BITUG SPRING 2016



NEWSLETTER



elcome all NonStop Users to the BITUG Spring Newsletter. If you are reading the copy you found on the desk next to you don't miss out on future copies. If you are a British Isles HP NonStop end user, then both membership and the benefits of BITUG membership to you is FREE. To keep up to date on plans for 2016 and beyond join the BITUG mailing list by simply entering and submitting your Email address on the BITUG home page (event update mails are typically around 6 per year). To make sure you receive the next free Newsletter in the post also go to "Membership" and then "Become a Member" from the home page.

This year we have a change from our normal SIG schedule. The Big SIG will be held at Trinity House on 12th May instead of during December - the draft Agenda is enclosed in this newsletter. Preceding the Big SIG, on the 11th May there will be an Education Day (covering migration from Blades to NonStop X) at the new HPE offices in Aldermanbury Square, London. Registration is now open for both events.

There will also be a Networking evening from 5pm on 11th May, all members are welcome. Visit www.BITUG.com for more detail. We look forward to seeing you all there.

In addition to this Newsletter we will be sending out an Autumn Newsletter to our registered members. This will provide you with the latest NonStop news from HPE, articles from our vendors and more detail of the Little SIG (date TBC, but will likely be held in the second week of December) and the European event to be held next spring. Mark your calendar, E-BITUG is coming to London in Spring 2017. Planning is under way to run this European NonStop User event in central London, dates are tentative, but likely to be either 26th and 27th April, or 9th and 10th May 2017.

BITUG is run by a committee of BITUG members for British Isles HP NonStop users. All committee members are volunteers. If you are interested in joining the committee please contact me, Chairman@BITUG.COM. You do not need to be a NonStop technical guru to be a

member of the committee, just willing to give up a couple of hours of your time per month to help organise events.

Your FREE membership and benefits, including attendance at the events planned for 2016 could not be achieved without the invaluable help from our Vendor Members, so a big THANKYOU from BITUG for their continued support in 2016. A full BITUG Vendor Member list can be found on the BITUG home page including an overview of what they can provide.

Your feedback is important, without it your committee can only assume it's doing a good job! If you do have any ideas for consideration that could help the BITUG Committee to serve you better, please let me know Chairman@BITUG.COM.

Tell your colleagues about us and the various events that as a user we hope you will find invaluable.

Kevin Poultney

Chairman BITUG. BrightStrand International Limited



AVAILABILITY DIGEST

SOFTWARE DOCUMENTATION - FROM SEQUENTIAL TO EVOLUTIONARY

In the 1970s through 90s, I headed The Sombers Group, a software development company that built large, real-time mission-critical systems. They generally were programmed in assembly (assembler) language to obtain the maximum performance from the underlying hardware. Assembler was not self-documenting as are languages

today such as Java and C#. Therefore, a major part of Sombers' effort was to document the software thoroughly before we began to code. It was a common, sequential design process; and we were good at it. Unfortunately, programmers notoriously hate to document. If applications back then were built by programmers who wouldn't document, the result were systems that quickly became unmaintainable. Today, we call them legacy systems. "Software Documentation - From Sequential to Evolutionary" compares the Waterfall model - a throwback to the software design method of decades ago, to the now popular Agile model - an ongoing, evolutionary approach to documentation and coding.

www.availabilitydigest.com/public_articles/1102/software_ documentation.pdf



WHITE PAPER 1

MODERNIZATION THROUGH INTEGRATION: USING MIDDLEWARE TO CONNECT NONSTOP TO MINECRAFT AND OTHER **APPLICATIONS**

Although our NonStop systems generally run in silos, middleware has made sending data to and from NonStop systems easy, reliable and affordable. In this white paper, you'll learn about the different types of middleware, how to choose a solution, and how to integrate with other platforms, applications, and Web services. You'll also read an unusual use case in which a developer integrated NonStop with the popular computer game Minecraft. This demonstrates just how easy it is to connect NonStop to modern applications.

Download the paper at www.bitug.com/s/Integration.pdf

WHITE PAPER 2

GRAVIC CUSTOMER CASE STUDY

Gravic, Inc. recently published a new case study, Bank Chooses HPE Shadowbase Solutions for BASE24™ Business Continuity. A regional bank serving a major resort island took an aged BASE24 system and upgraded both the hardware platform and BASE24 software with no outages except for a brief disconnect/reconnect time during the final cutover. The bank also replaced a legacy costly data replication product with HPE Shadowbase software. In addition to bringing its system into PCI compliance, the bank implemented reliable failover procedures that reduced its downtime due to a production failure from two hours to under four minutes. The bank is now positioned to reduce its outage time to just seconds when it moves to a full Shadowbase sizzling-hot-takeover configuration. This case study illustrates that there are no barriers to choosing Shadowbase software as your BASE24 business continuity solution.

Download the paper at www.bitug.com/s/Shadowbase.pdf

WHITE PAPER 3

YASH KAPADIA WAS HAPPILY RETIRED UNTIL HIS WIFE DEMANDED HE RETURN TO WORK

OmniPayments is a new member of BITUG, but we're not new to NonStop. CEO Yash Kapadia began his career as a Tandem developer and left to found Opsol Integrators in 1995. Opsol is a leading HP NonStop system integrator that is known for completing complex projects on time and well within fixed-price specifications. So successful was Yash with Opsol that he retired early, a decision that lasted only six months until his wife tired of his being underfoot. That's when Yash and Opsol created OmniPayments, a fault-tolerant switching solution for the financial and retail industries. Hosted on NonStop, OmniPayments is available as a standalone system or as a pay-as-you-go instance in the OmniCloudX on NonStop X. The company's preauthorization engine works with the OmniPayments switch or as a seamless interface to other providers' switches. OmniPayments is thrilled to be a BITUG

Read more about us in our history article: www.omnipayments.com/the-company/



WHITE PAPER 4

WHERE IS THE VALUE IN **APPLICATION MODERNISATION?**

Proven apps, some call them 'legacy apps', are doing their job as consistently as ever but most businesses are anything but consistent in these rapidly changing times. The advent of new technology itself has changed the expectations of our users and stakeholders. We hear, "Why do our users have to leave our site or application just to ...?"

Whether the users might need to see information on a related product/project or integrate information into their decision cycle with something as simple as travel delays, weather or tools for any number of things from calculators to converters, to linking with another 'smart app' to do something even more sophisticated - our users expect our systems to be able to adapt - now. The Cloud has transformed expectations, too. These 'services' are available, many times for no or very low cost, if we can only integrate them with our proven systems.

As a vendor comForte has been keenly and intimately focused on helping customers to integrate and in the process modernize their proven systems, taking them to a whole new level, but a few basic building blocks are necessary to make the job feasible.

Read the full story at: www.comforte.com/value_app_ modernization

HOW remote is **too** remote?

For us, there's no such thing



TCM Remote NonStop Services

Many NonStop users, like yourself, realise there is a limited number of highly-qualified NonStop Systems Managers that meet your standards and are available in your location.

TCM is addressing this problem. We are dedicated to the NonStop platform and our "Centre of Excellence" provides us with the capacity to deliver Systems Management solutions to customers across the world, via our Remote NonStop

For almost a decade, we have been providing remote-based solutions to our customer's in the UK, Europe, Scandinavia, USA, and Asia.

We maintain an ethos that whilst our people may be remote, our services are not. We have been able to achieve this through a rigorous solution design methodology, which we apply to all new services, and our ITIL and ISO accredited Service Delivery techniques. We make great efforts to embed into our customer's organisation, with regular onsite presence as required to ensure we are part of the team.





Business Partner

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OmniPayments

inancial Transaction Switch

- NonStop BASE24 Replacement Pain-Free Migration
- 700 Million Transactions per Month

 10,000 TPS

 14,000 ATMs
- OmniCloudX Hosts OmniPayments Instances on Pay-for-Use Basis
- 50% Savings Guarantee off Current Transaction Processing Costs
- Managed Services Provider Seven Locations Worldwide

BITUG SPRING 2016 **NEWSLETTER**



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On behalf of the BITUG Committee we hope you find this edition of the Newsletter both interesting and informative. Your feedback is appreciated, if you would like to contribute an article for the Newsletter or have any suggestions on how it could be improved please do not hesitate to contact us: kpoultney@bitug.com

HPE NONSTOP NEWS

The past few months have been a very exciting time for everybody concerned with HPE NonStop Enterprise Division. A full line of servers based upon the Intel Xeon x86 architecture and InfiniBand is now available. All these servers offer core licensing models and are based upon a Bladed architecture.

The offerings range from a 2 or 4 CPU single or dual core entry level system called the NS3X1 to a 2 to 16 CPU 2, 4 or 6 core enterprise system called the NS7X1. All systems will run the L series NonStop Mission Critical OS.

The NS3X1 is offered in 32GB or 64GB memory options with up to 100 disks, all of which can be the enterprise SSDs. There are up to 20 Ethernet ports all capable of 1Gb/s. Core licensing allows customers to starts with single core CPUs and upgrade via a license file to 2 core CPUs without changing the infrastructure. Disks are available as 300GB 15k rpm HDDs or 400GB SSDs, HDDs can be hard partitioned up to 4 ways and SSDs up to 8 ways. All hard partitions receive DP2 cache. This makes for a very capable entry level system able to deliver significantly more IO than previous entry level NonStop servers. Capacity is similar to the NS2300 single core and NS2400 dual core systems form a J series environment.

The NS7X1 is offered in 64GB, 128GB or 192GB memory options with up to 56 CLIMs (mixed IP and Storage). The HDD and SSD disks are the same as for the NS3X1 and once again, due to InfiniBand, all disks on a system can be the enterprise SSDs providing huge IOPs with very low latency. Each IP CLIM has five Ethernet ports four of which are capable of 10GB/s and one capable of 1Gb/s. Core licensing allows customers to start with dual core CPUs and upgrade via a license file to 4 core or 6 core CPUs without changing

the infrastructure. With the introduction of clustering over InfiniBand then up to 3 zones each with 8 nodes can be clustered together as a logical system giving huge scalability.

InfiniBand provides in the order of 25x more connection bandwidth than Servernet which is why 10GbE and such a large number of SSDs can be supported. The dual and quad core NS7X1 server configurations provide significantly more capacity that the NB56000c equivalent in the J series environment with the six core proving even more capacity per CPU than ever before.

By completing a family of servers using the Xeon x86 architecture and InfiniBand interconnect, HPE has reached the original vision and goal of providing a 100% NonStop fault tolerant and highly scalable server built from standardised hardware building blocks.

As discussed by Martin Fink (HPE Labs CTO) and Randy Meyer VP & GM HPE Mission Critical Servers in the Connect NonStop Technical Boot Camp last November, a new vision has now been formulated. This vision is underpinned by the completion of the journey to non-proprietary hardware building blocks for HPE NonStop.

Many customers have already been exposed to the hybrid concept for NonStop Servers based upon x86 and the YUMA project. The new vision takes this much further into a future where a virtualised HPE NonStop server could be deployed as a traditional hardware appliance or as cloud-based NSaaS and DBaaS. Customers attending the Connect TBC had a glimpse of this vision from Andy Bergholz who leads the NonStop development

Over the coming year we can expect to hear more about by Hybrid and Virtualised NonStop. 2016 is definitely a year to attend Regional User Groups and the Connect TBC.

HPE NonStop Vision / Strategy for the new style of compute



Today Traditional NonStop

- Commodity hardware
- · All NonStop fundamentals
- · Differentiate with database. open hardened middleware



Tomorrow NonStop Hybrid

- · Round out x86 platform offering
- Tighter coupling with virtual / cloud solutions (Yuma)
- Focus on Big Data / OLTP Database
- · More open middleware solutions



Future NonStop as a Service (Virtualized NonStop)

- NonStop as a collection of VM's and/or
- HW independent reference architecture
- DBaaS / Saas
- Oracle compatibility layer
- In-Memory Solutions

WHITE PAPER 5

XYPRO'S STEVE TCHERCHIAN INTRODUCES THEIR NEW PRODUCT

Security has been a lifelong passion of mine. Growing up, I constantly pushed the envelope of what was possible. This was strictly for "research" purposes of course. I would spend a lot of my time after school (and sometimes during school) seeing what systems I could gain access to, discovering obscure security "features", using social engineering or exploiting just plain security negligence. This was for no other reason than selfsatisfaction, to cure a little bit of boredom and, to obtain some online fame. It was fun. I felt cool. I WAS that kid in my parent's basement, but as I was sitting in my parent's basement banging away on my keyboard, I was pwning your tech! The dot-com bubble was just forming

and n00bz didn't stand a chance.

I look back at the wealth of experience gained from the need to alleviate boredom in my early life and wonder how trivial it would have been for someone to notice what I was doing and to shut me down, but in the late '90s, security wasn't just an afterthought - it was virtually non-existent. No one was keeping an eye out whether the system was being used for anything other than for what it was originally intended.

MTTD in Today's World

Fast forward twenty years and security is at the forefront of everyone's minds, yet common security oversights of best practices and negligence are still very much part of today's landscape. The Mean Time To Detection (MTTD) of a security incident is still close to 200 days. That translates to an attacker residing in your systems for nearly six months on average until someone notices, that is - if - someone notices. In my day, the issue was that no-one was tracking my activities - nowadays there is audit data being generated everywhere. The problem has shifted from not enough

data to too much data.

In an era where everyone is used to, and in fact demands, instant gratification, and where we have a one hundred billion dollar plus cyber security industry providing the tools and solutions to satisfy that demand, MTTD is still nearly 6 months! We cannot underestimate the ability of criminals to stay ahead of conventional solutions by constantly adapting - allowing them to hide their malicious intentions or simply fly under the radar. These low and slow attacks have become the Achilles heel of organizations worldwide. The data breaches that will be announced next year are taking place right now, as you're reading this article. The attackers are already in the networks and systems doing their reconnaissance work, exfiltrating data, planning their next move – for months and years at a time, blending into the noise of everyday business users and operations. How can one detect these anomalies?

Download the full article at www.bitug.com/s/XYPROs1.pdf

