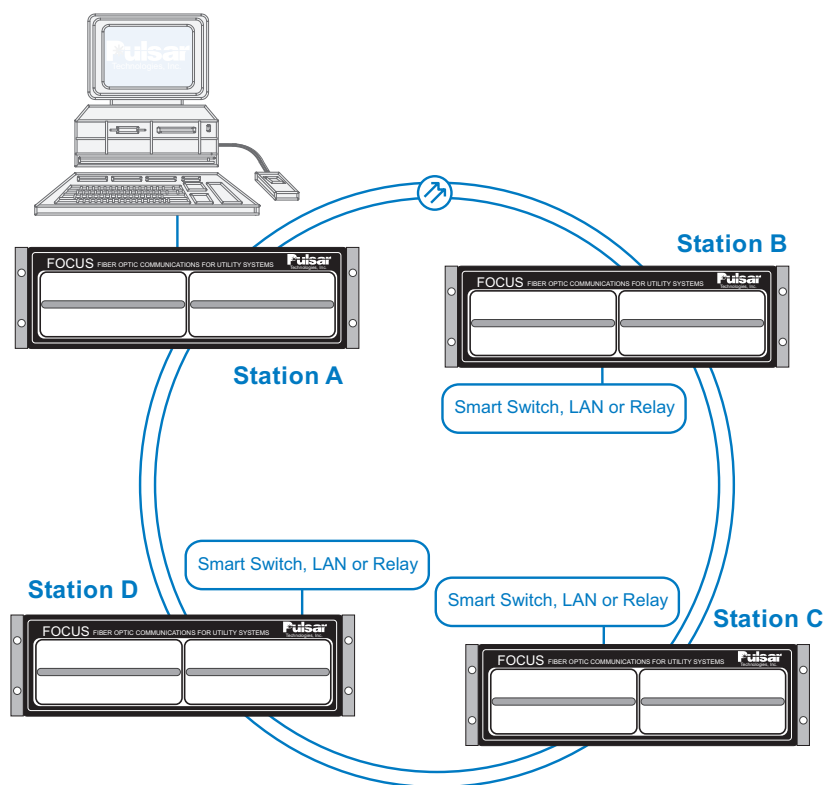


PARTY LINE DATA (PLD) MODULE

The Party Line Data module (PLD) allows virtually any polled or multi-drop data application to operate over a FOCUS network using a single DS0 time slot. A typical application for this module would be to provide a multi-drop RS-232 data circuit between a SCADA master computer and its associated Remote Terminal Units (RTUs). In this application, the PLD passes the information from the SCADA master to all of the connected RTUs via a direct RS-232 connection. An RTU detecting its unique address will respond by raising its RTS line. Once the RTS line is asserted, communication is established between the Master and the addressed RTU. All other communications over the circuit are blocked until the RTU drops its RTS line. The PLD module operates at asynchronous data rates up to 19,200 bps. You can also apply the PLD module to applications other than SCADA.

A unique feature of the FOCUS system equipped with a PLD module is the capability of individually addressing each PLD module. This allows you to efficiently support applications that do not require a "full time" dedicated RS-232 circuit using only one system-wide DS0 time slot.

A good example would be an application which requires both setting Intelligent Electronic Devices (IEDs), such as microprocessor-based relays, and retrieving data from these devices. Another example would be an application in which the PLD module is connected to a communications processor or smart RS-232 switch – such as the example shown here – allowing connection to all of the devices at each node (substation) as required.



Without the PLD modules, the small four-node ring in our example would have required three DS0 channels. With the PLD module, only a simple ASCII login and log out command is required to log in and out of each location.

Managing all of the RS-232 circuits at the computer

location is another application disadvantage for systems without addressable polled data modules. With a PLD-equipped FOCUS system, you have the ability to map each PLD module to any DS0 time slot in any of the four T1/E1 aggregate signals supported by FOCUS. This level of application flexibility is another unique feature of Pulsar's FOCUS system.