The Patton Model 3086FR IAD combines the latest advances in high speed DSL technology, G.SHDSL, with a potent IP, FR, PPP and ATM core facilitating simultaneous connection of legacy Frame Relay devices as well as routed IP services to high speed ATM networks.

Based on the European Telecommunications Standardization Institute (ETSI) and International Telecommunications Union (ITU) G.SHDSL G.991.2 standard, the Patton 3086FR enables 2.3 Mbps speeds at nx64 (n=1..36) over a single pair of wires. The 3086FR boasts a dual subscriber interface with a standard 10/100 Ethernet and a choice of Synchronous-Serial V.35, X.21 or T1/E1 ports. Together, these interfaces can be concurrently configured for FR-to-ATM conversion using FRF.5 and FRF.8, as well as IP routing or Ethernet bridging—all in one compact package.

FR traffic from the serial interface is converted into ATM according to FRF.5 or FRF.8 Interworking agreements. The IP service's module offers concurrent support for Frame Relay, PPP, Ethernet, and ATM protocols, the 3086FR can route data to and from any of the three interfaces (Ethernet, serial, and G.SHDSL) simultaneously.

The 3086FR connects seamlessly to any third-party DSLAM. Or you can connect it to another 3086FR over G.SHDSL for back-to-back configurations.

The 3086FR boasts easy installation with console, Telnet, and WWW/SNMP management. It provides bridging and routing functionality, along with advanced IP features such as DHCP and Firewall (IDS, Filtering, NAT). For more information, visit us at www.patton.com.
The 3086FR converts Frame Relay traffic from the serial port into ATM format for transmission over the DSL link. This protocol mapping function makes the DSLAM/DLS CPE network transparent to the Frame Relay service connected to the serial port. Simultaneously, the 3086FR provides a full-service routed or bridged connection between the LAN (connected to the 10/100 Ethernet port) and the supporting DSLAM/ATM network (connected via the G.SHDSL interface).

In the scenario illustrated below, the 3086FR is located at a branch office and encapsulates FR frames received at the serial port into ATM cells for transmission over the G.SHDSL link. In this example, the conversion is done using the procedures specified in the FRF.5 Implementation Agreement. Simultaneously, the 3086FR routes (or bridges) traffic from the Ethernet LAN to the G.SHDSL port, also encapsulated into ATM cells. Traffic from both the Serial and Ethernet ports is sent concurrently over the DSL link. Traffic from each port is delivered on its own ATM virtual circuit, as defined by a unique VPI/VCI combination. This mapping allows the core ATM network to switch the IP traffic to the Internet via a core router. Since the 3086FR supports PPPoE and PPPoA, the traffic can even pass through an authentication server. Finally, the ATM network switches the frame relay traffic to a separate ATM or Frame-Relay termination point.