

framerelay.txt

Frame Relay (FR) support for linux is built into a two tiered system of device drivers. The upper layer implements RFC1490 FR specification, and uses the Data Link Connection Identifier (DLCI) as its hardware address. Usually these are assigned by your network supplier, they give you the number/numbers of the Virtual Connections (VC) assigned to you.

Each DLCI is a point-to-point link between your machine and a remote one. As such, a separate device is needed to accommodate the routing. Within the net-tools archives is 'dlcicfg'. This program will communicate with the base "DLCI" device, and create new net devices named 'dlci00', 'dlci01'... The configuration script will ask you how many DLCIs you need, as well as how many DLCIs you want to assign to each Frame Relay Access Device (FRAD).

The DLCI uses a number of function calls to communicate with the FRAD, all of which are stored in the FRAD's private data area. `assoc/deassoc`, `activate/deactivate` and `dlci_config`. The DLCI supplies a receive function to the FRAD to accept incoming packets.

With this initial offering, only 1 FRAD driver is available. With many thanks to Sangoma Technologies, David Mandelstam & Gene Kozin, the S502A, S502E & S508 are supported. This driver is currently set up for only FR, but as Sangoma makes more firmware modules available, it can be updated to provide them as well.

Configuration of the FRAD makes use of another net-tools program, 'fradcfg'. This program makes use of a configuration file (which dlcicfg can also read) to specify the types of boards to be configured as FRADs, as well as perform any board specific configuration. The Sangoma module of fradcfg loads the FR firmware into the card, sets the irq/port/memory information, and provides an initial configuration.

Additional FRAD device drivers can be added as hardware is available.

At this time, the dlcicfg and fradcfg programs have not been incorporated into the net-tools distribution. They can be found at [ftp.invlogic.com](ftp://ftp.invlogic.com/pub/linux), in /pub/linux. Note that with OS/2 FTPD, you end up in /pub by default, so just use 'cd linux'. v0.10 is for use on pre-2.0.3 and earlier, v0.15 is for pre-2.0.4 and later.