AMENDMENT 12
TO THE
TELECOMMUNICATIONS SERVICES AGREEMENT
BETWEEN
VERIZON SERVICES ORGANIZATION INC.
AND
MCI WORLDCOM NETWORK SERVICES, INC.

This Amendment 12 to the Telecommunications Services Agreement (Contract No. TSA010302-1) (Agreement) by and between MCI WorldCom Network Services, Inc., a Delaware corporation, with offices at 6929 N. Lakewood Avenue, Tulsa, Oklahoma 74117 ("Provider"), and Verizon Services Organization Inc., a Delaware corporation, with offices at 6665 N. MacArthur Boulevard, Irving, Texas 75039 ("Customer") shall be effective on the date set forth below.

The Asynchronous Transfer Mode (ATM) service description and pricing set forth in this Amendment 12 combines the network capabilities of two (2) standalone Provider ATM networks; the legacy WorldCom network (Option 1) and the legacy Intermedia network (Option 5). Provider has determined that all Option 5 network capabilities and features utilized by Customer today, particularly ViewSpan[SM] and Network Management Statistical Service (NMSS) shall be added to the Option 1 network and that the Option 5 network will be subsequently discontinued. Provider assures Customer that no service shall be migrated or otherwise affected without appropriate Customer scheduling.

1. EFFECTIVE DATE

AMENDMENT SECTION 1 REDACTED

2. PRIOR AGREEMENTS

2.1 The parties acknowledge that Customer has purchased certain data services, under account No. 7000254904 (the "Existing Services") which Existing Services are provided to Customer under the terms and conditions of various service orders, service requests and agreements (collectively, the "Prior Agreements") between Customer or Customer's affiliates and Provider or Provider's affiliates.

2.2 The parties agree that as of the Effective Date of this Amendment 12, (i) all Prior Agreements will be deemed canceled in their entirety with respect to the Existing Services, and of no further force or effect with the exception of certain accrued obligations arising under the Prior Agreements such as the payment of money or the application of credits arising prior to the Effective Date, and provisions intended to survive termination, such as limitation of liability, indemnification and confidentiality; and (ii) all Existing Services will be considered provisioned and maintained under the terms and conditions (including rates, discounts, minimums and minimum Service Commitment Periods) of the Agreement including any applicable Amendments, Attachments or Exhibits.

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3. AGREEMENT MODIFICATION

3.1 Exhibit B, ADD a new Section 15, DOMESTIC AND INTERNATIONAL ATM SERVICE - ENHANCED SERVICE LEVEL GUARANTEES as set forth in **Attachment 1** to this Amendment.

3.2 Exhibit B, ADD a new Attachment B-4, CELL TRANSIT DELAY MATRIX as set forth in **Attachment 2** to this Amendment.

3.3 Exhibit C, REPLACE Section 28, ATM, in its entirety as set forth in **Attachment 3** to this Amendment.

3.4 Exhibit C, DELETE Section 32.4 in its entirety.

3.5 Exhibit C, REPLACE Attachment C-11 in its entirety with the new Attachment C-11 set forth in **Attachment 4** to this Amendment.

3.6 Exhibit C, REPLACE the language in Attachment C-12 in its entirety as follows:

"Upon request by Customer, Provider shall provide Metro and International ATM pricing to Customer on an Individual Case Basis."

3.7 Exhibit C, Attachment C-13, Replace Section 1, Internet Port – Monthly Recurring Base Rates with the new Section 1, Internet Port Charges set forth in **Attachment 5** to this Amendment.

4. OTHER TERMS AND CONDITIONS

Except as specifically amended herein, the terms and conditions of the Agreement, including any Amendments thereto, shall remain in full force and effect during the term of the Agreement.

IN WITNESS WHEREOF the parties have entered into this Amendment 12 as of the date set forth above.

MCI WORLDCOM NETWORK SERVICES, INC	VERIZON SERVICES ORGANIZATION INC.
Signature	Signature
DUWAYNE J. WHEELER / Bob Breitha	Scott C. Pierce
Print Name	Print Name
DIRECTOR / VICE PRESIDENT	Executive Director Alliance Management
Title	Title
11/20/03	11/20/03
Date	Date

ATTACHMENT 1

ADD A NEW SECTION 15, DOMESTIC AND INTERNATIONAL ATM SERVICE - ENHANCED SERVICE LEVEL GUARANTEES TO EXHIBIT B

(ADD PAGES B-22K TO B-22O)

15. DOMESTIC AND INTERNATIONAL ATM SERVICE - ENHANCED SERVICE LEVEL GUARANTEES

15.1 DEFINITIONS

For purposes of this **Section 15**, the following definitions will apply:

15.1.1 **"Cell Transit Delay"** or **"CTD"** measures the average delay (measured as a monthly average) experienced by a specific PVC, which will not exceed the numeric bound defined for its service category. This bound applies to any PVC between any pair of domestic ATM ports. Delay is defined to be the difference between the receipt of the last bit of a cell at the originating User Network Interface (UNI), and the transmission of the first bit of that same cell at the terminating UNI. CTD measures only delay on Provider's network between the origination infrastructure port and the destination infrastructure port. CTD includes propagation, switching and queuing delays. CTD is considered Service Restoration Priority 2. **Attachment B-4** contains the Cell Transit Delay Matrix and describes the process for determining the One Way Network Transit Delay.

15.1.2 **"Data Delivery Ratio"** or **"DDR"** is defined as the percentage of payload cells (without the 5 bit header field), successfully received at the ingress UNI through to the egress UNI. DDR applies to one direction of a single PVC. DDR reports the network's effectiveness in transporting offered data (payload without any header information) in one direction of a single PVC. The DDR is a ratio of successful payload octets received at the ingress UNI to attempted payload octets transmitted through the egress UNI. DDR is considered Service Restoration Priority 2. DDR is calculated as the number of all data payload octets within the sustained cell rate/minimum cell rate (SCR/MCR) that are successfully delivered divided by the total number of all data payload octets sent and marked within the SCR/MCR by Provider's ATM network. This measurement domain is Edge-to-Edge Egress Queue. DDR per billing month is calculated as follows:

$$\frac{\textit{Data Delivered per PVC}}{\textit{Data Offered per PVC}}$$

15.1.3 **"Mean Time to Repair"** or **"MTTR"** is the average time to repair a Service Outage. The length of all Service Outages related to Customer is totaled at the end of the billing month and is divided by the total number of Trouble Tickets opened by Customer for that billing month.

$$\frac{\text{Cumulative length of Service Outage(s)}}{\text{Total number of Trouble Tickets per billing month}}$$

(i) **"On-net End-to-End MTTR"** is the average time to restore service during a Service Outage, commencing on the date and time Customer informs Provider of a Service Outage (i.e., opening a trouble ticket) and ending on the date and time ATM Service is restored and includes only facilities completely owned by Provider from end to end.

(ii) **"Off-net End-to-End MTTR"** is the average time to restore service during a Service Outage, commencing on the date and time Customer informs Provider of a Service Outage (i.e., opening a trouble ticket) and ending on the date and time ATM Service is restored and includes access loops which Provider does not own.

15.1.4 **"Network Availability"** is the total number of minutes in a billing month during which network PVC routes and associated ports are available to exchange data between two network infrastructure node end points, divided by the total number of minutes in a billing month.

$$1 - \frac{\text{Total minutes of PVC unavailability per billing month}}{\text{Total number of PVCs x number of days per billing month x 24hrs x 60 minutes}}$$

PVC unavailability is the sum of PVC downtime of all of Customer's affected PVCs during that billing period; total number of PVCs is the number of Customer PVCs on the specified Network ID at the time of the SLG verification.

"End-to-End Network Availability" is the availability of a specific PVC route including Provider's ATM network infrastructure ingress port to infrastructure egress port and local access.

15.1.5 **"Outage Classifications"** is defined as the priority as it relates to the severity of the Service Outage.

Priority	Outage Type	Criteria	Failure to Meet
Priority 1	Hard Outage	• Total loss of ATM Service. • Degraded ATM Service (ATM Service is degraded; Customer is unable to use it and is prepared to release it for immediate testing)	Network Availability Or MTTR
Priority 2	Soft Outage	• Degraded ATM Service (ATM Service is degraded; Customer is able to use it and is not prepared to release it for immediate testing)	CTD Or DDR
Priority 3		• Non-service affecting (a single non-Circuit specific quality of service inquiry	

15.1.6 **"Service Outage"** is an unscheduled period in which Customer's ATM Service is interrupted and not usable, measured by UAS (Unavailable Seconds) as defined in American National Standards Institute (ANSI) T1.231. A Service Outage will commence when Customer reports a Service Outage to Provider via a Trouble Ticket and will end when the affected ATM Service is restored. If Customer fails to initiate a Trouble Ticket with Provider, or does not release the circuit to Provider for testing,

Provider will not be obligated to issue credits for the Service Outage.

15.1.7 **"Trouble Ticket"** is the official method used by Customer to advise Provider of a potential Service Outage.

15.1.8 "**Outage Notification**" shall be offered to Customer by Provider as a performance objective, and not an SLG. Provider will notify Customer within sixty (60) minutes after the LMI (Link Management) has been lost for at least ten (10) consecutive minutes. Provider's objective is to provide notifications within the applicable specified time period for ninety percent (90%) of the qualified incidents over a given month.

15.2 **SERVICE LEVEL GUARANTEES.** With respect to Customer's ATM Service, Provider offers "Network Availability", "Mean Time to Repair (MTTR)" and "CTD" Service Level Guarantees **("Enhanced ATM SLGs")** as further described below. In order to be eligible for the Enhanced ATM SLGs, Customer's ATM Term must be at least one (1) year and Customer must have five (5) or more domestic nodes or ten (10) undirectional PVCs installed and billing.

15.2.1 Network Availability and MTTR.

Service Level Guarantee	Performance Standard		
		International	
	U.S. Domestic	Global Tier A*	Global Tier B*
End-to-End Network Availability	99.90%	99.90%	99.90%
On-net End-to-End MTTR	4 Hours	4.5 Hours	4.5 Hours
Off-net End-to-End MTTR	4 Hours	5 Hours	8 Hours

* Global Tier A countries are described below. Global Tier B countries will be any Provider On-Net country excluding U.S. Domestic and Global Tier A countries.

GLOBAL TIER A COUNTRIES		
Australia	Honq Kong, China	Singapore
Austria	Ireland	South Korea
Belgium	Italy	Spain
Canada	Japan	Sweden
Finland	Luxembourg	Switzerland
France	Netherlands	United Kingdom
Germany		

15.2.2 Cell Transit Delay. Enhanced ATM SLGs for CTD (One-way) are categorized by the subscribed service class. Provider's ATM network supports constant bit rate (CBR), variable bit rate - non-real time (VBR-NRT), variable bit rate - real time (VBR-RT).

Service Class	Performance Standard CTD Only (One-way)
CBR	50 milliseconds
VBR-RT	55 milliseconds
VBR-NRT*	60 milliseconds (66 milliseconds for FRASI)

* Only PVC Quality of ATM Service that supports FRASI.

The CTD SLG is suspended (i) during periods in which a major network component (e.g., backbone link) is not functioning and the network is in an emergency reroute configuration, and/or (ii) due to any act or omission on the part of any third party including, but not limited to, any local access provider. The CTD SLG is not applicable to cells to or from Hawaii or Puerto Rico.

15.2.3 Data Delivery Ratio. The DDR is a performance objective only and Customer will not be entitled to any credits if such objective is not met. Provider's Domestic U.S., Global Tier A and Global Tier B DDR SLG objective is 99.9%. This includes cells with the SCR/MCR. The SLG applies to all CBR, VBR-RT, and VBR-NRT traffic within the SCR/MCR. DDR measurements do not include any Service Outage resulting in whole or in part from cells dropped at infrastructure egress due to improper Customer specifications of Customer port speeds.

15.3 CREDITS

15.3.1 In order to receive a credit based on an Enhanced ATM SLG, Customer must (i) immediately report a Service Outage to the Customer Service Center shown below and open a Trouble Ticket, and (ii) make a request for an Enhanced ATM SLG credit in writing within thirty (30) days following the Service period in question. Upon receipt of Customer's request, Provider will investigate the claim and determine Enhanced ATM SLG compliance or non-compliance. Provider will utilize the previous month's data if available or monitor the SLGs in the following month.

International Customer Service Center
Tulsa, Oklahoma
(800) 828-4984

When contacting Provider for Enhanced ATM SLG verification, Customer must have a log for the billing month reflecting the following information concerning each Service Outage:

(i) Ticket ID number

(ii) Date and time of Trouble Ticket was opened and ATM Service restored

(iii) Circuit/PVC ID(s) for the corresponding Service Outage

(iv) Number of impacted PVCs

15.3.2 The non-compliance credit structure is based on monthly billing calculations. For any billing month in which Provider fails to meet any one of the Enhanced ATM SLGs described herein, the following credit structure will be applied to the net Monthly Recurring Charges (MRC) across Customer's domestic port(s) and PVC(s) affected by the Service Outage(s). Credits do not apply to local access or backhaul charges.

Consecutive Months of Non-Compliance	HARD OUTAGE Credit*	SOFT OUTAGE CTD Only Credit*
1	25%	0%
2	50%	20%
3	100%	20%
More than 3	100% OR Customer may terminate affected port and PVC upon written notice to Provider	20% OR Customer may terminate affected port and PVC upon written notice to Provider

* Percentage (%) of affected Port and PVC monthly recurring charges; credits will be applied within two billing cycles of SLG non-compliance

15.3.3 Customer must choose which Enhanced ATM SLG (i.e., Network Availability, MTTR or CTD) to be verified when seeking non-compliance. In the event Provider is negligent of the Network Availability SLG, the MTTR SLG and the CTD SLG, Customer will only receive non-compliance credits for one of the missed SLGs. As Network Availability and MTTR are two different ways of measuring the same interruption, Provider will issue a credit for the missed SLG resulting in the greater credit. Provider will only issue a credit for one performance standard on the same port and PVC within the same month. When Provider meets the performance standard not met in the previous month(s), application of the credit structure will be reset.

15.4 OTHER TERMS AND CONDITIONS

15.4.1 Network Outages caused by force majeure events as set forth in the Agreement are not eligible for credits hereunder and are not included in determining if Provider has met the appropriate performance standards.

15.4.2 Any equipment over which the customer exercises control, such as CPE, is excluded from SLGs.

15.4.3 Major network failures affecting the entire Provider network will be handled on an individual case basis as determined by Provider. Any resolution will be applied in a nondiscriminatory manner.

ATTACHMENT 2

ADD THE FOLLOWING AS A NEW ATTACHMENT B-4, CELL TRANSIT DELAY MATRIX, TO EXHIBIT B

(ADD PAGES B-39 TO B-44)

ATTACHMENT B-4

CELL TRANSIT DELAY MATRIX

1. Process for Determining the One Way Network Transit Delay

The CTD SLG is based on the geographic distance between the existing trunk end points. The access loop to Customer's premise is not included as part of these calculations (the access loop does not add significant time to the transport).

For example, the distance from Japan to the United Kingdom is based on the trunks from Japan to the United States and then on to the United Kingdom. It is not based on the shortest distance between Japan and the United Kingdom. These delays are expected to be worst-case scenarios. External factors such as access serialization delay and access link congestion, which may cause delay, are excluded from the measurement.

2. NTD SLGs and Service Level Objectives

Service Class	U.S. Domestic	Global Tier A	Global Tier B
CBR	Guaranteed	Guaranteed	Guaranteed
VBR-RT	Guaranteed	N/A	N/A
VBR-NRT	Guaranteed	Guaranteed	Guaranteed

3. U.S. East defined by State

Alabama	Maine	Ohio
Arkansas	Maryland	Pennsylvania
Connecticut	Massachusetts	Rhode Island
Delaware	Michigan	South Carolina
Florida	Minnesota	Tennessee
Georgia	Mississippi	Vermont
Illinois	Missouri	Virginia
Indiana	New Hampshire	Washington, D.C.
Iowa	New Jersey	West Virginia
Kentucky	New York	Wisconsin
Louisiana	North Carolina	

4. U.S. West defined by State

Arizona	Montana	Oregon

California	Nebraska	South Dakota
Colorado	Nevada	Texas
Hawaii	New Mexico	Utah
Idaho	North Dakota	Washington
Kansas	Oklahoma	Wyoming

5. NTD SLG for U.S. Domestic sites (U.S. to U.S.)

Parameter; Service Class	Access Type	CTD (One-way)
CBR; all service classes	Type 1, 2 or 3	50 milliseconds
VBR-RT	Type 1, 2 or 3	55 milliseconds
VBR-NRT; all service classes	Type 1, 2 or 3	60 milliseconds
FRASI: VBR-NRT	Type 1, 2 or 3	66 milliseconds

6. CBR (One-way) CTD (in Milliseconds)

Country	AU	BE	CA	CN-HK	FI	FR	DE
Australia (AU)	11	161	149	79	177	169	172
Belgium (BE)	161	10	52	124	24	16	19
Canada (CA)	149	52	NA	130	73	61	66
China, HK (CN-HK)	79	124	130	NA	141	132	136
Finland (FI)	177	24	73	141	N/A	37	25
France (FR)	169	16	61	132	37	10	22
Germany (DE)	172	19	66	136	25	22	12
Ireland (IE)	162	10	56	126	31	26	24
Italy (IT)	169	16	62	133	28	17	19
Japan(JP)	99	145	123	38	162	153	156
Malaysia (MY)	62	107	146	22	124	115	119
Netherlands (NL)	161	10	52	125	24	16	19
Singapore (SG)	59	105	149	21	121	113	116
South Korea (KR)	104	151	125	29	177	159	162
Spain (ES)	170	20	65	135	41	22	26

Sweden (SE)	172	18	68	135	10	31	19
Switzerland (CH)	169	16	61	133	29	17	19
Taiwan (TW)	86	132	128	10	148	140	143
UK (UK)	163	11	57	128	32	21	25

Country	IE	IT	JP	MY	NL	SG	KR
Australia (AU)	162	169	99	62	161	59	104
Belgium (BE)	10	16	145	107	10	105	151
Canada (CA)	56	62	123	146	52	149	125
China, HK (CN-HK)	126	133	38	22	125	21	29
Finland (FI)	31	28	162	124	24	121	177
France (FR)	26	17	153	115	16	113	159
Germany (DE)	24	19	156	119	19	116	162
Ireland (IE)	NA	20	146	109	10	107	152
Italy (IT)	20	NA	153	116	17	113	159
Japan(JP)	146	153	10	44	146	41	21
Malaysia (MY)	109	116	44	NA	108	10	50
Netherlands (NL)	10	17	146	108	10	105	151
Singapore (SG)	107	113	41	10	105	NA	47
South Korea (KR)	152	159	21	50	151	47	NA
Spain (ES)	23	22	154	117	20	114	160
Sweden (SE)	26	23	154	119	18	117	173
Switzerland (CH)	19	17	153	116	16	113	159
Taiwan (TW)	133	140	17	29	132	28	23
UK (UK)	15	21	148	110	12	108	153

Country	ES	SE	CH	TW	UK	U.S. East	U.S. West
Australia (AU)	170	172	169	86	163	159	132
Belgium (BE)	20	18	16	132	11	69	100

Country	ES	SE	CH	TW	UK	U.S. East	U.S. West
Canada (CA)	65	68	61	128	57	37	52
China, HK (CN-HK)	135	136	133	10	128	140	113
Finland (FI)	41	10	29	148	32	89	121
France (FR)	22	31	17	140	21	77	110
Germany (DE)	26	19	19	133	25	82	114
Ireland (IE)	23	26	19	181	15	73	104
Italy (IT)	22	23	17	140	21	79	110
Japan(JP)	154	157	153	17	148	132	109
Malaysia (MY)	117	119	116	29	110	156	128
Netherlands (NL)	20	18	16	132	12	69	101
Singapore (SG)	114	117	113	28	108	159	133
South Korea (KR)	160	173	159	23	153	134	111
Spain (ES)	NA	35	22	141	24	82	113
Sweden (SE)	35	NA	24	143	27	84	116
Switzerland (CH)	22	24	10	140	21	78	110
Taiwan (TW)	141	143	140	NA	134	138	110
UK (UK)	24	27	21	134	11	74	105

7. VBR-NRT (One-way) CTD (in Milliseconds)

Country	AU	BE	CA	CN-HK	FI	FR	DE
Australia (AU)	13	170	156	83	186	179	183
Belgium (BE)	170	12	56	130	28	20	23
Canada (CA)	156	56	NA	136	79	66	72
China, HK (CN-HK)	83	130	136	NA	148	139	144
Finland (FI)	186	28	79	148	NA	43	29
France (FR)	179	20	66	139	43	12	26
Germany (DE)	183	23	72	144	29	26	15
Ireland (IE)	169	13	60	131	36	30	29

Country	AU	BE	CA	CN-HK	FI	FR	DE
Italy (IT)	180	20	67	141	32	20	22
Japan(JP)	104	154	129	40	173	163	167
Malaysia (MY)	66	113	152	24	131	122	127
Netherlands (NL)	169	12	56	131	28	20	23
Singapore (SG)	62	111	156	23	128	120	124
South Korea (KR)	109	160	130	33	187	169	173
Spain (ES)	177	23	69	141	46	25	30
Sweden (SE)	180	21	73	142	12	36	22
Switzerland (CH)	181	21	67	142	34	21	23
Taiwan (TW)	91	140	134	12	156	149	153
UK (UK)	172	15	62	135	38	26	31

Country	IE	IT	JP	MY	NL	SG	KR
Australia (AU)	169	180	104	66	169	62	109
Belgium (BE)	13	20	154	113	12	111	160
Canada (CA)	60	67	129	152	56	156	130
China, HK (CN-HK)	131	141	40	24	131	23	33
Finland (FI)	36	32	173	131	28	128	187
France (FR)	30	20	163	122	20	120	169
Germany (DE)	29	22	167	127	23	124	173
Ireland (IE)	NA	24	153	114	13	112	159
Italy (IT)	24	NA	164	124	21	121	170
Japan(JP)	153	164	12	48	156	44	23
Malaysia (MY)	114	124	48	NA	115	12	54
Netherlands (NL)	13	21	156	115	12	112	160
Singapore (SG)	112	121	44	12	112	NA	50
South Korea (KR)	159	170	23	54	160	50	NA
Spain (ES)	26	25	162	122	23	119	168

Country	IE	IT	JP	MY	NL	SG	KR
Sweden (SE)	30	26	167	125	21	123	182
Switzerland (CH)	24	21	165	125	21	122	171
Taiwan (TW)	139	150	20	32	139	31	26
UK (UK)	19	26	158	117	16	115	162

Country	ES	SE	CH	TW	UK	U.S. East	U.S. West
Australia (AU)	177	180	181	91	172	167	137
Belgium (BE)	23	21	21	140	15	74	105
Canada (CA)	69	73	67	134	62	43	56
China, HK (CN-HK)	141	142	142	12	135	147	117
Finland (FI)	46	12	34	156	38	96	128
France (FR)	25	36	21	149	26	83	116
Germany (DE)	30	22	23	153	31	89	121
Ireland (IE)	26	30	24	139	19	77	109
Italy (IT)	25	26	21	150	26	85	116
Japan(JP)	162	167	165	20	158	138	115
Malaysia (MY)	122	125	125	32	117	163	133
Netherlands (NL)	23	21	21	139	16	74	106
Singapore (SG)	119	123	122	31	115	167	137
South Korea (KR)	168	182	171	26	162	139	115
Spain (ES)	NA	39	26	147	28	87	118
Sweden (SE)	39	NA	28	150	32	90	122
Switzerland (CH)	26	28	12	151	27	85	117
Taiwan (TW)	147	150	151	NA	142	145	114
UK (UK)	28	32	27	142	15	80	111

ATTACHMENT 3

REPLACE SECTION 28 OF EXHIBIT C IN ITS ENTIRETY

(REPLACE AND ADD PAGES C-34B (SEE AMENDMENT 11), C-35, C-35A, C-35B, C-36, C-37 AND C-38)

27.6 Network Management Statistical Service (NMSS):

SECTION 27.6 REDACTED

(See Attachment C-8 for Domestic Frame Relay Pricing) As rates are refreshed, the rate schedule is updated by replacing the Attachment.

28. ASYNCHRONOUS TRANSFER MODE (ATM)

ATM enables customers the ability to transport data over long distances without incurring mileage charges, giving them the freedom to develop and create new applications.

Although ATM is positioned as a high-bandwidth product, Provider now offers DS1 ATM for lower-bandwidth usage, helping customers save on network and local access charges. In addition, Provider can provide local access in certain areas, providing true end-to-end service.

28.1 The ATM Service is broken down into the following areas

- Domestic ATM Service (**Attachment C-11**)
- Metro ATM Service (**Attachment C-12**)

28.2 In the event Provider eliminates, in whole or in part, the ATM services described herein, upon written notice to Customer and for a period of six (6) months thereafter ("Transition Period"), Provider shall continue to provide without interruption, those ATM services being provided at the time of such notice. Customer shall pay for all services provided during the Transition Period. The Terms and conditions of the Agreement shall remain in full force and effect during the Transition Period

28.3 Local access charges (monthly recurring & non-recurring):

28.3.1 Domestically, local access pricing is set forth in Provider's flat rate access pricing as described in **Section 23.1.1** above. Local access charges are from the customer premises to the nearest Provider POP.

28.3.2 Metro and International ATM pricing is available on ICB at this time

28.4 ATM Port Charges (monthly recurring & non-recurring):

Port charges are based on the port speed chosen. The following is a list of the available types of ports.

28.4.1 Standard Domestic ATM - supports speeds of DS1 (1.536 Mbps), DS3 (45 Mbps), and OC3 (1.55 Mbps)

28.4.2 Metro ATM - To qualify as a Metro ATM Port, the site must be served by a Tier A POP (without backhaul) and the port must connect only Metro ATM PVC's.

28.4.3 A standard (non-Metro) ATM port can support standard PVC's or the combination of standard and Metro PVC's. However, a Metro Port cannot support standard PVC's. When Customer adds a standard PVC onto a Metro Port, the port becomes a standard port; therefore, rules and pricing for Metro Ports no longer apply.

28.4.4 Internationally, if the customer's sites are in the same city's metropolitan area, then the ports and PVC's qualify as Metro ports and PVC's.

28.4.5 Metro ATM Port – (ICB)

28.4.6 International ATM Port – (ICB)

28.5 ATM PVC Charges (monthly recurring & non-recurring)

PVC charges are based on the speed and the service class chosen. The PVC size must be equal to, or less than, the smallest port speed connected to the PVC. PVC's are simplex (one-way) for pricing purposes. Asymmetrical PVC CIRs

are allowed for Domestic ATM service. Provider offers customers the option to select either Virtual Path Connection (VPC) service, or Virtual Channel Connection (VCC) service. This information must be specified on the order form. If Customer has no preference then Customer should choose the VCC option. The selection is also dependent on the type of ATM switch Customer uses.

28.5.1 Available types of PVCs

DS1 Ports – supports speeds from 16 Kbps up to 1.536 Mbps

DS3 Ports – supports speeds from 16Kbps up to 25.6 Mbps

OC3 Ports – supports speeds from 16Kbps up to 76.8 Mbps

OC12 Ports – ICB

28.5.2 A service category is assigned to each PVC. Each service category is defined by a distinct set of parameters:

Constant Bit Rate (CBR) is the equivalent of a private line over an ATM network in a mode called circuit emulation. This service category is used by connections that request a fixed (static) amount of bandwidth that is continuously available during the lifetime of the connection. The CBR service class maintains timing relationships between both ends of a connection during transmission.

Variable Bit Rate – real time (VBR-rt) is assumed to operate in a real time environment in which people or computers are waiting for something to happen; thereby requiring a strictly bounded delay. This service category is intended for time-sensitive applications, but allows for some burst.

Variable Bit Rate – non real time (VBR-nrt) is assumed to operate in an environment in which the application will be tolerant to network delays. It supports somewhat bursty traffic characteristics but without regard to stringent time constraints.

Unspecified Bit Rate (UBR) is designed for data applications that do not require guarantees on when or if the data is delivered. With UBR, the SCR is set to zero and all traffic is tagged. The customer can choose the PCR value and is charged based on this value.

28.5.3 ATM Traffic Parameters

Peak Cell Rate (PCR): The maximum allowed cell transmission rate (expressed in cells/second*). Any cells transmitted in excess of this rate will be discarded at the ingress port via the Usage Parameter Control (UPC).

Sustained Cell Rate (SCR): The maximum average cell transmission rate allowed (expressed in cells/second*) over a given period of time per virtual circuit.

Maximum Burst Size (MBS): The maximum number of cells that can be received at the Peak Cell Rate. The PVC must be throttled back to SCR or below after transmitting its MBS at PCR.

Minimum Cell Rate (MCR): The minimum cell transmission rate (expressed in cells/second*) on an ABR connection guaranteed by the network. Under normal traffic conditions, the network agrees to accept at least the MCR from a virtual circuit – only applicable for ABR traffic.

Service Class and Associated Traffic Parameters

Service Class	Associated Traffic Contract Parameters
Constant Bit Rate (CBR)	PCR
Variable Bit Rate-real time (VBR-rt)	SCR/PCR/MBS
Variable Bit Rate-non real time (VBR-nrt)	SCR/PCR/MBS
Unspecified Bit Rate (UBR)	PCR CLP-0+1

28.6 ATM Ancillary Charges

See **Attachment C-11** for ATM Ancillary Charges. Non-Recurring Charges for Installation and Non-Administrative Changes shall be waived for terms of one (1) year or greater as indicated in Attachment 11.

28.7 Network Management Application – ViewSPAN^{SM}

28.7.1 ViewSPAN^{SM} is a software application developed by Provider which allows Customer and Customer's end-users to view active data elements of the ATM Services provided by Provider. Through an online interface, ViewSPAN^{SM} provides a graphical user interface to collect, observe and report on the critical statistics which evaluates network performance between the endpoints of a PVC.

28.7.2 Extension of Capabilities: ViewSPAN^{SM} provides the ability to monitor network performance on a PVC basis, across multiple autonomous networks. To accomplish this, effective use of ViewSPAN^{SM} requires the installation of a ViewSPAN^{SM} server(s) on Customer's ATM network that communicates with Provider's ViewSPAN^{SM} server through an application called "Network-to-Network Registry".

28.7.3 Management PVC: A Management PVC is used to support the remote monitoring and management of an End User's network and CPE. Traffic allowed across a Management PVC is limited to SNMP, ViewSPAN^{SM} , or other industry standard management applications. Software upgrades may also be transmitted across the Management PVC.

28.7.4 ViewSPAN[SM] Pricing:

SECTION 28.7.4 REDACTED

28.8 Network Management Statistical Service (NMSS):

28.8.1 Provider's Network Management Statistics Service technology provides Customer with a virtual representation of the switching fabric within Provider's network. NMSS technology currently supports Lucent BSTDX 9000 and CBX 500 ATM switches that reside on a Lucent network. A Server using the NMSS software virtually projects an image of each ATM switch within Provider's broadband network. Each of the virtual NMSS switches appears to Customer as if it is an ATM switch that is in Customer's broadband network. Customer can then passively access these virtual NMSS switches in a securely controlled environment without jeopardizing the security of the communication service provider's switches, management network, or the integrity of another customer's data.

28.8.2 Extension of Capabilities: Customer will have access to view ATM provisioning, performance, and alarming information from Provider's broadband network via Simple Network Management Protocol (SNMP) feeds. This provides a true end-to-end view of the Frame Relay cloud pertaining to Customer's end-user logical virtual circuitry.

28.8.3 A management PVC will be required for polling End User CPE.

28.8.4 NMSS Pricing:

SECTION 28.8.4 REDACTED

28.9 Frame Relay to ATM Service Interworking (FRASI)

28.9.1 FRASI is made up of five (5) components:

(i) Frame Relay Network: Provider's Frame Relay network supports the transmission of variable-length packets across a digital public network using a standardized protocol. Customer must select the Committed Information Rate (CIR) for the Frame Relay component to the FRASI connection.

(ii) ATM Network: Through the use of fixed cells, Provider's ATM Network provides the capability to support a variety of applications requiring different service categories. FRASI only supports Variable Bit Rate, non-real time (VBR-NRT).

(iii) Interworking Function: The interworking gateway performs protocol conversions necessary between the ATM and Frame Relay networks. Four interworking gateway sites on Provider's network have been selected in order to provide geographic diversity and lower network latency. The initial interworking gateway cities are as follows:

- Los Angeles, CA (LSAN)
- Dallas, TX (DLLS)
- Chicago, IL (CHCG)
- Washington, DC (WASH)

(iv) Port Speed Options: Customer must identify the port speeds for each endpoint on the ATM and Frame Relay networks. Provider's ATM and Frame Relay networks offer a selection of port speeds and permit oversubscription of network ports. For FRASI, the ATM network offers port speeds of DS-1, NxDS-1 and DS-3. For the Frame Relay network, the port speed options include DS-0, fractional DS-1, NxDS-1, fractional DS-3 and DS-3.

(v) PVC Speed Options: The traffic parameters and PVC speeds for each FRASI connection are as follows:

- ATM; the VBR-NRT traffic parameter is Sustained Cell Rate (SCR).
- Frame Relay; the traffic parameter is Committed Information Rate (CIR).
- FRASI; the ATM network offers PVC speeds of 16 Kbps, 32 Kbps, 48 Kbps, 64 Kbps and 64 Kbps increments up to 1.536 Mbps.

28.9.2 The following rules and policies apply to FRASI:

The maximum PVC speed on the ATM PVC is up to a DS-1 (i.e. the maximum PCR value supported is 1.536 Mbps). Currently no high-speed interworking is available (i.e. PCR > 1.536 Mbps).

(i) Only VBR-NRT PVCs can be used.

(ii) Standard PVC oversubscription rules apply for both Frame Relay and ATM.

(iii) FRASI should be ordered through the standard order entry processes for ordering ATM service.

(iv) FRASI is currently only supported for Domestic Frame Relay and ATM. FRASI is not currently supported for International Frame Relay & ATM or for Metro Frame Relay & ATM service.

(v) Customers using FRASI will be billed for an ATM Port and a simplex ATM PVC, and for a Frame Relay Port and a simplex Frame Relay PVC. There are no surcharges incurred to customers for using FRASI.

(See Attachment C-11 for Domestic ATM Pricing) As rates are refreshed, the rate schedule is updated by replacing the Attachment.

29. **PORTFOLIO**

Portfolio is a web-based system that provides full product order management, CDR delivery, advanced reporting, and end-user management. Portfolio is provided free of charge; however, any charges currently being applied to a specific product/service will continue to be applied. In addition, any access costs will be charged. Though the basic version of Portfolio will be provided free of charge, future applications that are made available via Portfolio may have individual charges associated with them.

In the future as a general rule, delivery of hard copies of manuals, documentation, and CD's will be chargeable to the customers whenever this information is provided on line via Portfolio.

30. **EDE**

Electronic Data Exchange (EDE) Manager is a Provider-developed, PC-based order-entry software package that serves as a front-end customer interface to Provider's EDE process. EDE Manager is a user-friendly, menu-driven system that can process large numbers of orders with speed and accuracy.

ATTACHMENT 4

REPLACE ATTACHMENT C-11 IN ITS ENTIRETY WITH THE NEW ATTACHMENT C-11 BELOW

(REPLACE AND ADD PAGES C-75, C-75A AND C-75B)

AMENDMENT 12, ATTACHMENT 4 REDACTED

ATTACHMENT C-11

DOMESTIC ATM PRICING

ATTACHMENT 5

REPLACE SECTION 1 OF ATTACHMENT C-13 IN ITS ENTIRETY WITH THE NEW SECTION 1 BELOW

AMENDMENT 12, ATTACHMENT 5 REDACTED

ATTACHMENT C-13

DEDICATED INTERNET PRICING