



## Fact Sheet

# Frame Relay (W-FR)

### WHAT IS IT

W-FR is a data transmission technology enabling multi-site connectivity for wide area networks (WAN). TelstraClear Wholesale W-FR gives you and your customers' scalability, bursting and cost effective meshing of multiple sites.

### WHAT DOES IT DO?

As a data service, W-FR is a building block for WAN construction. With TelstraClear Wholesale's Frame Relay, you can provide the data connection between a central office and remote locations for a variety of purposes including LAN interconnection and other data applications.

With bandwidth options from 64 Kbit/s to 1984kbit/s, our W-FR is suitable for end users with multiple sites and can be marketed as part of a managed service offering.

### WHO IS IT FOR?

TelstraClear Wholesale's W-FR is for resale by ISPs, carriers or service providers who typically supply to corporate and large customers needing to connect LANs. It may also be used as a backbone network (for smaller ISPs) to aggregate traffic back to a central hub.



## Fact Sheet

### HOW DOES IT WORK?

W-FR circuits are made up of three basic components – DDS access circuit to each customer site, an associated W-FR switch port for each access circuit and Permanent Virtual Circuit(s) which are mapped across the TCL network between switches.

The DDS access circuit connects the CPE equipment e.g. Router or Frame Relay Access Device (FRAD) to a port on the serving TelstraClear W-FR switch. The access circuit is delivered to customer site via a connector on a TelstraClear supplied NTU or mounting plate. A range of interfaces are supported i.e. X.21, V.35 or 2M G.703.

Each permanent virtual circuit is assigned a unique Data Link Connection Identifier (DLCI) that is locally significant on each access.

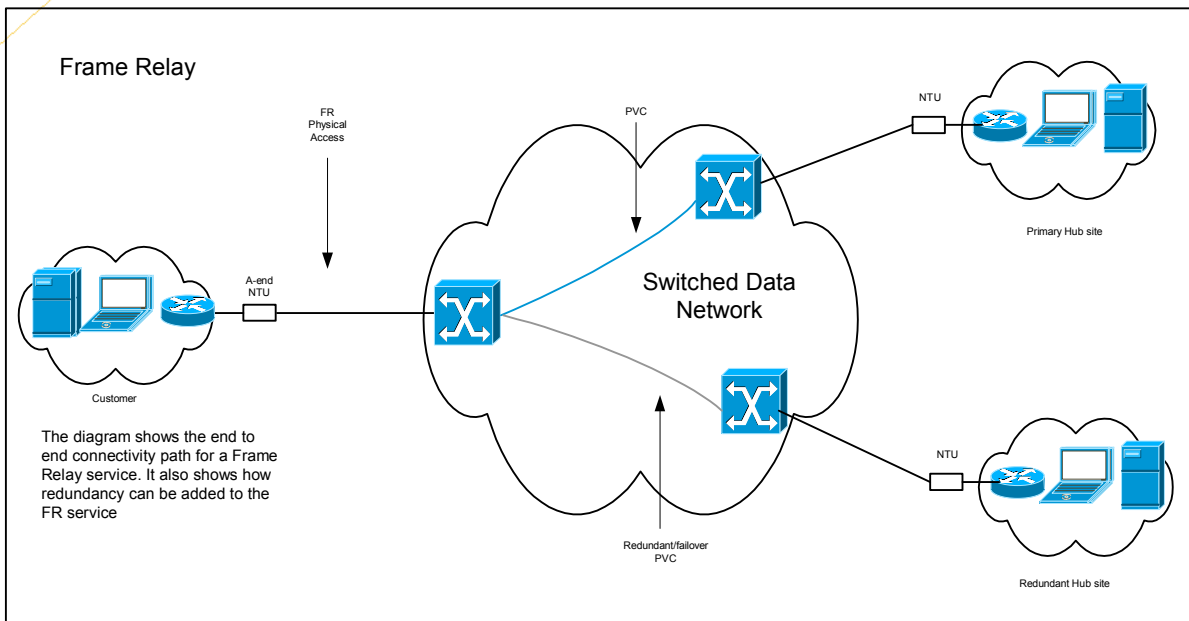


Figure 1 – Point to Multipoint W-FR network



## Fact Sheet

### WHAT ARE THE BENEFITS?

With this solution you can offer your customers competitive solutions that substantially reduce costs because one network carries all types of traffic

Customer solutions include the simultaneous carriage of voice, IP, data and video on the one interface through the use of different types of virtual circuit; or the option to operate multiple concurrent sessions of the same type on the one interface to create meshed networks.

TelstraClear Wholesale W-FR is based on international standards and compatible Frame Relay customer equipment is readily available in the marketplace.

Our longevity as a supplier ensures that your own differentiated product or infrastructure, founded on our network, has long term sustainability.

The key benefits of TelstraClear Wholesale W-FR services include:

- **Domestic reach** - W-FR is available almost anywhere in New Zealand where TelstraClear's network or supplier networks reach. It's available in all metropolitan areas, most regional sites and extends to most sites where business is done in New Zealand.
- **International reach** - W-FR is also available to more than 30 countries worldwide.
- **Burstability** - Frame Relay's variable bit rate service allows a customer to transmit bursty traffic, which suits most data applications. This allows your customers to burst data at much higher bandwidth options than configured with their CIR, provided idle capacity exists within the network at that time.
- **Meshing** - your customers don't need a separate physical termination for each communication link termination. Links connecting multiple offices can terminate on one interface for simplified and less costly Customer Premises Equipment (CPE) connectivity.





## Fact Sheet

### SERVICE FEATURES

TelstraClear Wholesale W-FR is able to inter-work with wholesale asynchronous transmission mode (ATM) providing scalability for hub sites with large traffic requirements.

Wholesale W-FR has a number of features designed to provide your customers with flexible and cost effective network solutions:

- preserves end-user response times during network peaks at no extra charge
- Committed Information Rates (CIR) are easily reconfigured due to the software controlled nature of the configurations
- single access port supports multiple Permanent Virtual Circuits (PVC)
- managed service (PVC links)/automatic PVC re-route
- customer network management functions such as the monitoring of status and service parameters of links are provided

Multiple logical links can be multiplexed over a single physical access. The ability to set up multiple virtual circuits between geographically dispersed destinations via a single access, is attractive when compared with leased services. Each logical link can be configured to burst to the full capacity of the access link.

TelstraClear Wholesale's W-FR also provides flexible prioritisation of traffic in each logical link. A higher priority PVC can be subscribed to at a higher CIR and lower excess information rate (EIR).

Configuring the allowable destinations upon service subscription, enables your customers to set up their own virtual public data networks with closed user group-like security.

Efficient intermixing of different service speeds to different destinations is maintained. There is increased throughput over the older X.25 protocol because Open System Interconnect (OSI) layer three processing is eliminated and only a subset of OSI layer two functions (datalink layer) is used. However, due to reduced processing within a Frame Relay network, more responsibility for error-free end-to-end transmission is placed on customer equipment at each end of the service.





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### Technical Data

#### Access

The access rates are:

- 64-1984K in increments of 64K

#### Interfaces

For services:

- 64-1984Kbps, X.21, V.35 or G.703

#### EIR

Full burst-to-Peak Information Rate (PIR) for PVCs.

### PROVISIONING

Provisioning of W-FR access circuits is carried out within 15 business days for On-net access circuits and 22 business days for Off-net access circuits.





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### SERVICE ASSURANCE

Service assurance is vital in a competitive data market and all of TelstraClear Wholesale's data services are covered under a comprehensive Service Level Agreement (SLA)

The primary point of contact for service issues is the TelstraClear Helpdesk. Through the helpdesk we provide:

- a 24x7 fault logging facility;
- investigation and management of faults through to resolution;
- updates on progress with fault resolution;
- escalation of unresolved faults

For critical impact faults the target response time is 20 minutes and target fault resolution time is 4 hours (ONNET sites Metro areas).

### FOR FURTHER INFORMATION

Contact your TelstraClear Wholesale Account Manager.

