

BT Lines Overlay Network

The BT lines in use at Norchard had grown in number and use over the years in a very haphazard way. The master sockets were located in more than one place and the wiring onto the telephones made use of the normal internal cabling network. Many of the lines had been extended on from the master socket as simple two wire circuits and were terminated onto master sockets rather than slave sockets.

The crunch came when we were asked to provide yet another socket on the circuit to the signal box. This was fitted and then we found that the phone would not respond to incoming calls. The REN on the line had been exceeded and the ring was being tripped.

A consultation of the need for all the lines and their appearances was undertaken and resulted in a sheaf of 69 emails before some consensus was obtained. A new way of doing the job was needed, particularly as we could see that not everyone was satisfied and that further rearrangements would inevitably arise in the future.

We opted for a new dedicated network just for the BT lines, using krone connectors and installed to the latest standard. We also arranged for all master sockets to be relocated adjacent to the BT DP and for all slave sockets to be connected to a central point so that changes could be made simply by moving jumpers in a krone box

We called the new cabling the "Overlay Network". The box to which all the cabling came back to then became the "Main Overlay Point" or MOP. Distribution points in the network became "Overlay Points" or OPs. The nomenclature amused us.

A part of the Norchard exchange wall was cleared of miscellaneous items and a wall board was installed for the MOP. Cables were run to three OPs in the main building. A tie cable to the Norchard MDF was provided so that BT line extensions around the site could still be fed via our on site network.

The incoming BT line arrives on a master socket adjacent to the BT DP. We then extended the line to the MOP via a plug and cord. Such an arrangement makes it very simple to decide whether a fault is on our equipment or BT's. At the MOP the circuit is jumpered to as many slave sockets as required. The slave sockets are either connected directly back to the MOP, via an OP, or via MDF tie circuits and our internal network. All circuits from the master socket onwards use two pairs to provide the three wire conditions.

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