Dedicated SONET Ring Product Guide **(Product Guide)**

Date	March 30, 2007
Version	1.0
File Name	DSRPGv1033007

TABLE OF CONTENTS

DEDICATED SONET RING

I. GENERAL

A. Service Overview

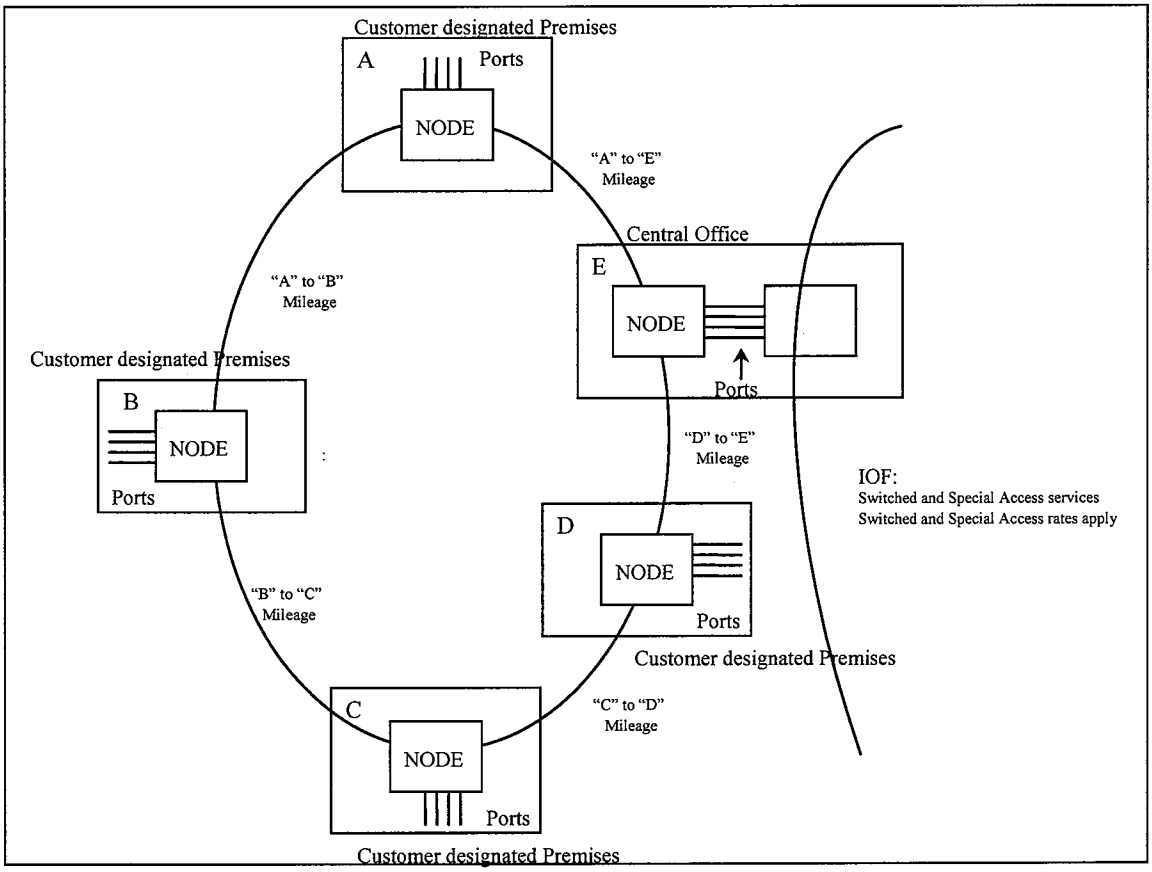
1. Dedicated SONET Ring (**DSR** or the **Service**) provides a dedicated high capacity customized network. The Service is designed in a diversely routed ring architecture or topology that assures survivability. The ring architecture allows for point-to-point optical and high capacity special access services of different bandwidths to be multiplexed on or off of the ring.

2. The Service can be arranged in full (closed) ring, ring-on-ring, or Subtending Ring configurations as described following:

a. Full (Closed) Ring

1. A DSR configured in a full (closed) ring provides connectivity to multiple Customer designated Premises. The full (closed) ring DSR must have a minimum of three (3) Nodes with at least one (1) of the Nodes being located in a CO and one (1) being located at a Customer designated Premises.

2. An example of the full (closed) ring Service is diagrammed below:



b. Ring-on-Ring

1. The Service can be arranged in a ring-on-ring design by overlaying a lower speed DSR over a higher speed DSR. For instance, an OC12 DSR can be overlaid over an OC48 DSR.

2. When DSR is provided in a ring-on-ring design, the following requirements apply:

a. The lower speed ring must have a minimum of two (2) Nodes located at either the Customer designated Premises or a CO; and

b. Verizon must provide the lower speed Enhanced Nodes; and

c. Each lower speed Node must be located at the same Customer designated Premises or a CO as its corresponding higher speed Node.

d. Ring-on-ring designs may not include a mix of Enhanced Nodes and non-Enhanced Nodes.

c. Subtending Rings

1. The Customer may interconnect two (2) or more DSRs in a Subtending Ring configuration subject to the following:

   a. One (1) of the DSRs must be designated by the Customer as the main ring from which the other DSR(s) will subtend. The main ring must be of equal or greater capacity than each DSR that subtends the main ring. For example, a main ring that is an OC12 DSR can have an OC3 and/or OC12 Subtending Ring but can not have an OC48 Subtending Ring. The number of rings that can subtend a main ring may be limited by the type and capacity of the Enhanced Nodes and the Port configuration specific to the Customer's overall DSR Service configuration.

   b. Interconnection between the main ring and the Subtending Ring occurs via a Port Node. A Port Node provides high speed interconnection between an Enhanced Node on the main ring and the high speed Facilities of the Port Node on the Subtending Ring, and applies in lieu of the Enhanced Node on the Subtending Ring at that location. Each Subtending Ring requires one (1) Port Node at the point of interconnection to the Enhanced Node on the main ring. Interconnection between the main ring and a Subtending Ring may occur at a Customer designated Premises or within a CO where such Enhanced Nodes are located. Up to two (2) points of interconnection are allowed per Subtending Ring. A Port Node is required per point of interconnection.

   c. Subtending Ring configurations are not available on DSRs utilizing non-Enhanced Nodes.

   d. Each ring in a Subtending Ring configuration must be arranged as a unidirectional path switched ring.

   e. Where two (2) points of interconnection between the Subtending Ring and the main ring are provided, circuits originating on the main ring may be mapped to the Subtending Ring and circuits originating on the Subtending Ring may be mapped to the main ring. Channels mapped across the two (2) interconnecting Enhanced Nodes are subject to Dual Node Cross-connect Channel Mapping charges.

   f. The main ring and any Subtending Rings associated with the main ring must individually meet the minimum requirement of three (3) Enhanced Nodes, except that only one (1) Enhanced Node for the entire Service configuration must be located in a CO. For example, if the main ring has one (1) Enhanced Node located in a CO and two (2) Enhanced Nodes located at a

Customer designated Premises, the Subtending Ring(s) need not have an Enhanced Node that is located in a CO.

g. When determining if the minimum number of Enhanced Nodes on a Subtending Ring has been met, the Port Node providing interconnection to the main ring is included in the count.

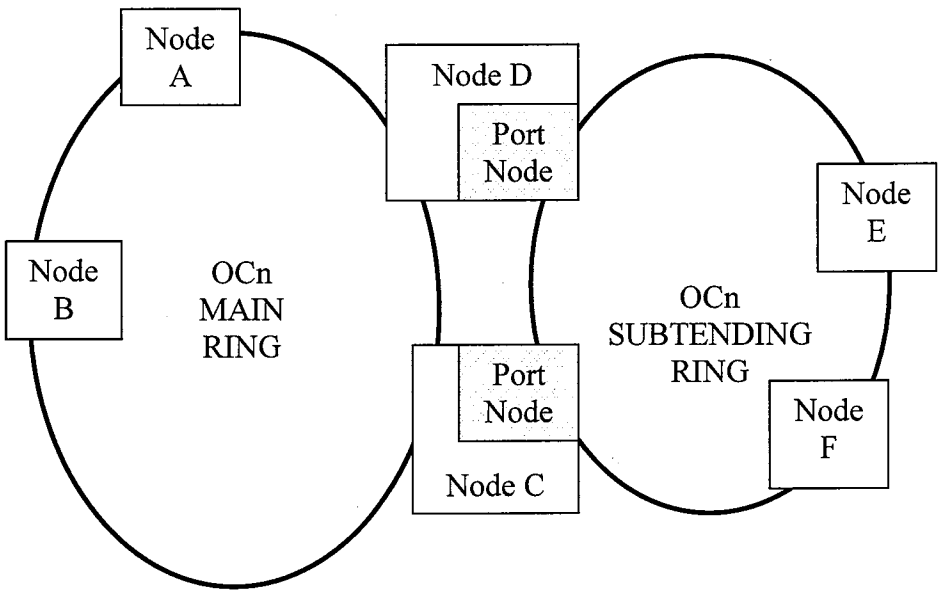
h. When determining if the minimum number of Enhanced Nodes on a Subtending Ring has been met, the Enhanced Node on the main ring that interconnects with the Subtending Ring is not included in the count.

i. Each Subtending Ring may only interconnect with one (1) main ring.

j. Subtending Ring configurations may be established using new DSRs, existing DSRs, or a combination of new and existing DSRs.

k. All DSRs in the same Subtending Ring configuration must be billed to the same Customer.

l. An example of a Subtending Ring configuration with two (2) points of interconnection to the main ring is diagrammed below:



Applicable rate elements:
- Enhanced Nodes (6)
- Port Node (2)
- Mileage for circumference of Main Ring
- Mileage for circumference of Subtending Ring

m. Lower speed services provided over DSR must ingress at an Enhanced Node on either ring (the main ring or the Subtending Ring) and egress at an Enhanced Node on either ring (the Subtending Ring or the main ring). A single Port charge applies at the point of ingress and a single Port charge applies at the point of egress, unless the ingress and/or egress occurs via an Asymmetrical Port Facility in which case a separate Port charge will not apply for each such ingress or egress.

n. At the Customer's option, a lower level service may interconnect the main and one (1) or more of the Subtending Ring(s) through two (2) separate points of interconnection with each Subtending Ring. In this case, a single Dual Node Cross-connect Charge applies per lower level service provided across the interconnecting Port Nodes, regardless of the number of Subtending Rings involved. The Dual Node Cross-connect Charge does not apply when a lower level service interconnects the main and Subtending Ring(s) through a single point of interconnection.

o. In the event that the Customer elects to make a Subtending Ring an independent DSR, the independent DSR ring must meet all of the requirements for a DSR. This may require an additional Enhanced Node in order to satisfy the minimum Enhanced Node requirement for a single, independent ring.

d. Ethernet Packet Ring Service

1. The Ethernet Packet Ring Service (**EPRS**) is available on DSRs that utilize suitably equipped Enhanced Nodes. EPRS enables switched Ethernet signals to be transmitted over partitioned bandwidth of the Customer's DSR.

2. The partitioned bandwidth is referred to as Ethernet Packet Ring Bandwidth (EPRB) and comprised of STS1 capacity within the DSR that is dedicated to unprotected Ethernet signal transmission between Nodes on that DSR. Ethernet signals must originate at and terminate to Nodes that are located at a Customer designated Premises. These Enhanced Nodes are part of the backbone ring for DSR and are also used to add lower level services on to the backbone ring or to drop lower level services from the backbone ring. The partitioned bandwidth may not utilize the entire OCn capacity of the DSR. The DSR must be equipped with at least two (2) Ports, which must be associated with at least one (1) STS1 of the OCn capacity of the DSR.

The following chart lists the partitioned bandwidth rates and the DSR ring speeds that it may be ordered on:

Ethernet Packet Ring Bandwidth Rate	DSR OC12	DSR OC48	DSR OC192
51.84 Mbps (STS1-1v)	X	X	X
155.52 Mbps (STS1-3v)	X	X	X
311.04 Mbps (STS1-6v)	X	X	X
466.56 Mbps (STS1-9v)	X	X	X
622.98 Mbps (STS1-12v)		X	X
1244.16 Mbps (STS1-24v)		X	X

3. Ethernet signals transmitted over the EPRS partition bandwidth may not be connected to other Verizon Ethernet services.

4. Multiple EPRS partitions may be created on the same DSR. Subject to Section (I)(A)(2)(d)(1) preceding, in no case will the total bandwidth of the EPRS partition(s) exceed the remaining OCn capacity of the DSR (i.e., the remaining capacity after the minimum requirement of at least one (1) STS1). Ethernet traffic on the EPRS partition may be transmitted around the ring in either direction (East to West or West to East).

5. Verizon does not guarantee the performance of Ethernet signals transported over EPRS.

6. Verizon will disable SONET protection on the partitioned portion of the DSR used to transmit Ethernet traffic. Verizon does not provide protection on the EPRS or any Ethernet signal transported over EPRS. Therefore, no credit is provided if the EPRS service is interrupted.

7. When a DSR that utilizes the CSM Network Management Method is partitioned for EPRS, CSM functionality will not be provided on EPRS or any Ethernet signals transmitted over EPRS.

8. EPRS cannot be used to access Transparent LAN Service.

9. The EPRS partition will not be connected to any Subtending Nodes or Asymmetrical Port combinations of the associated DSR.

B. Acronyms and Definitions

1. Acronyms

ASR - Access Service Request
FCC - Federal Communications Commission
FICON - Fibre Connection
Gbps - Gigabits Per Second
GigE - Gigabit Ethernet
IBT - IntelliLight® Broadband Transport
IOTS - IntelliLight® Optical Transport Service

ISSP - IntelliLight® Shared Single Path
km - Kilometers
LAN - Local Area Network
Mbps - Megabits Per Second
SWC – Serving Wire Center
UNI - User to Network Interface
USOC - Uniform Service Order Code

2. Definitions

Add/Drop Multiplexing (**ADM**): A multiplexing function that allows lower level signals to be added or dropped from an optical carrier Channel.

Asymmetrical Port: an arrangement where the speed of a service at the point of ingress is different than the speed of that service at the point of egress.

Asymmetrical Port Facility (**APF**): provides a two-point Channelized Facility between a Customer designated Premises or a Collocation arrangement and the OCn higher transmission rate port of the Verizon Dedicated SONET Ring service arrangement.

Central Office (**CO**): A Verizon office or building in which local loops serving a Customer designated Premises in a locality are connected to each other or to a Verizon optical network at such office or building.

Channel(s): an electrical or photonic, in the case of fiber optic-based transmission systems, communications path between two (2) or more points of termination.

Channel Extension: A Channel Extension denotes the extension of Facilities associated with a Subtending Node to a Customer designated Premises or the extension of the Facilities associated with an APF to a Customer designated Premises.

Channel Termination: Channel Terminations provide the fiber local loop Facilities for the communications path between the Customer designated Premises and the CO of that Premises.

Channelize: the process of multiplexing-demultiplexing wider bandwidth or higher speed Channels into narrower band-width or lower speed Channels.

Customer(s): any individual, partnership, association, joint-stock company, trust, corporation, or governmental entity or other entity which subscribes to the Services or other arrangements offered under this Product Guide, including both Interexchange Carriers and End Users.

End User: 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 services exclusively as a reseller shall be deemed to be an

"End User" if all resale transmission offered by such reseller originate on the Premises of such reseller.

Enhanced Node: An Enhanced Node is the next generation add/drop multiplexer which provides additional feature functionality that is not available with the existing first-generation Nodes. Enhanced Nodes are capable of supporting DS1 and Gigabit Ethernet Ports at the OC12, OC48, and OC192 levels.

Facilities: Telecommunications cables and equipment owned and utilized by Verizon in the provision of service. For Collocation, the term Facilities denotes telecommunications cables and equipment owned/leased and used solely by the Customer in connection with its multiplexing node.

Host Customer: A Customer of Verizon who enters into a voluntary SBA with a Service User for the purpose of connecting the Service User's lower capacity service provided by Verizon to Service User to the Host Customer's DSR Service.

Mileage: A rate element which provides the transmission Facilities between the Serving Wire Center associated with Nodes and/or Subtending Node Facility and Asymmetrical Node Facility.

Node: A rate element and a designation of either a Customer designated Premises or CO on a DSR ring that has ADM capability. The Node represents the first-generation ADMs which may not have the capability of dropping DS1 and DS3 circuits directly from an ADM. It is also the address where a Channelized (lower speed) service originates or terminates on a ring.

Optical Carrier Rate (**OC n**): a SONET transmission signal/speed, line rate, or service. The rates are in multiples of an OC1, which is equivalent to an STS1 (51.84 Mbps), SONET's basic rate.

OC(#) Rate	Bandwidth Capacity
3	155.52 Mbps
12	622.08 Mbps
48	2.488 Gbps
192	9.952 Gbps

Optical Carrier Rate Concatenated (**OC#c**): A "clear Channel" SONET transmission using only one (1) framing format. For example, an OC3 signal provides three (3) STS1s frame formats with 3 overheads for a total capacity of 2268 bytes per Synchronous Payload envelope (SPE) frame in an OC3c signal. In an OC3c signal, one (1) STS3c frame format is used with one (1) overhead, increasing the total payload capacity to 2340 bytes per SPE frame.

Premises: A building, 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. Premises does not include Collocation arrangements.

Port: A DSR rate element that denotes the interface at which a Channelized or lower speed service terminates or originates at a DSR Node.

Port Node: An arrangement on a DSR that interconnects the main DSR with a Subtending Ring.

Service Date: The date that a service has been installed, tested and made available to the Customer. A confirmed ASR is required to establish a Service Date.

Shared Network Arrangement (**SNA**): A service offering whereby a Service User may connect subtending services to a Host Customer's service, and Verizon will undertake to maintain separate Customer records and billing for the Service User and the Host Customer.

SONET (Synchronous Optical NETwork): The North American standard for the transmission of high capacity bandwidth over optical Facilities. This synchronous transmission platform utilizes a modular multiplexing approach. Because of the large bandwidth, some of the payload is used to monitor, protect, manage and improve the transmission of the signal.

Subtending Ring: A DSR Service that subtends (interconnects with) a main DSR.

Synchronous Transport Signal Level (**STS1**): A 51.84 Mbps signal that is the electrical equivalent of the OC1 or a DS3 with additional Mbps devoted to SONET overhead information. An STS1 can carry a DS3 or 28 DS1s when specifically formatted (Mapped). These DS1s may be accessed off-ring using the tariffed DS3 to DS1 multiplexing optional service or at an Enhanced Node via a DS3 Transmux Port.

II. SERVICE COMPONENTS

A. Components

The service components of DSR include:

- Nodes
- Subtending Nodes
- Port Nodes
- Ports
- Ring Mileage
- EPRS
- Network Management Methods

1. Nodes

   a. The Customer specifies the ring capacity in terms of Optical Carrier Rates. DSR is available in capacities of OC3, OC12, OC48, and OC192. Lower speed Channel services are provided between Nodes via Port designations. DSR may be provided with Enhanced Nodes that allow for additional Port options. Enhanced Nodes are available on ring capacities of OC3, OC12, OC48, and OC192 for switched access and special access services.

   b. The following Ports are accepted speeds on non-Enhanced Nodes.

Nodes	OC3	OC12/3 [1]	OC12	OC48	OC192
DS1 Ports[2]	X	X			
DS3 Ports[2]	X	X	X	X	X
STS1 Ports[2]	X	X	X	X	X
OC3 Ports[3]			X	X	X
OC3c Ports[3]			X	X	X
OC12 Ports[3]				X	X
OC12c Ports[3]				X	X
OC48 Ports[3]					X
OC48c Ports[3]					X

[1] Only available on existing services. Not available on new purchases

[2] Only available pursuant to Tariff

[3] May also be utilized with Service connecting to certain advanced data services.

c. The type of Ports that are supported on an Enhanced Node may limit the maximum number of Ports that are provided on that Node. Upon installation of a new ring, the Customer must provide Verizon with an initial Port requirement and a forecast of future Port requirements on that Node which Verizon will utilize when engineering the Port configuration for that Node.

Enhanced Nodes	OC3[2]	OC12	OC48	OC192
DS1 Ports[3]	X	X	X	X
DS3 Ports[3]	X	X	X	X
DS3 Transmux Ports[3]		X	X	X
STS1 Ports[3]	X	X	X	X
OC3 Ports[1]		X	X	X
OC3c Ports[1]		X	X	X
OC12 Ports[1]			X	X
OC12c Ports[1]			X	X
OC48 Ports[1]				X
OC48c Ports[1]				X
Ethernet Ports				
GigE1 Ports	X	X	X	X
GigE3 Ports		X	X	X
GigE6 Ports		X	X	X
GigE9 Ports		X	X	X
GigE12 Ports			X	X
GigE24 Ports			X	X
Storage Interface Ports				
Fibre Channel at 1 Gbps			X	X
FICON at 1 Gbps			X	X

[1]May also be utilized with service connecting to certain advanced data services. Concatenation is not allowed on switched access Ports.
[2]Enhanced OC3 Nodes are available for special access configurations only in Verizon East Operating Territories.
[3] Only available pursuant to Tariff.

d. Additional Nodes could be required to maintain service quality levels. Generally, a transmission of twenty (20) or more miles or through six (6) or more COs will be subject to loss of signal integrity, and would require an additional Node. A regeneration Node requires a full capacity Node, i.e., an OC3 Node cannot be used to regenerate transmission on an OC12 ring.

e. Except for DSR utilizing Enhanced Nodes, the Customer may provide a single Node and associated Port equipment at one (1) of its Premises subject to compatibility with Verizon's equipment in the COs. This compatibility requires that the Customer, at its own expense, uses

matching vendor's equipment and maintains the same vintage in software release as Verizon. Upon written notification from Verizon, the Customer has sixty (60) days in which to complete the change out of software. In addition, the Customer must configure the Node to limit access to the data communications Channel of the Node.

f. Verizon can not ensure the performance monitoring of the ring when it is equipped with Customer provided Nodes.

2. Subtending Nodes

a. A Subtending Node is an Enhanced Node that subtends another Enhanced Node of a higher speed (e.g., an OC12 Enhanced Node may subtend an OC192 Enhanced Node).

b. More than one (1) lower speed Enhanced Node may subtend the same higher speed Enhanced Node.

c. The connection between the higher and lower speed Enhanced Nodes is a SONET facility (Subtending Node Facility (**SNF**)) between an OCn Port on the higher speed Node and the lower speed Node which must be of the same Optical Carrier Rate as the OCn Port on the higher speed Node.

d. When the higher speed Enhanced Node is located at a Customer designated Premises, the Subtending Node(s) must be located at the same Customer designated Premises.

e. When the higher speed Enhanced Node is located at a CO, the Subtending Node(s) may be located within that same wire center or extended to a Customer designated Premises that is served by that wire center or by a different wire center. When extending the Subtending Node to a Customer designated Premises, the SNF is subject to a Subtending Node Channel Extension charge. When the Customer designated Premises is not served by the same wire center as the higher speed Enhanced Node, Subtending Node Mileage applies between the wire centers involved. Subtending Node Mileage applies in addition to the Subtending Node Channel Extension charge.

3. Port Nodes

Port Nodes allow interconnection between two (2) DSRs. One (1) of the DSRs will be designated as the main ring and the other DSR is designated as a Subtending Ring.

4. Ports

a. **Ports** provide the interface arrangement which defines the technical characteristics of the Facilities used to terminate service at a network demarcation or to connect to other Verizon services. Ports may be ordered in a symmetrical arrangement (e.g., DS3 Port to DS3 Port), an

asymmetrical arrangement (e.g., OC12 Port to DS3 Port) or in certain transmuxing arrangements.

b. Signals transported over DSR will be mapped as follows:

DSR Mapping
DS1** mapped as VT1.5
DS3** mapped as STS1
STS1** mapped as STS1
OC3 mapped as 3 STS1s
OC3c* mapped as one (1) STS3c Channel or STS1-3v
OC12 mapped as 12 STS1s
OC12c* mapped as one (1) STS12c Channel or STS1-12v
OC48 mapped as 48 STS1s
OC48c* mapped as one (1) STS48c Channel or STS1-48v
Gigabit Ethernet* (available with Enhanced Nodes only)
GigE1 (mapped as 1 STS1 or STS1-1v Channel)
GigE3 (mapped as a STS1-3v Channel or 1 STS3c Channel)
GigE6 (mapped as a STS1-6v Channel or 1 STS6c Channel)
GigE9 (mapped as a STS1-9v Channel or 1 STS9c Channel)
GigE12 (mapped as a STS1-12v Channel or 1 STS12c Channel)
GigE24 (mapped as a STS1-21v Channel or 1 STS24c Channel)
Storage Interface* (available with Enhanced Nodes only)
Fibre Channel (mapped as a STS1-19v Channel)
FICON (mapped as a STS1-19v Channel)
* Special access Ports only

DS1 @ OC3 or OC12/3 Node	S8JAX	S8JA3	S8JA5	S8JA7
DS1 @ OC12 Node	S8LUX	S8LU3	S8LU5	S8LU7
DS1 @ OC48 Node	S8LVX	S8LV3	S8LV5	S8LV7
DS1 @ OC192 Node	S8LWX	S8LW3	S8LW5	S8LW7
DS3 or STS1 @ OC3 or OC12/3 Node	S8JBX	S8JB3	S8JB5	S8JB7
DS3 or STS1 @ OC12 Node	S8JCX	S8JC3	S8JC5	S8JC7
DS3 or STS1 @ OC48 Node	S8JDX	S8JD3	S8JD5	S8JD7
DS3 or STS1 @ OC192 Node	S8JXX	S8JX3	S8JX5	S8JX7
DS3 Transmux @ OC48 Node	S8LZX	S8LZ3	S8LZ5	S8LZ7
DS3 Transmux @ OC192 Node	S8I1X	S8I13	S8I15	S8I17

**The rates, charges, terms, and conditions for the DS1, DS3, and STS1 USOC Channels listed above are provided pursuant to Tariffs

c. When high capacity special access, NYNEX Enterprise Service, IntelliLight® Shared Single Path (**ISSP**), or IBT is provided between two (2) DSRs, the associated Ports must be symmetrical.

d. Asymmetrical Ports

1. Asymmetrical Ports allow lower level services to be added to, and dropped from, DSR using Ports with different transmission rates. Provisioning of lower level services via Ports with different transmission rates requires the establishment of APF as described in Section (II)(A)(4)(d)(3) following. A lower level service may ingress and/or egress a DSR via an APF. In the case where a lower level service utilizes an APF to both ingress and egress a DSR, an Asymmetrical Port Mapping Nonrecurring Charge applies. For example, an OC3 Channel can be added to the ring via an OC12 Port and dropped from the ring via an OC3 Port. These lower level services may originate and/or terminate at locations that are on or off of the DSR.

2. For OCn Ports, the Port with the higher transmission rate uses an APF (also referred to as a Stub Hub), which is Channelized to individual services requiring lower capacity Facilities and lower capacity Ports. Only one (1) such higher transmission rate OCn Port applies per Asymmetrical Port arrangement. The number of lower capacity services that can utilize the same APF is limited by the total STS1 capacity of the connecting services. Available transmission rates for the APF are dependent on the capacity of the Port to which it is connected. For example, an OC12 APF cannot be established on an OC3 Port. Additionally, the capacity of the Port is dependent on the capacity of the Node involved.

3. The APF provides a two-point Channelized Facility between a Customer designated Premises or and a collocation arrangement where a Customer is provided Collocated Interconnection arrangements as described in Section 19.2 of Tariff FCC No. 1, Expanded Interconnection arrangements as described in Section 28.1 of Tariff FCC No. 11, Expanded Interconnection Services as specified in Section 17 of Tariffs FCC No. 14 and 16, or state tariffs, as applicable (**Collocation**), and the OCn higher transmission rate Port of the Asymmetrical Port combination. Such Port may be associated with a Node that is located at either the Customer designated Premises or a CO.

    a. When the APF is located at the Customer designated Premises, the APF is provided between the Customer designated Premises and the Port on the associated Node located at that same Premises.

    b. When the APF is located in a CO and the APF connects to a Customer designated Premises that is served by the same CO, an Asymmetrical Port Channel Extension applies to extend the APF to the Customer designated Premises. Rates and charges for the Asymmetrical Port Channel Extension apply in addition to the rates and charges for the Port.

    c. When the APF is located in a CO and the APF connects to a Customer designated Premises that is served by a different

CO, Asymmetrical Port Channel Extension and Asymmetrical Port Mileage applies to extend the APF to the Customer designated Premises. Rates and charges for the Asymmetrical Port Channel Extension and Asymmetrical Port Mileage apply in addition to the rates and charges for the Port.

d. When the APF is located in a CO and the APF connects to a Collocation arrangement that is located within the same CO as the Node, a Port charge applies.

e. When the APF is located in a CO and the APF connects to a Collocation arrangement that is not located within the same CO as the Node, Asymmetrical Port Mileage applies to extend the APF to the Expanded Interconnection arrangement. Rates and charges for the Asymmetrical Port Mileage apply in addition to the rates and charges for the Port.

f. For (c) through (e) preceding, Channel Terminations or cross-connect charges apply in addition to the Port, Asymmetrical Port Channel Extension and Asymmetrical Port Mileage charges. Channel Termination charges apply in accordance with the applicable Tariff(s). In addition to charges described herein, any other charges associated with connecting the Service to a Collocation arrangement are described in the applicable Tariffs.

g. Asymmetrical Ports are available in the following combinations.

Ring Capacity	APF Rate	Asymmetrical Port Combinations#**
OC3 DSR Ring	N/A	DS3 Transmux – DS1*
	STS1	STS1 – DS3
		STS1 – DS1*
OC12 DSR Ring	N/A	STS1 – DS3
		DS3 Transmux – DS1*
	OC3	OC3 – STS1
		OC3 – DS3
		OC3 – DS1*
		OC3 – GigE3*
		OC3 – GigE1*
OC48 DSR Ring	N/A	STS1 – DS3
		DS3 Transmux – DS1*
	OC12	OC12 – OC3
		OC12 – OC3c
		OC12 – STS1
		OC12 – DS3
		OC12 –DS1*
		OC12 – GigE12*
		OC12 – GigE9*
		OC12 – GigE6*
		OC12 – GigE3*
		OC12 – GigE1*
	OC3	OC3 – STS1
		OC3 – DS3
		OC3 – DS1*
		OC3 – GigE3*
		OC3 – GigE1*
OC192 DSR Ring	OC48	OC48 – OC12
		OC48 – OC12c
		OC48 – OC3
		OC48 – OC3c
		OC48 – STS1
		OC48 – DS3
		OC48 – DS1*
		OC48 – GigE24*
		OC48 – GigE12*
		OC48 – GigE9*
		OC48 – GigE6*

Ring Capacity	APF Rate	Asymmetrical Port Combinations #
OC192 DSR Ring	OC48	OC48 – GigE3*
		OC48 – GigE1*
	OC12	OC12 – OC3
		OC12 – OC3c
		OC12 – STS1
		OC12 – DS3
		OC12 – DS1*
		OC12 – GigE12*
		OC12 – GigE9*
		OC12 – GigE6*
		OC12 – GigE3*
		OC12 – GigE1*
	OC3	OC3 – STS1
		OC3 – DS3
		OC3 – DS1*
		OC3 – GigE3*
		OC3 – GigE1*

* Requires Enhanced Node. For Ethernet (GigE) port options, the associated Ethernet Service must be SONET mapped.

Enhanced Nodes and concatenation are not available on switched access Ports

e. Transmux Ports

The DS3 Transmux Port performs a DS3 to DS1 conversion at an Enhanced Node. The DS3 to DS1 conversion allows a single DSR DS3 Transmux Port (which includes a DS3 Transmux Facility to which the DS1 circuits are mapped) to be a Facility associated with up to 28 VT1.5 mapped DSR DS1 Ports. Such DS3 Transmux Facility will be provisioned upon ordering the associated DS1 Transmux Port. Transmux Ports are available pursuant to the Tariffs.

f. Storage Interface Port

1. The FICON Storage Interface Port provides an optical transport Channel for transmission of 1 Gbps FICON among mainframes, storage devices and on a single Channel. A FICON signal is limited to a maximum distance of 100km (physical route kilometers) between the locations involved.

2. The Fibre Channel Storage Interface Port provides an optical transport Channel for transmission of 1 Gbps signals in a serial link between supercomputers, mainframes, workstations, desktop computers, storage devices, displays and other peripherals. A Fibre Channel signal is limited to a maximum distance of 100 km (physical route kilometers) between the locations involved.

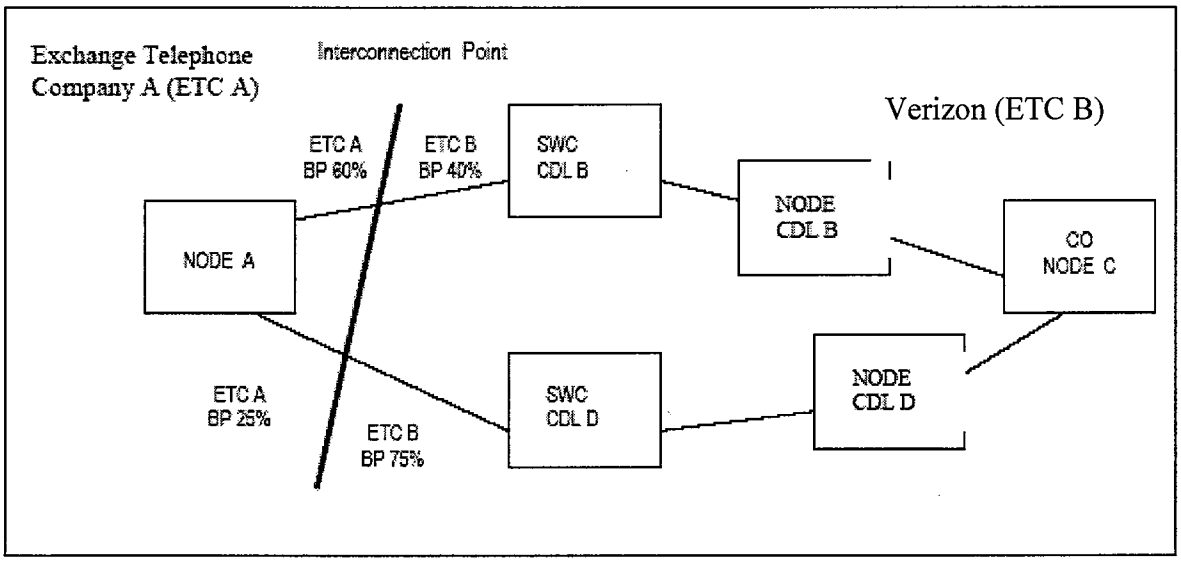
5. Ring Mileage

a. Ring Mileage provides fiber and inter-office Facilities needed for the transport of services across the DSR. Ring Mileage is measured as the total of airline distances between Nodes rounded up to the nearest mile.

b. The Ring Mileage is based on total ring capacity and not on individual services between Nodes. For example, the mileage charge for a four (4)-Node OC3 ring with 5.1 miles between each Node (20.4 total miles) would be calculated by multiplying the OC3 mileage rate by 21 miles. This mileage calculation applies regardless of the number of services (e.g., DS3s) on the ring.

c. When DSR is provided over an IOTS backbone network, connection between the DSR Nodes is provided using IOTS optical transport Channels in lieu of DSR Channel mileage between the Nodes.

d. For DSR offered in the West Operating Territories as specified in Section (IV)(B)(2) following where the ring is provided between the operating territories of two (2) or more telephone companies, DSR Mileage is determined using the following methodology.



Step 1 – Calculate the total Ring Mileage by summing the mileage connecting all locations and devices (Node A to SWC CDL B) + (SWC CDL B to Node CDL B) + (Node CDL B to CO Node C) + (CO Node C to Node CDL D) + (Node CDL D to SWC CDL D) + (SWC CDL D to Node A), If the total Ring Mileage includes a fraction of a mile, the value is rounded up to the next full mile.

Step 2 – Determine the Verizon (**ETCB**) portion of the total Ring Mileage by first multiplying the mileage between Node A and the SWC of CDL B by the billing percentage (**BP**) for ETCB (40%) and between the SWC CDL D and Node A by the BP for ETCB (75%) and adding these adjusted mileage segments to the remaining mileage segments on the ring (SWC CDL B to Node CDL B) + (Node CDL B to CO Node C) + (CO Node C to Node CDL D) + (Node CDL D to SWC CDL D). If this Ring Mileage calculation includes a fraction of a mile, the value is rounded up to the next full mile. If the ETCB portion of the total Ring Mileage is 20 miles or less, utilize the process set forth in Step 3 following to determine the mileage charges for each exchange telephone company involved. If the ETCB portion of the total Ring Mileage is 21 miles or over, utilize the process set forth in Step 4 through Step 6 following to determine the mileage charges for each exchange telephone company involved.

Step 3 – Develop a Ring BP by dividing the ETCB portion of the total ring miles determined in Step 2 by the total ring miles determined in Step 1. Next apply this Ring BP to the total Ring Mileage for ECTB determined in Step 2 and apply the applicable Verizon rates for 1-20 total ring miles.

Step 4 - If the ETCB portion of the total ring miles determined in Step 2 is 21 miles or more, apply the applicable Verizon 1-20 Ring Mileage rate to the first 20 miles.

Step 5 - Determine the remaining ETCB portion of the total Ring Mileage by subtracting 20 miles from the ETCB portion of the total Ring Mileage determined in Step 2. Next apply the applicable Verizon rates for mile 21 and over up to the ETCB portion of the total ring miles.

Step 6 - The total charge for Ring Mileage is the sum of the charges for the first 20 miles calculated in Step 4 plus the remaining miles billed at the rate for 21 miles and over as calculated in Step 5.

6. EPRS

a. EPRS is comprised of two or more Ethernet Packet Ring Access Stations (**EPRAS**) which define the bandwidth of the EPRS.

The following is a listing of EPRAS cards that can be ordered for EPRS:

4 ports @ 10/100 Base-T (Electrical)
12 ports @ 10/100 Base-T (Electrical)
4 ports @ 100 Base-LX Single Mode Fiber (SMF)
4 ports @ 100 Base-SX Multi Mode Fiber (MMF)
8 ports @ 100 Base-LX or SX (SMF or MMF)
2 ports @ 1000 Base-LX (SMF)
2 ports @ 1000 Base-SX (MMF)
2 ports @ 1000 Base-LX or SX (SMF or MMF)

b. Each station has one or more Ethernet ports called User to Network Interfaces (**UNIs**) The UNI gives the Customer access to the EPR bandwidth that is optioned by the EPRAS.

The following is a listing of UNIs that may be ordered for EPRS:

10 Mbps (Electrical)
100 Mbps (Electrical)
100 Mbps 1310 nm (SMF)
100 Mbps 850 nm (MMF)
1000 Mbps 1310 nm (SMF)
1000 Mbps 850 nm (MMF)

B. Network Management Methods

The Customer has the option of purchasing one (1) of the following network management methods for use with special access DSR Service provided by Verizon. Only one (1) of these network management methods may be provided on a single DSR Service. In order to purchase one (1) of the network management methods, Customer must be subscribed to a DSR Service and must use such DSR Service in conjunction with the selected network management method.

- Customer Service Management
- Direct TL1 Monitoring

1. Customer Service Management

a. Description

Customer Service Management (**CSM**) provides a Customer with real-time information about the operational status of its DSR network and the ability to reconfigure lower level services riding the DSR. Three (3) Service Levels of support are offered for CSM. Each Service Level provides different functionalities to which the Customer may gain access. These functionalities are described following and include access to real-time information about the Customer's DSR network, the ability to generate reports, and the ability to reconfigure lower level services riding the DSR. When ordering CSM, the Customer must specify the level of CSM support as one (1) of the following three (3) Service Levels.

1. Level 1 support provides a network view of real-time detection and reporting of network alarm conditions within the Customer's DSR network.

2. Level 2 support provides the same support described in Level 1 along with the ability for the Customer to generate basic network performance reports for its DSR network. The Customer may also request network performance reports that are customized to meet their specific needs.

3. Level 3 support provides the same support described in Levels 1 and 2 along with the ability to reconfigure (re-map) the end points of lower level services riding the ring.

    a. Reconfiguration using CSM consists of re-mapping the end point of a primary circuit to its preplanned (backup) Port location. The Customer must specify a preplanned Port location for each primary circuit installed. The preplanned Port location is a backup location that is activated and de-activated when a primary circuit is reconfigured at the request of the Customer via the CSM platform. A reconfiguration is limited to the mapping of one (1) primary circuit to its assigned preplanned location. For each preplanned Port location, a monthly recurring rate and a nonrecurring installation charge apply per Port. When the primary circuit and preplanned Port are part of a SNA, the Service User's Letter of Authorization for the SNA must include an acknowledgment that the Host Customer has the ability to perform CSM functions (e.g., reconfiguration) on the portion of the Service User's service that rides the DSR.

    b. A Verizon Performed Reconfiguration charge will apply when the Customer requests that Verizon perform a reconfiguration of service on its behalf. This charge does not apply when a Customer performs its own service reconfiguration.

    c. Reconfiguration is not permitted on services arranged in the following service configurations:

        - switched access service;

- service provided under a shared use arrangement;
- service associated with Centrex-CO or Primary Rate ISDN service;
- primary circuits for which the Customer has not specified a preplanned backup location; or
- Fibre Channel/FICON service.

d. When CSM is added to an existing ring, existing circuits that are being made reconfigurable will require that an ASR be issued to designate the circuit as reconfigurable. Nonrecurring charges pursuant to the Tariffs may apply. Verizon's ability to provide CSM on a particular ring may be limited by the overall configuration of that ring. Reconfiguration is limited to those circuits that originate and/or terminate on the ring (i.e., at locations served by a Node on the ring) and utilize Ports that are symmetrical. For circuits that originate or terminate off the ring (i.e., at locations not served by a Node on the ring), the reconfiguration is limited to Customer designated Premises Node locations on the ring.

b. Terms and Conditions

1. The Customer must utilize Internet web access to connect its Customer-provided terminal equipment to Verizon's CSM management system. Access to the Internet and any associated rates and charges are the responsibility of the Customer. The Customer is also responsible for obtaining communications software that is compatible with the software Verizon utilizes to provide CSM. Verizon will work cooperatively with the Customer to determine compatibility of its communications software.

2. CSM is provided only when Verizon provides all Nodes on the ring.

3. CSM is provided coincident with the installation of the associated DSR or may be added to an existing ring. The Customer will be responsible for the rates and charges applicable to CSM.

4. With Service Level 2 or 3 support, the Customer may retrieve certain basic reports containing performance-monitoring information on its DSR network, as designated and provided by Verizon. Basic reports are available at no additional charge to the Customer. The Customer may also request that a report be customized to meet its particular needs. Rates and charges for customized reports are provided on an individual case basis only. Reports are not provided with Level 1 support.

5. CSM is subject to termination liability if CSM is removed prior to completion of the existing Commitment Period. The terms and conditions in Section (V)(D)(6) following, as applicable, apply to removal of CSM prior to completion of the existing Commitment Period.

6. When the SNA is requested for a service that will be part of the Host Customer's DSR equipped with the CSM network management methods, the Service User's Letter of Authorization for the SNA must include an acknowledgment that the Host Customer has the ability to perform CSM functions (e.g., reconfiguration) on the portion of the Service User's service that rides the DSR.

2. Direct TL1 Monitoring

a. Description

1. Direct Transaction Language 1 (**TL1**) Monitoring (**DTM**) provides a Customer with near real-time information about the operational status of its DSR network over a TL1 connection. A TL1 connection is a machine-to-machine communication language protocol. The connection allows a Customer to monitor its DSR network via a limited set of executable TL1 commands in order to query alarm and performance criteria.

2. DTM enables the following:

a. Near real-time access to system-generated alarm and performance messages originating from the Customer's DSR network elements.

b. Query and response capability that enables two-way communications with the capability to poll and retrieve messages, such as command alarms and performance messages.

c. Access to DSR inventory information that will enable the Customer to maintain its own inventory database containing network element configurations and usage records for active service Channels.

d. Notification that a power failure has occurred at a DSR network element and that the affected network element has reverted to battery backup.

e. Ability to monitor the ring, as well as all service Channels riding the ring. When a Channel riding the ring is part of a SNA, the Service User's Letter of Authorization for the SNA must include an acknowledgment that the Host Customer has the ability to perform DTM functions (e.g., monitoring) on the portion of the Service User's service that rides the DSR.

b. Terms and Conditions

1. DTM is provided coincident with the installation of the associated DSR or may be added to an existing ring. The Customer will be responsible for the rates and charges applicable to DTM.

2. The Customer must order two (2) special access services as provided by Verizon under Tariff in order to ensure secure, dedicated private line access and enable full redundancy for DTM. These special access services must originate at the Customer's designated Premises and terminate at a DTM site designated by Verizon. Special access service will only be provided in accordance with the terms and conditions of the Tariffs. The Customer is responsible for procuring any additional services that may be necessary to connect the special access Service to the Customer's designated Premises.

3. When requested by the Customer, and where technically feasible to do so, Verizon will provide encryption capabilities on the special access services used to access DTM. Verizon will specify any equipment or software required to provide encryption. Obtaining such equipment or software is the responsibility of the Customer. The Customer is also responsible for:

   - security of any equipment, servers, systems, or other Facilities provided by the Customer and which have access to the DTM network; and
   - monitoring access to the DTM service using the Facilities, systems, equipment, or servers provided by the Customer.

4. DTM is only provided when Verizon provides all the Nodes on the ring.

III. TECHNICAL

A. Technical Specifications

Technical specifications are delineated in the following publications:

1. Telcordia Document GR-253-CORE
   Issue 4, September 2000
   "Synchronous Optical Network (SONET) Transport Systems: Common Generic Criteria"

2. Telcordia Document GR-1374-CORE
   Issue 1, December 1994
   "SONET Inter-Carrier Interface Physical Layer Generic Criteria for Carriers"

3. American National Standards Institute, **(ANSI)** T1.105-1996
   "Synchronous Optical Network (SONET) - Basic Description including Multiplex Structure, Rates and Formats"

4. ANSI X3.802.3, Telecommunications and information exchange between systems-Local and Metropolitan Areas Networks-Specific Requirements-Part 3, Released 1998.

5. ANSI X3.802.3z, Supplement to Standard for Information Technology-Local and Metropolitan Area Networks, Part 3, Released 998.

6. EPRS is provided subject to the technical specifications contained in IEEE 802.17.

7. Technical specifications are subject to change in accordance with changes adopted by standards-setting industry bodies. Such updates to technical specifications, as they occur, shall be automatically incorporated without the requirement to amend this Product Guide.

B. Reserved

IV. TERMS AND CONDITIONS

A. Deployment and Availability

1. DSR offered pursuant to this Product Guide is offered as a jurisdictionally interstate service (i.e., the traffic is more than ten percent (10%) interstate in nature). If the DSR Service is not jurisdictionally interstate, then Customer shall inform Verizon of the same and shall purchase such services (if available and offered by Verizon) pursuant to the applicable arrangement offered by Verizon (e.g., Tariff or contract).

2. Since DSR Service provides a dedicated high capacity customized network, it is deployed upon Customer request. Where Verizon does not have sufficient Facilities and equipment available to meet Customer's request, Verizon may provide the Service subject to additional special construction charges, if any. If Customer agrees to the special construction charge, Verizon and the Customer shall enter into a separate agreement for such special construction.

3. DSR is available based on negotiated intervals between the Parties.

4. DSR is currently available in the operating territories of the following Verizon Operating Telephone Companies:

East Operating Territories
Connecticut - Verizon New York Inc.
Delaware - Verizon Delaware LLC
District of Columbia - Verizon Washington, DC Inc.
Maine - Verizon New England Inc.
Maryland - Verizon Maryland Inc.
Massachusetts - Verizon New England Inc.
New Hampshire – Verizon New England Inc.
New Jersey – Verizon New Jersey Inc.
New York - Verizon New York Inc.
Pennsylvania - Verizon Pennsylvania Inc.

Rhode Island - Verizon New England Inc.
Vermont - Verizon New England Inc.
Virginia - Verizon Virginia Inc.
West Virginia - Verizon West Virginia Inc.

West Operating Territories
Arizona - Verizon California Inc.
California - Verizon California Inc., Verizon West Coast, Inc.
Florida - Verizon Florida LLC
Idaho - Verizon Northwest Inc.
Illinois - Verizon North Inc., Verizon South Inc.
Indiana - Verizon North Inc., Contel of the South Inc.
Michigan - Verizon North Inc., Contel of the South Inc.
Nevada - Verizon California Inc.
North Carolina - Verizon South Inc.
Ohio - Verizon North Inc.
Oregon - Verizon Northwest Inc.
Pennsylvania - Verizon North Inc.
South Carolina - Verizon South Inc.
Texas - Verizon Southwest Inc.
Virginia - Verizon South Inc.
Washington - Verizon Northwest Inc.
Wisconsin - Verizon North Inc.

5. DTM is only available in the East Operating Territories.

6. Verizon may discontinue the Service with no less than a thirty (30) day written notice provided to the Customer. On and subsequent to the effective date of the Service discontinuance, Customer will no longer be able to purchase or order any new Service. However, Customer can add, move, or change its existing Service as long as such activity does not result in a new Commitment Period or an Extension of a Commitment Period. For existing Service ordered on a month-to-month term plan or that is being provided by Verizon on a month-to-month basis as set forth in Section (V)(C)(4) following, Customer will have six (6) months from the effective date of the Service discontinuance to convert the Service to another service provided by Verizon or disconnect the Service. For existing Service ordered under a term plan of 3, 5, or 7 years, Customer can retain the Service until the expiration date of the term plan. Upon expiration of the term plan, Customer must convert the Service to another service provided by Verizon or disconnect the Service, but in no event shall the Customer have less than six (6) months from the effective date of Service discontinuance to convert the Service to a different service provided by Verizon or to disconnect the Service.

7. Verizon may grandfather the Service with no less than a thirty (30) day written notice provided to the Customer. On and subsequent to the effective date of the grandfathering of the Service, Customer will no longer be able to purchase or order any new Service. However, Customer can add, move, or change the existing Service as long as such activity does not result in a new Commitment Period or an Extension of a Commitment Period. Customer can retain the

existing Service until the term plan expiration or on a month-to-month basis as specified in Section (V)(C)(2) following.

B. Product Limitations

1. Wholly Provided Rings

a. DSR Service provides connectivity to multiple Customer designated Premises (Nodes) for both switched access and special access DSR. A ring must have a minimum of three (3) Nodes at different locations. At least one (1) of the Nodes must be located in a Verizon CO and one (1) must be located at a Customer designated Premises.

b. For DSR Services that are provided wholly by Verizon, Verizon is responsible for the overall design and configuration of the DSR ring. The Customer must provide Verizon with complete and accurate information to design and construct the Customer's Service. Construction of the ring will not begin until such design and configuration are mutually agreeable to both the Customer and Verizon. For the West Operating Territories, the order date for the ring is the date on which the Customer provides Verizon with a complete and accurate ASR for the Service. In the event that the Customer cancels its request, or part of its request, for construction of the ring, cancellation charges will apply. For the East Operating Territories, Verizon will construct the Customer's ring prior to issuance of an ASR. The order date for the ring is the date on which the Customer provides Verizon with written or electronic authorization to begin construction. Upon subsequent notification by Verizon that construction is complete, the Customer must submit an ASR for the constructed Service so that billing may commence. In the event that the Customer cancels its request, or part of its request, for construction of the ring, or fails to subsequently issue the ASR so that billing of the constructed ring may commence, cancellation charges will apply.

2. Jointly Provided Rings (West Operating Territories only)

a. For DSR Service jointly provided by Verizon and one (1) or more other exchange telephone companies in a multiple company billing arrangement, the DSR Service must be configured with a minimum of three (3) Nodes. A minimum of one (1) Node must be provided by Verizon with that Node being located in a CO and the remaining devices may be provided by one (1) or more of the other exchange telephone companies jointly providing the Service. If more than one (1) Node is provided by Verizon, the additional Nodes may be located at either a Customer designated Premises or in a CO. Jointly provided DSR Service must meet all of the same requirements that are set forth in this Product Guide for wholly provided DSR Service. The Customer or third party is responsible for engineering its portion of the jointly provided ring.

b. In the case of a DSR Service that is jointly provided by Verizon and one (1) or more other telephone companies in a multiple billing arrangement, the overall design and configuration of the DSR Service must be mutually

agreeable to Verizon, any other exchange telephone company(s) involved, and to the Customer. The multiple bill option allows all companies providing Service to bill the Customer for their portion of a jointly provided DSR. Each company will determine the applicable charges, including all recurring and nonrecurring rates and charges, and forward the bill to the Customer. The Customer will remit the payments directly to each company.

c. The Customer must provide Verizon with complete and accurate information to design and construct the Customer's Service. Construction of the ring will not begin until such design and configuration are mutually agreeable to both the Customer and Verizon. For the West Operating Territories, the order date for the ring is the date on which the Customer provides Verizon with a complete and accurate ASR for the Service. In the event that the Customer cancels its request, or part of its request, for construction of the ring, cancellation charges will apply.

C. Connection to Other Services

1. DSR may connect to IOTS optical transport Channels. IOTS combines Dense Wave Division Multiplexing and SONET technologies to create a high-speed backbone network configured in a ring architecture.

2. A switched or special access DSR Port may connect to an equal speed IBT service, an equal speed IBT multiplexing Node or an equal speed Port of a multiplexed IBT service.

3. Verizon Optical Networking OC3, OC3c, OC12, OC12c, and OC48 Ethernet-to-SONET mapped services may be connected to special access OC3, OC3c, OC12, OC12c, and OC48 Ports, respectively, via symmetrical or Asymmetrical Port arrangements.

a. In a symmetrical Port arrangement, one (1) of such Ports applies on the higher-speed Enhanced Node at the Verizon CO where the Service enters the ring, and a second Port of the same capacity applies on the higher-speed Enhanced Node where the Service exits the ring. For example, a Verizon Optical Networking OC3c Ethernet-to-SONET mapped service would require two (2) OC3c Ports in a symmetrical Port arrangement (one (1) Port to enter the ring and one (1) Port to exit the ring).

b. In an Asymmetrical Port arrangement, one (1) of such Ports referenced above applies on the higher-speed Node at the Verizon CO where the service enters the ring, and the service exits the ring via the OCn Port associated with the APF. More than one (1) such service referenced above may utilize the same APF and OCn Port of that APF. For example, three (3) Verizon Optical Networking OC12 Ethernet-to-SONET mapped services require three (3) OC12 Ports (one (1) Port for each service) to enter the ring, and all three (3) of such services could be provided over an OC48 APF, and exit the ring via the same OC48 Port of that facility. The

number of services that can exit the ring via the same Port is limited by the STS1 capacity utilized for the connecting service.

4. Ethernet services are provided on a point-to-point basis (i.e., native Ethernet to native Ethernet) between two (2) suitably equipped DSR Premises Enhanced Nodes. Additionally, Verizon Optical Networking Gigabit Ethernet (transmitted at 50, 150, 300, 450, 600 Mbps or Full Rate) may be connected to a DSR Enhanced CO Node. The connection of Verizon Optical Networking Gigabit Ethernet to DSR will occur via a special access DSR GigE-1, 3, 6, 9, 12 or 24 Port on the CO Node. When Customers who subscribe to Verizon Optical Networking under a one-year Commitment Period connect their Verizon Optical Networking Gigabit Ethernet service to DSR, the DSR GigE Ports will be billed at month-to-month rates. Native to native Ethernet services may not be provided over an APF.

5. When a Customer transmits internet protocol, or Ethernet signals, the mapping feature must be designated.

D. Reserved

E. Responsibilities of the Parties

1. Verizon shall bill Customer in accordance with the rates and charges applicable to DSR.

2. The Customer must provide, at no cost to Verizon, suitable and secure space, suitable environmental conditions, and uninterrupted power supply, building entrance Facilities, and conduit for placement of the Facilities and network equipment at its locations as necessary to provide the Service.

3. Shared Network Arrangement

a. Either a Host Customer or a Service User may place an order to establish, change, disconnect or move DSR provided with the SNA option. Prior to placing an order, the ordering Customer must obtain a signed letter of authorization from the other Customer participating in the SNA. The letter of authorization must be signed by both the Host Customer and the Service User and include the CFA and Billing Account Number (**BAN**) of the Host Customer's Service. In the event that a Service User requests the connection of a service to a Host Customer's Service which is, in turn, part of a separate SNA, the ordering Customer must also obtain and provide to Verizon the appropriate BAN and CFA of the third party's service, in order to identify the complete circuit for purposes of maintenance and testing continuity. Customer will be responsible for notifying Verizon of service outages and assume responsibility for ensuring cooperative testing among the three parties (i.e., Verizon, Customer and third party). The ordering Customer must provide a copy of the letter of authorization to Verizon at the time the order is placed.

b. Upon receipt of a letter of authorization for an SNA from the Host Customer, Verizon will undertake to connect the Service User's circuits to the Host Customer's Service and to establish and maintain separate billing for the Service User's portion of the Service.

F. Space and Power

1. The Customer shall furnish or arrange to have furnished to Verizon, at no charge, equipment space and electrical power required by Verizon to provide services under this Product Guide at the Points of Termination of such services. The selection of AC or DC power shall be mutually agreed to by the Customer and Verizon. The Customer shall also make necessary arrangements in order that Verizon will have access to such spaces at reasonable times for installing, testing, repairing, or removing Verizon services.

2. The Customer will be billed additional charges for any charges levied to Verizon for space and power required to place ADMs on Verizon's side of the network interface.

G. Service Interruptions

1. Service Interruption is defined as a condition which renders the DSR Service unusable to Customer solely as a result of failure of a Facility or equipment within the Verizon network that is used to furnish Service under this Product Guide. Verizon reserves the right to determine when the DSR Service is unusable based on its internal procedures. A Service Interruption period starts when Verizon is notified by Customer that the Service is inoperative. Notification must be in a manner and format designated by Verizon.

2. Subject to Section (IV)(G)(3) following, Customer is eligible to receive certain credits (Credit Allowance) (as set forth in more detail below) on an affected DSR if such DSR experiences Service Interruption.

a. DSR is guaranteed to have uninterrupted service. Any Service Interruption greater than one (1) minute due solely to a Verizon Facility failure will result in a Credit Allowance of one hundred percent (100%) of the monthly recurring rate for the applicable rate elements of the affected Service. Only one (1) such credit is allowed in a single month's billing period.

b. When DSR is arranged with Subtending Rings, a credit allowance for a Service Interruption is applied independently to each ring. For example, if the main DSR becomes interrupted and is eligible for a Credit Allowance, no Credit Allowance is due on the Subtending Ring(s) associated with that main ring unless service on the Subtending Ring(s) is also interrupted.

3. Credit Allowance will not apply:

   a. When Customer fails to report the Service Interruption to Verizon, or fails to report in a manner consistent with the processes or procedures outlined by Verizon; or

   b. When the Service Interruption was caused in whole or in part by the act or omission of Customer or a party authorized by Customer to use the Service; or

   c. When the Service Interruption was due to the failure of power, equipment, service, or systems provided by Customer or third parties; or

   d. For any period of Service Interruptions in which Verizon is not afforded access to the Premises where the Service is terminated; or

   e. For any period of Service Interruptions in which Customer has agreed to release the Service to Verizon for maintenance purposes, for service rearrangements or moves as described in Section (V)(D)(3) following, or for the implementation of an order for a change in the Service; or

   f. For any period of scheduled maintenance or scheduled downtime where Customer has received prior notification from Verizon; or

   g. For any period of temporary discontinuance of Service due to characteristics and methods of operation of any circuits, Facilities, or equipment not provided by Verizon and associated with the Facilities utilized to provide Services under this Product Guide which interfere or impair the Service provided by Verizon; or

   h. For any period of Service Interruption when Customer elects not to release the Service for testing and/or repair; or

   i. For any Service Interruption caused by or related to a Force Majeure event.

H. Reserved

I. Reserved

J. Conversions and Upgrades

1. Customers who wish to convert existing high capacity special access services, or IBT or Custom Connect to a DSR may do so without conversion charges (termination liability and installation charges) as long as the total capacity of the new DSR is not less than the total capacity of the replaced services.

2. Where one or more existing Custom Connect/IBT or high capacity service is converted to DSR, the replacing DSR must have at least one Customer designated Premises Node location in common with the existing service being replaced.

K. Shared Use

Shared use is permitted whenever special access and switched access are provided over the same DSR. At least one (1) Channel of a service (e.g., DS1 or DS3) on the ring must be special access for the service to be billed as special access.

L. Reserved

V. APPLICATION OF RATES AND CHARGES

A. Rate Structure

1. Nodes

a. Monthly recurring rates apply per Node and Port Node for both Switched and special access. Rates apply based on the OC rate for the Node type.

b. Nonrecurring charges for DSR Nodes apply to all Nodes and Port Nodes installed subsequent to the initial installation of DSR.

c. A single Dual Node Cross-connect Charge applies per lower level service provided across the interconnecting Port Nodes of a Subtending Ring(s) configuration, regardless of the number of Subtending Rings involved. Dual Node Cross-connect Charges apply for each Channel which Verizon must cross-connect between the Port Nodes of the interconnecting ring(s).

2. Mileage

a. Ring Mileage

Monthly recurring rates apply per mile between Nodes for both Switched and special access. Rates apply based on the OC rate for the Node type.

b. APF Mileage

1. Monthly recurring rates apply per mile when the APF is located in a CO and the APF connects to a Customer designated Premises that is served by a different CO. Rates apply based on the OC rate for the APF type.

2. Monthly recurring rates apply per mile when the APF is located in a CO and the APF connects to an Expanded Interconnection or a Collocated Interconnection arrangement that is not located within the same CO as the Node. Rates apply based on the OC rate for the APF type.

c. SNF Mileage

Monthly recurring rates apply per mile when the SNF is extended to a Customer designated Premises that is served by a different CO than the Subtending Node. Rates apply based on the OC rate for the APF type.

3. Ports

a. Monthly recurring rates apply per Port for both Switched and special access. Rates apply based on the OC rate for the Port type.

b. Where an Ethernet, Fibre Channel, or FICON signal is mapped to a SONET service, and that SONET service is provided in a symmetrical Port arrangement, two (2) OCn Ports apply (one (1) where the mapped signal enters the ring and one (1) where the mapped signal exits the ring).

c. Where one (1) or more Ethernet, Fibre Channel or FICON signals are mapped to a SONET service, and that SONET service utilizes an Asymmetrical Port combination (e.g., the signals enter the ring mapped to an OC12 SONET service and exit the ring via an OC48 Port associated with an APF), only one (1) OCn Port applies per mapped signal to enter the ring and the signal exits the ring over the APF. The total number of such mapped Ethernet, Fibre Channel, or FICON signals that can be associated with the OCn Port of the APF is limited by the STS1 capacity required to map each signal into the SONET service. For example, assume that an OC48 APF is ordered for which an OC48 Port, OC48 mileage, and, when applicable, an OC48 Extension applies (an OC48 has a capacity of 48 STS1s). Further assume that two (2) Verizon Optical Networking 600 Mbps Ethernet-to-SONET mapped services are ordered, each of which requires six (6) STS1s when mapped into an OC12 SONET signal. In this example, the OC48 Asymmetrical Port arrangement would still have 36 available STS1s.

d. A First Nonrecurring Charge applies to the first of each Port type and speed installed at a Node. The Additional Nonrecurring Charge applies for each additional Port of the same type and same speed added at the same Node on the same order. For example, if a Customer places an order for ten (10) GigE3 Ports at the same OC48 Node, one (1) First Nonrecurring Charge and nine (9) Additional Nonrecurring Charges will apply for the GigE3 Ports. With the exception of Storage Interface Ports, the charge will vary based on whether the installation is in connection with the initial installation of the DSR Service or a subsequent installation of Ports.

e. With the exception of Storage Interface Ports, nonrecurring charges for DSR Ports purchased on a month-to-month plan, at the initial installation of DSR Service apply on a first and additional basis.

f. With the exception of Storage Interface Ports, nonrecurring charges for DSR Ports purchased under a term plan apply on a first and additional

basis for each DSR Port that is ordered subsequent to the initial installation of DSR Service.

g. For Storage Interface Ports purchased on a month-to-month basis, nonrecurring charges apply to the installation of Ports on a first and additional basis regardless of whether the installation of such Storage Interface Port is in connection with the initial or subsequent installation of DSR.

h. Changes in Month-to-Month billed Ports or changes in term planned billed Port Nodes are treated as disconnects and subsequent installations for which subsequent nonrecurring charges apply.

i. When a lower capacity service is provided between two (2) separate APFs on the same DSR, Verizon must map the facility assignment on the first APF to the facility assignment on the second APF for which an Asymmetrical Port Mapping Nonrecurring Charge applies per lower capacity service mapped.

k. Changes in Month-to-Month billed APFs are treated as disconnects and subsequent installation charges would apply.

4. EPRS

a. Monthly rates apply for each EPR Access Station per Node and for each UNI associated with that station.

b. First and additional nonrecurring charges apply for the installation of EPRS provided on a month-to-month basis.

c. Nonrecurring charges apply for the installation of EPRS UNIs on a first and additional basis.

5. Network Management Methods

a. CSM

1. CSM monthly recurring rates apply in addition to any applicable DSR rates. Unless otherwise indicated below, CSM rates apply regardless of the Service Level selected by the Customer.

2. A CSM Service Level rate applies for each DSR provided with CSM.

3. For Customers subscribing to Service Level 3 support, a Preplanned Port rate applies for each preplanned Port location established.

4. CSM nonrecurring charges apply in addition to any applicable DSR charges. Unless otherwise indicated below, CSM charges apply regardless of the Service Level selected by the Customer.

5. A Node Setup charge applies for each Node that is equipped with CSM at the time that CSM is initially established on the ring.

6. An Add/Remove Node charge applies for each Node that is subsequently added to, or removed from, a ring that has already been equipped to provide CSM.

7. An Initial CSM Setup charge applies for establishment of the Customer's initial CSM database partition. The initial CSM database partition includes setup for up to six (6) users.

8. A Setup of Additional Users charge applies for the setup of up to six (6) additional users beyond those provided with the initial database setup when CSM is initially established on the ring.

9. A Setup of Additional Partition or Change in CSM Service Level charge applies for the setup of an additional CSM database partition created for the same Customer or to change from one (1) CSM service level to another (e.g., change Service Level 2 to Service Level 3). Each additional CSM database provides for the setup of up to six (6) additional users.

10. A Consultation and Support charge applies for each thirty (30) minutes or fraction thereof that the Customer requests Verizon's consultation and support of its CSM network. This charge does not apply during initial setup of CSM on the ring.

11. A Verizon Performed Reconfiguration charge applies for Service Level 3 Customers only when the Customer requests that Verizon perform a reconfiguration based on its pre-mapping instructions.

12. A Preplanned Port charge applies for Service Level 3 Customers only for each Port associated with a preplanned location that is established during the initial establishment of CSM on the ring.

b. DTM

1. DTM monthly recurring rates apply in addition to any applicable DSR rates.

2. A DTM rate applies for each DSR provided with DTM.

3. DTM nonrecurring charges apply in addition to any applicable DSR charges.

4. A Node Setup charge applies for each Node that is equipped with DTM at the time that DTM is initially established on the ring.

5. An Add/Remove Node charge applies for each Node that is subsequently added to, or removed from, a ring that has already been equipped to provide DTM.

6. An Initial DTM Setup charge applies for establishment of the Customer's initial DTM database partition.

7. A Consultation and Support charge applies for each thirty (30) minutes or fraction thereof that the Customer requests Verizon consultation and support of its DTM network. This charge does not apply during initial setup of DTM on the ring.

B. Term Plans

1. DSR is available for term plans of 3, 5, and 7 year (**Commitment Periods**) for Nodes, Subtending Nodes, Port Nodes, Ring Mileage, Ports, CSM, DTM, APF Channel Extension, APF Mileage, SNF Channel Extension, SNF Channel Mileage, Ethernet Packet Ring Stations and Ethernet Packet Ring UNIs. DSR Ports, APF Channel Extension, APF Mileage and Ethernet Packet Ring UNIs are also available on month-to-month terms.

2. Nodes, Port Nodes, Subtending Nodes, CSM, DTM, SNF Channel Mileage, SNF Channel Extensions, APF Channel Mileage and APF Channel Extensions, and Ports added subsequent to the initial installation may be coterminous to the expiration date of the DSR at the rates and charges specified for the term plan on the existing DSR or may require an extension to the existing term plan as follows:

   a. If the addition is prior to the 21st month for an existing 3-year term plan, prior to the 36th month for an existing 5-year plan, or prior to the 50th month for an existing 7-year plan the addition will be coterminous to the expiration date of the DSR.

   b. If the addition is after the aforementioned periods, the Customer must extend the Commitment Period of its existing Service for an additional 1 (one) year for a 3- (three) year term plan, an additional 2 (two) years for a 5- (five) year term plan, or an additional 3 (three) years for a 7- (seven) year term plan.

3. CSM and DTM is provided under a term plan of 3, 5, or 7-years, as described following.

   a. The duration of the term plan for CSM or DTM must be the same duration as the term plan for the DSR Nodes provided with CSM or DTM. At the expiration of its 3, 5, or 7-year term plan for CSM or DTM, the Customer has the option of extending CSM or DTM with a coterminous end date as described below.

   b. The expiration date of each CSM or DTM added subsequent to the initial installation must be coterminous to the expiration date of the associated DSR Service, provided that the addition is prior to the 21st month for a 3-year plan, prior to the 36th month for a 5-year plan, or prior to the 50th month for a 7-year plan. A CSM or DTM added after the aforementioned periods requires extension of the Commitment Period for the associated

DSR Service[as set forth in Section (V) (B) (2) (b) preceding]. Such extension results in the establishment of a new term plan that includes both the DSR and the CSM or DTM under the same term plan with the same expiration date.

c. CSM or DTM is subject to termination liability if the Service is disconnected prior to completion of the existing Commitment Period. The terms and conditions shown above apply to termination of CSM or DTM prior to completion of the existing Commitment Period. Changes in network management methods (e.g. from CSM to DTM) will be made without termination liability subject to the Change in Network Management Method charge.

C. Extension and Renewal of Commitment Period

1. The Customer has the option, within sixty (60) days prior to the expiration date for its Commitment Period, to renew its expiring term plan to a term plan with a longer Commitment Period, for which time-in-service credit will be allowed for the expiring plan. The Commitment Period selected for the new term plan must be longer than the Commitment Period of the expiring term plan as follows:

- An expiring 3- year term plan may be renewed to either a 5- Year or 7- Year term plan.
- An expiring 5- year term plan may be renewed to a 7- year term plan.

a. Time-in-service credit on the expiring plan will be granted and applied towards the renewed term plan. For example, an expiring 3- year term plan will allow for three (3) years of time-in-service credit towards the renewed term plan.

b. The rate for the longer Commitment Period will apply effective with the first bill day following expiration of the Commitment Period for the existing plan and continue through the remainder of the Commitment Period associated with the new term plan. No adjustment for the increased discount associated with the new term plan will be made to the monthly rates already billed on the expiring term plan.

2. Except as otherwise specified in Section (V)(C)(1) preceding, upon the expiration of any Commitment Period, Verizon will continue to provide the Service on a month-to-month basis, under the same terms and conditions of the current term plan, until the earliest to occur of the date (a) the Customer cancels the Service, (b) Verizon discontinues the Service as specified in (IV)(A)(5) preceding, or (c) subject to Section (IV)(A)(5) and (IV)(A)(6) preceding, a valid order for a new term plan is accepted by Verizon from Customer.

D. Additional Charges

1. Reserved

2. Administrative Change

Administrative changes do not involve a physical change to the DSR for Customer. The administrative change will be made without charge(s) to the Customer. Such changes require the continued provision and billing of DSR to Customer.

3. Moves and Changes

A move involves a change in the physical location of the Customer designated Premises which also involves a connection to a different network demarcation point. The charges for the move are dependent on whether the move is to a new location within the same building or to a different building.

a. Moves Within the Same Building

When the move is to a new location within the same building (**Inside Move**), a nonrecurring charge for the Inside Move will apply. There will be no change in the Minimum Period requirements and termination liability does not apply.

b. Moves To a Different Building

Moves to a different building (**Outside Move**) will be treated as a discontinuance and start of a new Service and all associated nonrecurring charges will apply. New Minimum Period and Commitment Period requirements will be established for the new Service. Customer will also remain responsible for satisfying all outstanding Minimum Period and termination liability charges for the discontinued Service.

4. Reserved

5. Order Cancellation

a. A Customer may cancel an order for the installation of DSR at any time prior to notification by Verizon that Service is available for the Customer's use. The cancellation date is the date Verizon receives written or electronic notice from the Customer that the order is to be cancelled.

b. A Customer may negotiate an extension of a Service Date of an order for installation of new DSR or rearrangements of existing DSR and a Service Date Change Charge will apply. However, the new Service Date cannot exceed the originally established Service Date by more than 30 calendar days. On the 31st day beyond the original Service Date, the order will be cancelled and an appropriate Cancellation Charge will be applied.

c. If a Customer or a Customer's end user does not accept, or is unable to accept, Service within 30 calendar days after the original Service Date or fails to negotiate a new Service Date that is within 30 calendar days after the original Service Date, the order will be cancelled on the 31st calendar day after the original Service Date. Cancellation charges will apply.

d. When a Customer cancels an order, or part of an order, before the Service Date, Verizon will apply cancellation charges to the order, unless the order is cancelled because Verizon missed the Service Date.

e. Cancellation charges may apply if the Customer cancels an order, or part of an order, for the dedicated ring after providing Verizon with written or electronic notification to begin construction of the ring. Cancellation charges apply as follows:

1. When a Customer cancels the order, or part of the order, for its dedicated ring within the first thirty (30) days following written or electronic notification to Verizon to begin construction of the ring, no cancellation charges will apply provided if construction has not begun.

2. When a Customer cancels the order, or part of the order, for its dedicated ring within the first thirty (30) days following written or electronic notification to Verizon to begin construction of the ring, cancellation charges will apply if construction has begun.

3. When a Customer cancels the order, or part of the order, for its dedicated ring on the thirty-first (31st) day, but no later than the sixtieth (60th) day following written or electronic notification to Verizon to begin construction of the ring, cancellation charges will apply.

4. When a Customer cancels the order, or part of the order, for its dedicated ring on the sixty-first (61st) day following written or electronic notification to Verizon to begin construction of the ring, up to the date of notification that construction of the ring is complete, cancellation charges will apply. If the Customer cancels the order, or part of the order, after construction is complete, Minimum Period charges and termination liability also apply.

6. Termination Liability

a. Unless otherwise set forth herein, termination liability applies when DSR Service or network management method is terminated prior to the end of the applicable Commitment Period. Termination liability is charged per monthly rate element on all Nodes, Port Nodes, Subtending Nodes, Ring Mileage, CSM, DTM, SNF Channel Extension, SNF Mileage or APF Channel Extension, APF Mileage, Ports, Ethernet Packet Ring Stations and Ethernet Packet Ring UNIs (other than Month-to-Month billed Ports, APF Channel Extension and APF Mileage and Month-to-Month billed Ethernet Packet Ring UNIs for which the one (1) month minimum service

charge applies). In the event a Customer removes a Node from a DSR ring, resulting in a reduction to the Ring Mileage, then the termination liability will apply to the Node(s) and to the amount by which the Ring Mileage was reduced, as a result of the removal of the Node.

b. A separate termination liability charge is assessed for each rate element associated with the disconnected IOTS or a network management method.

For example, assume that the Customer subscribes to a DSR Service that is arranged with the DTM optional feature. Further, assume that the Customer disconnects the DSR Service along with the DTM optional feature prior to the end of the Commitment Period. Then, the Customer shall pay termination liability on the DSR monthly recurring rate elements (e.g., Nodes, Ring Mileage, Ports, etc.) and the DTM optional feature monthly recurring rate elements.

For another example, assume that the Customer subscribes to DSR Service that is arranged with the DTM optional feature. Further, assume that the Customer disconnects the DTM optional feature prior to the end of the Commitment Period. Then, the Customer shall pay termination liability on the DTM optional feature monthly recurring rate elements.

c. Termination liability will not apply when the Commitment Period on any Service or network management method is changed to an equal or a longer Commitment Period, and the bandwidth capacity/transmission speed of the Service does not decrease, and all of the locations of the Service remain the same. The Customer will remain responsible for satisfying any outstanding Minimum Period charges.

d. Termination liability will not apply to a Customer upgrade (change to a higher capacity) DSR Service, if all of the following conditions are met. These conditions do not apply to network management methods.

1. A new Commitment Period commences with the upgrade.

2. The new expiration date extends beyond the discontinued plan date.

3. The upgrade consists of either one (1) existing DSR Service being upgraded into a higher capacity DSR Service or two (2) existing DSR Services being upgraded into a single, higher capacity DSR Service. The two (2) DSR Services being upgraded must be of a lower capacity than the new DSR Service being purchased. .

4. The new DSR Service has at least one (1) Customer Premises Node and one (1) CO Node in common with the discontinued Service(s).

5. When two (2) existing DSR Services are being upgraded into a single, higher capacity DSR Service, the aggregate amount of all

monthly charges for the Nodes and Ports included under the new Commitment Period is at least twenty-five percent (25%) greater than the aggregate amount of the monthly charges remaining in the Commitment Period for the Nodes and Ports being disconnected.

6. Additional Nodes and Ports added at the time of the upgrade incur all applicable rates.

7. For illustrative purposes, assume the following:

   - Customer has two (2) separate OC3 DSR Services
   - One (1) OC3 DSR is in its 24th month of a 3-year term plan (i.e., 12 months remain in the term Commitment Period) and is configured with three (3) Nodes and six (6) Ports (Ring A)
   - The other OC3 DSR is in its 21st month of a 3-year term plan (i.e., 15 months remain in the term Commitment Period) and is configured with three (3) Nodes and six (6) Ports (Ring B)
   - The Customer is upgrading Rings A & B to a single OC12 DSR with a 3-year term plan that is to be configured with three (3) Nodes and six (6) Ports (Ring C)

8. Based on the above assumptions, the following calculations are used to determine if the aggregate amount of monthly charges for the Commitment Period of Ring C is greater than the combined aggregate amount of monthly charges for the remainder of the Commitment Periods on Rings A & B and therefore, whether or not termination liability will apply to Rings A & B for the upgrade.

   Step 1 – Determine the amount of monthly charges remaining on Ring A for the balance of the term commitment by multiplying the monthly rates for the three (3) Nodes and six (6) Ports (assume $4680 per month) by the 12 months remaining in the term commitment = $56,160.

   Step 2 - Determine the amount of monthly charges remaining on Ring B for the balance of the term commitment by multiplying the monthly rates for the three (3) Nodes and six (6) Ports (assume $4680 per month) by the 15 months remaining in the term commitment = $70,200.

   Step 3 – Determine the combined aggregate amount of monthly charges remaining for Rings A & B by summing the amounts determined in Steps 1 and 2 ($56,160 + $70,200 = $126,360).

   Step 4 – Determine the aggregate amount of monthly charges associated with Ring C by multiplying the monthly rates (assume $9390) by 36 months for the term commitment = $338,040.

   Step 5 – Determine the difference between the monthly charges for the existing Service and the monthly charges for the upgraded Service by subtracting the combined aggregate amount determined

in Step 3 from the aggregate amount determined in Step 4 ($338,040 - $126,360 = $211,680).

Step 6 - Divide the result obtained in Step 5 by the aggregate amount determined in Step 3 ($211,680/$126,360 = 1.675). Convert the decimal amount to a percentage by multiplying by 100 (1.675 x 100 = 167.5%).

9. If the result is equal to or greater than one hundred twenty five percent (125%), then the upgrade occurs without the application of termination liability on Rings A & B. If the result is less than one hundred twenty five percent (125%), termination liability applies to Rings A & B. Standard rounding rules apply. For this example, the result is 167.5%; therefore, termination liability does not apply.

f. Termination liability will apply when the conditions in Sections (c) and (d) preceding are not met and/or the Customer cancels Service prior to expiration of the current Commitment Period. If the cancellation occurs within the first two (2) years of a term plan, termination liability is equal to one hundred percent (100%) of the monthly charges for the unexpired portion of the first two (2) years, and twenty five percent (25%) of the monthly charges for the remainder of the plan. If the Customer cancels after the first two (2) years of a term plan, then termination liability is equal to twenty five percent (25%) of the monthly charges for the remaining life of the term.

7. Minimum Period

Minimum period for DSR is one (1) year for the mileage and Node rate elements and one (1) month for the Port, APF Channel Extension, APF Mileage, and Ethernet Packet Ring UNI rate elements. If DSR rate elements are disconnected during the Minimum Period, Customer shall pay to Verizon one hundred percent (100%) of the monthly recurring rates from the date of disconnection through the end of the Minimum Period.

8. Reserved

9. Service Date Change Charge

Access order Service Dates for the installation of new Services or rearrangements of existing Services 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 within thirty (30) calendar days of the Service Date, and Verizon accordingly delays the start of Service, a Service Date Change Charge will apply.