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Welcome

Richard Marcello, Vice President, OpenVMS Group

Welcome to the first edition of the OpenVMS Times! We created this newsletter to bring you, our valued customers, timely news and information about OpenVMS products, solutions, and marketing and field activities.

You may not be aware that there are over 450,000 OpenVMS servers installed in customer sites, with millions of users on those servers.   Moreover, OpenVMS serves the world's most demanding IT environments as the trusted business critical solution - it's the benchmark for the future. It has been depended upon for extreme reliability (minimizing business risks), continues to set the standard for clustering excellence, is widely acknowledged as the world's most stable and secure operating environment, and is recognized for delivering breakthrough innovation – TODAY. OpenVMS provides unparalleled investment protection and lowest total cost of ownership, enables world class database and provides exceptional, time-proven application development tools. Additionally, driven by the AlphaServer platform, OpenVMS delivers leadership performance, reliability, and scaleability, and is designed for unpredictable growth.

We recently outlined the rolling five-year roadmaps for OpenVMS. I would encourage you to view these roadmaps that are part of the OpenVMS State of the Business presentation found at: http://www.openvms.digital.com/presentations/openvms_strategy.html.

As we look forward, the strategy for continued OpenVMS leadership has three key components:

- Deliver complete and robust solutions on OpenVMS Alpha Systems with partners in our key vertical markets:

    - Hospital IS and Group Practices
    - Lotteries, Capital Markets and Back Office Banking
    - Semiconductor, Pharmaceutical and Utilities
    - Enhanced Network Services and Business Support Systems
    - Civilian Agencies and Department of Defense

- Continue providing the core OpenVMS business critical environment for in-house application development in ANY industry

- Provide customers the products and tools needed to connect, integrate, and enable their IT environments for ebusiness allowing them to continue to evolve and grow.

We're excited about the OpenVMS opportunities that lie ahead. More importantly, as we move into 2000, we look forward to working with you as you face the challenges of the next great century.

Large performance gains for Cerner on EV67

Cerner Corporation's Health Network Architecture (HNA) Millennium application running on *AlphaServer* systems, *OpenVMS*, and Oracle benefited with throughput gains ranging from 43 to 53% after upgrading to EV67 technology from EV6.

Jeff Townsend, Cerner's Chief Engineering Officer, says, "Compaq's continually improving *AlphaServer* technology provides leading-edge healthcare institutions with improved response times, coupled with the processing power to support future workloads and growth to 20,000 users and more." He goes on to say, "Compaq is building the chip technology to support the large volumes that the healthcare industry demands today because of ongoing consolidation."

Cerner has been a Compaq partner for over 15 years. Cerner and Compaq continue to work together to measure and improve the scalability and performance of the HNA Millennium solution on *AlphaServers, OpenVMS,* and Oracle. ❖

COMPAQ

NonStop™

Now available – *ACMS* V4.3 and *DECforms Web Connector* V2.0

Recently announced for immediate availability on *OpenVMS* are two products targeted for *DECforms* and *ACMS* applications:

1. *Compaq ACMS* V4.3 provides *ACMS* system managers with the capability of monitoring and managing their *ACMS* application environment across a network. The facilities that comprise the Remote Manager are based on client/server architecture. Two protocols are supported for accessing the *ACMS* remote management server:

* Open Network Computing Remote Procedure Call (ONC RPC), which is used by command line utilities (provided with the Remote Manager) and can be called directly from user-written programs;

* Simple Network Management Protocol (SNMP), for use with third-party management consoles.

2. *Compaq DECforms Web Connector* V2.0 is a software product that provides transparent Web access to existing applications, including *ACMS* applications running on *OpenVMS* systems where *DECforms* was used to implement the user interface. The *DECforms Web Connector* provides a cost-effective method to access your *DECforms* applications from the Internet or an intranet using a Web browser and without any application program modifications or any changes to the *DECforms* forms descriptions. In most situations, the Web browser will replace a character cell terminal as the display device. The *DECforms Web Connector* supports Windows NT and *OpenVMS* on *Alpha* Web servers and Microsoft® Internet Explorer, and Netscape Navigator Web browsers. ❖

Mozilla technology demonstration release for *OpenVMS* on Alpha Systems now available
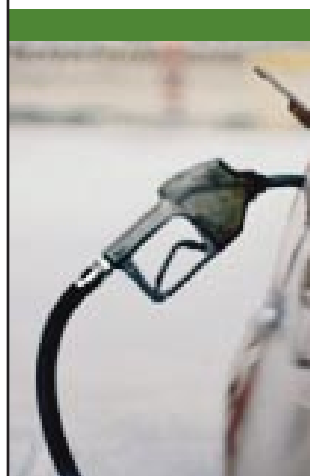
Compaq is pleased to announce the availability of a technology demonstration or pre-alpha version of Mozilla for *OpenVMS* on *Alpha* systems. Mozilla runs on *OpenVMS* Version 7.1 or later systems only. For more information please visit: http://www.openvms.digital.com/openvms/products/ips/register_mozilla.html ❖

Customer *Quote* of the month

Alpha technology fuels profits at Sunoco

"The Compaq cluster's speed and reliability allows us to quickly and accurately optimize refinery processes to maximize profits and respond to ever fluctuating market forces."

Cliff Pedersen, Project Manager, Process Control, Sunoco Inc.

In the highly competitive oil and gas industry, success depends on predicting market demands – then adjusting production to yield transportation fuels reaping the highest prices. At Sunoco's Sarnia refinery, a computerized process control system provides the real-time optimization capabilities needed to quickly align production with market activity. Sunoco credits its *OpenVMS* cluster from Compaq as a critical component of a $17 million payback and with their garnering industry recognition: A recent survey named the Sarnia refinery the "Best in the World in hydrocracker control and optimization." "For us, speed equals bigger profits," explains Cliff Pedersen, Project Manager, Process Control, Sunoco Inc. "The faster we can calculate the

required adjustments, the more high value fuel products we can produce. Our new systems, based on Compaq's technology, are extremely reliable and allow us to perform quick calculations, thereby maximizing profits."

Sunoco, Inc., based in Toronto, is a division of Suncor Energy Inc., one of Canada's major integrated oil and gas companies. Suncor Energy is the seventh top producing oil company in Canada, with 50 years of reserves, and is sixth in refining and marketing. The Sunoco Refinery in Sarnia, Ontario, produces transportation fuels, petrochemicals, and heating fuels under the Sunoco and Sunchem brand. ❖

Questions to the editor...

Q: How does *OpenVMS* fit into the overall *Compaq NonStop™* eBusiness solution strategy?

With our global network of partners, Compaq creates and delivers *Compaq NonStop™* eBusiness solutions, infrastructure, and services that enable your e-business to be online – all the time (24 x 7), without planned or unplanned interruptions. This service allows you to grow your applications with the speed of the Internet and lower the cost and risk of deploying e-business solutions.

Compaq accomplishes this by capitalizing on our high availability technologies, driving industry standards, and scaling our industry standard servers into the enterprise. We also are establishing the lead in networked storage

and are capturing new categories of users by leading in the next-generation server appliances market. In addition, we remain focused on vertical and horizontal target markets and integrating solutions and services into every offering. Also critical has been attracting new customers through compelling, external market messages about our enterprise strategy.

Within Compaq, the Business Critical Software Division (BCSD) provides three solution alternatives:

• Fault-tolerant *Himalaya* systems,
• Ultra high availability *OpenVMS* on *AlphaServer* systems, and
• Scalable, high-performance *Tru64 UNIX* on *AlphaServer* systems.

Within the *OpenVMS* environment, the strategy is to help you build on what you already have – such as continuous operations, data integrity, scalability, uninterrupted growth, integrity, and management capabilities. Through continued development of products, applications, and services (both ours and our partners) we allow you to connect, enable, or integrate as appropriate to meet your objectives.

We help you evolve and grow by:

1) Providing the products, services, and expertise that enable you to:
• Build on what you have
• Start simple, but grow quickly
• Focus on your business by making the technology transparent

2) Generating value that cannot be generated by other means, in order to give you a serious advantage over your competition.

Q: What is the difference between *VMS* and *OpenVMS*?

A: In the early 1990s, the 64-bit *Alpha* system became the most powerful in the industry. Major developments included strategic *Alpha* software combined with Microsoft Windows NT interoperability.

During this timeframe, Digital Equipment Corporation officially changed the name of *VMS* to *OpenVMS* on both *VAX* and *Alpha* platforms to reflect the ease of portability and openness of the operating system. This marked a new era for *VMS*.

OpenVMS supports key standards such as OSF/Motif and the OSF Distributed Computing Environment (DCE). Extensive support for standards in the operating system helps when building on an open system environment using *OpenVMS* as the base. *OpenVMS* supports all major open system standards, including those for networking, data, document, system, software development, and user interface.

In 1991 came the introduction of 13 *OpenVMS*-supported *VAX* and *AlphaServer* systems. This was another confirmation of the continued commitment to invest in *OpenVMS* and maintain its leadership position within the industry. This commitment remains strong today, and Compaq continues to invest in *OpenVMS* with new features and functionality and support of all the new *AlphaServer* and *XP Workstation* products.

It is important to understand that *VMS*, now *OpenVMS*, holds a very strong pres-

ence in the overall computer industry with its leadership position in areas such as high availability, Windows NT integration, and Web-enabling technologies. Today, some people still refer to *OpenVMS* as "*VMS*," but be assured it is the same proven operating system that still continues to be the standard by which other operating systems are measured.

For more information about the *OpenVMS* operating system, please visit: http://www.compaq.com/openvms. ❖

Compaq invites field tests of *BridgeWorks*

Field testing began at the end of October for a new product named *Compaq BridgeWorks*, which runs on Windows NT and will generate the code needed to wrap an existing application as a component on *OpenVMS* on *Alpha* and *VAX* platforms. If you are interested in becoming a field test site, you can register and download the FT kit at the *OpenVMS* Web site:

http://www.openvms.digital.com/commercial/bridgeworks/ft_terms.html.

What is *Compaq BridgeWorks* for OpenVMS?

Compaq BridgeWorks for OpenVMS is a code generator that enables you to create reusable, distributable components from your existing *OpenVMS* applications. By creating components, you extend the reach of your *OpenVMS* applications so they can serve many of today's Web-based and desktop-based clients.

Compaq BridgeWorks provides a quick and reliable way to integrate *OpenVMS* applications with the world of components and distributed objects. Using *BridgeWorks*, you can make your applications accessible on the desktops and in the Web browsers of users while maintaining the high availability of *OpenVMS*.

By "componentizing" applications, *BridgeWorks* protects your investment in *OpenVMS*, which can continue to be the backbone of your enterprise information system. *BridgeWorks* can componentize any *OpenVMS* 3GL application that can be made callable, including those written in COBOL, Pascal, BASIC, and other languages. Client applications communicate with *BridgeWorks*-generated components using the industry-standard COM technology.

Why is *Compaq BridgeWorks* for OpenVMS important?

BridgeWorks helps simplify the process of implementing multi-tier client/server offerings by providing a robust and scalable integration solution, regardless of how thread-safe the existing *OpenVMS* application may be. Generated components easily

integrate with products from Compaq Business Partners, enabling you to build end-to-end solutions for Windows® and the Web. And *Compaq BridgeWorks* is easy to use.

Where can I get more information on *Compaq BridgeWorks*?

Visit the *OpenVMS* Web site and the *Compaq BridgeWorks* pages at:

http://www.openvms.digital.com/commercial/bridgeworks/bridgeworks_index.html. ❖
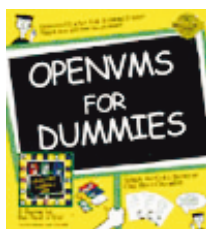
Did You Know?

The mail in Israel is delivered courtesy of *OpenVMS*.

New from *Shannon Knows Compaq*

Terry Shannon, an independent consultant and publisher of *Shannon Knows Compaq*, has been a Digital Equipment Corporation and now Compaq "watcher" for many years. In the October 1, 1999 issue, "*VAX* to the Future: The Path Forward for the *VAX* Customer Base*,*" he discusses the *VAX* legacy and why, with Compaq's announcement of *VAX*'s end of production, *VAX* customers may need to begin planning a transition to a newer, faster platform architecture. Specifically, Shannon discusses the compelling business reasons, including price-performance advantages, to move to *Compaq Alpha*-based solutions. The complete article is located at: http://www.openvms.digital.com/ new/index.html. ❖

Coming soon! *OpenVMS* and Windows NT Integration For Dummies

Compaq and IDG Books International are teaming up to produce a new book in the "*...For Dummies*" series. *OpenVMS* and *Windows NT Integration for Dummies* will be available early 2000. Read future issues of *OpenVMS* Times for more information. ❖

Now Available on *OpenVMS*!

Two updated storage management products are now available: *Disk File Optimizer for OpenVMS VAX/Alpha* V2.5 and *Save Set Manager for OpenVMS VAX/Alpha* V1.4. The purpose of both updates is to be compatible with the latest models of *AlphaServer* systems (those that use EV6 technology), as well as bug fixes. No additional functionality is provided beyond current capabilities. For more information, please visit: http://www.openvms.digital.com/ openvms/Storage.html ❖

OpenVMS Networking: Preserving the Past, Embracing the Future!

Need to integrate *OpenVMS* systems with UNIX and Windows NT systems? Need to standardize your network on TCP/IP but can't afford to re-write all those *DECnet* applications? *OpenVMS* Networking has the answer: a world-class, full-function TCP/IP implementation for *OpenVMS*, and the ability to run existing *DECnet* applications over TCP/IP.

Compaq TCP/IP Services for OpenVMS Version 5.0 provides the capabilities you need for an enterprise-wide TCP/IP network by:

• Delivering reliability and quality – The new kernel is from *Compaq Tru64 UNIX* TCP/IP software.

• Providing consistency for managing systems – the software utilizes UNIX commands and maintains *OpenVMS* commands.

• Maximizing the use of existing Internet address space by implementing Classless Inter-Domain Routing.

• Improving throughput – PathMTU discovery automatically uses the most efficient packet size.

• Reducing manual database updates – DNS/BIND provides dynamic updates to the DNS database.

• Reducing IP address management – DHCP allows dynamic allocation of addresses from a single host.

• Expanding dynamic routing – GateD eliminates reliance on a single default gateway.

• Being ready for the future – the hybrid stack is ready for the IPv6 future, with full IPv4 support for today.

Combine these features with the ability to run *DECnet* applications over TCP/IP provided by *DECnet-Plus*, and you have a networking strategy that ensures the future while protecting your past investments.

And you probably already own this networking solution. *TCP/IP Services for OpenVMS* Version 5.0 and *DECnet-Plus*

licenses are shipped as part of most *AlphaServers* running on *OpenVMS.* They are also included on the Layered Product CD-ROM and the *OpenVMS* Version 7.2, or later, system CD-ROM. So, you don't need to purchase an enterprise-wide networking solution from a third party! ❖

Are Proprietary RISC Servers More Expensive than their UNIX Alternatives?

The answer may surprise you. TechWise Research, Inc. conducted a Total Cost of Ownership (TCO) study in May 1999. This study is a detailed analysis of the TCO of two proprietary RISC and three UNIX RISC Server product families.

As a result of the findings of this study, TechWise Research, Inc. developed a white paper that shows that *OpenVMS* offers the lowest total cost of ownership in 3 of 4 classes (classes 1, 3, and 4). In class 2, which represented the *AlphaServer* DS20 running *OpenVMS*, the DS20 placed a close second to the Sun UE250. Classes 1 and 2 represented the low-end server market, while classes 3 and 4 represented the mid-range server market.

The TechWise TCO study included the following main components:

Acquisition – The list price of the server and all related hardware/software needed for the baseline configuration.

Start-up Cost – The cost to install and configure the server, including both internal and external labor costs, as well as the cost to train staff on how to manage the server.

On-Going Operational Costs – The cost to manage the server on a daily basis, as well as to maintain the server. Maintenance includes the internal cost associated with solving any problem that arises with the server.

For a copy of the TechWise Research, Inc. Total Cost of Ownership white paper, visit http://www.openvms. digital.com/openvms/whitepapers/ techwise.html. ❖

Announcing the *VAX Adapter*

Are you looking for more performance out of your *VAX* systems – without having to go through the expense of upgrading? Would you like to reduce your maintenance costs at the same time? Well, the Compaq CustomSystems group has the answer to these wishes – the *VAX Adapter*.

The *VAX Adapter* allows you to migrate off the expensive and sometimes hard to replace DSSI or pre-Compaq *StorageWorks* SCSI disks and controllers. Whether you have a *VAXserver*, a *MicroVAX*, or a *VAXstation*, Compaq has an adapter board for the latest

StorageWorks products, while maintaining the present *VAX* server system. The result is higher capacity, better performance, and improved reliability with lower monthly maintenance costs.

For more information, in the U.S. contact 1-800-344-4825. All others should send e-mail to: customsystems@compaq.com. ❖

Largest Web Search Engine Runs Exclusively on *OpenVMS* on *AlphaServers*

"Northern Light chose Compaq OpenVMS AlphaServers *because we had to have an operating system that could scale our database to billions of documents while providing very fast query times with uninterrupted 24x7 availability. Northern Light's Web search engine is the largest text-retrieval database in the history of the world, and it takes the unequaled power, speed, and scalability of* Compaq OpenVMS *to run it."*

C. David Seuss
Chief Executive Officer
Northern Light Technology LLC

Northern Light, Technology LLC, headquartered in Cambridge, Mass., has developed the world's most powerful search engine. Today, Northern Light indexes over 160 million Web pages and has been acknowledged as the search engine providing the

greatest coverage of the World Wide Web. Northern Light's patented search technology and Custom Search Folders™ categorize and organize the Web in unique ways, offering the best tool for advanced searchers as well as individual consumers looking for information on the Web. For additional information, please visit the Northern Light home page at: http://www.northernlight.com. ❖

More Investment Protection: A New X.25 for *OpenVMS*

X.25 Version 1.3 for *OpenVMS* on *Alpha* systems has just started shipping, providing continued support for *OpenVMS* customers with X.25-based applications. This new version includes enhanced X.25 relay functionality, which provides another option for users of *DECnis* and DEMSA-based X.25 gateways. As with previous versions of X.25 for *OpenVMS*, this version enables *OpenVMS* on *Alpha* systems to connect to an X.25 Packet Switched Data Network (PSDN) via an X.25 relay node. This new version of X.25 also provides an application programming interface (API) to the HDLC, LAPB, and LLC2 datalink protocols. X.25 Version 1.3 provides additional investment protection for *OpenVMS* customers whose network environment has an X.25 component.

For more information about Compaq's *OpenVMS* Networking solutions, visit: http://www.openvms.digital.com/network/networking.html. ❖

OpenVMS for *Compaq NonStop™* eBusiness

OpenVMS on *AlphaServers* are a key part of the *Compaq NonStop™* eBusiness (NseB) strategy. For years, *OpenVMS* has been solving your needs for robust, highly available platforms on which to build and deploy e-business solutions.

Customers such as International Securities Exchange (ISE) and Northern Light rely on *OpenVMS* on AlphaServers as the core foundation of their e-business solutions. For example, ISE announced November 10, 1998 that it will be the first fully electronics options exchange. ISE chose to build its business with a solution from OM Software of Sweden, running on *OpenVMS* on AlphaServers clusters with *Reliable Transaction Router* (RTR) software. *OpenVMS* provides the highly available, scalable back-end data storage servers in these and other e-business solutions.

A key part of the *OpenVMS* rolling five-year strategy is to provide ongoing technology enhancements and improvements in the area of Web integration. Today, Netscape Navigator, Apache Web Server, and Java are all supported on *OpenVMS* systems. We continue to invest in Web-enabling products that will modernize existing applications and data to make them immediately accessible via any common Web browser. Some products we offer

today in this space include *DECforms Web Connector* and *Compaq Office Server Web Interface*.

We will continue to keep you updated on *OpenVMS AlphaServer* e-business solutions by sharing stories about customers in the upcoming newsletters. For ongoing information on C*ompaq NonStop™* eBusiness solutions based on *OpenVMS*, visit our Internet site: http://www.compaq.com/openvms. ❖

OpenVMS Galaxy Overview

OpenVMS Galaxy enables multiple instances of *OpenVMS* to execute cooperatively in a single computer. *OpenVMS Galaxy* gives you the ability to manage unpredictable, variable, or growing workloads with the least disruption to your computing environment. You can dynamically reassign computer resources, mapping compute power to applications on an as-needed basis without having to reboot the computer. *OpenVMS Galaxy* improves system availability by eliminating bottlenecks, reducing scheduled downtime, handling

peak processing time, and delivering data when and where it's needed. For more information on *OpenVMS Galaxy*, visit: http://www.openvms. digital.com/availability/galaxy.html. ❖

Test drive an *OpenVMS Galaxy* system

Reinforcing its commitment to support application development on Compaq's platforms, Compaq recently announced the Compaq Solutions Alliance (CSA) New Technologies Test Drive program at http://www.testdrive. compaq.com. The New Technologies Test Drive Web site enables software developers and system integrators to test drive Compaq's industry-leading technologies for free. A recent addition to the Test Drive site is an *OpenVMS Galaxy* system at http://www.testdrive. compaq.com/galaxy/.

OpenVMS Galaxy allows multiple instances of the *OpenVMS* operating system to run on the same computer, and was recently given the Most Innovative Product award by the Giga Information Group. This *OpenVMS Galaxy* Test Drive provides an *AlphaServer* 4100 system configured as two instances of the *OpenVMS* operating system. (These are complete systems.) The two instances are configured as a two-node *OpenVMS* cluster. Each instance has access to shared memory, plus its own private memory.

So drive on in today for a test drive and see how *OpenVMS* and *OpenVMS Galaxy* can improve performance, reliability, and scalability. For more information on *OpenVMS Galaxy*, go to http://www.openvms.digital.com/ availability/galaxy.html. ❖

OpenVMS Provides e-Business Solutions Today

Did you know...
More than 11 million people (greater than the population of Belgium) ride a national railway system with reservations provided by the *Reliable Transaction Router* (RTR) on *OpenVMS* clustered systems.

Several leading financial institutions provide their Web-based online financial services to their customers using *RTR* and *OpenVMS* systems.

Some automobiles are manufactured on a 24x365 production line controlled by *OpenVMS* clustered systems with Compaq transaction processing provided by *ACMSxp*.

A large satellite TV provider does billing with *OpenVMS* and *ACMS*.

More than a dozen financial exchanges trade futures and options using *RTR* and *OpenVMS* systems.

Hundreds of the world's telecommunications companies do their billing with *OpenVMS* systems.

Over 90% of all computer chips are produced on fabrication lines controlled by *OpenVMS*.

These are all examples of 24x365 *Compaq NonStop™* eBusiness solutions available today. These and many more solutions help you get through your day. They just run. In fact, one solution has been up and running for more than 18 years without a single reboot!

Need a new e-business solution? Visit the *OpenVMS* Web page at: http://www.openvms.digital.com/ solutions/index.html. ❖