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AT&T and IBM Cable Types and Specifications (2/95)

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TOPIC -----

I need basic information on cabling specs, features, and benefits for discussions with customers regarding the following cable types:

- AT&T type 1 through 5
- IBM type 1 through 5

DISCUSSION -----

IBM

Here is the information on IBM cable types. There is no type 4, nor type 7.

Type 1: 2 shielded, solid wire, twisted pair, 22 AWG, heavy jacket.
Available for plenum or non-plenum interior use, and underground or aerial exterior use. Use of Type 1 permits transmission at 16 Mbps, and a maximum of 260 stations, 33 MAUs per ring. Maximum lobe length is 330 feet.

Type 2: 2 shielded, solid wire, twisted pair, 22 AWG, plus 4 twisted pairs of solid 26 AWG wires added between the shield and the insulation cable sheath. Type 2 also supports 16 Mbps transmission.

Type 3: Unshielded, telephone grade (22 or 24 AWG) twisted pair, typically found inside a building. Requires a media filter at (or within) the NIC, and limits the transmission rate to 4 Mbps, and the number of workstations to 72.

Type 5: 100/140 micron fiber optic cable, used to connect distant MSAUs with fiber optic repeaters.

Type 6: Patch cables consisting of data grade, stranded, shielded twisted pairs, 26 AWG. When used, the distance limits are 66% that of Type 1.

Type 8: Under carpet cable, data grade twisted pair cable, 26 AWG. When used, the distance limits are 50% that of Type 1.

Type 9: Shield twisted pair, 26 AWG approved for plenum installations. When used, the distance limits are 66% that of Type 1.

AT&T

Unlike IBM's cable types, which can be non-twisted pair, AT&T types (more often referred to as Level) are all twisted pair cables.

Level 1: Used for voice and low speed data, digital and analog, RS-232.

Level 2: Unshielded twisted-pair, equivalent to IBM Type 3. Used in IBM 3270, IBM System 3X/AS/400.

Level 3: Shield or unshielded, equivalent to DEC's 10BASE-T, 4 Mbps token ring.

Level 4: Used for high-speed data, 100 ohm plus/minus 15%, 16 Mbps token ring, or extended distance 10BASE-T environments, at up to 20 Mbps.

Level 5: High speed LAN, 100 ohm plus/minus 15%, IBM data grade, used in all applications supported by levels 1-4 and 100 Mbps CDDI.

We are not sure there is much to discuss about features and benefits of the cable specifications. As you can see, different vendors might have different type definitions, they do have equivalence to other vendors' specifications or industry standards. Customers need to understand their network requirements and select the correct cable types to support it. Things to consider are voice or data, speed, and cost.

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