

**THE VERIZON TELEPHONE COMPANIES**

**TARIFF F.C.C. Nos. 1 & 11**

**Enhancements to**

**IntelliLight<sup>®</sup> Dedicated SONET Ring (IDSR) Service**

**DESCRIPTION**

**Transmittal No. 371**

**October 17, 2003**

## **INTRODUCTION**

The Verizon Telephone Companies (Verizon) are submitting tariff pages to enhance IntelliLight<sup>®</sup> Verizon Dedicated SONET Ring (IDSR) Service in Tariff FCC Nos. 1 and 11.

## **SERVICE DESCRIPTION**

IDSR provides a customer with a dedicated high capacity customized network in capacities with Optical Carrier (OC) line rates of OC3, OC12, OC48 and OC192. The network is comprised of SONET equipment (add/drop multiplexers or nodes) and facilities in a ring architecture or topology that assures survivability. Lower speed channels are provided between nodes using ports of designated speeds. The following ports are offered:

- ❖ Electrical ports include DS1, DS3 and STS-1. The DS1 port allows for a lower speed channel at 1.544 Mbps. The DS3 and STS1 ports allow for a lower speed channel at 44.736 Mbps. Electrical ports enable lower speed services to be provisioned on-ring between two nodes on the ring or to be delivered to off ring locations by connecting to other special access services at the same transmission rate.
- ❖ Optical Carrier ports allow for lower speed channelized or concatenated SONET optical services. Channelized services utilize ports at OC3 (3 STS-1 channels), OC12 (12 STS-1 channels) or OC48 (48 STS-1 channels). Concatenated services utilize ports at OC3c (a single channel of 155.52 Mbps), OC12c (a single channel of 522.080 Mbps) or OC48c (a single channel of 2.488 Gbps). Optical carrier ports enable lower speed optical services to be provisioned on-ring between two nodes on the ring or to be delivered to off ring

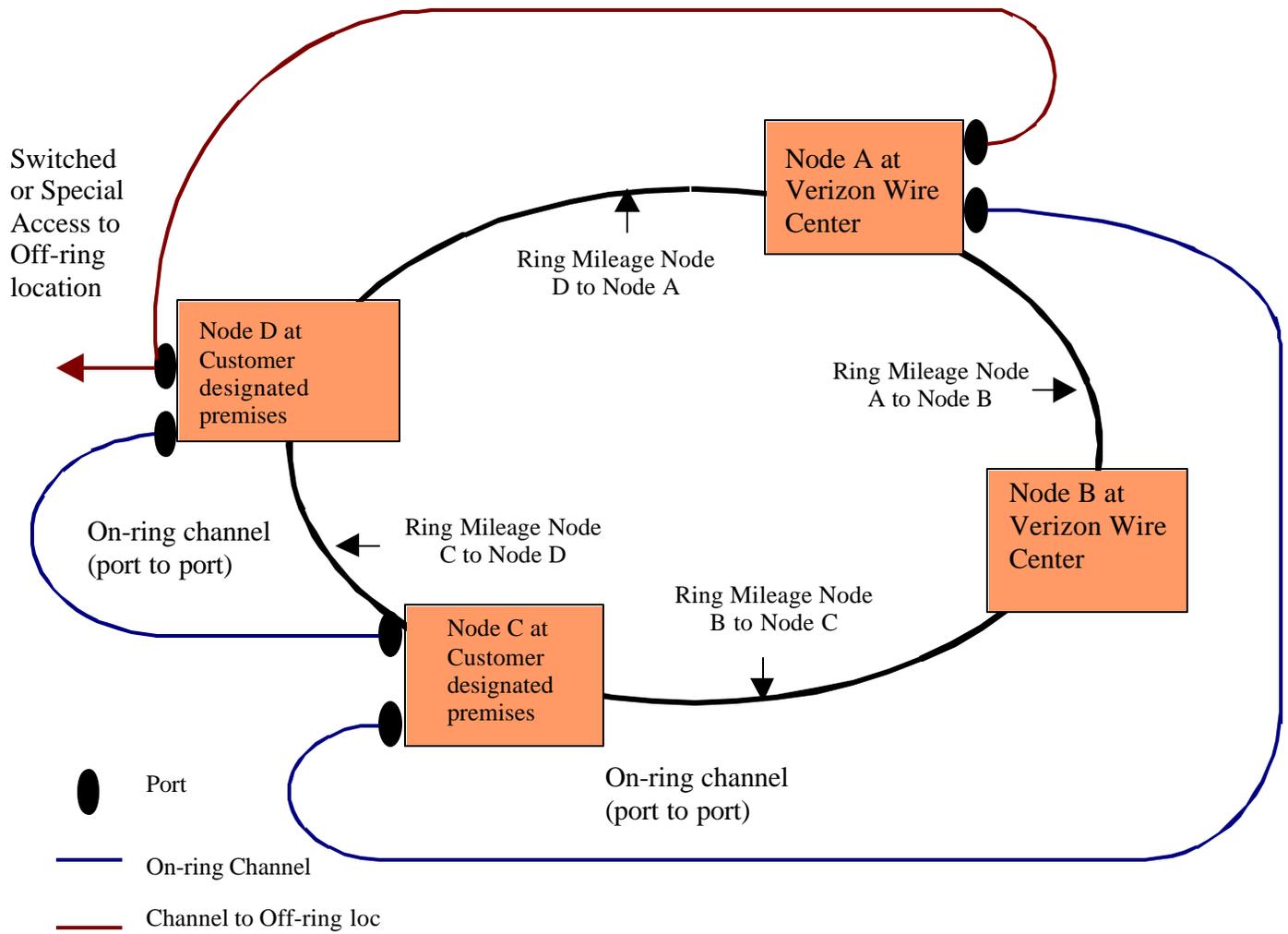
locations by connecting to other SONET special access services for transport to the secondary location.

- ❖ Gigabit Ethernet (GigE) Ports include GigE1 (mapped as a single STS1 channel), GigE3 (mapped as 3 STS1 channels), GigE6 (mapped as 6 STS1 channels), GigE9 (mapped as 9 STS1 channels), GigE12 (mapped as 12 STS1 channels) and GigE24 (mapped as 24 STS1 channels). Gigabit Ethernet ports are provided between two nodes on the IDSR ring and may not be connected to off-ring locations.

IDSR is comprised of customer locations (nodes), ring mileage, ports and optional features.

IDSR requires a minimum of 3 nodes, one of which must be located in a Verizon central office and one must be located at a customer's designated premises. Certain partial ring configurations are also offered and described in the tariff. Ring mileage provides the transmission facilities connecting the nodes on the ring. Ports may be ordered in symmetrical (e.g., OC3 to OC3) arrangements or in certain asymmetrical arrangements (e.g., OC12 to OC3) as described in the attached tariff pages.

## IDSR Illustration



### PROPOSED ENHANCEMENTS

With this filing, Verizon proposes the following enhancements to IDS.

#### ❖ **DS3 Transmux Facility and Port**

This enhancement provides the equivalent of a multiplexing feature on a DS3 in which up to twenty-eight (28) DS1s may be associated with a single port. The DS3 Transmux port performs a DS3 to DS1 conversion at an enhanced IDS node. The DS3 to DS1

conversions allows a single IDSR DS3 Transmux port to be associated with up to twenty-eight (28) Virtual Tributary (VT) 1.5 mapped IDSR DS1 ports. Transmuxing within the IDSR network retains DS1 visibility allowing for full, proactive maintenance capability of DS1 signals. This port option enables the customer to aggregate DS1s from various points on its IDSR for connection to its network at a DS3 level. Charges apply for both the facility and port associated with a Transmux arrangement.

❖ **Subtending nodes**

With this enhancement, one or more lower speed enhanced IDSR node(s) may subtend a higher speed enhanced IDSR node (e.g., an OC12 enhanced node may subtend an OC192 enhanced node) at the same customer designated premises or Telephone Company wire center. This enhancement enables the customer to increase capacity at a particular location in lieu of having to upgrade the entire IDSR to a higher capacity ring (e.g., from OC12 to OC48). Rates and charges apply for both the higher speed enhanced node and for each subtending lower speed enhanced node provided. The total capacity of the subtending node(s) can not exceed the capacity of the higher speed enhanced node. Additionally, the applicable port charge will apply to drop the lower speed channel that connects the higher speed enhanced node to the subtending lower speed enhanced node.

- ❖ Finally, Tariff FCC 1 introduces a 7-year port option. This option will allow a customer that is establishing a subtending node arrangement to have the same term plan on both the nodes and ports of such arrangement.

The attached tariff pages provide a complete description of IDSR and the enhancements proposed in this filing.