



SOLUTION BRIEF

High Performance COTS Products for Aerospace and Defense Applications

Artesyn Benefits

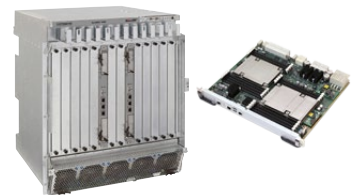
- Standards-based, proven architectures
- Long lifecycle support
- Multi-blade chassis options optimize mix of I/O, compute & acceleration resources
- Hardened system enclosures
- Designed to withstand harsh environmental and vibration conditions
- High bandwidth Interconnect
- Rack footprint ranges from 3U to 18U
- Perfect for mobile battlefield compute, shipboard C4ISR, Radar/Sonar, SIGINT, weapons control and more

The migration of military tactical systems to higher performance technologies like Advanced Telecom Computing Architecture (ATCA®) and dense microservers have reduced the total space required for the computational element of these weapon systems. The *Centellis*® platforms from Artesyn Embedded Technologies are ideal for these applications, having gone through certifications for surviving harsh environmental and vibration conditions (i.e., NEBS Level 3*), and delivering latest technology, multiple 100 Gbit ingress/egress and blades with a variety of application profiles. When placed in a Mil/Aero ruggedized enclosure, taking advantage of COTS architecture with rugged features has never been easier!

*stringent requirements on electromagnetic interference (EMI), shock and vibration (earthquake proof) for telecommunication network deployments

As applications migrate from legacy *VMEbus*, I/O remains an integral part to many of these systems but requires a large amount of rack space and is expensive to maintain. Most, if not all of these interface functions today, are available in a standardized PCI Express card form factor as well. The Artesyn *MaxCore*™ platform enables consolidating these I/O cards into a single 3U rack with the added flexibility of separating the I/O into separate root domains using multiple Artesyn microserver cards. Less power and proper cooling in this dense microserver design certified for harsh environmental conditions allows military applications to reach similar or better levels of reliability, shock and vibration at a lower price. Faster bus speeds and the ability to use modern add-on cards in the same environment are an added benefit.





	VMEbus Products	MaxCore™ Platform	Centellis® Platforms
System Height	6U typical	3U	3U - 15U depending on cooling and assembly requirements
Designed for Harsh Environments	Yes	Yes	Yes
Compute Core Density	System dependent	Up to 480 cores/3U	Up to 432 cores/13U
Compute Architecture	Freescale (PPC)	Intel x86 today; Freescale planned	Intel x86; DSP
Bus Architecture	VME - parallel	PCI Express - serial	Ethernet
Interconnect Speed	Up to 320 MB/s	50 GB/s	(2x-4x) 40G Ethernet

Product Application Fit

Centellis® Platforms

AdvancedTCA technology is widely deployed in defense applications and is ideally suited for bandwidth-hungry, high-performance applications that cannot allow for downtime such as land or ship based control systems and compute farms that combine sensor data or have the need to execute massive calculations.

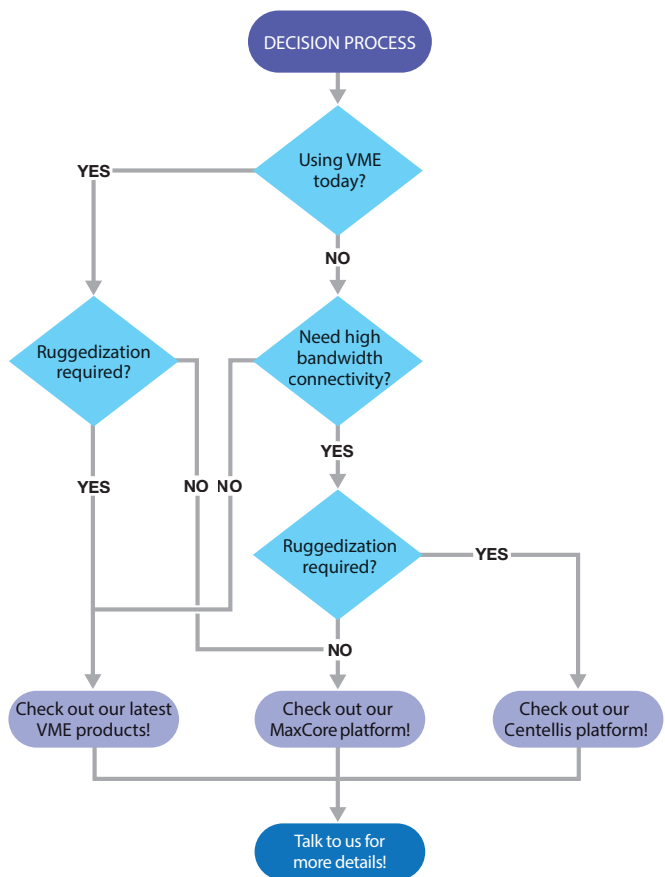
MaxCore™ Platform

The MaxCore platform brings high performance and high density to air, vehicle and field-based applications where rapid installation, mobility and ruggedization are paramount. Based on PCI Express, almost any I/O requirement can easily be met using suitable I/O cards.

VMEbus Products

The historic yet very lively champion of military computing is far from the end of its life. Proven in applications ranging from ground-based to airborne, space and ship board, VME still remains a cornerstone of modern design. For developers it remains a solid choice with its enduring advantages of low power, small system size and experience in deployment.

The Decision Path



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