



## Mercury Systems Unveils First OpenVPX Blade Server Powered by Second Generation Intel Xeon Scalable Processors for Artificial Intelligence Applications

April 2, 2019

**Next-generation edge processing technology enables advanced C4I processing, autonomous platforms and smarter missions**

ANDOVER, Mass., April 02, 2019 (GLOBE NEWSWIRE) -- Mercury Systems, Inc. (NASDAQ: MRCY, [www.mrcy.com](http://www.mrcy.com)) announced the EnsembleSeries™ HDS6605 blade server, the embedded computing industry's most powerful, general-purpose processing 6U OpenVPX™ blade server with hardware-enabled support for artificial intelligence (AI) applications.



Mercury's new EnsembleSeries™ HDS6605 blade server, the embedded computing industry's most powerful, general-purpose processing 6U OpenVPX™ blade server with hardware-enabled support for artificial intelligence (AI) applications

Powered by Second Generation Intel® Xeon® Scalable processors, HDS6605 blade servers feature the same cooling, packaging and 100 Gbps in-system switch fabric interconnect technologies found in earlier proven generations of Mercury blades based on Intel Xeon processors. These open systems-compliant technologies have a technology readiness level of nine (TRL-9), making HDS6605 blades well-suited to rugged defense applications and upgrades that require the utmost in processing capability.

"With the new Second Generation Intel Xeon Scalable processors, Mercury's OpenVPX blade servers deliver a huge boost to the industry's ability to embed the big data processing capability required for new, smarter and autonomous military missions," said Joe Plunkett, Mercury's Senior Director and General Manager for Sensor Processing solutions. "This next-generation compute capability delivers enhanced performance and power optimized for modern AI applications which enable our customers to take data center processing capability all the way to the tactical edge."

HDS6605 blade servers are highly optimized for AI and other extreme compute-intensive general processing workloads typically associated with sensor fusion, complex C4I and deep-learning applications. Second Generation Intel Xeon Scalable processors feature Intel® Deep Learning Boost, which extends Intel Advanced Vector Extensions-512 (Intel AVX-512) to accelerate inference applications like speech recognition, image recognition, language translation, object detection, and more. Its new set of embedded accelerators (Vector Neural Network Instructions, or VNNIs) speed up dense computations characteristic of convolutional neural networks (CNNs) and deep neural networks (DNNs), delivering up to a 14x improvement in inference performance compared to the first-generation Intel Xeon Scalable processor launched in July 2017<sup>(1)</sup>. Along with increased scalability via ultrathin interconnect (UPI), each blade provides up to 22 cores from a single 1.9GHz device, delivering an industry-topping 2.6 TFLOPS of general-purpose processing power.

### EnsembleSeries Features & Capabilities

With a 35-year track record of delivering high-reliability processing solutions for defense and aerospace applications, Mercury's EnsembleSeries blades and other embedded computing servers are known for their long lifecycles, high performance, environmental resiliency, interoperability and SWaP optimization. EnsembleSeries HDS6605 blades are available with up to 100 Gbps in-chassis switch fabrics and optional modified-off-the-shelf (MOTS+) and BuiltSECURE™ technologies for extreme environmental protection and proven systems security engineering (SSE).

**Processing Power:** EnsembleSeries HDS6605 blades feature a Second Generation Intel Xeon Scalable processor with 22 cores at 1.9 GHz and are supported with up to 192GB of fast DDR4-2933 memory. Each HDS6605 delivers 2.6 TFLOPS of general processing power, the most per-blade processing available in the embedded computing industry today.<sup>(2)</sup>

**Open Systems Architecture:** HDS6605 blades are OpenVPX compliant and SOSA compatible, making them ideal for technology refreshes and have options for MOTS+ and BuiltSECURE technologies for extreme durability and proven built-in systems security engineering (SSE).

**Security:** BuiltSECURE System Security Engineering (SSE) IP enables turnkey or personalized security solutions that help safeguard against present and emerging threats. Extensible and composable, Mercury's architectures are built to evolve for future-proofing to maintain system-wide integrity

while reducing overall cost and program risk. Additionally, Second Generation Intel Xeon Scalable processors are embedded with Intel's next generation of security features and resolve known hardware vulnerabilities.

**Ruggedness:** Optional MOTS+ technologies leverage enhanced commercial components, board fabrication rules, and subsystem design techniques for extra durability and ability to withstand extreme temperature cycles and mechanical excitation better than other rugged designs.

**Scalability:** Up to four HDS6605 blades can be clustered via Intel's new ultrathin interconnect (UPI) for a truly integrated, low-latency non-uniform memory access (NUMA) server architecture.

**Advanced Packaging and Cooling:** EnsembleSeries HDS6605 server blades are packaged using Mercury's proven fifth generation of advanced packaging, cooling and interconnects. Collectively these technologies protect the blades from the harshest environments, keeping them cool for long, reliable service lives while enabling consistent OpenVPX switch fabric bandwidths of up to 100 Gbps across a broad temperature range.

**Applications:** With an architecture enhanced for AI processing performance, wider, faster interconnect pipes and 192GB of shared DDR4-2933 SDRAM system memory, HDS6605 blades are ideally suited to complex on-platform applications requiring extreme compute and I/O capabilities, including C4I, sensor fusion and deep learning, which typically require about six times as much memory as a conventional data center-class blade server.

Mercury's EnsembleSeries HDS6605 blades are designed, manufactured, coded and supported in the USA from DMEA-certified facilities and will be available in the second quarter of 2019. For more information, visit [www.mrcy.com/HDS6605](http://www.mrcy.com/HDS6605) or contact Mercury at (866) 627-6951 or [info@mrcy.com](mailto:info@mrcy.com).

### Mercury Systems – Innovation That Matters®

Mercury Systems (NASDAQ:MRCY) is a leading commercial provider of secure sensor and safety-critical processing subsystems. Optimized for customer and mission success, Mercury's solutions power a wide variety of critical defense and intelligence programs. Headquartered in Andover, Mass., Mercury is pioneering a next-generation defense electronics business model specifically designed to meet the industry's current and emerging technology needs. To learn more, visit [www.mrcy.com](http://www.mrcy.com) and follow us on [Twitter](https://twitter.com/mrcy).

### Forward-Looking Safe Harbor Statement

This press release contains certain forward-looking statements, as that term is defined in the Private Securities Litigation Reform Act of 1995, including those relating to fiscal 2019 business performance and beyond and the Company's plans for growth and improvement in profitability and cash flow. You can identify these statements by the use of the words "may," "will," "could," "should," "would," "plans," "expects," "anticipates," "continue," "estimate," "project," "intend," "likely," "forecast," "probable," "potential," and similar expressions. These forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those projected or anticipated. Such risks and uncertainties include, but are not limited to, continued funding of defense programs, the timing and amounts of such funding, general economic and business conditions, including unforeseen weakness in the Company's markets, effects of any U.S. Federal government shutdown or extended continuing resolution, effects of continued geopolitical unrest and regional conflicts, competition, changes in technology and methods of marketing, delays in completing engineering and manufacturing programs, changes in customer order patterns, changes in product mix, continued success in technological advances and delivering technological innovations, changes in, or in the U.S. Government's interpretation of, federal export control or procurement rules and regulations, market acceptance of the Company's products, shortages in components, production delays or unanticipated expenses due to performance quality issues with outsourced components, inability to fully realize the expected benefits from acquisitions and restructurings, or delays in realizing such benefits, challenges in integrating acquired businesses and achieving anticipated synergies, increases in interest rates, changes to cyber-security regulations and requirements, changes in tax rates or tax regulations, changes to generally accepted accounting principles, difficulties in retaining key employees and customers, unanticipated costs under fixed-price service and system integration engagements, and various other factors beyond our control. These risks and uncertainties also include such additional risk factors as are discussed in the Company's filings with the U.S. Securities and Exchange Commission, including its Annual Report on Form 10-K for the fiscal year ended June 30, 2018. The Company cautions readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made. The Company undertakes no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made.

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- (1) On Intel® Xeon® Platinum 8280 processor w/ Intel® DL Boost for ResNet-50 (image classification workload) using Intel® Optimizations for Caffe vs Intel Xeon Platinum 8180 processor at launch.  
Performance tests, such as SYSmark and MobileMark, are measured using specific computer systems, components, software, operations and functions. Any change to any of those factors may cause the results to vary. You should consult other information and performance tests to assist you in fully evaluating your contemplated purchases, including the performance of that product when combined with other products. For more information go to [www.intel.com/benchmarks](http://www.intel.com/benchmarks)
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A photo accompanying this announcement is available at <http://www.globenewswire.com/NewsRoom/AttachmentNg/228e52d4-7552-4df0-b33c-c81389cc8450>

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Source: Mercury Systems Inc