
Frame Relay

Frame Relay is a high-speed communications technology that is used throughout the world to connect Local Area Networks (LANs), Internet, voice and other customer network applications. It is a way of sending information over a Wide Area Network (WAN) by dividing the information into frames or packets.



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Frame Relay is a high performance, low delay product that supplies cost effective LAN, WAN, Internet and Intranet interconnections. It is most suitable for sending variably sized bursts of data that require peak speeds. It is available at data rates of between 64kbps and 1920 kbps.

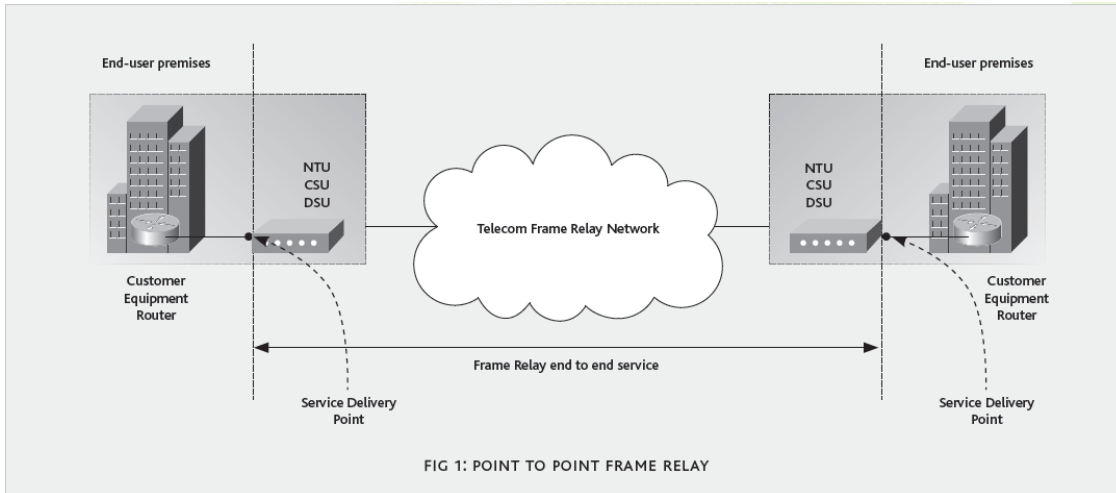
Information is sent in frames or packets. Each frame has an address that the network uses to determine the destination of the frame. The frames travel through a series of switches within the Telecom ATM/Frame network and arrive at their destination.

It is well suited for LAN networking, transferring research, financial, inventory, sales and marketing files, networking email systems and interactive corporate databases.

Benefits

- **Fast response** times with low delay
- **Reducing hardware requirements** – there is no need for expensive multiple port routers to switch transit traffic as it provides a single access point to the entire network.
- **Simplicity** – requiring only a single access to the network. Configurations and Committed Information Rates (CIR) can be changed quickly and at minimal cost.
- **Ideal for bursty, high speed applications.**
- **End-users choose** now much bandwidth is needed between LANs.
- **Bandwidth sharing capabilities** reduces the cost of the transmission.
- **High levels of reliability** as it is a mature technology
- **Complies with international standards** and protocols

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How it works

Frame Relay is a high-speed communications technology that is used throughout the world to connect LAN, Systems Network Architecture (SNA), Internet, voice and other end-user network applications.

It sends information over a WAN by dividing data into frames or packets, each of which has an address that the network uses to determine the destination of each frame. To reach the destination these frames travel through a series of switches within the frame relay network.

Frame Relay is a statistically multiplexed protocol based on data network standards developed specifically to handle high speed applications with "bursty" traffic, such as LANs, host computers and high performance workstations.

The three main components of the Frame Relay service are:

- Endpoints (PCs, servers, host computers)
- Access equipment (routers, hosts)
- Network devices (switches, multiplexers, network routers)

Although a Frame Relay connection is effectively a point to point connection, a frame relay network will often be depicted as a network cloud, because it does not provide a single physical connection between

one endpoint and another. Instead a logical path is defined within the network. This logical path is called a permanent virtual circuit (PVC). Multiple point to point PVC's can be meshed to create point to multi-point access.

There are two parameters associated with a Frame Relay connection are:

- Committed Information Rate (CIR) – the minimum amount of bandwidth that the network ensures will always be available for the specific Permanent Virtual Circuit (PVC)
- Peak Information Rate (PIR) – the maximum amount of bandwidth available for this specific PVC

Frame Relay offers a wide range of PVC options to meet end-user requirements. End-users can choose their desired PIR and then can select from one of 4 CIR Bands, ranging from 25% to 100%.

For example: End-users who have usage patterns with low level, constant use but have times of highly bursty traffic such as sending large graphic files would benefit from a high PIR but low CIR. End-users who have high, constant usage will require a high PIR and high CIR.

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	<u>PIR</u>	@ 64k	@ 128k	@ 256k	@ 512k	@ 1M	@1.5M	@ 2M
	25%	16/64*	32/128	64/256	128/512	256/1024	384/1536	512/1920
CIR	50%	32/64	64/128	128/256	256/512	512/1024	768/1536	1024/1920
	75%	48/64	96/128	192/256	384/512	768/1024	1024/1536	1536/1920
	100%	64/64	128/128	256/256	512/512	1024/1024	1536/1536	1920/1920

Availability

Available nationally.

Requirements

Frame Relay can support multiple network application protocols.

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www.telecomwholesale.co.nz