

Advanced Connectivity System Question and Answer

“IBM Cabling System and Fast Ethernet”

Customer requests to reuse existing installed IBM Cabling System:

Can the existing IBM Cabling System installation with Type 1 cable, support 100 Mbps Ethernet?

Yes, the customer investments in ICS cable years ago is still protected by IBM, insuring support of today's most common applications.

IBM Position:

The IBM Cable Type 1 can be reused!

The IBM ICS Type 1 cable was originally specified and tested for transmissions up to 20 MHz, but the designed has proven to be is suitable for much higher transmission frequencies.

Back in 1992, tests done in the IBM laboratory of La Gaude established a usable bandwidth that exceeded the magical 300 MHz! As of that moment the specifications of the ICS Type 1 cable were changed from 20 to 300 MHz, all testing was done accordingly and ICS Type 1A was born.

In numerous customer environments it was demonstrated that SDDI (also known as FDDI over Copper) running at 155 Mbps could be supported on all existing installed Type 1 cables, provided the installation was done properly. Nevertheless, it was recommended to upgrade connecting hardware to the IBM Enhanced Data Connectors (EDC).

Fast Ethernet (100 Base T), nowadays very popular in office environments, is fully supported by both the ICS Type 1 and Type 1A cables. Due to low flexibility on impedance matching of some Fast Ethernet cards, it is recommended to use impedance matching devices. These devices adapt the 100 Ohm card impedance to the 150 ohm cable impedance and are available under P/N 51H8297.

The connecting hardware upgrade is still recommended. In addition to the Enhanced Data Connector, the latest IBM MiniC 150 Ohm connector can also be used for this upgrade, due to its superior transmission capabilities and it's low density, which is similar to most of RJ45 connecting hardware.