Frost & Sullivan Award for Product Innovation of the Year

2006 FROST & SULLIVAN
Aerospace & Defense Computer Product Innovation of the Year Award

Computer Systems, Inc. MERCURY

Award Description

The Frost & Sullivan Award for Computer Product Innovation of the Year is presented each year to the company that has demonstrated excellence in new products and technologies within their industry. The recipient company has shown innovation by launching a broad line of emerging products and technologies.

Research Methodology

To choose a recipient of this Award, the analyst team tracks all new product launches, R&D spending, products in development, and new product features and modifications. This is accomplished through interviews with the market participants and extensive secondary and technology research. All new product launches and new products in development in each company are compared and evaluated based on degree of innovation and customer satisfaction. Companies are then ranked by number of new product launches and new products in development.

Measurement Criteria

In addition to the methodology described above, there are specific criteria used to determine final competitor rankings in this industry. The recipient of this Award has excelled based on one or more of the following criteria:

- Significance of new product(s) in their industry
- Competitive advantage of new product(s) in their industry
- Product innovation in terms of unique or revolutionary technology
- Product acceptance in the marketplace
- New product value-added services provided to customers
- Number of competitors with similar product(s)

Award Recipient:

Mercury Computer Systems

Frost & Sullivan is proud to present the 2006 Aerospace & Defense Computer Product Innovation of the Year Award to Mercury Computer Systems Inc. based on the development of the PowerBlock™200. Mercury is an important supplier of Commercial Off The Shelf (COTS) high performance embedded computing solutions to major defense contractors to meet Department of Defense (DoD) challenges. Delivering 200 GFLOPS of signal processing capacity in a small and rugged package, the PowerBlock 200 will allow a giant leap in the compute intensive Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance (C4ISR) applications. This is exactly the sort of innovation that will immediately impact U.S. military and homeland security operations and speed the realization of Network Centric Warfare goals.

Based in Chelmsford, Massachusetts, Mercury Computer Systems makes real-time Digital Signal Processing (DSP) systems in a wide range of defense and medical imaging markets. Mercury serves customers in North America, Europe and Asia through its direct sales force and a network of subsidiaries and distributors. Defense systems process radar, sonar, imagery, communications signals, and enable wireless networks, transforming sensor data to information for analysis and interpretation. Its medical systems speed the processing of magnetic resonance, computed tomography, and X-ray images. Mercury also has a division that makes specialized products used in semiconductor wafer inspection and baggage scanning systems.

Mercury also provides advanced 3D image processing and visualization software and optimized systems to diverse end markets including life sciences, geosciences, and simulation.

The PowerBlock 200 is the first rugged device designed with the Cell Broadband Engine™ (BE) processor. With the processing capacity of 12-20 PowerPC processors or 45 Intel Pentium 4 processors, in a one-half cubic foot rugged chassis, the PowerBlock 200 can bring the battlefield visualization and decision aids computing power of a research laboratory to tactical vehicles in the field. The system has four 2-Gb Fibre Channel interfaces and nine Gigabit Ethernet ports for sensor input/output (I/O). To support communications, the PowerBlock 200 features two RS-232 serial ports and general-purpose I/O ports. Other I/O options are available via open-standard mezzanine card expansion sites. Applications on the Cell Broadband Engine processor include an Intel Architecture development/simulation environment and a Linux support package.

The PowerBlock 200 can improve the tactical signal processing capability of defense technologies deployed on space, near space, air, surface, subsurface, and mobile ground platforms, including unmanned vehicles of all types. Advantages include increased signal processing power and speed, reduced burden on communications links, and consolidated sensor and analysis functions resulting in faster threat recognition and response. The small size, weight, simplified logistics, maintenance, and operational procedures will allow a much larger array of combat vehicles to be equipped with advanced computing power and enhance Network Centric Warfare enabling functions such as:

PowerBlock 200 System

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- Electronic Warfare
- Communications Intelligence
- Electronics Intelligence
- Cryptology
- Computer Security
- Computer Forensics
- Open Source Intelligence
- Information Operations
- Emitter Mapping
- Radio Direction Finding
- Imagery Intelligence
- Geospacial Intelligence
- Datamining and Analysis Collaboration
- Navigation
- Radar
- Sonar
- Sensor Fusion
- Advanced Radio Frequency Techniques
- Multi-Level Access and Security
- Communications Interoperability
- Software Defined Radio
- Bandwidth Compression
- Training and Simulation
- Smart Weapons
- Collaborative Targeting
- Wireless Mobile Networks
- Unattended Munitions
- Integrated Logistics/Maintenance/Administration
- Field Medical Diagnostic Tools

Mercury Computer Systems' computer product innovation is demonstrated by its understanding of the DoD's Network Centric Warfare doctrine and the technology required by Lead Systems Integrators to incorporate powerful, yet compact, signal processing solutions. The innovative use of COTS products to develop a system that can provide the real-time signal processing power to meet operational needs, gives Mercury Computer Systems great competitive advantages and growth potential. Hence, Mercury Computer Systems has been chosen for the 2006 Frost & Sullivan Aerospace & Defense Computer Product Innovation of the Year Award.

PowerBlock 200 in deployed ground vehicle

For more information contact:

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