

NEWTON'S TELECOM DICTIONARY

11th Edition

The Official Dictionary of Telecommunications
Computer Telephony, Data Communications
Voice Processing, Internet Telephony
Windows 95 & NT Communications
LAN and WAN Networking



by Harry Newton

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Distribution Cable, Inside Plant Cables usually running horizontally from a closet on a given floor within a building. Distribution cables may be under carpet, simplex, duplex, quad, or higher fiber count cables.

Distribution Cable, Outside Plant The cable running from a central office or remote terminal to the side of a subscriber's lot.

Distribution Frame Cables coming in from thousands of subscribers need to connect to the correct ports on a central office. Similarly, cables coming in from many PBX extensions need to connect to the PBX. The cables could be directly wired to the CO or to the PBX. This would be inflexible. It would make future moves and changes a nightmare. So the solution is something called a Distribution Frame. Basically it's a giant wire connecting devices made of metal. There are no electronics in it whatsoever. On one side we punch down the wires coming in from the outside world. On the other side, we punch down the wires coming in from the CO or PBX. Both sides are connected with wire that's called "jumper" wire. By pulling off one end of the jumper wire and moving it to another location we can quickly change phone numbers, add or subtract cabling (one, two or three pairs for normal or electronic phones, etc.). In big central offices, distribution frames can span whole city blocks and the "jumper" wires can be several hundred yards long. Designing distribution frames and their layout in advance is critical, otherwise it becomes a mess and tracing where jumper wires go becomes an enormously time consuming job.

Distribution Group 1. A group made of phone extensions on a PBX arranged to share the load. In the Rolm PBX, each group is assigned a dummy extension number called a pilot number.

2. A group of telephone extensions on an automatic call distributor (ACD). The ACD answers the incoming calls then checks to see if any agents' phones are free. If none are free, it delivers the caller a message and then puts the caller on hold. Which line the call has come in on may determine which group of agents should handle that call. They would be called a Distribution Group. Once the call is released from hold, it may be sent to a member of that Distribution Group following some pre-determined mathematical formula — for example, so that everyone's workload is kept constant, or a group of people are kept busy.

Distribution Service In ISDN applications, a telecommunications service that allows one-way of information from one point in the network to other points in the network with or without user individual presentation control.

Distribution Voltage Drop The voltage drop between any two defined points of interest in a power distribution system.

Distributor A company with a contractual relationship with a manufacturer to buy equipment at a preset price. The manufacturer provides training, advertising and warranty support. Often called an authorized dealer, although a dealer may be one step lower in the distribution chain. A distributor is often used as a generic term for any supplier. Therefore you should clarify whether a distributor is an authorized distributor.

DIT Directory Information Tree. The global tree of entries corresponding to information objects in the OSI X.500 Directory.

Dithering Dithering is an imaging term with at least two meanings. One meaning that it's the processing of an image containing more colors than a system can handle to an image containing exactly the right number of colors that the system can handle. For example, some of the color images on my laptop contain 16 million colors. But my laptop (the way I have it set up) will only handle 256 colors. If I ask my image display software to display that image, it will "dither" it to 256 colors. This means it will give its best shot guess at what the image should look like.

In another meaning, dithering is patterning black and white dots to approximate shades of grey on a scanned image.

Diurnal Phase Shift The phase shift of electromagnetic signals associated with daily changes in the ionosphere. The major changes usually occur during the period of time when sunrise or sunset is present at critical points along the path. Significant phase shifts may occur on paths wherein a reflection area of the path is subject to a large tidal range. In cable systems, significant phase shifts can be occasioned by diurnal temperature variance.

Diversity In microwave communications, the strength of a microwave signal can decrease for many reasons — heat, rain, fog, etc. This is not good if the objective is to get reliable communications. One solution is to simultaneously send and receive two microwave signals at slightly different frequencies. Since different frequencies respond differently to weather problems, the likelihood is that at least one will get through well. This is called diversity.

Diversity Combiner A circuit or device for combining two or more signals carrying the same information received via separate paths or channels with the objective of providing a single resultant signal that is superior in quality to any of the contributing signals.

Divestiture On January 8, 1982 AT&T signed a Consent Decree with the U.S. Department of Justice, stipulating that on midnight December 30, 1983, AT&T would divest itself of its 22 telephone operating companies. According to the terms of the Divestiture, those 22 operating Bell telephone companies would be formed into seven regional holding companies of roughly equal size. Terms of the Divestiture placed business restrictions on AT&T and the BOCs. Those restrictions were threefold: The BOCs weren't allowed into long distance, equipment manufacturing, or information services. AT&T wasn't allowed into local telecommunications (i.e. to compete with the BOCs). But it was allowed into computers. The federal Judge overseeing Divestiture, Judge Harold Greene, is slowing the lifting the restrictions against the BOCs being allowed into information services. He has stayed firm on the other two — equipment manufacturing and long distance.

DIW Type D Inside Wire. Originated as a specific AT&T cable. Now commonly used to describe any 22, 24, or 26 gauge PVC jacketed twisted-pair cable used primarily for inside telephony wiring.

DIX Connectors A local area network connector. DIX connectors on the transceiver local area network cable link it to the network; the male DIX connector plugs into the SpeedLink/PC16 and the female DIX connector attaches to an external transceiver.

DIX Ethernet The DEC, Intel, Xerox Ethernet standard, also known as Version 1 or Bluebook Ethernet. There are subtle differences between IEEE 802.3 and the DIX Ethernet.

DL 1. Distribution List.

2. Distance Learning.

DLC 1. Digital Loop Carrier. Network transmission equipment used to provide a pair gain function. Used in situations in which the cost of the DLC equipment is more than offset by the savings in copper distribution accomplished by eliminating need for