

MARCH 2016

BT have recently announced the cessation of all support for TDM based private Circuits/Connectivity between 2018 and 2020. This includes all Analogue and KiloStream Private Circuits.

Direct information can be found at:

<http://www.globalservices.bt.com/uk/en/products/tdm-services>

Many if not all Utility Companies heavily rely upon these Services to provide the communications for the control and monitoring of Critical National Infrastructure (CNI) such as Water and Sewage systems; Electricity Distribution and Generation Sites. These circuits are utilised to communicate their legacy based applications such as SCADA/Telemetry.

All Utility Customers now face the challenge of replacing these with a suitable like for like replacement that are suitable to interface to their existing legacy Applications, such as Serial based Telemetry applications.

Some systems have been so reliable that they have been in continuous operation for over 30 years. Analogue Private Circuits (APCs) were originally chosen to interconnect CNI within the same Utility Region as a low bandwidth communications link for the control and monitoring messages that were sent/received between the CNI locations. The connectivity is permanent i.e. always on and not dial up/on demand based and the bandwidth provided is very low indeed - typically 1200 Baud but in older cases bandwidth of 60 Baud has proved suitable.

There is no “like for like” replacement currently offered by BT

BT plans as part of their 21CN Network roll out to apparently only support IP based services and therefore customers face the challenge and considerable cost in upgrading their existing legacy equipment to be compatible with IP based services, via either mediation of Serial to IP, or direct replacement.

BT have also announced that they will no longer provide copper based lines to any new location and if the Customer wishes to have similar connectivity to that offered by APCs, then Customers must now pay for fibre connectivity to each Site and this is a very expensive alternative if only low bandwidth communications (e.g. SCADA/Telemetry) is required.

Private circuits are normally either point to point within a certain region or can be connected via BT Telephone Exchanges. Circuits are technically restricted to a certain distance or length of line otherwise the quality and bandwidth of the line can be degraded. BT charge for each connection to the Exchange and also for Exchange to Exchange connections, further they charge extra per km if the line is more than 15km in length.

It is a very costly exercise to replace all legacy based applications and as such a more attractive solution is to consider alternative communications methods that allow the continued usage of proven legacy services.

Wireless Innovation provides “like for like” replacement solutions

Wireless Innovation provides solutions that, do not rely on fixed line infrastructure, are not restricted to distance and can provide bandwidth that can be guaranteed on a national level.

Wireless Innovation has a large portfolio of satellite based products which have been deployed successfully with legacy applications and equipment supporting bandwidth as low as 60 Baud. Wireless Innovation products have been proven to work efficiently and reliably with a wide range of industry standard legacy serial application protocols such as IEC870, WITS and Modbus and also other manufacturer specific SCADA based protocols.

Wireless Innovation have been supplying and supporting low bandwidth communications solutions to a number of Utility Companies reliably for 15+ years in order to control and monitor CNI using their legacy serial based applications such as SCADA, Telemetry and ESD based safety applications. In recent years this same infrastructure has been upgraded to accommodate both “legacy” and newer packet based protocols. Networks deployed have included a number of UK based Water Utility Companies: Scottish Water, NWL, Southern Water, South West Water as well as other major Electrical and Gas/Oil based Utility Companies: SSE, RWE, ESB Ireland, Perenco and Interconnector.

For further information, please contact us about the following products:

TSAT 3000 – A private Serial/IP based satellite network.

MiChroSat – A Satellite modem allowing Dial Up connections

BGAN M2M – A Satellite modem allowing on demand IP Based connectivity