



HP Extends Benefits of ARM Architecture into the Datacenter with New Servers

Customer Quotes

"HP Moonshot is a first-of-a-kind system that's enabling us to extend the range of our calculations to solve really complex problems in a highly efficient 64-bit ARM architecture. We tested workloads ranging from molecular dynamics to hydrodynamics and data analytics, and we were able to fully exploit all the cores on the processor to achieve linear scaling. The energy efficiency realized through the use of 64-bit ARM processors is expected to allow us to stay within our power limitations as we approach exascale."

- James Ang, Technical Manager, Scalable Computer Architecture Department, [Sandia National Laboratories](#)

"The HP ProLiant m800's combination of ARM and Multicore Digital Signal Processors with high-speed, low-latency networking and tiered memory management creates a very energy efficient, extremely capable parallel processing platform with a familiar Linux interface. It's a truly new approach to bringing scale-out design "inside the box," and breaks barriers between high performance computing and enterprise technology."

- Ryan Quick, Principal Architect, Advanced Technology Group, [PayPal](#)

"HP Moonshot with the ARM 64-bit system-on-chip server cartridge offers lower cost, higher density and lower power consumption – three factors that will be critical to the future of cloud computing. By giving researchers access to the HP Moonshot platform in our CloudLab facility, we empower them to develop fundamental breakthroughs that have the potential to change the capabilities, performance, reliability and security of future clouds."

- Robert Ricci, Research Assistant Professor of Computer Science, [University of Utah](#)

Analyst Quotes

"An increasing number of datacenters are being challenged by a new generation of workloads and data demands. The more agile among them are turning to a heterogeneous computing approach, optimized for specific workloads and applications. The HP Moonshot System's fabric-based, multi-cartridge approach with multi-vendor Central Processing Units, Graphics Processing Units, Digital Signal Processors and Field Programmable Gate Arrays is well suited to answer this new wave of IT demands."

- Patrick Moorhead, President and Principal Analyst, [Moor Insights & Strategy](#)

Partner Quotes

"ARM-based servers like the HP ProLiant m400 and m800 Server Cartridges will revolutionize enterprise computing with extremely dense, highly efficient processing. The ARM ecosystem of partners provides innovative workload-optimized solutions that deliver game-changing value for specialized and scale-out workloads. Now, as the first enterprise-class 64-bit ARM-based server shipping, the ProLiant m400 delivers enterprise-grade processing power to the hyperscale market."

- Lakshmi Mandyam, Director, Server System and Ecosystems, [ARM](#)

"HP Moonshot's ProLiant m400 cartridge is the first commercially available hyperscale server based on X-Gene. AppliedMicro's X-Gene establishes a new server-on-a-chip category based on ARM 64-bit architecture, with custom cores running at 2.4GHz, an enterprise-class memory subsystem and high speed I/O. The ProLiant m400 achieves scale-out performance, reliability, energy efficiency and impressive TCO and rack space savings."

- Patrick Patla, Vice President, Marketing and Business Development, [AppliedMicro](#)

"HP Moonshot is an ambitious rethinking of server architecture and economics. Ubuntu is the leader in the public cloud and scale-out computing. Combined, Moonshot and Ubuntu capture the essence of the new era of data center deployments; flexible compute substrates with multiple architectures, optimized for Linux and open source workloads."

- Christian Robottom Reis, Vice President, Hyperscale, [Canonical](#)



"elinfochips is delighted to be a part of the HP Moonshot Family. We will lead custom IP Voice, IP Video and Multimedia Transcode Engine software solutions on the HP ProLiant m800 cartridges. Network Equipment Providers will realize disruptive cost-per-channel matrices and unforeseen power efficiency with hyperscale IT infrastructure."

- Parag Mehta, Chief Marketing and Business Development Officer, [elinfochips](#)

"We welcome the HP ProLiant m800 Slayton cartridge, which brings impressive processing power to the world's first software defined server. Combined with the Enea Telco Development Platform, customers can accelerate their innovation and bring new virtual network functions to the market much faster."

- Daniel Fosgren, Senior Vice President, Product Management, [Enea](#)

"GENBAND is excited to be a key member of the HP NFV ecosystem, leveraging high performance platforms such as Moonshot for delivering our real time communications Virtual Network Functions (VNFs) to Communications Service Providers. We look forward to further expanding our NFV ecosystem relationship with HP in several areas to bring proven, high-performance NFV solutions to market."

- Sanjay Bhatia, Senior Director, Solutions Marketing, [GENBAND](#)

"Microservers promise new levels of server efficiency. The challenge for CIO's is that commercial grade applications require faster micro-processor architectures. Today we are announcing the availability Informix on HP's new microserver. Informix is the only commercially available database to run on HP's new ProLiant Moonshot platform. Informix's unique combination of flexible grid technology and highly efficient data architectures can enable commercial grade workloads to take advantage of these new server economies."

- Sean Poulley, Vice President, Database and Data Warehouse Business, [IBM Informix](#)

"The HP Discovery labs were essential for us to develop and test NGINX Plus on ARM64 for HP Moonshot. As additional server cartridges and new features become available we know that we will be able to get immediate access to the latest ARM64 technology to ensure customers get the highest quality solutions they expect from Nginx and HP."

- Maxim Konovalov, Chief Operating Officer, [NGINX Inc.](#)

"The ProLiant m800 server cartridge for the HP Moonshot system is a unique offering to the real-time data analytics and telecom markets because it offers a unique combination of scalability, compute efficiency and programmability ideally complementing HP Moonshot's fabric technology. The C66AK2Hx SoC integrating C66x DSPs, ARM® Cortex®-A15's, Ethernet and sRIO along with dedicated packet and security accelerators enables the system to scale from one to 180 server nodes with the capability to process 64GB to 11TB of data. This gives developers access to the most efficient, scalable programmable compute capabilities."

- Sanjay Bhal, Focused End Equipment Manager, [Texas Instruments](#)