After Hours Discussions
Tuesday, October 9th, 2001
7:30-10:00 pm
Deauville Rooms 1&2

7:30pm – 8:00pm

Belobox Networks - *Beyond A Switched Fabric To A Computing Fabric*SM
Speaker : Larry Wilbur, Chief Executive Officer
At Belobox Networks, the interconnect solution for a large cluster of computers is a fiber-optic network, with the properties of a memory bus, supporting a network-based distributed shared memory. Continuing in the standard tradition, an operating system is responsible for managing shared memory within each computer. However, in our cluster implementation, we have the additional job of managing distributed shared memory, and the network performs this job. In our solution, data integrity, data synchronization and access protection for network cached data are also the responsibility of the network. A microprocessor on each Network Interface Card (NIC) running our Distributed Micro Kernel technology achieves the network intelligence required to support these management functions.

This special network memory implementation has many of the properties of a processor cache. At the same time, it appears to all host computers on the network as protected, shared, distributed and synchronized memory. This memory resides on every NIC and has been appropriately named ***Network Cache***. The result of this evolution is a ***Computing Fabric***.

8:00pm – 8:30pm

Compaq - *Compaq And High Performance Technical Computing*
Speaker: Dan Cox
This session will discuss Compaq's role in High Performance Technical Computing, where we are today, and where we are going tomorrow from a High Performance Computing clustering viewpoint. Compaq Speakers will be from both the Intel and Alpha Engineering departments including Linux and Tru64 development and cluster exploitation. We will discuss technologies, directions and markets we choose to serve. Partnerships we have and are trying to engage as we work to meet our market objectives. Let me know if you have any questions.

8:30pm – 9:00pm

Terra Soft Solutions – *High-density PowerPC Linux Clusters: The Yellow briQ Node*
Speaker: Kai Staats, Chief Executive Officer
Build your cluster with briQs: high-density PowerPC AltiVec/G4 compute nodes with Black Lab-enhanced Yellow Dog Linux OS. The same form-factor as a CD-ROM, the briQ draws just 15-40 Watts per node for an 8 briQ rack operating at 300 Watts. Up to 2 GB RAM, internal drive, ethernet, serial, and programmable front-panel display. Ideal for HPC and image/video rendering. For more information, visit http://www.terrasoftsolutions.com/products/briQ/

9:00pm – 9:30pm

Dolphin Interconnect – ***Supercluster - Superior Performance Using SCI***
Speaker: Keith Murphy, VP Sales & Marketing, Dolphin Interconnect
Will discuss SCI (Scaleable Coherent Interface), the high speed interconnect standard that time forgot! Developed over ten years ago, SCI is only now finding the markets its remarkable performance deserves. This is especially true in the HPC supercluster environment where the high bandwidth and low latencies of SCI makes it ideal for connecting clusters of PC servers for HPC supercluster performance. Learn how the performance of Scali's SCI-based MPI and cluster management software combined with Dolphin's 2D or 3D SCI card assemblies creates superclusters that can equal or surpass performance on most of the present supercomputers.

9:30pm – 10:00pm

IBM – *Turnkey Clusters*
Speaker: Pete Savinelli
What do you do if you want a cluster but not the hassle of building one. How do I manage it? Where do I go for support? This session covers IBM's approach to delivering a "Turnkey Cluster".

The IBM Linux Cluster is a full turnkey solution. The goal is to offer the same class of full-featured system in the Linux/PC space that IBM has delivered for years via the IBM SP system. The Linux Cluster turnkey solution by definition includes cost effective hardware and a Linux operating system. Just as importantly the IBM solution places a high priority on cluster management and support needs.

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Sun Microsystems – *Sun Cluster 3.0 and the Cluster Platforms Architecture*

Speakers: Ira Pramanick, Sun Cluster Staff Engineer & David Deeths, Integrated Products Group Systems Engineer

This product brief will focus on the technical specs and architecture of Sun Cluster 3.0 and Cluster Platforms from the SunTone Platforms portfolio.

Sun[tm] Cluster 3.0 is Sun's next-generation clustering technology. Based on innovative technology developed by Sun Labs, Sun Cluster 3.0 focuses on delivering integrated availability, scalability, manageability, and ease of use with the core delivery platform -- the Solaris[tm] Operating Environment.

Customers interested in deploying a highly available infrastructure using the Sun Cluster technology have a new choice: Cluster Platforms from the SunTone[tm] Platforms portfolio. Cluster Platforms pre-integrate Sun hardware and software products based on engineering best practices to enable simple, safe and swift deployment of a cluster infrastructure. Product is rigorously tested before shipment and delivered ready-to-deploy.

8:00pm – 8:30pm

Linux NetworX – *Demonstration of ICE*

Speaker: Joshua Harr

Linux clustering continues to move into new HPC markets and is also chalking up successful installations in various high availability (HA) environments. In today?s competitive environment, organizations must focus on their core competencies instead of spending valuable resources integrating, configuring and managing such systems. This being the case, cluster management is a top issue concerning the future adoption of the technology.

As cluster systems scale from dozens, to hundreds, and even to thousands of processors, management becomes exponentially complex, and can be a daunting challenge for any organization. Keeping software up to date, monitoring hardware and software status, and even performing routine maintenance requires significant effort. To alleviate these efforts, Linux NetworX has developed ClusterWorX® and ICE Box, which provide a simple, user-friendly solution for administrators to gain control of cluster administration. ClusterWorX, which is based on the latest Linux kernel, and ICE Box allow organizations to dedicate resources to their applications - instead of system management.

This presentation will provide an overview of the features and benefits of the ClusterWorX management software and the ICE Box hardware management tool from Linux NetworX. Vital cluster management features will be addressed such as logging directly into individual nodes

remotely, having the flexibility to use different node images within the cluster, and the ability to scale up to thousands of processors.

8:30pm – 9:00pm

Scali Software Platform - *Scalable Linux Systems*
Speaker: Einar Rustard
A presentation on who Scali is and what we do: high performance computing and management of cluster solutions. Extreme performance using Dolphin SCI boards or plain old Ethernet. Ease of use through our management software. Complete turn-key cluster solutions or software kits.

9:00pm – 9:30pm

RackSaver –*The RackSaver RS-1200 And Related Products*
Speaker: Kyle Nelson – Cluster Sales
RackSaver, Inc. specializes in high-density, cost effective, scalable Linux clusters. We offer a full line of servers and turnkey clusters that can be tailored to your needs. RackSaver designs and manufactures all of our servers in-house. Because we use industry standard parts, not proprietary components, you will not only find our cost to be attactive, but, you have the ability to evolve and upgraded as newer, better units become available. This makes our servers more reliable and easier to maintain.

RackSaver's primary goal is density with performance. We design servers along with the cabinets that hold systems to exacting specifications to get the highest density possible. We can fit up to 168 CPU's in a single 19" rack. By utilizing the highest performing processors (Intel Xeon and AMD Athlon MP) with the latest and greatest motherboards, RackSaver achieves the greatest level of performance per square foot. We have a full staff of on-site technicians to deliver, setup an assist in the configuration of your new servers. For more information please contact Kyle Nelson at 858-874-3800 X114.

9:30pm – 10:0pm

Myricom – *GMSOCKS - A User Level Socket Implementation*
Speaker: Markus Fischer
GMSOCKS, a thin software layer that maps standard socket calls onto Myrinet. This way, GMSOCKS enables existing distributed applications such as distributed databases, client server applications, ... that are based on TCP/IP to transparently benefit from the performance of Myrinet.

No modification to application source code has to be made nor is it required to recompile/relink. Applications can be taken right out of the box.

In benchmarks GMSOCKS shows a performance of 15usec latency compared to 85usec TCP/IP over GM. In terms of Bandwidth, GMSOCKS achieves up to 190MB/s compared to a tuned TCP/IP over GM which achieves about 85MB/s.