

# CoFRelay

## Software Protocol Stack for creating next-generation Frame Relay Access Products

### Product overview

CoFRelay is a portable software source code and binary implementation of industry-standard Frame Relay protocols and associated standards as defined by ANSI, Frame Relay Forum (FRF), ITU/CCITT, and the IETF.

CoFRelay supports both Permanent Virtual Circuit (PVC) connections and Switched Virtual Circuit (SVC) connections across public and private Frame Relay networks. Implemented as a set of highly portable and efficient STREAMS modules, CoFRelay can be rapidly integrated in embedded systems and computer platforms, adding high-performance Frame Relay communications to many different hardware devices.

Standard features of CoFRelay include:

- UNI (FRF.1.1), SVC (FRF.4), and NNI (FRF.2.1) support.
- Selectable Permanent Virtual Circuit (PVC) and Switched Virtual Circuit (SVC) connections.
- MultiProtocol and end-to-end IP session support.
- Q.933 Layer 3/ANSI T1.617.
- Local Management Interface (LMI) per Revision 1 LMI, Q.933 Annex A and Q.933 Annex D procedures.
- CCITT I.370 Congestion Management procedures.
- RFC 1490/RFC 1973 MultiProtocol Encapsulation.
- RFC 1315 SNMP MIB support.
- Supports RFC 1773 (PPP in FR); rapid integration with CoPPP-ML for PPP over Frame Relay.
- Q.922/ANSI T1.618/LAPD Layer 2 Multiplexor with DL\_CORE and DL\_CONTROL services scales to support large number of physical channels.
- DLPI Interface Library.
- Support for 2-, 3-, and 4-byte DLCIs.
- CCITT I.430 interface.
- Pre-integrated device drivers available; generic Layer 1 I/O interface supports existing or third party device drivers.

CoFRelay is available for a variety of COTS hardware platforms:

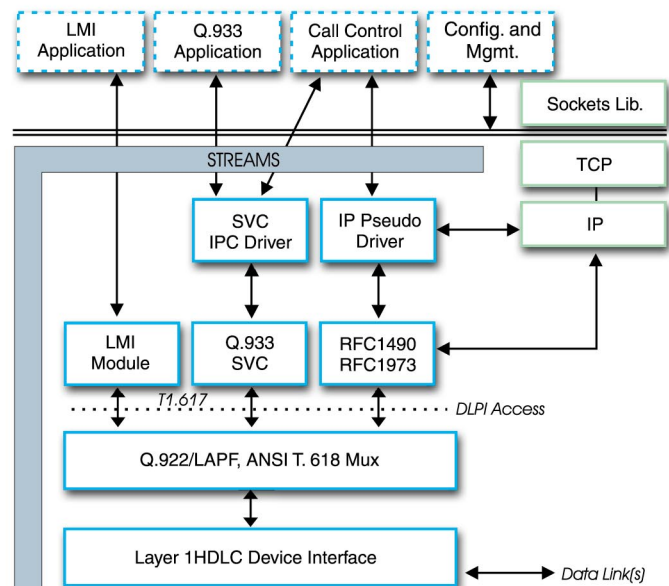
- Artesyn Baja adapter family
- ATLAS Darwin SCB family
- CoSystems CoT1-SBus (T1 adapter for SBus), CoE1-SBus (E1 adapter for SBus), CoT1-PCI (T1 adapter for PCI), CoE1-PCI (E1 adapter for PCI)
- Motorola 68xxx, MPC860/8260 reference adapters/SCBs.

CoFRelay software modules and test programs are designed and created using industry-standard STREAMS. For platforms without native STREAMS support, CoSystems offers CoSTREAMS, a small footprint implementation that provides a common operating environment for CoSystems stacks and third-party applications.

CoFRelay is available in source code and binary code formats for the following operating environments:

- Sun Solaris (x86 and SPARC)
- Wind River VxWORKS
- ISI pSOS
- ATI Nucleus (call for availability).

An overview of CoFRelay code structure is shown below:



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