STI Engineering
Communications & Electronics Engineers

incorporating

RFInnovations
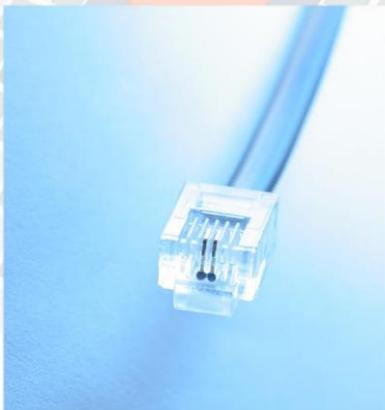*Leaders in Wireless Data*

- **PAPL, leased line replacement**
- **BELL 202, V.23, FSK**
- **RS232/422/485**
- **Ethernet to Serial conversion**

Leased Line Replacement

As many Leased Line services, known as Permitted Attached Private Lines (PAPL) or Private Circuits, are being phased out by telecommunications companies users of these services are turning to alternative technologies for connecting their legacy services. Private data radio is one technology being used to provide the same dedicated connection link with the same required timing and interface specifications.

Leased Lines have traditionally been used to connect campuses or regional points of interest from a few hundred meters to a few kilometers away. The services transferred over the lines include PLC and RTU communications, fire and security alarm services, building management systems (BMS) as well as remote services for environmental and meteorological monitoring.

Leased lines have traditionally been used for protocol communication between devices with Bell 202, V.23 and other FSK standards. The lines are also implemented in combinations with line modems for RS232 and RS485 communications. More complex PLC and RTU devices are also used to provide services such as remote control relay switching for alarms and SCADA.

Alternative technologies such as ADSL, HDSL, 3G and GPRS are some of the technologies that are successfully replacing traditional services run on PAPL where many different systems can share the same public network infrastructure.

STI Engineering is working with a number of companies in replacing the Leased Line services with data radio. The systems give the same point-to-point, or point-to-multipoint dedicated connectivity as well as guaranteed timing for critical applications

Private radio networks have been chosen for both simple point-to-point and largescale systems with the benefit of knowing that the service is not being shared by other systems. Furthermore private ownership allows the end-user to gain full control over the system operations and maintenance.

Companies are also choosing to take the opportunity to update the interfaces used in their system to current technologies via Ethernet and other converters.

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