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Welborne Associates and DIGITAL

Even before our company formed, Jim Welborne had been using DIGITAL Equipment Corporation products for 20 years, first in a manufacturing environment and then as head of the MIS department of what grew to be a large accounting firm with 5 satellite offices. Products went from PDP-11s (which are still running at some companies) to Vaxes to 64 bit technology and Jim's been there, from stand alone machines to networking, LANs, WANs and clustering, Internet and Intranets.

Along with the experience of configuring, installing and using DIGITAL products came introductions to many people along the way, from development engineers to service people, from corporate vice presidents to user group coordinators. The one thing about DIGITAL was that they were (and hopefully still are) completely accessible and willing to break down the YOU-ME barrier that some companies exhibit.

Early on Jim was asked to join the DIGITAL's PDC-Product Development Committee in Nashua, NH. These members, who came from every known environment, met to review product specs, cost, usefulness and design early on in the development process. While confidentiality statements were required, members themselves were privy to DIGITAL direction, which gave them the advantage of being able to better plan and purchase for their companies. Many members also brought back beta products to their companies for testing. Jim was one of the first to test an early email package, All-in-One. He also served on the International Standards Committee (ISO).

Eventually his MIS department was featured in *Office Today* magazine for developing one of the Top 10 electronically integrated companies in the nation. It also was featured in a video developed for DECUS.

For those of you who know DECUS, you know what a wealth of information can be gleaned from its symposium and other sources. A volunteer organization supported by DIGITAL, DECUS was the center point for much of our life before the company. We both served in national offices for this 90,000 member (US Chapter) organization, helping to put on two symposia a year; produce newsletters, session notes, and proceedings; and help run the organization. We represented the US Chapter at a DECUS meeting in York, England in 1988. But what has been the most enduring of those years has been the relationships developed with the DIGITAL employees and members.

It is fair to say that without the help of those affiliated with DIGITAL, including all those from Pioneer and KeyLink, Welborne Associates probably would not have lasted its first five years. Even with all the experience with product use behind him, Jim needed the sales people, the technical support, the regional office people and other DIGITAL contacts to make and keep prospects and clients.

We are once again accepted for another year as a DIGITAL system integrator for all products, including the 4000 and 8000 series of Alphas in IN, IL, MI, KY and OH. Our continued training (we average 4 days a month apiece) has helped keep us on top of technology trends.

The Acquisition

With all the rumors flying, it might be interesting to go to the source: Eckhard Pfeiffer, President and CEO of Compaq. Speaking at the PC Expo in New York, Pfeiffer had this to say on Compaq:

“What will differentiate Compaq from our competitors is our ability to innovate with industry-standard solutions and to respond more quickly and efficiently to customer needs. We want to help customers achieve real value from their IT investments faster and more reliably.”

On 64 bit computing:

“Alpha gives Compaq a leadership, 64-bit architecture at least two years ahead of Merced. We see an opportunity to establish Alpha as an open industry standard, building on DIGITAL’s licensing agreements with Intel and Samsung and its proposed agreement with AMD.”

On UNIX:

“We also see significant opportunities to deliver customer value with Compaq’s DIGITAL UNIX, which is widely regarded as the leader in 64-bit UNIX. It is also the most Windows NT friendly UNIX on the market.”

On Service:

“With the acquisition of DIGITAL, we now have one of the premier service organizations in the world, working even more closely with customers and partners.”

On Cost of Ownership:

“Our goals are to lower customers’ total cost of ownership and reduce risk by offering service solutions which incorporate industry standards and by driving innovation in service creation, tools and delivery.”

Pfeiffer also assured customers using the Open VMS operating system that Compaq will continue to support this product. All Alpha/NT server products will be available through their normal planned life cycles and Compaq will deliver scalable servers based on Intel and Alpha. DIGITAL PCs will only be offered through their normal life cycles and then gradually transitioned into the Compaq product line. Workstations will join a new multiline offering based on Intel and Alpha platforms.

For more information on Compaq’s acquisition, go to: <http://www.compaq.com/betteranswers/>

Product Descriptions

What is StorageWorks?

StorageWorks is an architecture that spans three dimensions. There's a dimension of platform support: we support all the DIGITAL platforms, plus Sun, HP, IBM, Compaq, etc.

There's a scale dimension: we support small systems, in which you just want to add a few gigabytes of storage to your desktop; departmental systems; and extremely large systems that fit in a data center, with terabytes or tens of terabytes of storage. And then, which sometimes is most important to our customers, there's a technology generation dimension: this represents investment protection.

All these dimensions form a cube. The concept of StorageWorks as an architecture is that all of its components can be substituted, expanded and redeployed within the 'cube' as needs change. Our challenge with UltraSCSI was not just to build a bunch of good, solid, quality products, but to use UltraSCSI to extend that 'cube' further in the technology generation dimension -- to add on another generation of technology for the StorageWorks architecture. StorageWorks has been shipping for five years, there's five years worth of technology evolution and devices.

Describe some of these components of StorageWorks and how they fit into the whole.

Storage systems consist of a number of components and levels of components. There are components called Host Adapters, which fit into your host system and give you entry into the storage world. There are components called Array Controllers, which aggregate the power of storage devices into larger virtual devices that do what you want them to do, rather than what they do inherently. And then there are the storage devices themselves.

We built a Storage Array Controller, known as the HSZ70. It has many of the features of our previous controller generation -- the HSZ40 and the HSZ50 -- and has several new features. It is UltraSCSI-capable, both at its host interface and in its drive interfaces.

The HSZ70 has considerably higher performance than the controller it replaces, partly because its interfaces are faster --they're UltraSCSI -- and partly because we've upgraded its internal design to take advantage of those faster interfaces.

How does UltraSCSI help protect the customer's current investment?

UltraSCSI, as a technology, and DIGITAL's UltraSCSI components in our StorageWorks architecture, bridge backwards to Legacy storage, and bridge forward to future storage generations. The future includes Ultra-II SCSI, which is a further evolution of the parallel SCSI bus, and Fibre Channel, which is a new serial implementation of the SCSI bus at much higher speeds and longer distances than parallel SCSI.

Parallel SCSI is a mature technology: it's extremely easy to deploy, and components are available from a lot of vendors.

Fibre Channel is not at that level of maturity, yet. The component supply is uncertain, available from only a few vendors. But, we have designed our UltraSCSI so that -- when the time is right -- we will be able to substitute Fibre Channel components for them, and maintain our investment protection message.

I am a user, looking at all this UltraSCSI technology. Where would you recommend that I start?

It depends on what you have today. If you're buying a system completely from scratch, the best thing to do is to buy a complete UltraSCSI system with all UltraSCSI components; you'll get the highest performance, you'll get the most modern components.

If you have an existing system, identify where it is starting to become inadequate. If it's in the area of capacity, you can buy UltraSCSI disk drives at higher capacities. If it's in the area of request-per-second performance, you can update your array controller or your host adapter. Or, if it's in the area of bandwidth-megabyte-per-second performance, you can upgrade your array controller or your host adapter to fix that problem.

The Data on your servers is mission---critical. It's one of your company's most valued assets. It deserves the best !!!

How do you know when StorageWorks is the perfect solution for your rack mounted servers? It's simple If you're a Windows NT customer who...

- Needs leading-edge high-capacity storage
- Can't afford the luxury of worrying about downtime or lost data
- Needs and open, multivendor solution that supports Windows NT servers from virtually any vendor
- Is planning for clusters
- Needs the best performance...there's only one choice to make.

StorageWorks---the #1 independent supplier for Windows NT disk-based storage.

Whether it's a single CPU or a Cluster – you can't afford anything less than the best for your company's data. That's why thousands of customers around the world are deploying industrial-strength StorageWorks subsystems as both rack-mount and pedestal solutions.

- DIGITAL is the #1 cluster storage solutions provider for Windows NT environments
- IDC rated StorageWorks as the #1 independent (non-captive) supplier for Windows NT disk-based storage in 1996. (IDC Worldwide Disk Subsystem Market forecast and Status , Oct. 1997.)
- 45% of all available Microsoft Clusters Server Configuration specify StorageWorks!
- StorageWorks was the first with High-capacity *SCSI* and *Ultra SCSI*. While everyone else talks about Fibre Channel, StorageWorks is shipping it!

Open clusterable StorageWorks for high-Capacity, high-performance RAID storage!

Ultra-SCSI RAID Array 7000 :The perfect enterprise workhorse!

- Dual or single controllers, supports up to 1.3TB of storage
- Ultra-SCSI increases performance up to 70% over SCSI-2
- True end-to-end UltraSCSI for optimum performance
- Easy migration path to Fibre Channel technology
- Available in both **rack-mount** and pedestal versions

Fibre channel RAID array 7000: Proven Fibre Channel RAID performance!

- Extends the RA7000 to Fibre Channel
- Delivers 100MB/sec data throughput
- Dual or single controllers, supports up to 432GB of storage
- High performance pedestal

Multi RAID Arrays can be combined to create terabyte solutions!

StorageWorks versus the alternatives.

Features:	StorageWorks ESA 10000/RA7000	Dell SDS 100	Hewlett Packard Net RAID & SS/6
Multi-vendor vs Proprietary	Multi-vendor	Proprietary	Proprietary
Part of a Complete and Integrated Storage Family	Yes	No	No
Supports Single CPU Configuration	Yes	Yes	Yes
Certified with Microsoft's Windows NT Cluster Server (Systems Hardware Compatibility List)	Yes	Yes	Yes
Uses full controller functionality when clustered	Yes	No	No
Easy to Redeploy	Yes	No	No
Number of Channels	6	2	2
Best Value	Yes	No	No

For more StorageWorks visit the DIGITAL Web site as: www.storage.digital.com

Product Description

UNIX And the winner is...DIGITAL UNIX!

Facts about DIGITAL UNIX

- DIGITAL ranks #1 in market share in high-end SMP decisions support systems, according to IDC.
- DIGITAL ranks #1 in market share in low-end UNIX servers, according to Dataquest.
- DIGITAL is #1 in the high-end Internet server market with 72 of the top 100 sites and 9 out of the top 10.
- DIGITAL ranks #1 in features and functionality of all major UNIX vendors, according to Illuminata.
- DIGITAL UNIX is #1 with IBM AIX V4.3 in delivering commercial UNIX functionality, according to D.H. Brown.
- DIGITAL UNIX is #1 with Sun for Standards-conformance, according to D.H. Brown.
- DIGITAL will provide a single implementation of UNIX across IA-64 and Alpha to ensure functional equivalence and 100% source compatibility across the two architectures.
- Sequent Computer Systems (and Tandem, Inc.) have both selected DIGITAL's UNIX as their UNIX operating system offering.
- More than 50% of all Alpha systems sales at DIGITAL are on the UNIX platform.
- DIGITAL has been shipping a 64-bit UNIX operating system for five years.
- Businesses can easily port their 32-bit application to 64-bit DIGITAL UNIX now.
- DIGITAL UNIX is Year 2000 ready!

.New DIGITAL UNIX products simplify NT integration**Part of AllConnect program**

New DIGITAL UNIX products continue to ease integration with Windows NT. Recently announced in support of Wave 3 of the DIGITAL AllConnect for UNIX program were:

- **DIGITAL Enterprise Toolkit for Visual Studio**---Enables C, Visual C++, and DIGITAL Visual Fortran developers to code applications on Windows NT for deployment on both DIGITAL UNIX and Windows NT systems.
- **DIGITAL DCE V2.0 for Windows NT, Windows 95, and V2.1 for DIGITAL UNIX**— Provides distributed functionality on DIGITAL UNIX, Microsoft Windows NT, and Microsoft Windows 95 operating systems.
- **DIGITAL Advanced Server B4.0 for DIGITAL UNIX (ASDU)**---Makes a DIGITAL UNIX server appear as a Microsoft Windows NT server for seamless interoperability between DIGITAL UNIX servers, Windows NT servers, and Windows clients.

Success Stories

Vatican City: Internet/Intranet/Extranet products and services from DIGITAL the basis of the Holy See's new IT infrastructure, upgraded in view of the Jubilee of the Year 2000.

The Internet Office, created and managed by the Holy See's employees with the support and assistance of DIGITAL services, has been equipped exclusively with DIGITAL products since 1995. The office first created its website at <http://www.vatican.va>. In view of the Jubilee of the Year 2000, the office will introduce an internet/intranet/extranet innovation. This site is currently being equipped with Real Audio and Video and will begin broadcasting August 15. From the outset DIGITAL has participated with its products and services in the development. In July 1997 the commitment of DIGITAL to the project was extended to include all necessary technological support until the closing of the Jubilee of the Year 2000.

Stefano Pasquini, Information Technology Planner of the Internet Office of the Holy See, explains the reasons for the choice of DIGITAL ;"Security, first of all; the Internet Services of the Holy See needs to guarantee the highest degree of safety concerning accesses, confidentiality, data integrity and privacy. These elements are guaranteed by DIGITAL's AltaVista Firewall and ALtaVista Tunnel. Continuity of Service is the second aspect that we can count on through the use of DIGITAL UNIX TruCluster systems. Finally performance: this must satisfy millions of hits and real-time searches on Pontifical documents. The answer was already on the Internet: 64-bit Alpha RISC technology and AltaVista Search. Also we must not forget another key characteristic that we are looking for in our partner: the opportunity to count on qualified assistance, support and consultancy services with issues that often need immediate response. This is what we have been able to count on with DIGITAL Services.

A footnote: Steve Fink, DIGITAL Vice President for Internet, was the person who headed this project...he is also the person who personally trained us in Littleton, MA on the Internet Seminar Series and signed us on as an Internet VAR. Last year we were talking to him at the DIGITAL Partner Meeting and he revealed that he's now working on another mammoth project, the Mormon Church Genealogy Database!

OhioLINK: We are always pushing the envelope here, so we rely on DIGITAL solutions that are designed to grow with us."

Corporate IT managers know the difficulty involved in implementing even the simplest business systems. But the complexity level jumps a factor or two when a new application pushes the limits of known technology. OhioLINK (The Ohio Library and Information Network), true to its pioneering spirit, has just successfully implemented the first Internet-based scientific journal virtual library for the Ohio State library consortium, an application which required leading-edge technology and experience.

"Our challenge was to make huge volumes of journal data available on the Internet as one searchable database," says Tim Christy, account executive at Linc Network Systems. "Today we have 1,300 journals online, backdated to 1995. Collectively, they constitute more than 5 million files and add up to a potential performance log-jam. We rely on the AlphaServer's fast 64-bit architecture and StorageWorks to provide the performance needed for high-end applications such as the Electronic Journal Center."

DIGITAL Provides Virtual Library Extension

Since 1987, when the Library Committee of the Ohio Board of Regents recommended that OhioLINK begin replacing costly "brick-and-mortar" library space with electronic card cataloging and database infrastructures, OhioLINK has been pushing the envelope with its virtual library

applications. The latest feather in its cap, the EJC, is attracting a lot of attention from other library consortiums that are considering similar applications.

"OhioLINK has a very successful history with DIGITAL, and we are familiar with the AlphaServer 64-bit horsepower," says Anita Cook, director of library systems for OhioLINK. They also asked if StorageWorks UltraSCSI and Fibre Channel capabilities could handle the massive amounts of data transfer the EJC requires. The answer was a definite yes. OhioLINK went live in April and it's running according to design.

To support the EJC, two AlphaServer 4100s were configured running DIGITAL UNIX which rely on 1.25 TB of StorageWorks disks housed in an Enterprise Storage Array (ESA) 10000 with UltraSCSI controllers. For application software, OhioLINK uses ORION Scientific Systems' ScienceServer package, which allows researchers accessing EJC to search journals by title or the full article text by Boolean query. Users are connected over a 100 MB/sec. pipeline into a Cisco router on an OC12 ring, which then connects to distant cities over DS3 leased line interfaces. An Internet-based system is ideal for the EJC due to its universal accessibility and inherently low cost structures. All researchers need to use EJC is a Web browser and a PDF viewer such as Adobe Acrobat.

AlphaServer 64-bit Architecture Provides the Power

Since the EJC application is not transaction-based, the journal files are downloaded from CDs directly into the DIGITAL UNIX advanced file system. Orion's software is used for indexing. Greg German, the assistant director of computing and networking at OhioLINK says that they considered server computer products from other vendors, but found AlphaServer technology to be the fastest on the market.

"Each journal article can have more than 20 pages but each page has from 3 to 6 files associated with it, so it adds up to a huge number of files," explains German. "I've run both 32- and 64-bit systems and 64-bit is definitely worth the investment. It's only a matter of time before everyone jumps on board the 64-bit wagon. DIGITAL has the fastest systems on the market. Performance-wise, there is no one who comes close."

"Winning with DIGITAL" - May, 1998

Spokesperson:

Anita Cook, Director Library Systems

Greg German, Asst. Director Computing and Networking

Toys "R" Us Plays to Win: "Many of our applications are business critical, and we count on DIGITAL systems to keep things running."

Through its 1,200 Toys "R" Us stores, 200 Kids "R" Us children's clothing stores, and 100 Babies "R" Us infant stores, Toys "R" Us, Inc. offers the world's premiere selection of products for children of all ages. But while its image is one of fun and games, Toys "R" Us take its business very seriously, and doesn't play around with unproven technologies. Today, Toys "R" Us drives its business with more than 50 DIGITAL AlphaServer systems in its headquarters and regional distribution centers, 2,000 VAX systems in its stores, and a growing number of DIGITAL Servers for Windows NT across all sites.

"We've been a DIGITAL shop for nearly 20 years," says Matt Lombardi, Vice President of Information Technology at Toys "R" Us. "Many of our applications are business critical, and we count on DIGITAL systems to keep things running. We like the engineering of the DIGITAL products and entrust the majority of our system maintenance service to DIGITAL nationwide."

Toys "R" Us adopted Oracle Financials as its corporate-wide finance and accounting standard. Financial results from Toys "R" Us worldwide operations are consolidated in this system, which runs on a DIGITAL UNIX-based AlphaServer 8400. Oracle software products are widely used in

Toys "R" Us applications – including the company's data warehouse. "We originally launched our data warehouse on an IBM SP2 mainframe, but our staff needed faster response time," recalled Lombardi. "So RTP (*reseller*) brought in an AlphaServer 8400 and helped set up the data warehouse using Oracle7. Today we analyze all the data collected from our DIGITAL point-of-sale systems. We can see whether customers who came into the store for a heavily advertised item also bought other items. Such analyses help us make wise investments in our advertising dollars – and to anticipate emerging trends."

Responding to the needs and desires of children is no easy task. Trends come and go, and Toys "R" us must have the hot toys on the shelves when the rush hits. Advanced inventory applications at the company's 16 distribution centers help manage the continuous flow of goods out to stores. Lombardi says these vital applications are all based on DIGITAL platforms. "Some are Alpha, some are VAX but all are clustered – because the systems can't ever be down. For these applications we need true functioning clusters, and the only choice is OpenVMS."

Moving to Windows NT – and Doing Business on the Web

Toys "R" Us recently entered the world of electronic commerce – with new Web applications built on Windows NT-based servers from DIGITAL and Compaq. Consultants from RTP configured the systems to handle predicted Internet traffic, and integrated the Web applications with back-end applications that hold product and pricing data. "Our Web store offers customers a broad product selection, secure credit card transactions, and rapid turnaround on orders," explains Lombardi.

Meanwhile, Toys "R" Us are preparing to deploy key store applications on Windows NT. Lombardi says the VAX systems in stores were nearing capacity, and that the company decided to develop its next-generation applications on a new platform. Within a year the company will begin opening new stores using applications based on Windows NT. "The affinity between OpenVMS and Windows NT eases the transition, and their similarities make it easy to train OpenVMS people in the NT environment," says Lombardi.

"Winning with DIGITAL" - June, 1998

Spokesperson:

Matt Lombardi, Vice President of Information Technology

Toys "R" Us, Inc.

Indiana's Capital Builds Advanced GIS on DIGITAL Alpha Platform to Increase Taxpayers' Return: "With 64-bit DIGITAL Alpha, we have the most powerful and cost-effective GIS platform on the market."

The joint government of the City of Indianapolis and Marion County has gained worldwide renown for its re-engineering initiatives. By increasing internal efficiencies and subcontracting some work to private sector firms, Indiana's capital has already improved services and achieved total projected savings in excess of \$400 million. Now, the administration is building a next-generation geographic information system (GIS) to provide taxpayers with even higher return. UGC Consulting, an affiliate of Convergent Group, North America's largest spatial systems integration firm, is managing the design and deployment of the GIS. They are helping in house GIS staff to develop a spatial infrastructure that streamlines workflows within and across departments, from managing land records and reviewing developers' proposals to removing snow and repairing potholes. The client/server system is based on ARC/INFO and Spatial Database Engine (SDE) from Environmental Systems Research, Inc. (ESRI) and ESRI's client software products, ArcView and MapObjects. ARC/INFO repositories and Oracle7 databases reside on a DIGITAL OpenVMS cluster configuration of 64-bit DIGITAL AlphaServer computers. The DIGITAL platform includes DIGITAL UNIX and OpenVMS workstations and DIGITAL StorageWorks components with a total capacity of 200 gigabytes. "UGC Consulting brings us their expertise in creating high-payback GIS solutions for local governments," says Alan R. Ruot, GIS administrator for Indianapolis/Marion County. "And, with DIGITAL Alpha, we have the most

powerful and cost-effective GIS platform on the market and the only proven and complete 64-bit architecture available today. "Alpha will enable us to take full advantage of such advances as ESRI's SDE and DIGITAL VLM64 technology," continues Ruot. "These tools will allow us to access large volumes of dynamic spatial data in real time."

DIGITAL Alpha: "Unmatched flexibility and investment protection"

While delivering top performance, the entirely scalable DIGITAL platform also provides superior economy from the initial purchase to the ongoing cost of ownership. "No computers on the market beat the price and performance of Alpha systems," says Ruot. "And Alpha is a highly stable platform, simplifying maintenance." Now serving 300 government staff, the GIS will employ Intranet and Internet technologies to provide all authorized users--up to 1,200 in-house personnel as well as third-party contractors--with access to geocoded data from their desktop or mobile computers. The public will also gain access to GIS resources through a menu of services on the World Wide Web. The GIS can easily expand to accommodate more users and new technologies, since DIGITAL extends scalability to operating system platforms as well as to processors and storage components. "We expect our user base to increase fourfold, and our software strategy may evolve from UNIX to Windows NT," says Ruot. "Only Alpha enables us to scale up in size and even switch operating systems without changing computers. Our Alpha investment gives us unmatched flexibility and investment protection."

New Spatial Tools Integrate Workflows--Improving Services and Cutting Time, Labor, and Cost

New modules integrate the departments' work management systems. With this software, dispatchers can visually track both scheduled maintenance and emergency repairs and consolidates jobs by location, manage snow removal operations, and deploy personnel and vehicles more efficiently by observing real-time displays of road conditions and crew locations on traffic command consoles. The team is also integrating parcel, zoning, and property valuation databases to streamline management of land records. The software coordinates the update of city and township records, formerly separate processes. Upcoming applications will enable developers to submit proposals online and route these documents to stakeholders in various departments, shortening review cycles. As the street centerline database is updated with current property and address data, the information will feed various subsystems, including a 991 emergency dispatch system and a crime analysis module. This new application will geocode incidents, helping police to track crime patterns and plan community-policing initiatives.

"Winning with DIGITAL" - November, 1997

Spokesperson: Alan R. Ruot, GIS Administrator

Specials

1. **VAX-to-AlphaServer trade-in special**

The standard trade-in value of your installed VAX system has just been doubled. You'll get up to two times the standard trade-in value of your VAX system when you purchase a new AlphaServer. Annual operating costs of the AlphaServer systems can average 30-60% lower than the cost of operating a VAX system, yet the features and capabilities you expect and need are still there.

You'll move to a wide range of powerful processors,
Choice of operating systems : Open VMS, DIGITAL UNIOX, Windows NT;
Competitive price/performance
Scalable solution for enterprise growth

This offer is good through **September 14, 1998**. Call us now at 1-800-299-3584 or email us at info@welborne.com *Note: The maximum value is 15% of the list price of the new AlphaServer when the purchase includes base system, any additional SMP boards and add-on memory*

2. **Add Bandwidth...Add Performance...Add Life to your FDDI Network...And Save up to \$1,590!**

Just purchase a new VNswitch 900FF for your MultiSwitch 900 and DEC concentrator 900 FDDI network, and DIGITAL will give you two (2) FREE MMI (Modular Media Interface) cards. **Hurry! Offer expires August 31, 1998. Plus**, you'll get a FREE one-year subscription to LIFE Magazine when you take advantage of this special, limited-time offer.

Simply adding a new DIGITAL VNswitch 900FF module to the existing MultiSwitch 900 chassis enables software reconfiguration of the existing network to create two switched-FDDI rings. The VNswitch 900 delivers full "wire-speed" Layer 2 switching, 100k/pps Layer 3 IP routing, and high-speed (400Mb/s) VNbus connectivity.

For ordering info-contact us at Welborne Associates: 1-800-299-3584 or info@welborne.com

Part Number	Description	Price
DVNFF-MX	VNSwitch 900 Module With two FDDI DAS port pairs	\$11,795.
DEFYM-AA	Multimode Fiber Modular Media Interface (MMI)	\$795.
DEFYU-AA	Unshielded Twisted Pair Modular Media Interface (MMI)	\$595.

3. **Add Switched Fast Ethernet... Add Performance... Add Life to Your FDDI Network... and Save up to \$1,590!**

Just purchase the NEW VNswitch 900FX for your MultiSwitch 900 or Fast Ethernet Line Card for your GIGAswitch/FDDI system and DIGITAL will give you two (2) FREE MMI (Modular Media Interface) cards. **Hurry! Offer good for orders placed between June 22 and September 30, 1998. Plus**, you'll get a Free one-year subscription to LIFE Magazine when you take advantage of this special, limited-time offer.

Simply adding a NEW DIGITAL VNswitch 900FX module and a GIGAswitch/FDDI System Fast Ethernet Line Card enables:

- Seamless integration among a combination of Fast Ethernet and FDDI environments.
- Increased network backbone throughput.
- Inter-VLAN communications to improve LAN/workgroup efficiency.

For ordering info-contact us at Welborne Associates: 1-800-299-3584 or info@welborne.com

Part Number	Description	Price
DVNFX-MX	VNSwitch 900FX- 1-port (SAS or DAS) Switched FDDI and 2-port switched Fast Ethernet	\$9,795.
DEFGF-AA	GIGASwitched/FDDI System Fast Ethernet Line Card	\$8,600.
DEXYM-AA (Get two free)	◆ Multimode Fiber MMI	\$795.
DEXYU-AA (Get two free)	◆ Unshielded Twisted Pair MMI	\$595.

4. Fill the Slots... Enable New Network Technologies... Expand Your Network...and Save BIG! Just purchase and two (2) MultiSwitch 900 modules or One (1) "3-Pack" listed below and get a FREE power supply worth \$1,095.

For ordering info-contact us at Welborne Associates: 1-800-299-3584 or infor@welborne.com

Part Number	Description	Price
DVNFX-MX	VNswitch 900FX-2 Fast Ethernet Ports; 1 FDDI port	\$9,795.
DVNFF-MX	VNswitch 900FF-2 FDDI DAS port pairs	\$11,795.
DVNFA-MX	VNswitch 900FA -1 fixed FDDI MMF port; 1 ATM port	\$12,595.
DVNEF-MM	VNswitch 900EF – 12 Ethernet ports; 1 FDDI fixed-MMF port	\$11,995.
DVNEFMX	VNswitch 900EF- 12 Ethernet ports; 1 FDDI port using Modular Media Interfaces	\$10,395.
DVNEE-MA	VNswitch 900EE – 24 switched Ethernet 10BaseT Ports	\$8,995.
DVNEE-PA	"3-Pack" VNswitch 900EE-24 switched Ethernet 10Base T ports	19,995.
DVNEX-MX	VNswitch 900EX – 12 switched Ethernet ports; 2 Fast Ethernet Ports	\$7,495.
DVNXA-MX	VNswitch 900XA – 2 Fast Ethernet ports; 1 ATM port	\$8,795.
DVNEA-MX	VNswitch 900EA – 12 Ethernet ports; 1 ATM port	\$11,195.
DVNXX-MX	VNswitch 900XX – 4 Fast Ethernet ports	\$4,995.
DVNXX-PA	"3-Pack" VNswitch 900XX – 4 Fast Ethernet ports	\$9,990.
H7894-MA	MultiSwitch 900 power supply (for redundancy)	\$1,095, =FREE*

*Power supply is FREE with purchase of any two (2) individual VNswitch 900 modules or one (1) "3-Pack"

Year 2000 and DIGITAL

If you have not already done so, we suggest you visit DIGITAL's Year 2000 web page at <http://www.digital.com/year2000> to see the breadth of DIGITAL's readiness program.

You should also be aware that DIGITAL is issuing a revised "End-User Customer Terms" to be included on bids, quotes, etc. for DIGITAL products. The full text of the document can be reached at our website at: <http://www.welborne.com/dy2kwarranty.pdf>

DIGITAL wants customers to know that it is prepared to stand behind the Year 2000 readiness of its products with its Year 2000 DIGITAL Product Warranty. The Year 2000 DIGITAL Product Warranty is supplemental to DIGITAL's standard product warranties contained in the DIGITAL Warranty Statement accompanying DIGITAL products. The Year 2000 DIGITAL Product Warranty is an additional express warranty. The Year 2000 DIGITAL Product Warranty is not applicable to third party products DIGITAL distributes.

Some of Our Contacts

No, **King Kong** doesn't work for DIGITAL. But he was there at the partner meeting side trip to Universal Studios along with pals (L to R top row) **Jim Welborne**; **Joe Pollizzi**, DECUS vice-president; unidentified woman; **Rolland Kessi**, president, DECUS Europe; (Center) **Jesse Lipcon**, Compaq's VP and General Manager, High Performance Server Division; **Bev Welborne**; **Mary Oskirko**, DECUS Marketing; (bottom row) **Nancy Strecker**, DIGITAL vice president for customer programs; **Terry Shannon**, former *IDG Newsletter* writer and publisher of *Shannon Knows DEC*; and unidentified man.

There's King Kong size DIGITAL help represented in this one photo!

A special thanks to Anne Foley, DECUS staff, for helping to identify some people in the photo.

DECUS

For those of you not yet acquainted with the DIGITAL Equipment Computer Users Society, we can only recommend that you do so soon if you are using DIGITAL products.

It is comprised of technical people, end users and executives who use DIGITAL equipment either in a pure or mixed environment. Day to day operations are maintained by a hard working staff of Digital employees in Littleton, MA. DECUS has three main sources of information:

1. *The Symposium*-Held twice a year, this weekend long extravaganza of courses lets you glut yourself on things DIGITAL. It is a bargain. In addition to the 400 classes and trade show, there's keynote speeches, birds-of-a-feather and special interest groups. Take home session notes and cassettes. Fun events are included in the cost. You can sign up for special seminars and tutorials at additional cost. This fall the west coast symposium is being held in Los Angeles on October 3-8. The main topic on everybody's mind is what will happen to DIGITAL and its products. Compaq execs will be there to give an official view. There will also be a DIGITAL Engineering Technology Center and a DECUS DataCenter We'll be there at the trade show as well as the classes and keynotes. If you come, we'll be happy to take you out to dinner...stop by the Welborne Associates' AltaVista section of the Pioneer booth.
2. *DECUServe*-This is online help from your peers, people like you who have been through what you're going through during an installation, a failure or whatever. First started ten years ago, it has grown to be the technical meeting ground through electronic conferencing. While basic membership in DECUS is free, a one year DECUServe subscription is \$35.00. It offers 24 X 7 access to information and a job bank.
3. *Local User Groups*-This is face to face peer networking. Local groups of DIGITAL Equipment Users have monthly meetings with speakers and problem solving sessions, usually with an optional meal in the evening. "Local" groups meet in Indianapolis and Chicago and Dayton. Notre Dame Physics Department used to run one for Michiana but it hasn't been too active recently.

In addition, once you're on the mailing list, you receive event information, voting privileges, National Merit Scholarship eligibility and access to the software library and newsletter. You may choose to support the organization through a one year sustaining membership of \$40.00. This includes a commemorative pin a DECUS polo shirt.

FAX a request to: 978-506-3323

Phone: 800-332-8755 or 978-506-3410

Email: informations@decus.org

WWW: <http://www.decus.org> (Then click on member services)

TTD: 978-506-3109

Write: DECUS

153 Taylor Street TAY 2

Littleton, MA 01460-1407

So far, Compaq has agreed to keep funding this volunteer technical society begun in 1960. At the recent 1998 DECUS Leaders Forum, reps from 24 countries met to position the future of DECUS. A worldwide DECUS/Compaq Executive Steering Committee was formed. John Rose, Compaq Senior VP was named as sponsor and pledged continued support for DECUS. For now, DECUS and the Tandem User Group will maintain a collaborative but separate focus.

Tips and Tricks

1. Charlie Matco reveals in the July *BackOffice* magazine that DEC had been handling up to 70% of Microsoft's Win 95 support calls, under strict orders not to reveal who or where they were. To further the camouflage, east coast DEC employees received email of Seattle and Redmond weather reports so it would appear they were in Washington state. MIS administrators liked the help so much (even if they couldn't identify the source) that they would hang up if they got connected to what appeared to be a smaller support center and call back in hopes to being connected to "the good guys!"

2. If you would like a DECUS Program and registration book for the Los Angeles Symposium, call us. We have a few available for distribution. The book includes the course names and descriptions of the seminars, tutorials and sessions as well as speakers and times.

3. How can I make the graphics on DIGITAL UNIX to go faster?

If your application is sending lots of data (using, say, Put Image requests), try setting DISPLAY to local: 0, which uses a shared memory transport between the client and the X server.

4. How do I get an ESC (escape) character on a DEC keyboard?

1. Use F11 on the LK201 or LK401 (in most keyboard modes).
2. Use Ctrl-[(left bracket)
3. Adjust the keyboard mapping in DECterm, if that's what you're using. Use dxkeycaps to produce commands for xmodmap. See the manual pages for details.
4. Get an LK421-AA keyboard, a North American keyboard designed for UNIX systems. It has an ESC key, no caps lock, and the keypad has been removed so the keyboard is smaller.

Where to Go for More Information**Welborne Associates**

FAX: 219-879-0614

Phone: 800-299-3584 or 219-879-3584

Email: info@welborne.com

WWW: <http://www.welborne.com>

Write: Welborne Associates

5185 W Indian Trail

LaPorte, IN 46350-8573

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