LUSTRE USER GROUP WELCOME

April 28, 2008

Peter Bojanic
Director Lustre Group
Sun Microsystems, Inc.

Welcome

1st LUG 2003
PPNL,
Washington

6th LUG 2008
Sonoma, CA

3rd LUG 2005
Snowbird, Utah

3rd LUG 2006
Hilton Head,
S. Carolina

2nd LUG 2004
Maui, Hawaii

5th LUG 2007
Miami Beach,
Florida
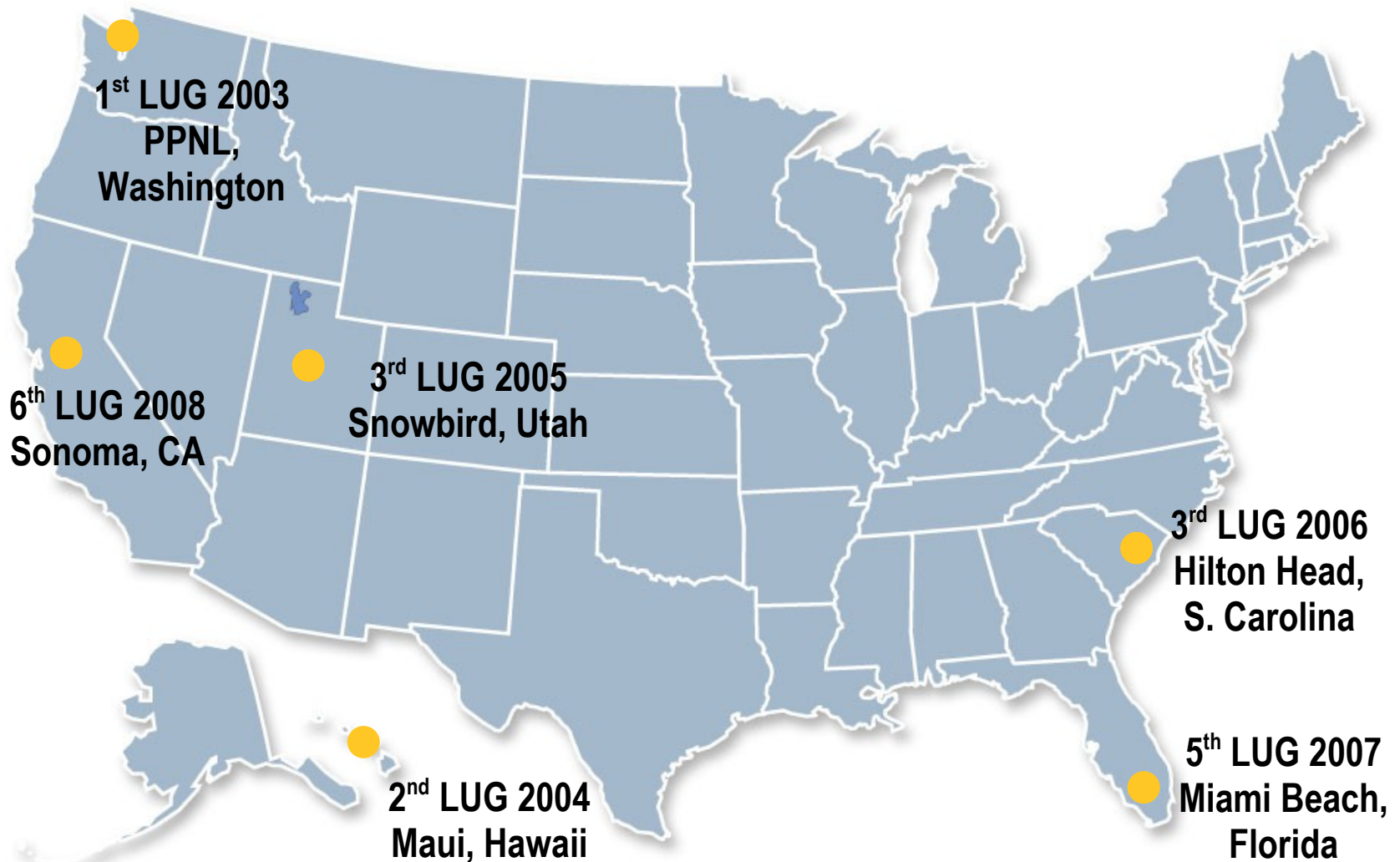
Lustre Community Participation

Location	Total Registrants	Lustre Group	Sun	Other paid registrants	Organizations
Miami Beach, FL	68	9	1	58	40
Sonoma, CA	124	23	10	91	51

lustre.org Mailing List Activity
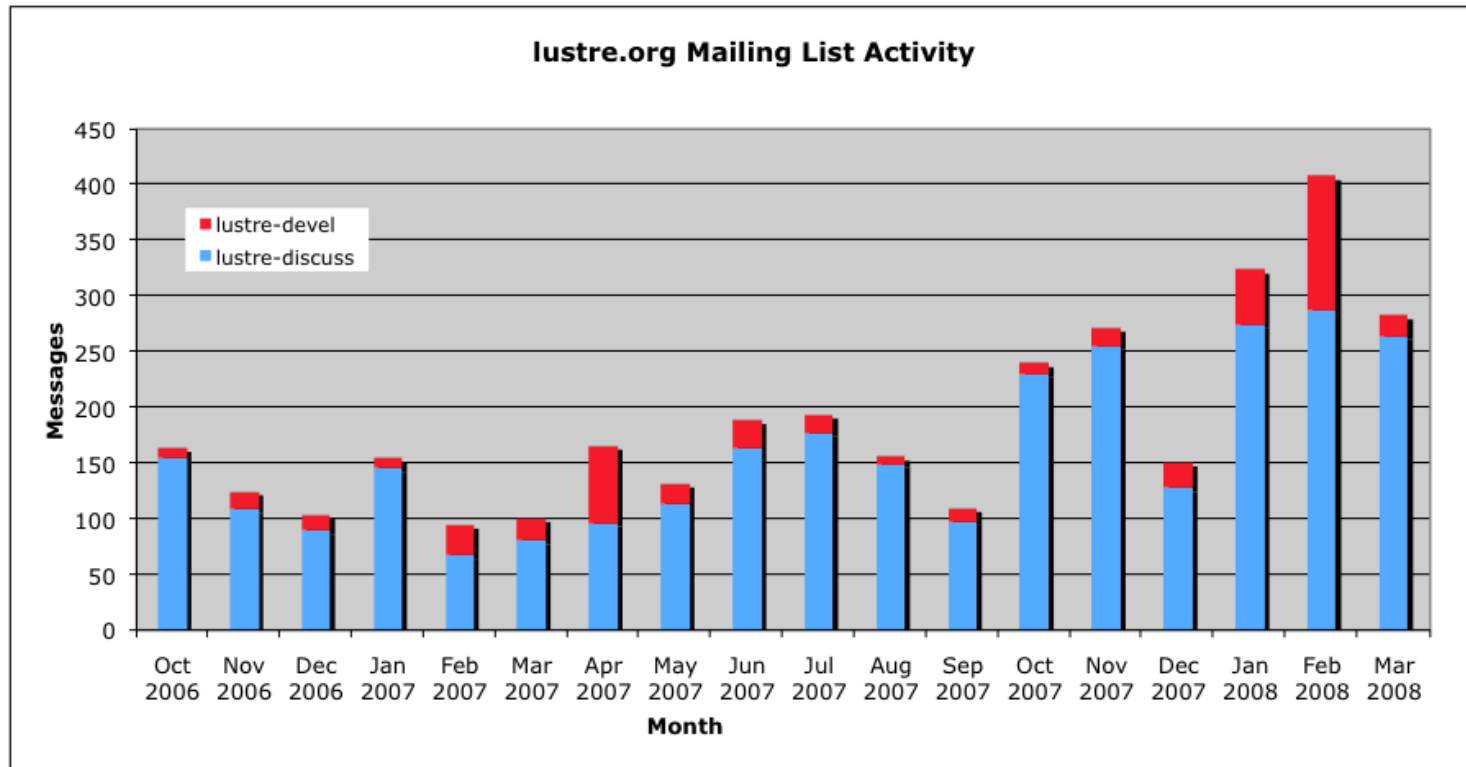
Thank You

- Sponsor **DataDirect NETWORKS**

- Andy Bechtolsheim keynote presentation 9am Tuesday

- Zhang Yun and Karen Li for coordinating the event

- Our users, including customers and partners, for taking the time to participate

CFS Acquisition

- Oct 1, 2007 the Sun acquisition of CFS closed
  - > The theme is continuity
  - > All employees, partners or customers were retained

- Lustre remains open source under GPL
  - > All designs and the internals course are on lustre.org
  - > CVS is open
  - > Architecture discussions now on lustre-devel

- Sun continues to work with CFS partners
  - > Foster Lustre community and encourage more partnerships
  - > No special versions of Lustre for anyone

First 6 Months at Sun

- Business and process integration
- Establishing firewalls to protect the interests of our partners
- Networking with product and operational groups
- Establishing a Lustre ecosystem
- Sun is a good fit for the Lustre Group!

Lustre Group

All of the same CFS crew

- Here this week: Eric Barton, Peter Bojanic, Peter Braam, Kevin Canady, Nikita Danilov, Andreas Dilger, Oleg Drokin, Jessica Johnson, Peter Jones, Bryon Neitzel and many engineers

Several new players

- Dan Ferber, Shailu Gargeya, Hua Huang, Nirant Puntambekar, Mallik Ragampudi, Robert Read, Terry Rutledge
- New HPC Software Stack team: Larry McIntosh, Makia Minich

Unprecedented LUG participation by Lustre engineers

- More than 10 Lustre Engineers here this week
- *Lustre Expertise* session on Tuesday

Partners

Lustre Community

The Lustre Community continues to thrive

- Strong support by Sun

Lustre Centres of Excellence

- CEA – Data Management
- LLNL – Site Wide Filesystem
- NRL – Wide Area Lustre
- ORNL – Petascale deployment

Ambitious community efforts

- HSM development effort led by CEA
- Linux ZFS/DMU research with LLNL
- WAN project discussions in progress

Accomplishments in 2007

- Lustre 1.6.0 including patchless clients
- Metadata performance improvements
- Smoking fast disk allocator
- Fast fsck & format
- LNET diagnostic self test
- Improved release management and test processes

Top Lustre Group Goals for 2008

HEAD to good

- Fix bugs; release Lustre 2.0

Lustre on ZFS/DMU

- DMU performance; Solaris; user space servers

Understand our product better

- Benchmarking; API (re-)structuring; documentation

Predictable execution

- Estimates, planning, branch/gate control

Global support and service

- Professional services; 24x7 support around the world

What to Expect in 2008

- Lustre on ZFS/DMU
  - > Elimination of server kernel patches
- Recovery and metadata improvements
- Security – GSS/Kerberos
- Replication and change logs
- Network Request Scheduler
- Scalability improvements
- Community progress on HSM support
- In general, a maturing Lustre
  - > Sufficiently robust for global file systems

Agenda

TIME/DATE	APRIL 28 MONDAY	APRIL 29 TUESDAY	APRIL 30 WEDNESDAY
8 AM - 9 AM	*BREAKFAST*	*BREAKFAST*	*BREAKFAST*
9 AM - 9:30 AM	Welcome & Introduction - Peter Bojanic, Director, Lustre Group, Sun	Keynote speaker - Andy Bechtolsheim	Joint CEA/NNSA BoF on PetaScale I/O Issues
9:30 AM - 10 AM	Lustre Business Update - Kevin Canady, Director of Business Development, Sun	Scientific Application Performance with Lustre - Tom Wang, Lustre Group, Sun	
10 AM - 10:30 AM	Lustre Engineering Update - Eric Barton, Lustre Lead Engineer, Sun	Lnet Selftest - Isaac Huang, Lustre Group, Sun	HPC Software Stack for Linux - Makia Minich, Lustre Group, Sun
10:30 AM - 11 AM	*COFFEE BREAK*		
11 AM - 11:30 AM	Lustre Talk: TBD Peter Braam, VP of Lustre, Sun	- BoF on Lustre over WAN - Eric Barton, IU, ORNL, TACC	Lustre Technical Panel - Eric Barton, Shane Canon, Steve Simms
11:30 AM - 12 AM			
12 AM - 1 PM	*LUNCH*		*WRAP UP*
1 PM - 1:30 PM	Lustre Roadmap Update - Bryon Neitzel, Lustre Group, Sun	Lustre Tools Session - Backup & Quota - Nicholas P. Cardo, LBNL	
1:30 PM - 2PM		Lustre Tools Session - Shine, Administration Tool - Stephane Thiell, CEA	
2 PM - 2:30 PM	Lustre at LLNL - Marc Stearman, LLNL	Lustre Partner : DataDirect Networks - Dave Fellinger, DDN	
2:30 PM - 3 PM	*COFFEE BREAK*		
3 PM - 3:30 PM	A Global File System with Lustre & LNET Routers - Shane Canon, ORNL	Lustre Expertise Session 1. Userspace Server Architecture - Alex Zhuraviev 2. Lustre on ZFS - Ricardo Correia 3. NFS/pNFS export - Oleg Drokin 4. Lustre Clustered MetaData (CMD) - Andreas Dilger 5. Metadata Server Stack - Nikita Danilov 6. Metadata Performance with Size on MDS - Vitaly Fertman	
3:30 PM - 4 PM	DARPA HPCS Project - John Carrier, Cray		
4 PM - 4:30 PM	ILM - Lustre HSM - Aurelien Degremont, CEA		
4:30 PM - 5 PM	Customer Support & I/O Applications from a LLNL Perspective - Richard Hedges, LLNL		
6 PM - 8 PM	*EVENING RECEPTION*		

pbojanic@sun.com