specifications:

2 Fujitsu 810MB/Sec - 1X protected systems  
2 NEC 560MB/Sec 1X1 protected systems  
2 AT&T 417MB/Sec 1X1 protected systems  
4 AT&T DDM 1000 Multiplexers 180MB/SEC  
2 Kentrox Repeater shelves E/W 14 "231" Repeaters

System Capacities:

Fujitsu 810MB: 18 DS3s (1X1)  
36 DS3s (unprotected)  
NEC 560MB: 12 DS3s (1X1)  
24 DS3s (unprotected)  
AT&T 417MB: 9 DS3s (1X1)  
18 DS3s (unprotected)

AT&T DDM-1000 multiplexer: 112 DS1s  
Kentrox Repeater Shelves: 14 DS1s

## BellSouth

BellSouth has 4 trailers. They are as follows:

Trailer 1 - DMS 100 Switch

Trailer 2 - Additional switching capacity

Both trailer one and two have 10,000 line capacity, plus ISDN, STP and tandem capability.

Trailer 3 - Transmission equipment including generator and fuel. Rectifiers and batteries are located in switch trailer one.

Trailer 4 - Power equipment including generator and fuel. (Rectifiers and batteries are located in switch trailer one.

\*Trailers one, three and four can be used in a stand alone mode.

## Pacific Bell

Pacific Bell has a SESS Restoration Trailer that is a self contained mobile Central Office. It has three switching modules, auxiliary power, digital facility bays, and a COSMIC MDG. It is translated and wired to provide 3600 analog lines for essential telephone service; additional capacity is provided via 512 ISDN lines. Two way trunks connected to the home tandem via T1 or Fiber span provides network access; 480 trunks are wired and translated.

# Restoration Vehicles

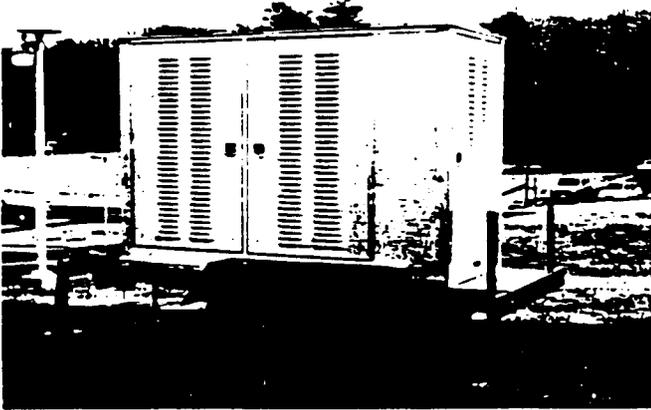


## **Restoration Vehicles**

You can depend on AT&T's Adaptive Design Engineering organization to develop an **Emergency Restoration Vehicle** that will accommodate your specific needs. In addition to restoration purposes, you will find these vehicles invaluable for maintaining and upgrading the electronics of your remote enclosures. Another important application of these vehicles is for a temporary communication hook-up, such as those required for sporting events and conventions. They can range in size from cabinets to trailers and will accommodate switching, loop electronics, transmission, energy, satellite or microwave communications equipment.

For information on purchasing, leasing and maintenance contracts, please contact your Adaptive Design Engineering Representative, on (301) 584-4678 or (301) 584-6147.

# Adaptive Design Power Trailer



## **Adaptive Design Power Trailer**

The **Power Trailer** designed by Adaptive Design Engineering provides both AC and DC Power to satisfy a wide range of power restoration requirements. The diesel generator will deliver 17.5 KW at 120/240 VAC. This power is available either for direct AC backup from a 60 Amp receptacle on the side of the trailer, or may be used to feed the self-contained Lineage Power Plant, which will provide 150 Amps at - 48 VDC from three DC Receptacles. Battery back-up has been provided using sealed lead acid batteries with adequate ventilation. All necessary interconnecting cables have been included in a convenient storage area within the trailer. All of these features are contained in a dual axle aluminum trailer approximately 108" long, 48" wide and 60" high.

This description represents a design that was developed for one particular customer. We can meet your specific needs with a custom designed power trailer based on your individual requirements.

# Adaptive Design Carrier Emergency Restoration Trailer



## Adaptive Design Carrier Emergency Restoration Trailer

The **Carrier Emergency Restoration Trailer (CERT)** is designed to meet your specific needs for restoration and maintenance of Digital Carrier Remote Terminal Sites.

The CERT is designed for rapid deployment and connection to metallic or fiber facilities. Each CERT is equipped with a generator to provide its own operating power. Facilities for hook-up to commercial power are also available.

Typically, CERT's are equipped with the following:

- SLC<sup>®</sup> 96 and or Series 5
- DDM-1000 or other fiber optic multiplexers as required
- COD (metallic to fiber switch)
- LGX Lightguide distribution system
- 800-Series DSX
- 307 Protection System
- Telemetry Alarm System (optional)

A **Carrier Emergency Restoration Trailer** will meet your telecommunication restoration requirements in an economical and efficient manner.

## How To Request The Use Of A PORT Or CERT For Emergency Restoration

CALL (301) 494-6542 (24 Hrs.) and be prepared to respond to the items on page 6. The operator will request a call back number and a representative from AT&T will call you back regarding your needs. AT&T will dispatch immediately and an AT&T technical assistant will accompany the trailer(s) to the site. The technical assistant will assist (advisory) in the set up and configurations and stay until the hook up is completed and the requestor is ready to assume full responsibility. An NSS Staff Representative will also be available on site.

### Responsibilities Of The Requestor:

The individual/organization requesting the use of one or more of the emergency restoration trailers will be responsible for:

- All expense related to the deployment of trailer(s).
- Repair/replacement of any equipment damaged or lost during deployment. This would include the trailer as well as any circuit packs, channel units and associated systems.
- Any and all set up arrangements. This includes a protected site (trailers are approximately 9x9x18 with dual axle and weigh 14,000 lbs.), commercial power as required, security and supervision.

### Future Modification Update Information

Any changes related to the availability or functions of the Emergency Restoration Trailers will be distributed to all Managers, Directors/District Managers, and Managing Directors/Division Managers through Information Letters prepared by NSS Staff.

## Deployment Request Data

(Call 301-494-6542)

Requesting Party: \_\_\_\_\_  
 Telephone No.: \_\_\_\_\_ RC: \_\_\_\_\_  
 Trouble Site: \_\_\_\_\_  
 (Specific directions): \_\_\_\_\_  
 Contact Person: \_\_\_\_\_ Pager: \_\_\_\_\_  
 Phone: \_\_\_\_\_ Mobile: \_\_\_\_\_  
 Total lines/systems/circuits affected: \_\_\_\_\_

### Requesting A CERT:

1. Are digital lines fiber/metallic? \_\_\_\_\_
2. If lines are metallic and it is a SLC-96 or Series 5, are LIUs loop or line powered?  
\_\_\_\_\_
3. If SLC-96, what mode (1, 2, or 3)? \_\_\_\_\_
4. What features package is required (A, B, C, C2 or D)? \_\_\_\_\_
5. If lines are fiber, what is the mux model?  
\_\_\_\_\_ And is it single or multi mode?  
\_\_\_\_\_
6. Is more than one CERT required? \_\_\_\_\_

### Requesting A PORT:

1. The affected C.O.: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 Town: \_\_\_\_\_ State: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Phone: \_\_\_\_\_
2. Restoration C.O. East: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 Town: \_\_\_\_\_ State: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Phone: \_\_\_\_\_
3. Restoration C.O. West: \_\_\_\_\_  
 Street: \_\_\_\_\_  
 Town: \_\_\_\_\_ State: \_\_\_\_\_  
 Contact: \_\_\_\_\_ Phone: \_\_\_\_\_
4. Multiplexer Model Required: \_\_\_\_\_
5. Will a CERT also be required: \_\_\_\_\_

SLC-96<sup>®</sup> is a registered trademark of AT&T.

# Disaster Recovery

## Emergency Restoration Trailers

### Carrier Emergency Restoration Trailers (CERT)

### Portable Optical Restoration Trailer (PORT)

## Emergency Restoration Trailers

Bell Atlantic Network Services Staff has, through contract with AT&T, emergency restoration trailers ready for immediate deployment for the following situations:

- Deployment for National Security Emergency Preparedness (NSEP).
- Emergency replacement at a remote terminal (RT) site.
- Restoration of interoffice facilities from a C.O. debilitating disaster.
- Assistance in cut-overs of working systems.
- Temporary hook-ups for additional facilities.

## Carrier Emergency Restoration Trailers (CERT)

### System Specifications:

#### CERT 1:

- 10 - SYSTEMS OF SLC-96
- 2 - TELCO SYSTEM 828F MULTIPLEXERS
- 2 - KENTROX 7620 MK1 REPEATER SHELF
- 10 - WESTCOM 3423 - REPEATERS
- 1 - SPARTON ALARM SYSTEM

#### CERT 2:

Same as CERT 1, except:

- 1 - LM23 MULTIMODE MULTIPLEXER

**NOTE:** CERT 1 & 2 will operate on metallic or fiber cable. The multiplexer can be set up as single or multi-mode.

#### CERT 3 & 4:

- 2 - SYSTEMS OF SLC-96
- 16 - SYSTEMS OF SLC SERIES 5
- 1 - AT&T SXSS REPEATER SHELF
- 10 - AT&T 231G REPEATERS
- 2 - DDM 1000 MULTIPLEXERS

**NOTE:** CERT 3 & 4 will operate on metallic or fiber cable. The DDM 1000 mux will operate with single or multi mode cable.

### Available Plug In Inventory:

CERT 1 & 2 are equipped with all common plugs for 10 systems of SLC-96. Optional plugs are available for mode 1, 2, and 3 operation of 10 systems.

In addition CERT 2 has plugs to interface the LM23 mux to 7 systems.

CERT 3 & 4 are equipped with all common plugs for 2 systems of SLC-96 and 16 systems of SLC SERIES 5.

In addition, POTS plugs are provided for 4 systems of SLC SERIES 5 and optional plugs to modify SLC SERIES 5 from mode 96 to feature PACKAGE C.

## Portable Optical Restoration Trailer (PORT)

### System Specifications:

- 2 - FUJITSU 810MB/SEC- 1X1 PROTECTED SYSTEMS
- 2 - NEC 560MB/SEC 1X1 PROTECTED SYSTEMS
- 2 - AT&T 417MB/SEC- 1X1 PROTECTED SYSTEMS
- 4 - AT&T DDM-1000 MULTIPLEXERS - 180MB/SEC
- 2 - KENTROX REPEATER SHELVES E/W 14 "231" REPEATERS

### System Capacities:

- FUJITSU 810MB: 18 DS3s (1X1),  
36 DS3s (unprotected)
- NEC 560MB: 12 DS3s (1X1),  
24DS3s (unprotected)
- AT&T 417MB: 9 DS3s (1X1),  
18 DS3s (unprotected)
- AT&T DDM-1000 MULTIPLEXER: 112 DS1s
- KENTROX REPEATER SHELVES: 14 DS1s

**NOTES:** All fiber optic terminal equipment is arranged in a back to back arrangement in order to route traffic around a damaged central office. In order to assist patching of DS3 systems, all DS3 cabling is terminated.

The PORT can be used in conjunction with one or more CERTs. The PORT is equipped with AT&T DDM-1000 multiplexers which are compatible with existing equipment in the CERTs. Cabling between the 2 trailers may be done over copper (T1 circuits) or via fiber (180 Mb).

A large quantity of patch cords comes with the trailer for field modifications.

## Power Supply/Commercial Power

Each of the trailers (PORT & CER1) has a 7.5 kilowatt power plant with a 27 gallon fuel tank to provide approximately 33 hours of operating time. For longer periods of operation each trailer also has a connection for commercial power.

## Routine Requests And Questions

Call the Bell Atlantic Network Services Staff CERT/PORT/NSEP SMEs:

SME	OFFICE	HOME
Bill Duncan	(301) 236 2792	(717) 993 2418
Pager	1 800 759 7243, PIN No 76312	
Larry Finley	(301) 236 2784	(703) 922 8166
Pager	1 800 759 7243, PIN No 76314	
Nolan Dinsmore	(301) 236 2764	(301) 843 3451
Pager	1 800 759 7243, PIN No 2311226	

## 5ESS<sup>SM</sup> Switch Central Office Recovery Express



If a disaster knocks out your central office, the 5ESS Switch Central Office Recovery Express can restore dial tone to your customers within just four hours of its arrival on the scene.

The 5ESS Switch Central Office Recovery Express is a fully configured central office in a trailer. It contains a 5ESS Switch, a COSMIC<sup>SM</sup> distributing frame, Dual Digital Multiplexer (DDM-1000<sup>SM</sup>), transmission equipment, Lineage 2000<sup>SM</sup> power plant, copper DS<sup>3</sup> or DS<sup>3</sup> fiber (LGX<sup>SM</sup>) conductivity. The vehicle travels, and so it's ready to go as soon as it's linked into your network. And, an innovative connector system enables your technicians to connect the trailer to your cable vault or main frame within just four hours.

The 5ESS Switch Central Office Recovery Express can be configured for a wide range of 5ESS

Switch services: COST capability, Centrex, Integrated Services, Digital Network (ISDN) services, Local Area Signaling Services, and Business and Residential Customer Services. It can be connected to fiber or copper and is microwave transmission ready.

The 5ESS Switch Central Office Recovery Express is available to any customer, whether a telephone operating company, private organization, or governmental agency. If a natural or man-made disaster or other emergency causes your central office to go out of service, just call AT&T and the mobile central office can soon be on its way. The 5ESS Switch Central Office Recovery Express is a support service that AT&T provides to its customers to enhance their ability to serve the community of interest during disasters.

### A Complete, Self-Contained Central Office

The trailer contains a state-of-the-art central office with the following equipment:

- A pre-configured 5ESS Switch containing three switching modules with a capacity of 4,096 POTS lines, of which 512 can be reconfigured to include ISDN capabilities. It is linked to your network by 480 fully wired and translated trunks that can be connected to a home tandem switch by T1 carrier or fiber span, and additional trunks can be added. The line capacity can be increased by connecting a Remote Switching Module or two Optical Remote Modules, and remote SLC<sup>SM</sup> Series 5 or SLC 96 carrier modules to the switch.
- Transmission equipment, including DDM-1000 digital facility bays, DSX cross-connects, Lightguide (LGX) and other systems to support all on-board requirements for connections to fiber, copper, and microwave facilities.
- SLC Series 5 equipment, including both central office and remote terminal systems.
- A COSMIC II Mini Distributing Frame with complete predefined MELD support that provides line protection and reduces cable pair connections.
- A Lineage 2000 power plant with battery reserve and diesel generator.
- Capability to interface to the most common operations support systems.

The 5ESS Switch Central Office Recovery Express is supported by a crew of two to four technicians.

## 5ESS Switch Central Office Recovery Express

---

### Physical Environment and Protection

Although the mobile central office is intended for temporary use, it is designed for comfort and convenience. It provides plenty of space for your technicians to work inside, with separate rooms for utilities, equipment, and controls.

The trailer is air conditioned, heated, humidified, and grounded. It has recessed lighting, drop ceilings, and raised flooring. It also provides exterior work lights.

In addition, the trailer offers a full range of protection against climatic, environmental, and other conditions that could affect personnel or service such as:

- protection from electromagnetic interference, acoustical noise, and normal power surges
- cushioning against vibration
- fire detection and prevention equipment
- lightning protectors
- filtering for airborne contaminants
- venting for gas emissions from batteries

### Whom to Call

If, after assessing the need for an emergency situation, you need the 5ESS Switch Central Office Recovery Express, follow your existing local procedures developed with your AT&T Account Executive; call your local Regional Technical Assistance Center (RTAC), or the main RTAC number, 1-800-225-RTAC. You can also call AT&T's Customer Technical Assistance Center located in the Network Software Center in Lisle, Illinois at 1-800-CAL-4NSC (1-800-224-4672).

### Further Assistance in a Disaster

AT&T's Emergency Delivery and Restoration Plan is designed to provide fast delivery of a replacement central office switch as well as other equipment required to provide a functioning office.

Just notify AT&T that a disaster has occurred, and within two hours, AT&T will provide an initial product and service offering. Within 24 hours after the required equipment has been identified and a contract agreement reached, AT&T will begin shipping equipment. Cooperation between AT&T and the local company should enable the local company to begin providing dial tone to your customers within eight to ten days of the equipment's arrival on site. The 5ESS Switch Central Office Recovery Express can replace critical telephone service during this restoration time.

The installation is geared to meet the same quality standards as switches installed on a non-expedited schedule. You can arrange for Emergency Delivery and Restoration service by calling the telephone numbers listed above or by following existing local procedures developed with your AT&T Account Executive.

In addition, similar 5ESS Switch Central Office Recovery Express vehicles are available for purchase should you desire to have your own. It can be configured with equipment that you specify to meet your own special needs -- for example, the number of lines can be increased. In addition to disaster recovery, the vehicle can be used to train personnel, provide temporary lines during special events, or as a switch laboratory.

When you buy from AT&T, you're buying more than equipment. You're also buying service. AT&T hopes that disaster never strikes. But if it does, we're standing by, ready to help you restore dial tone as quickly as humanly possible.

For additional information on the 5ESS Switch Central Office Recovery Express, contact the AT&T representative serving your company.

This document is for planning purposes only and is not intended to modify or supplement any specifications or warranties relating to AT&T products or services.

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## CONTENTS

1. THE SESS® SWITCH CENTRAL OFFICE RECOVERY EXPRESS . . . . .	1
1.1 Introduction . . . . .	1
1.2 Moving The SESS Switch Central Office Recovery Express . . . . .	2
1.2.1 To Request Deployment Of The SESS Switch Central Office Recovery Express . . . . .	2
1.2.2 Reasons For Moving The Trailer . . . . .	3
1.2.3 Preparing The Trailer For Transport . . . . .	3
1.2.4 Trailer Transport . . . . .	3
1.3 Site Requirements . . . . .	3
1.3.1 Operating Company Preparations For Receipt Of Trailer . . . . .	3
1.3.2 Information To Be Obtained From The Operating Company . . . . .	3
1.3.2.1 General Questions . . . . .	3
1.3.2.2 How Will The Trailer Be Connected To The Network? . . . . .	4
1.3.2.3 How Will The Local Loop Be Established? . . . . .	4
1.3.2.4 What On Site Office-Dependent Data (ODD) Modifications Will Be Required? . . . . .	5
1.3.3 Office-Dependent Data (ODD) . . . . .	5
1.3.4 Trailer Requirements . . . . .	5
1.3.5 Personnel Required At Site . . . . .	6
1.3.6 Material Required At Site . . . . .	7
1.3.7 Power And Ground Requirements . . . . .	7
1.3.8 Trunk Group And Span Connection Information . . . . .	8
1.3.9 Local Loop Connection . . . . .	8
1.4 Acronyms . . . . .	9

**LIST OF FIGURES**

Figure 1. The Trailer. . . . . 1  
Figure 2. Capabilities of The SESS Switch Central Office Recovery Express. . . . . 2  
Figure 3. Railroad Crossing. . . . . 6

## 1. THE SESS® SWITCH CENTRAL OFFICE RECOVERY EXPRESS

### 1.1 Introduction

The SESS® Switch Central Office Recovery Express (hereafter also referred to as "the trailer"), shown in Figure 1, is a self-contained mobile central office contained in a trailer. When a central office is destroyed, the trailer can be moved to the site and provide emergency telephone service within four hours of arriving.

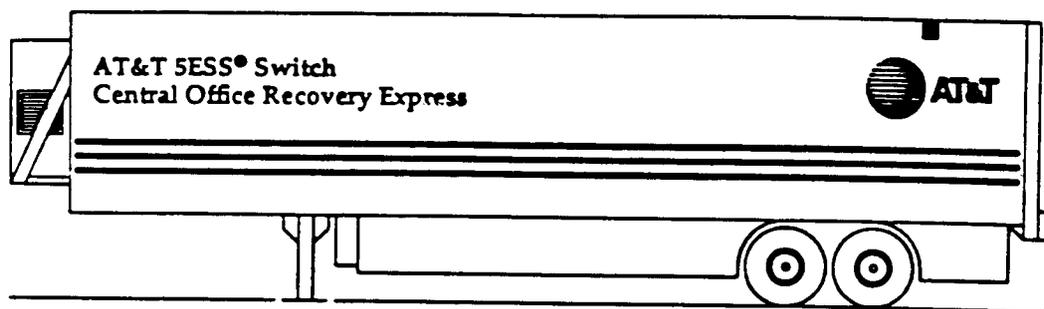


Figure 1. The Trailer.

All equipment required to run the SESS Switch Central Office Recovery Express is contained in the trailer. It is equipped with:

- three Switching Modules (SMs),
- auxiliary power,
- Dual Digital Multiplexer (DDM) 1000 digital facility bays with copper and fiber conductivity,
- a Lineage® power plant, and
- a COSMIC® Main Distribution Frame (MDF).

The 757 prefix is assigned to the SESS Switch Central Office Recovery Express. The switch is translated and wired to provide 3584 analog lines for essential telephone service. Existing trailer capacity is also provided for up to 512 Integrated Services Digital Network (ISDN) lines. Additional capacity can be provided by connecting a Remote Switching Module (RSM) and/or an Optical Remote Switching Modules (ORSMs), or by connecting remote Subscriber Loop Carrier (SLC®) 5 or SLC® 96 carrier modules. Two-way trunks can be connected to the home tandem via T1 or fiber span to provide network access. 496 trunks are wired and translated. An additional 192 digital trunks and 40 analog trunks can be translated for a total of 728 trunks. Additional equipment can be added to the trailer, depending on the type of changes requested, but the operating company must negotiate these additions with AT&T.

The main features of the SESS Switch Central Office Recovery Express are as follows. (See Figure 2.)

- SESS Switch
  - SE7 software
  - 4096 pre-engineered lines
  - Capacity for 728 digital and analog trunks (496 prewired and translated)
  - 512 ISDN lines
  - Common Channel Signaling version 7 (CCS7) capability

- 500 amp Lineage® Power Plant
- COSMIC® MDF
  - 6000 dedicated OutSide Plant (OSP) pairs
- DDM 1000 Transmission Equipment
  - DS1/DS3 rate
  - copper/fiber optic

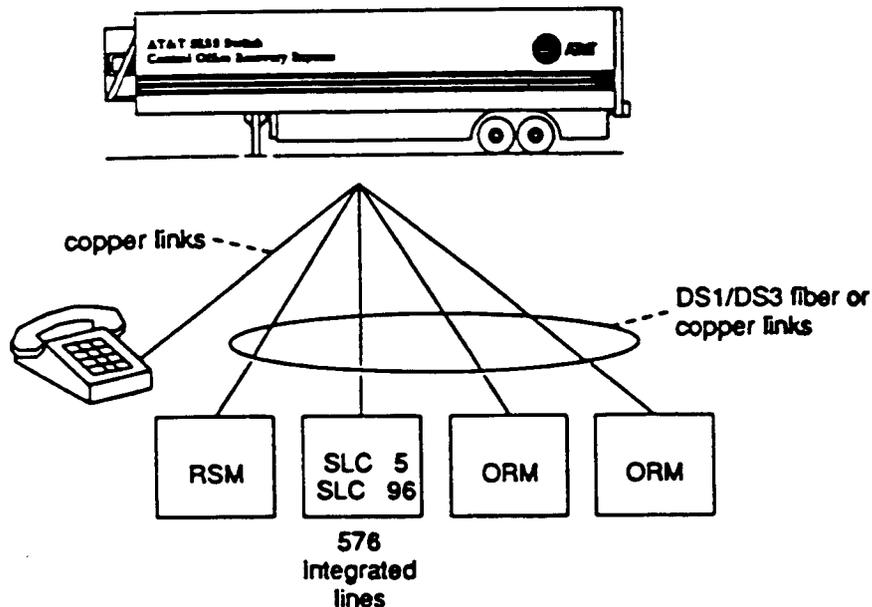


Figure 2. Capabilities of The SESS Switch Central Office Recovery Express.

## 1.2 Moving The SESS Switch Central Office Recovery Express

### 1.2.1 To Request Deployment Of The SESS Switch Central Office Recovery Express

To Request Deployment Of The SESS Switch Central Office Recovery Express:

1. Call the Regional Technical Assistance Center (RTAC) on 1 800 225-RTAC or Customer Technical Assistance Management (CTAM) on 1 800 CAL 4NSC.
2. Request deployment of the SESS Switch Central Office Recovery Express. If a customer notifies AT&T that immediate restoration of dial tone is required and the AT&T region determines that an actual emergency exists, the AT&T Network Software Center (NSC) Emergency Delivery and Restoration (EDR) team will, at the request of the Regional Vice President, deploy the SESS Switch Central Office Recovery Express. The accepting AT&T region will be required to notify CTAM of this request, so that the SESS Switch Central Office Recovery Express can be mobilized.
3. Provide to RTAC or CTAM the Common Language Identifier (CLI), location, and the base and control number of the disabled central office, as well as the names and telephone numbers of the authorizing agent and alternates. If telephone contact is not available, provide name and telephone number of the operating company's Emergency Control Center (ECC) or Emergency Operations Center (EOC) Coordinator.

### *1.2.2 Reasons For Moving The Trailer*

AT&T will move the SESS Switch Central Office Recovery Express on an emergency basis at the request of an AT&T regional vice-president, after consultation with their customer. The trailer will be deployed:

1. to assist any local exchange carrier or private switch owner who loses call processing capabilities due to a natural or man-made disaster, such as a hurricane, fire, flood, etc.,
2. to assist the federal government in the management of a disaster, or
3. to pre-position the SESS Switch Central Office Recovery Express for the possibility of an impending natural disaster.

The trailer will be moved for any of these reasons once the appropriate internal AT&T approval has been received.

### *1.2.3 Preparing The Trailer For Transport*

When the decision to move the SESS Switch Central Office Recovery Express to a disaster site is made, the trailer will be prepared for transport. The trailer will be shipped with:

- analog lines prewired and translated, and
- emergency data base protected.

### *1.2.4 Trailer Transport*

Within eight hours of the decision to move the SESS Switch Central Office Recovery Express, the trailer will leave for the disaster site via road, followed by previously designated technicians/installers from the Central Region in a chase vehicle. The SESS Switch Central Office Recovery Express is capable of traveling approximately 900 miles in a twenty-four-hour period, depending on weather and road conditions.

The previously designated technicians, along with other members of the technical staff sent directly to the site, will activate the SESS Switch Central Office Recovery Express at the location prepared by the operating company, as specified in the "Site Requirements" paragraph of this memo.

## *1.3 Site Requirements*

### *1.3.1 Operating Company Preparations For Receipt Of Trailer*

The following tasks concerning the network should be accomplished by the operating company before the trailer arrives at the disaster site:

1. Determine who will be the operating company's emergency site coordinator, and inform AT&T of the emergency site coordinator's name and telephone number.
2. Determine who will be the operating company's interface with the technicians in the trailer, and inform AT&T of the interface's name and telephone number.
3. Designate a home tandem for the trailer prefix.
4. Establish an inter-tandem plan to route calls to the trailer from anywhere on the national network.
5. Establish a special trunk group at home tandem to provide intercept when code is not activated.

### *1.3.2 Information To Be Obtained From The Operating Company*

The following is information the receiving AT&T region needs to obtain from the operating company before the trailer arrives at its destination.

#### *1.3.2.1 General Questions*

1. What is the exact address of the affected office?
2. What is the Numbering Plan Area (NPA) and office code (NXX) of the disabled office?
3. How far is the trailer to be parked from the mainframe or cable plant access? (Maximum available single-cable length is 100 feet. A cable splice will be required to extend cable for longer distances.)
4. Is Signaling System 7 (SS7) or Common Network Interface (CNI) required?
5. Will microwave be required, and if so, what frequencies? (A frequency search will be required.)
6. What means will the operating company use to connect the trailer into their network (fiber, copper, microwave)?
7. What are the tandem requirements?
8. Will Plain Old Telephone Service (POTS) serve the operating company's needs? If not, what other features will be required?
9. Will ISDN lines be required?
  - a. Will Network Termination type 1 (NT1) circuits be required?
  - b. Will ISDN circuit packs other than KCB6s be required?
10. Will the equalizer (cut-through) boards for the J-98725CA1 equalizer circuits be available locally, or will they have to be ordered through AT&T?

As soon as the decision to deploy the trailer has been made, the accepting AT&T region must find out what additional equipment will be needed to connect the office into the operating company's network.

#### *1.3.2.2 How Will The Trailer Be Connected To The Network?*

1. How many systems and trunks in each system will be attached to the:

ACCESS TANDEM: \_\_\_\_\_

TOPS TANDEM: \_\_\_\_\_

2. What type of span will be used? (T1, Fiber, etc.)
3. Will office repeaters be used in the trailer? What type?
4. Where are the trailer backboards and/or mini-patch panels to be located?

#### *1.3.2.3 How Will The Local Loop Be Established?*

1. How many local loops will be connected?
2. Which lines will be connected first?
3. Where are the backboards located?
4. What is the access route for the umbilical cables?
5. What is the hunt sequence of lines?
6. Will there be any lines that require special treatment?
7. What is the distance between the furthest connection point and trailer?
8. What are the local cable assignments for the lines that are to be connected?
9. How many umbilical cables will need to be deployed?
10. What local cable assignments are to be added to the telephone number list?

### 1.3.2.4 What On Site Office-Dependent Data (ODD) Modifications Will Be Required?

1. Will Equal Access be required?
2. The following NPAs have been assigned to VACANT code on the Local Digit Interpretation Table (LDIT) (9.3) form. The customer should verify this VACANT NPA list:

200	300	410	600	909
210	310	500	610	910
211	400	511	810	917

(All other NPAs have been assigned as NORMAL.)

3. All office codes have been initially assigned to NORMAL. The customer should identify those office codes which are VACANT and any additional local office codes.
4. Will modifications need to be made to the CONVERT (CONV) forms for EMERGENCY (EMER), LOCAL DIRECTORY ASSISTANCE (LOCDA), BUSINESS OFFICE (BUSOFF), or REPAIR bureau (REPAIR) call types?
5. All predefined line class codes have been assigned a screening index of 1. How will these need to be modified to meet local screening and service class requirements?
6. Routing has been predefined to route all interswitch calls (local and toll) over a trunk group to an Access Tandem. How will LDIT (9.3), Rate And Route (RAR) (10.10), and Routing InDeX (RTIDX) (10.2) data need to be modified to support local routing and charging requirements?
7. What announcements will need to be provided?
8. Will OFFICE OPTION TABLES (OFFCOPT) (8.1), need to be modified?

### 1.3.3 Office-Dependent Data (ODD)

The SESS Switch Central Office Recovery Express will arrive with a functional ODD, however, it will have to be customized to meet the customer's needs. This can be done in one of the following ways:

1. It can be entered through the recent change terminal in the trailer, once it arrives at the site.
2. The information can be sent to NSC, where a new ODD can be built while the trailer is in transit. It can then be sent to the site by the time the SESS Switch Central Office Recovery Express is set up.
3. It can be entered through the Recent Change and Verify (RCV) On-line Data Integrity (ODIN) channel.

### 1.3.4 Trailer Requirements

There are some things that must be kept in mind to physically accommodate the SESS Switch Central Office Recovery Express.

1. It is preferable that there be commercial AC power or a means of obtaining commercial AC power.
2. The parking pad for the trailer:
  - must be a concrete slab capable of supporting 63,000 pounds over a prolonged period, or have two ¼-inch steel plates, 24 inches by 24 inches, to place under the feet of the landing gear,
  - must be 12-15 feet wide by 57-60 feet long,
  - must be as close to the building or manhole as safety will permit (recommended maximum of 100 feet from any connecting points),
  - must be within seven degrees of level, and

- should have parking for additional trailer support vehicles close by.

To be sure that the SESS Switch Central Office Recovery Express can get to the site, the trailer's physical dimensions and the path to the site must be considered. The physical parameters of the trailer are:

length: 50 feet  
width: 8-1/2 feet  
height: 13-1/2 feet  
turning radius: 75 feet  
ground clearance: 12 inches†  
total weight: 65,000 pounds

Some specific details concerning the path to the site that must be kept in mind are:

- access road width,
- gate width,
- driveway slope,
- soil conditions,
- ground obstructions†,
- weight restrictions, and
- winding roads.

† It is important to take ground obstructions and the ground clearance of the trailer into consideration. The ground clearance of the trailer is 12 inches *over the entire length of the trailer*. Any ground obstruction twelve or more inches high that can be straddled by the front and rear wheels will prevent the passage of the trailer.

This means that the SESS Switch Central Office Recovery Express cannot negotiate many common road features that can be easily driven over by shorter vehicles with less ground clearance.

An illustration of this is shown in *Figure 3*.

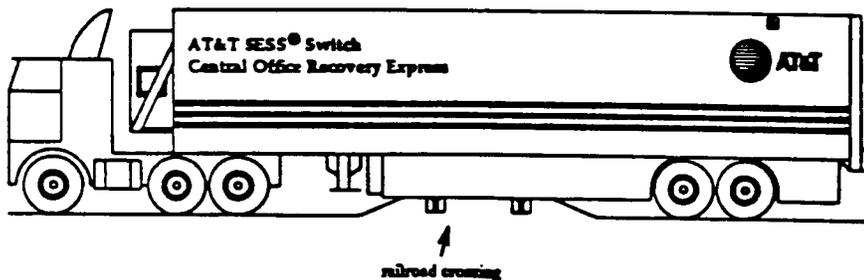


Figure 3. Railroad Crossing.

### 1.3.5 Personnel Required At Site

In addition to the personnel traveling with the trailer, the following AT&T personnel will be required at the site:

- three people for deploying and connecting cables to backboards (local loop, network, and power connections),
- a central office power specialist and/or licensed electrician to determine phase rotation and to assist in hooking up commercial AC power (if available),
- a facilities specialist to wire the Digital Signal Cross connect system (DSX) bay and to test spans to the home tandem, and
- construction splicers may be required to splice fiber cables for network access and to assist in connecting local loops.

Additional operating company personnel with similar areas of expertise will be required.

### 1.3.6 Material Required At Site

- Diesel fuel and equipment to fill the on-board fuel tank must be provided. Only grade 1D diesel fuel should be used in the generator. Refer to the John Deere generator operator's manual included in the Alturdyne Power Systems binder in the trailer for specific requirements for fuels, lubricants, and coolants. Topping off the generator's fuel tank when the trailer arrives should allow for a maximum ten-hour run time when not processing call traffic.
- A cable dispenser for coiled cables (R-3409 list 1 lazy-susan-type turn table, obtainable through the AT&T installation force) to unwind umbilical cables must be provided.
- Connectors and equipment to connect the power umbilical to commercial AC power or a portable generator provided by the operating company must be provided.
- Cable and/or jumper wire to connect the trailer's backboards to the network and local loops must be provided.
- Fiber cable for connecting the DDM 1000s to fiber spans may also be required.

### 1.3.7 Power And Ground Requirements

Power requirement is 208 V three-phase four wire, 220 amp AC from the central office or portable generator. Auxiliary step-down transformers can be provided to accommodate other central office voltages. The trailer is equipped with an on-board power generator used during transit and short duration power outages, which will require refueling approximately every ten hours.

Central office ground window on the trailer must be connected to the central office ground or to ground rods driven into the ground in a delta configuration. For more information see *Bell System Practices* Sections 802-001-180 and 802-001-191.

## DANGER:

*It is imperative that the SESS Switch Central Office Recovery Express be grounded as soon as possible after arriving at the disaster site, before any activity concerning the switching equipment in the trailer is undertaken.*

Equipment grounding ensures that personnel are protected from injury, and that equipment is protected from damage, resulting from faults that may develop in the electrical system.

The Central Office Ground (CO GRD) system consists of a ground conductor that effectively extends earth potential from its appearance point within the building (principal ground point) to convenient bus bar connection points on floors containing central office equipment requiring earth potential reference. This

conductor is referred to as the vertical equalizer.

Section 802-001-180 consists of general information pertaining to the requirement for effective protective grounding systems in structures having AT&T communication systems equipment. A general description of the grounding systems utilized to maintain equalization of potential on ground planes, to minimize impedance produced noise, and to provide personnel and equipment protection is included. Principal characteristics and parts of the various grounding systems are also defined.

Section 802-001-191 covers methods of establishing office ground electrodes for buildings housing AT&T communications equipment.

### *1.3.8 Trunk Group And Span Connection Information*

Trunk group and span connection information for home tandem and operator trunks will be needed when the trailer arrives at the site. The trailer will utilize the same facilities the office used for network connection. It is recommended that the operating company's emergency site coordinator and maintenance personnel contact their home tandem and start the process to move trunks into special emergency trailer trunk groups or modify the existing trunk groups.

In addition to copper cable pair connections, there are twenty-eight fiber optic cable connections in the belly box (on the curb side), capable of connecting the trailer to a fiber optic network.

### *1.3.9 Local Loop Connection*

If access to the main frame is available, connections will be made at that point. If the main frame is not available, then connection will be at the closest manhole. Backboards are used as an interface between the trailer and the office main frame or manhole cable pairs. Four 2-foot by 8-foot backboards and three 2-foot by 2-foot backboards are carried on the trailer, equipped with 66-type punch down blocks. (Optional boards are available.)

Cable and pair assignments of essential services must be available when the trailer arrives at the emergency site. The operating company needs to supply the total number of lines to be connected, series completing needs, and specific line information for the fire department, police department, and evacuation centers.

Survey the building and plan where the backboards are to be placed. The trailer carries sixty 100-foot umbilical cables. Connecting the cables end-to-end for greater length is permissible but will reduce total connecting capacity.

## 1.4 Acronyms

BUSOFC	BUSINESS OFFICE
CCS7	Common Channel Signaling version 7
CLI	Common Language Identifier
CNI	Common Network Interface
CO	Central Office
CONV	CONVERT
CPRP	Corporate Product Realization Process
CTAM	Customer Technical Assistance Management
DDM	Dual Digital Multiplexer
DSX	Digital Signal Cross connect system
ECC	Emergency Control Center
EDR	Emergency Delivery and Restoration
EMER	EMERGENCY
EOC	Emergency Operations Center
GRD	Ground
ISDN	Integrated Services Digital Network
LDIT	Local Digit Interpretation Table
LOCDA	LOCAL DIRECTORY ASSISTANCE
MDF	Main Distribution Frame
NPA	Numbering Plan Area
NSC	Network Software Center
NT1	Network Termination type 1
NXX	office code
ODD	Office-Dependent Data
ODIN	On-line Data INTEGRITY
OFCOPT	OFFICE OPTION TABLES
ORSM	Optical Remote Switching Module
OSP	OutSIDE PLANT
POTS	Plain Old Telephone Service
RAR	Rate And Route
RCV	Recent Change and Verify
REPAIR	REPAIR bureau
RSM	Remote Switching Module
RTAC	Regional Technical Assistance Center
RTIDX	ROUTING INDEX
SLC	Subscriber Loop Carrier
SM	Switching Module
SS7	Signaling System 7



# Northern Telecom Disaster Recovery Guide



## *Table of Contents*

<i>The Northern Telecom Disaster Response Record</i> .....	
<i>In the Wake of Disaster: Northern Telecom Responds</i> .....	
<i>Key Northern Telecom Facilities and Products</i> .....	
• Corporate Headquarters .....	
• Regional Offices .....	
• Headquarters for Regional Operations (Core) .....	
• Products and Manufacturing Facilities .....	
<i>Emergency Access to Northern Telecom</i> .....	
• A Rapid Response to Any Need .....	
• Emergency Contacts .....	
<i>Interim Service Restoral Options</i> .....	
• Hotslide Option .....	
• Mobile DMS Options .....	
• Description of Containers .....	
• Mobile DMS-100 Complex: Configuration A .....	
• Line and Trunk Quantities .....	
• Mobile DMS-100 Complex: Configuration B .....	
• Mobile DMS-200/Tandem: Configuration C .....	
• Mobile DMS-10 Complex: Configuration D .....	
• Deployment Intervals .....	
• Sample Applications .....	
<i>Permanent Service Restoral</i> .....	
• Product Procurement Strategy .....	
• Order-to-K/IS Intervals .....	
• Installation Intervals and Hardware Availability .....	
<i>Other Support Services</i> .....	
• Damage Appraisal .....	
• Network Analysis .....	
• Interim and Permanent Service Restoral Planning .....	
• Turnkey/Full Service .....	
<i>End Note</i> .....	
<i>To the Rescue: Beyond Bushwick and Hinsdale</i> .....	

**F**ire, floods, tornadoes, earthquakes, lightning, hurricanes . . . Disasters strike in many ways, but all can be equally devastating. When a disaster strikes a central office and cuts service, the result can be far-reaching, and often frightening. Critical links to medical, fire, and police facilities are severed. Separated family members cannot communicate. Businesses lose telephone-generated revenue that—in metropolitan areas—can reach millions of dollars.

Following a disaster, nothing matters more to a telephone company than restoring service—a potential lifeline—quickly and efficiently.

Northern Telecom has made disaster recovery preparedness a top priority. As part of this commitment, the company offers this formal Disaster Recovery Guide outlining its disaster recovery resources—including both personnel and material—that are kept on alert should an emergency arise.

The Northern Telecom disaster recovery support program, itself, is born of experience. Northern Telecom's first central office emergency restoration occurred in 1979, when a natural gas leak explosion and ensuing fire leveled the Boone County Telephone Company central office in Harrison, Arkansas.

"The whole place blew up, including the switching system, an electro-mechanical SP-1," says Jack Jordan, director of Technical Services. "When we arrived, there was nothing but a huge hole." A 3,000-line mobile DMS-10 system scheduled for installation in Georgia was rushed from Research Triangle Park (RTP), North Carolina, to Arkansas—complete with a state trooper escort. That first restoration took eight days, and eventually, the DMS-10 system was replaced by a DMS-100 system.

Currently, two mobile DMS-10 systems—or "transportable containers"—are kept in inventory, with one usually on standby at the RTP-area headquarters and a second usually deployed at various trade shows, customer sites, and DMS-10 User Club and Telephone Association meetings. A containerized DMS-100 system has also been developed. Northern Telecom is prepared to manufacture and deploy the mobile DMS-100 containers upon telephone company request.

Disaster recovery support is the result of questions raised both during the company's early CO restoration experiences and by Bell Operating Company (BOC) representatives who, in 1987, asked Northern Telecom how it would react to a CO disaster.

Northern Telecom's disaster recovery support program covers two levels of central office outages. The first category involves those COs that suffered irreparable system damage—as was the case at New York Telephone's Bushwick exchange and Illinois Bell's Hinsdale site, where fire destroyed both offices' switching systems. Those incidents called for total system replacements.

The second category includes more common, less intense outages in which a Northern Telecom CO is out of service due to technical problems—for example, an air conditioning duct leaks and damages a central processing unit. In those instances, Northern Telecom may need only to dispatch a staff of engineers, test equipment, and/or circuit packs by plane to restore service in a hurry. And that's the bottom-line: to respond quickly, marshalling all the resources necessary to get the job done.

In addition, Northern Telecom offers steps to restore a network failure, whereby transmission equipment is installed to transport call traffic. "The emphasis today is swinging toward 'network survivability' or network restoral," says Don Daniel, Director, Full Service. "In those instances, our transmission products come into play, such as the DMT-300 or the FD-565. We can quickly install transmission equipment that will carry the traffic that had been handled by the damaged central office to an in-service central office. This capability—including fiber capability—can be built into our containerized DMS-100 system."

The 1987 fire at New York Telephone's Bushwick central office and 1988 fire at Illinois Bell's Hinsdale exchange played key roles in further developing Northern Telecom's disaster recovery support program.

Says Technical Operations Director, Danny Parker, "Those fires highlighted the need to formalize plans that already existed in the form of escalation procedures. We accomplished this in 1988 when representatives from our Switching, Transmission, and Meridian Business Systems divisions came together for the sole purpose of analyzing, fine tuning, and documenting our disaster recovery support. With such a collective effort, we'll be even better prepared for future central office outages."

Northern Telecom's efforts at Bushwick and Hinsdale have also broadened the company's experience. At Bushwick, Northern Telecom technicians replaced the fire-damaged switching system with an 18,000-line DMS-100 in 12 days. At Hinsdale, Northern Telecom was responsible for the transmission side of the restoration—installing 118,000 trunks in 10 days. Northern Telecom's portion of the Hinsdale taskforce consisted of 41 installers, working three shifts alongside quality control, testing, and technical assistance personnel.

### *Corporate Headquarters*

Northern Telecom Inc., headquartered in Nashville, Tennessee, is one of five major Northern Telecom operating companies. With more than 20,000 employees, Northern Telecom maintains 13 manufacturing facilities as well as research and development centers in the United States.

### *Regional Offices*

To enable us to respond efficiently to our customers, Northern Telecom has established regional offices in seven major U.S. cities, near major telephone company operation centers. Being located geographically closer means Northern Telecom can better serve its customers by staying current with and being more responsive to their needs.

Regional office functions include Sales, Marketing, Engineering, Installation, and Customer Service and Support. Regional offices are located in:

- Tarrytown, New York;
- McLean, Virginia;
- Atlanta, Georgia;
- Arlington Heights, Illinois;
- Irving, Texas;
- Denver, Colorado; and
- San Ramon, California.

### *Headquarters for Regional Operations (Core)*

Based in Research Triangle Park (Raleigh), North Carolina, the headquarters for regional operations provides an infrastructure to support the prompt servicing of orders for products and services, manage product and process development programs, coordinate planning activities, and coordinate support groups that provide timely solutions to field issues and emergency requests—including disaster recovery support.

### *Products and Manufacturing Facilities*

- *DMS-100/DMS SuperNode Switching Equipment*  
Research Triangle Park, North Carolina
- *DMS-10 Switching Equipment*  
Research Triangle Park, North Carolina
- *Main Distribution Frame Products*  
Morton Grove, Illinois
- *Transmission Products*  
Stone Mountain, Georgia
- *Power Systems*  
Research Triangle Park, North Carolina
- *Networking Products*  
Research Triangle Park, North Carolina

### *A Rapid Response to Any Need*

A quick response to telephone company emergencies results from contacting the key Northern Telecom personnel who will oversee and coordinate the program from start to finish.

Northern Telecom has a well-defined and proven internal process that is designed to ensure rapid emergency notification, and that establishes lines of communication and outlines responsibility and accountability for all procedures.

In emergencies requiring extraordinary responses, the Regional Vice President of Customer Service assumes project control and directs Northern Telecom's regional office and job-site activities. The Northern Telecom Core prime contact responds to the requirements specified by the region and ensures that appropriate responses occur within the scope of Core responsibilities. This arrangement eliminates confusion and guarantees the complete coordination of the project by Northern Telecom.

### *Emergency Contacts*

The following list should be customized to include all names and telephone numbers of Northern Telecom emergency "Preferred" and "Alternate" contacts. For assistance in identifying current information for your personalized list, please contact your Northern Telecom Regional Vice President of Customer Service.

Region: \_\_\_\_\_ Date: \_\_\_\_\_

#### Preferred Contact

Vice President of Customer Service  
(Region)

#### Name

#### Telephone

Office:  
Home:

#### Alternate Contacts

Regional Vice President

Office:  
Home:

Vice President of Sales (Region)

Office:  
Home:

Emergency Technical  
Assistance Service (ETAS)

Office:

Any Northern Telecom Executive  
or Senior Manager

Office:  
Home:

Other Northern Telecom Employees

Office:  
Home:

### *Hotslide Option*

The hotslide option is suitable for numerous site conditions and requirements—especially those instances where temporary central office space is available for installation of DMS switching equipment, but the final location will require future movement of frames and cabling.

Where a hotslide is needed, Northern Telecom installation planners and engineers will work closely with Operating Telephone Company (OTC) personnel to meet system and site requirements and outline all necessary site plan details in the Method of Procedure (MOP).

The Installation Manuals for the DMS-10 and DMS-100 Family products contain further information on hotslide planning. These documents are available through Northern Telecom Documentation by calling 1-800-422-6373 (U.S. except North Carolina) or 1-800-443-6373 (in North Carolina).

### *Mobile DMS Options*

Mobile DMS-10 and DMS-100 systems are built-to-order, based on individual OTC requirements. Northern Telecom engineers and planners are available to assist in determining the most practical configuration to meet an individual OTC's needs. With a made-to-order mobile DMS system on standby, OTCs can restore service with minimal delay in the event of a central office disaster.

Because DMS hardware is compact and relatively simple to reconfigure, the systems can be placed in transportable containers for quick, easy transportation to a job site and cutover into service. Northern Telecom has designed the mobile containers to avoid the need for special transportation permits.

The configurations available for mobile DMS-10 and DMS-100 systems indicate the engineering flexibility of the systems to meet specific OTC needs in terms of features, line and trunk sizes, and unique situations at a given site.

Similarly, transmission equipment options allow for DS-1, DS-3, or fiber transport of span line traffic. This flexibility aids rapid set-up through simplified interconnection of the complex's modules, and ease of interface with OTC trunk fields and network facilities.

### *Description of Containers*

The mobile DMS complex uses two types of specially-designed transportable containers: an 8'6" x 48' wheeled trailer (standard highway type), and an 8' x 20' sea/land container. The wheeled trailers are transported via standard tractor-trailer, while the sea/land containers are transported via ground (flatbed) or air. The sea/land container fits in the upper cargo bay of a Boeing 747 jet, or it can be moved by helicopter. Helicopter transport is essential when disasters make highway travel impossible.

These transportable containers are customized to Northern Telecom specifications for strength and rigidity, environmental controls (heat, AC, ventilation), entryways, service connections, and other central office requirements. Each container is equipped with environmental facilities, DC power source, batteries, and other equipment that varies with design. Space for required Main Distribution Frames is also provided. Industry-standard AC connectors (male and female) are provided; however, commercial or locally generated AC power (single phase) must be supplied on-site.

### ***Mobile DMS-100 Complex: Configuration A***

The Northern Telecom disaster recovery system can be engineered to meet a wide variety of OTC requirements. A sample configuration (Configuration A) that fully addresses marketplace requirements includes:

- Local/toll (DMS-100/200);
- Meridian Digital Centrex;
- ISDN;
- Data; and
- CCS7.

The Configuration A disaster recovery system has four modules (containers), equipped as follows:

#### ***Module #1 (always required): (Figure 1, page 13)***

- 8'6" x 48' highway trailer
- Central Control (DMS SuperNode system)
- Network frames
- ISDN hardware
- CCS7 hardware
- Transmission equipment
- Other required equipment
  - Maintenance and Administration Position (MAP)
  - Input/Output Equipment (IOE)
  - Miscellaneous frames
  - Trunk Module Equipment (TME) for service circuits
  - Power Distribution Center (PDC)
- Line and trunk frames
  - 1,280 local lines
  - 320 ISDN lines
  - Trunks

#### ***Module #2 (as required): (Figure 2, page 13)***

- 8'6" x 48' highway trailer
- Line and trunk frames (extension to Module #1)
  - 10,240 local lines
  - 15,360 remote lines
  - Trunks
- Transmission equipment
- Line Group Equipment (LGE) capacity for service to remotes
- PDC

#### ***Module #3 (as required): (Figure 3, page 13)***

- 8'6" x 48' highway trailer
- Dual Remote Switching Center (RSC)
- Transmission equipment

Module #1 (as required): (Figure 4, page 14)

- 8' x 20' sea/land container
- Single RSC
- Transmission equipment

As illustrated in Figures 1 through 4 (Configuration A), container hardware is configured to provide various line, trunk, and feature capacities and combinations. Figure 5 illustrates an on-site interconnection of the modules.

The transmission equipment for this complex is engineered to minimize cable quantity and bulk on the trunk side of the switch, and to simplify the interconnection and/or reconfiguration of containers. With the DS-1, DS-3, and fiber optic capability provided, the connection to the telco network trunk field could be via a single fiber cable. (NOTE: Spare fiber terminals are provided to address terminal incompatibility between different manufacturers' equipment. Northern Telecom fiber signals can thus be converted to DS-3 or DS-1 at the far end to produce an industry-standard signal.)

#### *Line and Trunk Quantities*

The mobile DMS-100 complex in Configuration A provides line and trunk quantities as follows:

	<u>QUANTITY</u>	<u>GRADE OF SERVICE</u>
Local Lines	11,520	6.2 CCS (HDBH*) .2 TML**
Remote Lines	<u>15,360</u>	3.0 CCS (HDBH) .2 TML
TOTAL LINES	26,880	

\* HDBH—High Day Busy-Hour

\*\* TML—Terminating Match Loss

#### Trunks

-Including Total Lines	3,840
-Local Lines Only	5,760
-No Lines	7,680

ISDN Lines 320

#### *Mobile DMS-100 Complex: Configuration B (Figure 6, page 15)*

Configuration B affords the same capabilities as Configuration A, with the exception of ISDN capability. This complex, designed for rapid service restoration to essential lines (i.e. hospitals, police, government, etc.), accommodates significant line growth.

The Configuration B complex consists of two containers. Module #1, the base unit, provides stand-alone service for up to 5,120 lines with 10 percent trunking. Spare capacity handles an additional 960 trunks, or service to DMS-100 remotes (32 span lines).

When Module #2 (Figure 7) is added, total line size increases to 20,480 lines.

***Mobile DMS-200 Tandem: Configuration C (Figures 8 and 9, page 16)***

The mobile DMS-200/tandem is contained in two trailers, shown in Configuration C, Trailers 1 and 2 (Figures 8 and 9), both of which are required.

This complex serves up to 24,000 trunks, and provides for fiber connectivity with the OTC trunk field.

***Mobile DMS-10 Complex: Configuration D (Figures 10 and 11, page 17)***

The mobile DMS-10 complex uses one or two 8' x 20' sea/land containers. Module #1 (Figure 10) holds the common and peripheral equipment for servicing 2,560 lines. An additional 5,120 lines are gained by adding peripheral equipment in Module #2 (Figure 11). The total capability of the mobile DMS-10 complex is 7,680 lines.

***Deployment Intervals***

With mobile DMS complexes based at a Northern Telecom facility in an alert mode, the following deployment intervals typically apply after notification:

- Preparation for Movement: 8 hours
- Transport Time: 45 MPH (Avg)
  
- On-Site Sequence of Events  
  Leading to First Dial Tone: 30 hours
  1. Positioning
  2. AC Hook-Up
  3. Grounding
  4. Power-Up
  5. Commissioning
  6. First Dial Tone (on-site plus)
  
- Additional Time to Complete MDF Cross-Connects: 6 hours
- Total Elapsed Time (on-site plus): 36 hours
- Translations Load Tape Preparation and Delivery: 48 hours  
  (from time of notification)

***Sample Applications***

Applications made possible through Northern Telecom's disaster recovery program extend beyond telephone company disasters or network failures. End-user equipment situations can be addressed using the same modules and hardware.

In addition to service interruption scenarios, the equipment complex can be used for other applications, such as conventions, trade show communications, feature demonstrations, and as a turnaround vehicle.

# Mobile DMS-100 Complex

## Configuration A

Module #1:  
1,280 lines, 1,920 trunks and 320 ISDN lines.

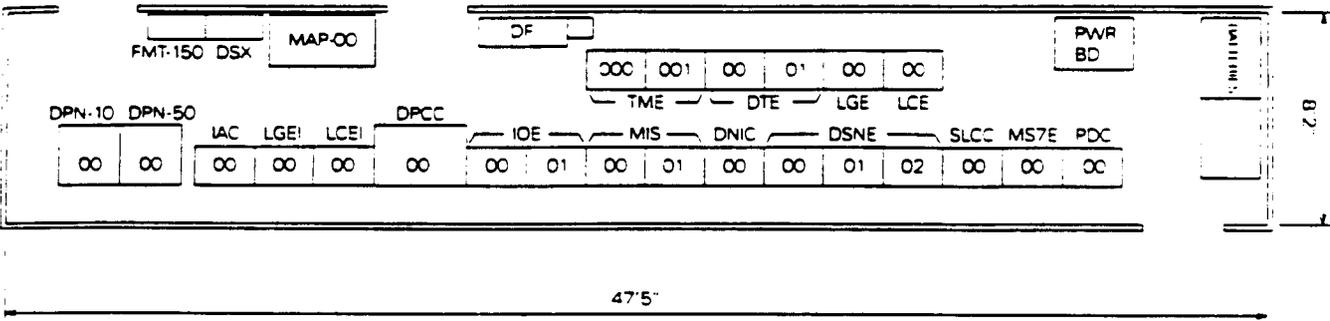


Figure 1

Module #2:  
10,240 lines and 1,920 trunks.

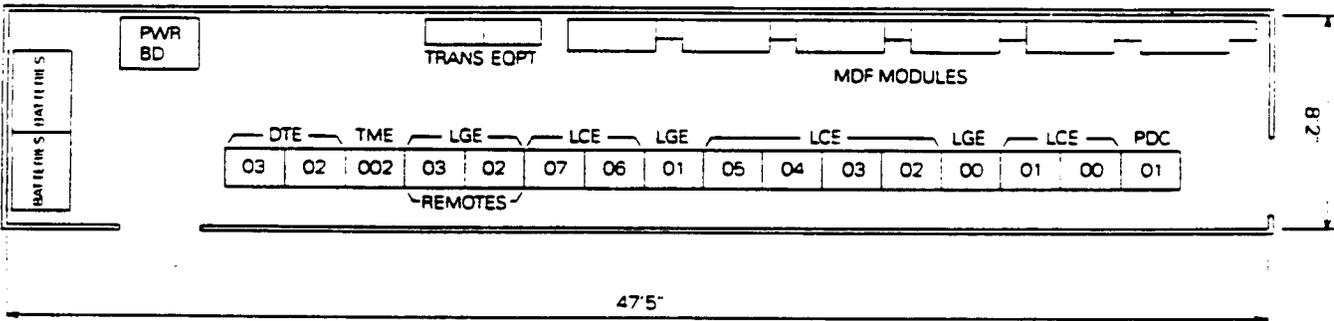


Figure 2

Module #3:  
Dual Remote Switching Center (RSC), 10,240 lines.

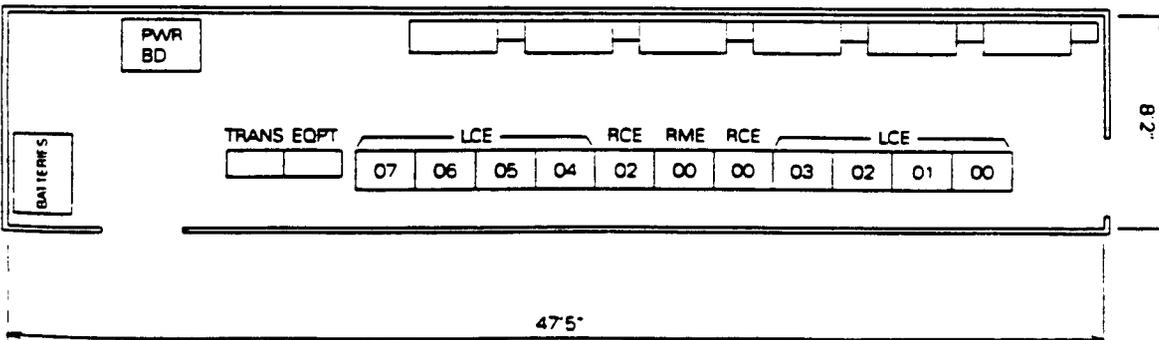


Figure 3

# Mobile DMS-100 Complex

## Configuration A

Module #4:  
Single Remote Switching Center (RSC), 5,120 lines.

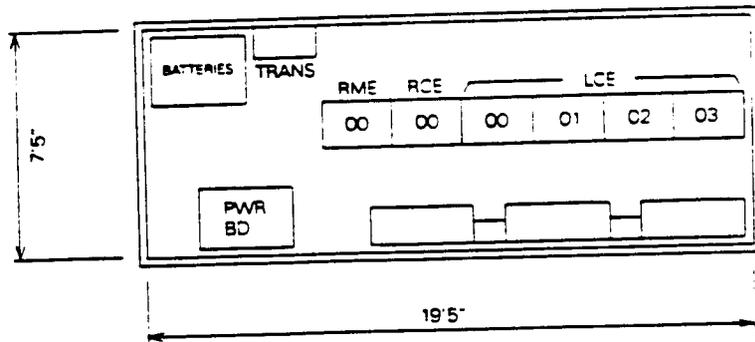


Figure 4

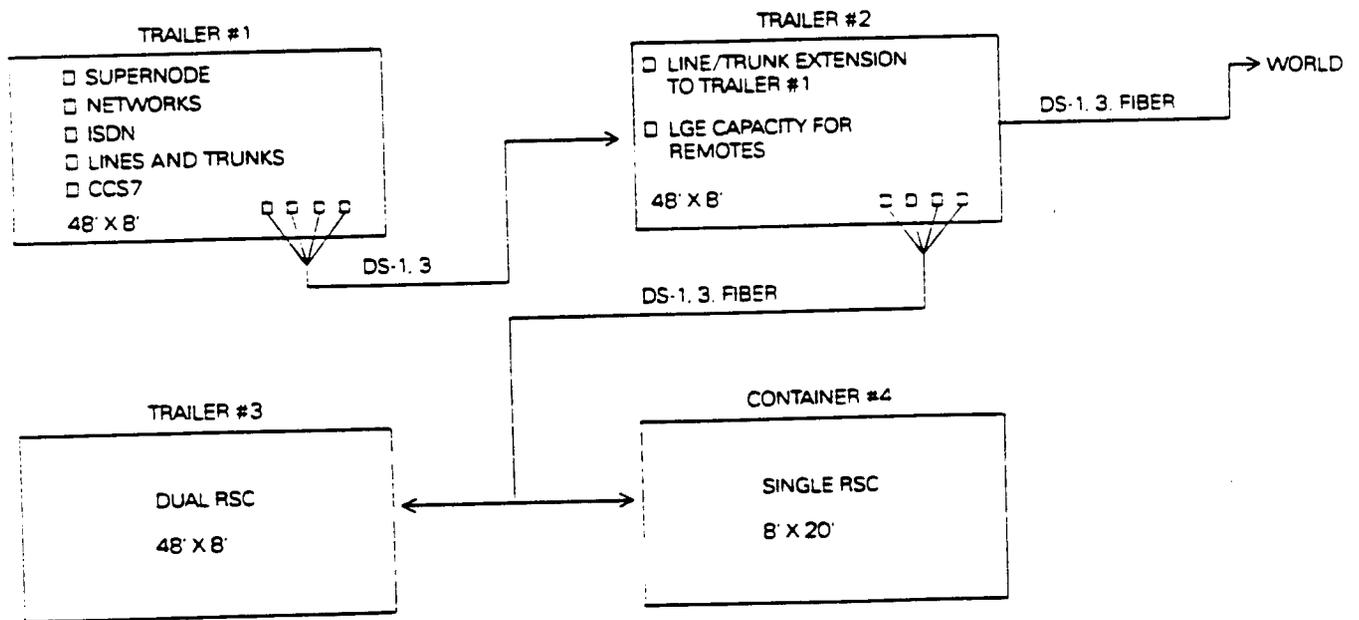


Figure 5

# Mobile DMS-100 Complex

Configuration 3

Trailer #1:  
5,120 lines and 1,920 trunks.

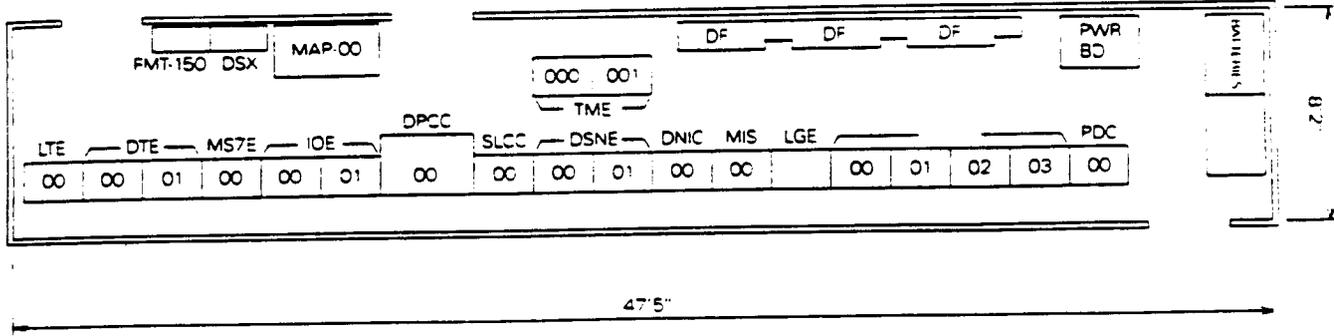


Figure 6

## Trailer #2.

OPTION	TOTAL CAPACITY
1	10,240 LINES 1,920 TRUNKS
2	15,360 LINES 1,920 TRUNKS
3	20,480 LINES 1,920 TRUNKS

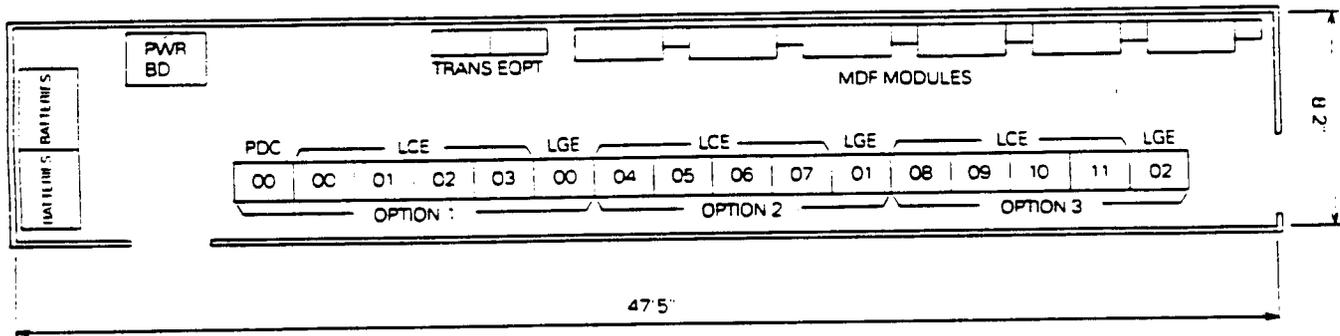


Figure 7

# Mobile DMS-200/Tandem

## Configuration C

Trailer #1:

15,360 required trunks, with an additional 8,640 trunks optional.

Total trunks: 24,000.

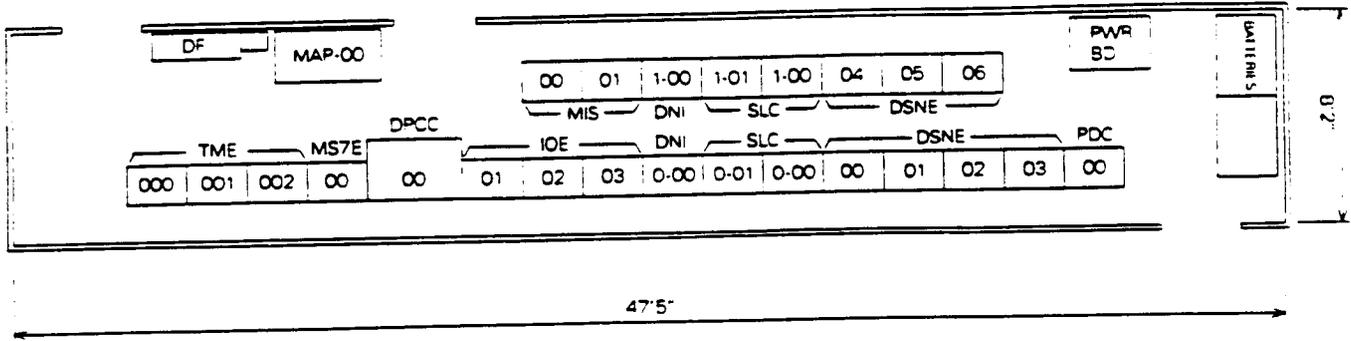


Figure 2

Trailer #2:

Additional/optional frames.

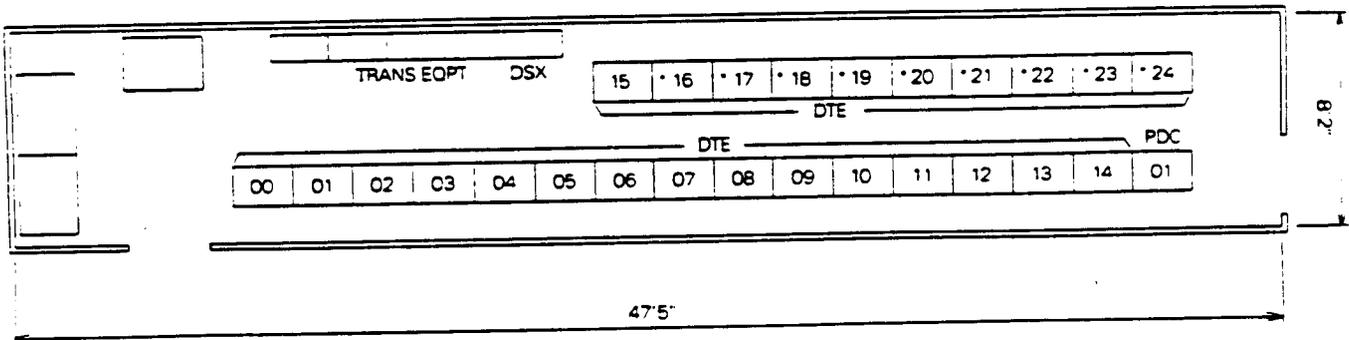


Figure 3

# Mobile DMS-10 Complex

## Configuration D

Module #1:  
2,560 lines.

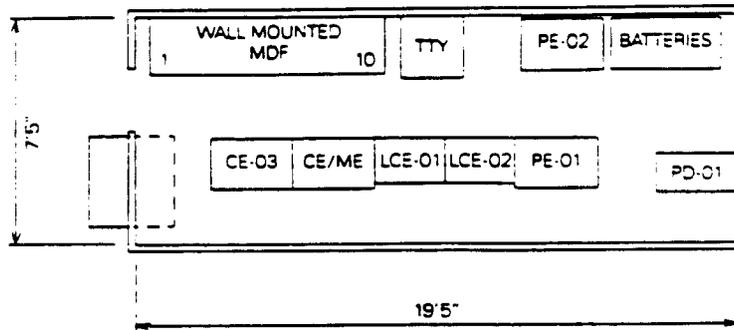


Figure 10

Module #2:  
5,120 lines.

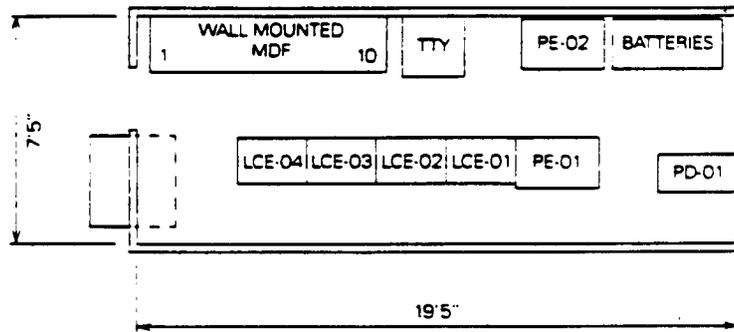


Figure 11

### *Product Procurement Strategy*

If a permanent solution to the emergency is desired, Northern Telecom can obtain essential hardware from sources such as:

- Finished Goods Stock—materials that have completed the manufacturing process and are available for configuration and shipment;
- Production Line Work in Progress—materials that comprise a completed system, which could be expedited to Finished Goods; and/or
- Product Shipped But Not Installed—pre-installation stage hardware based at another customer site, which, through negotiation, can be diverted for the emergency.

### *Order to K IS Intervals*

Since no two emergencies are identical, clear-cut time intervals cannot be established. However, a reasonable view of project times can be established with certain assumptions. Through extensive emergency restoration experience, Northern Telecom has found three planning elements are most influential to achieve the shortest possible K to IS intervals.

First, the project plan should be developed jointly by the telephone company and all involved vendors to outline each organization's responsibilities. This plan should detail the sequence and interdependence of all project phases. Second, all prime contacts should be briefed regarding the detailed project plan to ensure that only required deviations to the plan occur. And third, progress must be monitored constantly to expose and correct any potential complications.

To restore service as quickly as possible, the following criteria are also important:

- immediate access to telephone company engineering requirements and data must be provided;
- there must be a cooperative and open exchange of project-related information;
- the building must be made ready per the project plan;
- power and transmission facilities must be available as the project plan specifies;
- Main Distribution Frame space must be as specified in the project plan;
- quality in workmanship, standard procedures, and product performance must not be compromised; and,
- a safe work environment must be made available.

Given the preceding, the following schedules are typically achievable:

- Notification-to-Ship
  - Material shipment beginning day of notification
  - Material sequenced by installation process and logistical requirements
  - Tools (and emergency tool kits) shipped day of notification
- Installation Start
  - Floor plan completion
  - Arrival of tools

## *Installation Intervals and Hardware Availability*

### Permanent DMS-100F Host

- Minimum hardware availability at any point in time
  - Processors: 3 units
  - Lines: 150K
  - Trunks: 25K
- Installation start to K/IS
- DMS-100 (lines with 10 percent trunking):

10K	10 days
20K	15 days
30K	20 days
40K	25 days
50K	30 days
60K	35 days
- DMS-200 (Tandem) 24K trunks 12 days

### Permanent DMS-100 Remotes

- Minimum hardware availability at any point in time
  - Dual RSC (10,240 lines): 8 units
  - Single RSC (5,120 lines): 15 units
- Installation start to K/IS
- 5K lines RSC

	with network add	w/o network add
- Host:	4 days	2 days
- RSC:	2 days	2 days
- 10K lines RSC

- Host:	5 days	4 days
- RSC:	4 days	4 days

### Permanent DMS-10

- Minimum hardware availability at any point in time
  - Processors 8 units
  - Lines as required
  - Trunks as required
- Installation start to K/IS
- DMS-10 (lines with 10 percent trunking):

1,250 lines...	4 days
2,560 lines...	5 days
5,120 lines...	6 days
6,400 lines...	7 days
7,680 lines...	8 days

### *Damage Appraisal*

Northern Telecom can provide experts to help assess damage to any equipment component of a network or node—including damage caused by heat, water, lightning, and chemicals.

### *Network Analysis*

Northern Telecom engineers can help expedite traffic reroutes and network redesign to minimize service disruptions.

### *Interim and Permanent Service Restoration Planning*

Assistance is available to plan economical interim service restoration, and a smooth transition to a permanent solution.

### *Turnkey Full Service*

Northern Telecom offers multiple turnkey service packages tailored to meet OTC requirements. Services cover project management responsibility for debris removal, site repairs, construction, and all aspects of cutover preparation, including post K/S maintenance and end-user support.

- *Manson, Iowa (1979)*: Only the foundation remains where General Telephone Company's Midwest central office once stood. After a tornado strikes on Sunday, June 28th. Just two days later, on the morning of the 30th, a DMS-10 digital switching system arrives on site and is temporarily installed in a trailer in four hours. The system is powered on Wednesday afternoon, and software is loaded and tested. Four hundred lines are in service by Thursday evening, and all 1,100 lines are cut over by Friday night.
- *Hanlowtown, Iowa (1985)*: A DMS-10 is installed within 48 hours after an explosion causes the existing central office to lose all service.
- *Newark, Ohio (1985)*: After lightning strikes ALLTEL's central office on July 14, 1985, some 2,500 customers are without service for two and a half days. Although the existing switch is revived, back-up switches are damaged beyond repair and have to be replaced immediately. Just six days after a DMS-10 switching system and installation team arrive, reliable and complete telephone service is restored. Normally, a DMS-10 installation takes eight weeks.
- *Winisk, Ontario (1985)*: A flood destroys 53 of the village's 60 structures, including the local central office. Northern Telecom sends a DMS-10S—a self contained DMS-10—from Research Triangle Park, North Carolina, and installs the switch in three days.
- *Worthington, West Virginia (1985)*: Flooded and inoperative in the fall of 1985, the Worthington central office requires an emergency switch on site in 48 hours, and Northern Telecom responds, providing the company with a DMS-10 300 Series system.
- *Granby, Massachusetts (1988)*: Lightning strikes Granby Telephone & Telegraph Company's central office on July 14, 1988, damaging the DMS-10 300 Series switch. In 48 hours, a combined telco and Northern Telecom Technical Assistance and Support crew repairs or replaces half of the switch's circuit packs and restores service.
- *Mary's Harbour, Labrador, Newfoundland (1988)*: An analog PBX system fails, disrupting telephone service. A DMS-10 400 Series system is jettied to Goose Bay, then air-lifted via a helicopter and cargo net to the central office. The DMS-10 is in service in just 60 hours.
- *Shreveport, Louisiana (1988)*: Staying one step ahead of Hurricane Gilbert, Northern Telecom implements plans to prepare for the potential loss of telecommunications service. As a precaution, a convoy consisting of a 10,000-line containerized DMS-10 emergency switch and two support trailers of spare parts and installation tools leaves Research Triangle Park, North Carolina, for Shreveport on Friday, September 16, arriving Saturday morning. Northern Telecom employees operate a 24-hour command center to maintain an open line to telcos in the storm's path. On Saturday, two additional emergency trailers—a 3,500-line system and a 2,560-line system—leave Research Triangle Park for the general storm area. Fortunately, the equipment is never needed to be placed in service.

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This document is intended to aid Northern Telecom's customers in obtaining services. It shall not create binding obligations on the part of Northern Telecom or rights on the part of any recipient.

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For further information, contact your Northern Telecom sales representative, or:

Northern Telecom  
P.O. Box 13010  
Research Triangle Park, NC 27709  
(919) 992-5412



# NORTHERN TELECOM DISASTER RECOVERY PROCEDURE

## EMERGENCY RECOVERY DISASTER RESPONSE



0-5 MIN.

- EMERGENCY RECOVERY DEPARTMENT RECEIVES CALL
- DATA COLLECTION - TYPE DISASTER



5-15 MIN.

- CUSTOMER SERVICE MANAGEMENT (COMMAND) CENTER ESTABLISHED AND STAFFED BY FUNCTIONAL REPRESENTATIVES
  - EMERGENCY RECOVERY MANAGER
  - REQUIRED CUSTOMER SERVICE FUNCTIONS
    - INSTALLATION TECHNOLOGY
    - TECHNICAL ASSISTANCE SUPPORT
    - BCS OPERATIONS
    - ETC

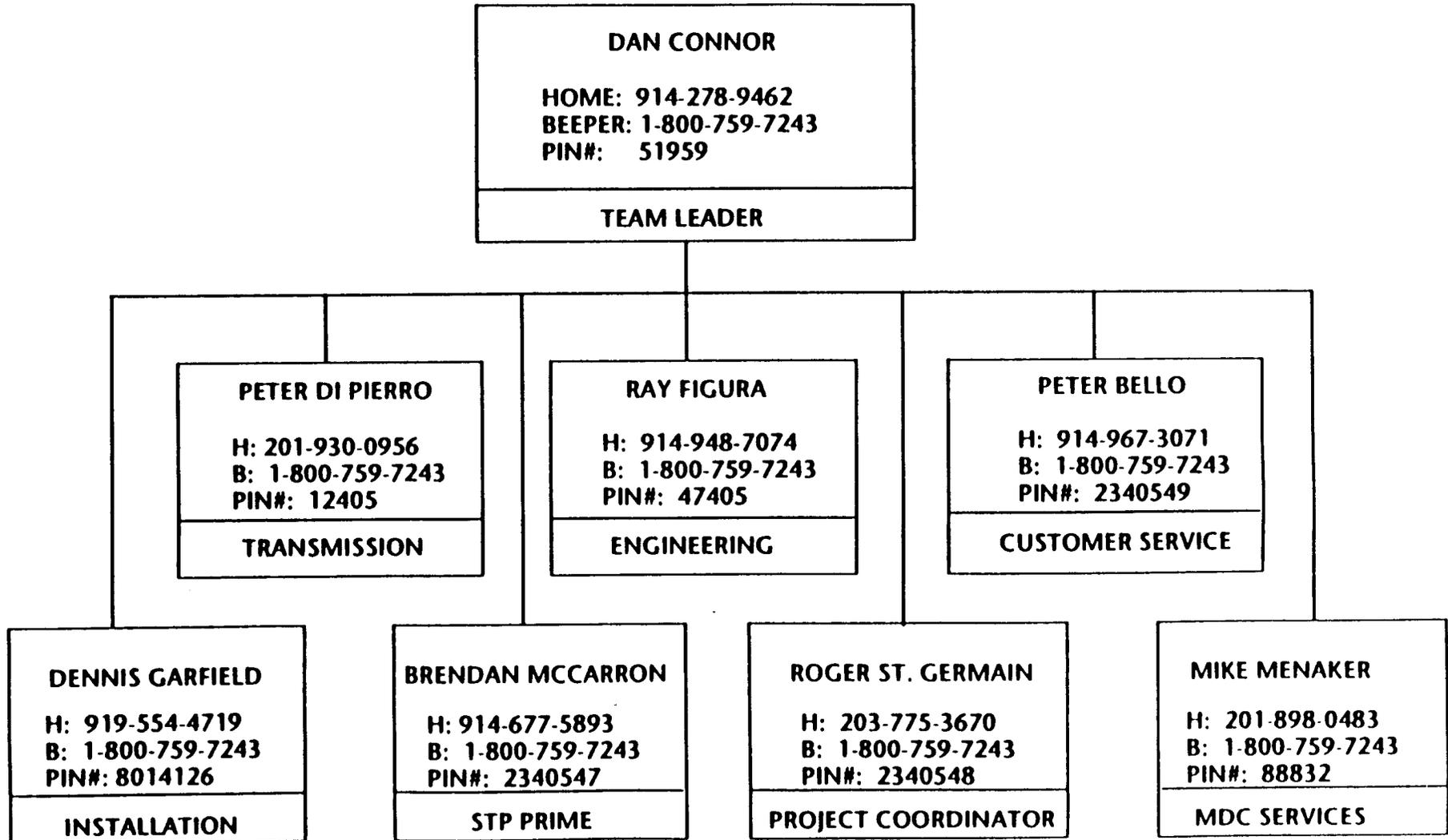
- NORTHERN TELECOM EXECUTIVES NOTIFIED
- COMMUNICATIONS BRIDGE ESTABLISHED
  - REGION
  - CORE
  - TELCO



15-60 MIN.

- ASSESS SITUATION
- IDENTIFY EQUIPMENT/PERSONNEL AVAILABILITY/SHIPMENT
- ESTABLISH APPROPRIATE ACTION PLAN
- OBTAIN APPROPRIATE APPROVAL FROM TELCO TO MOVE FORWARD

# DISASTER RECOVERY REGIONAL TEAM



## DISASTER RECOVERY KEY TELEPHONE NUMBERS

<u>DMS 100</u>	<u>DMS 10</u>	<u>TRANSMISSION</u>
919-481-8300	800-443-0335	800-344-3544

### REGIONAL

WESTBORO MA

508-870-5665

VALHALLA NY

914-773-2424

PITTSBURGH PA

1-800-TAS-AIDE  
(1-800-827-2433)

## DISASTER PREPAREDNESS PLAN

- EMERGENCY COMMAND CENTER (ECC)
  - PRIMARY - 140 WEST STREET (ESAC)
  - SECONDARY - NETWORK APPLICATION CENTER (NAC)
  
- TRANSPORTATION CONCERNS
  - AIRPORTS - LOCATION, SCHEDULES, CORPORATE JET
  - GROUND TRANSPORTATION
  
- HOTEL ACCOMMODATIONS
  - DEPENDANT UPON LOCATION OF DISASTER AND ECC

## OTHER SUPPORT SERVICES

- DAMAGE APPRAISAL
- NETWORK ANALYSIS
- INTERIM AND PERMANENT SERVICE RESTORATION PLANNING
- SERVICE PACKAGES TAILORED TO MEET TELCO REQUIREMENTS

## MOBILE DMS OPTIONS

MOBILE DMS COMPLEX USES TWO TYPES OF TRANSPORTABLE CONTAINERS:

- 8' 6" X 48" WHEELED TRAILER (STANDARD HIGHWAY TYPE)
- 8' X 20' SEA/LAND TRANSPORTED BY:
  - GROUND (FLATBED)
  - CARGO BAY OF BOEING 747 JET
  - HELICOPTER

## THE TRANSPORTABLE CONTAINER

- CUSTOMIZED TO NT'S SPECIFICATIONS FOR STRENGTH, RIGIDITY, ENVIRONMENTAL CONTROLS, ENTRYWAYS AND SERVICE CONNECTIONS
  
- EQUIPPED WITH:
  - ENVIRONMENTAL FACILITIES
  - DC POWER SOURCE
  - BATTERIES
  - SPACE FOR MAIN DISTRIBUTION FRAME
  - INDUSTRY - STANDARD AC CONNECTORS (MALE AND FEMALE); AC POWER (SINGLE PHASE MUST BE SUPPLIED ON- SITE)

## DEPLOYMENT INTERVALS

- PREPARATION FOR MOVEMENT 8 HOURS
- TRANSPORT SPEED 45 MPH (AVG.)
- ON-SITE SEQUENCE OF EVENTS LEADING TO FIRST DIAL TONE: 30 HOURS
  - POSITIONING
  - AC HOOK-UP
  - GROUNDING
  - POWER - UP
  - COMMISSIONING
  - FIRST DIAL TONE
- ADDITIONAL TIME TO COMPLETE MDF CROSS-CONNECTS 6 HOURS
- TOTAL ELAPSED TIME ( ON-SITE ) 36 HOURS
- TRANSLATION LOAD TAPE PREPARATION AND DELIVERY (FROM TIME OF NOTIFICATION) 48 HOURS

## NT'S COMMITMENT

### WHEN A SITE IS DESTROYED:

- NT AND TELCO EACH APPOINT OVERALL COORDINATOR TO HANDLE RESTORATION
- INSTALLATION IS NOTIFIED AND PERSONNEL SENT TO BEGIN CLEAN-UP AND INSTALLATION
- FOR SITES EAST OF THE MISSISSIPPI, MOBILE DMS-10 IS ON-SITE WITHIN 24 HOURS OF NOTIFICATION; SITES WEST OF THE MISSISSIPPI MAY REQUIRE LONGER DELIVERY TIME
- WITHIN 0 -5 HOURS, NT MAKES NECESSARY FLIGHT ARRANGEMENTS TO MOVE EMERGENCY PERSONNEL TO AFFECTED SITE

## NT'S DISASTER RECOVERY SUPPORT PROGRAM

RESTORE SERVICE QUICKLY BY:

- MAINTAINING PERSONNEL AND MATERIALS ON ALERT SHOULD AN EMERGENCY ARISE
- KEEPING TWO MOBILE DMS-10 SYSTEMS IN INVENTORY FOR EMERGENCY USE
- MAINTAINING CAPABILITY TO QUICKLY MANUFACTURE AND DEPLOY A MOBILE DMS-100 CONTAINER
- OVERSEEING AND COORDINATING THE RECOVERY START TO FINISH



## Appendix 4

## NETWORK MANAGEMENT GUIDELINES AND CONTACT DIRECTORY

This document is reissued by Network Operations Forum and replaces Issue 8, September 1991 of the Network Management Contact Directory. It is intended to be used as an operations reference document for Network Management personnel.

The Network Management Guidelines and Contact Directory were cooperatively developed in open public forum by personnel representing Access Service Customers, and Access Service Providers. These representatives identified key operational issues and by consensus developed the guidelines incorporated in this document.

The purpose of this document is to serve as an industry generic reference to facilitate efficient ASC - ASP operational inter-facing. Specific local operational procedures should be covered in documentation provided in local meetings between the Carriers.

This document does not replace nor supercede applicable tariffs, contracts or other legally binding agreements.

### Contact Directory

The Network Management Contact Directory provides the industry with Network Management contacts by Company and a geographical listing primarily by state.

Updates to the directory are supplied by participants of the Network Operation Forum (NOF). Additions, deletions or changes should be submitted in writing and sent to:

Art Walsh  
NOF Secretary  
290 W. Mt. Pleasant Avenue, Room 4E238  
Livingston, NJ 07039

**NETWORK MANAGEMENT GUIDELINES  
AND  
CONTACT DIRECTORY**

**INDEX**

Network Management Guidelines Table of Contents .....	i-VI
Network Management Guidelines .....	1-VI
Contact Directory Table of Contents .....	ii-VI
Contact Directory Geographical Listing .....	a-g-VI
Network Management Contacts .....	2-1-31-VI
Catastrophic SS7 Network Failure/Restoration Contact Directory .....	2-32-35-VI
Media Stimulated Calling Event Contact Directory .....	2-36-38-VI
LIDB Trouble Reporting Numbers .....	2-39-VI

**NETWORK MANAGEMENT GUIDELINES  
TABLE OF CONTENTS**

1. GENERAL.....	1-VI
2. INTRODUCTION.....	1-VI
3. TERMINATING REROUTES INVOLVING AN ACCESS SERVICE CUSTOMER .....	2-VI
4. ASC SWITCH OR NETWORK FAILURES OR EXTENDED OUTAGES .....	2-VI
5. 800 - 900 NXX/DATA BASE MASS CALL EVENTS .....	3-VI
6. SS7 NETWORK FAILURES .....	3-VI
7. EMERGENCY COMMUNICATIONS .....	3-VI
8. TERMINATION OF ACCESS SERVICE CUSTOMER SERVICE.....	3-VI
9. RESPONSIBLE ORGANIZATION.....	4-VI
10. RESP ORG TROUBLE REPORTING RESPONSIBILITIES .....	4-VI

## NETWORK MANAGEMENT GUIDELINES

### 1. GENERAL

#### 1.1

This document has been developed to provide the Network Management personnel of the Exchange and Access Service Customers with alternative guidelines for traffic management when the following conditions arise.

- Network congestion due to facility failures or abnormal calling periods.
- ASC Switch or Network Failures or Extended Outages.
- SS7 Network failures.
- Termination of ASC Service.

Specific procedures will require preplanning and negotiations between the companies involved. This document does not replace nor supersede tariffs, contracts, or any other legally binding documents.

#### 1.2

This document is being revised to include a contact directory developed for SS7 Network Failure/Restoration.

- Insertion of the terms "Access Service Customer/Access Service Provider
- Insertion of the text "Reference Document" in the document header
- Insertion of a new Section 5.3.

### 2. INTRODUCTION

#### 2.1

The Access Service Providers invite and encourage frequent ASP and ASC Network Management meetings to discuss and plan traffic management options.

#### 2.2

If an ASC has a need or desire to investigate the availability and use of the options described in the following, they should contact the Access Service Provider Network Management Center, listed within this document.

### 3. TERMINATING REROUTES INVOLVING AN INTEREXCHANGE CARRIER

#### 3.1

Where the capability exists, terminating reroutes may be implemented temporarily to relieve network congestion due to facility failures or recognized abnormal calling periods (e.g., Mother's Day, disasters, etc). Under these circumstances, reroutes have the potential to improve call completions and service to the customer. This procedure will not be used to circumvent normal trunk servicing.

#### 3.2

The only calls, from an ASC, to be rerouted are terminating calls from an ASC to an Access Tandem (AT) and are to be rerouted from the AT using a qualified office as a Via Office to the called End Office.

#### 3.3

The guidelines for rerouting are as follows:

- I. Only one additional link should be added to the overall connection.
- II. At an ASC's request a mutually agreed upon sample of potential reroutes should be activated at an agreed upon time and tested by the ASC for transmission. As part of the pre-planning process, all involved links should meet ASP's design requirements. The test results will be provided to the ASP who will furnish them to the other ASC's, upon request.
- III. A count of rerouted calls should be furnished to the ASP trunk servicing, forecasting and design engineers so that rerouted traffic will not be reflected as capacity requirement for future capital expenditures.
- IV. The Network Management Center should monitor the via office performance prior to and during the reroute to assure the quality of the network is maintained.

### 4. ASC SWITCH OR NETWORK FAILURES OR EXTENDED OUTAGES

#### 4.1

In the case where an ASC suffers an extended network outage, the following options may be available to the ASP and ASC to reroute end users. ASP and ASC pre-planning is strongly advised since this option list is not all inclusive.

- I. The ASC or ASCs have a reciprocal agreement to carry the traffic. This will require preplanning to assess the work necessary to reroute originating traffic (e.g., Translations and Billing).
- II. If the ASC has multiple switching POPs in the LATA, reroute to the working POP.
- III. The ASP may provide a special recorded announcement at the request of the affected ASC.
- IV. The ASP may route originating traffic to a recorded announcement with 10XXX codes of ASC's that volunteer to carry the traffic on an interim basis.
- V. The ASP and ASC may decide to do nothing.

## 5. 800 - 900 NXX/DATA BASE MASS CALL EVENTS

### 5.1

The ASP/ASC need to be advised of 800-900 NXX/Data Base Mass Calling Events, prior to the event taking place. Control of the ASP or ASC network load during the event, should first be attempted by the ASP/ASC in their respective network. The amount of control should be at the discretion of the individual ASP/ASC. Although cooperative Network Management controls during the event may be required, the ASP/ASC should not be expected to invoke controls before the actual event occurs.

### 5.2

Upon a customer request for a planned Media Stimulated Calling Event the ASC must notify the involved Access Service Provider Network Management Centers using the MCE Profile Form. Network Management Center contact will be made to FAX Numbers (1st choice or alternative telephone listings in the Network Management Contact Directory).

### 5.3

The ASPs will provide the following information when network management controls are used on 800 calls;

- The start and stop time of control activities,
- The level of control,
- The number of blocked calls, where technology is available,
- The reason for the control.

## 6. SS7 NETWORK FAILURES

### 6.1

With Pre-Interconnection, the ASC is virtually blind to any failure in the SS7 network which will affect its database controlled traffic. The ASPs providing SCP services to the ASCs should, as locally agreed, notify all ASCs utilizing the ASP SS7 network of any SS7 network failures affecting the ASC's traffic. Notification of SS7 failures will be according to local agreements and could be completed utilizing the following suggested organizations and methods:

- I. The local ASP SS7 Network Management group or Number Administration Service Center.
- II. Telephone call to the ASC.
- III. SMS mail feature or bulletin board feature.
  - Failure notification could include:
    - I. Brief description of the trouble
    - II. Time trouble occurred
    - III. Location of the trouble (e.g., CLLI)
    - IV. Estimated fix time (e.g., 10:00 a.m. EST)
    - V. Time trouble cleared, when available

Each ASP/ASC is responsible for providing a Point of contact. Contact numbers should be non 800 numbers and associated with the organization responsible for handling SS7 Catastrophic Network Failure reports.

## 7. EMERGENCY COMMUNICATIONS

Recognizing that all SS7 Network Providers and Manufacturers of SS7 Network System hardware and software have an obligation and responsibility to provide an adequate level of support for their products and/or service, therefore, it is recommended that they participate in an emergency communications system.

A depiction of Network configurations that are recommended to achieve interconnection for Emergency communications purposes (ONLY), is reflected in Figure 1.

## 8. TERMINATION OF ACCESS SERVICE CUSTOMER SERVICE

### 8.1

The following options are available to the Industry to provide information to the users in the case of an ASC leaving the market place. This is not an all inclusive list.

- I. The ASP can provide a recorded announcement with instructions to call the ASP or another ASC. The following is an example of the wording of the recorded announcement:
  - "The long distance company of your choice can no longer complete your calls. Please contact another long distance company or (local exchange company name and phone) to arrange for a new long distance company."
- II. The ASP can provide a recorded announcement with a list of 10XXX codes of volunteers ASCs, that the customers have available to them. There are technical issues that must be resolved prior to implementation of this option (e.g., The ASCs must be willing to open their switches to 10XXX casual calling).
- III. The ASP may provide a special recorded announcement at the request of the affected ASC.
- IV. A media announcement may be released.

## 9. RESPONSIBLE ORGANIZATION

The entity identified by the 800 Subscriber or the subscribers agent assumes the duty of managing the appropriate records in 800 Data Base Service Management Systems (SMS). Management and Administration shall include Data Entry, Record Change, Trouble Acceptance, Referral, and/or Clearance. It is recommended that any entity performing the above function comply with this and other 800 Data Base associated documents.

## 10. RESP ORG TROUBLE REPORTING RESPONSIBILITIES

The RESPORG trouble reporting point has the overall provisioning, maintenance responsibility for the total service to the 800 Subscriber. It is responsible for the overall coordination of testing of its 800 Data Base Service.

The RESPORG is responsible for:

- Providing a contact number that is readily accessible 24 hours a day, 7 days a week.
- Providing trained personnel.
- Acting as the 800 Subscriber's contact in all matters involving provisioning and maintenance of 800 Data Base Service.
- Accepting trouble reports from both 800 Subscribers and casual end users or other parties receiving 800 Data Base trouble reports.

- Sectionalizing trouble to determine if the reported trouble is in its translations or facilities, or in other providers service.
- Testing cooperatively, if necessary, with other providers to further identify and clear a trouble when the trouble has been sectionalized to another providers service.
- Keeping the 800 Subscriber advised of the status of trouble clearance.
- Maintaining accurate records.

## Table of Contents

Company	Page #
Alascom .....	1
Allnet .....	2
Alltel .....	3
Ameritech .....	4
AT&T .....	5
Bell Atlantic .....	6
Bell Canada .....	7
Bell of Pennsylvania/Diamond State .....	6
BellSouth .....	8
Carolina Telephone and Telegraph .....	29
Central Telephone CO .....	9
Central Telephone CO. of Florida .....	9
Central Telephone CO. of Illinois/Ohio .....	9
Central Telephone CO. - Minnesota/Iowa Division .....	9
Central Telephone CO. - Southern Nevada Division .....	9
Central Telephone CO. - North Carolina Division .....	9
Central Telephone CO. of Texas .....	9
Central Telephone CO. of Virginia .....	9
Chesapeake and Potomac .....	6
Cincinnati Bell Telephone Co .....	10
Continental Telephone .....	11
Diamond State .....	6
Digital Signal Inc. ....	12
First Phone Corporation .....	13
GTE Telephone Operations .....	14,15,16
Illinois Bell .....	4
Indiana Bell .....	4
ITT .....	17
MCI .....	18,19
Michigan Bell .....	4
Mountain Bell .....	31
Nevada Bell .....	22
New England Telephone .....	20
New Jersey Bell .....	6
New York Telephone .....	20
Northwestern Bell .....	31
NYNEX .....	20
Ohio Bell .....	4
Pacific Bell .....	22
Pacific Northwest Bell .....	31
Pacific Telecom, Inc. ....	21
Pacific Telesis .....	22
Satelco .....	23
Sears Technology Services .....	24
South Central Bell .....	8
Southern Bell .....	8
Southern New England Telephone .....	25
Southwestern Bell .....	26

Company	Page #
Telecom Canada.....	7
Teleglobe Canada.....	27
TELUS.....	28
United States Transmission System.....	17
United Telephone Co. of Florida.....	29
United Telephone Co. of Indiana.....	29
United Telephone Co. of the Northwest.....	29
United Telephone Co. of Ohio.....	29
United Telephone Systems - Eastern Group.....	29
United Telephone Systems - Mid West Group.....	29
United Telephone Systems - Southeast Group.....	29
US Sprint.....	30
U S WEST.....	31
Wisconsin Bell.....	4



## Appendix 5.1



# A Guide to Contingency Services

Prepared by the:

New York City  
Mayor's Task Force  
on Telecommunications  
Network Reliability

January 1992

David N. Dinkins, Mayor

Sally Hernandez-Pinero  
Deputy Mayor for Finance and Economic Development

William F. Squadron  
Commissioner, Department of Telecommunications and Energy



# CONTINGENCY SERVICE OFFERINGS

## TABLE OF CONTENTS

Introduction .....	Page	1
<b>New York Telephone:</b>		
Call Forwarding .....	Page	2
Voice Messaging Service (large Business) .....	Page	3
Voice Messaging Service (Small Business) .....	Page	4
Switched Services from Dual Central Offices (Flexpath) .....	Pages	5-7
Switched Services from Dual Central Offices (Intellipath II) .....	Pages	8-9
Intellihub Dedicated Network Service .....	Page	10
Alternate Serving Wire Center .....	Page	11
Network Reconfiguration Service .....	Pages	12-13
<b>Metropolitan Fiber System:</b>		
Network Reconfiguration Management Service (NRMS) .....	Page	14
Central Office Interconnection .....	Page	15
<b>Teleport:</b>		
Access Service .....	Page	16
DTF Service .....	Page	17
Network Services .....	Page	18
Auxiliary Lines .....	Page	19
Primary Service and Diverse Trunking Option .....	Page	20
<b>Additional Services:</b>		
Equal Access Dial Access .....	Page	21
Equal Access Contact List .....	Page	22
Cellular Telephone Service .....	Page	23
Cellular Telephone Vendor List .....	Page	24
Voice Messaging Services .....	Page	25
Voice Messaging Vendor List .....	Page	26

## CONTINGENCY SERVICE OFFERINGS

### NEW YORK TELEPHONE CALL FORWARDING

#### DESCRIPTION OF SERVICE

Call Forwarding is an excellent "insurance" for disaster recover/service assurances. With Call Forwarding, calls can be automatically transferred to any other number directly from the phone at any time. If there is a problem at the customer site, call forwarding can be activated immediately. Note: For instructions, call 1-800-327-9698 (1-800-EASY NYT) at any time.

#### USER APPLICABILITY

If there is a local loop or cable problem, call forwarding can be established by calling the local New York Telephone repair office and requesting that call forwarding be activated to a specified phone number.

Call Forwarding II and Remote Call Forwarding are versions of call forwarding that remain active all the time, so if there is no answer after a specified number of rings, the call is automatically call forwarded to a predetermined number. If there is a problem at the customer site or a local loop problem, Call Forwarding II would reroute all the calls automatically. If there is a problem reaching the remotely called number, the remote number can be changed in an emergency situation by contacting the New York Telephone repair office of the originally called number and requesting the change.

#### DEPLOYMENT AND AVAILABILITY

Call Forwarding is available as one of the Custom Calling Services.

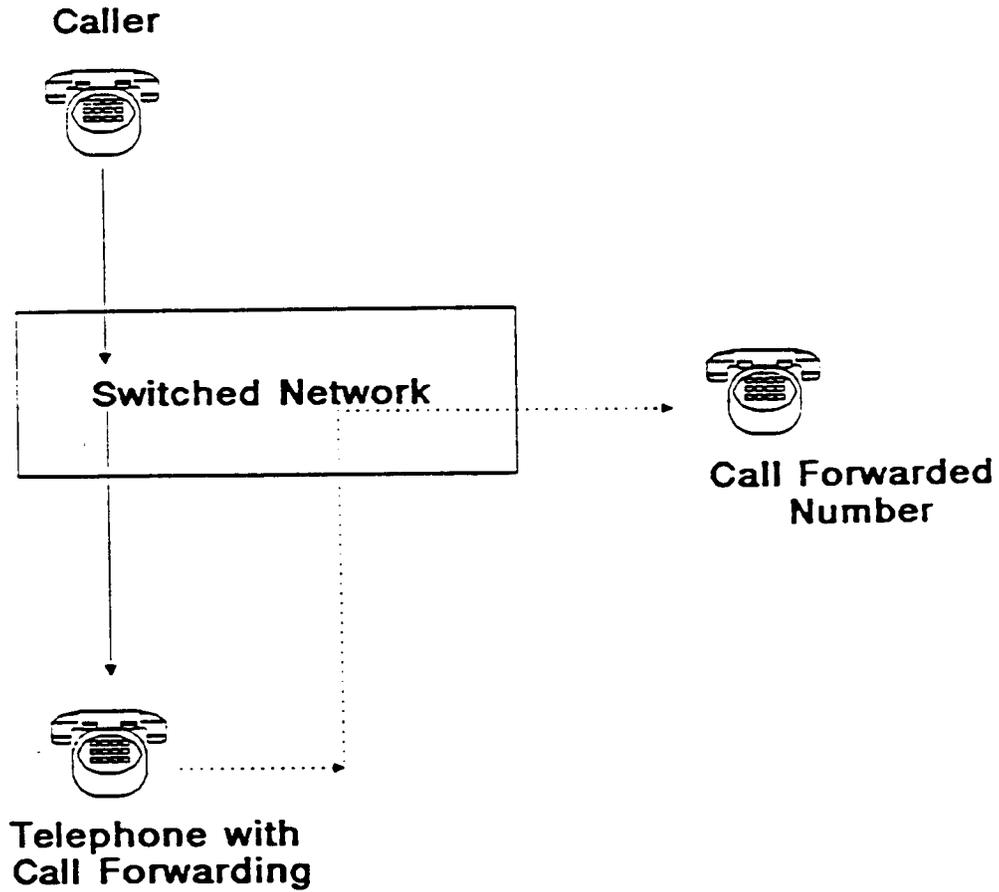
#### PRICING

There is an additional monthly charge of \$6.00 for the Call Forwarding feature, and a call charge to establish call forwarding. Calls that are forwarded are charged the station-to-station direct dialed rate from the call forwarded phone to the receiving phone.

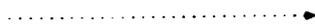
#### CONTACT LIST

To obtain further information on Call Forwarding, contact your New York Telephone account executive.

# CALL FORWARDING



Normal Operations



Call Forward Operations

**CONTINGENCY SERVICE OFFERINGS**  
**LARGE BUSINESS**

**NEW YORK TELEPHONE**  
**VOICE MESSAGING SERVICE**

**DESCRIPTION OF SERVICE**

With Voice Messaging Service, businesses can operate more effectively, customers can get messages through, and the hassles of telephone tag are eliminated.

Voice Message Service (VMS) encompasses four distinct options, which can be combined to suit specific requirements:

Voice Mail - Provides the "mailboxes" for callers to leave messages for individuals, groups or guests. Mailbox owners may retrieve messages at any time from any phone.

Call Answering - routes calls from a busy or unanswered phone to a Voice Mail mailbox, or for urgent matters, callers can reach an attendant. Indicates waiting messages.

Information Mailbox - a general mailbox that stores recorded information for callers to hear. Effective for emergency situations, news, and information delivery.

Call Processing - acts as an "automated" attendant that allows callers to direct their own calls to another extension, a mailbox, an Information Mailbox, or a live operator.

Voice Messaging is activated whenever a call is not answered (busy or no answer). The call is automatically forwarded to the Voice Messaging Service, and the calling and called party information is sent to the Voice Messaging Service (Figure 1).

The Customized Announcement System based on Voice Messaging is being developed as a service. It would be activated in an emergency situation and work like Voice Messaging.

**USER APPLICABILITY**

With Voice Messaging, if there is a problem at the customer site, or a local loop or cable problem, announcement messages can be made and/or calls rerouted to a different number or location.

The Customized Announcement System would be located in a site other than the serving Central Office, so that if there were a problem at the CO, the Voice Messaging and Announcements would still be functioning.

**DEPLOYMENT AND AVAILABILITY**

Any Intellipath II or Centrex users with requirements for 200 or more varying types of mailboxes may subscribe to Voice Messaging Service. Deployment is on an as requested basis. Customized Announcements are currently available through Limited Service Offerings.

**PRICING**

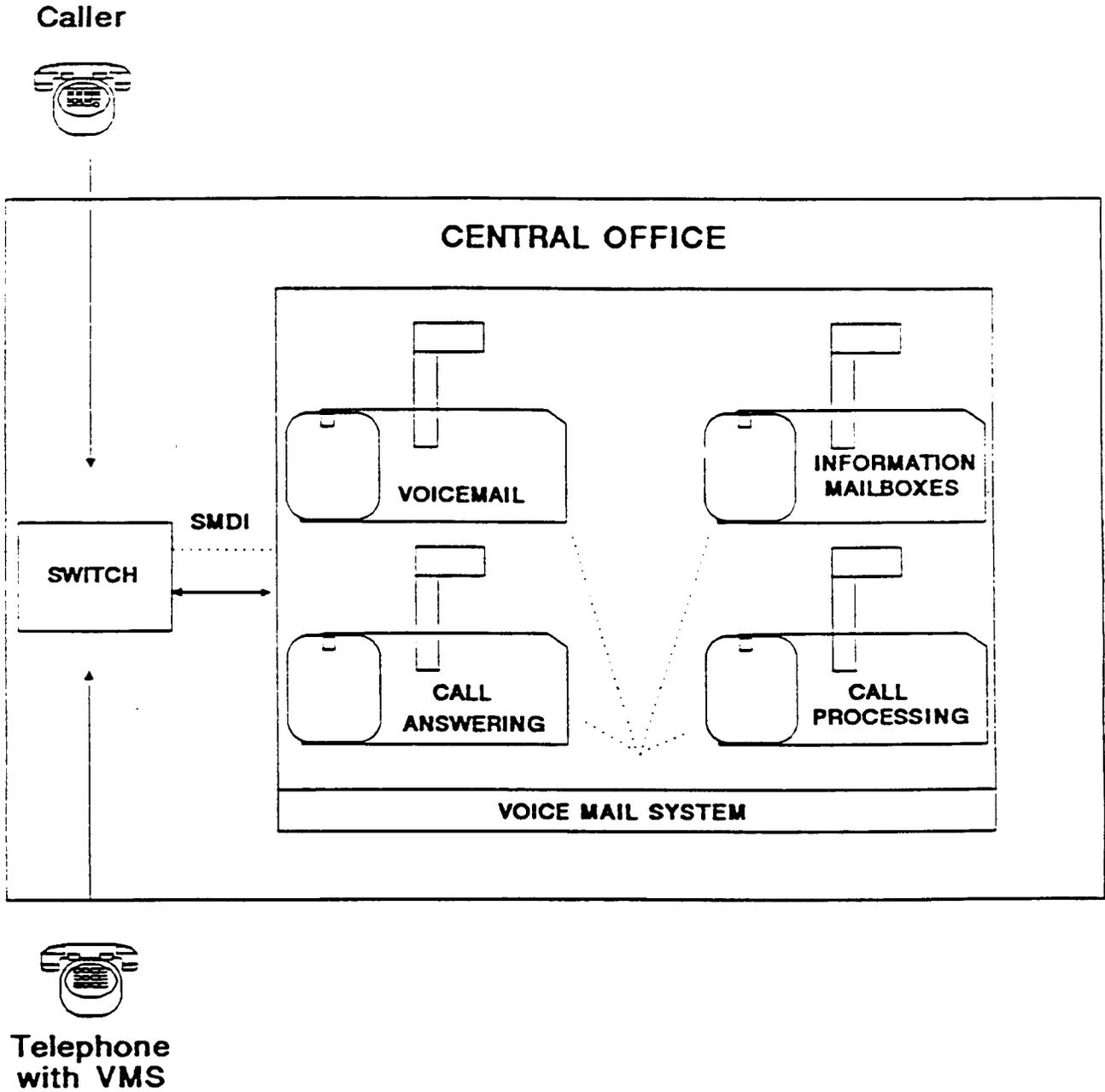
For large business users (Intellipath and Centrex) the monthly base pricing structure for VMS mailboxes and options are as follows (note that the minimal order is 200 mailboxes and quantity discounts apply)

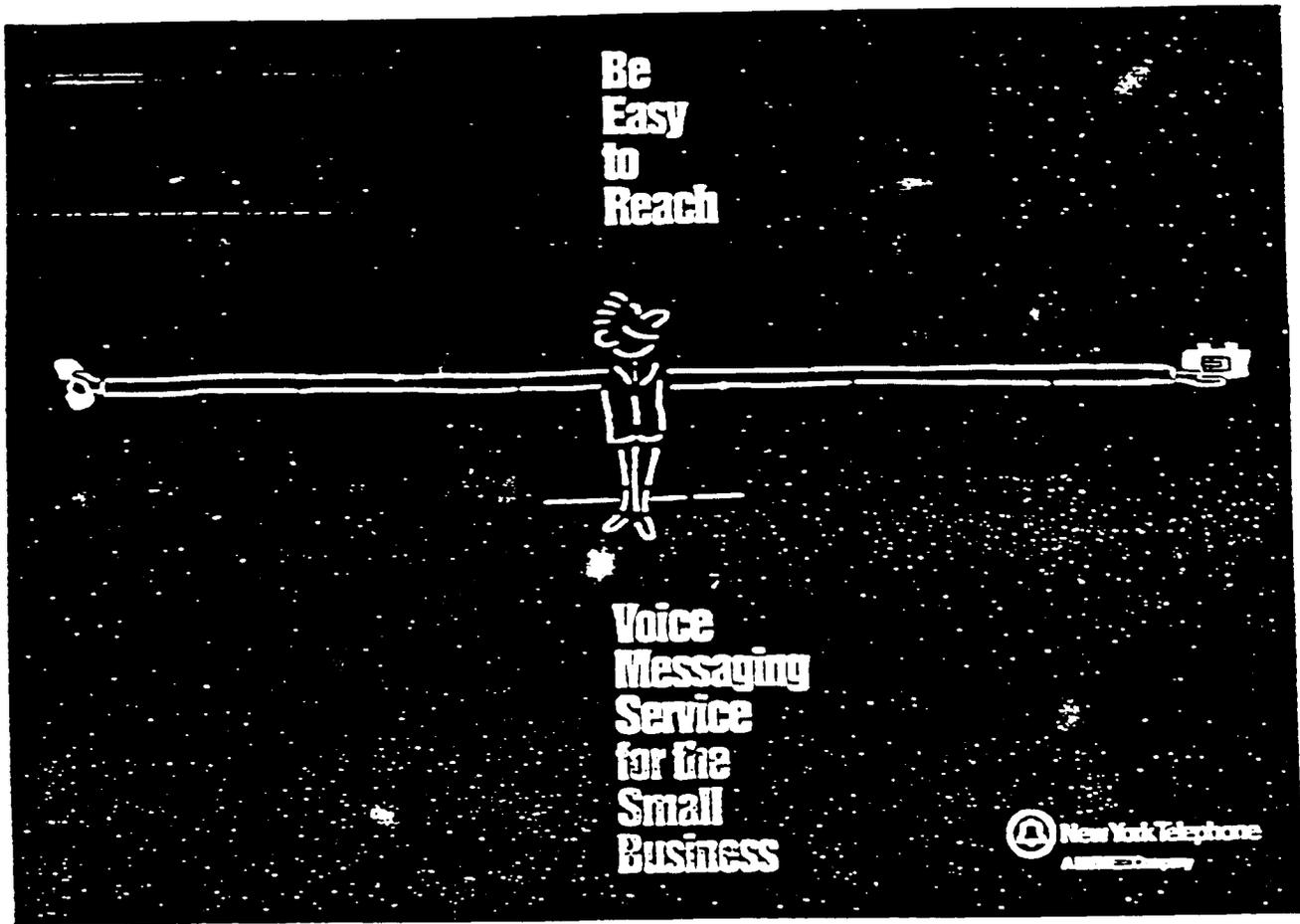
Voice Mail	\$ 6.30	Call Processing	
Expanded Mailboxes	\$ 9.45	1 Minute	\$ 3.50
		3 Minute	\$ 7.00
Call Answering	\$ 7.00	Information Mailbox	
Expanded Mailboxes	\$10.00	1 Minute	\$ 4.00
		1 Minute	\$ 7.00
		1 Minute	\$12.00

**CONTACT LIST**

To obtain further information on Voice Messaging Service on updated deployment, contact your New York Telephone Business Office Representative.

# VOICE MESSAGING SERVICE





Availability of Voice Messaging Service	Cut-over	Central Office	NXX
Completed		West 42nd	575-730-764
Completed		East 56th	207-308-353-371-486-593-644 754-753-759-826-832
Completed		East 97th	289-410-534-722-860-996
Completed		West 50th	245-246-262-307-397-399-664 957-974-975
Completed		East 79th	439-517-570-606-737-744-772
Completed		East 37th	286-370-490-557-573-599-687 692-808-818-833-949-953-972 973-953
Completed		East 30th	213-481-532-576-679-683-684 685-686-696-725
Cut-over to be determined		West 18th Street	206-242-243-337-620-741-807 929
Cut-over to be determined		Varck Street	219-226-334-431-925
Cut-over to be determined		Second Avenue	254-420-473-475-477-505-598 614-674-777

# CONTINGENCY SERVICE OFFERINGS

## NEW YORK TELEPHONE VOICE MESSAGING SERVICE

### DESCRIPTION OF SERVICE

With Voice Messaging Service, businesses can operate more effectively. Customers can get messages through and the hassles of telephone tag are eliminated.

The components are:

Voice Mail - provides the "mailboxes" for callers to leave messages for individuals, groups or guests. Mailbox owners may retrieve messages at any time from any phone; and Call Answering which routes calls from a busy or unanswered phone to a Voice Mail mailbox.

Voice Messaging is activated whenever a call is not answered (busy or no answer). The call is forwarded to the Voice Messaging Service, and the calling and called party information is sent to the Voice Messaging Service.

### USER APPLICABILITY

If there is a problem at the customer site, or a local loop or cable problem, voice messages can still be retrieved from any touch tone phone. Also, customized announcement messages can be set up to reroute calls to a different number or location.

### DEPLOYMENT AND AVAILABILITY

Voice Messaging Service for Residence and Small Business is currently being deployed in the Manhattan Central Office as shown.

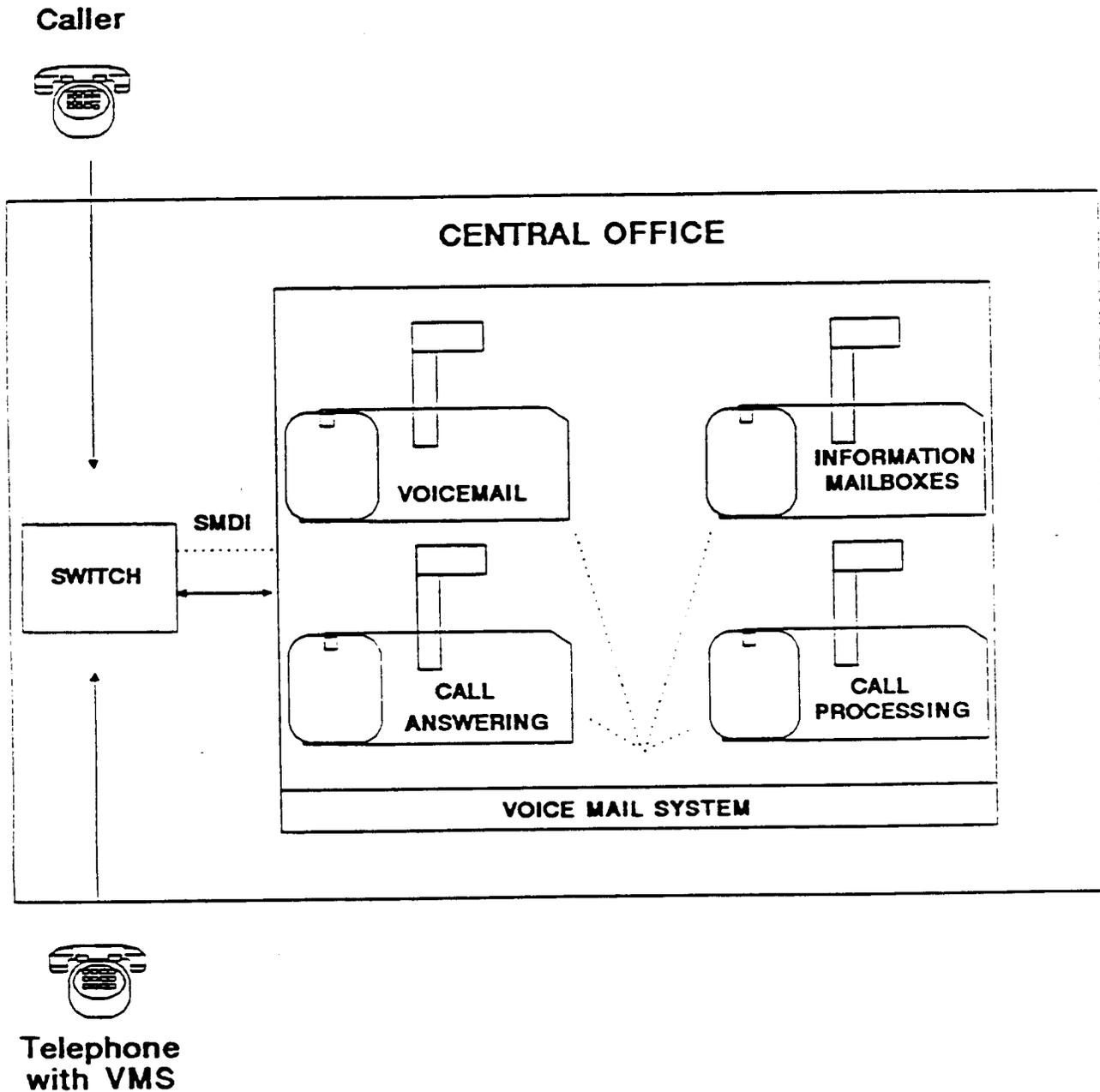
### PRICING

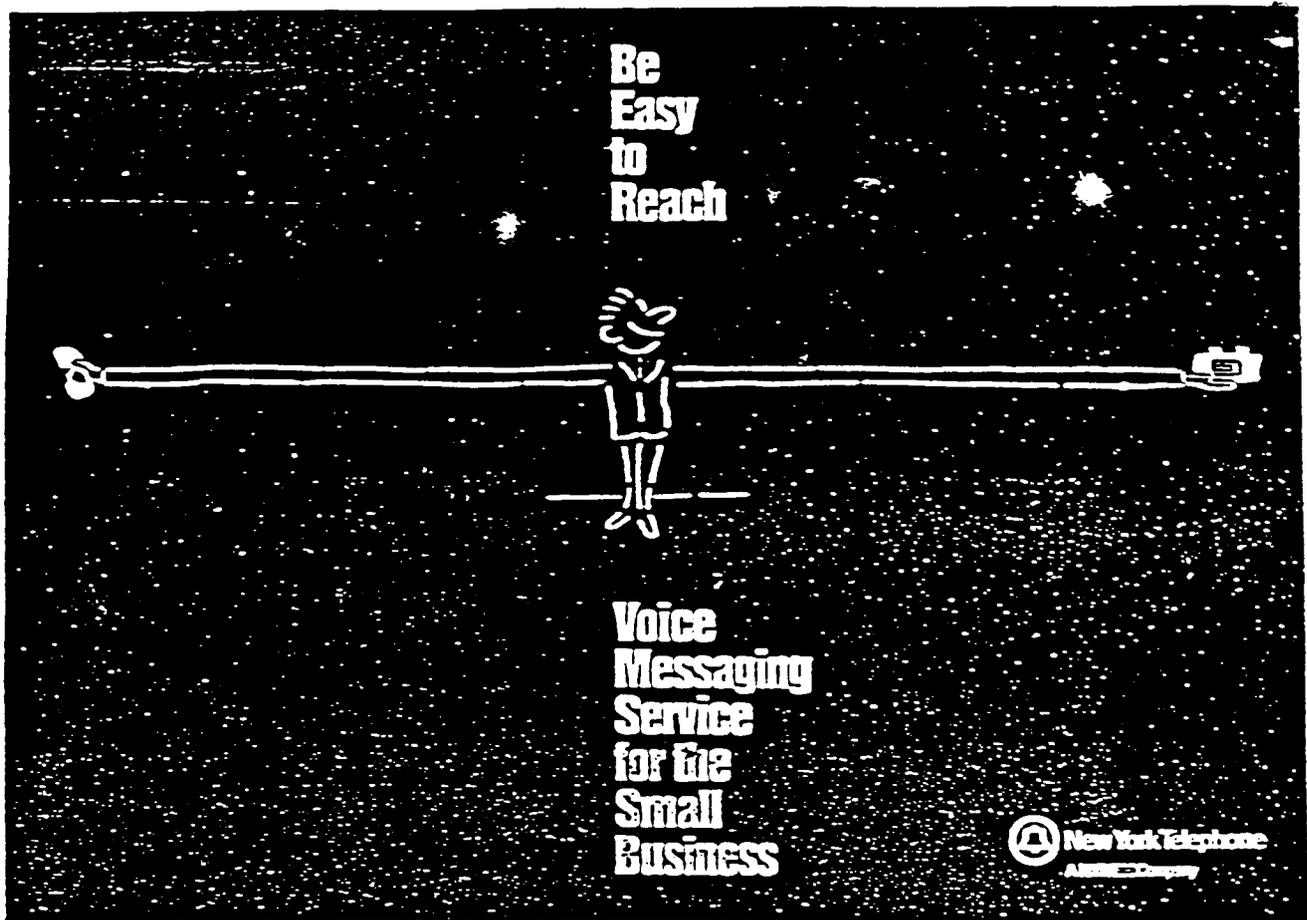
The monthly charge for Voice Messaging Service (Call Answering) for small business users is up to \$12.70.

### CONTACT LIST

To obtain further information on Voice Messaging Service on updated deployment, contact your New York Telephone Business Office Representative.

# VOICE MESSAGING SERVICE




**Availability of  
Voice Messaging  
Service**

Cut-over	Central Office	NXX
Completed	West 42nd	575-730-734
Completed	East 56th	207-303-333-371-466-593-644 734-733-739-826-832
Completed	East 97th	239-410-534-722-865-996
Completed	West 50th	245-245-262-307-397-399-664 957-974-975
Completed	East 79th	439-517-572-605-737-744-772
Completed	East 37th	236-370-490-557-573-599-637 692-808-818-833-949-953-972 973-983
Completed	East 30th	213-481-532-576-679-683-684 685-686-696-725
Cut-over to be determined	West 18th Street	206-242-243-337-622-741-807 929
Cut-over to be determined	Vanok Street	219-226-334-431-923
Cut-over to be determined	Second Avenue	254-420-473-475-477-505-598 614-674-777

## CONTINGENCY SERVICE OFFERINGS

### NEW YORK TELEPHONE SWITCHED SERVICES FROM DUAL CENTRAL OFFICES FLEXPATH

#### DESCRIPTION OF SERVICE

Flexpath Digital PBX Disaster Recovery Service provides route diversity and various degrees of survivability for telecommunications service in the event of a failure. The degree of survivability is determined by the facilities subscribed to by the customer. This service does not apply to a failure that occurs simultaneously in the normal and alternate wire centers.

Flexpath Digital PBX Disaster Recovery Service provides the customer with diversely routed access to an alternate wire center selected by New York Telephone (NYT). The customer may purchase Flexpath Digital PBX Disaster Recovery Service and thereby maintain a level of incoming and outgoing service to the premises. Flexpath Digital PBX Disaster Recovery Service provides Loop to an Alternate Wire Center, Alternate Wire Center Routing, and/or Interoffice Facility Routing.

#### **- Loop to an Alternate Wire Center:**

Loop to Alternate Wire Center provides Flexpath Digital PBX Service circuits between the customer premises and an alternate wire center designated by the NYT. Wherever diverse facilities exist, the NYT will endeavor not to use passageways (conduits, cable vaults, building entrances, or routes) common to customer's normal service. Mileage for Flexpath Digital PBX Service circuits ordered from the alternate wire center will be measured as if these circuits were routed to the normal wire center.

The customer shall designate the incoming/outgoing configuration of the Flexpath Digital PBX Service circuits during normal operations and during disaster operations.

#### Normal Operations

Flexpath Digital PBX Disaster Recovery Service ordered from the alternate wire center will be configured independently from Flexpath Digital PBX Service or other digital Direct Inward Dialing (DID)/Direct Outward Dialing (DOD) service provided by another carrier as provided from the normal wire center and will have a different NXX.

#### Disaster Operations

In the event of a failure at the normal wire center or alternate wire center, customers who subscribe to Flexpath Digital PBX Disaster Recovery Service will continue to receive service out of the working wire center.

#### **- Alternate Wire Center Routing:**

Alternate Wire Center Routing customers will obtain Flexpath Digital PBX Service circuits or other digital DID/DOD service provided by another carrier from the normal wire center and a Flexpath Digital PBX Service circuit from the alternate wire center designated by NYT. Incoming DID station numbers will be purchased from the normal wire center only. Incoming/outgoing or two-way Flexpath Digital PBX Service circuits may be purchased from the normal wire center and/or the alternate wire center at the customer's option.

The customer shall designate the incoming configuration of the Flexpath Digital PBX Service circuits during normal operations and during disaster operations.

## CONTINGENCY SERVICE OFFERINGS

### NEW YORK TELEPHONE SWITCHED SERVICES FROM DUAL CENTRAL OFFICES FLEXPATH

#### DESCRIPTION OF SERVICE (continued)

##### - **Alternate Wire Center Routing:** (continued)

###### Normal Operations

All incoming traffic during normal operations will be routed to the normal wire center. The NXX will reside at the normal wire center. Outgoing traffic during normal operations may be routed to the normal wire center and/or alternate wire center for completion as designated by the customer.

###### Disaster Operations

In the event of a failure at the normal wire center, all incoming Flexpath Digital PBX service traffic or other digital DID/DOD service provided by another carrier will be routed to the alternate wire center via the local serving tandem or direct trunks for completion at the customer's premises. Outgoing traffic will be completed through the alternate wire center and out to the network via the local serving tandem or direct trunks as designated by the customer.

##### - **Interoffice Facility Routing**

Interoffice Facility Routing customers will obtain Flexpath Digital PBX Service circuits or other digital DID/DOD Service provided by another carrier from the normal wire center and a Flexpath Digital PBX Service circuit from the alternate wire center designated by NYT. Incoming DID station numbers will be purchased from the normal wire center only.

Customers will be provided with an interoffice facility between the normal wire center and the alternate wire center to protect incoming traffic in the case of a loop failure between the normal wire center and the customer premises. This interoffice facility must be purchased in increments of 1.544 Mbps trunks comprised of twenty four channels and will be dedicated to the customer.

###### Normal Operations

All incoming traffic will be routed through the normal wire center. Some of the traffic will overflow via the interoffice facility to the alternate wire center for completion over the alternate wire center circuits. The NXX will reside at the normal wire center. Outgoing traffic will be routed over the loop between the alternate wire center and the customer premises and/or the loop between the normal wire center and the customer premises to their respective wire centers as designated by the customer.

###### Disaster Operations

In the event of a loop failure between the normal wire center and customer premises, incoming traffic will be routed over the interoffice facility to the alternate wire center for completion over the alternate wire center circuits. Outgoing Flexpath Digital PBX Service traffic will complete via the alternate wire center.

**NOTE: Alternate Wire Center - The NYT designated building facility which is not the customer's normal wire center to which customer's calls are routed.**

# CONTINGENCY SERVICE OFFERINGS

## NEW YORK TELEPHONE SWITCHED SERVICES FROM DUAL CENTRAL OFFICES FLEXPATH

### DEPLOYMENT AND AVAILABILITY

Alternate CO access is currently available in a number of buildings, and deployment plans are being developed to provide alternate CO access throughout the Metro NY area. The initial focus is downtown and midtown Manhattan.

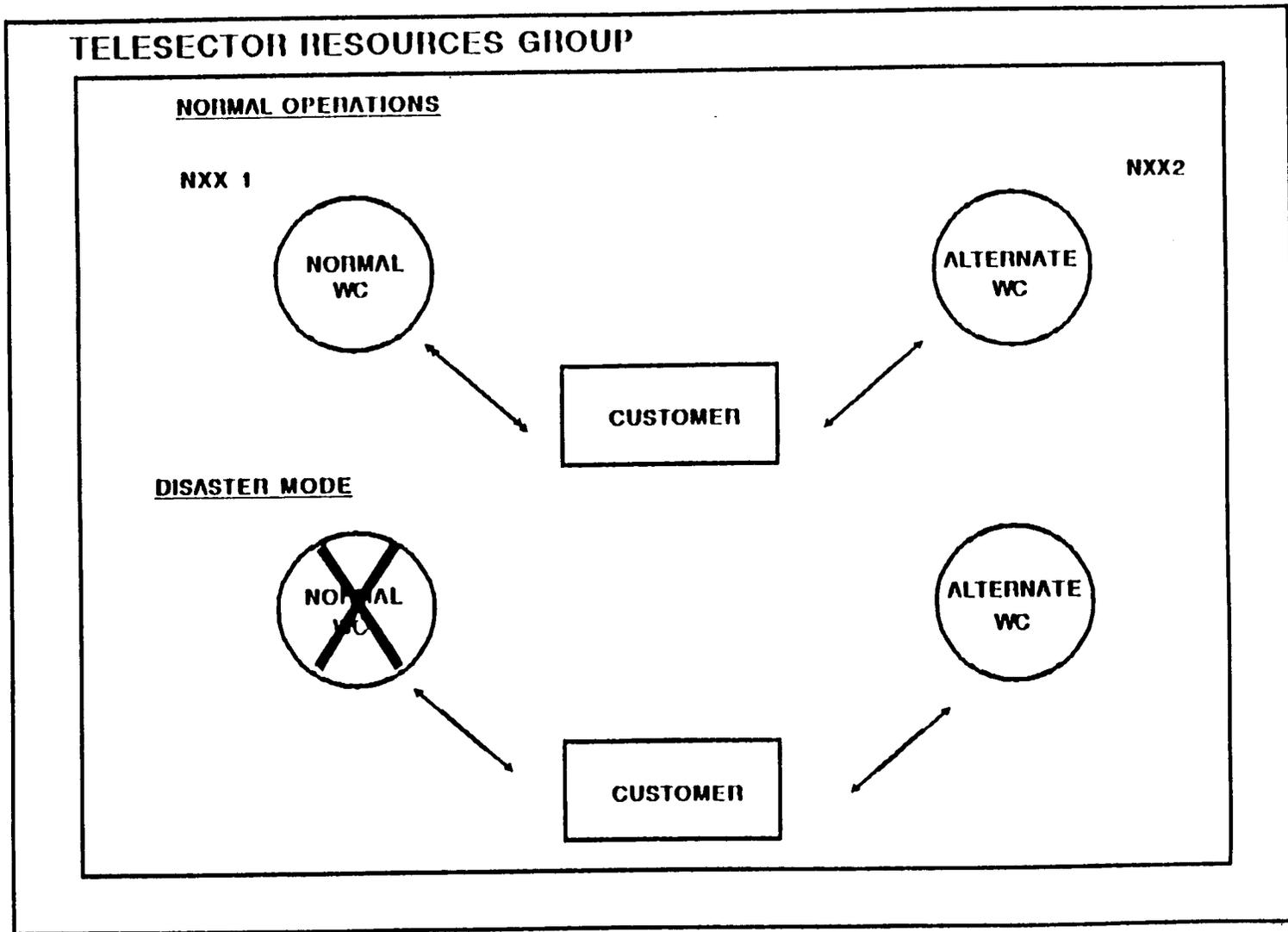
### RELATIVE COST

15% - 20% premium above cost of service.

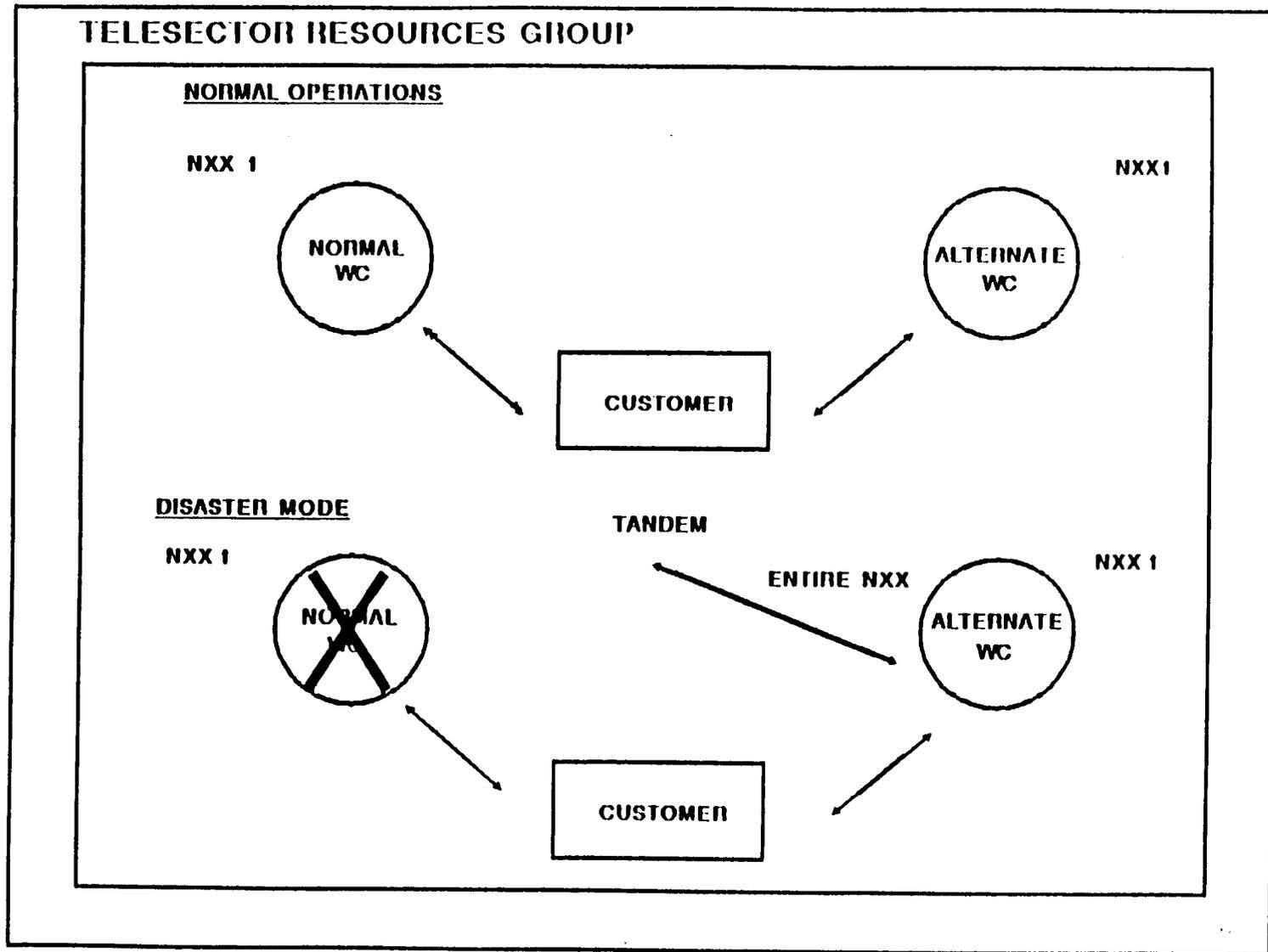
### CONTACT LIST

To obtain further information and planning support for switched services from dual central offices, contact your account executive.

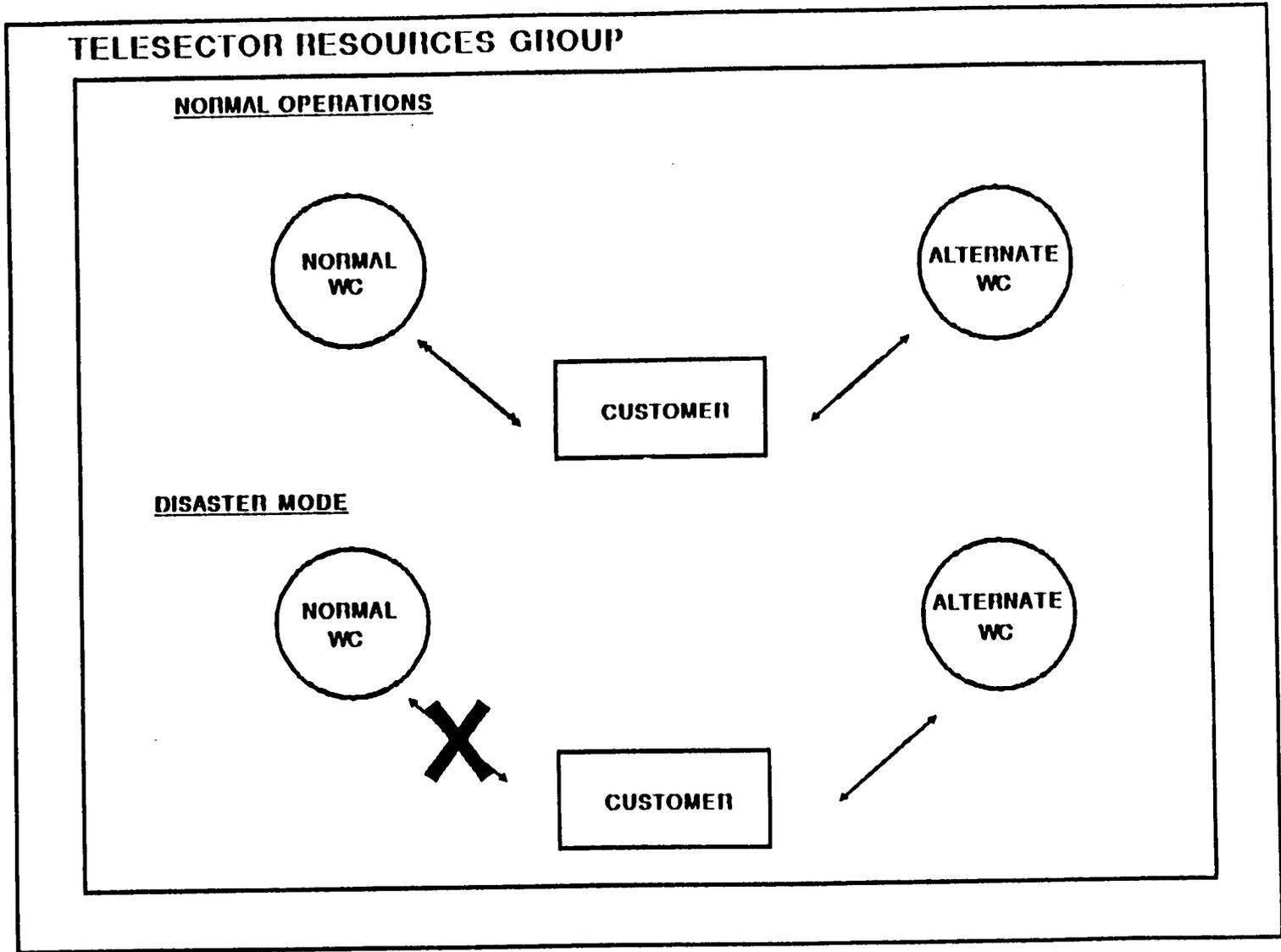
# LOOP TO ALTERNATE WIRE CENTER



# ALTERNATE WIRE CENTER ROUTING



# INTEROFFICE FACILITY ROUTING



## CONTINGENCY SERVICE OFFERINGS

### NEW YORK TELEPHONE SWITCHED SERVICES FROM DUAL CENTRAL OFFICES INTELLIPATH II

#### DESCRIPTION OF SERVICE

The INTELLIPATH II Digital Centrex Disaster Recovery Service tariff, filed August, 1991, provides INTELLIPATH II service customer's with access to an alternate wire center designated by New York Telephone. Wherever possible, New York Telephone will ensure that no common passage-ways (conduits, cable vaults, building entrances or routes) are used so that a single point of failure will not exist. INTELLIPATH II lines served by the alternate wire center will not be routed through the customer's normal wire center. Three options will be available:

- **Loop to an Alternate Wire Center:**

INTELLIPATH II service ordered from the alternate wire center will be independent from the INTELLIPATH II service ordered from the normal wire center. There will be two different NXX's. In the event of a disaster at the normal wire center or a failure in the loop from the normal wire center to the customer's premises, lines served from the alternate wire center will continue to operate.

- **Inter-office Wire Center Feature:**

Customers will have INTELLIPATH II lines from the normal wire center and an alternate wire center. All lines will have the same NXX which will continue to reside at the normal wire center. All incoming calls will route through the normal wire center. Incoming calls destined for INTELLIPATH II lines served from the alternate wire center will be routed from the normal wire center to the alternate wire center over dedicated trunks. These trunks will be traffic engineered to meet specific customer requirements. Outgoing calls will be routed through the wire center that serves the INTELLIPATH II line making the call. In the event of a failure in the loop from the normal wire center to the customer's premises, incoming calls to and outgoing calls from INTELLIPATH II lines served from the normal wire center will not be able to complete. Incoming calls to and outgoing calls from INTELLIPATH II lines served from the alternate wire center will be unaffected.

- **Inter-office Wire Center Feature:**

Customers will have INTELLIPATH II lines from the normal wire center and the alternate wire center. These lines will have the same NXX which will reside at the normal wire center. All incoming calls will be routed from the normal wire center to the alternate wire center over dedicated trunks that will be traffic engineered to meet specific customer requirements. Outgoing calls will be routed through the office serving the INTELLIPATH II line making the call. In the event of a failure in the normal wire center, incoming calls to and outgoing calls from INTELLIPATH II lines served from the normal wire center will not be able to complete. New York Telephone will reroute the NXX to the alternate wire center which will allow INTELLIPATH II lines served from the alternate wire center to continue to receive calls. Incoming calls to other lines in the NXX will be routed to a standard network announcement. Outgoing service from the alternate wire center will not be affected.

#### DEPLOYMENT AND AVAILABILITY

Alternate Central Office access is currently available in a number of buildings, and deployment plans are being developed to provide alternate Central Office access throughout the Metro NY area. The initial focus is downtown and midtown Manhattan Central Offices.

# CONTINGENCY SERVICE OFFERINGS

NEW YORK TELEPHONE  
**SWITCHED SERVICES FROM DUAL CENTRAL OFFICES**  
INTELLIPATH II

RELATIVE COST

15% - 20% premium above cost of service.

CONTACT LIST

To obtain further information and planning support for switched services from dual Central Offices, contact your account executive.

Empty space for contact list.



# Telesetor Resources Group

## SWITCHED DISASTER RECOVERY SERVICE

### INTELLIPATH

#### TODAY:

- ★ 1. TWO INTELLIPATH CENTRAL OFFICES WITH TWO NXX'S
- ★ 2. TWO INTELLIPATH'S ONE NXX

MAURO\090624\INTEL

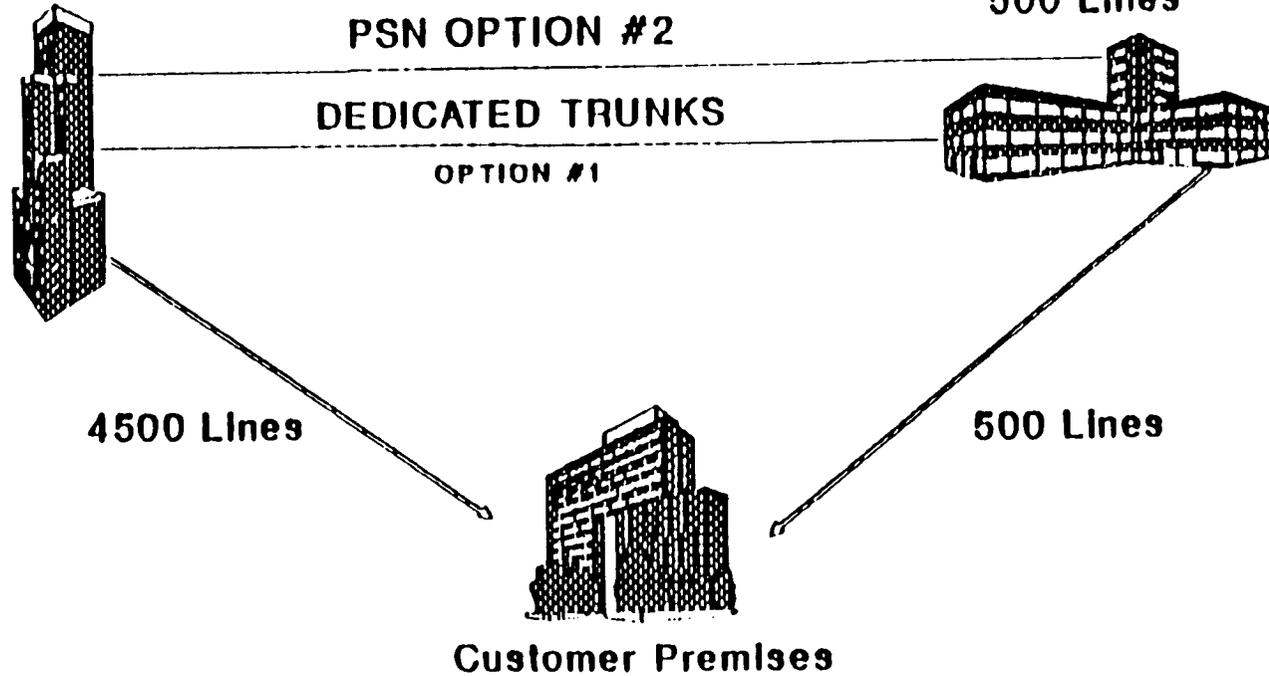


# Telesector Resources Group

## SWITCHED DISASTER RECOVERY SERVICE

Home Wire Center  
NXX (1)  
4500 Lines

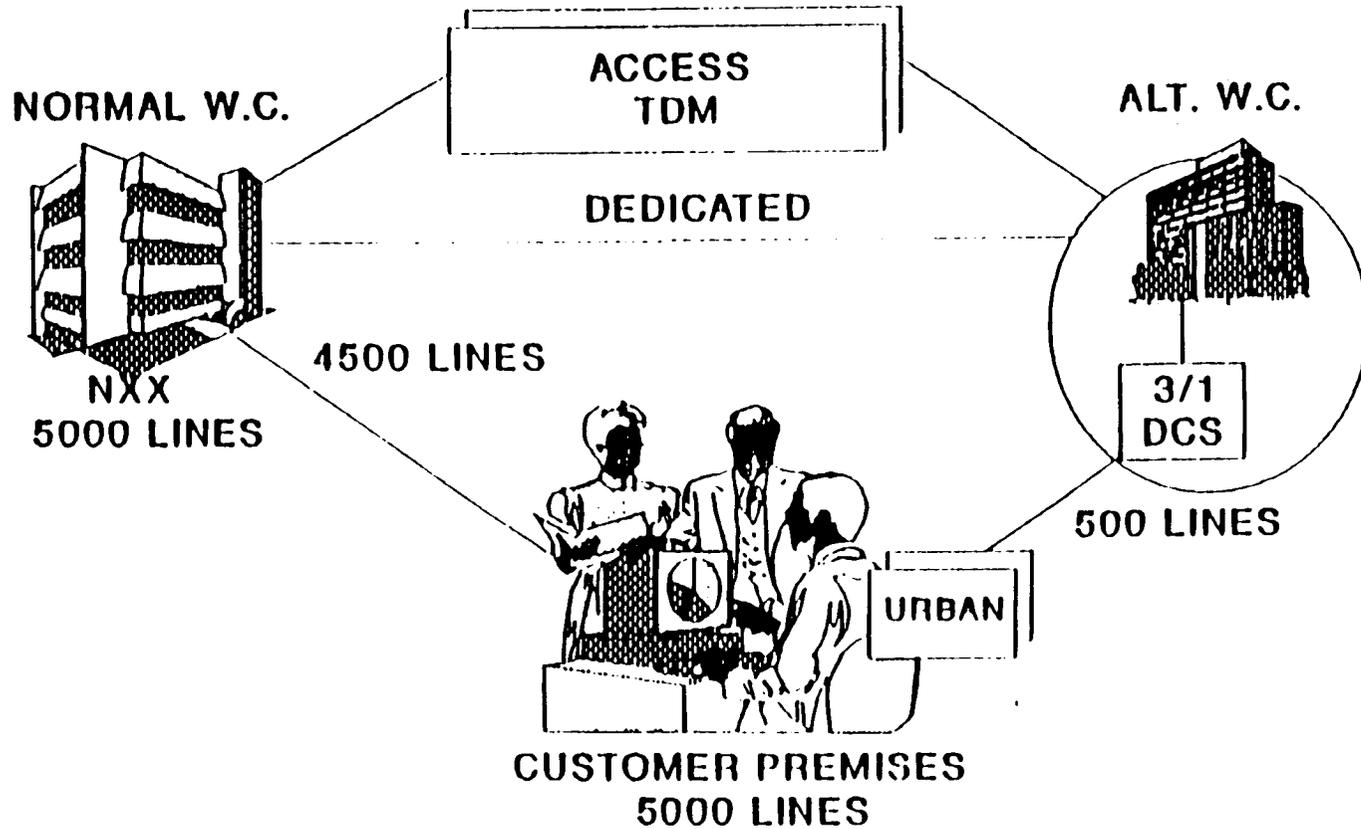
Alt Wire Center  
NXX (2)  
500 Lines



MAURO\090624\WIRE



**OPTION 3. SWITCHABLE URBAN WITH BACK-UP CAPACITY**

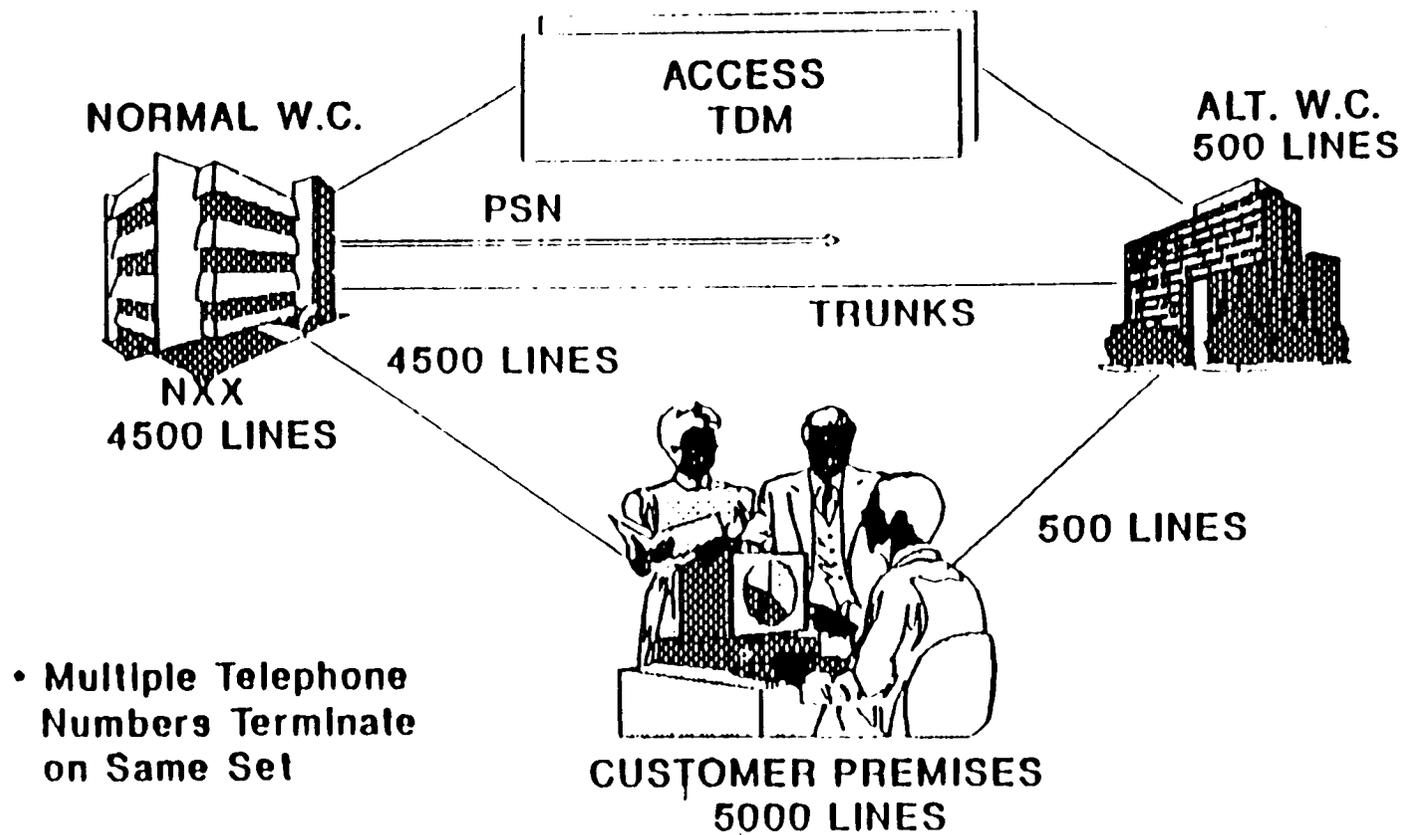


MAURO\090624\URBAN



# Telesector Resources Group

## OPTION 4. NORMAL NUMBERS RETRANSLATED TO COMPLETE ON ALT LINES

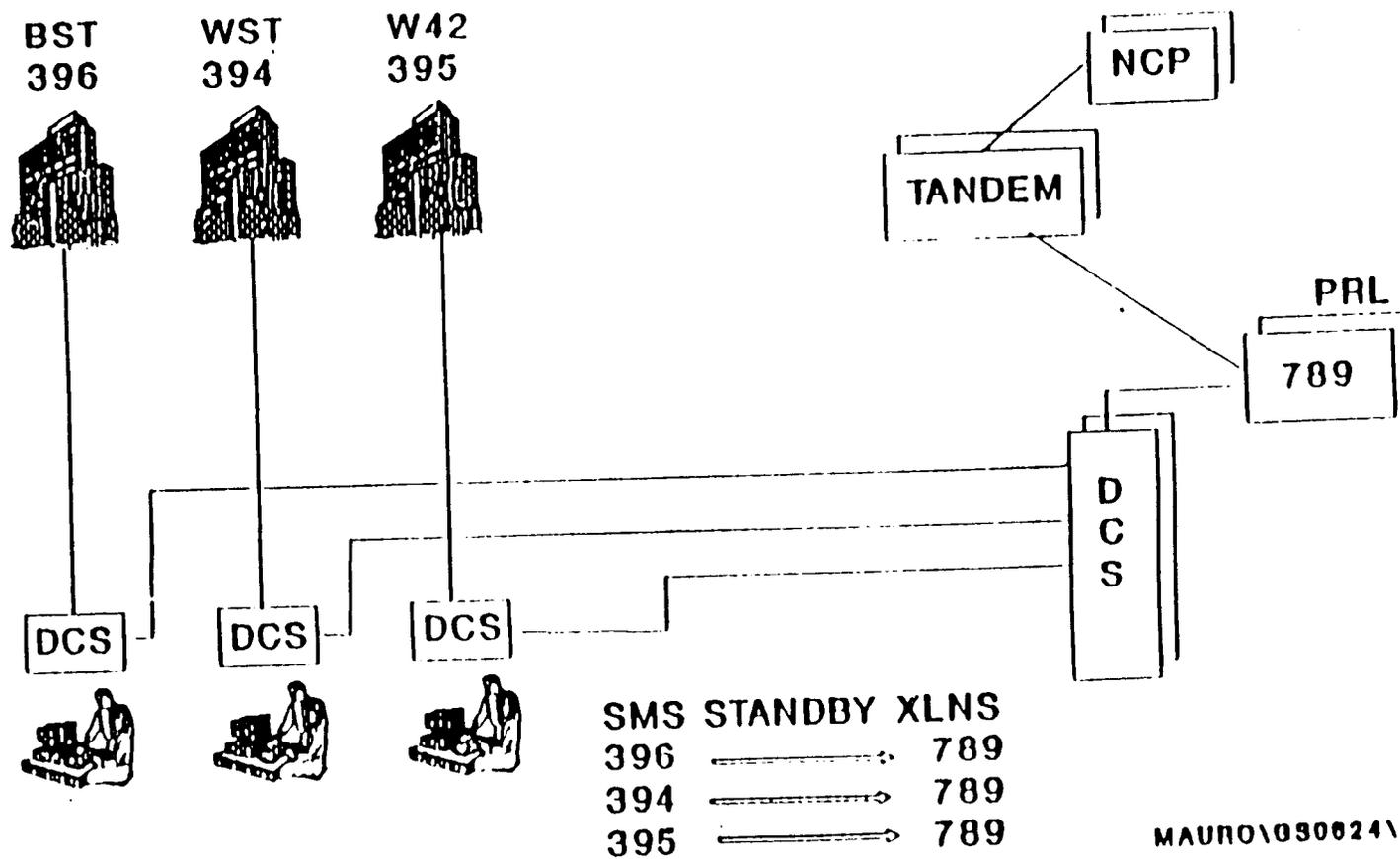


MAURO\090624\OPT4



# Teleset Resources Group

## OPTION 6. EFFICIENT USE OF DISASTER RECOVERY EQUIPMENT BY MORE THAN ONE CENTRAL OFFICE



MAURO\030624\OPT6

## CONTINGENCY SERVICE OFFERINGS

New York Telephone

### **INTELLIHUB DEDICATED NETWORK SERVICE**

#### **DESCRIPTION OF SERVICE**

Intellihub Dedicated Network Service integrates and modifies several of the Pathway's Advanced Digital Service (Flexpath Digital PBS Service, Intellipath, Intellipath II Digital Centrex Service and Infopath Packet Switching Service) to form a pre-ISDN dedicated digital network service for large, multi-location business customers with a Regional Calling area.

Intellihub service provides dedicated digital facilities at DS-1 speeds for local and inter-office communications and provides access to the central office to perform customer-specified routing and traffic reconfigurations. A mini-computer in the CO gives control and reconfiguration to the customers network manager.

#### **USER APPLICABILITY**

Intellihub offers customers diverse routing of facilities, automatic alternate routing of calls and Network facility redundancy during disasters.

#### **DEPLOYMENT AND AVAILABILITY**

Intellihub is available on a limited basis at Central Offices throughout New York City and State.

#### **RELATIVE COST**

For information and a comprehensive listing of rates contact your New York Telephone representative for information.

#### **CONTACT LIST**

Contact your New York Telephone Account Executive.

## CONTINGENCY SERVICE OFFERINGS

New York Telephone

### **ALTERNATE SERVING WIRE CENTER**

#### DESCRIPTION OF SERVICE

Alternate Serving Wire Center (ASWC) is an optional feature of Superpath 1.544 Mbps, High Capacity 1.544 Mbps, High Capacity 45 Mbps and Superpath 45 Mbps Services. ASWC provides a route to an alternate central office designated by NYT. This option also applies to Analog Private Line service.

Specific buildings in downtown Manhattan have been prepositioned with fiber to a designated alternate serving wire center. If a customer requests ASWC, additional Optical Line Terminating Multiplexers (OLTMs) will be placed at the customer's location and the alternate central office. The customer can then terminate a portion of their traffic at the alternate central office and have nodal survivability. If a disaster occurs at their primary serving wire center, the customer will still have connectivity through the alternate serving wire center.

The alternate Serving Wire Center option provides that a circuit ordered with ASWC will not be routed through the customer's embedded base of Private Line Analog, 1.544 or 45 Mbps circuits. Existing primary circuits may or may not route through the alternate serving wire center. This service also does not provide diversity on the remaining interoffice facility.

#### USER APPLICABILITY

ASWC offers optimal protection of existing service in times of disaster, water main breaks, cable failures, etc.

#### DEPLOYMENT AND AVAILABILITY

Selected sites are situated primarily in the New York City area. Customers requesting ASWC that are not located in these specific buildings may receive the service under special construction, terms and conditions.

#### RELATIVE COST

In subscribing to this optional feature, customers will be charged all rates associated with the basic special access or private line circuit as well as a charge for ASWC on per channel termination/local distribution channel basis. For any circuit which has mileage sensitive channel terminations/local distribution channels, the mileage is rated as if the circuit was going to its normal serving wire center. In addition, the interoffice mileage will be rated from the normal serving wire center.

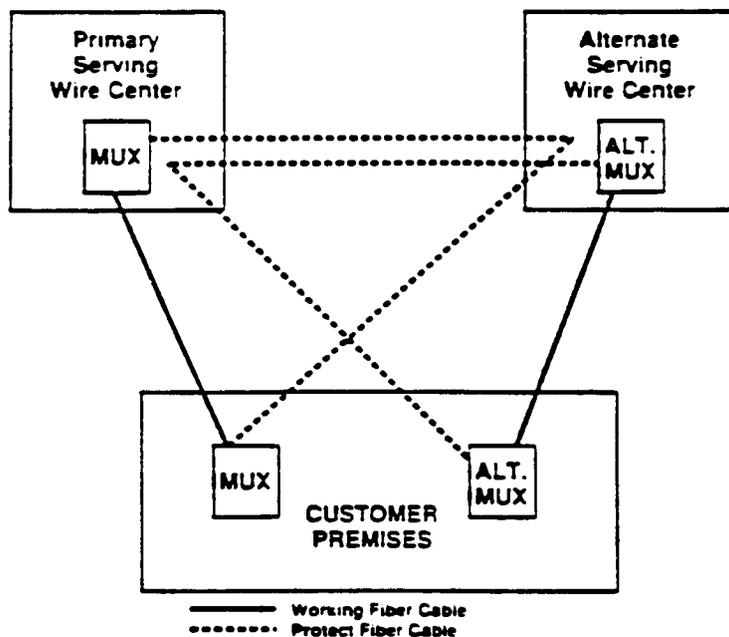
#### CONTACT LIST

Contact your New York Telephone Account Executive.

With the Alternate Serving Wire Center Feature, a customer can route a portion of their Private Line Analog, Superpath 1.544 Mbps or 45 Mbps service via the alternate serving wire center. See Exhibit #2

### ALTERNATE SERVING WIRE CENTER

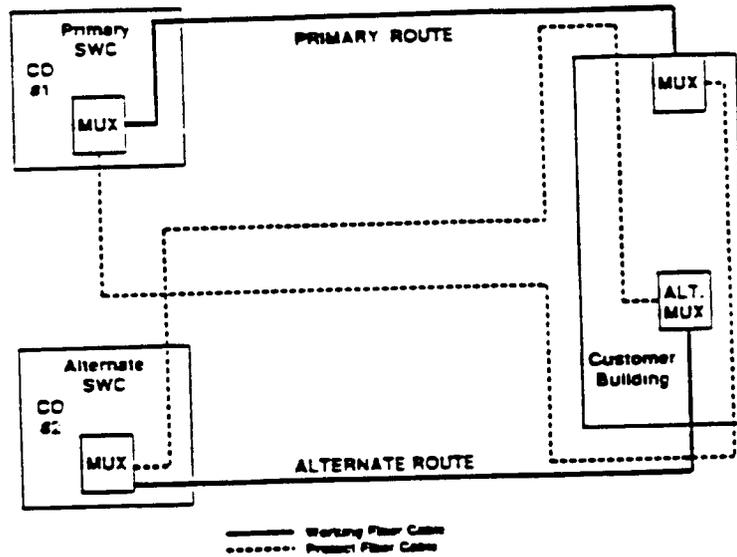
#### NET CONFIGURATION



#### REGULATORY

Alternate Serving Wire Center is an optional feature to High Capacity 1.544 Mbps and 45 Mbps Services in Section 7 of NET FCC No. 1 and NYT FCC No. 1. In NYT, ASWC is also an optional feature to Analog Private Line service. It is an optional feature to Superpath 1.544 Mbps Service in Part C, Section 2 of MA DPU No. 10, and the High Capacity 1.544 Mbps service in MADPU No. 15 and Section NYT PSC No. 900.

### NYT CONFIGURATION



## CONTINGENCY SERVICE OFFERINGS

<b>NEW YORK TELEPHONE</b> <b><i>NETWORK RECONFIGURATION SERVICE</i></b>																				
<p><b><u>DESCRIPTION OF SERVICE</u></b></p> <p>NRS is designed for multi-location private line customers who need to respond to frequent variations that occur within their businesses. NRS allows medium to large business subscribers to integrate their private voice and data transmission facilities and thereby manage and rearrange these networks from their own terminals, or by calling charges in to an 800 number located at the New York Telephone Digital Service's Control Center.</p>																				
<p><b><u>USER APPLICABILITY</u></b></p> <p>NRS permits users to initiate a list of pre-arranged rearrangements by issuing a single command. NRS maintenance system provides fault detection, reconfiguration of software, error recovery, diagnostics, audits and trouble sectionalization.</p>																				
<p><b><u>DEPLOYMENT AND AVAILABILITY</u></b></p> <p>Customers must have on premises either a ASCII keyboard display terminal with 1200 Bps asynchronous, two-way communications capability or a PC with dumb terminal emulation and remote communications capability. Other equipment needs apply depending on user needs.</p> <p>Currently available: Central Offices at Broad Street, West Street and W. 36th, W. 42nd, W 50th and W. 56th Streets.</p> <p>Available Q2 '90: Williamsburg, Central Islip, Garden City and White Plains.</p> <p>Planned for Q3 '90: Upstate</p>																				
<p><b><u>RELATIVE COST</u></b></p> <p>Under FCC 41 Tariff: High Capacity Access Service</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 60%;"></td> <td style="width: 20%; text-align: center;"><u>Monthly Rate</u></td> <td style="width: 20%; text-align: center;"><u>Non-recurring Charge</u></td> </tr> <tr> <td>Midlink</td> <td></td> <td style="text-align: right;">\$779.00</td> </tr> <tr> <td>Network Control Access</td> <td></td> <td></td> </tr> <tr> <td>(A) Dial-up Termination, each</td> <td style="text-align: right;">\$ 4.79</td> <td style="text-align: right;">\$ 93.82</td> </tr> <tr> <td>(B) Voice Grade Termination, each</td> <td style="text-align: right;">47.91</td> <td style="text-align: right;">93.82</td> </tr> <tr> <td>(C) Attendant Termination, each</td> <td style="text-align: right;">48.48</td> <td style="text-align: right;">93.82</td> </tr> </table>				<u>Monthly Rate</u>	<u>Non-recurring Charge</u>	Midlink		\$779.00	Network Control Access			(A) Dial-up Termination, each	\$ 4.79	\$ 93.82	(B) Voice Grade Termination, each	47.91	93.82	(C) Attendant Termination, each	48.48	93.82
	<u>Monthly Rate</u>	<u>Non-recurring Charge</u>																		
Midlink		\$779.00																		
Network Control Access																				
(A) Dial-up Termination, each	\$ 4.79	\$ 93.82																		
(B) Voice Grade Termination, each	47.91	93.82																		
(C) Attendant Termination, each	48.48	93.82																		

## CONTINGENCY SERVICE OFFERINGS

NEW YORK TELEPHONE

### NETWORK RECONFIGURATION SERVICE

#### RELATIVE COST

	<u>Monthly Rate</u>	<u>Non-recurring Charge</u>
Network Access Ports		
(A) 1.544 Mbps, each	100.00	300.00
(B) Voice Grade, each	4.17	45.00

Note: Private line transport rates and any other associated rates apply.

#### Rates and Charges:

Under PSC Schedule-900 Tariff Monthly\*

	<u>Month to Month</u>	<u>3 Year</u>	<u>5 Year</u>	<u>7 Year</u>	
Network Access Ports#					
1.544 Mbps Termination	\$100.00	\$90.00	\$80.00	\$70.00	\$300.00
56 Kbps Termination	4.17	3.75	3.33	2.72	25.00
Network Controller Access**					
Private Line Termination	47.91				40.88
Dial-up Termination	4.79				40.88
INFOPATH Termination	16.39				40.88
Attendant	48.48				90.06

# A three-month minimum applies to month-to-month rate for Network Access Ports.  
## Rates shown reflect applicable discount percentage.

\*\* In addition, rates, charges and regulations for facilities and services in section 1, 7, 12, and 21 of this tariff may apply.

\*\* Network Controller Access charges are per access termination.

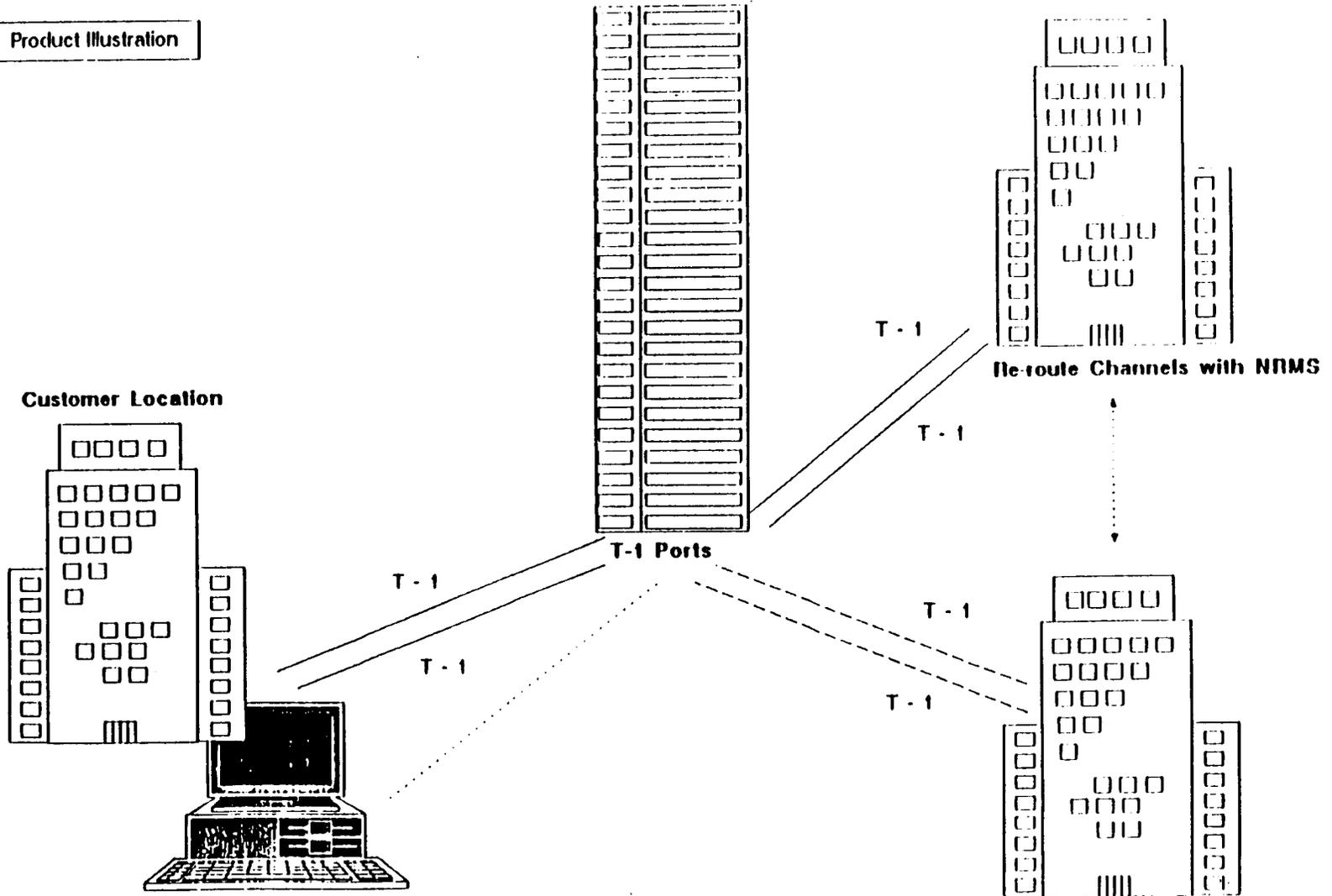
#### CONTACT LIST

Contact your New York Telephone Account Executive.

# NETWORK RECONFIGURATION & MONITORING SERVICE (NRMS)

Network Management System (NMS)

Product Illustration



Customer remotely accesses NMS and reroutes channels from primary data site to secondary data site.

## CONTINGENCY SERVICE OFFERINGS

### METROPOLITAN FIBER SYSTEM NETWORK RECONFIGURATION AND MANAGEMENT SERVICE NRMS

#### DESCRIPTION OF SERVICE

NRMS is a 1-0 DACS based service for customers who want Disaster Protection and Network Grooming. MFS will partition the MFS DACS equipment for individual customers with dial up or dedicated access ports for customer control of their own network.

#### USER APPLICABILITY

Disaster Recovery applications include rerouting of DS-0 channels from user sites to a secondary data center or long distance carrier if the primary data center or long distance carrier experience network distribution channels onto wide area network DS-1 facilities from long distance carriers.

#### DEPLOYMENT AND AVAILABILITY

NRMS is currently in New York. Standard MFS interval of 7-21 days in operational building applies.

#### RELATIVE COST

The pricing for NRMS depends on customized configuration but will be comprised of the number of DS-1 DACS ports, DS-0 DACS ports and a customer access dial-up port. Monthly and non-recurring charges will be based on number of circuits and ports.

#### CONTACT LIST

Kathy Perrone  
Metropolitan Fiber Systems  
Vice-President  
33 Whitehall Street  
New York, New York 10004

(212) 425-2424

## CONTINGENCY SERVICE OFFERINGS

### METROPOLITAN FIBER SYSTEM

### CENTRAL OFFICE INTERCONNECTION

#### DESCRIPTION OF SERVICE

Initially, MFS will interconnect with New York Telephone's Broad Street and West Street Central Offices in lower Manhattan. Interconnection to additional Central Offices in downtown and midtown Manhattan will be announced. Currently private line services at DS-1 speeds and higher and the Digital Transport Facility (DTF) of Flexpath, a New York Telephone service are available. Flexpath digital PBX service provides a digital path from a suitable equipped Central Office to a customer's digital PBX, allowing access to and from the exchange trunk lines, WATS lines, and other network access lines including direct inward dialing, DID capability.

#### USER APPLICABILITY

Businesses can choose how the DTF can be routed to their premise from the suitably equipped Central Office. MFS's service includes redundant and diverse network between the Central Office and the customer premise. Interconnection to multiple Central Offices allows customers comprehensive diversity for switched voice, private line voice, dedicated data and dial back-up data between multiple Central Offices.

#### DEPLOYMENT AND AVAILABILITY

Interconnection services are connected at Broad Street and West Street Offices. Five midtown NYTel Central Office's are targeted by the end of 1991. MFS's interval will include the standard 7 - 21 day interval for service in an operational building plus the standard New York Telephone interval.

#### RELATIVE COST

Pricing for interconnection services will be competitively priced to services from New York Telephone and Teleport. Specific proposals can be addressed by the MFS contract below.

#### CONTACT LIST

Kathy Perrone  
Metropolitan Fiber Systems  
Vice President  
33 Whitehall Street  
New York, New York 10004

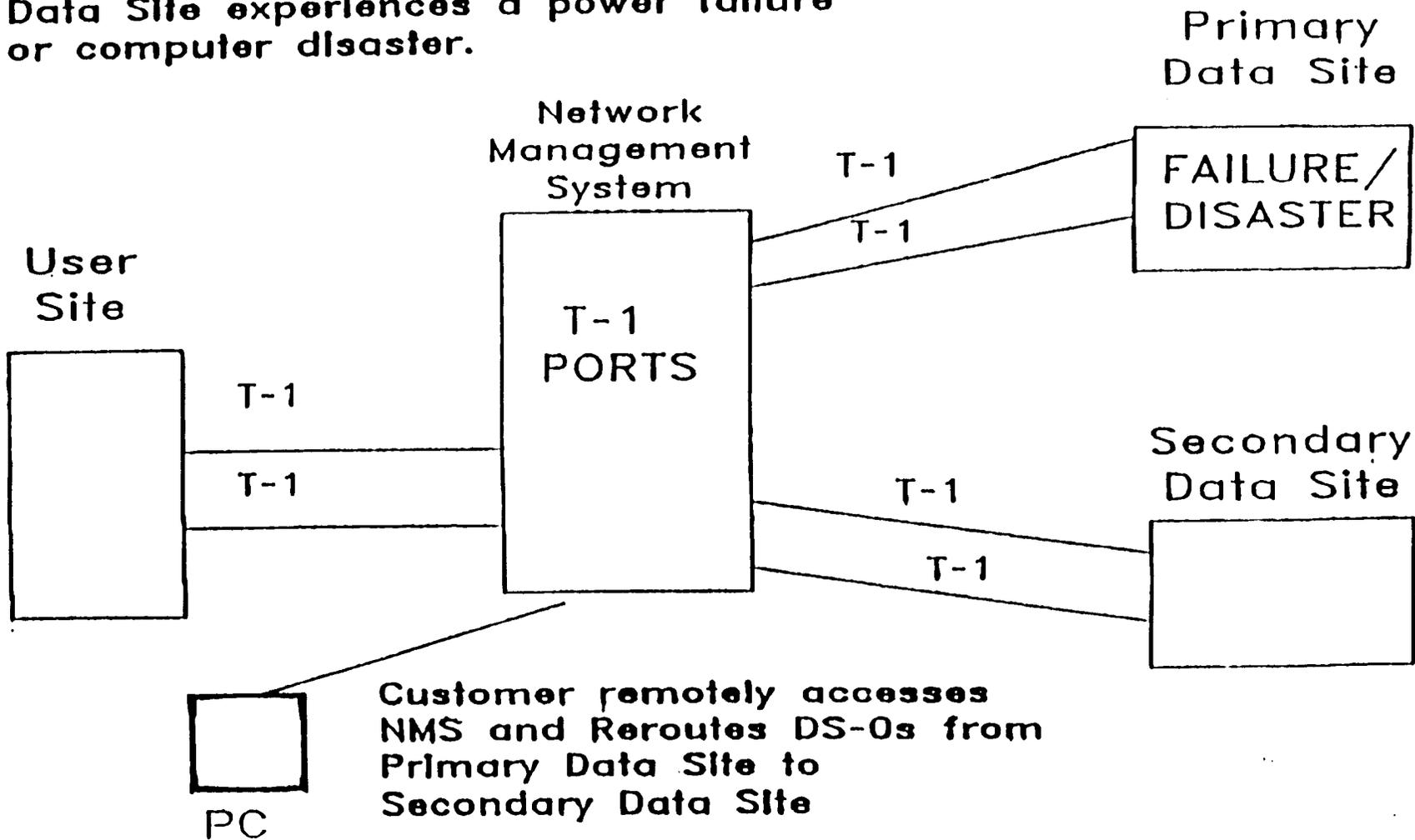
(212) 425-2424

# NRMS

# PRODUCT APPLICATIONS

## Disaster Protection

Reroute DS-0 Channels from user sites to a secondary Data Site if the primary Data Site experiences a power failure or computer disaster.

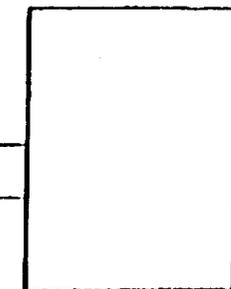


## PRODUCT APPLICATIONS

### Disaster Protection

Reroute DS-0 Channels to a secondary long distance carrier if the primary long distance carrier has a network disaster or performance degradation.

Primary Carrier



NMS

T-1 PORTS

T-1

T-1

T-1

T-1

T-1

T-1

T-1

Secondary Carrier



Customer remotely accesses NMS and Reroutes DS-0s from Primary Carrier to Secondary Carrier



PC

# PRODUCT APPLICATIONS

## Network Grooming

Consolidate distributed local distribution channels on expensive long distance channels

Customer LOC 1



T-1 (60% Fill)

Customer LOC 2



T-1 (20% Fill)

Customer LOC 3



T-1 (80% Fill)

Customer LOC 4



T-1 (40% Fill)

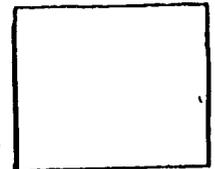


PC

NMS

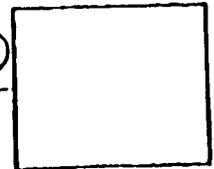
T-1  
Ports

Carrier A



T-1 (100% Fill)

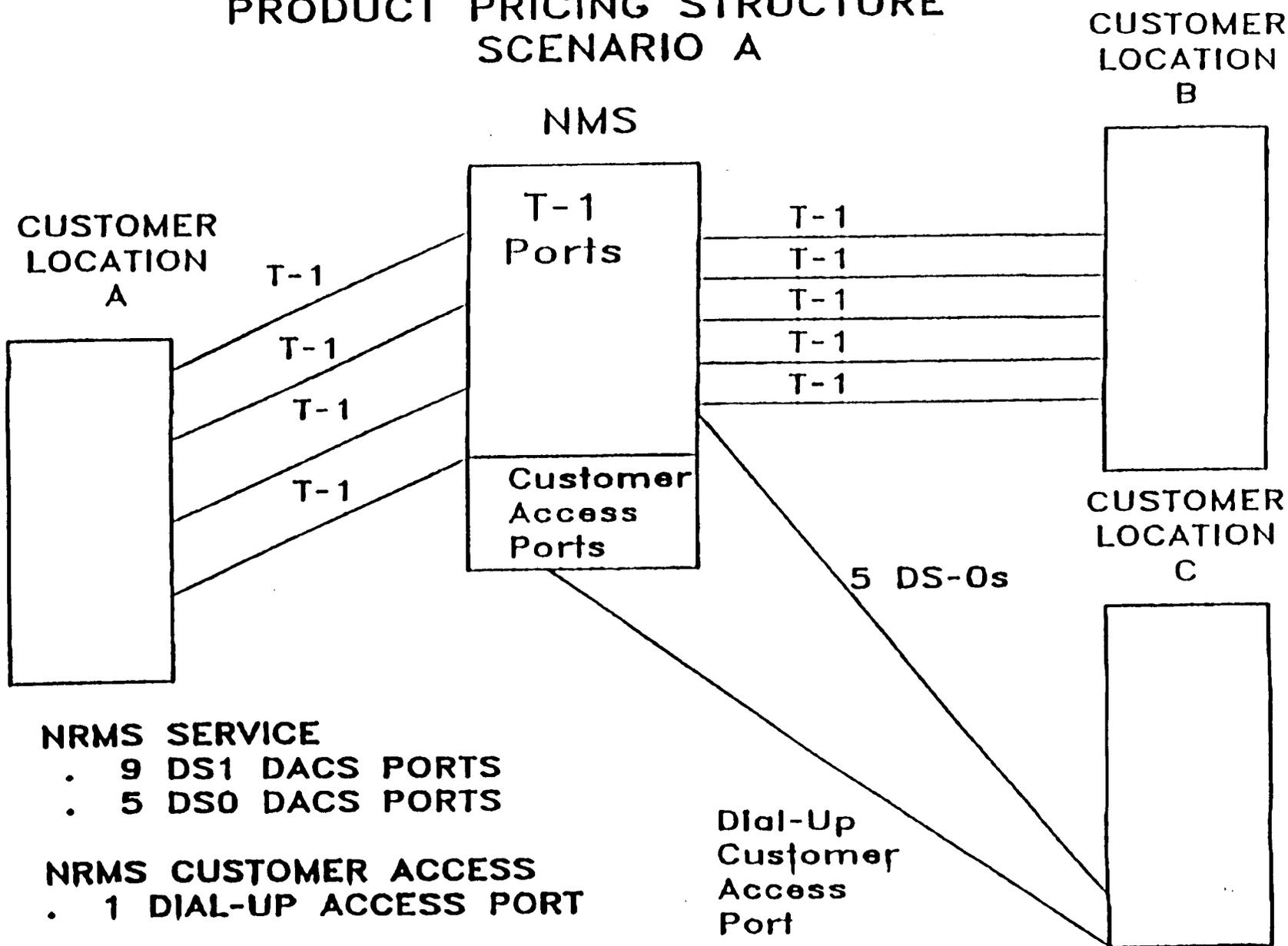
Carrier B



T-1 (100% Fill)

Customer remotely accesses NMS  
and consolidates Local Channels  
on to long distance channels

# PRODUCT PRICING STRUCTURE SCENARIO A



## CONTINGENCY SERVICE OFFERINGS

### TELEPORT ACCESS SERVICE

#### DESCRIPTION OF SERVICE

By utilizing Teleport Communications' redundant Fiber Optic Services, customers can have their existing New York Telephone Centrex Service connected to their long distance carrier and to their tie lines. Using an Alternate Access Carrier, this provides carrier and route diversity.

#### USER APPLICABILITY

Teleport Access Service provides customers with network diversity for connections to their long distance carrier and tie lines to their New York Telephone Centrex Service. By using Teleport Communication's Fiber Optic Service, customers achieve route and local carrier diversity for these connections.

#### DEPLOYMENT AND AVAILABILITY

This Access Service is available now to customers with New York Telephone Centrex Service out of the West Street, Broad Street, East 37th Street, West 50th Street, East 56th Street and Garden City Central Offices. Additional Central Offices are being activated. Provisioning interval is 22 working days.

#### RELATIVE COST

1 DS1	Minimum service quantity
\$800 - \$1,600	Per DS1 installation charge. Dependent upon the quantity of an order at a location.
\$500 - \$800	Teleport DS1 monthly recurring rate. Dependent upon term, distance and volume commitment.

#### CONTACT LIST

Your Teleport Communications New York Account Executive or call (718) 983-2000.

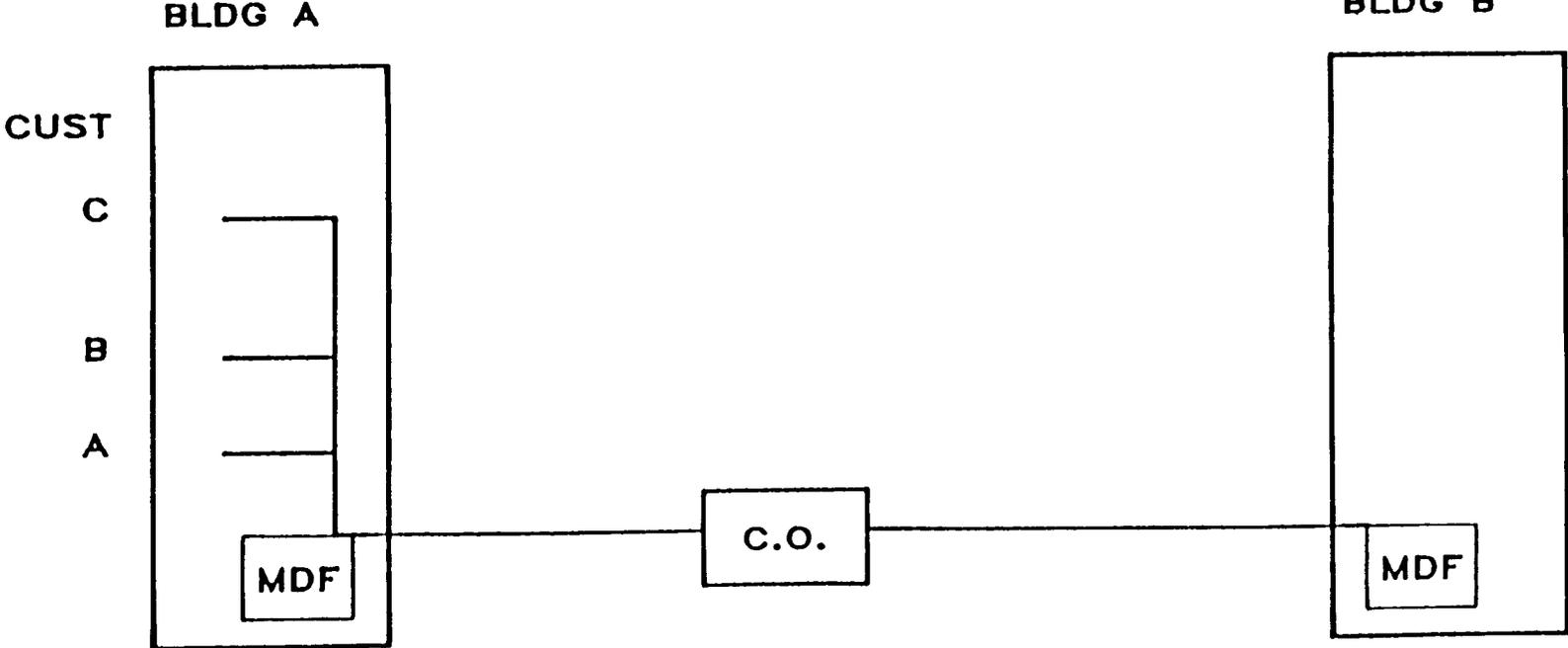


Figure 22

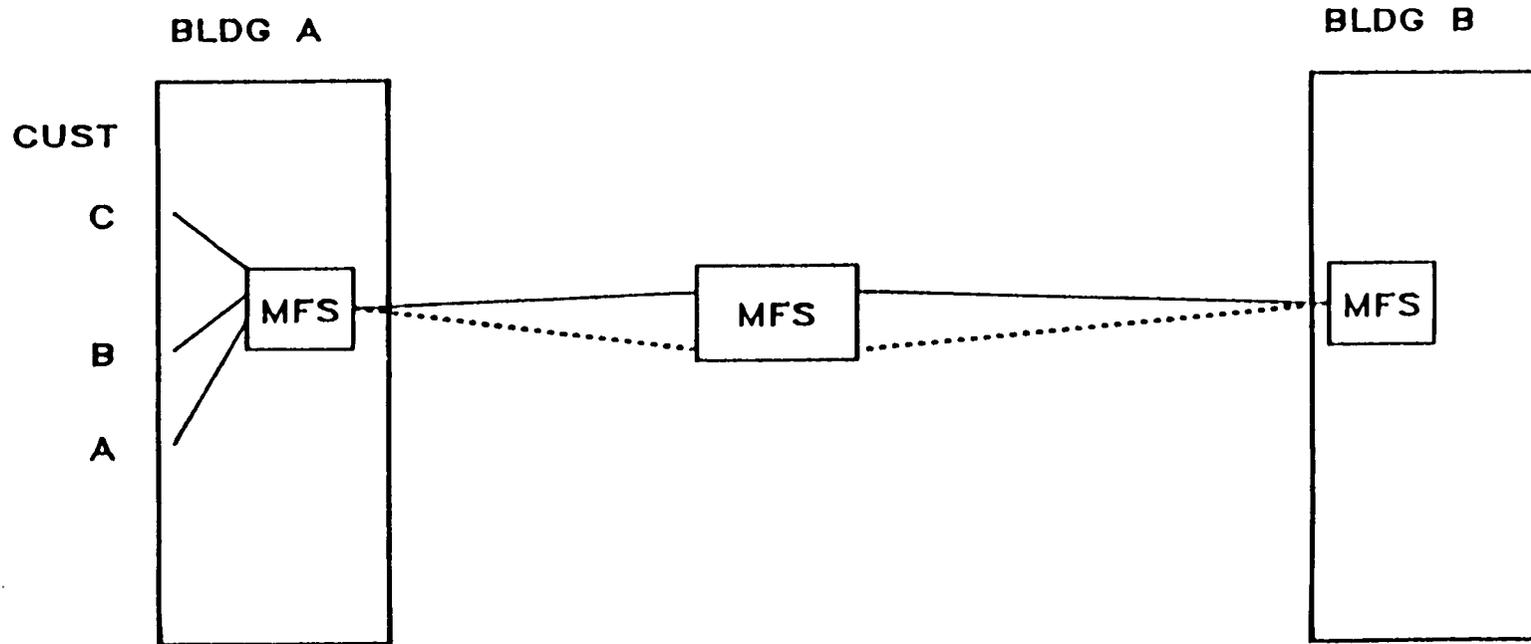
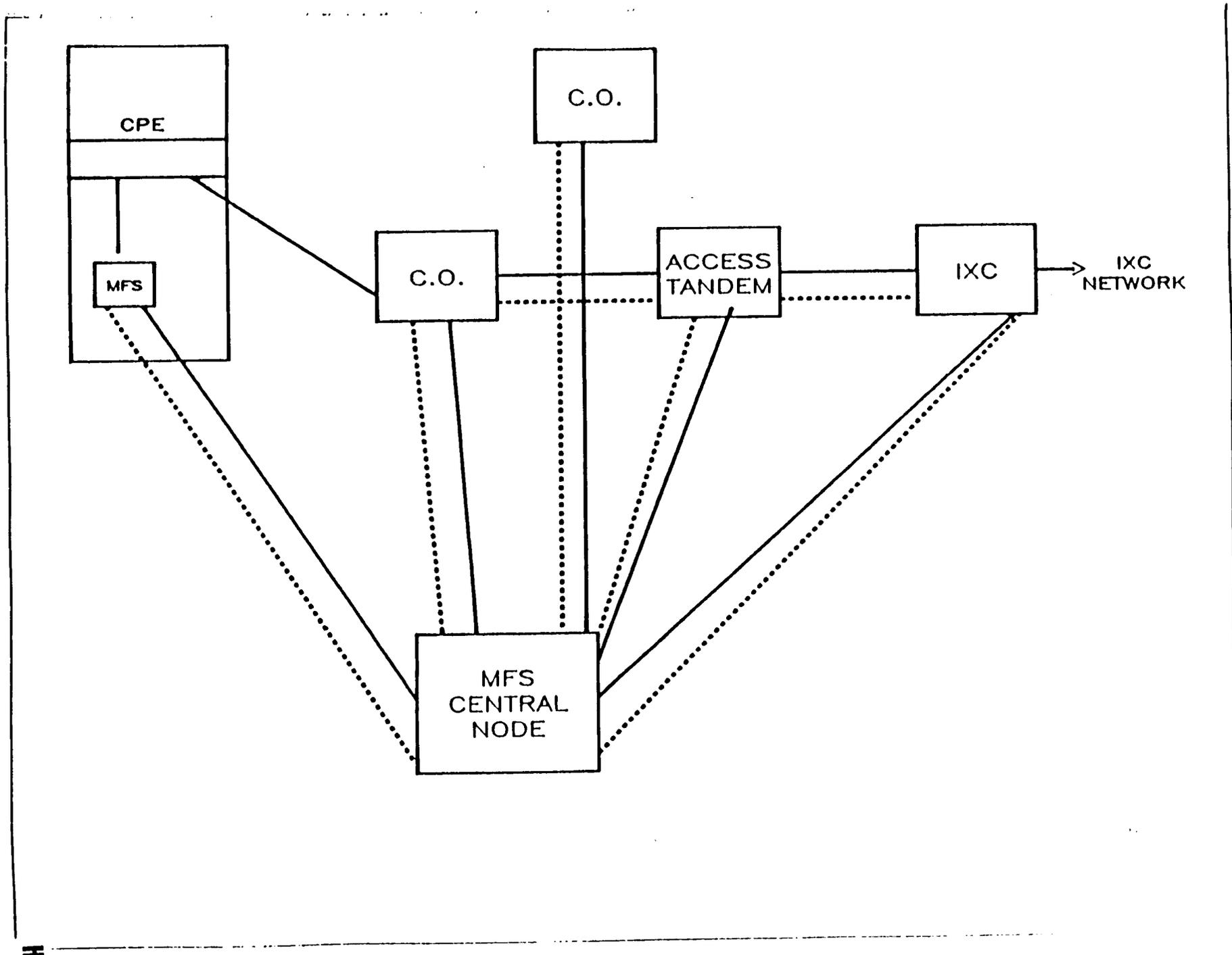


Figure 23



# CONTINGENCY SERVICE OFFERINGS

## TELEPORT DTF SERVICE

### DESCRIPTION OF SERVICE

Teleport Digital Transport Facility (DTF) Access Service is a fully redundant, fiber optic DS1 (1.544 mbps) circuit between a PBX and New York Telephone's Flexpath port at the telephone company's Central Office switch.

### USER APPLICABILITY

Available to analog or digital PBX systems, Teleport DTF Service provides route diversity from New York Telephone's network. Customers may now use Teleport Communication's fiber optic network, for additional PBX voice services.

### DEPLOYMENT AND AVAILABILITY

This access service is available now for customers with PBXs served by NYtel's West Street, Broad Street, East 37th Street, West 50th Street and East 56th Street Central Offices in Manhattan and Garden City Central Office in Nassau. Additional Central Offices are being activated. Provisioning interval is 22 working days.

### RELATIVE COST

1 DS1	Minimum service quantity
\$800 - \$1,600	Per DS1 installation charge. Dependent upon the quantity of an order at a location.
\$500 - \$800	Per DTF DS1 per month dependent upon length of term and distance.

### CONTACT LIST

Your Teleport Communications New York Account Executive or call (718) 983-2000.

## CONTINGENCY SERVICE OFFERINGS

### TELEPORT NETWORK SERVICES

#### DESCRIPTION OF SERVICE

Network Services encompass all local, regional and long distance direct outward dialing capabilities from the Teleport 5ESS Switching Center. The calls are transported through the diverse Teleport Fiber Network to the appropriate inter-exchange carrier point of presence or the serving Central Office nearest to the terminating location.

#### USER APPLICABILITY

Any PBX system with a Digital Interface can access Network Services using a DS1 facility. This service provides a customer with route, switching facility and carrier diversity for outgoing local and long distance calls (inward routing requires cooperative call routing with NYTel and IXC's).

#### DEPLOYMENT AND AVAILABILITY

Provisioning intervals is 22 working days.

#### RELATIVE COST

\$95 - \$200	Port connection charge per DS1 for the Teleport switch.
\$500 - \$1700	Teleport DS1 monthly recurring rate. Dependent upon term, distance, and volume commitment.
\$800 - \$1600	Per DS1 installation charge. Dependent upon the quantity of an order at a location.
\$.081 initial 5 min.	Home region rates based upon the customer's location and NY Telephone's standard tariff.
\$.06 - \$.12/minute	Teleport Extended Area Service for regional calling to 201, 516 and 914 areas. Rate dependent upon volumes of minutes to these NPA areas.

#### CONTACT LIST

Mark Wallhauser, Account Manager Switched Services on (718) 983-2128 or your Teleport Communications New York Account Executive.

## CONTINGENCY SERVICE OFFERINGS

### TELEPORT CENTREX AUXILIARY LINES

#### DESCRIPTION OF SERVICE

Teleport analog auxiliary lines provide dial tone to critical stations, as an alternative, or for secondary call appearances to a customer's primary PBX or centrex service. This service utilizes Teleport's diverse fiber optic route to connect an on-site remote unit at the customer's premises to TC System's diverse host digital switching facilities. Teleport's diverse fiber optic network carries calls to NYTel's local network, TC Systems' regional network services and to the customer's long distance carrier.

#### USER APPLICABILITY

Analog dial tone lines to active "POTS" phone or key sets, fax machines or as other appearances on trader turrets.

#### DEPLOYMENT AND AVAILABILITY

Teleport Centrex is available now in the New York metropolitan area. Auxiliary line service activation is normally within six to eight weeks from a signed contract. TC Systems deploys this service from one of its two SESS digital switches over redundant fiber optic cables to the latest available subscriber loop carrier system (SLC-5 Business Remote Terminal) on the customer's premises.

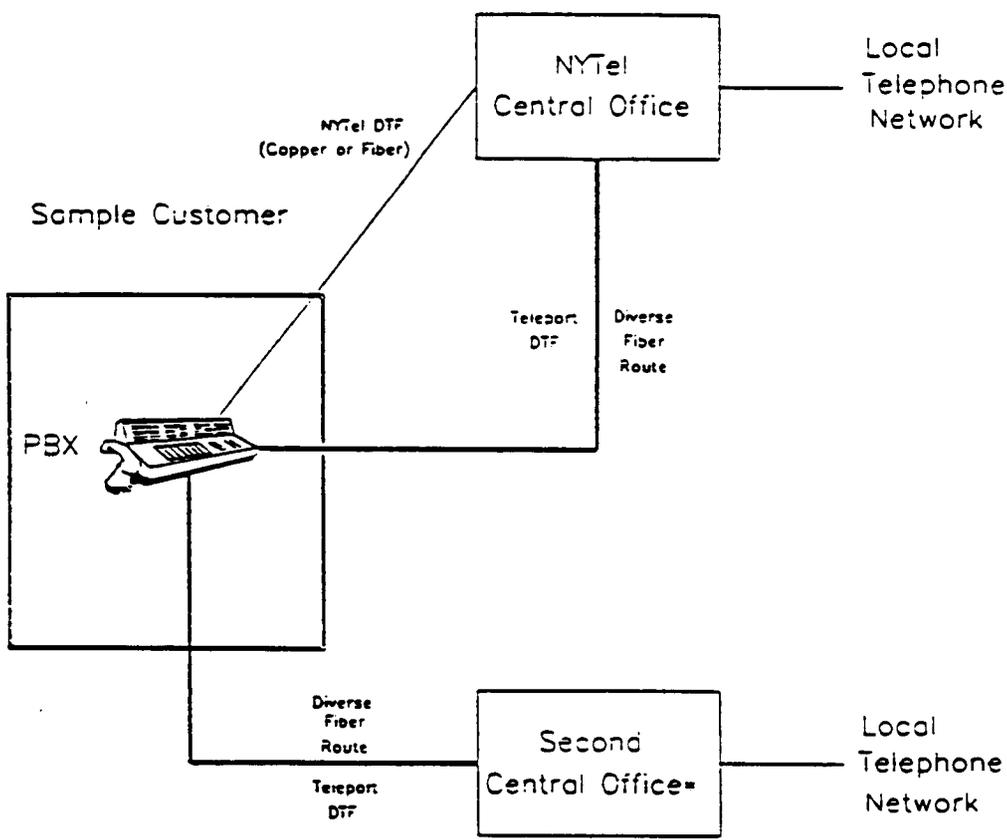
#### RELATIVE COST

50 lines	Minimum quantity at one location, unlimited maximum quantity.
\$45.00 - \$75.00	Non-recurring installation rate per line to the customer's main distribution frame. Rate dependent upon volume per order.
\$16.50 - \$18.05	Monthly recurring per line charge. This rate is dependent upon volume. Minimum term is six months.

#### CONTACT LIST

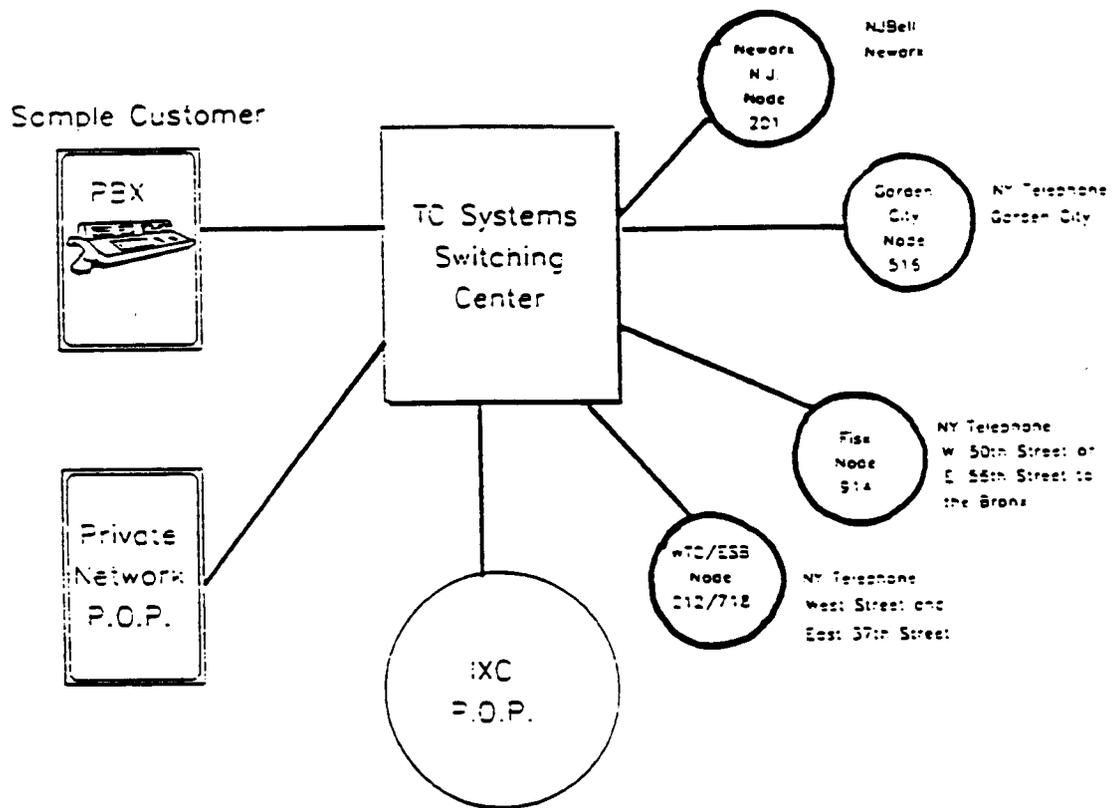
Mark Wallhauser, Account Manager Switched Services on (718) 983-2128 or your Teleport Communications New York Account Executive.

# TELEPORT DTF SERVICE



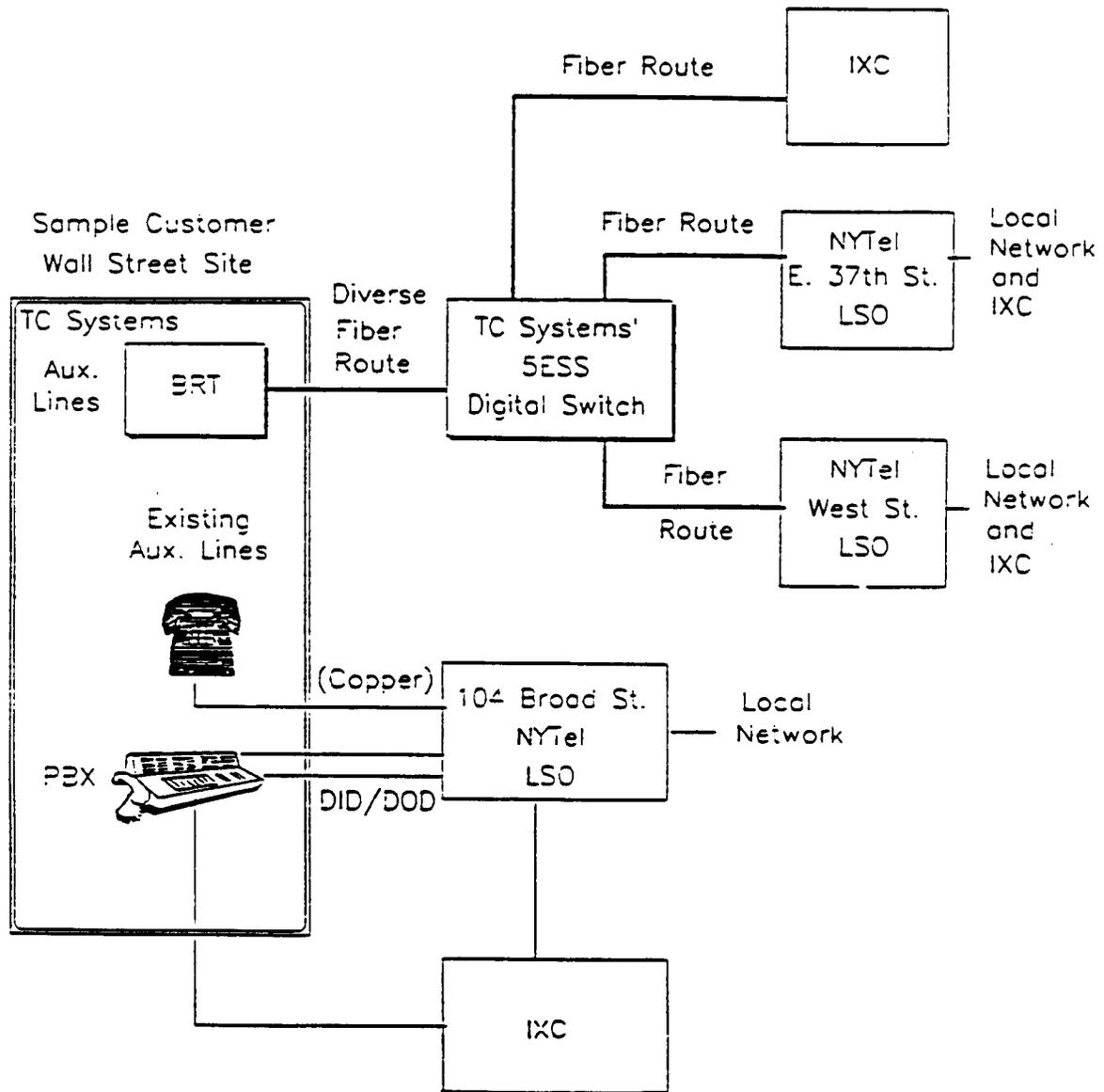
• Incoming call to same number via Second Central Office requires coordination with Telephone Company.

# TELEPORT NETWORK SERVICES



*Diverse Teleport facilities and Route are highlighted with bold lines.*

TELEPORT CENTREX AUXILIARY LINE SERVICE



*Diverse TC Systems' facilities and route are highlighted with bold lines.*

## CONTINGENCY SERVICE OFFERINGS

### TELEPORT CENTREX

## PRIMARY SERVICE AND DIVERSE TRUNKING OPTION

### DESCRIPTION OF SERVICE

A mix of ISDN (2B + D), digital and analog lines, as a customer's primary voice (and ISDN data) service, can be equipped with a diverse trunking option for built-in redundancy against catastrophic disaster. Service is provisioned by remote units on a customer's premise which can be connected by Teleport's redundant fiber optic service to two different 5ESS digital switches. These Central Office switches are accessed via diverse fiber optic routes on Teleport's Network Services.

### USER APPLICABILITY

Teleport Centrex is a primary, fully featured digital centrex service, serving multiple needs for a customer in a single building or complex. From plain old telephone service (POTS) analog lines to a high quality, feature rich digital lines with circuit switched and packet switched services of ISDN lines. Full capabilities of call management features such as Automatic Route Selection and SMDR call accounting features are available. Service is supported by a software system that provides customer oriented billing and report generation specifically designed for sophisticated business customers.

### DEPLOYMENT AND AVAILABILITY

Teleport Centrex is available now in the New York metropolitan area. Full service activation ranges from 6 weeks to 28 weeks from a contract date, depending upon volume and type of lines ordered.

### RELATIVE COST

100 lines	Minimum quantity at one location, unlimited maximum quantity.
\$45.00 - \$75.00	Per line installation charge to customer's MDF, dependent upon volume per order. TC Systems will provide price quotes for inside wiring.
\$16.50 - \$75.00	Per line dependent upon type (analog, digital, ISDN) and volume of lines. Minimum term for smaller line configurations is six months and twelve months for larger line sizes.

### CONTACT LIST

Mark Wallhauser, Account Manager Switched Services on (718) 983-2128 or your Teleport Communications New York Account Executive.

## CONTINGENCY SERVICE OFFERINGS

### EQUAL ACCESS DIAL ACCESS

#### DESCRIPTION OF SERVICE

Equal access gives the user the ability to choose the primary long distance carrier. If for some reason another carrier is required, a five digit code can be dialed to access the alternate carrier.

#### USER APPLICABILITY

Users would dial the carrier of choice, followed by the desired telephone number. Please note that PBX's would have to have routes modified in order to utilize this option.

#### DEPLOYMENT AND AVAILABILITY

All users of the local carriers are able to utilize this option.

#### RELATIVE COST

There is no cost to access a carrier by utilizing equal access code.

# CONTINGENCY SERVICE OFFERINGS

## EQUAL ACCESS DIAL ACCESS CONTACT LIST

<u>EQUAL ACCESS CARRIER</u>	<u>ACCESS CODE</u>
American Network Exchange	10370
United Artists Operator Service	10014
New York Communications	10424
First Phone of New England	10442
Merrill Lynch	10449
Telesphere	10555
MCI	10898
Tenex	10963
Sprint Dial 1 Service	10333
Western Union Long Distance Service	10220
Northland Telephone System	10332
ITT Long Distance Service	10488
Call/USA	10435
Metro Media Long Distance	10011
Toll Kall USA	10850
Long Distance Service of Washington	10537
Northeast Telediscount	10773
Total Telephone USA	10081
American Long Lines	10241
National Telephone Service	10658
American Network Inc.	10331
ITT Operator Services	10999
New Jersey Bell Corridor	10652
FTC Communications	10456
Allnet Dial 1 Service	10539
American Long Distance Exchange	10540
Cleartel Communications	10548
LD*OS, Inc.	10677
ACC Long Distance Corp.	10234
Allnet Dial 1 Service	10444
AT&T Long Distance Service	10288
American Telecommunications Interstate	10732
US Sprint Dial 1	10777
MCI Telecom	10222
ACC Long Distance Corp.	10345
RCI Communications	10211
International Telecharge	10805
SBS Skyline	10888
TMC Long Distance	10007
Taconic Long Distance	10245
TDX	10223

## CONTINGENCY SERVICE OFFERINGS

### CELLULAR TELEPHONE SERVICE

#### DESCRIPTION OF SERVICE

Cellular telephone service gives the capability of having "wireless" telephone conversations. The telephone set transmits to an antenna which is connected via landlines to a Central Office. These telephones can be fully featured with hunting, call forwarding, voice messaging, etc.

#### USER APPLICABILITY

Businesses should use this service proactively so that in the event of an emergency, clients know that this number is available. Subscribers should check with their vendor to verify that the antenna (cell) they are primarily using is not connected to their regular Central Office.

#### DEPLOYMENT AND AVAILABILITY

Set up of a telephone and line can be done in less than 24 hours. Most vendors keep an inventory of approximately 100 telephones available. In an emergency, telephones would quickly become scarce.

#### RELATIVE COST

The initial set up charge for a cellular line is \$40.00. Basic service rates range from \$24.00 to \$55.00 per month depending upon options. Airtime charges range from \$.40 to \$.90 per minute of usage. The rate per minute depends upon the basic service rate chosen.

## CONTINGENCY SERVICE OFFERINGS

### CELLULAR TELEPHONE SERVICE VENDOR LIST

James D'Elia  
NYNEX Mobile Communications  
One Blue Hill Plaza  
Pearl River, New York 10965

(914) 577-5116

Lines Available within 24 hours  
Prices on phones \$320 - \$1,700  
\$.30 - \$.90 Airtime

Raymond Vickrey  
Cellular One  
15 East Midland Avenue  
Paramus, New Jersey 07652

(201) 587-7907

Lines in less than 24 hours  
Telephones \$300 - \$1,800  
\$.35 - \$.90 airtime  
Rentals are available

M.L. Deiamont  
Transtel Corporation  
1866 Independence Square  
Dunwoody, Georgia 30338

(404) 551-0676

Provides cellular disaster recovery  
facilities.

## CONTINGENCY SERVICE OFFERINGS

### VOICE MESSAGING SERVICES

#### DESCRIPTION OF SERVICE

Voice Messaging Services are available for answering calls if the line is busy or in a "no answer" condition. Calls can be forwarded directly to these services if necessary.

#### USER APPLICABILITY

There can be an on-going use for this type of service for calls which would be blocked (busy) or for "after hours" calls. Unless this service was established and used as a normal business tool, it would have limited effectiveness in an emergency, since people would not have the number.

#### DEPLOYMENT AND AVAILABILITY

We have contacted four voice messaging services and they have provided us with information. Voice mailboxes can be established in less than 24 hours. These services can provide both DID and 800 access. All companies required credit checks for new clients.

#### RELATIVE COST

The initial set up charge for each of these services is approximately \$20.00. The cost per mailbox, per month ranges from \$14.50 to \$24.00 plus usage.

## CONTINGENCY SERVICE OFFERINGS

### VOICE MESSAGING SERVICES VENDOR LIST

Leonard Fink  
MessageBank Inc.  
250 West 57th Street  
New York, New York 10107

(212) 247-4700

\$15.00 per mailbox for first 150 messages. \$.15 per additional message.

Ronald Blau  
Tele-Disc Inc.  
33 Great Neck Road  
Great Neck, NY 11021

(516) 466-0404

Provide 800 services with 24 hours. Mailboxes can be set up within 24 hours. \$24.00 per month with DID number. 100 minutes of messages included.

Ed Grundhauser  
Tigon Voice Messaging Network  
120 Broadway  
9th Floor  
New York, New York 10271-0002

(212) 791-0500

Provide mailboxes within 24 hours. \$14.50 per month plus usage with DID number.

Lien Bellinger  
Async  
666 Third Avenue  
New York, New York 10017

(212) 661-5230

Set up mailbox within 24 hours. 10 mailbox minimum, \$15.00 per mailbox. DID or 800 service available.



## Appendix 5.2



**SMALL BUSINESS CUSTOMER'S GUIDE PUBLISHED AS A SERVICE BY  
NEW YORK TELEPHONE**

**HELPFUL HINTS ON WHAT TO DO IF YOUR TELEPHONE STOPS  
WORKING**

**What should I do if I don't have dial tone?**

Perhaps there is a problem with your telephone instrument - make sure it's plugged in. If you have additional instruments on the same line, check if they are working, perhaps an extension was left off-hook accidentally.

If you have only one telephone connected to your line - replace it with another instrument.

If it appears that your problem does not stem from a faulty telephone set, call New York Telephone Repair (611) and report the problem from any working telephone.

**What should I do if my electrical service is out and my key  
telephone system is inoperable?**

To provide for emergency telephone service, plug in a basic telephone with standard modular connector into the New York Telephone network interface. This should provide you with incoming and outgoing service. Note: You will need a separate telephone set and jack for each line you wish to have access to.

**What if my key telephone system stops working and I have  
electricity, what should I do?**

See previous section and call your telephone equipment service vendor.

**What if there is a telephone company cable failure or central  
office problem - what can I do?**

Determine in advance locations of nearest working public coin telephone or New York Telephone emergency mobile coin telephone trailer.

Consider in advance the use of cellular telephone service either in a car or a hand held portable unit.

Call Forwarding is an excellent "insurance" for disaster recovery/service assurance. With Call Forwarding, calls can be automatically transferred to any other number directly from the phone at any time. If there is a problem at the customer site, Call Forwarding can be activated immediately. For instructions, call 1 800 327-9698 (1 800 EASY NYT) at any time.

Call Forwarding is available as one of the Customer Calling Services. There is an additional monthly charge for the Call Forwarding feature, and a charge to establish Call Forwarding. Calls that are forwarded are charged the station-to-station direct dialed rate from the call forwarded phone to the receiving phone.

If you do not subscribe to Call Forwarding, ask New York Telephone Repair Service to have a temporary change of number placed on the line so that callers can reach you elsewhere.

If you are a subscriber to Voice Messaging Service from New York Telephone and there is a problem at your customer site or a local loop or cable problem, voice messages can still be retrieved from any touch-tone phone. Also, customized announcement messages can be set up to reroute calls to a different number or location. Voice Messaging is activated whenever a call is not answered (busy or no answer); the call is then automatically forwarded to the Voice Messaging Service for later retrieval.

**What if I am able to make local calls, but unable to make long distance calls by my regular long distance carrier?**

Should there be a problem with your pre-subscribed (1+) long distance carrier, you can still make long distance calls by using other carriers that can be reached by dialing their 5 digit (10XXX) access code (contact alternate long distance carriers for their specific access codes).

**What can I do in advance before disaster strikes?**

1. Arrange to have a spare basic telephone on hand.
2. Keep a list of 10XXX Long Distance provider numbers (contact alternate long distance carriers for their specific access codes).
3. Determine a telephone number to which calls can be forwarded either by using Call Forwarding or temporary change of number announcement. Test the Call Forwarding feature periodically.
4. Consider subscribing to cellular telephone service.
5. Consider using New York Telephone Voice Messaging service (when available in your area).
6. Make arrangements with a nearby business neighbor, that should a communications disaster strike and either are still in service, that calls or messages will be accepted for the other.

New York Telephone acknowledges the assistance of the New York City Department of Telecommunications and Energy and the Mayor's Task Force on Telecommunications Network Reliability in preparing this guide.

NOTE: This reprint is an abridged version of the New York Telephone Small Business Customer's Guide.