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8. DATA ACCESS SERVICES

8.1 Frame Relay¹

Frame Relay Service (FRS) is a high speed data transport technology that allows multiple locations including Wide Area Network (WAN) sites, to be interconnected. Frame Relay combines certain features of high-speed Time Division Multiplexing (TDM) and Packet Switching using Statistical Multiplexing. The key benefit of Frame Relay is the capability to connect with multiple Wide Area Network (WAN) sites together through a single link.

Frame Relay is a method of sending information over a WAN by dividing the Customer data into variable length information “frames” or packets”. Each frame has an address that the network uses to determine the destination of the frame. The frames travel through a series of switches within the frame relay network and arrive at their destination. The Service transports variable length frames at rates ranging from DS0 to DS3 speed on digital transport facilities.

Frame Relay multiplexes (using Statistical Multiplexing) the variable length data frames onto the digital physical transport facilities using Virtual Connections (VCs). A VC is a software-defined data path or route through the frame relay network between two specific endpoints. Each VC multiplexed onto the physical transport facility is assigned a local identifier referred to as a Data Link Connection Identifier (DLCI). End-user data is transported in the information field of Frame Relay frames with an assigned DLCI providing the addressing. The Frame Relay network routes the frames based on the DLCI source and destination address mappings. These DLCI mappings are configured during service subscription and are referred to as Permanent Virtual Connections (PVC).

Multiple PVCs can be established from a port for communications over the digital transmission facilities of the Frame Relay Service network. A separate PVC must be established and assigned a DLCI with a committed bandwidth on the physical connection to each location to which the Customer desires to transmit data.

¹ Obsolete – Limited to existing Customer at existing locations.

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