Enea® FR-Bricks is a portable software package that implements the protocols used in Frame Relay endpoint equipment for both Permanent Virtual Circuits and Switched Virtual Circuits (PVC’s, SVC’s).

**Features**

Enea FR-Bricks contains the following main software entities:
- PH: Physical HDLC drivers with an optional HDLC by software solution
- DL: Data Link
- LMI support
- NS: Network signaling with Frame Relay variant
- CC: Call Control with Frame Relay variant

PH implements for a synchronous full duplex bit stream:
- Frame delimitation (HDLC frame)
- HDLC bit stuffing and un-stuffing


Enea FR-Bricks is based on Enea’s Netbricks architecture using object oriented design and a message passing mechanism for inter-entity communication. Enea FR-Bricks can process rough synchronous byte streams or support HDLC controller. Enea FR-Bricks can also be used in conjunction with Enea® ISDN-Bricks to support ISDN BRI and PRI switched access to Frame Relay Networks for both PVCs and SVCs.

Enea FR-Bricks is available with interfaces to most commercial RTOSes, including AMX, Nucleus, PSOS+, RT,VRTX, and VxWorks. Enea offers custom Enea FR-Bricks implementations for OEMs who require an application-specific solution.

**Call Control (CC)** implements the following functions:
- Call parameters management
- Provisioning and re-provisioning
- CC and management APIs
- Standards: ITU-TS Q.933 and ANSI T1.617

**Enea FR-Bricks Software Architecture**

- System management entity (SM)
- FR stack:
  - MPH physical management entity
  - PH entity:
    - HDLC interrupt service routine
  - LMI entity
  - MDL data link management entity
  - NS network signaling management entity
- API:
  - CC call control entity
- API-SERVER entity

**Data Link (DL)** implements the following functions:
- Extended DLCI
- Forward and backward congestion notification
- Core DL
- Core error correction
- Provisioning and re-provisioning
- CC and management APIs
- Standards: ITU-TS Q.922; ANSI T1.617

**Local Management (LMI)** implements the following functions:
- Status message support
- Standards: ITU-TS Q.933 Annex A; ANSI T1.617 Annex D; Frame Relay Forum FRF1.1 Annex A

**Network Signaling (NS)** implements the following functions:
- Access on demand
- Q.933 syntax encoder/decoder
- Q.933 Finite State Machine
- Provisioning and re-provisioning
- CC and Management APIs
- Standards: ITU-TS Q.933, ANSI T1.617, FRF.4