OpenVMS 40th Anniversary Celebrations

December 13, 2017 • Paris, France

Over 100 attendees from the media, VMS Generations (French OpenVMS user groups), HPE, Oracle, and VMS Software, Inc. (VSI) celebrated the 40th Anniversary of the OpenVMS Operating System. The event was hosted by HPE, led by Benoit Maillard, at the Maison de l’Amerique Latine, in Paris. Representatives of VSI, HPE, Oracle, and VMS Generations presented.

VSI provided three presentations:

• VSI Strategy & the Future of OpenVMS, by Terry Holmes, VP of Sales & Marketing

• Review of the current OpenVMS product and support roadmap and the status of the x86-64 port, by Camiel Vanderhoeven

• Demonstration of VSI’s new online, self-paced training program, by Darya Zelenina

The night was capped off with a toast to celebrate 40 years of OpenVMS and best wishes for the next 40 years.

The following pages include three Google-translated French articles (with links) about the OpenVMS Paris event, with light edits by VSI’s Camiel Vanderhoeven.
After 40 years, OpenVMS is Revived on x86

After 40 years of good and loyal services, the OpenVMS platform, born in the DEC laboratories, is looking ahead to the x86 architecture while adopting cloud and microservices.

The annual meeting of OpenVMS solution users took place yesterday at Maison de l'Amérique Latine in Paris with the support of VMS Générations, HPE and VSI. The opportunity for customers of the high-availability platform (nuclear, transport, security, stock market transactions, government ...) to share their impressions and feedback 40 years after the launch of the VAX / VMS operating system by DEC in 1977. We were at the 35th anniversary of the platform - 5 years ago at the Nikko Hotel - and the discussion then focused on its survival and the 1,000 systems still operating in France. Yesterday, the focus was clearly on the future with the current port of Itanium to x86 servers with OpenVMS 9.0 (the preview is expected end 2018). After a first migration from VAX to DEC Alpha, then from Alpha to Intel Itanium, the work now focuses on the smooth transition to Xeon chips. "We worked as consultants for the porting of Alpha to Itanium, it was very simple," said Gerard Calliet, CEO of Pia-Sofer and historical user of OpenVMS in France. Switching to x86 is easy for APIs and high layers. For the under layers, there is a little more work, assured us Benoit Maillard, category manager servers at HPE France.
Fortunately, OpenVMS can count on a community of enthusiasts, especially in France. When HP announced in 2013 the death of OpenVMS with the end of support in 2020, intense lobbying has managed to push back the supplier who transmitted the torch in July 2014 to VMS Software Inc. (VSI). Today, responsible for the development of OpenVMS, the support of existing equipment and the roadmap, the company has a team of veterans but also particularly young recruits such as Camiel Vanderhoeven, a kernel engineer that we met yesterday.

Users said no

The strategy of Terry Homles, Vice President Sales and Marketing at VSI, is very simple: "Until 2020, there will be a transition period with HPE [...] When HPE announced the end of support in 2020, the reactions were very different in the European countries. The biggest users were in Sweden with companies like Ikea and Volvo. They did nothing and were expecting to find another platform. Other countries have said no: we must find a solution. In France, initiatives were more individual with many passionate consultants and very good user clubs. It was the beginning of our adventure [VSI]. However, prices had to be adapted to the x86 market, while keeping OpenVMS strengths like security and opening up to the cloud and virtualization with the support of Xen, KVM, eSXi and OVM (Oracle Virtual Machine server) hypervisors. )" For the APIs [cloud,] we are working with OpenStack but we have not yet decided which are the best solutions: API or specific connectors," added Camiel Vanderhoeven, core engineer at VSI.

During this transition from Itanium to x86, "we need to make sure that users will have the same capabilities [clustering, data integrity, application isolation, and investment protection]," said Terry Holmes. "VMS is about very specific users with companies that have been using solutions for 20 years. There are good reasons. They are resilient. VMS is still a very good OS for critical tasks. But beware, the adoption of new technologies like cloud and microservices is still not a good point for critical workflows. " Conversations with customers are quite atypical. "If you have to change something, the conversations stop with the customers. The best thing is that there are ultimately few changes for users. They can maintain complete control over all aspects and continue to work in bare-metal if they wish," said Ken Surplice, category manager servers at HPE EMEA.

Transition of programs from Itanium to x86

In France, the automated line 14 in Paris has gone from Alpha to Itanium, as has the Lille metro. The transaction processing platform Investiciel of Tibet, launched in 1984 on Minitel and used by Crédit Mutuel, BNP Paribas and Societe Generale, has also moved to Itanium, as has the drug order management system used by pharmacie and hospitals at two remote sites in Roissy and Clermont-Ferrand. For the coming years, the teams at VSI and HPE intend to encourage the development of new applications on OpenVMS, but also to train computer students and expose them to the platform.
Unlike the syndrome with mainframe, with very little open source, proprietary processors and always expensive maintenance, OpenVMS can count on a community of enthusiasts. "Developers can use the tools they like and get to work on VMS." And the move to x86 frees the platform from hardware battles, unlike mainframes still dependent on IBM chips. "X86 has become a standard for everyone, especially with virtualization. It's a commodity platform, also for cloud and virtualization. It is simply necessary to adapt while maintaining proper security in OpenVMS," said Camiel Vanderhoeven.
After 40 years, OpenVMS is Revived on x86


Technology: The old operating system used in nuclear power plants and rail lines is expected to be on x86 next year. Why give it such a hell of a whip.

When you want to run software to manage the operation of a nuclear power plant or a subway line, you think twice before taking the latest version of Windows or a Linux distribution. For while the stability of traditional operating systems tends to improve, it does not really meet the needs of those for whom the critical system really makes sense.

And while this may seem quite incongruous to younger generations of developers and system engineers, OpenVMS, one of the OSs used to run these critical systems, celebrates 40 years of existence and activity. The opportunity for HPE to present the new versions of OpenVMS and the roadmap to x86.

Since the fate of OpenVMS falls since 2002 to this company, which granted a license of maintenance and exploitation to the company VMS Software in 2014. Appreciated for its reliability, its security and its capacity to do distributed computing (the OS was designed at the time of minicomputers) OpenVMS was born in October 1977 within Digital Equipment Corp. It worked at the time on machines named VAX.

A beast of reliability
And its architecture, conceived 40 years ago still runs many services. Benoit Maillard, the marketing director of HPE’s critical application server division, quotes in a blog post the case of a "major Parisian bank that lost its central site following a fire but was able to resume its activities the next day thanks to its business recovery plan based on a VMS cluster ". 
OpenVMS is used for example to manage the operation of line 14 of the Paris metro and the Channel Tunnel, but also Ikea and Volvo in Sweden. "The whole business heart of the bank is based on Open VMS and there is no question of questioning it" said Joel Masquelier, of the Belgian bank CPH, at a meeting between users organized for the occasion. The reliability of the OS plays a lot in this appetite. The most important uptime achieved by this OS would be 17 years!

OpenVMS does not run on standard x86 servers, at least not yet. This is planned for 2018 for the very first customers (Gen 9 and 10 of HPE and Gen 12, 13 and 14 of Dell for the OpenVMS version 9). For the moment, OpenVMS works with servers equipped with Intel Itanium chips. On the HPE roadmap, Itanium servers must continue to be supported until 2025.

"For 3 to 4 years, VSI has improved OS security," says Terry Holmes of VSI. VSI is working on the development of OpenVMS to make it compatible with OpenStack type computing cloud elements. Another axis of research, obviously also related to porting on x86, the ability to tune the OS in a virtual machine. VSI claims to work with VirtualBox, kvm, Hyper-V, xen and VMware.
OpenVMS Celebrated Its 40th Birthday!

It is at the House of Latin America that aficionados of the system created by DEC Digital 40 years ago came together to take stock of the evolution of this OS that withstands the time and multiple waves experienced by computer industry by adapting.

Even though it is discrete and we hear little about it, the system created by DEC 40 years ago still manages multiple critical applications including line 14 of the Paris metro and many others in finance or in large government agencies. Like large central environments, OpenVMS continues to hold its place by its resiliency, stability, security and ability to handle heavy and critical workloads.

A new stage
It also managed to challenge time by adapting with ports from VAX, the original environment, to Alpha and from Alpha to Itanium. Last October, a new stage opened with the port to x86. This port is currently in the development phase by VMS Software which took over in 2014 the license for the development of OpenVMS and related products. An early adopter kit is expected to be available in the second half of 2018 for 64-bit x86 systems and some HPE and Dell servers with a graphical boot manager, a set of compilers, and virtualization support (all major hypervisors of the market). This kit should arrive in general availability in 2019, which will precede a version 9.2 of the system planned for 2020.

Efforts will focus on virtualization security and support with communications encryption and support for KVM, Hyper-V, ESX, Xen and VirtualBox hypervisors. The solution will be compatible with Hadoop and several cloud distributions such as Open Stack, Rackspace or Apache jClouds but also support containers and new architectures "Cloud native".

The reinforcement of Open Source
One of the elements of the longevity of OpenVMS was also its openness to the open source world. Its future versions will benefit from this aspect with the support of PostgreSQL, Maria DB and Ingres. A detailed roadmap is available on the VMS Software website. It indicates precisely supported open source products and current research topics around R, Python or Erlang languages.

A marked route for porting
Users may be worried about this new port after the one to Itanium. However, HPE and VMS Software officials at the event said that the tools and methods of carrying were quite simple and that the customers had already experimented with them during the previous port and that the difficulties were not insurmountable. Moreover, having seen the previous roadmap, they have plenty of time to prepare themselves. Most of the clients attending this event were also confident and interested in renewing their preferred environment. However, it will be a
question of seeing the rhythm of the transition. VMS Software continues to develop around Alpha and Itanium versions.

Ken Olsen, the former CEO of DEC, the company that created VMS and OpenVMS.