

VSI Releases First New Version of OpenVMS

June 2015

VMS Software, Inc. (VSI) has just released its first version of an upgraded OpenVMS operating system under its agreement reached with HP a year ago. It is an extension of HP's final OpenVMS release, version 8.4, with upgrades and bug fixes. VSI's release is version 8.4-1H1 and is dubbed "Bolton" after the VSI headquarters location in Bolton, Massachusetts, USA. Bolton is compatible with HP Integrity i2 servers based on the Intel Itanium 9300 processor and HP Integrity i4 servers based on the Intel Itanium 9500 processor.



VMS Software, Inc.

In June, 2013, HP's roadmap showed that OpenVMS software, its popular and ultra reliable operating system, would be supported until 2020 with mature product support (no new patches) continuing through 2025. Support for some versions would end in 2015.

With thousands of major applications upon which many enterprises rely running on OpenVMS, there resulted a worldwide outpouring of anguish from companies that simply could not replace their mission-critical applications. In response, HP made a U-turn and executed an exclusive license with VSI for perpetual development of OpenVMS.



From where did VSI originate? VSI was created exclusively to carry on OpenVMS development and support.¹ It was formed in May, 2014, by a group of investors, executives, and developers from Nemonix, a company that had provided OpenVMS services for older VAX and Alpha systems for three decades. VSI temporarily launched from the Nemonix facility in Northborough, Massachusetts, for a couple of months, before moving to its permanent office space and data center in Bolton, Massachusetts.

The Crunch to Get Out the First New Release

With critical eyes watching them, VSI felt it imperative to demonstrate rapid progress. It set a goal of releasing its first upgraded version of OpenVMS within a year.

In my conversation with Duane Harris, CEO of VSI, it became clear that the one-year goal was daunting. According to Harris, the problem was not so much the software development – with his thirty experienced OpenVMS developers, that was an orderly project. The challenge was getting the infrastructure established to support the software development team.

The first steps were getting HP to deliver the OpenVMS source code and provide the systems required to develop and test on. VSI acquired multiple racks-worth of development and quality control servers from

¹ [OpenVMS Support To Continue Indefinitely, Availability Digest, August 2014.](http://www.availabilitydigest.com/public_articles/0908/openvms.pdf)
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HP Integrity servers with Itanium 9500 and 9300 blades/rack-mount servers to AlphaServers rack-mount servers, plus storage arrays and networking gear. HP's development team in India sent VSI the OpenVMS source code. The tapes were delivered in September before VSI had even completed its move into its new headquarters. Unfortunately, the tapes were sent to Harris' home. He returned one evening to find millions of dollars' worth of source code sitting in his driveway.

The software systems then had to be built, and third-party components had to be installed and tested. At this point, the development and testing of the new OpenVMS version could proceed. Through extraordinary efforts by both VSI and HP personnel, VSI completed the golden master of OpenVMS 8.4-1H1 two days ahead of the scheduled deadline for delivery to VSI's resellers. VSI announced worldwide availability on June 1, 2015.

What's Next?

VSI is aggressively extending its development staff to meet future commitments. It plans to double the number of developers by the end of 2015 and to have 100 developers on staff by the end of 2016.

Its current roadmap begins with plans for two more OpenVMS Itanium releases in the next couple of year. Included will be upgrades such as a new file system, performance enhancements, upgraded device drivers, and TCP/IP networking improvements.

The company is currently working on support for HP's new Poulson Itanium blades, and it is in conversation with HP to extend support to HP's future Kittson blades when they become available. It hopes to get Kittson blades early enough so that it can release its Kittson version of OpenVMS when HP first makes Kittson systems generally available.

VSI's big move is to port OpenVMS to 64 bit x86 blades and servers from HP and other vendors. With a 50% performance improvement over Itanium blades and a lower price point, x86 blades will significantly improve the price/performance of OpenVMS. Furthermore, VSI's x86 version will potentially support the high-speed InfiniBand backbone network fabric, making it easier for OpenVMS applications to integrate with applications running on other x86-based operating systems such as Linux. The company's current goal is to deliver an x86 version of OpenVMS in 2018.

The VSI x86 version of OpenVMS will be able to operate as a virtual machine under the open-source Red Hat KVM (Kernel-based Virtual Machine) hypervisor, which runs on a Linux host. VSI hopes to have this capability about the time that it releases the x86 version of OpenVMS. In the future, VSI plans to extend OpenVMS virtualization to the VMware hypervisor.

Duane Harris noted that "In less than 12 months, we have not only assembled a strong team of OpenVMS developers and customer support personnel, but we have also developed a roadmap with an aggressive schedule that includes support for new platforms, features, and technologies."

Portability

VSI is focused on making it easy for customers to upgrade to its later versions of OpenVMS. Its just-released version is binary compatible with several earlier HP versions, including versions 8.4, 8.3-1H1, 8.3, and 8.2-1. Therefore, applications can be moved from these earlier versions to VSI's version 8.4-1H1 with no recompiling or relinking. VSI also expects to provide this capability for its x86 version.

As a further aid to upgrading from older systems, VSI is developing binary translators to port VAX and Alpha applications to its x86 OpenVMS version. This is important because the source codes for many of these old applications no longer exist, so they cannot be recompiled.

Licensing and Support

According to the agreement between VSI and HP, customers can purchase licenses for VSI versions of OpenVMS either from VSI or HP and at the same price. The licensing terms are the same and are equivalent to current licensing provisions. The operating system is licensed on a per-socket basis, and compilers are licensed per concurrent user.

If a license is purchased from HP, HP will provide level 1 and level 2 support. However, VSI will provide level 3 support (bug fixes). If a license is purchased from VSI, VSI will provide level 1 through level 3 support.

The HP versions 8.4 and earlier must be purchased from HP, and HP will provide all services for these versions. However, when HP drops support for a version, VSI may take it over. Currently, VSI may support all prior versions not supported by HP, including Alpha versions but not VAX versions.

Training

As of February 1, 2015, VSI is offering OpenVMS training for all versions. A list of VSI training classes can be found at https://vmssoftware.com/training/tr_crs.html.

OpenVMS Boot Camp 2015

In previous years, the OpenVMS community, in cooperation with Connect, the Independent HP Business Technology Community User Group, ran the OpenVMS Boot Camp. VSI is continuing this tradition. The 2015 OpenVMS Boot Camp takes place from September 27th through September 30th. The Boot Camp provides four days of technical content and peer-to-peer networking. It will be held at the Radisson Nashua Hotel in Nashua, New Hampshire. The Boot Camp will include a Partner Pavilion and a Partner Roundhouse.

Summary

According to Duane Harris, VSI is not focusing currently on selling new licenses for OpenVMS. It is mainly selling upgrades to the existing customer base because there is only a limited market for new Itanium systems.

However, this will change dramatically when OpenVMS becomes available on HP's x86 blades. With a significantly improved price/performance point and the move to commodity technology, the expectation is that the market for new OpenVMS systems will open up. Thanks to VSI, OpenVMS is alive and well and will be a force for the foreseeable future.

As stated by Randy Meyer, vice president and general manager, Mission Critical Solutions, HP Servers, "Mission-critical customers face ever-increasing demands for security, stability, and uptime performance for their critical applications. With the VSI OpenVMS Bolton release and its extended development roadmap, customers will have even more flexibility to choose the OpenVMS platform that is right for their business."