



NEWS RELEASE

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VMEbus Switched Serial Standard Ratified

New VITA Specification Offers OEMs Increased Bandwidth, Low Latency and Long Life for Popular VMEbus-based Standard

FOUNTAIN HILLS, Ariz. -- January 20, 2003 -- The VMEbus International Trade Association (VITA) today announced the ratification of the VMEbus Switched Serial Standard (VXS) or VITA 41, which will provide original equipment manufacturers with up to 50 times more bandwidth than the VME64 parallel bus on individual board-to-board transfers, for a total of up to 900 times more aggregate bandwidth in a maximum VXS configuration. Manufacturers can now extend the life of their legacy VMEbus-based systems while increasing bandwidth and following an easy migration path from parallel bus to switched serial fabrics, as both will coexist in a VMEbus system at the same time.

This means that manufacturers will be able to develop products incorporating switched serial fabrics such as InfiniBand™ 4X, Serial RapidIO™ 4X, Fibre Channel and 10 Gigabit Ethernet, while they continue to benefit from investments made over the years in VME, an extremely well-known and stable form factor.

“The great thing about VXS is that it takes the risk out of incorporating new technologies,” said Ray Alderman, executive director, VITA. “OEMs can experiment with switched serial fabrics at their own pace, before transitioning their systems and products from the parallel bus. And those who love the parallel bus win too, because the standard ensures the form factor will be here for many years to come as the switched serial fabrics carry VME into the future.”

“The VXS Standard will provide the military with an evolutionary path to switched fabrics, the next generation of embedded system architectures, while maximizing the existing expertise and investment the military has made in VME,” said James Thompson, senior engineer, Commercial Technology Management Branch, Naval Surface Warfare Center, Crane Division.

“We have been a user/integrator of VMEbus technology for over 15 years. We are very pleased with the whole VME Renaissance effort and the effect it is having on the technology,” said Paul Bade, vice president and founder of Dot21 Real-Time Systems, Inc. “Finding ways to provide more capability in a cost effective manner is crucial for both military and commercial systems. The VME community is helping us do this by extending the life of VME with a number of

technology innovations as part of the VME Renaissance. We believe that these innovations, like VITA 41, will allow us to continue to use VME while providing greater capabilities to our customers.”

Motorola Computer Group championed VXS with Mercury Computer Systems, Mitre, Schroff, SKY Computers, Inc. and Tyco Electronics as part of what Motorola calls the “VME Renaissance,” which the company launched last year at the Bus & Board™ conference in support of the VMEbus it helped create more than 21 years ago. “The VME Renaissance is all about bringing more to OEMs – more bandwidth, more speed, more design options and more ROI from a platform they’ve known and loved for many years,” said Dr. Jeffrey Harris, director of research and system architecture, Motorola Computer Group. “VXS is a necessary step in this resurgence. Beyond the technical parameters of high bandwidth and low latency, VXS means that manufacturers can rest assured that VME will be a platform for innovation for the next few decades.”

Key benefits and elements of VXS include:

- The addition of a switched-serial interconnect to VMEbus, coincident with the VMEbus parallel bus, which is accomplished by adding a new P0 connector for passing the high-speed signals.
- The accommodation of multiple open standard technologies for the links, but not necessarily at the same time. Initially there are specifications for both InfiniBand 4X and Serial RapidIO 4X link technologies. The specification for InfiniBand was approved with the base specification with the specification for Serial RapidIO to follow immediately. Further link technology specifications may be added without changing the base specification.
- Backward compatibility with the VMEbus ecosystem, in that the traditional 6U high, 160 mm, Eurocard form factor is maintained. Many existing VMEbus cards can plug into the proposed VXS backplane.
- The ability to bring double the DC power onto each VMEbus card, which is accomplished by pulling additional current through the existing power pins on the existing P1 and P2 5-row connectors.

About VMEbus

VMEbus is a computer bus architecture popular in industrial automation, medical, telecommunications and military applications for its ruggedness and longevity in the marketplace. This open-industry standard defines physical card dimensions and mounting, the electrical interface and the connectors. This means that VMEbus boards that adhere to the standard can be plugged into a system and will be interoperable, even if they come from different suppliers.

Mercury Computer Systems

“VME as a platform continues to play a major role in Mercury's defense applications,” said Richard Jaenicke, director of product marketing at Mercury Computer Systems, Inc. “VXS provides a compatible path to next-generation interconnects like RapidIO while preserving the investments the embedded community has made in VME.”

SKY Computers, Inc.

“SKY Computers originally pioneered high speed data communications over P2. Now we are moving to standards-based solutions for Gigabyte speeds and beyond,” said Steve Paavola, CTO, SKY Computers. “VITA 41 gives us a standards-based solution and an ‘ecosystem’ of backplanes, chassis and third party products to meet our customers needs.”

Tyco Electronics

“Tyco Electronics is pleased to have played a key role in the formation of this specification. We look forward to supporting end users as they design and build VXS systems with MultiGig RT,” said John Larkin, product manager, Tyco Electronics.

About VITA

VITA, the VMEbus International Trade Association, is an incorporated, non-profit organization of vendors and users having a common market interest. Founded in 1984, VITA believes in and champions open system architectures as opposed to proprietary system architectures. VITA's activities are international in scope. The functions performed by VITA are technical, promotional and user related and are aimed at increasing the total market size, providing vendors additional market exposure and providing users with timely technical information. Today, VITA's mission includes not only promoting VMEbus, but promoting the very concept of open technology as embodied in the many standards currently under development within the VITA Standards Organization. Virtually all players in all markets from the smallest to the largest now use the word "open" in their company and product promotions. The VITA name is now synonymous with open systems. For information about VITA membership, or to find out how to obtain VITA specifications, visit the VITA website at <http://www.vita.com> or call VITA headquarters at (480) 837-7486.