Standards time

By Michael Monroe

TAKE A SPIN AT ATM

So many companies are developing products based on the Asynchronous Transfer Mode data protocol that you can't pick up a trade magazine today without reading about another ATM introduction. The management of my company—which supplies backplanes, enclosures and signal-integrity simulation services—would like to start rolling out some products. But first we'd like to know what backplane standards will support all these products.

I doubt if we'll find out soon. To the question of when backplane and form-factor standards for ATM will arrive, the answer, for all intents and purposes, is, "Don't hold your breath." In fact, physical standards may never be defined for ATM. Nor, at least in these early days, should they be.

I've been talking to IEEE colleagues, members of the ATM Forum and almost everyone else I run into to discuss the dearth of physical standards for ATM. Rick Townsend of AT&T Bell Labs, who is the working-group chair for the ATM Forum's Physical Layer Subcommittee, has told me that no one in the forum is working on such standards, to his knowledge, nor has anyone even expressed an interest in discussing the subject of ATM standards.

The standards process by nature is a slowly moving beast. In my industry segment, the only standards ever developed quickly have been those promulgated by a single company, then brought to a standards group for its blessing. The original VME standard and, more recently, the Raceway high-speed auxiliary bus and IndustryPack mezzanine-card specs are examples of such standards.

The developments in ATM transport mechanisms, however, are moving far too quickly to be burdened by the slow, consensus-building process of committee standards development. In the case of VME and the other examples, the sponsoring companies were eager to have standards completed. They saw a benefit to having third parties building compatible products: an increase in the overall markets in which the originators participate. That's not the case with ATM.

A close look at the ATM market suggests that standardizing the data protocol will help to force a change in existing proprietary networking architectures. However, by avoiding the establishment of physical-layer equipment and backplane standards, companies are able to protect the markets into which they deploy their new proprietary equipment.

Router companies such as Wellfleet and Cisco, and switch manufacturers such as GTE and Bell Northern have no incentive to make it easy for their competitors to build plug-compatible cards. After all, when it is time for their customers to increase circuit capacity, the OEM who controls the account doesn't want to see them shop around elsewhere for upgrades.

The good news for packaging vendors is that each product will require a new backplane design, and the products cannot ever be considered a commodity. That helps protect their investment in relationships with customers and helps wed the customer to successful vendors. There are going to be a lot of custom-design opportunities out there for ATM. Oh yes, and there are going to be far fewer of those IEEE lunches.
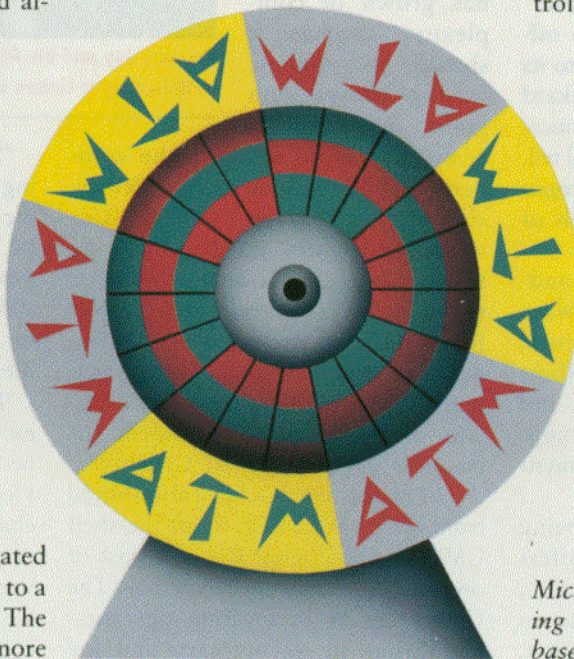
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