

Penguin Computing Announces Availability and Customer Deployment of Tundra Extreme Scale Valkre Servers Based on Cavium ThunderX Workload Optimized Processors

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Server Platforms Optimized for HPC and Hyperscale Workloads

Penguin Computing, a provider of high-performance computing, enterprise data center and cloud solutions, announced first customer shipments of its Tundra™ Extreme Scale (ES) server based on Cavium's (NASDAQ: CAVM) 48 core ARMv8 based ThunderX workload optimized processors. Tundra ES Valkre servers are now available for public order and a standard 19" rack mount version will ship in early 2016. With multiple server, storage, Software Defined Networking (SDN) and software solutions for HPC, data center scale-out and cloud computing, Penguin Computing products deliver cutting-edge technology to its customers. The Penguin Computing Tundra ES Valkre server is a two-socket architecture in a 1-OU (1 Open Rack Unit) high and three wide form-factor, delivering optimized performance for workloads ranging from compute-intensive to cloud optimized applications. With future support for up to 1TB of DDR4 memory, up to 3 SSDs and Mellanox IB support, these Penguin Computing systems are targeted at bioinformatics, high performance data analytics (HPDA), molecular dynamics, large scale graph analytics and Ceph storage solutions. Performance will be driven by ThunderX ARMv8 SOCs optimized for these workloads, with up to 48 high-performance custom cores, very high memory bandwidth, large memory capacity and flexible I/O subsystems. Adding to these high-performance features are integrated accelerators for storage, networking and security, offloading from the main ARMv8 CPU cores and enabling best-in-class performance. The integration of Ethernet fabric interfaces and storage controllers reduces both power and cost, driving outstanding reductions in TCO. "Penguin has invested in our new ThunderX-based Valkre server families based on the competitive advantage it can bring to our customers," said Jussi Kukkonen, Director, Penguin Computing Product Management. "Customers have already begun placing orders and we are deploying these systems in the high-performance computing, financial services and other market sectors." "Customers have been testing 48-core

Cavium ARMv8 ThunderX-based servers for months, and have reported significant benefits in workload performance, reduced power consumption, and overall TCO,” said Steve Cumings, Director, Market Development at Cavium. “With Valkre, Penguin has created both OCP-compliant and standard rackmount server families, and customers can purchase now for competitive advantage in their HPC computing and storage environments.” Penguin Computing is accepting orders for Tundra ES Valkre server systems; visit the [Valkre 1030c page](#) for more information.