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LocalTalk Over IBM Cabling (10/96)

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TOPIC -----

This article describes using LocalTalk over IBM cabling.

DISCUSSION -----

You can run LocalTalk over the IBM Cabling System. If your customer has installed the IBM Cabling System, there are several cabling types and all of them can be used to construct an LocalTalk network using PhoneNET Connectors and the PhoneNET StarController.

- Type 1 Data Cable has two individually shielded twisted pairs of 22 gauge solid copper wire.
- Type 1 Outdoor Data Cable is Type 1 Data Cable with a corrugated metallic shield.
- Type 1 Plenum Data Cable is Type 1 Data Cable with plenum rated plastic (most plenum cable uses teflon)
- Type 2 Data & Telephone Cable has Type 1 Data Cable and four pairs of unshielded solid copper 22 gauge wire.
- Type 2 Data & Telephone Plenum Cable is Type 2 Data & Telephone with plenum rated plastic
- Type 5 Fiber Optics Cable has two optical fibers.
- Type 6 Data Cable is the same as Type 1 Data Cable, except that the wire size is 26 gauge.

The IBM Cabling System uses three types of cable ends. All the cable ends are color-coded, making it easy to put the right wires to the right posts.

- The Data Connector is a unisex connector system with four conductors. It does everything. Two of them will mate together, so there is no male or female version.
- The Three-Pair Modular Telephone Jack Connector is a RJ12 (six pins)

with barrel connection posts on the back.

- The Four-Pair Telephone Jack Connector is a RJ45 (eight pins) with barrel connection posts on the back.

All wires go from a face plate back to a distribution panel in the wiring room. The face plate can either have just a data connector or it can have a data connector and a three-pair telephone Jack. The distribution panel mounts in a standard 19-inch rack. The maximum wire length from an office to the distribution panel is always much less than the distance limitations of a PhoneNET wiring scheme.

The preferred method of attaching to the IBM Cabling System is to use the fourth telephone wire pair in the Type 2 Data Cable. Wire a normal RJ11 wall jack next to the fancy IBM data connector face plate and attach the spare pair to pins 2 and 5 (yellow and black) on the RJ11. (This is the preferred wiring method, but in some places that have the IBM Cabling System the telephone people typically won't let the data communication people touch anything that looks like telephone cabling and most certainly not their new IBM Cabling. Of course, if you have only Type 1 Cabling, then you have no telephone cabling and you have to go to plan B.

The alternate plan is to use a special expensive adapter so that the data cables can be used. Farallon sells a special Data Connector that has an RJ11 female socket on it. Farallon Part Number: TE300, IBM Cabling System Line Tap. Two are required for each office to go onto the network, one in the office to provide a place for the modular cable from the PhoneNET to attach into and one at the Distribution Panel. If the network is just four offices on the same floor, you can rig a Passive Star PhoneNET network.

More common is to install a PhoneNET StarController on each floor and to buy the special 19-inch rack-mount StarController Wiring Kit TE347. Normal telephone modular cable can be connected from the TE300 into the RJ11s on the StarController Patch Panel.

This information provided by Farallon Computing.

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01 Oct 1996 - Changed article to reflect a LocalTalk network.

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