Mercury Systems introduces newest mini-server

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Mercury Systems is introducing the RESmini XR6, the latest in its mini-server product line which can be carried in a lightweight case that powers the system.

The RESmini XR6 is essentially a data centre in a briefcase, Mike Schneider, vice-president for Trusted Mission Solutions for Mercury systems, told *Jane's* .

The US Army is currently evaluating the RESmini XR6 along with the case at Aberdeen Proving Ground, he added.

The system has an Intel Xeon Scalable Processor with 28 cores and up to 768 GB of memory. It has 240 TB of storage in eight removable drives and two Peripheral Component Interconnect Express (PCIe) expansion slots. The company is currently qualifying larger 15 and 30 TB drives, Schneider said.

"This is our third generation of this product; our generations are defined by the Intel processor. We introduced this product when it was an Ivy Bridge- and Sandy Bridge-based product. We had a Broadwell [processor] and now we are introducing the Skylake version of the RESmini," he said.

The RESmini XR6 operates on AC or DC power, weighs 6.8 kg, and measures 10.2 cm tall, 34.3 cm wide, and 27.8 cm deep.

"We perceived the need in the market several years ago for something smaller than [a rack-mounted system], but which combined an enterprise-class server small enough to fit into a soldier's rucksack," Schneider said.

Mercury Systems calls its RESmini XR6 a data centre in a briefcase. The 6.8 kg server is designed to be mobile and rugged enough to operate in most stringent environments. (Mercury Systems)

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Besides its small size, weight, and power, the RESmini XR6 features the RESmini Carry-On Power case that can be stored in the overhead bin and is US Federal Aviation Administration (FAA) compliant. The 21.3 kg case is equipped with a small electronic bay that powers the RESmini as well as other ancillary electronics. The Acumentrics-designed case can be powered by AC and DC power as well as standard military batteries.

“This is the first time we have paired these two items in a specialised package like this,” Schneider said.

The RESmini can operate for up to 100 minutes on battery power supplied by the carrying case.

“This gives people the ability to go into an austere location and power it up and get into the operation before they get access to either commercial or generator power,” Schneider added. “When the battery power winds down, you can plug it into an external power source.”

Fail-safe battery disconnect systems makes the case FAA compliant enabling users to carry it on board an aircraft and store it in an overhead bin.

This article, first published 26 March, was subject to a correction and has been amended.

Comment

As technology continues to advance, the army intends to leverage common hardware to continue to introduce lighter-weight server solutions that will make command posts lighter, faster, more agile, and more survivable. For example, a US Army brigade's current Battle Command Common Services (BCCS) server has three 544.31 kg stacks, each tower hosting nine rack-mounted systems that require field service representatives (FSRs) to operate. It can take 30 minutes to get the system up and running.

The army is replacing the disparate server hardware by merging all operational functions onto one common set of servers to reduce the size, weight, and power (SWaP) as well as return server operations back to uniformed personnel. Under the Tactical Server Infrastructure (TSI) the army is introducing a 161.93 kg scalable server with empty space for future upgrading, enable operations by soldiers, and takes 10 minutes to get running. A more mobile variant, the TSIv2 Laptop Server, will serve battalions and provide back up for brigades and higher echelons.