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June 16, 2020
Via Email Delivery

Mr. Steve Kahl, Executive Secretary
North Dakota Public Service Commission
600 East Boulevard Avenue
Department 408
Bismarck, ND 58505-0480

RE: Minnesota Independent Equal Access Corp.
North Dakota Tariff No. 2 – Replacement Tariff

Dear Mr. Kahl:

Enclosed for filing please find the original of the above referenced tariff filing submitted on behalf of Minnesota Independent Equal Access Corp. This filing replaces in its entirety, North Dakota Tariff No. 1, currently on file with the Commission. The Company respectfully requests an effective date for this filing of July 16, 2020.

Any questions you may have regarding this filing should be directed to my attention at 407-740-3006 or via email to croesel@inteserra.com. Thank you for your assistance in this matter.

Sincerely,

/s/ Carey Roesel

Carey Roesel
Consultant

cc: Steve Miske – MIEAC (via email)
tms: NDa2001

Enclosures
CR/gs

SWITCHED ACCESS SERVICE

This tariff, North Dakota Tariff No. 2, replaces Minnesota Independent Equal Access Corp.'s North Dakota Tariff No. 1 in its entirety.

Regulations, Rates and Charges
Applicable to Switched Access Services provided by
MINNESOTA INDEPENDENT EQUAL ACCESS CORPORATION
for connection to interstate communications facilities
for customers within the State of North Dakota

Switched Access Services are provided by means of wire, fiber optic cable, or any other suitable technology or combination thereof.

SWITCHED ACCESS SERVICE

CHECK SHEET

The Title Page and Pages 1 to 15-2, inclusive, of this tariff are effective as of the date shown. Original and revised pages as named below contain all changes from the original tariff that are in effect on the date hereof.

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SWITCHED ACCESS SERVICE

CONCURRING CARRIERS

NO CONCURRING CARRIERS

CONNECTING CARRIERS

NO CONNECTING CARRIERS

OTHER PARTICIPATING CARRIERS

Iowa Network Services, Inc
Des Moines, Iowa

REGISTERED SERVICE MARKS

NONE

REGISTERED TRADEMARKS

NONE

SWITCHED ACCESS SERVICE

EXPLANATION OF SYMBOLS

(C)	To signify changed regulation
(D)	To signify discontinued rate or regulation
(I)	To signify increase
(M)	To signify matter relocated without change
(N)	To signify new rate or regulation
(R)	To signify reduction
(S)	To signify reissued matter
(T)	To signify a change in text but no change in rate or regulation
(Z)	To signify a correction

EXPLANATION OF ABBREVIATIONS

ac	Alternating current
ACM	Address Complete Message
ANI	Automatic Number Identification
BD	Business Day
BHMC	Busy Hour Minutes Capacity
CCS	Common Channel Signaling
CCSA	Common Channel Signaling Access
CCSAN	Common Channel Signaling Access Network
CIC	Carrier Identification Code
CO	Central Office
Cont'd.	Continued
DA	Directory Assistance
dB	decibel
dBrnC	Decibel Reference Noise C-Message Weighting
dBrnCO	Decibel Reference Noise C-Message Weighted 0
dc	direct current
EDD	Envelope Delay Distortion
ELEPL	Equal Level Echo Path Loss
EML	Expected Measured Loss
EPL	Echo Path Loss
ERL	Echo Return Loss
ESS	Electronic Switching System
EXM	Exit Message

SWITCHED ACCESS SERVICE

EXPLANATION OF ABBREVIATIONS (Cont'd)

FGD	Feature Group D
F.C.C.	Federal Communications Commission
Hz	Hertz
ICB	Individual Case Basis
ICL	Inserted Connection Loss
INS	Iowa Network Services, Inc
IP	Internet Protocol
Kbps	Kilobits per second
LATA	Local Access and Transport Area
LIDB	Line Information Data Base
Mbps	Megabits per second
MHz	Megahertz
MIEAC	Minnesota Independent Equal Access Corporation
MTS	Message Telecommunications Service(s)
NANP	North American Numbering Plan
NPA	Numbering Plan Area
NRC	Nonrecurring Charge
NXX	Three-Digit Central Office Code
POI	Point of Interconnection
POT	Point of Termination
RSM	Remote Switching Modules
RSS	Remote Switching Systems
SAC	Service Access Code
SCP	Service Control Point
SNAC	Signaling Network Access Connection
SP	Signal Point
SPOI	Signaling Point of Interconnection
SRL	Singing Return Loss
SS7	Signaling System Seven
SSP	Service Switching Point
STP	Signal Transfer Point
TTP	Toll Transfer Point
V&H	Vertical & Horizontal
WATS	Wide Area Telecommunications Service(s)

SWITCHED ACCESS SERVICE

REFERENCE TO TECHNICAL PUBLICATIONS

The following technical publications are referenced in this tariff and may be obtained from Bell Communications Research, Inc., Distribution Storage Center, 60 New England Ave., Piscataway, NJ 08854.

TR-NWT-000394	
Issued: August, 1991	Available: August, 1991
TR-TSV-000905	
Issued: July, 1989	Available: July, 1989
TR-TSV-000954	
Issued: December, 1990	Available: December, 1990

The following technical publication is referenced in this tariff and may be obtained from the Bell Communications Technical Education Center, Room B02, 6200 Route 53, Lisle, IL 60532.

Telecommunications Transmission Engineering
Volume 3 - Networks and Services (Chapters 6 and 7)
Second Edition, 1980
Issued: June, 1980

The following technical publication is referenced in this tariff and may be obtained from the National Exchange Carrier Association, Inc., Director - Tariff and Regulatory Matters, 100 South Jefferson Road, Whippany, NJ 07981 and the Federal Communications Commission's commercial contractor.

PUB AS No. 1, Issue II, Access Service
Issued: May, 1984
Addendum: March, 1987

SWITCHED ACCESS SERVICE

APPLICATION OF TARIFF

This tariff contains regulations, rates and charges applicable to the provision of Switched Access Services and other miscellaneous services, hereinafter referred to collectively as services(s), provided by Minnesota Independent Equal Access Corporation, hereinafter referred to as MIEAC, or the Company, a subsidiary of Onvoy, LLC.

The provision of such services by MIEAC as set forth in this tariff is subject to the availability of facilities and does not constitute a joint undertaking with the customer or Subtending Local Service Providers (SLSPs) for the furnishing of any service.

Switched access services provided under this tariff cover only the use of MIEAC's Access Tandems, the switched transport between an MIEAC Toll Transfer Point (TTP) and such Access Tandem, and the Iowa Network MIEAC Common Channel Signaling Access Network.

SWITCHED ACCESS SERVICE

1. Definitions

Certain terms used herein are defined as follows:

Access Code

The term "Access Code" denotes a uniform seven (7) digit code assigned by the SLSP to an individual customer. The seven (7) digit code has the form 101XXXX

Access Minutes

The term "Access Minutes " denotes that usage of exchange facilities in intrastate service for the purpose of calculating chargeable usage.

Access Tandem

The term "Access Tandem" denotes a switching system, provided via TDM or any functionally equivalent technology, that provides a concentration and distribution function for originating and terminating traffic between End Offices and a customer's premises.

Answer/Disconnect Supervision

The term "Answer/Disconnect Supervision" denotes the transmission of the switch trunk equipment supervisory signal (off-hook or on-hook) to the customer's point of *termination as* an indication that the called party has answered or disconnected.

Attenuation Distortion

The term "Attenuation Distortion" denotes the difference in loss at specified frequencies relative to the loss at 1004 Hz, unless otherwise specified.

Balance (100 Type) Test Line

The term "Balance (100 Type) Test Line" denotes an arrangement which provides for balance and noise testing.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Bit

The term "Bit" denotes the smallest unit of information in the binary system of notation.

Business Day

The term "Business Day" denotes the time of day that MIEAC is open for business. Business day hours are from 8:00 A.M. to 5:00 P.M. with an hour for lunch, Monday through Friday, resulting in a standard forty (40) hour work week.

BusyHour Minutes of Capacity (BHMC)

The term "Busy Hour Minutes of Capacity (BHMC)" denotes the customer specified maximum amount of Switched Access Service access minutes the customer expects to be handled in an End Office Switch during any hour in an 8:00 A.M. to 11:00 P.M. period.

Call

The term "Call" denotes a customer attempt for which the complete address code (e.g., 0-, 911, or 7 digits) is provided to the serving dial tone office.

CCS

The term "CCS" denotes a hundred call seconds, which is a standard unit of traffic load that is equal to one hundred (100) seconds of usage or capacity of a group of servers (e.g., trunks).

Central Office

See End Office Switch

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)Central Office Prefix

The term "Central Office Prefix" denotes the first three (3) digits (NXX) of the seven (7) digit telephone number assigned to a customer's Telephone Exchange Service when dialed on a local basis.

Channel(s)

The term "Channel(s)" denotes an electrical, radio or photonic communications path between two (2) or more points of termination.

Channelize

The term "Channelize" denotes the process of multiplexing-demultiplexing wider bandwidth or higher speed channels into narrower band-width or lower speed channels.

C-Message Noise

The term "C-Message Noise" denotes the frequency weighted average noise within an idle voice channel. The frequency weighting, called C-message, is used to simulate the frequency characteristic of the 500-type telephone set and the hearing of the average subscriber.

C-Notched Noise

The term "C-Notched Noise" denotes the C-message frequency weighted noise on a voice channel with a holding tone, which is removed at the measuring end through a notch (very narrow band) filter.

Common Channel Signaling Access Network (CCSAN)

The term "CCSAN" refers to the network that allows call control information to be transmitted separately, or out-of-band, from the voice communications path. SS7 is the most recent protocol used for common channel signaling.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Communications System

The term "Communications System" denotes channels and other facilities which are capable of communications between terminal equipment provided by other than MIEAC.

Customer(s)

The term "Customer(s)" denotes any individual, partnership, association, joint-stock company, trust, corporation, or governmental entity or other entity which subscribes to the services offered under this tariff, including both Interexchange Carriers (ICs) and End Users.

Data Transmission (107 Type) Test Line

The term "Data Transmission (107 Type) Test Line" denotes an arrangement which provides for a connection to a signal source which provides test signals for one-way testing of data and voice transmission parameters.

Decibel

The term "Decibel" denotes a unit used to express relative difference in power, usually between acoustic or electric signals, equal to ten (10) times the common logarithm of the ratio of two (2) signal powers.

Decibel Reference Noise C-Message Weighting

The term "Decibel Reference Noise C-Message Weighting" denotes noise power measurements with C-Message weighting in decibels relative to a reference 1000 Hz tone of 90 dB below one (1) Milliwatt.

Decibel Reference Noise C-Message Referenced to 0

The term "Decibel Reference Noise C-Message Referenced to 0" denotes noise power in "Decibel Reference Noise C Message Weighting" referred to or measured at a zero transmission level point.

Detail Billing

The term "Detail Billing" denotes the listing of each message and/or rate element for which charges to a customer are due on a bill prepared by MIEAC.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Echo Control

The term "Echo Control" denotes the control of reflected signals in a transmission path.

Echo Path Loss

The term "Echo Path Loss" denotes the measure of reflected signal at a 4-wire point of interconnection without regard to the send and receive Transmission Level Point.

Echo Return Loss

The term "Echo Return Loss" denotes a frequency weighted measure of return loss over the middle of the voiceband (approximately five hundred (500) to twenty-five hundred (2500) Hz), where talker echo is most annoying.

8YY Service Management System

The term "8YY Service Management System" (8YY SMS) denotes the main operations support system used to create and update 8YY service records in the national 8YY database.

8YY Service Provider

The term "8YY Service Provider" denotes a telecommunications company that offers 8YY service to subscribers.

End Office Switch or End Office

The term "End Office Switch" or "End Office" denotes the switching system that provides service to the End User. Included are Remote Switching Modules and Remote Switching Systems served by a host office in a different wire center.

End User

The term "End User" means any customer of an interstate or foreign telecommunications service that is not a carrier, except that a carrier other than a telephone company shall be deemed to be an "end user" when such carrier uses a telecommunications service for administrative purposes, and a person or entity that offers telecommunications service exclusively as a reseller shall be deemed to be an "end user" if all resale transmissions offered by such reseller originate on the premises of such reseller.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Entry Switch

See First Point of Switching

Envelope Delay Distortion

The term "Envelope Delay Distortion" denotes a measure of the linearity of the phase versus frequency of a channel.

Equal Level Echo Path Loss

The term "Equal Level echo Path Loss" (ELEPL) denotes the measure of Echo Path Loss (EPL) at a 4-wire interface which is corrected by the difference between the send and receive Transmission Level Point (TLP) [ELEPL = EPL - TLP (send) + TLP (receive)].

Exchange

The term "Exchange" denotes a unit generally smaller than a Local Access and Transport Area, established by an Exchange Telephone Company for the administration of communications service in a specified area which usually embraces a city, town or village and its environs. It consists of one or more central offices together with the associated facilities used in furnishing communications service within that area. The exchange includes any Extended Area Service area that is an enlargement of an Exchange Telephone Company's exchange area to include nearby exchanges. One or more designated exchanges comprise a given Local Access and Transport Area.

Exchange Telephone Company or Exchange Carrier

The term "Exchange Telephone Company" or "Exchange Carrier" denotes a carrier that provides service within a telephone exchange, or within a connected system of telephone exchanges within the same exchange area operated to furnish to subscribers intercommunicating service of the character ordinarily furnished by a single exchange and which is covered by the exchange service charge.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)Expected Measured Loss

The term "Expected Measured Loss" denotes a calculated loss which specifies the end-to-end 1004 Hz loss on a terminated test connection between two (2) readily accessible manual or remote test points. It is the sum of the inserted connection loss and test access loss including any test pads.

Field Identifier

The term "Field Identifier" denotes two (2) or four (4) characters that are used on service orders to convey specific instructions. Field Identifiers may or may not have associated data. Selected Field Identifiers are used in billing systems to generate nonrecurring charges.

First Come - First Served

The term "First Come - First Served" denotes a procedure followed when a shortage of facilities or equipment occurs, such that a service ordered cannot be provided. The orders delayed by the shortage of facilities will be prioritized according to the sequence in which they were received. That is, when facilities or equipment become available, the first order received will be the first order processed.

First Point of Switching

The term "First Point of Switching" denotes the first MIEAC location at which switching occurs on the terminating path of a call proceeding from the customer's premises to the terminating End Office and, at the same time, the last MIEAC location at which switching occurs on the originating path of a call proceeding from the originating End Office to the customer's premises.

Frequency Shift

The term "Frequency Shift" denotes the change in the frequency of a tone as it is transmitted over a channel.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Grandfathered

The term "Grandfathered" denotes Terminal Equipment, Multiline Terminating Systems and Protective Circuitry directly connected to the facilities utilized to provide services under the provisions of this tariff, and which are considered Grandfathered under Part 68 of the F.C.C.'s Rules and Regulations.

Home

The term "Home" refers to the directing of calls to a specific toll center location or Class 4 office.

Host office

The term "Host Office" denotes an electronic switching system which provides call processing capabilities for one or more Remote Switching Modules or Remote Switching Systems.

Iowa Network Services, Inc. (Iowa Network)

The term "Iowa Network Services, Inc." denotes the access provider who is cooperating with MIEAC on the joint operation of the CCSAN. Iowa Network owns and operates an STP located in Des Moines, Iowa, which is mated to the STP owned and operated by MIEAC in Plymouth, Minnesota.

Immediately Available Funds

The term "Immediately Available Funds" denotes a corporate or personal check drawn on a bank account and funds which are available for use by the receiving party on the same day on which they are received and include U.S. Federal Reserve bank wire transfers, U.S. Federal Reserve notes (paper cash), U.S. coins, U.S. Postal Money Orders and New York Certificates of Deposit.

Impedance Balance

The term "Impedance Balance" denotes the method of expressing Echo Return Loss and Singing Return Loss at a 4-wire interface whereby the gains and/or loss of the 4wire portion of the transmission path, including the hybrid, are not included in the specification.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Impulse Noise

The term "Impulse Noise" denotes any momentary occurrence of the noise on a channel over a specified level threshold. It is evaluated by counting the number of occurrences which exceed the threshold.

Individual Case Basis ("ICB")

The term "Individual Case Basis" denotes a condition in which the regulations, if applicable, rates and charges for an offering under the provisions of this tariff are developed and tariffed based on the circumstances in each case.

Inserted Connection Loss

The term "Inserted Connection Loss" denotes the 1004 Hz power difference (in dB) between the maximum power available at the originating end and the actual power reaching the terminating end through the inserted connection.

Interexchange Carrier (IC) or Interexchange Common Carrier

The term "Interexchange Carrier" (IC) or "Interexchange Common Carrier" denote any individual, partnership, association, joint-stock company, trust, governmental entity or corporation engaged for hire in interstate or foreign communications by fiber optics, wire or radio, between two (2) or more exchanges.

Intermodulation Distortion

The term "Intermodulation Distortion" denotes a measure of the nonlinearity of a channel. It is measured using four (4) tones, and evaluating the ratios (in dB) of the transmitted composite four-tone signal power to the second order products of the tones (R2), and the third-order products of the tones (U).

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Interstate Communications

The term "Interstate Communications" denotes both interstate and foreign communications.

Intrastate Communications

The term "Intrastate Communications" denotes any communications within a state subject to oversight by a state regulatory commission, as provided by the laws of the state involved.

Line-Side Connection

The term "Line-Side Connection" denotes a connection of a transmission path to the line side of a local exchange switching system.

Local Access and Transport Area

The term "Local Access and Transport Area" denotes a geographic area established for the provision and administration of communications service. It encompasses one or more designated exchanges, which are grouped to serve common social, economic and other purposes.

Local Tandem Switch

The term "Local Tandem Switch" denotes a local Telephone Company switching unit by which local telephonic communications are switched to and from an End Office Switch.

Loop Around Test Line

The term "Loop Around Test Line" denotes an arrangement to provide a means to make certain two-way transmission tests on a manual basis. This arrangement has two terminations, each reached by means of separate telephone numbers and does not require any specific customer equipment. Equipment subject to this test arrangement is at the discretion of the customer.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Loss Deviation

The term "Loss Deviation" denotes the variation of the actual loss from the designed value.

Major Fraction Thereof

The term "Major Fraction Thereof" is any period of time in excess of one half (1/2) of the stated amount of time. As an example, in considering a period of twenty-four (24) hours, a major fraction thereof would be any period of time in excess of twelve (12) hours exactly. Therefore, if a given service is interrupted for a period of thirty-six (36) hours and fifteen (15) minutes, the customer would be given a credit allowance for two (2) twenty-four (24) hour periods for a total of forty-eight (48) hours.

Message

The term "Message" denotes a "call" as defined preceding.

Milliwatt (102 Type) Test Line

The term "Milliwatt (102 Type) Test Line" denotes an arrangement which provides a 1004 Hz tone at 0 dBmC for one-way transmission measurements towards the customer's point of interconnection from an End Office.

Network Control Signaling

The term "Network Control Signaling" denotes the transmission of signals used in the telecommunications system which perform functions such as supervision (control, status, and charge signals), address signaling (e.g., dialing), calling and called number identifications, rate of flow, service selection error control and audible tone signals (call progress signals indicating re-order or busy conditions, alerting, coin denominations, coin collect and coin return tones) to control the operation of the telecommunications system.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Nonsynchronous Test Line

The term "Nonsynchronous Test Line" denotes an arrangement which provides operational tests which are not as complete as those provided by the synchronous test lines, but can be made more rapidly.

North American Numbering Plan

The term "North American Numbering Plan" denotes a three digit area (Numbering Plan Area) code and a seven-digit telephone number made up of a three-digit Central office code plus a four-digit station number.

Off-Hook

The term "Off-hook" denotes the active condition of Switched Access or a Telephone Exchange Service line.

On-Hook

The term "On-hook" denotes the idle condition of Switched Access or a Telephone Exchange Service line.

Open Circuit Test Line

The term "Open Circuit Test Line" denotes an arrangement which provides an ac open circuit termination of a trunk by means of an inductor.

Originating Direction

The term "Originating Direction" denotes the use of Access Service for the origination of calls from an End User Premises to a Customer point of termination.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Pay Telephone

The term "Pay Telephone" denotes Exchange Telephone Company provided instruments and related facilities that are available to the general public for public convenience and necessity, including public and semi-public telephones, and coinless telephones.

Phase Jitter

The term "Phase Jitter" denotes the unwanted phase variations of a signal.

Point of Interconnection

The term "Point of Interconnection" denotes the demarcation point or network interface on a MIEAC premises between Exchange Telephone Company, or other local exchange service provider, facilities and MIEAC facilities.

Point of Termination

The term "Point of Termination" denotes the demarcation point or network interface on a MIEAC premises at which MIEAC's responsibility for the provision of Switched Access Service ends.

Premises

The term "Premises" denotes a building, or a portion of a building in a multi-tenant building, or buildings on continuous property (except Railroad Right-of-Way, etc.) not separated by a public highway.

Query

A query is a request for specific information generated by a computer processor and sent to a database, with a predefined set of responses expected.

Remote Switching Modules and/or Remote Switching Systems

The terms "Remote Switching Modules" and/or "Remote Switching Systems" denote small, remotely controlled electronic End Office Switches which obtain their call processing capability from an ESS-type Host Office. The Remote Switching Modules and/or Remote Switching Systems cannot accommodate direct trunks to a customer.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)Responsible Organization

The term "Responsible Organization" denotes the entity which is responsible for the management and administration of an 8YY service record in the 8YY Service Management System.

Return Loss

The term "Return Loss" denotes a measure of the similarity between the two (2) impedances at the junction of two (2) transmission paths. The higher the return loss, the higher the similarity.

Registered Equipment

The term "Registered Equipment" denotes the customer's premises equipment which complies with and has been approved within the Registration Provisions of Part 68 of the F.C.C.'s Rules and Regulations.

Service Access Code

The term "Service Access Code" denotes a three digit code in the NPA format which is used as the first three digits of a ten digit address and which is assigned for special network uses. Whereas NPA codes are normally used for identifying specific geographical areas, certain Service Access Codes have been allocated in the North American Numbering Plan to identify generic services or to provide access capability. An example of a Service Access Code is the 900 code.

Service Control Point (SCP)

The terms "Services Control Point" denotes the CCS/SS7 network node that acts as a host for various database applications and provides switching, routing, and call handling information.

Services Switching Point (SSP)

The term "Service Switching Point" denotes a switching office or node on the CCS/SS7 network which has the ability to launch queries to a centralized on-line database such as the 8YY Database and the Line Information Database (LIDB). The SSP also performs all of the functions of the SP.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)Seven Digit Manual Test Line

The term "Seven Digit Manual Test Line" denotes an arrangement which allows the customer to select balance, Milliwatt and synchronous test lines by manually dialing a seven (7) digit number of the associated access connection.

Shortage of Facilities or Equipment

The term "Shortage of Facilities or Equipment" denotes a condition which occurs when MIEAC does not have appropriate cable, switching capacity, bridging or multiplexing equipment, etc., necessary to provide the Access Service requested by the customer.

Short Circuit Test Line

The term "Short Circuit Test Line" denotes an arrangement which provides for an ac short circuit termination of a trunk by means of a capacitor of at least four (4) microfarads.

Signal Point (SP)

The term "Signal Point" denotes a node on the CCS/SS7 network that converts non-SS7 signals to SS7 protocol, sends and receives messages from one node to another in order to establish and disconnect calls.

Signal Transfer Point (STP)

The term "Signal Transfer Point" denotes a packet switch that routes signaling messages between SPs, SSPs, and SCPs. Iowa Network, in conjunction with MIEAC, provides a geographically separated mated pair of STPs for connection to the customer's SS7 network. The STPs are located in Des Moines, Iowa and Plymouth, Minnesota.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)**Signal-to-C-Notched Noise Ratio**

The term "Signal-to-C-Notched Noise Ratio" denotes the ratio in dB of a test signal to the corresponding C-Notched Noise.

Signaling Network Access Connection (SNAC)

The "Signaling Network Access Connection" denotes the link between the customer's Signaling Point of Interconnection (SPOI) and the Iowa Network/MIEAC STPs. The connection also included the necessary ports on the Iowa Network/MIEAC STPs.

Signaling Point of Interconnection (SPOI)

The term "Signaling Point of Interconnection" denotes the point of interconnection between Iowa Network and the customer for purposes of exchanging SS7 signaling messages. The SPOIs are located in the metropolitan areas of Des Moines, Iowa and Minneapolis/St. Paul, Minnesota.

Singing Return Loss

The term "Singing Return Loss" denotes the frequency weighted measure of return loss at the edges of the voiceband (200 to 500 Hz and 2500 to 3200 Hz), where singing (instability) problems are most likely to occur.

Subtending Local Service Provider (SLSP)

The term "Subtending Local Service Provider" denotes the Incumbent Local Exchange Carrier (ILEC), Competitive Local Exchange Carrier (CLEC), Commercial Mobile Radio Service (CMRS) provider, Voice over Internet Protocol (VoIP) provider, or any provider of local exchange service with End Offices or End Office equivalents utilizing the MIEAC Access Tandem.

Switched Access Service

Access to the switched network of an Exchange Telephone Carrier or other local exchange service provider for the purpose of originating or terminating communications. Switched Access is available to carriers, as defined in this tariff.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)Synchronous Test Line

The term "Synchronous Test Line" denotes an arrangement which performs marginal operational tests or supervisory and ring-tripping functions.

Terminating Direction

The term "Terminating Direction" denotes the use of Access Services for the completion of calls from a Customer's point of termination to an End User Premises.

Toll VoIP-PSTN Traffic

The term "Toll VoIP-PSTN Traffic" denotes a customer's interexchange voice traffic exchanged with the Company in Time Division Multiplexing format over PSTN facilities, which originates and/or terminates in Internet Protocol (IP) format. "Toll VoIP-PSTN Traffic" originates and/or terminates in IP format when it originates from and/or terminates to an end user customer of a service that requires IP-compatible customer premises equipment.

Transmission Measuring (105 Type) Test Line/Responder

The term "Transmission Measuring (105 Type) Test Line /Responder" denotes an arrangement which provides far end access to a responder and permits two-way loss and noise measurements to be made on trunks from a near end of office.

Transmission Path

The term "Transmission Path" denotes a path capable of transmitting signals within the range of the service offering, e.g., a voice grade transmission path is capable of transmitting voice frequencies within the approximate range of three hundred (300) to three thousand (3000) Hz. A transmission path is comprised of physical or derived channels consisting of any form or configuration of facilities plant typically used in the telecommunications industry.

Trunk

The term "Trunk" denotes a transmission path connecting two (2) switching systems in a network, used in the establishment of an end-to-end connection.

SWITCHED ACCESS SERVICE

1. Definitions (Cont'd)

Trunk Group

The term "Trunk Group" denotes a set of trunks which are traffic engineered as a unit for the establishment of connections between switching systems in which all of the communications paths are interchangeable.

Trunk-Side Connection

The term "Trunk-Side Connection" denotes the connection of a transmission path to the trunk side of a switching system.

Two-Wire to Four-Wire Conversion

The term "Two-Wire to Four-Wire Conversion" denotes an arrangement which converts a four-wire transmission path to a two-wire transmission path to allow a four-wire facility to terminate in a two-wire entity (e.g., a central office switch).

V and H Coordinates Method

The term "V and H Coordinates Method" denotes a method of computing airline miles between two points by utilizing an established formula which is based on the vertical and horizontal coordinates of the two points.

Wire Center

The term "Wire Center" denotes a building in which one or more central offices, used for the provision of Telephone Exchange Services, are located

SWITCHED ACCESS SERVICE

2. General Regulations

2.1 Undertaking of MIEAC

2.1.1 Scope

- (A) MIEAC does not undertake to transmit messages under this tariff.
- (B) MIEAC shall be responsible only for the installation, operation and maintenance of the services it provides.
- (C) MIEAC will, for maintenance purposes, test its services only to the extent necessary to detect and/or clear troubles.
- (D) MIEAC will provide services subject to the availability of facilities.
- (E) When and where facilities are so available, MIEAC will provide services 24 hours daily, seven days per week, except as set forth in other applicable sections of this tariff.
- (F) MIEAC does not warrant that its facilities and services meet standards other than those set forth in this tariff.

2.1.2 Limitations

- (A) The customer may not assign or transfer the use of services provided under this tariff; however, where there is no interruption of use or relocation of the services, such assignment or transfer may be made to:
 - (1) another customer, whether an individual, partnership, association or corporation, provided the assignee or transferee assumes all outstanding indebtedness for such services, and the unexpired portion of the minimum period and the termination liability applicable to such services, if any; or a court-appointed receiver, trustee or other person acting pursuant to law in bankruptcy, receivership, reorganization, insolvency, liquidation or other similar proceedings, provided the assignee or transferee assumes the unexpired portion of the minimum period and the termination liability applicable to such services, if any.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of MIEAC (Cont'd)

2.1.2 Limitations (Cont'd)

(A) (Cont'd)

- (2) In all cases of assignment or transfer, the written acknowledgment of MIEAC is required prior to such assignment or transfer which acknowledgment shall be made within fifteen 15 days from the receipt of notification. All regulations and conditions contained in this tariff shall apply to such assignee or transferee.

The assignment or transfer of services does not relieve or discharge the assignor or transferor from remaining jointly or severally liable with the assignee or transferee for any obligations existing at the time of the assignment or transfer.

- (B) The use and restoration of services shall be in accordance with Part 64, Subpart D or the Federal Communications Commission's Rules and Regulations, which specifies the priority system for such activities.
- (C) Subject to compliance with the rules mentioned in (B) preceding, the services offered herein will be provided to customers on a first-come, first-served basis. First-come, first-served shall be based upon the received time and date stamped by MIEAC on customer orders which contain the information as required for each respective service as delineated in other sections of this tariff. Customer orders shall not be deemed to have been received until such information is provided. Should questions arise which preclude order issuance due to missing information or the need for clarification, MIEAC will attempt to seek such missing information or clarification on a verbal basis.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of MIEAC (Cont'd)

2.1.3 Liability

- (A) MIEAC's liability, if any, for its willful misconduct is not limited by this tariff. With respect to any other claim or suit, by a customer or by any others, for damages associated with the installation, provision, termination, maintenance, repair or restoration of service, and subject to the provisions of (B) through (G) following, MIEAC's liability, if any, shall not exceed an amount equal to the proportionate charge for the service for the period during which the service was affected. This liability for damages shall be in addition to any amounts that may otherwise be due the customer under this tariff as a Credit Allowance for a Service interruption.
- (B) MIEAC shall not be liable for any act or omission of any other carrier or customer providing a portion of a service, nor shall MIEAC for its own act or omission hold liable any other carrier or customer providing a portion of a service.
- (C) MIEAC shall be indemnified, defended and held harmless by the customer against any claim, loss or damage arising from its use of services offered under this tariff, involving:
 - (1) Claims for libel, slander, invasion of privacy, or infringement of copyright arising from any communications;
 - (2) Claims for patent infringement arising from combining *or* using the service furnished by MIEAC in connection with facilities or equipment furnished by the customer; or
 - (3) All other claims arising out of any act or omission of the customer in the course of using services provided pursuant to this tariff.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of MIEAC (Cont'd)

2.1.3 Liability (Cont'd)

- (D) MIEAC does not guarantee or make any warranty with respect to its services when used in an explosive atmosphere. MIEAC shall be indemnified, defended and held harmless by the customer from any and all claims by any person relating to the customer's use of services so provided.
- (E) No license under patents (other than the limited license to use) is granted by MIEAC or shall be implied or arise by estoppel, with respect to any service offered under this tariff. MIEAC will defend the customer against claims of patent infringement arising solely from the use by the customer of services offered under this tariff and will indemnify such customer for any damages awarded based solely on such claims.
- (F) MIEAC's failure to provide or maintain services under this tariff shall be excused by labor difficulties, governmental orders, civil commotions, criminal actions taken against MIEAC, acts of God and other circumstances beyond MIEAC's reasonable control, subject to the Credit Allowance for a Service Interruption as set forth in 2.4.4 following.
- (G) NEITHER COMPANY NOR ITS AFFILIATES, OFFICERS, DIRECTORS, EMPLOYEES, AGENTS OR ASSIGNS, SHALL BE LIABLE TO CUSTOMER OR ANY THIRD PARTY, INCLUDING THEIR OWN CUSTOMERS OR END USERS, FOR ANY SPECIAL, INCIDENTAL, PUNITIVE, CONSEQUENTIAL OR OTHER INDIRECT DAMAGES, INCLUDING, BUT NOT LIMITED TO, LOST PROFITS, LOSS OF BUSINESS OR ANY OTHER PECUNIARY LOSS, ARISING IN ANY WAY OUT OF OR UNDER THIS TARIFF OR RELATED AGREEMENT, WHETHER IN TORT, CONTRACT OR OTHERWISE, EVEN IF SUCH PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. CARRIER'S AND ITS SUBCONTRACTORS LIABILITY TO CUSTOMER AND ITS CUSTOMERS OR END USERS ARISING OUT OF OR UNDER THIS TARIFF OR RELATED AGREEMENT, WHETHER IN CONTRACT, TORT OR OTHERWISE, SHALL BE LIMITED TO THE AMOUNTS PAID BY CUSTOMER TO CARRIER IN THE SIX (6) MONTH PERIOD IMMEDIATELY PRECEDING THE TIME THAT THE EVENT RESULTING IN LIABILITY OCCURS.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of MIEAC (Cont'd)

2.1.4 Provision of Services

The services offered under the provisions of this tariff are subject to the availability of facilities. MIEAC, to the extent that such services are or can be made available with reasonable effort, will provide to the customer, upon reasonable notice, services offered in other applicable sections of this tariff at rates and charges specified therein.

2.1.5 Installation and Termination of Services

The Switched Access Service provided under this tariff (A) includes MIEAC's communication facilities up to the point of termination as defined in Section 1 preceding which denotes the demarcation point or network interface and (B) will be provided by MIEAC to such point of termination. Any additional terminations at the customer's premises beyond such point of termination are the sole responsibility of the customer.

2.1.6 Service Maintenance

The services provided under this tariff shall be maintained by MIEAC. The customer or others may not rearrange, move, disconnect, remove or attempt to repair any facilities provided by MIEAC, other than by connection or disconnection to any interface means used, except with the written consent of MIEAC.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of MIEAC (Cont'd)

2.1.7 Changes and Substitutions

Except as provided for equipment and systems subject to F.C.C. Part 68 Regulations at 47 C.F.R. Section 68.110(b), MIEAC may, where such action is reasonably required in the operation of its business, (A) substitute, change or rearrange any facilities used in providing service under this tariff, (B) change minimum protection criteria, (C) change operating or maintenance characteristics of facilities or (D) change operations or procedures of MIEAC. In case of any such substitution, change or rearrangement, the transmission parameters will be within the range as set forth in Section 15. following. MIEAC shall not be responsible if any such substitution, change or rearrangement renders any customer furnished services obsolete or requires modification or alteration thereof or otherwise affects their use or performance. If such substitution, change or rearrangement materially affects the operating characteristics of the facility, MIEAC will provide reasonable notification to the customer in writing. Reasonable time will be allowed for any redesign and implementation required by the change in operating characteristics. MIEAC will work cooperatively with the customer to determine reasonable notification procedures.

2.1.8 Refusal and Discontinuance of Service

(A) Unless the provisions of 2.2.1(B) or 2.5 following apply, if the customer fails to comply with 2.1.6 preceding or 2.2.2, 2.3.1, 2.3.4, 2.3.5 or 2.4 following, including any payments to be made by it on the dates and times herein specified, MIEAC may, on thirty (30) days written notice by Certified U.S. Mail to the person designated by the customer to receive such notices of noncompliance, refuse additional applications for service and/or refuse to complete any pending orders for service at any time thereafter. If MIEAC does not refuse additional applications for service on the date specified in the thirty (30) days notice, and the customer's noncompliance continues, nothing contained herein shall preclude MIEAC's right to refuse additional applications for service without further notice to the non-complying customer.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.1 Undertaking of MIEAC (Cont'd)

2.1.8 Refusal and Discontinuance of Service (Cont'd)

- (B) Unless the provisions of 2.2.1(B) or 2.5 following apply, if the customer fails to comply with 2.1.6 preceding or 2.2.2, 2.3.1, 2.3.4, 2.3.5 or 2.4 following, including any payments to be made by it on the dates and times herein specified, MIEAC may, on thirty (30) days written notice by Certified U.S. Mail to the person designated by the customer to receive such notices of noncompliance, discontinue the provision of the services involved at any time thereafter. In the case of such discontinuance, all applicable charges, including termination charges, shall become due. If MIEAC does not discontinue the provision of the services involved on the date specified in the thirty (30) days notice, and the customer's noncompliance continues nothing contained herein shall preclude MIEAC's right to discontinue the provision of the services involved without further notice to the noncomplying customer.
- (C) If the Company discontinues service, it will no longer route any traffic that uses the customer's Carrier Identification Code (CIC), Local Routing Number (LRN), carrier owned NPA-NXX or any other element used to route traffic. In the case of such discontinuance, all applicable charges, including termination charges, if any, shall become due. If the Company does not discontinue the provision of the services involved on the date specified in the five (5) days notice, and the customer's noncompliance continues, nothing contained herein shall preclude the Company's right to discontinue the provision of the services to the non-complying customer without further notice.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)**2.1 Undertaking of MIEAC (Cont'd)****2.1.9 [Reserved for Future Use]****2.1.10 Notification of Service-Affecting Activities**

MIEAC will provide the customer timely notification of service-affecting activities that may occur during the normal operation of its business. Such activities may include, but are not limited to, equipment or facilities additions, removals or rearrangements, routine preventative maintenance and major switching machine change-out. Generally, such activities are not individual customer service specific; they affect many customer services. No specific advance notification period is applicable to all service activities. MIEAC will work cooperatively with the customer to determine reasonable notification requirements. With some emergency or unplanned service-affecting conditions, such as an outage resulting from cable damage, notification to the customer may not be possible.

2.1.11 Coordination with Respect to Network Contingencies

MIEAC intends to work cooperatively with the customer to develop network contingency plans in order to maintain maximum network capability following natural or man-made disasters which affect telecommunications services, subject to the Restoration Priority requirements of Part 64 of the F.C.C.'s Rules.

2.1.12 Emergency Blocking

Customer agrees that if the Company, in its sole discretion, determines that an emergency action is necessary to protect the Company network or business, the Company may block any transmission path over the Company network to Customer transmissions that are needed to protect the integrity of the Company network or business. Neither Party shall have any obligation to the other Party for any claim, judgment or liability resulting from such blockage.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.2 Use

2.2.1 Interference or Impairment

- (A) The characteristics and methods of operation of any circuits, facilities or equipment provided by other than MIEAC and associated with the facilities utilized to provide services under this tariff shall not interfere with or impair service over any facilities of MIEAC, or its affiliated companies involved in its services; cause damage to their plant; impair the privacy of any communications carried over their facilities, or, create hazards to the employees of any of them or the public.

- (B) Except as provided for equipment or systems subject to the F.C.C. Part 68 Rules in 47 C.F.R. Section 68.108, if such characteristics or methods of operation are not in accordance with (A) preceding, MIEAC will, where practicable, notify the customer that temporary discontinuance of the use of a service may be required; however, where prior notice is not practicable, nothing contained herein shall be deemed to preclude MIEAC's right to temporarily discontinue forthwith the use of a service if such action is reasonable under the circumstances. In case of such temporary discontinuance, the customer will be promptly notified and afforded the opportunity to correct the condition which gave rise to the temporary discontinuance. During such period of temporary discontinuance, credit allowance for service interruptions, as set forth in 2.4.4 following, is not applicable.

2.2.2 Unlawful Use

The service provided under this tariff shall not be used for an unlawful purpose.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer

2.3.1 Damages

The customer shall reimburse MIEAC for damages to MIEAC facilities utilized to provide services under this tariff caused by the negligence or willful act of the customer, or resulting from improper use of MIEAC facilities, or due to malfunction of any facilities or equipment provided for or by the customer. Nothing in the foregoing provision shall be interpreted to hold one customer liable for another customer's actions. MIEAC will, upon reimbursement for damages, cooperate with the customer in prosecuting a claim against the person causing such damage and the customer shall be subrogated to the right of recovery by MIEAC for the damages to the extent of such payment.

2.3.2 Ownership or Control of Facilities and Theft

Facilities owned or leased by MIEAC and utilized by it to provide service under the provisions of this tariff shall remain the property of MIEAC. Such facilities shall be returned to MIEAC by the customer in as good a condition as reasonable wear will permit.

2.3.3 Equipment Space and Power

The customer shall furnish or arrange to have furnished to the Company, at no charge, equipment space and electrical power required by the Company to provide services under this tariff at the points of termination of such services. The selection of ac or dc power shall be mutually agreed to by the customer and the Company. The customer shall also make necessary arrangements in order that the Company will have access to such spaces at reasonable times for installing, testing, inspecting, repairing or removing Company services. Customer shall prepare its site for and accept delivery of any equipment before the requested service start date. Customer shall provide reasonable access for Carrier to install, maintain, or remove any equipment.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.4 Availability for Testing

The facilities provided under this tariff shall be available to MIEAC at times mutually agreed upon in order to permit MIEAC to make tests and adjustments appropriate for maintaining the services in satisfactory operating condition. Such tests and adjustments shall be completed within a reasonable time. No credit will be allowed for any interruption's involved during such tests and adjustments.

2.3.5 Balance

All signals for transmission over the services provided under this tariff shall be delivered by the customer balanced to ground except for ground start, duplex (DX) and McCulloh-Loop (Alarm System) type signaling and dc telegraph transmission at speeds of 75 baud or less.

2.3.6 Design of Customer Services

Subject to the provisions of 2.1.7 preceding, the customer shall be solely responsible, at its own expense, for the overall design of its services and for any redesigning or rearrangement of its services which may be required because of changes in facilities, operations or procedures of MIEAC, minimum protection criteria or operating or maintenance characteristics of the facilities.

2.3.7 References to MIEAC

The customer may advise End Users that certain services are provided by MIEAC in connection with the service the customer furnishes to End Users; however, the customer shall not represent that MIEAC jointly participates in the customer's services.

2.3.8 Claims and Demands for Damages

(A) With respect to claims of patent infringement made by third persons, the customer shall defend, indemnify, protect, and save harmless MIEAC from and against all claims arising out of the combining with, or use in connection with, the services provided under this tariff, any circuit, apparatus, system or method provided by the customer.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.8 Claims and Demands for Damages (Cont'd)

- (B) The customer shall defend, indemnify, and save harmless MIEAC from and against suits, claims, losses or damages including punitive damages, attorneys' fees and court costs by third persons arising out of the construction, installation, operation, maintenance, or removal of the customer's circuits, facilities, or equipment connected to MIEAC's services provided under this tariff, including, without limitation, Workmen's Compensation claims, actions for infringement of copyright and/or unauthorized use of program material, libel and slander actions based on the content of communications transmitted over the customer's circuits, facilities or equipment, and proceedings to recover taxes, fines, or penalties for failure of the customer to obtain or maintain in effect any necessary certificates, permits, licenses, or other authority to acquire or operate the services provided under this tariff; provided, however, the foregoing indemnification shall not apply to suites, claims, and demands to recover damages for damage to property, death, or personal injury unless such suits, claims or demands are based on the tortious conduct of the customer, its officers, agents or employees.

- (C) The customer shall defend, indemnify, and save harmless MIEAC from and against any suits, claims, losses or damages, including punitive damages, attorneys, fees and court costs by the customer or third parties arising out of any act or omission of the customer in the course of using services provided under this tariff.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.9 Traffic Information

- (A) Customer shall provide Signaling Data (as defined below) and shall not, directly or indirectly, including in concert with a third party, strip, alter, modify, add, delete, change, mask, manipulate, or incorrectly assign any Signaling Data. Signaling Data shall, at a minimum, include: (a) information that accurately reflects the geographic location of the end user that originated and/or dialed the call, when including such information is technically feasible, (b) calling party number as defined in 47 C.F.R. Section 64.1600(c) ("CPN"), (c) Automatic Number Identification as defined in 47 C.F.R. Section 64.1600(b) ("ANI"), (d) Charge Number as defined in 47 C.F.R. Section 64.1600(d), (e) Jurisdictional Indicator Parameter ("JIP") and (f) any other signaling data that affects the terminating Party's ability to jurisdictionalize traffic. If it is determined that Customer has: (a) directly or indirectly made any such addition, deletion, change, mask, manipulation, alteration, modification, or incorrect assignment, or (b) intentionally or unintentionally failed to provide any Signaling Data, all of Customer's traffic, including prior traffic, will be re-rated to the highest tariff rate. Upon request, the Company will provide to Customer available Signaling Data for traffic terminated to Customer.
- (B) Where SS7 connections exist, customer will include the original and true Line Information, including the Calling Party Number (CPN), in the information transmitted to the Company for each call.
- (C) If customer is passing Line Information but the Company is not properly receiving information, the parties will work cooperatively to correct the problem.
- (D) For transit traffic, if the original and true CPN is not received from the originating third party, the Company cannot forward the CPN and will not be billed as the default originator.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.10 Jurisdictional Report Requirements*

- (A) In this section the terms "trunk group" shall be assumed to also represent a single line or trunk.
- (B) Reporting by the customer of the expected jurisdictional use of services is required because the Company cannot determine the actual jurisdiction of the customer's usage from every type of call detail recording. In some cases the Company cannot record the customer's usage of the service at all. The information reported by the customer will be used by the Company in an effort to determine the appropriate charges, as set forth in 2.3.11 following. The customer must always report this information for those services or portions of services for which the actual jurisdictional use cannot be determined by Company.* (Pursuant to Federal Communications Commission order FCC 85-145 released April 16, 1985, interstate usage is to be developed as though every call that enters a customer network at a point within the same state as that in which the called station (as designated by the called station number) is situated is an intrastate communication and every call for which the point of entry is in a state other than that where the called station (as designated by the called station number) is situated is interstate in nature.)
- (1) When a customer orders a new Access Service, the customer shall, in its order, state the proportion of the service which is to be provided for interstate use. This proportion is the Percent for Interstate Use or PIU. The customer can either specify one general PIU for the service usage or the customer can specify an 8YY terminating PIU and a residual PIU. All PIUs shall be stated as whole number percentages. If the customer chooses to report one general Percent for Interstate Use, then the general PIU will be the customer's best estimate of the percentage of the total use of the trunk group that will be interstate in nature.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.10 Jurisdictional Report Requirements (Cont'd)

(B) (Cont'd)

(1) (Cont'd)

If the customer chooses to provide a separate 8YY terminating PIU, then that PIU will be the customer's best estimate of the percentage of the total 8YY terminating use of the trunk group usage that will be interstate in nature. The residual PIU would then be the customer's best estimate of the percentage of the total trunk group usage that will not be 8YY terminating usage and will be interstate in nature.

The reported Percentage(s) for Interstate Use PIU(s) will be used in the determination of all interstate and intrastate charges for the trunk group, as set forth in 2.3.11 following, as well as for the associated charges for transport and port charges. The PIU(s) remains in effect until it is superseded by a revised PIU(s), as set forth in (3) following.

When the customer determines that any currently effective PIU(s) for one or more trunk groups is no longer accurate, the customer shall report a revised PIU(s) for each trunk group. The customer can report the new PIU(s) to the Company in writing. The report must clearly identify each trunk group, the account number under which it is billed, and both the current and revised PIU(s). The revised PIU(s) will become effective on the first day of the next monthly billing period that begins at least 15 business days after the day on which the customer reports the revised PIU(s) to the Company. No revisions to bills preceding the effective date of the revised PIU(s) will be made based on this report.

If no PIU is submitted as specified herein, then the PIU will be set on a default basis of 50 percent interstate traffic and 50 percent intrastate traffic.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.10 Jurisdictional Report Requirements (Cont'd)

(B) (Cont'd)

(1) (Cont'd)

The Company will charge the intrastate terminating switched access rates to Customers for those minutes lacking jurisdictional information that are in excess of a reasonable percentage (10%) of minutes for which this information is not transmitted. For example, if 40% of a Customer's minutes sent to the Company do not contain sufficient originating information to allow the Company to determine the originating location, the Company would apply these provisions to those minutes exceeding the 10% "floor," or 30% in this example.

(2) NPA-NXX Surrogate

If the customer's end users utilize NPA-NXXs from outside of a local market to terminate Transit calls, customer shall report an NPA-NXX Surrogate, which shall be customer's estimate of Transit traffic that appears to be access traffic. For example, a cellular end user with an NPA-NXX different than the market in which the end user is roaming and terminating a Transit call or an end user assigned an NPA-NXX from a market different than the market in which the end user is terminating Transit calls.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.10 Jurisdictional Report Requirements (Cont'd)

(B) (Cont'd)

(3) Call Classification Report Verification

If a billing dispute arises or a regulatory commission questions the PIU, the Company will ask the customer to provide the data the customer uses to determine the PIU. The customer shall supply the data within 15 days of the Company request. The customer shall keep records of call detail, including not altering directly or indirectly with a third party call origination or termination data from which the Call Classification can be ascertained. Upon request of the Company, customer shall make the records available for inspection as reasonably necessary for purposes of verification. Requests for verification shall be limited to no more than two per year, except in extreme circumstances. Audits may be conducted by independent auditors if the Company and the customer or the customer alone is willing to pay the expenses of the audit.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.11 Determination of Interstate Charges for Mixed Interstate and Intrastate Access Service

When mixed interstate and intrastate Access Service is provided, all charges will be prorated between interstate and intrastate. The percentages provided in the reports, as set forth in 2.3.10(A) preceding, will serve as the basis for calculating the charges. The percentages of an Access Service to be charged as interstate are applied in the following manner:

(A) Monthly and Nonrecurring Charges

For monthly and *nonrecurring chargeable* rate elements, multiply the percent interstate use times the quantity of chargeable elements times the stated tariff rate.

(B) Usage-Sensitive Charges

For usage sensitive (i.e., access minutes and calls) chargeable rate elements, charges are calculated as follows:

- (1) multiply the percent interstate use times actual use (i.e., measured) times the stated tariff rate.

The interstate percentage will change as revised usage reports are submitted or a revised percentage is calculated as set forth in 2.3.10 preceding.

2.3.12 Reserved for Future Use

2.3.13 Reserved for Future Use

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.14 Call Classification Requirements

When a customer orders Switched Service from this tariff, the customer shall ensure that the traffic it is sending via the service meets the requirements for Call Classification as Access and/or Transit Service. The customer shall be responsible for advising the Company of any changes in such classification.

2.3.15 Forecasts

Customer shall exchange technical descriptions and forecasts of its interconnection and traffic requirements in sufficient detail necessary to establish the interconnections required to assure traffic completion to and from all End Users in their respective designated service areas.

2.3.16 Coordination with Respect to Network Contingencies

The customer shall, in cooperation with MIEAC, coordinate in planning the Actions to be taken to maintain maximum network capability following natural or man-made disasters which affect telecommunications services.

2.3.17 Updating Data Bases

The Company and customer shall use the Local Exchange Routing Guide (LERG) to provision the appropriate NPA NXXs. Customer shall be responsible for updating its routing tables and internal databases to reflect changes in the Company profile and terminations.

2.3.18 Resale of Services

Customer agrees not to resell the Company service in any manner without prior written consent of the Company.

2.3.19 Compliance with Laws

Customer shall comply with all applicable laws and regulations in its use of the service. Customer is solely responsible for all products and services it provides to its End Users and to other carriers.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.20 Exchange of Traffic and Information

All facilities interconnected to the Company by Customer shall be two-way in nature, unless otherwise agreed in writing by the Company. Customer shall accept both originating and terminating traffic from the Company. At all times, Customer shall provide facilities within its network that are necessary for routing, transporting, measuring, and billing of traffic originated by other customers of the Company and for delivering traffic to the Company for termination to other carriers. Customer shall transmit traffic in the standard format compatible with the Company's network as referenced in Telcordia BOC Notes on LEC Networks Practice No. SR-TSV-002275, and terminate the traffic it receives in that standard format to the proper address on its network. Customer shall exercise best efforts in responding to requests by the Company to install additional facilities and capacity with the customer to accommodate traffic volumes and maintain the highest network quality standards. Customer agrees that Company may share certain customer information with other customers of the Company for the sole purpose of providing service.

2.3.21 Non-Authorized Traffic

Customers agree to not send Carrier Non-Authorized Traffic (i.e., traffic that is not Transit and Access traffic, including 911, 411, 976, directory assistance, and 0+ operator services local calls). Company will block any Carrier Non-Authorized Traffic sent to the Company switches and will have no obligation to carry such traffic. Customer will not send to the Company local traffic that is destined for the network of a third party carrier unless Customer has the authority to exchange traffic with that carrier.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.3 Obligations of the Customer (Cont'd)

2.3.22 Customer Responsibility

Customers seeking to cancel service for traffic terminating to the Company have an obligation to cease sending such traffic to the Company's network. Customers will remain responsible for traffic originating from the Company's network if the Customer accepts such traffic.

2.3.23 Determination of InterMTA and IntraMTA Traffic

CMRS provider will have the responsibility of providing, on a quarterly basis (or as otherwise agreed to by the Company), a report to the Company providing the percentage of the CMRS provider's traffic terminated to the Company that is intraMTA or interMTA. The report will also detail what percentage of the interMTA traffic is intrastate and what percentage is interstate (PIU).

Reports regarding the percentages of intraMTA or interMTA traffic (and the intrastate or interstate jurisdiction of interMTA traffic) shall be based on a reasonable traffic study conducted by the CMRS provider and available to the Company upon request. Upon reasonable written notice, the Company or its authorized representative shall have the right to conduct a review and verification of the CMRS provider's reported percentages. This includes on-site verification reviews at the CMRS provider's or vendor locations. The review may consist of an examination and verification of data involving records, systems, procedures and other information related to the traffic originated by the CMRS provider and terminated to the Company. The customer shall keep records of call detail, including not altering directly or indirectly with a third party call origination or termination data from which the call jurisdiction can be ascertained. The CMRS provider will provide the Company with reasonable access to such information as is necessary to determine amounts payable under this tariff.

If the CMRS provider fails to provide the verifiable reports required under this section, the Company will apply a default percent interMTA of 50% (and a default PIU of 50% on all interMTA traffic), on all traffic originated by the CMRS provider for termination by the Company.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances

2.4.1 Payment of Rates, Charges and Deposits

- (A) MIEAC will, in order to safeguard its interests, only require a customer which has a proven history of late payments to MIEAC or does not have established credit, except for a customer which is a successor of a company which has established credit and has no history of late payments to MIEAC, to make a deposit prior to or at any time after the provision of a service to the customer to be held by MIEAC as a guarantee of the payment of rates and charges. Such deposit may not exceed the actual or estimated rates and charges for the service for a two-month period. The fact that a deposit has been made in no way relieves the customer from complying with MIEAC's regulations as to the prompt payment of bills. At such time as the provision of the service to the customer is terminated, the amount of the deposit will be credited to the customer's account and any credit balance which may remain will be refunded.

At the option of MIEAC, such a deposit may be refunded or credited to the customer's account when the customer has established credit or after the customer has established a one-year prompt payment record at any time prior to the termination of the provision of the service to the customer. In the case of a cash deposit, for the period the deposit is held by MIEAC, the customer will receive interest at the same percentage rate as that set forth in (B)(2)(b).

The interest rate will be applied for the number of days from the date the customer deposit is received by MIEAC to and including the date such deposit is credited to the customer's account or the date the deposit is refunded by MIEAC. Should a deposit be credited to the customer's account, as indicated above, no interest will accrue on the deposit from the date such deposit is credited to the customer's account.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.1 Payment of Rates, Charges and Deposits (Cont'd)

- (B) MIEAC shall bill on a current basis all charges incurred by, and credits due to, the customer under this tariff attributable to services established or discontinued during the preceding billing period. In addition, MIEAC shall bill, in advance, charges for all services to be provided during the ensuing billing period except for charges associated with service usage which will be billed in arrears. The bill day (i.e., the billing date of a bill for a customer for Access Service under this tariff), the period of service each bill covers and the payment date be as follows:
- (1) MIEAC will establish a bill day each month for each customer account. The bill will cover nonusage sensitive service charges for the ensuing billing period for which the bill is rendered, any known unbilled nonusage sensitive charges for prior periods, and unbilled usage charges for the period after the last bill day through the current bill day. Any known unbilled usage charges for, prior periods and any known unbilled adjustments will be applied to this bill. Payment for such bills is due as set forth in (2) following. If payment is not received by the payment date, as set forth in (2) following, in immediately available funds, a late payment penalty will apply as set forth in (2) following.
 - (2) All bills dated, as set forth in (1) preceding, for service provided to the customer by MIEAC, are due thirty (30) days (payment date) after the bill day or by the next bill date (i.e., same date in the following month as the bill date,) whichever is the shortest interval, except as provided herein, and are payable in immediately available funds.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.1 Payment of Rates, Charges and Deposits Cont'd)

(B) (Cont'd)

(2) (Cont'd)

If such payment date would cause payment to be due on a Saturday, Sunday or Holiday (i.e., New Year's Day, Independence Day, Labor Day, Thanksgiving Day, Christmas Day, the second Tuesday in November and a day when Washington's Birthday, Memorial Day or Columbus Day is legally observed) payment for such bills will be due from the customer as follows:

- (a) If such payment date falls on a Sunday or on a Holiday which is observed on a Monday, the payment date shall be the first non-Holiday day following such Sunday or Holiday. If such payment date falls on a Saturday or on a Holiday which is observed on Tuesday, Wednesday, Thursday or Friday, the payment date shall be the last non-Holiday day preceding such Saturday or Holiday.
- (b) Further, if any portion of the payment is received by MIEAC after the payment date as set forth in (a) preceding or if any portion of the payment is received by MIEAC in funds which are not immediately available to MIEAC, then a late payment penalty shall be due to MIEAC. The late payment penalty shall be the portion of the payment not received by the payment date times a late factor. The late factor shall be assessed at 1.5% per month at simple interest.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.1 Payment of Rates, Charges and Deposits Cont'd)

(B) (Cont'd)

(2) (Cont'd)

(c) In the event that a billing dispute concerning any charges billed to the customer by MIEAC is resolved in favor of MIEAC, any payments withheld pending settlement of the dispute shall be subject to the late payment penalty set forth in (b) preceding. If the customer disputes the bill on or before the payment date, and pays the undisputed amount on or before the payment date, any late payment charge for the disputed amount will not start until ten (10) days after the payment date.

(3) Billing Disputes Resolved in Favor of the Customer

If the customer pays the total billed amount and disputes all or part of the amount, MIEAC will refund any overpayment. In addition, MIEAC will pay to the customer penalty interest on the overpayment. When a claim is filed within 90 days of the due date, the penalty interest period shall begin on the payment date. When a claim is filed more than 90 days after the due date, the penalty interest period shall begin from the date of the claim or the date of overpayment, whichever is later.

The penalty interest period shall end on the date that MIEAC actually refunds the overpayment to the customer. The penalty interest rate shall be assessed at 1.5% per month as simple interest.

(C) Adjustments for the quantities of services established or discontinued in any billing period beyond the minimum period set forth for services in other sections of this tariff will be prorated to the number of days or major fraction of days based on a thirty (30)-day month.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.1 Payment of Rates, Charges and Deposits (Cont'd)

- (D) MIEAC will, upon request, furnish within thirty (30) days of a request at no charge to the customer such detailed information as may reasonably be required for verification of any bill.
- (E) When a rate as set forth in this tariff is shown to more than two decimal places, the charges will be determined using the rate shown. The resulting amount will then be rounded to the nearest penny (i.e. , rounded to two decimal places.
- (F) When more than one copy of a customer bill for services provided under the provisions of this tariff is furnished to the customer, an additional charge applies for each additional copy of the bill as set forth in 13.3.3 following.

2.4.2 Minimum Periods

The minimum periods for which services are provided and for which rates and charges are applicable is one (1) month, except as otherwise specified.

2.4.3 Cancellation of an Order for Service

Provisions for the cancellation of an order for service are set forth in 5.2.2(B) and 5.2.3 following.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions

(A) General

A service is interrupted when it becomes unusable to the customer because of a failure of a facility component used to furnish service under this tariff or in the event that the protective controls applied by MIEAC result in the complete loss of service by the customer as set forth in 6.4.1 following. An interruption period starts when an inoperative service is reported to MIEAC, or when MIEAC becomes aware of the service interruption, and ends when the service is operative.

(B) When A Credit Allowance Applies

In case of an interruption to any service, allowance for the period of interruption, if not due to the negligence of the customer, shall be as follows:

- (1) For Switched Access Service, no credit shall be allowed for an interruption of less than twenty-four (24) hours. The customer shall be credited for an interruption of twenty-four (24) hours or more at the rate of 1/30 of any applicable monthly rates for each period of twenty-four (24) hours or major fraction thereof that the interruption continues.
- (2) The credit allowance(s) for an interruption or for a series of interruptions shall not exceed any monthly rate for the service interrupted in any one monthly billing period.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(C) When a Credit Allowance Does Not Apply

No credit allowance will be made for:

- (1) Interruptions caused by the negligence of the customer.
- (2) Interruptions of a service due to the failure of equipment or systems provided by the customer or others.
- (3) Interruptions of a service during any period in which MIEAC is not afforded access to the location where the service is terminated.
- (4) Interruptions of a service for maintenance purposes, to make rearrangements, or for the implementation of an order for a change in the service during the time that was negotiated with the customer. Thereafter, a credit allowance as set forth in (B) preceding applies.
- (5) Periods when the customer continues to use the service on an impaired basis.
- (6) Periods of temporary discontinuance as set forth in 2.2.1(B) preceding.
- (7) An interruption or group of interruptions, resulting from a common cause, for amounts less than one dollar (\$1.00).
- (8) Periods of interruption as set forth in 13.3.1 following.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.4 Credit Allowance for Service Interruptions (Cont'd)

(C) When a Credit Allowance Does Not Apply (Cont'd)

- (9) Interruption of service caused by a customer's failure to provide notification to MIEAC of media-stimulated mass calling events as set forth in 6.5.5 following.

(D) Temporary Surrender of a Service

In certain instances, the customer may be requested by MIEAC to surrender a service for purposes other than maintenance, testing or activity relating to a service order. If the customer consents, a credit allowance will be granted. The credit allowance will be 1/1440 of the monthly rate for each period of thirty (30) minutes or fraction thereof that the service is surrendered. In no case will the credit allowance exceed the monthly rate for the service surrendered in any one (1) monthly billing period.

2.4.5 Reserved for Future Use

2.4.6 Title or Ownership Rights

The payment of rates and charges by customers for the services offered under the provisions of this tariff does not assign, confer or transfer title or ownership rights to proposals or facilities developed or utilized, respectively, by MIEAC in the provision of such services.

SWITCHED ACCESS SERVICE

2. General Regulations (Cont'd)

2.4 Payment Arrangements and Credit Allowances (Cont'd)

2.4.7 Rating and Billing of Access Services Provided by MIEAC and SLSPs

MIEAC will handle rating and billing of Access Services under this tariff as follows.

- (A) MIEAC will provide the Switched Transport between MIEAC's Access Tandem and another MIEAC premises set forth in Section 8 following and bill the charges in accordance with its Switched Access Tariff. MIEAC's rates for Switched Transport are as set forth in 6.7.1 following.
- (B) Exchange Telephone Companies, or other SLSPs, will provide the Switched Access Service transport between a MIEAC Toll Transfer Point listed in Section 8. following and the End Office switch (s) served by MIEAC's Access Tandem, and will bill the charges for such transport in accordance with their Access Service tariffs, if applicable. All other appropriate charges in the Exchange Telephone Company, or other SLSP, tariff are applicable.

2.5 Connections

Equipment and Systems (i.e., terminal equipment, multiline terminating systems and communications systems) may be connected with Switched Access Service furnished by MIEAC where such connection is made in accordance with the provisions specified in Technical Reference Publication AS No. 1. Functionally equivalent connections may also be made via technology other than TDM.

SWITCHED ACCESS SERVICE

3. RESERVED FOR FUTURE USE

SWITCHED ACCESS SERVICE

4. RESERVED FOR FUTURE USE

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service**5.1 General**

This section sets forth the regulations and other related charges for Access Orders for Switched Access Service. These charges are in addition to other applicable charges as set forth in other sections of this Tariff.

In the absence of an Access Order, carriers utilizing the access services set forth in this tariff are deemed to have constructively ordered service which shall constitute an agreement by the Customer to purchase the Company's switched access services as described and priced herein.

An Access Order is an order to provide the customer with Switched Access Service or to provide changes to existing services.

5.1.1 Ordering Conditions

Switched Access Service may be ordered from MIEAC between the points of termination set forth in Section 8 following. A customer may order any number of services of the same type, between MIEAC's Access Tandem and a customer point of termination set forth in Section 8 following. Switched Access Service between a customer's premises and the point of termination set forth in Section 8 following is solely the responsibility of the customer and must be provided by the customer or ordered from another carrier. Switched Access Service between a customer's premises and the point of termination set forth in Section 8 following is solely the responsibility of the customer and must be provided by the customer or ordered from another carrier. Switched Access Service from the points of interconnection set forth in Section 8 following to an End Office must be ordered from an Exchange Telephone Company or other local exchange service provider. MIEAC will determine the Switched Transport facilities to be provided between a MIEAC Toll Transfer Point set forth in Section 8 following and MIEAC's Access Tandem on the basis of the capacity ordered.

The customer shall supply all the necessary information to provide service, (e.g., customer name and point of termination location, customer contact and premises location, facility interface, etc.).

Orders for Switched Access Service between MIEAC's Access Tandem and the points of termination set forth in Section 8 following shall be in BHMCs.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.1 General (Cont'd)

5.1.2 Provisions of Other Services

- (A) Testing Service, Additional Labor, Restoration Priority, and other services offered under the provisions of this tariff shall be ordered with an Access Order or as set forth in (B) following or as a Miscellaneous Service Order as specified in Section 5.2.9 following. The rates and charges for these services, as set forth in other sections of this tariff, will apply in addition to the ordering charges set forth in this section and the rates and charges for the Access Service with which they are associated.
- (B) With the agreement of MIEAC, the items listed in (A) preceding may subsequently be added to the order at any time, up to and including the service date for the Access Service. When added subsequently, charges for a design change as set forth in 5.2.3(C) following will apply when an engineering review is required.
- (C) Additional Engineering is not an ordering option, but will be applied to an Access Order when MIEAC determines Additional Engineering is necessary to accommodate a customer request. When Additional Engineering is required, the customer will be so notified and will be furnished with a written statement setting forth the justification for the Additional Engineering as well as an estimate of the charges. If the customer agrees to the Additional Engineering, a firm order will be established. If the customer does not want the service or facilities after being notified that Additional Engineering is required, the order will be withdrawn and no charges will apply. once a firm order has been established, the total charge to the customer for the Additional Engineering may not exceed the estimated amount by more than 10 percent.

The regulations, rates and charges for Additional Engineering are as set forth in Section 13.1 following and are in addition to the regulations, rates and charges specified in this section.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order

An Access Order is used by MIEAC to provide to a customer Access Service as follows:

Switched Access Services as set forth in Section 6 following.

Other Services as set forth in Section 5.1.2 preceding.

5.2.1 Access Order Information

When placing an order for Feature Group D Switched Access Service, the customer shall provide, at a minimum, the following information:

- (A) The customer shall specify the number of busy hour minutes of capacity (BHMC) needed to carry traffic from the End Office to MIEAC's Access Tandem by type of BHMC and Local Transport options and Local Switching options desired. This information is used to determine the number of transmission paths as set forth in Section 6.4.5 following. The basic traffic type must also be specified as described in Section 6.1.1 following, to enable efficient provisioning and billing functions.
- (B) The customer must supply a copy of the order to each SLSP involved in providing the access service.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)**5.2 Access Order (Cont'd)****5.2.1 Access Order Information (Cont'd)**

- (C) The BHMC may be determined by the customer in the following manner. For each average business day (i.e., 8 A.M. to 11 P.M., Monday through Friday, excluding national holidays), the customer shall determine the highest number of minutes of use for a single hour (e.g., 55 minutes in the 10-11 A.M. hour). The customer shall, for the same hour period (i.e., busy hour) for each of twenty (20) consecutive business days, pick the twenty (20) consecutive business days in a calendar year which add up to the largest number of minutes of use. Both originating and terminating, if applicable, minutes shall be included. The customer shall then determine the average busy hour minutes of capacity (i.e., BHMC) by dividing the largest number of minutes of use figure for the same hour period for the consecutive twenty (20) business day period by twenty (20). This computation shall be performed for each End Office the Customer wishes to serve. These determinations thus establish the forecasted BHMC for each End Office.
- (D) When the Customer orders FGD service with the CCSA option described in 6.1.1(E) and 6.1.3(B)(3) following, the customer shall place an access order with Iowa Network, or another SS7, provider for the installation of the Signaling Network Access Connections and provide additional information such as STP Point codes, location identifier codes and circuit identification codes, etc., as required by MIEAC. For FGD ordered with the CCSA option, the customer shall work cooperatively with MIEAC to determine the configuration of SS7 Signaling Network Access Connections required to handle its signaling traffic. MIEAC, in cooperation with Iowa Network, shall have the final authority for managing the joint network and ensuring optimal utilization of the SNACs including link and port facilities.
- (E) For 8YY Access Service, the customer shall order the service in accordance with the preceding provisions set forth for Feature Group D. All 8YY traffic originating from End Offices is routed via the MIEAC Access Tandem.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.2 Access Order Service Date Intervals

Access Service is provided with one of the following Service Date Intervals:

- Standard Interval
- Negotiated Interval

Whether the customer's service is subject to standard or negotiated intervals, MIEAC will provide service interval tables and any associated relevant information to all customers within a reasonable time after a request.

To the extent the Access Service can be made available with reasonable effort, MIEAC will provide the Access Service in accordance with the customer's requested interval, subject to the following conditions:

(A) Standard Interval

The day upon which the customer has provided to MIEAC a firm commitment for the service and sufficient information to allow for the processing of the Access Order is the Application Date. On the Application Date, MIEAC will establish a Service Date. The Service Date is the date on which service is to be made available to the customer. The time required to provision the service (i.e., the interval between the Application Date and the Service Date) is known as the service interval. Standard interval tables and associated information will be provided to customers upon request within a reasonable period of time. Access Services provided in a Standard Interval will be installed during normally scheduled work hours. If a customer requests that installation be done outside of scheduled work hours, and MIEAC agrees to this request, the customer will be subject to applicable Additional Labor Charges as set forth in Section 13.2.6(A) following.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.2 Access Order Service Date Intervals (Cont'd)

(B) Negotiated Interval

The customer may request a service date other than that established pursuant to the standard order service interval guidelines, and MIEAC, where possible, will establish a negotiated order service date in accordance with such request.

MIEAC will negotiate a service date interval with the customer when:

- (1) There is no Standard Interval for the service, or
- (2) The customer requests a service date before or beyond the applicable Standard Interval service date, or
- (3) The quantity of Access Services ordered exceeds the quantities specified in the Standard Intervals.

MIEAC will offer a service date based on the type and quantity of Access Services the customer has requested. The Negotiated Interval may not exceed by more than six (6) months the Standard Interval Service date, or, when there is no Standard Interval, the MIEAC offered service date. All services for which rates are applied on an individual case basis are provided with a Negotiated Interval.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.3 Access Order Modifications

An Access Order may be modified by the customer prior to the service date as set forth following. One or more of the following charges will apply when such modifications are undertaken. When modifications are undertaken, the service date will be changed if necessary to complete the requested modifications with the normal work force assigned to complete such an order in normal work hours. All charges for Access order modifications will apply on a per occurrence basis.

Any increase in the number of busy hour minutes of capacity will be treated as a new Access Order (for the increased amount only).

(A) Service Date Change Charge

Access Order service dates may be changed, but the new service date may not exceed the original service date by more than thirty (30) calendar days. When, for any reason, the customer indicates that service cannot be accepted for a period not to exceed thirty (30) calendar days, and MIEAC accordingly delays the start of service, a Service Date Change Charge will apply. If the customer requested service date is more than thirty (30) calendar days after the original service date, the order will be canceled by MIEAC and reissued with the appropriate cancellation charges applied unless the customer indicates that billing for the service is to commence as set forth in Section 5.2.4(A) following. If MIEAC determines it can accommodate the customer's request without delaying service dates for orders of other customers, a new service date may be established that is prior to the original standard or negotiated interval service date.

 SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)5.2 Access Order (Cont'd)5.2.3 Access Order Modifications (Cont'd)

(A) Service Date Change Charge (Cont'd)

If the service date is changed to an earlier date, and MIEAC determines additional labor or extraordinary costs are necessary to meet the earlier service date requested by the customer, the customer will be notified by MIEAC that Expedited Order Charges as set forth in (D) following apply. Such charges will apply in addition to the Service Date Change Charge.

A Service Date Change Charge will apply, on a per order per occurrence basis, for each service date changed. The applicable charge is:

	<u>Charge</u>
Service Date Change Charge, per order	\$30.00

(B) Partial Cancellation Charge

Any decrease in the number of ordered lines or busy hours minutes of capacity will be treated as a partial cancellation and the charges as set forth in Section 5.2.4(B) following will apply.

 SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)5.2 Access Order (Cont'd)5.2.3 Access Order Modifications (Cont'd)

(C) Design Change Charge

The customer may request a design change to the service ordered. A design change is any change to an Access Order which requires engineering review. An engineering review is a review by MIEAC personnel, of the service ordered and the requested changes to determine what changes in the design, if any, are necessary to meet the changes requested by the customer. Design changes include such things as the addition or deletion of optional features or functions or a change in the type of channel interface, type of Interface Group technical specifications package. Design changes do not include a change of customer point of termination, or End Office Switch. Changes of this nature will require the issuance of a new order and the cancellation of the original order with appropriate cancellation charges applied.

MIEAC will review the requested change, notify the customer whether the change is a design change, if it can be accommodated and if a new service date is required. If the customer authorizes MIEAC to proceed with the design change, a Design Change Charge will apply in addition to the charge for Additional Engineering as set forth in Section 13.1 following. If a change of a service date is required, the Service Date Change Charge as set forth in (A) preceding will also apply. The Design Change Charge will apply on a per order per occurrence basis, for each order requiring a design change. The applicable charge is:

	<u>Rate</u>
Design Change Charge, per order	\$30.00

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.3 Access Order Modifications (Cont'd)

(D) Expedited Order Charge

When placing an Access Order, a customer may request a service date that is prior to the standard interval service date. A customer may also request an earlier service date on a pending standard or negotiated interval Access Order. If MIEAC determines that service can be provided on the requested date and that additional labor costs are required to meet the requested service date, the customer will be notified and will be provided with an estimate of the additional charges involved. Charges will be billed at actual cost, not to exceed 10 percent over estimated charges. Such additional charges will be determined and billed to the customer as follows:

To calculate the additional labor charges, MIEAC will, upon authorization from the customer to incur the additional labor charges, keep track of the additional labor hours used to meet the request of the customer and will bill the customer at the applicable Additional Labor charges as set forth in Section 13.2.6(A) following.

When the request for expediting occurs subsequent to the issuance of the Access order, a Service Date Change Charge as set forth in (A) preceding also applies.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.4 Cancellation of an Access Order

- (A) A customer may cancel an Access Order for the installation of service on any, date prior to the service date. The cancellation date is the date MIEAC receives written or verbal notice from the customer that the order is to be cancelled. The verbal notice must be followed by written confirmation within ten (10) days. If a customer is unable to accept Access Service within thirty (30) calendar days of the original service date, the customer has the choice of the following options:

The Access Order shall be canceled and charges set forth in (B) following will apply, or

Billing for the service will commence.

If no cancellation request is received within the specified thirty (30) calendar days, billing for the service will commence.

In such instances, the cancellation date or the billing date, depending on which option is selected by the customer, shall be the thirty-first (31st) day beyond the original service date of the Access Order.

- (B) When a customer cancels an Access Order for the installation of service, a Cancellation Charge will apply as follows:
- (1) Installation of Switched Access Service facilities is considered to have started when MIEAC incurs any cost in connection therewith or in preparation thereof which would not otherwise have been incurred.
 - (2) Where the customer cancels an Access Order prior to the start of installation of access facilities, no charges shall apply.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.4 Cancellation of an Access Order (Cont'd)

(B) (Cont'd)

(3) where installation of access facilities has been started prior to the cancellation, the charges specified in (a) or (b) following, whichever is lower, shall apply.

(a) A charge equal to the costs incurred in such installation, less estimated net salvage. Such charge is determined as detailed in (4) following.

(b) The charge for the minimum period of Switched Access Service ordered by the customer.

(4) Charges applicable as specified in (3) (a) preceding include the non-recoverable cost of equipment and material ordered, provided or used, plus the nonrecoverable cost of installation and removal including the costs of engineering, labor, supervision, transportation, rights-of way and other associated costs.

(C) When a customer cancels an order for the discontinuance of service, no charges apply for the cancellation.

(D) If MIEAC misses a service date by more than thirty (30) days due to circumstances over which it has direct control (excluding, e.g., acts of God, governmental requirements, work stoppages and civil commotions), the customer may cancel the Access order without incurring cancellation charges.

5.2.5 Selection of Facilities for Access Orders

(A) For all Access Orders, the option to request a specific transmission path is not provided.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.6 Minimum Period

- (A) The minimum period for which Access Service is provided and for which charges are applicable, is one (1) month.
- (B) Administrative Changes as set forth in Section 6.6.1(C) following for Switched Access Service may be made without a change in minimum period requirements.
- (C) Changes other than those identified in Section 6.6.1(C) following will be treated as a discontinuance of the existing service and an installation of a new service. All associated nonrecurring charges will apply for the new service. A new minimum period will be established for the new service. The customer will also remain responsible for all outstanding minimum period obligations associated with the disconnected service.

The changes listed below are those which will be treated as a discontinuance and installation of service and for which a new minimum period will be established.

- (1) A change in type of service (e.g., TDM to SIP).
- (2) A change in the service to reconfigure trunks to add or discontinue SS7 signaling capability.

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.2 Access Order (Cont'd)

5.2.7 Minimum Period Charges

When Access Service is disconnected prior to the expiration of the minimum period, charges are applicable for the balance of the minimum period. A disconnect constitutes facilities being returned to available inventory.

The Minimum Period Charge for monthly billed services will be determined as follows:

- (A) For Switched Access Service, the charge for a month or fraction thereof is equal to the applicable recurring charges plus any nonrecurring charge(s) that may be due.

5.2.8 Access Order Charge

Access Order Charge, per order \$89.00

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)**5.2 Access Order (Cont'd)****5.2.9 Miscellaneous Service Order Charge**

The Miscellaneous Service Order Charge is an administrative charge designed to compensate for the expenses associated with service order issuance.

The charge always applies to the following services since a pending service order would not exist: Overtime Repair (13.2.2), Stand-by Repair (13.2.3), Testing and Maintenance with Other Telephone Companies other than when in conjunction with Acceptance Testing (13.2.4), Other Labor (13.2.5) and Maintenance of Service (13.3.1).

The charge does not apply to the following services since there would exist a pending service order: Additional Engineering (13.1), Overtime Installation (13.2.1), Stand-by Acceptance Testing (13.2.3), Testing and Maintenance with Exchange Telephone Companies when in conjunction with Acceptance Testing (13.2.4), and Additional Cooperative Acceptance Testing [13.3.2(A)(1) and 13.3.2 (B)(1)]

This charge is as follows:

Miscellaneous Service Order Charge, Per occurrence	\$30.00
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SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)

5.3 Available Inventory

Available inventory is limited and does not include facilities used to provide working service or facilities previously ordered, reserved for pending orders or held as maintenance spares. Available inventory is the MIEAC facilities (e.g., loop pairs, interoffice pairs, carrier channels, circuit equipment, trunk equipment, and switching equipment) in place, when the customer places an order, or under construction to be ready to meet future customer orders. The available date for facilities under construction is the date such facility construction is completed, including line up and testing, and made available to meet customer needs. MIEAC will make every reasonable effort to maintain sufficient available inventory to provide Switched Access Service in accordance with customers' requested service date intervals. To the extent that service can be provided, Access Orders will be satisfied from available inventory

SWITCHED ACCESS SERVICE

5. Ordering Options for Switched Access Service (Cont'd)**5.4 Access Orders for Services Provided by MIEAC and Exchange Telephone Companies**

- (A) Access Services provided by MIEAC and Exchange Telephone Companies are services where one end of the Transport element is in the operating territory of an Exchange Telephone Company, or other SLSP, and the other end is on MIEAC premises. MIEAC provides a portion of the Transport element between the Exchange Telephone Company's, or other SLSP's, point of interconnection and the customer's point of termination listed in Section 8 following. MIEAC will coordinate and arrange for the provision of the services ordered. In addition to the Switched Transport rates billed by MIEAC as set forth in Section 6 following, each Exchange Telephone Company or other SLSP will provide the portion of the Transport element in its operating territory and will bill its charges in accordance with its tariff, if applicable.
- (1) When Switched Access Services are ordered to MIEAC's Access Tandem, the customer will place the order with MIEAC. The customer must also supply a copy of the order to each Exchange Telephone Company or other SLSP involved in providing the service and subtending MIEAC's Access Tandem.
 - (2) When Switched Access Services are ordered to a point of termination listed in Section 8 following other than MIEAC's Access Tandem, the customer will place the order as follows:
 - (a) For Feature Group D Switched Access Service, the Customer must place the order with the Exchange Telephone Company, or other SLSP, in whose territory the End Office is located. The Customer must also supply a copy of the order to MIEAC.
 - (3) For the Switched Access Services ordered set forth in (1) and (2) preceding, the Customer must also supply a copy of the order to the Exchange Telephone Company or other SLSP in whose territory a Customer premises is located and any other Exchange Telephone Company or other SLSP involved in providing the service.

SWITCHED ACCESS SERVICE

6. Switched Access Service**6.1 General**

Switched Access Service, when combined with the services offered by Exchange Telephone Companies, is available to customers. MIEAC provides a two-way communications path between a point of interconnection with the transmission facilities of an Exchange Telephone Company or other SLSP at a location listed in Section 8 following and MIEAC's Access Tandem where the customer's traffic is switched to originate or terminate its communications. It also provides for the switching facilities at MIEAC's Access Tandem. MIEAC's Access Tandem is MIEAC's switching system located in Plymouth and Minneapolis, Minnesota, that provides a concentration and distribution function for originating and terminating traffic between the End Offices and a customer's Point of Termination located at a MIEAC Toll Transfer Point as set forth in section 8 following. Customers may, at their option, choose to terminate all or a portion of their traffic through the use of Access Service providers other than MIEAC. The customer's point of termination is the demarcation point or network interface between MIEAC's communications facilities and customer provided facilities. Functions provided by the Company as part of transmitting telecommunications between designated points using, in whole or in part, technology other than TDM transmission in a manner that is comparable to a service offered by an incumbent local exchange carrier constitutes the functional equivalent of switched access service.

Rates and charges for Switched Access Service are set forth in Section 6.7 following. The application of rates for Switched Access Service is described in Section 6.6 following.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)**6.1 General (Cont'd)****6.1.1 Manner of Provision****(A) Feature Group D (FGD)**

FGD Access, which is available to all customers, provides trunk side access at a customer's point of termination with an associated uniform 101XXX access code for the customers use in originating and terminating communications, unless the End Office is unable to provide a uniform 101XXX code.

(B) Joint Provision of Common Channel Signaling Access (CCSA)

CCSA is a nonchargeable optional feature available with FGD access service. CCSA allows the customer to establish a connection with the Iowa Network/MIEAC jointly operated CCSAN at the Signaling Points of Interconnection (SPOIs) in the Des Moines, Iowa metropolitan area and Minneapolis/St. Paul, Minnesota metropolitan area for transporting call control information. Transmission specifications, diversity requirements, and testing parameters are set forth in Technical Reference TR-TSV-000905 and TR-TSV-000954.

An STP in Des Moines, Iowa will be owned and operated by Iowa Network, for CCSA in Iowa while an STP-in Plymouth, Minnesota will be owned and operated by MIEAC for CCSA in Minnesota. However, Iowa Network and MIEAC will cooperate to provide redundancy to their respective CCSA networks. Iowa Network and MIEAC will jointly provide the SNACs which include the ports on Iowa Network and MIEAC STPs and the link facilities between the STPs.

The CCSAN consists of a mated pair of STPs which operate completely parallel to each other, a pair of diverse facilities connecting the STPs, and access links to each of the local telephone company SP/SSPs from each STP. This configuration ensures network reliability by providing geographic diversity and redundancy of signal switching and transport.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)**6.1 General (Cont'd)****6.1.1 Manner of Provision (Cont'd)****(B) Joint Provision of Common Channel Signaling Access (CCSA) (Cont'd)**

Iowa Network will provide the signaling facilities between the Iowa Network subtending End Offices and the Des Moines, Iowa STP. MIEAC will provide the signaling facilities between the MIEAC subtending End Offices and the Plymouth, Minnesota STP. The interstate facilities connecting the two STPs will be jointly provided by Iowa Network and MIEAC. The access link to the MIEAC STP from the Iowa Network subtending End Office is provided by Iowa Network to the Access Tandem and then jointly by Iowa Network and MIEAC to the MIEAC STP. Likewise, the access link to the Iowa Network STP from the MIEAC SLSPs is provided over MIEAC facilities to the MIEAC Access Tandem, and then over jointly provided facilities to the Iowa Network STP.

The interexchange carrier is responsible for the signaling facilities from the interexchange carrier's STPs, which shall consist of a quad (4) of 56 Kbps links, to the SPOIs on the Iowa Network/MIEAC SS7 network. Iowa Network and MIEAC will each provide a pair of Signaling Network Access Connections (SNACs) which includes any facilities required between the Iowa Network/MIEAC STPs and the interexchange carrier SPOIs and the ports on the mated STPs. An interexchange carrier who wishes to connect a single SP or SSP to the CCSAN may do so by providing a pair of 56 Kbps links, one to a SPOI in Des Moines, and one to a SPOI in Minneapolis/St. Paul, and Iowa Network and MIEAC will provide the corresponding SNACs.

The use of the SNAC and the STP Port will be bidirectional in that SS7 message sequences may be originated from either the Customer's network or from the MIEAC network. The message sequences initiated from the MIEAC network may include ISDN User Part (ISUP) messages, Transaction Capabilities Application Part (TCAP) messages in support of functions such as 8YY Database queries and Line Information Data Base (LIDB) queries, and other messages in support of services for which the networks of both the Customer and MIEAC are used.

SWITCHED ACCESS SERVICE

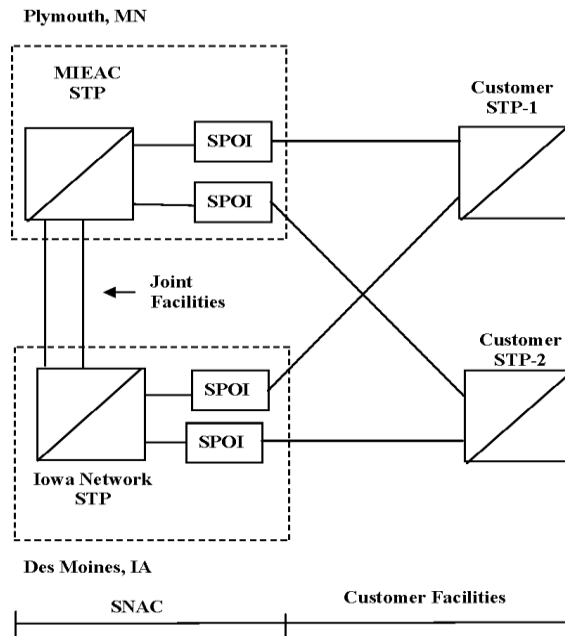
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.1 Manner of Provision (Cont'd)

(B) Joint Provision of Common Channel Signaling Access (CCSA) (Cont'd)

The following diagram illustrates how the Iowa Network/MIEAC SS7 network will interconnect with the customer's SS7 network, independent of the voice (CEA) communications trunks.



SNAC - Signaling Network Access Connection
SPOI - Signaling Point of Interconnection
STP - Signal Transfer Point

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.1 Manner of Provision (Cont'd)

(C) 8YY Access Service

8YY Access Service is an originating service that is provided in conjunction with FGD. The service provides for the forwarding of end user dialed 8YY calls from the SLSP to the customer based on the Carrier Identification Code (CIC) received from the 8YY data base.

The per access minute rate that applies for 8YY (Toll-Free) traffic is the same rate for Originating Switched Transport as referenced in Section 6.7.1. In addition, an 8YY query charge will apply when MIEAC initiates the 8YY query on behalf of the customer.

A more detailed description of 8YY Access Service is as set forth in 6.1.3 (D).

(D) Manner of Provision

Switched Access is furnished in busy hour minutes of capacity (BHMCs) for FGD access. MIEAC will determine the Switched Transport facilities to be provided on the basis of the busy hour minutes of capacity ordered as set forth in Section 5.2 preceding. Switched Access is furnished in trunks between the customer's premises and the points of termination set forth in Section 8 following.

BHMCs are differentiated by type and directionality of traffic carried over a Switched Access Service arrangement. Differentiation of traffic among BHMC types is necessary for MIEAC to properly design Switched Access Service to meet the traffic carrying capacity requirement of the customer.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.1 Manner of Provision (Cont'd)

(D) Manner of Provision (Cont'd)

There are two major BHMC categories identified as: Originating, and Terminating. Originating BHMCs represent access capacity for carrying traffic from the end user to a customer's point of termination. Terminating BHMCs represent access capacity for carrying traffic from a customer's point of termination to the end user. When ordering capacity for Switched Access Service, the customer must at a minimum specify such access capacity in terms of originating BHMCs and Terminating BHMCs.

Because some customers will wish to further segregate their originating traffic into separate trunk groups, Originating BHMCs are further categorized into Domestic, 8YY, 9XX, operator assisted and IDDD. Domestic BHMCs represent access capacity for carrying only domestic traffic other than 8YY and 900 traffic; operator assisted BHMCs represent access capacity for carrying traffic originated by dialing 110+11; IDDD BHMCs represent access capacity for carrying only international traffic; and, 8YY and 9XX BHMCs represent access capacity for carrying, respectively, only 8YY and 9XX traffic. When ordering such types of access capacity, the customer must specify Domestic, 8YY, 9XX, operator assisted or IDDD BHMCs.

6.1.2 Ordering Options and Conditions

Switched Access Service is ordered under the Access Order provisions set forth in Section 5 preceding. Also included in that section are other charges which may be associated with ordering Switched Access Service (e.g., Service Date Charges, Cancellation Charges, etc.).

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories

There are four rate categories which apply to the provision of Switched Access Service:

Switched Transport (described in Section 6.1.3(A) following)

Non-chargeable Optional Features (described in 6.1.3(B) following)

Common Channel Signaling Service (described in Section 6.1.3(C) following)

8YY Database Query Service (described in Section 6.1.3(D) following)

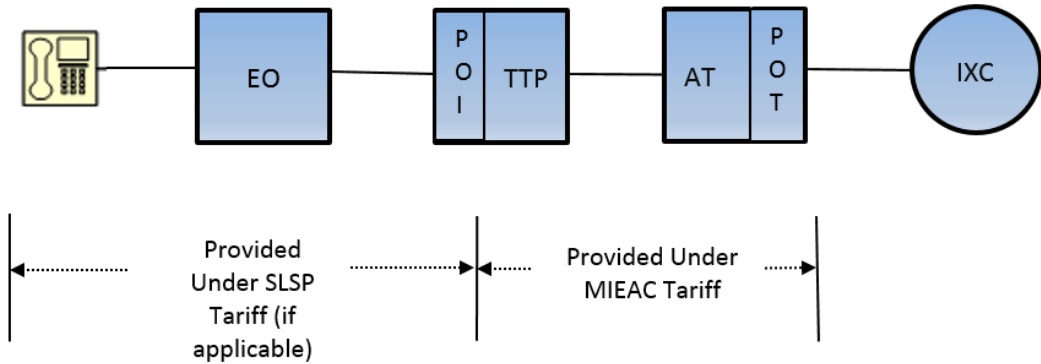
The following diagram depicts a generic view of how Switched Access Service is combined with the service of the SLSPs to provide a complete Switched Access Service.

SWITCHED ACCESS SERVICE

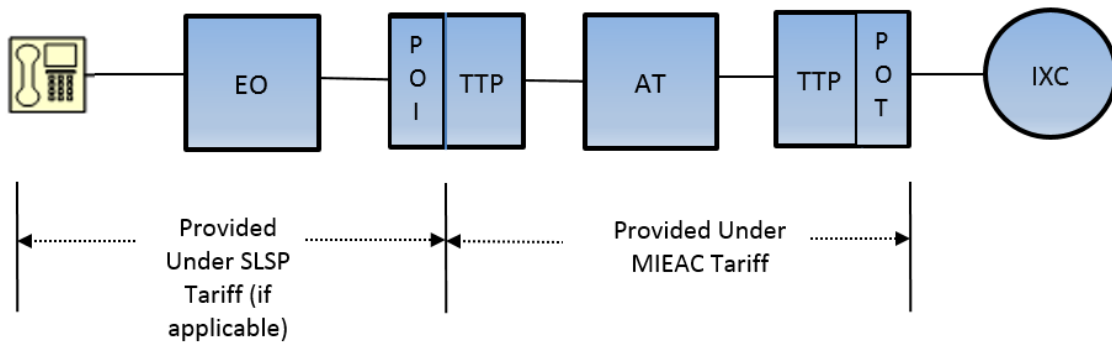
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)



Or



Note: The POI TTP and the POT TTP as shown in this diagram may be the same TTP or different TTPs.

- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)**6.1 General (Cont'd)****6.1.3 Rate Categories (Cont'd)****(A) Switched Transport**

Switched Transport provides for a High Capacity frequency transmission path composed of facilities determined by MIEAC. The two-way frequency transmission path permits the transport of calls from MIEAC's Access Tandem to a MIEAC Toll Transfer Point listed in Section 8 following and from such MIEAC Toll Transfer Point to MIEAC's Access Tandem. Switched Transport functions include, when required, transport facilities, transport terminations, channel multiplexing, tandem switching, and centralized equal access PIC lookup.

Switched Transport is provided by MIEAC at a customer's point of termination. A customer's point of termination may be located at MIEAC's Access Tandem or at MIEAC's Toll Transfer Points as set forth in Section 8 following.

Exchange Telephone Company or other SLSP services provide connection between the End Offices, or End Office equivalents, and MIEAC's Toll Transfer Points under existing Exchange Telephone Company, or other SLSP, access service tariffs, if applicable, as in effect from time to time.

Switched Transport is composed of the following rate elements, the rates for which are set forth in Section 6.7: Originating Switched Transport and Terminating Switched Transport (both rates are a combination of Transport and Tandem Switching).

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

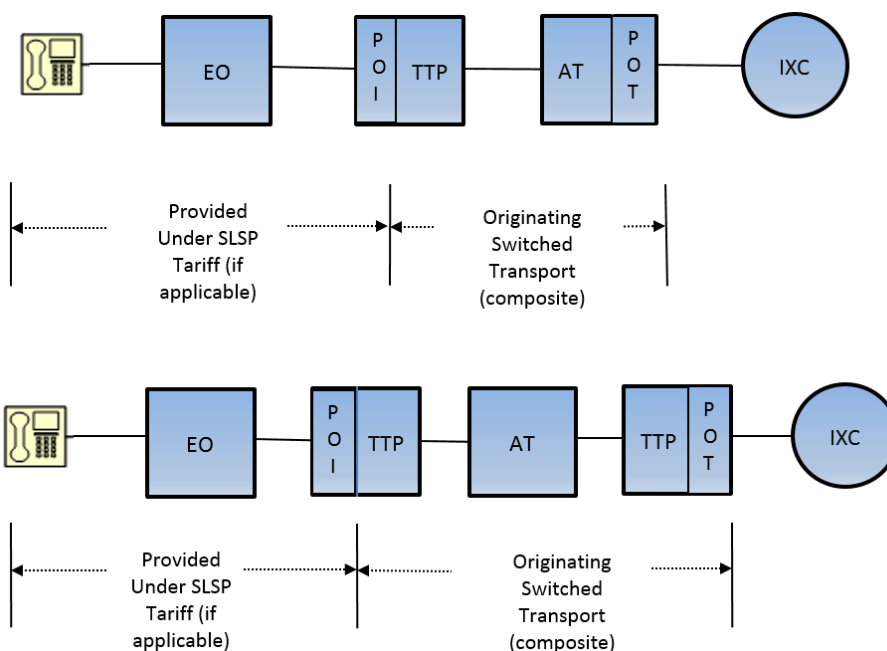
6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

When a customer's Point of Termination is at a MIEAC Access Tandem or a MIEAC TTP and the call is originated from an End Office, or End Office equivalent, the Originating Switched Transport composite rate element applies per access minute for all originating traffic. This application of the Originating Switched Transport rate element is shown in the following diagrams:

Non-8YY Originating



- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

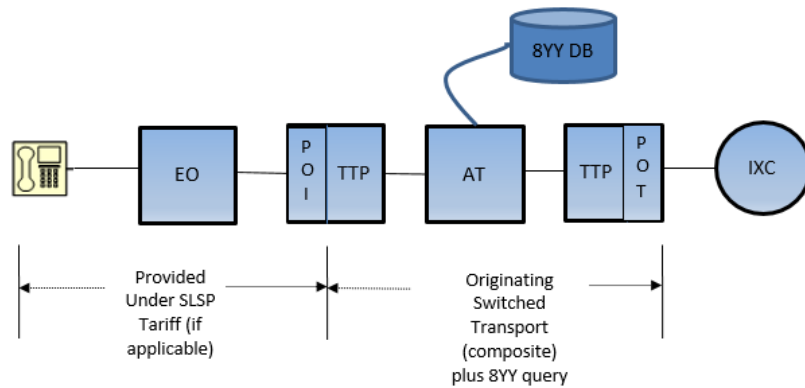
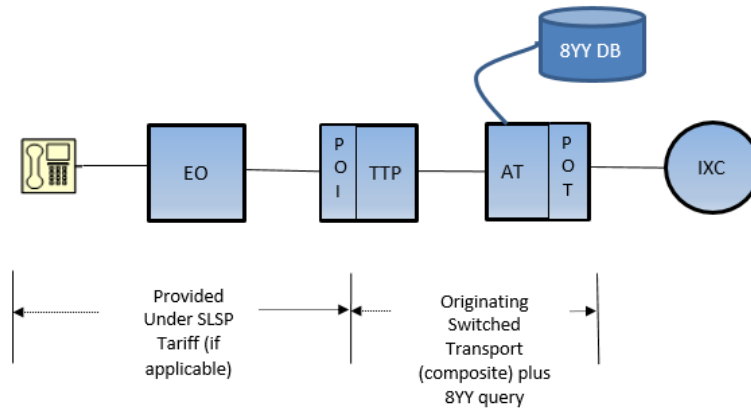
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

8YY Originating



- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

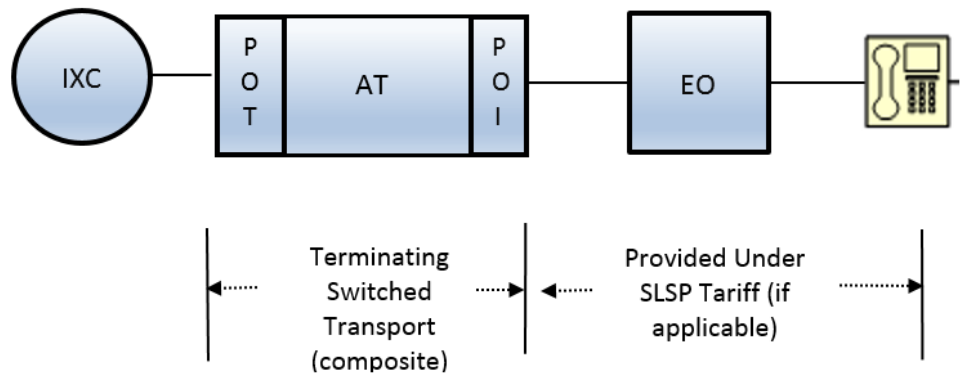
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

When a customer's Point of Termination is at a MIEAC Access Tandem and the call is terminating to an End Office with a Point of Interconnection at a MIEAC Access Tandem, the Terminating Switched Transport rate element applies per access minute. The application of this rate element is shown in the following diagram:



- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

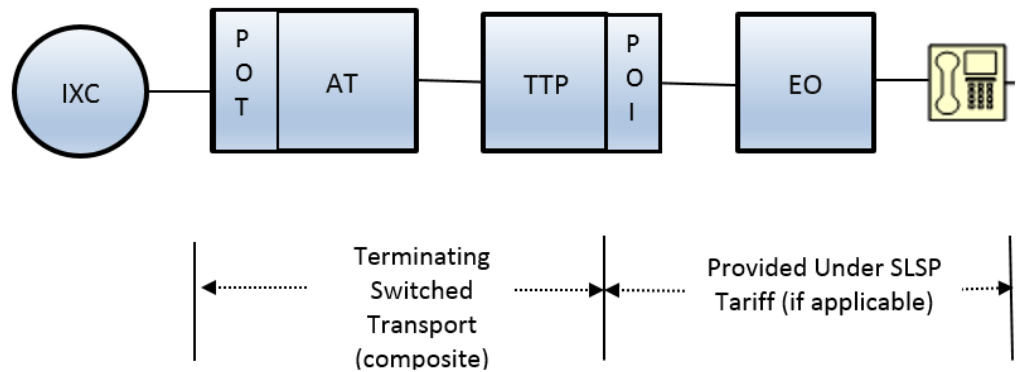
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

When a customer's Point of Termination is at a MIEAC Access Tandem and the call is terminating to an End Office with a Point of Interconnection other than a MIEAC Access Tandem, the Terminating Switched Transport rate element applies per access minute. The application of this rate element is shown in the following diagram:



- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

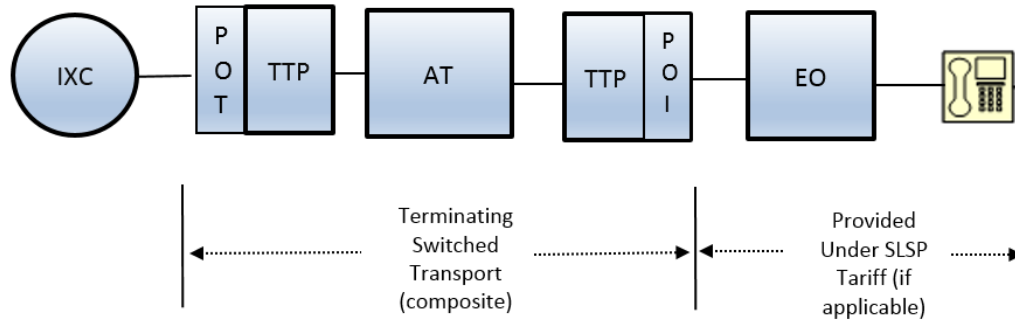
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

When a customer's Point of Termination is at a TTP other than a MIEAC Access Tandem and the call is terminating to an End Office with a Point of Interconnection other than a MIEAC Access Tandem, the Terminating Switched Transport rate element applies per access minute. The application of this rate element is shown in the following diagram:



- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

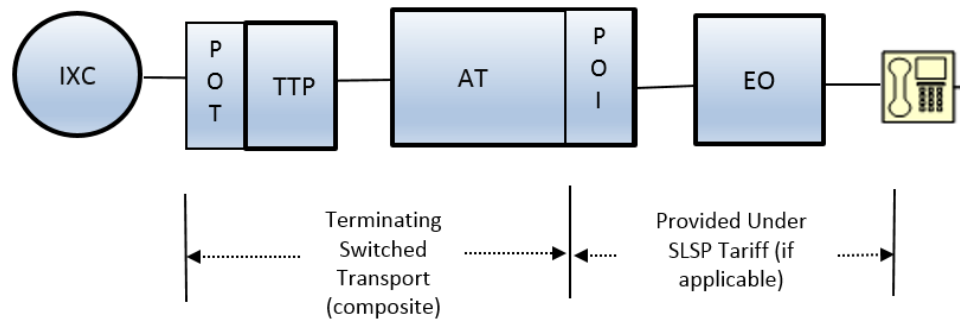
6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

When a customer's Point of Termination is at a TTP other than a MIEAC Access Tandem and the call is terminating to an End Office with a Point of Interconnection at a MIEAC Access Tandem, the Terminating Switched Transport rate element applies per access minute. The application of this rate element is shown in the following diagram:



- AT - MIEAC's Access Tandem
- EO - End Office
- IXC - Interexchange Carrier
- POI - Point of Interconnection
- POT - Point of Termination
- TTP - Toll Transfer Point

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(A) Switched Transport (Cont'd)

International dialing may be provided as a capability associated with Feature Group D. International dialing provides the capability of switching international calls with service prefix and address codes having more digits than are capable of being switched through standard FGD equipment.

Switched Transport is assessed on a per access minute basis at the rate set forth in Section 6.7.1 following.

(B) Nonchargeable Optional Features

Where transmission facilities permit, MIEAC will, at the option of the customer, provide the following nonchargeable optional features in association with Switched Transport.

(1) Joint Provision of Common Channel Signaling Access (CCSA)

There are no recurring charges for this feature. If the customer requests MIEAC to reconfigure FGD service within band signaling to provide FGD service with the CCSA option, the request will be treated as a discontinuance of existing service and the installation of a new and the installation charges set forth in 6.6.1(C) (1) following will apply on a per SNAC basis.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(C) Common Channel Signaling Service

Common Channel Signaling (CCS) is a protocol suite that allows for out-of-band signaling for voice and data message services. Signaling System Seven (SS7) is currently a widely deployed CCS protocol. The Company's CCS network is a digital data network carrying signaling information, which interfaces with the voice/data network. To ensure network reliability, Signal Transfer Points (STPs) are deployed in geographically dispersed mated pairs. STP access requires interconnection to ports of both STPs of the mated pair.

The STP provides translations and routing functions for SS7 signaling messages received from the Company's network signaling points and the SS7 networks of other entities. There are two types of signaling messages. ISDN User Part (ISUP) messages are used for call set-up. This type of signaling allows a customer to send originating and terminating call set-up signaling information between the customer's designated premises, the Company's STP and other entities. The second type of signaling is Transaction Capabilities Application Part (TCAP) messages. TCAP messages are used to carry information between signaling points for call related databases.

(1) B-Link Interconnection Service

Bridging Links (B-Links) service describes the Customer provided quad (4) links that connect peer pairs of STPs. These links carry signaling messages beyond their initial point of entry to a STP of another SS7 network. The Company's charges consist of charges for B-Link Interconnection service consist of a monthly STP port charge as set forth in Section 6.7.2.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.3 Rate Categories (Cont'd)

(C) Common Channel Signaling Service (Cont'd)

(2) Connectivity Link

The customer must have connectivity to the Company's STP. To connect to the Company STP through a port, the customer must provide a telecommunications facility or link that provides a bi-directional transmission and operates at a DSO level. This link is utilized exclusively for connecting the customer's CCS network and the Company's CCS network for the transmission of network control signaling data.

(D) 8YY Database Query Service

An 8YY query charge will apply when MIEAC initiates an 8YY query on behalf of the customer.

6.1.4 Design Layout Report

At the request of the customer, MIEAC will provide to the customer the makeup of the facilities and services provided. This information will be provided in the form of a Design Layout Report. The Design Layout Report will be provided to the customer at no charge, and will be reissued or updated whenever these facilities are materially changed.

6.1.5 Acceptance Testing

At no additional charge, MIEAC will, at the customer's request, cooperatively test, at the time service is initiated, the following parameters: loss, C-notched noise, C-message noise, 3-tone slope, d.c. continuity and operational signaling.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.1 General (Cont'd)

6.1.6 Routine Testing

At no additional charge, MIEAC will, at the customer's request, test after installation on an automatic or manual basis, 1004 Hz loss, C-message noise and Balance (Return Loss).

In the case of automatic testing, the customer shall provide remote office test lines and 105 test lines with associated responders or their functional equivalent.

The frequency of these tests will be that which is mutually agreed upon by the customer and MIEAC, but shall consist of not less than quarterly 1004 Hz Loss and C-message noise tests and an annual Balance test. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on an as-occurs basis.

Additional tests may be ordered as set forth in Section 13.3.2 following. Charges for these additional tests are set forth in Section 13.3.2(C) following.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.2 Provision and Description of Switched Access Service Feature Group

Switched Access Service is provided as a Feature Group D arrangement. The provision of Feature Group D requires Switched Transport facilities.

There are two (2) specific transmission performances (i.e., Types A and B) that have been identified for the provision of Feature Group D. The parameters for the transmission specifications are set forth in Sections 6.3 and 15.2.1 following.

Feature Group D is arranged with Switched Access Service for originating, terminating or two-way calling. Originating calling permits the delivery of calls from Exchange Telephone Company, or other SLSP, locations to the customer's point of termination. Terminating calling permits the delivery of calls from the customer's point of termination to Exchange Telephone Company, or other SLPS, locations. Two-way calling permits the delivery of calls in both directions, but not simultaneously.

Following is a detailed description of Feature Group D. Feature Group D is described in terms of its specific physical characteristics and calling patterns, the transmission specifications with which it is provided, and the standard testing capabilities. Common Channel Signaling Access is also available in conjunction with FGD.

6.2.1 Feature-Group D (FGD)

(A) Description

- (1) FGD is provided at MIEAC's Access Tandem.
- (2) FGD is provided as trunk side switching through the use of Access Tandem switch trunk equipment at MIEAC's Access Tandem.
- (3) Basic FGD service will be provided with SS7 signaling.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.2 Provision and Description of Switched Access Service Feature Group (Cont'd)

6.2.1 Feature Group D (FGD)

(A) Description (Cont'd)

- (4) FGD switching, when used in the terminating direction, may be used to access valid NXXs in the LATA, time or weather announcement services of a SLSP, community information services of an information service provider, and other customers' services (by dialing the appropriate codes) when such services can be reached using valid NXX codes. Only those valid NXX codes served by End Office switches subtending MIEAC Access Tandem may be accessed.

The customer will also be billed additional non-access charges for calls to certain community information services, for which rates are applicable, e.g., 976 (DIAL-IT) Network Services. Additionally, non-access charges will also be billed for calls from a FGD trunk to another customer's service in accordance with that customer's applicable service rates when MIEAC performs the billing function for that customer.

Calls in the terminating direction will not be completed to 950-0XXX or 950-1XXX access codes, Emergency 911, Service Maintenance 611, Directory Assistance (411 or 555), local operator assistance (0- and 0+), and 101XXXX access codes.

The customer will also be billed access charges by Exchange Telephone Companies for the provision of access service between a MIEAC Toll Transfer Point listed in Section 8 following and the End Offices served by MIEAC's Access Tandem.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.2 Provision and Description of - Switched Access Service Feature Groups (Cont'd)

6.2.1 Feature Group D (FGD) (Cont'd)

(A) Description (Cont'd)

- (5) FGD switching will be arranged to accept calls from telephone exchange service locations without the need for dialing the 101XXXX uniform access code. Each telephone exchange service line may be marked with a code to identify which interexchange carrier code its calls will be directed to for interLATA and intraLATA service. The access code for FGD switching is a uniform access code of the form 101XXXX, unless an End Office switch is unable to provide a uniform 101XXXX code. A single access code will be the assigned number of all FGD access provided to the customer by MIEAC.

No access code is required for calls to a customer over FGD Switched Access Service if the end user's telephone exchange service is arranged for presubscription to that customer.

Where no access code is required, the number dialed by the end user shall be a seven (7) to ten (10) digit number, where appropriate, for calls in the North American Numbering Plan (NANP). The form of the numbers dialed by the end user is NXX-XXXX, 0+ or 1 + NXX-XXXX, NPA+NXXXXXX, 0+ or 1+ NPA+NXX-XXXX, and for International Direct Distance Dialing (IDDD), 01 + CC + NN or 011 + CC + NN.

When the 10XXXX access code is used, FGD switching also provides for dialing the digit 0 (zero) for access to the customer's operator, or the end-of-dialing digit (#) for cut-through access to the customer's premises, or 911 for access to the emergency reporting service of an SLSP.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.2 Provision and Description of Switched Access Service Feature Group (Cont'd)

6.2.1 Feature Group D (FGD) (Cont'd)

(A) Description (Cont'd)

- (6) Unless prohibited by technical limitations, the customer's 8YY traffic may, at the option of the customer, be combined in the same trunk group arrangement with the customer's other traffic. When required by technical limitations, or at the request of the customer, a separate trunk group will be established for 8YY traffic.
- (7) 8YY Access Service is an originating service utilizing Trunkside Access which provides for the forwarding of end user dialed 8YY calls to a customer based on the Carrier Identification Code (CIC) received from the 8YY Data base operator. 8YY Access Service provides the customer with 8YY call origination in all End Offices.

Measurement of 8YY Access Service usage shall be in accordance with the regulation set forth in 6.6.3 following, for Trunkside Access. Specifically, 8YY Access Service usage on combined or dedicated trunk groups shall be measured in the same manner as specified for non-8YY Access Service usage over Trunkside Access.

MIEAC must be notified twenty-four (24) hours prior to any media stimulation. MIEAC maintains the right to apply protective controls, i.e., those actions such as call gapping, to ensure the provisioning of acceptable service to all telecommunications users of MIEAC's network services.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.2 Provision and Description of Switched Access Service Feature Group (Cont'd)

6.2.1 Feature Group D (FGD) (Cont'd)

(B) Transmission Performance

FGD is provided with Type A Transmission Specifications.

Type DA Data Transmission Parameters are provided for the transmission path between the customer's premises and the Access Tandem and between the Access Tandem and the End Office.

(C) Testing Capabilities

FGD is provided, in the terminating direction where equipment is available, with seven (7) digit access to balance (100 type) test line, Milliwatt (102 type) test line, nonsynchronous or synchronous test line, automatic transmission measuring (105 type) test line, loop around test line, short circuit test line and open circuit test line. in addition to the tests described in Section 6.1.5 preceding which are included with the installation of service, Additional Cooperative Acceptance

Testing and Additional Automatic Testing will be provided for FGD as set forth in Section 13.3.2 following.

When FGD is ordered with the CCSA option, network compatibility and other operational tests will be performed cooperatively with Iowa Network, MIEAC, and the customer at locations, dates, and times as specified by MIEAC in consultation with the customer. These tests, as specified in TR-TSV-000905, must be successfully completed in order to receive the CCSA option.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)**6.3 Transmission Specifications**

Each Switched Access Service transmission path is provided with standard transmission specifications. There are two different standard specifications (Types A and B). The available transmission specifications are set forth in Section 15.2 following. Data Transmission Parameters are also provided with the Switched Access Service transmission path. MIEAC will, upon notification by the customer that the data parameters set forth in Section 15.2.1 are not being met, conduct tests independently or in cooperation with the customer, and take any necessary action to insure that the data parameters are met.

All service configurations operated by MIEAC after the effective date of this tariff will conform to the transmission specifications contained in this tariff.

The transmission specifications contained in this Section are immediate action limits. Acceptance limits are set forth in Technical Reference TR-NWT-000334. This Technical Reference also provides the basis for determining Switched Access Service maintenance limits.

6.3.1 Interface Groups

One Interface Group is provided for terminating the Switched Transport at the customer's point of termination: Interface Group 6.

Interface Group 6 is provided with Type A or B Transmission Specifications. All Interface Groups are provided with Data Transmission Parameters.

Only certain interfaces are available at the customer's point of termination. The various interfaces which are available are set forth in Sections 15.1.1.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.4 Obligations of MIEAC

In addition to the obligations of MIEAC set forth in Section 2 preceding, MIEAC has certain other obligations pertaining only to the provision of Switched Access Service. These obligations are as follows:

6.4.1 Network Management

MIEAC will administer its network to ensure the provision of acceptable service levels to all telecommunications users of MIEAC services. MIEAC maintains the right to apply protective controls, i.e., those actions, such as call gapping, which selectively cancel the completion of traffic, over any traffic carried over its network, including that associated with a customer's Switched Access Service. Generally, such protective measure would only be taken as a result of occurrences such as failure or overload of MIEAC or customer facilities, natural disasters, mass calling or national security demands. In the event that the protective controls applied by MIEAC result in the complete loss of service by the customer, the customer will be granted a Credit Allowance for Service Interruption as set forth in Section 2.4.4(B)(1) preceding.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)**6.4 Obligations of MIEAC (Cont'd)****6.4.2 Design and Traffic Routing of Switched Access Service**

In the originating direction, when a customer's point of termination is located at MIEAC's Access Tandem, MIEAC shall design and determine the routing of Switched Access Service and the selection of facilities from MIEAC's Access Tandem to the Toll Transfer Point connected to End Offices serving the customers. In the originating direction, when a customer's point of termination is located at a MIEAC Toll Transfer Point listed in Section 8 following, MIEAC shall design and determine the routing of Switched Access Service and the selection of facilities from that Toll Transfer Point to MIEAC's Access Tandem and the End Offices serving the customer. For Feature Group D, MIEAC's Access Tandem will always be the first point of switching.

At the option of the customer, MIEAC will provide terminating Switched Access Services. In the terminating direction, when a customer's point of termination is located at the MIEAC Access Tandem, MIEAC shall design the routing of Switched Access Service and select the facilities from MIEAC's Access Tandem to the End Offices. Also in the terminating direction, when a customer's point of termination is located at a Toll Transfer Point listed in Section 8 following, MIEAC shall design the routing of Switched Access Service and select the facilities from that Toll Transfer Point to MIEAC's Access Tandem.

MIEAC shall also decide if capacity is to be provided by originating only, terminating only, or two-way trunk groups.

Finally, MIEAC will decide whether trunk side access will be provided through the use of two-wire or four-wire trunk (or equivalent) terminating equipment. Selection of facilities and equipment and traffic routing of the service are based on standard engineering methods, available facilities and equipment, and the MIEAC traffic routing plans.

If the customer desires routing or directionality different from that determined by MIEAC, MIEAC will work cooperatively with the customer in determining the directionality of the service.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.4 Obligations of MIEAC (Cont'd)

6.4.3 Provision of Service Performance Data

Subject to availability, end-to-end service performance data available to MIEAC through its own service evaluation routines, may also be made available to the customer based on previously arranged intervals and format. These data provide information on overall end-to-end call completion and noncompletion performance, e.g., customer equipment blockage, failure results and transmission performance. These data do not include service performance data which are provided under other tariff sections, e.g., testing service results. If data are to be provided in other than paper format, the charges for such exchange will be determined on an individual case basis.

6.4.4 Trunk Group Measurement Reports

Subject to availability, MIEAC will make available trunk group data in the form of usage in CCS, peg count and overflow, to the customer based on previously agreed to intervals.

6.4.5 Determination of Number of Transmission Paths

MIEAC will determine the number of Switched Access Service transmission paths to be provided. A transmission path is a derived communication path of a frequency bandwidth of approximately 300 Hz to 3000 Hz provided over a high speed digital facility between a customer's point of termination listed in Section 8 following and MIEAC's Access Tandem. The number of transmission paths will be developed using the total busy hour minutes of capacity by type (as described in Section 6.1.1(D) preceding). The total busy hour minutes of capacity by type for Feature Group D will be converted to transmission paths using standard traffic engineering methods.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.4 Obligations of MIEAC (Cont'd)

6.4.6 Design Blocking Probability

MIEAC will design the facilities used in the provision of Switched Access Service to meet the blocking probability criteria as set forth below.

- (A) For Feature Group D, the design blocking objective will be no greater than one percent (1%) between the customer's point of termination set forth in Section 8 following and MIEAC's Access Tandem. Standard traffic engineering methods as set forth in reference document Telecommunications Transmission Engineering - Volume 3 - Networks and Services (Chapters 6-7) will be used by MIEAC to determine the number of transmission paths required to achieve this level of blocking.
- (B) MIEAC will perform routine measurement functions to assure that an adequate number of transmission paths are in service. MIEAC will recommend that additional busy hour minutes of capacity be ordered by the customer when additional paths are required to reduce the measured blocking to the design blocking level. For the capacity ordered, the design blocking objective is assumed to have been met if the routine measurements show that the measured blocking does not exceed the threshold listed in the following table.

Number of Transmission Paths Per Trunk Group	Measured Blocking Thresholds in the Time Consistent Busy Hour for the Number of Average Business Day Measurements Per Trunk Group			
	15-20 Measurements	11-14 Measurements	7-10 Measurements	3-6 Measurements
2	.045	.055	.060	.095
3	.035	.040	.045	.060
4	.035	.040	.045	.055
5-6	.025	.035	.040	.045
7 or more	.020	.025	.030	.040

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.5 Obligations of the Customer

In addition to the obligations of the customer set forth in Section 2 preceding, the customer has certain specific obligations pertaining to the use of Switched Access Service. These obligations are as follows:

6.5.1 Jurisdictional Report Requirements

When a customer orders Switched Access Service for both interstate and intrastate use, the customer is responsible for providing reports as set forth in Section 2.3.10 preceding. Charges will be apportioned in accordance with those reports. The method to be used for determining the interstate charges is set forth in Section 2.3.11 preceding.

6.5.2 Supervisory Signaling

The customer's facilities shall provide the necessary on-hook, off-hook, answer and disconnect supervision.

6.5.3 Trunk Group Measurement Reports

With the agreement of the customer, trunk group data in the form of usage in CCS, peg count and overflow for its end of all access trunk groups, where technologically feasible, will be made available to MIEAC. These data will be used to monitor trunk group utilization and service performance and will be based on previously arranged intervals and format.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.5 Obligations of the Customer (Cont'd)

6.5.4 Design of Switched Access Services

When a customer orders Switched Access Service, the customer shall take reasonable steps to assure that sufficient access services have been ordered to handle its traffic.

6.5.5 Short Duration Mass Calling Requirements

When a customer offers service for which a substantial call volume is expected during a short period of time (e.g., 900/8YY service media stimulated events), the customer must notify MIEAC and the affected SLSPs at least 48 hours in advance of each peak period. Notification should include the nature, time, duration, and frequency of the event, an estimated call volume, and the telephone number(s) to be used.

On the basis of the information provided, MIEAC may invoke network management controls, (e.g., call gapping and code blocking) to reduce the probability of excessive network congestion. MIEAC will work cooperatively with the customer to determine the appropriate level of such control.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.6 Rate Regulations

This section contains the specific regulations governing the rates and charges that apply for Switched Access Service.

6.6.1 Description and Application of Rates and Charges

There are two types of rates and charges that apply to Switched Access Service. These are usage rates and nonrecurring charges.

(A) Usage Rates

Usage rates are rates that apply only when a specific rate element is used. These rates are applied on a per access minute or per query basis. Usage rates are accumulated over a monthly period.

(B) Nonrecurring Charges

Nonrecurring charges are one-time charges that apply for a specific work activity (i.e. installation or change to an existing service). The types of non-recurring charges that apply for Switched Access Service are: installation of service and service rearrangements.

(1) Installation of Service

Nonrecurring charges apply to each Switched Access Service installed. For FGD, which is ordered on a busy hour minutes of capacity basis, the charge is applied on a per trunk basis but the charge applies only when the capacity ordered requires the installation or activation of an additional trunk(s) which is uniquely identified for the sole use of the ordering customer.

The non-recurring charges associated with initial conversion of FGD trunks from Multifrequency (MF) to Common Channel Signaling (CCS) are the installation charges listed at 6.6.1(C)(1) applied on a per SNAC basis. No additional non-recurring charges are applied to FGD trunk conversions from MF to SS7 signaling subsequent to the installation of the SNACs.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.6 Rate Regulations (Cont'd)

6.6.1 Description and Application of Rates and Charges (Cont'd)

(B) Nonrecurring Charges (Cont'd)

(2) Service Rearrangements

All changes to existing services, other than changes involving administrative activities listed in (C) following will be treated as a discontinuance of the existing service and an installation of a new service. The nonrecurring charge described in (1) preceding will apply for this work activity, except for FGD trunk conversions from MF to SS7 signaling subsequent to the installation of Signaling Network Access Connections.

(C) Administrative Changes

Changes which result in the establishment of new minimum period obligations are treated as discontinuances of existing service and installations of new service.

Administrative changes as follows will be made without changes to minimum period obligations:

- Change of customer name,
- Change of customer or customer's end user premises address when the change of address is not a result of a physical relocation of equipment,
- Change in billing data (name, address, or contacted name or telephone number),
- Change of agency authorization,
- Change of customer circuit identification,
- Change of billing account number,
- Change of customer test line number,
- Change of customer or customer Is end user contact name or telephone number, and
- Change of jurisdiction.

(D) Application of the Switched Transport Rate

The Switched Transport rate applies per access minute.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.6 Rate Regulations (Cont'd)

6.6.2 Minimum Period

Switched Access Service is provided for a minimum period of one (1) month.

6.6.3 Measuring Access Minutes

Customer traffic to and from End Offices will be measured (i.e., recorded) by MIEAC at its Access Tandem. Originating and terminating calls will be measured (i.e., recorded) by MIEAC to determine the basis for computing chargeable access minutes. In the event the customer message detail is not available because MIEAC lost or damaged tapes or incurred recording system outages, MIEAC will estimate the volume of lost customer access minutes of use based on previously known values. For terminating and for originating calls over FGD, the measured minutes are the chargeable access minutes. FGD access minutes or fractions thereof, the exact value of the fraction being a function of the switch technology where the measurement is made, are accumulated over the billing period for each End Office, and are then rounded up to the nearest access minute for each End Office.

(A) Feature Group D Usage Measurement

For originating Calls over FGD with multifrequency address signaling, usage measurement begins when MIEAC's Access Tandem receives the first wink supervisory signal forwarded from the customer's switch. For originating calls over FGD with CCSA, usage measurement begins when either the Exit Message (EXM) or Address Complete Message (ACM) is received. The measurement of originating call usage over FGD ends when MIEAC's Access Tandem receives disconnect supervision from either the originating end user's End Office, indicating the originating end user has disconnected, or the customer's switch, whichever is recognized first by MIEAC's Access Tandem.

SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)

6.6 Rate Regulations (Cont'd)

6.6.3 Measuring Access Minutes (Cont'd)

(A) Feature Group D Usage Measurement (Cont'd)

For terminating calls over FGD, the measurement of access minutes begins when MIEAC's Access Tandem receives answer supervision from the terminating end user's End Office, indicating the terminating end user has answered.

The measurement of terminating call usage over FGD ends when MIEAC's Access Tandem receives disconnect supervision from either the terminating end user's End Office, indicating the terminating end user has disconnected, or the customer's switch, whichever is recognized first by MIEAC's Access Tandem.

 SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)6.6 Rate Regulations (Cont'd)6.6.4 Network Blocking Charge for Feature Group D

The customer will be notified by MIEAC to increase its busy hour minutes of capacity when excessive trunk group blocking occurs on groups carrying Feature Group D traffic and the measured access minutes for that hour exceed that purchased. Excessive trunk group blocking occurs when the blocking thresholds stated below are exceeded. They are predicated on time consistent, hourly measurements over a thirty (30) day period, excluding Saturdays, Sundays and national holidays. If the order for additional capacity has not been received by MIEAC within fifteen (15) days of the notification, MIEAC will bill the customer, at the rate set forth in Section 6.7.1(B) following, for each overflow in excess of the blocking threshold when (1) the average "30-day period" overflow exceeds the threshold level for any particular hour and (2) the "130-day period" measured average originating or two-way usage for the same clock hour exceeds the capacity purchased.

Blocking Thresholds

<u>Trunks in Service</u>	<u>1/2%</u>
1-2	.045
3-4	.035
5-6	.025
7 or greater	.020

 SWITCHED ACCESS SERVICE

6. Switched Access Service (Cont'd)6.7 Rates and Changes6.7.1 Switched Transport Rates

(A)	Rates	Rate Per <u>Access Minute</u>
	- Originating Switched Transport (composite)	\$0.006338
	- Terminating Switched Transport (composite)	\$0.002800

(B)	Network Blocking Charge	Rate Per <u>Call Blocked</u>
	Applies to FGD only	\$0.007000

6.7.2 Common Channel Signaling Service Charges

(A)	B-Link Service	<u>Monthly Recurring</u>
	STP Per Port	ICB

6.7.3 8YY Database Query Service

	Rate per Query	\$0.003500
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SWITCHED ACCESS SERVICE

7. Voice over Internet Protocol – Public Switched Telephone Network (“VoIP-PSTN”) Traffic

- 7.1 This section governs the identification and treatment of VoIP-PSTN Traffic that is required to be compensated at interstate access rates unless the parties have agreed otherwise in a written agreement.
- 7.2 Company will assess and collect the full Access Reciprocal Compensation on traffic exchanged with Customers when such traffic originates and/or terminates in Internet Protocol format, as set forth in Section 51.913 of the Federal Communications Commission’s rules, 47 C.F.R. §51.913, regardless of whether the Company itself delivers such traffic to the called party’s premises or delivers the call to the called party’s premises via contractual or other arrangements with an affiliated or unaffiliated provider of interconnected Voice over Internet Protocol service that does not itself seek to collect Access Reciprocal Compensation charges for that traffic.¹
- 7.3. VoIP-PSTN Traffic identified in accordance with this tariff section will be billed at rates equal to the Company’s applicable interstate switched access rates as set forth in the Company’s FCC Acces Tariff.
- 7.4 A Customer delivering traffic to Company will identify the percentage of traffic that is VoIP-PSTN Traffic (“Percentage VoIP Usage” or “PVU”) and will provide a traffic study or similar analysis that is subject to audit. If a Customer fails to provide this information, Company will assign a default PVU equal to zero.

¹ See, *In the Matter of Connect America Fund A National Broadband Plan for Our Future Establishing Just and Reasonable Rates for Local Exchange Carriers High-Cost Universal Service Support Developing an Unified Intercarrier Compensation Regime Federal-State Joint Board on Universal Service Lifeline and Link-Up Universal Service Reform – Mobility Fund*, Report and Order and Further Notice of Proposed Rulemaking, Docket Nos. WC Docket No. 10-90, *et al.*, FCC 11-161, (Rel. November 18, 2011).

SWITCHED ACCESS SERVICE

8. Customer's Point of Termination Information8.1 General Information

Switched Access Service is available to customers that interconnect with MIEAC's facilities at either MIEAC's Access Tandem or at the Toll Transfer Points listed in this section on which the offices of the SLSPs home their traffic. The V & H coordinates for these MIEAC facilities are set forth in the third column of Section 8.2 following.

8.2 Customer's Point of Termination

<u>Access Tandem</u>	<u>Toll Transfer Points</u>	<u>V & H Coordinates</u>	
		<u>Vert.</u>	<u>Horz.</u>
Plymouth	Plymouth	5787	4545
	Duluth	5352	4529
	Fargo	5614	5181
	East Grand Forks	5415	5229
	Minneapolis (612 2nd Ave S.)	5780	4526
Minneapolis	Minneapolis (511 11th Ave. S.)	5780	4526
	Owatonna	5953	4438
	Rochester	5916	4326
	St. Cloud	5721	4703
	Wadena	5604	4916
	Windom	6116	4692

SWITCHED ACCESS SERVICE

9. RESERVED FOR FUTURE USE

SWITCHED ACCESS SERVICE

10. RESERVED FOR FUTURE USE

SWITCHED ACCESS SERVICE

11. RESERVED FOR FUTURE USE

SWITCHED ACCESS SERVICE

12. RESERVED FOR FUTURE USE

 SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services

In this section, normally scheduled working hours are an employee's scheduled work period in any given calendar day (e.g., 8:00 a.m. to 5:00 p.m.) for the application of rates based on working hours. The Miscellaneous Service Order Charge in Section 5.2.9 preceding applies to any service, or combination of services, ordered simultaneously from this section of the Tariff for which a service order is not already pending, or one which does not have the charge applied.

13.1 Additional Engineering

Additional Engineering will be provided by MIEAC at the request of the customer only when:

- (A) A customer requests additional technical information after MIEAC has already provided the technical information normally included on the Design Layout Report (DLR) as set forth in Section 6.1.4 preceding.
- (B) A customer requests a Design Change, and additional engineering time is incurred by MIEAC for the engineering review as set forth in Section 5. 2. 3 (C) . The charge for additional engineering will apply whether or not MIEAC proceeds with the design change.

MIEAC will notify the customer that additional engineering charges, as set forth in Section 13.1.1 following, will apply before any additional engineering is undertaken.

13.1.1 Charges for Additional Engineering

The charges for additional engineering are as follows:

Additional Engineering Periods

Basic Time, normally scheduled working hours, per engineer	ICB
Overtime, outside of regularly scheduled working hours, per engineer	ICB

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.2 Additional Labor

Additional labor is that labor requested by the customer on a given service and agreed to by MIEAC as set forth in Sections 13.2.1 through 13.2.5 following. MIEAC will notify the customer that additional labor charges as set forth in Section 13.2.6 following will apply before any additional labor is undertaken.

13.2.1 Overtime Installation

Overtime installation is that MIEAC installation effort outside of regularly scheduled working hours.

13.2.2 Overtime Repair

Overtime repair is that MIEAC maintenance effort performed outside of regularly scheduled working hours.

13.2.3 Stand-By

Stand-by includes all time in excess of one-half (1/2) hour during which MIEAC personnel stand by to make installation acceptance tests or cooperative tests with a customer to verify facility repair on a given service.

13.2.4 Testing and Maintenance with Exchange Telephone Companies

Additional testing, maintenance or repair of facilities which connect to facilities of Exchange Telephone Companies is that MIEAC effort which is in addition to normal effort required to test, maintain or repair facilities provided solely by MIEAC.

 SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.2 Additional Labor (Cont'd)13.2.5 Other Labor

Other labor is that additional labor not included in Sections 13.2.1 through 13.2.4 preceding and labor incurred to accommodate a specific customer request that involves only labor which is not covered by any other section of this tariff.

13.2.6 Charges for Additional Labor

The charges for additional labor are as follows:

(A) Installation or Repair

<u>Additional Labor Periods</u>	<u>Each Half Hour or Fraction Thereof</u>
Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	\$22.58*
Premium Time, outside of scheduled work day, per technician	\$30.11*

*A call-out of a MIEAC employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four (4) hours.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.2 Additional Labor (Cont'd)13.2.6 Charges for Additional Labor (Cont'd)

(B) Stand-by

<u>Additional Labor Periods</u>	<u>Each Half Hour or Fraction Thereof</u>
Basic Time, regularly scheduled working hours, per technician	\$14.95
Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	\$22.42*
Premium Time, outside of scheduled work day, per technician	\$29.89*

*A call-out of a MIEAC employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four (4) hours.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.2 Additional Labor (Cont'd)13.2.6 Charges for-Additional Labor (Cont'd)

(C) Testing and Maintenance with Exchange Telephone Companies, or Other

<u>Additional Labor Periods</u>	<u>Each Half Hour or Fraction Thereof</u>	
	<u>Installation and Repair Technician</u>	<u>Access Tandem Maintenance Technician</u>
Basic Time, regularly scheduled working hours, per technician	\$15.05	\$14.95
Overtime, outside of regularly scheduled working hours on a scheduled work day, per technician	\$22.58*	\$22.42*
Premium Time, outside of scheduled work day, per technician	\$30.11*	\$29.89*

*A call-out of a MIEAC employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four (4) hours.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services

13.3.1 Maintenance of Service

- (A) When a customer reports a trouble to MIEAC for clearance and no trouble is found in MIEAC's facilities, the customer shall be responsible for payment of a Maintenance of Service charge for the period of time from when MIEAC personnel are dispatched to the customer point of termination to when the work is completed. Failure of MIEAC personnel to find trouble in MIEAC facilities will result in no charge if the trouble is actually in those facilities, but not discovered at the time.
- (B) The customer shall be responsible for payment of a Maintenance of Service charge when MIEAC dispatches personnel to the customer point of termination and the trouble is in equipment or communications systems provided by other than MIEAC.

In either (A) or (B) preceding, no credit allowance will be applicable for the interruption involved if the Maintenance of Service charge applies.

- (C) The charges for Maintenance of Service are as follows:

<u>Maintenance of Service Periods</u>	<u>Each Half Hour or Fraction Thereof</u>
Basic Time, Overtime* and Premium Time*	See the rates for Additional Labor set forth in Section 13.2.6(C) preceding.

*A call-out of a MIEAC employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four (4) hours.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.2 Testing Services

MIEAC will, in addition to any customer requested acceptance testing, perform such tests as it believes necessary to ensure that the access services ordered by a customer are functioning properly prior to furnishing such access services to the customer. In addition, MIEAC, as part of the ongoing work to maintain the continued satisfactory performance of the access services ordered by the customer, may perform periodic tests.

Testing Services offered under this section of the tariff are optional and subject to rates and charges as set forth in Section 13.3.2(C) following. Other testing services, as described in Sections 6.1.5 and 6.1.6 preceding, are provided by MIEAC in association with Access Services and are furnished at no additional charge. Testing Services are normally provided by MIEAC personnel at MIEAC locations. In addition, MIEAC will, at the request of the customer, perform Acceptance Testing with the customer in accordance with the provisions set forth in Section 6 preceding.

The offering of Testing Services under this section of the Tariff is made subject to the availability of the necessary qualified personnel and test equipment at the various test

(A) Switched Access Service

Testing Services for Switched Access are comprised of (a) tests which are performed during the installation of a Switched Access Service, and (b) tests which are performed after acceptance of such access services by a customer, i.e., in-service tests. These in service tests may be further divided into two broad categories of tests: scheduled and nonscheduled.

Scheduled tests are those tests performed by MIEAC on a regular basis, as set forth in Section 6.1.6 preceding which are required to maintain Switched Access Service. Scheduled tests may be done on an automatic basis (no MIEAC or customer technicians involved) or on a cooperative basis (MIEAC technician(s) involved at MIEAC office(s) and customer technicians involved at customer terminal location(s)).

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.2 Testing Services (Cont'd)

(A) Switched Access Service (Cont'd)

(1) Additional Cooperative Acceptance Testing

Additional Cooperative Acceptance Testing (ACAT) Switched Access Service involves MIEAC provision of a technician at its office(s) and the customer provides a technician at its terminal location(s), with suitable test equipment to perform the required tests.

Additional Cooperative Acceptance Tests may, for example, consist of the following tests:

- C-Notched Noise
- Impulse Noise
- Phase Jitter
- Signal to C-Notched Noise Ratio
- Intermodulation (Nonlinear)Distortion
- Frequency Shift (Offset)
- Envelope Delay Distortion
- Dial Pulse Percent Break

(2) Additional Automatic Testing

Additional Automatic Testing (AAT) of Switched Access Services where the customer provides remote office test lines and 105 test lines with associated responders or their functional equivalent, will consist of monthly loss and C-message noise tests and an annual balance test. However, the customer may specify a more frequent schedule of tests. In addition to the loss/noise/balance tests, the customer may also order, at additional charges, gainslope and C-notched noise testing.

MIEAC will provide an AAT report that lists the test results for each trunk tested. Trunk test failures requiring customer participation for trouble resolution will be provided to the customer on an as-occurs basis.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)

13.3 Miscellaneous Services (Cont'd)

13.3.2 Testing Services (Cont'd)

(A) Switched Access Service (Cont'd)

(3) Obligations of the Customer

(a) The customer shall provide the Remote Office Test Line priming data to MIEAC as appropriate, to support AAT as set forth in Section 13.3.2(A)(2) preceding.

(B) Rates and Charges

(1) Switched Access

(a) Additional Cooperative Acceptance Testing

Testing Period

Each Half Hour or Fraction Thereof

Basic Time, Overtime* and Premium Time*

See the rates for Additional Labor set forth in Section 13.2.6(C) preceding.

*A call-out of a MIEAC employee at a time not consecutive with the employee's scheduled work period is subject to a minimum charge of four (4) hours.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.2 Testing Services (Cont'd)

(C) Rates and Charges (Cont'd)

(1) Switched Access (Cont'd)

(b) Additional Automatic Testing (AAT)

The Additional Tests as set forth following may be ordered by the customer, at additional charges, 60 days prior to the start of the customer prescribed schedule.

To First Point
of Switching

Additional Tests

	<u>Per Test Per Transmission Path</u>
Gain-Slope Tests	\$3.58
C-Notched Noise Tests	\$3.58
1004 Hz Loss*	\$3.58
C-Message Noise*	\$3.58
Balance (return loss)*	\$3.58

*1004 Hz Loss, C-Message Noise and Balance are non-chargeable routine tests. However, they may be requested on an as needed or more than routine scheduled basis, in which case the charges herein apply.

SWITCHED ACCESS SERVICE

13. Additional Engineering, Additional Labor and Miscellaneous Services (Cont'd)13.3 Miscellaneous Services (Cont'd)13.3.3 Provision of Access Service Billing Information

- (A) The customer will receive its monthly bills in a standard paper format.
- (B) At the option of the customer, and for an additional charge:
 - (1) Customer monthly bills may be provided on magnetic tape.
 - (2) Billing detail and/or information may be transmitted to the customer terminal location by data transmission.
 - (3) Additional copies of the customer monthly bill or service and features record may be provided in standard paper or microfiche format.
- (C) Upon acceptance by MIEAC of an order for data transmission, MIEAC will determine the period of time to implement the transmission of such material on an individual order basis.
- (D) The rates and charges for the provision of Access Service Billing Information are as follows:

Rates

Provision of Standard Bill Detail and/or Information in magnetic tape format, per record	ICB rates and charges apply
Data Transmission to a customer Terminal Location of Bill Detail and/or Information, per record transmitted	ICB rates and charges apply
Additional Copies of customer monthly bill or service and features record in standard paper or microfiche format per page, per microfiche record	ICB rates and charges apply

SWITCHED ACCESS SERVICE

14. RESERVED FOR FUTURE USE

 SWITCHED ACCESS SERVICE

15. Interface Groups, Transmission Specifications and Channel Interfaces15.1 Switched Transport Interface Group

Interface Group 6 is provided with Type A or B Transmission Specifications. This Interface Group is provided with Data Transmission Parameters.

Interface Group 6 provides DS1 level digital transmission at the points of interconnection set forth in Section 8 preceding. The interface is capable of transmitting signals at a nominal 1.544 Mbps. MIEAC will provide, at the first point of switching, a DS1 signal in D3/D4 format. The interface is provided with individual transmission path bit stream supervisory signaling.

15.1.1 Available Interface

Following is a matrix showing, for the Interface Group, which interface codes are available as a function of MIEAC switch supervisory signaling and Feature Group.

Telephone Company

<u>Interface Group</u>	<u>Switch Supervisory Signaling</u>	<u>Interface Code</u>	<u>Feature Group D</u>
6	LO, GO	4DS9-15	X
	LO, GO	4DS9-15L	X
	RV, EA, EB, EC	4DS9-15	X X X
	RV, EA, EB, EC	4DS9-15L	X X X

 SWITCHED ACCESS SERVICE

15. Interface Groups, Transmission Specifications and Channel Interfaces (Cont'd)15.2 Transmission Specifications Switched Access Service15.2.1 Data Transmission Parameters

Two types of Data Transmission Parameters, i.e., Type DA and Type DB, are provided for the Feature Group D arrangement. The specific applications with which it is provided are set forth in 6.2.1(A) preceding. Following are descriptions of each.

(A) Data Transmission Parameters Type DA

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 33 dB.

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	500 microseconds
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equal to or greater than 50 route miles	900 microseconds
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1004 to 2404 Hz

less than 50 route miles	200 microseconds
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equal to or greater than 50 route miles	400 microseconds
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SWITCHED ACCESS SERVICE

15. Interface Groups, Transmission Specifications and Channel Interfaces (Cont'd)

15.2 Transmission Specifications Switched Access Service (Cont'd)

15.2.1 Data Transmission Parameters (Cont'd)

(A) Data Transmission Parameters Type DA (Cont'd)

(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 65 dBmCO threshold in fifteen (15) minutes is no more than fifteen (15) counts.

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	33 dB
Third Order (R3)	37 dB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 5 degrees peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.

(B) Data Transmission Parameters Type DB

(1) Signal to C-Notched Noise Ratio

The Signal to C-Notched Noise Ratio is equal to or greater than 30 dB.

SWITCHED ACCESS SERVICE

15. Interface Groups, Transmission Specifications and Channel Interfaces (Cont'd)15.2 Transmission Specifications Switched Access Service (Cont'd)15.2.1 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters Type DB (Cont'd)

(2) Envelope Delay Distortion

The maximum Envelope Delay Distortion for the frequency bands and route miles specified is:

604 to 2804 Hz

less than 50 route miles	800 microseconds
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equal to or greater than 50 route miles	1000 microseconds
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1004 to 2404 Hz

less than 50 route miles	320 microseconds
--------------------------	------------------

equal to or greater than 50 route miles	500 microseconds
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(3) Impulse Noise Counts

The Impulse Noise Counts exceeding a 67 dBrnC0 threshold in fifteen (15) minutes is no more than fifteen (15) counts.

SWITCHED ACCESS SERVICE

15. Interface Groups, Transmission Specifications and Channel Interfaces (Cont'd)

15.2 Transmission Specifications -Switched Access Service (Cont'd)

15.2.1 Data Transmission Parameters (Cont'd)

(B) Data Transmission Parameters Type DB (Cont'd)

(4) Intermodulation Distortion

The Second Order (R2) and Third Order (R3) Intermodulation Distortion products are equal to or greater than:

Second Order (R2)	31 dB
Third Order (R3)	34 dB

(5) Phase Jitter

The Phase Jitter over the 4-300 Hz frequency band is less than or equal to 7 degrees peak-to-peak.

(6) Frequency Shift

The maximum Frequency Shift does not exceed -2 to +2 Hz.