

open



USE



IMPROVE



EVANGELIZE

The OpenSolaris Story

Jim Grisanzio

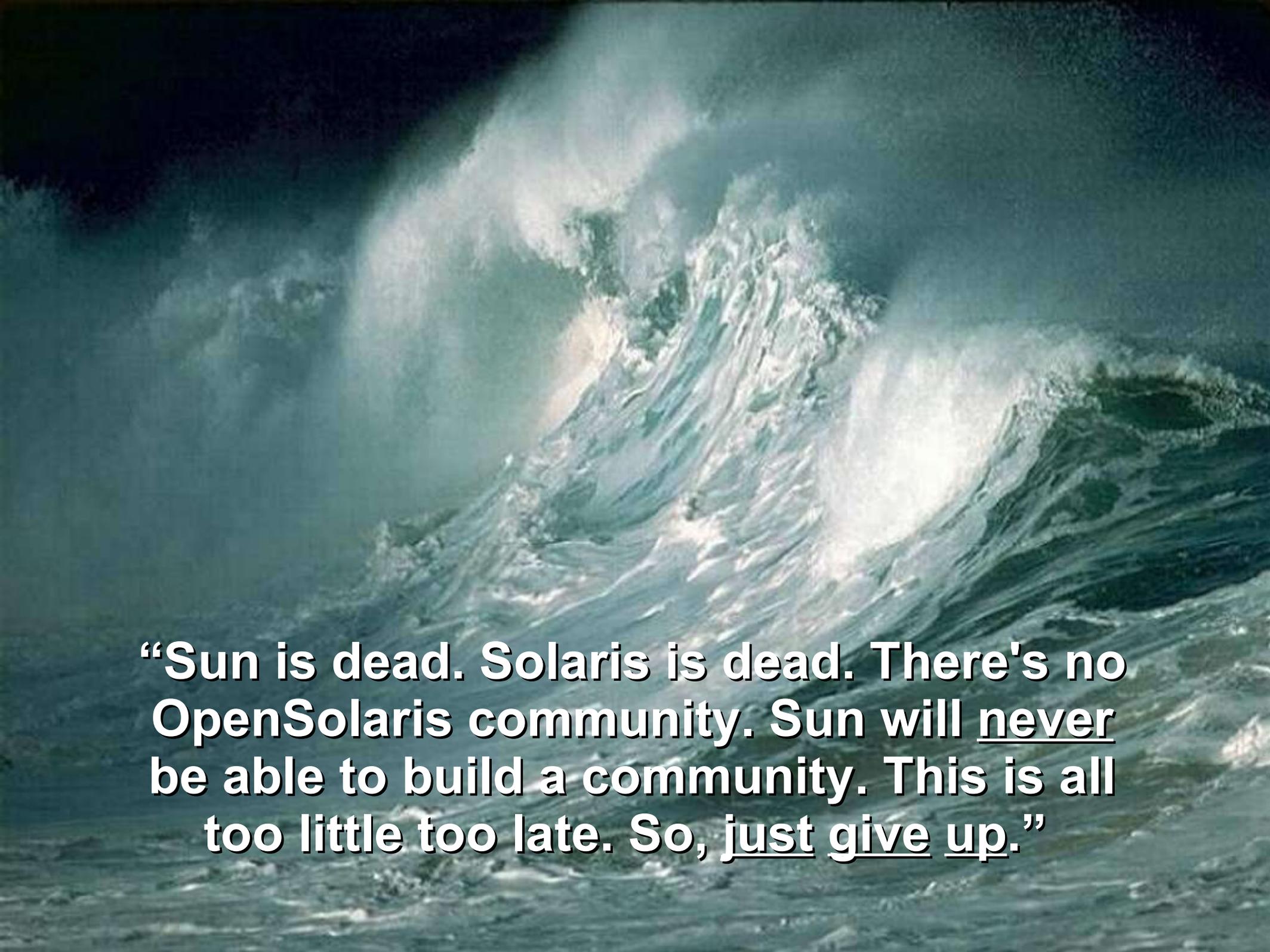
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“Sun is dead. Solaris is dead. There's no OpenSolaris community. Sun will never be able to build a community. This is all too little too late. So, just give up.”

**“Sun had a life-changing
experience. We almost died.”**

- Jonathan Schwartz, CEO, Sun Microsystems, 1/17/07.

What is OpenSolaris?

openSOLARIS™

An open source project based on a subset of the Solaris source code. It's all about the **code** and the **community** and the **market** that results from all those developers working on all that code.

It's also a work in progress. We are opening the source and development process while still building and shipping Solaris.



OpenSolaris Values

Everything we do should support these values

Engineering Values

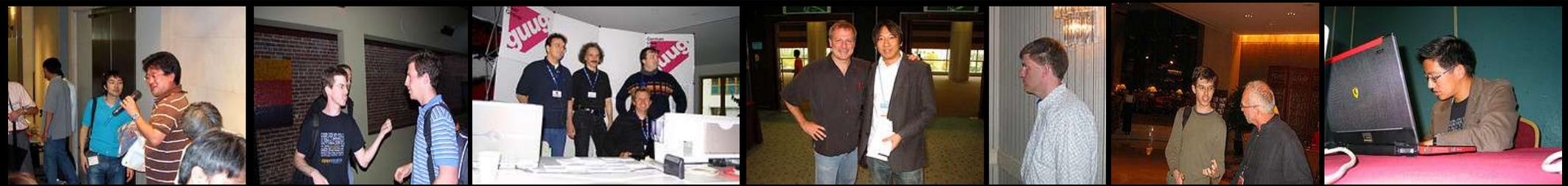
Performance
Security, Availability
Manageability
Reliability, Compatibility
Serviceability
Platform Neutrality

http://opensolaris.org/os/community/on/os_dev_process/

Community Values

Honesty
Openness
Independence
Transparency
Quality
Respect

<http://opensolaris.org/os/about/>



OpenSolaris Country Portals

<http://opensolaris.org/os/project/portals/>

Japan Portal: <http://jp.opensolaris.org/>

China Portal: <http://opensolaris.opentech.org.cn>



Why OpenSolaris?



Perfect Opportunity to Build a Community

- Sun executives – expand the Solaris market, offer Solaris in new markets, sell more Solaris systems and services.
- Solaris engineers – engage developers outside the company, share code, innovate, improve an already great system.
- Solaris market and community – see the code, optimize apps, contribute to Solaris development, create ports and distros.



An Open Strategy

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Open Communications, Open Development

- **Engineers** driving this strategy and building this community.
- Engaging Solaris communities, developers, administrators, customers, ISVs, partners, universities, users.
- Technical experience and personal expression are important to build a community based on merit, reputation, and quality.



Opening in Context

If Sun ever transitions from a hardware company to be a consulting company, best practices for open sourcing are something it could sell.

- Nat Torkington, O'Reilly Media, 7/06

I think Sun, with this contribution, has contributed more than any other company to the free software community in the form of software. It shows leadership. It's an example I hope others will follow."

- Richard Stallman, Free Software Foundation

Sun's decision to release Verilog source code for the UltraSPARC hardware design under a free software license is an historic step - Sun is showing its profound understanding of the forces shaping our technological future in making this decision.

- Eben Moglen, Software Freedom Law Centre



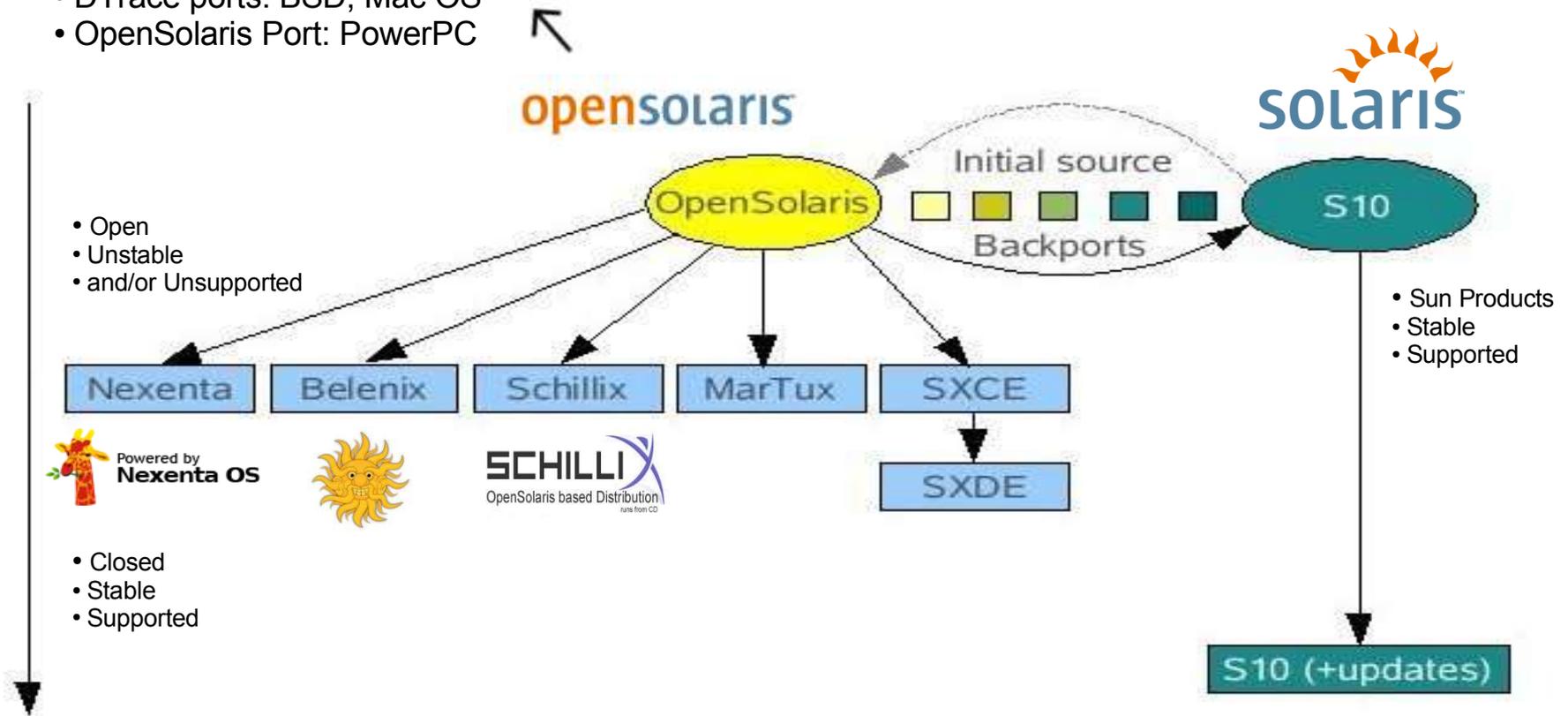
European Commission Report on FLOSS: Sun #1 <http://ec.europa.eu/enterprise/ict/policy/doc/2006-11-20-flossimpact.pdf>



Products, Ports, Distributions

A New Market Emerges

- ZFS ports: BSD, Mac OS
- DTrace ports: BSD, Mac OS
- OpenSolaris Port: PowerPC



A Community Opening

The Opening Sequence

- ♦ **02/04:** Executives talk openly about opening Solaris. Engineering team forms. Research, analysis, and diligence begins.
- ♦ **06/04:** J. Schwartz announces in China. Engineers engage developers. Two-part pilot program begins and runs for a year.
- ♦ **01/05:** opensolaris.org opened, DTrace released, announced license and intention to form governing board. 7K sign up.
- ♦ **04/05:** Board members announced. First meeting held.
- ♦ **06/05:** ON source opened. 150 engineers blog tours of their code.
- ♦ **Post Launch:** 20+ releases: source, binaries, tools, docs, lists, projects (for development with access to repositories), and communities (social groups with a role in governance).



The OpenSolaris Source

- 01/25/05:** DTrace Source Code
- 06/14/05:** OS/Networking Consolidation Source Code
- 10/28/05:** JDS Consolidation Source Code
- 11/10/05:** DevPro Consolidation: SCCS/make Binaries
- 11/15/05:** OpenGrok Source Browser Source Code
- 11/16/05:** ZFS Project integrated into ON build 27
- 01/27/06:** Network Storage Consolidation Source Code
- 02/22/06:** DevPro Consolidation: libm/libmvec Source Code
- 02/28/06:** DevPro Consolidation: libmtsk Binaries
- 03/06/06:** Install Consolidation: Packaging Tools Source Code
- 03/29/06:** SFW Consolidation Source Code
- 03/31/06:** Documentation Consolidation: Source for (1) ZFS Administration Guide, (2) Device Driver Tutorial
- 03/31/06:** X Window System Consolidation Source Code
- 05/10/06:** Globalization Consolidation: Source for OS/Net Consolidation Message Files
- 05/31/06:** Docs Consolidation: Source for (1) DTrace Guide, (2) Sys Admin Guide: Solaris Containers -- Resource Management and Solaris Zones
- 06/12/06:** DevPro Consolidation: medalib Source Code
- 06/26/06:** Companion CD Source Code
- 06/30/06:** Docs Consolidation: Source for (1) OpenSolaris Dev Reference, (2) Solaris Containers: Resource Management and Solaris Zones Dev Guide
- 07/28/06:** Docs Consolidation: Source for (1) Solaris Volume Manager Sys Admin Guide, (2) Solaris Express Installation Guide: Basic Installations
- 08/31/06:** Docs Consolidation: Source for (1) Solaris Trusted Extensions Installation & Configuration Guide, (2) Solaris Trusted Extensions Label, (3) Solaris Trusted Extensions User's Guide, (4) Solaris Trusted Extensions Transition Guide, (5) Solaris Trusted Extensions Dev Guide, (6) Solaris Express Installation Guide: Solaris Flash Archives (Creation and Installation), (7) Sys Admin Guide: Basic Admin, (8) Sys Admin Guide: Advanced Admin
- 09/11/06:** BrandZ Project integrated into ON build 49
- 09/26/06:** DevPro Consolidation: SUNWlibC (C++ runtime libraries) Binaries
- 09/29/06:** Docs Consolidation: Source for (1) Application Packaging Developer's Guide, (2) DTrace User Guide, (3) Solaris Trusted Extensions Doc
- 10/20/06:** SPARC Graphics Consolidation: Device Driver Binaries
- 11/30/06:** Docs Consolidation: Source for (1) Solaris Express Install Guide: Custom JumpStart and Advanced Installations, (2) Solaris Express Install Guide: Planning for Installation and Upgrade, (3) Solaris Tunable Parameters Reference Manual, (3) Sys Admin Guide: Security Services
- 12/08/06:** Man Page Consolidation: Source for an initial set of 356 man pages.
- 12/18/06:** ON Test: Source for the NFSv4 Test Suite.
- 12/19/06:** DevPro Consolidation: Source for SCCS and make.
- 12/22/06:** Globalization Consolidation: Source for OS locales and system libraries (non-translation source).
- 01/26/07:** Man Page Consolidation: Source for a second set of 2790 man pages.

10M lines, 35,000 files

More source in projects. More releases to come:

<http://opensolaris.org/os/about/roadmap/>



A Community Snapshot

In Just About 21 Months

- ♦ 48,000 registrations, 77 projects, 42 communities, 42 UGs.
- ♦ 182 mail lists, tens of thousands of messages and threads, millions of web forum views with millions of unique visitors.
- ♦ Hundreds of contributions: Presentations, Articles, Books, Ports, Graphics, Code, Screencasts, Podcasts, University Courses, Distributions, Scripts, Documents.
- ♦ Hundreds of blogs, active IRC community, 82 universities using OpenSolaris in computer science classes (**65 in China with hundreds of professors trained covering 10,000 students**).
- ♦ Charter, Governance, Development Process, Infrastructure.

The Future: Growth, Diversity

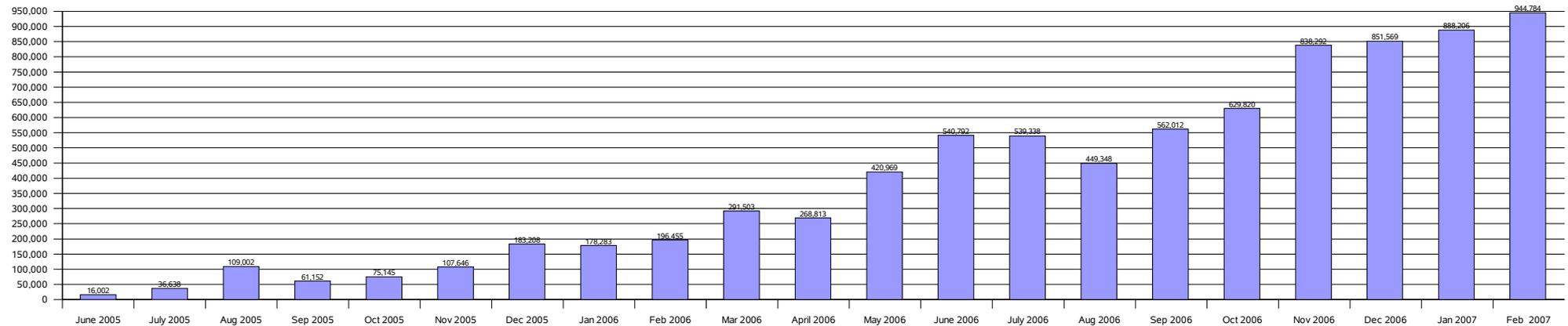
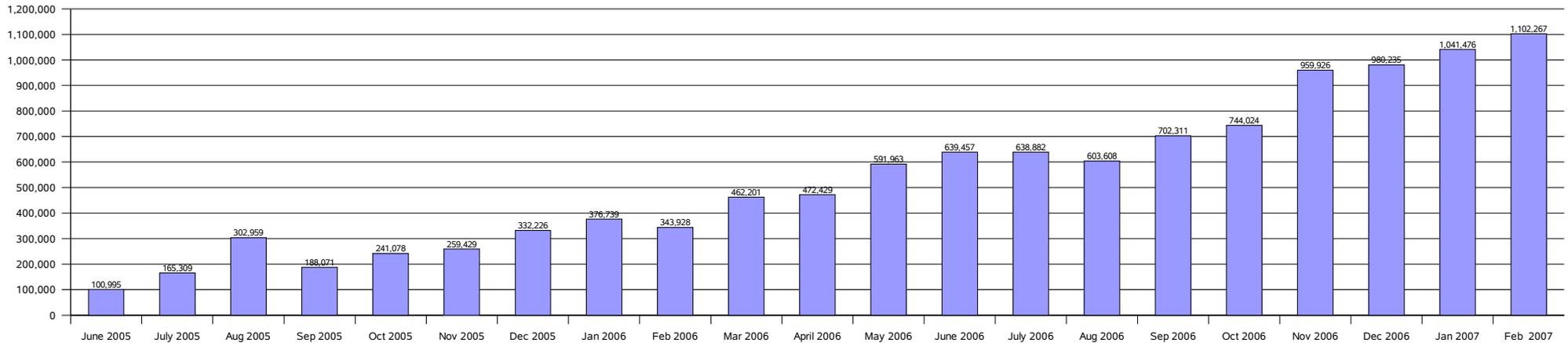
- ♦ Kernel and app developers, admins, users, professors, students.



Everyone's Talking

182 Mail Lists & Discussion Forums

Total Views: 12M | Unique Visitors: 8.5M | Threads: 22K | Messages: 94K



Weaving it all Together

License
grants rights

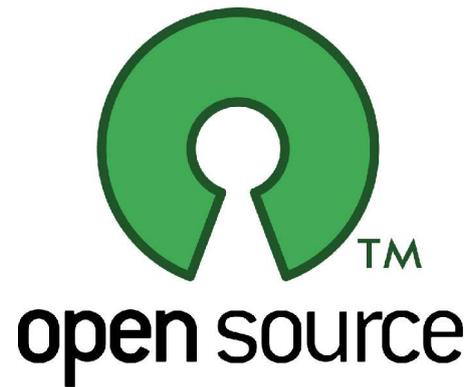
Infrastructure
enables open development

opensolaris™
community participation

Governance
fosters independence and meritocracy

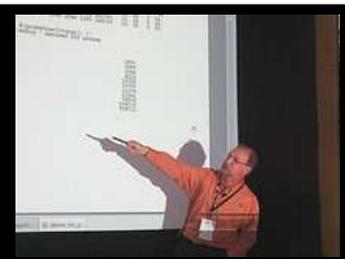


A Free & Open Source License



Common Distribution & Development License

- All licensing strategies considered for OpenSolaris. Needed to be mixable with other licenses.
- Recommended as a preferred license by OSI.
- Recognized as a Free Software license by the FSF.
- Based on Mozilla Public License (MPL) with minor changes.
- Able to help grow the OpenSolaris community.



A Representative Board

OpenSolaris Governing Board

- ♦ Pilot election: Two pilot community members elected after two months of discussion and voting. Sun appointed two members and selected a member from the open source community.
- ♦ **Charter written, discussed, iterated, approved, published.**

Governance Based on Meritocracy

- ♦ Governance developed in the open: board membership, election procedures, decision processes, conflict resolution, polls.
- ♦ Community Membership: Groups, Participants, Contributors, Core Contributors, Emeritus Contributors. Currently 500.
- ♦ Governance approved by Sun. **Ratification, elections – now.**



Open Development

OpenSolaris Code Contribution Model

- ♦ **Opening development process and infrastructure.**
- ♦ Specifications, conversations, decisions, repositories, ARC cases, code reviews, projects and consolidations, policies – all moving open. Live ON source gate – scheduled for late spring.
- ♦ All contributors to follow development process and earn committer status over time – just like Sun engineers.
- ♦ Mercurial: default, distributed SCM system. Subversion: for projects requiring SVN or a centralized SCM system.
- ♦ Bug tracking and build tools provided.
- ♦ Coming: workflow tools mapped to development process, build/test farms, website support for internationalization.



More Open Development

Request Sponsor Project

- Designed to engage the external community in a preliminary code contribution process prior to deployment of SCM infrastructure.
- Bug fixes and enhancements offered. Sun engineers pair with contributors for approval process, testing, integration.

Current request-sponsor Data

- 50+ engineers working with 60 contributors. 900 bugs reported, 276 submissions, **150 putbacks**, 72 in progress, 12 awaiting sponsor, 46 closed. 7 ARC cases complete, 4 in process.
- SCM migration and ksh93 projects – significant contributions.
- First contribution 3 days post launch. Integrated 2 weeks later.



Growing Support

The project has been successful in keeping to the original Solaris ethos while developing a strong OpenSolaris community. *Peter Tribble, OpenSolaris developer, ZDNet, 5/06*

The OpenSolaris community is thriving. *Stephen O'Grady, industry analyst, Redmonk, 3/06*

The biggest, most obvious, and generally in your face, strategic enabler here is Sun's community development license. *Paul Murphy, ZDNet Columnist, 6/06*

Sun's Moinak Ghosh is famed for BeleniX, an open source project to compress the 1.8-gigabyte Solaris OS to fit onto a 700-megabyte compact disc. *Red Herring, 11/06*

Sun took the bold step of open sourcing its crown jewel to take the proprietary millstone from around its neck. *Tom Yager, InfoWorld, 9/06*

Thanks to Anil Gulecha, BeleniX boots from a USB thumb drive. *Times of India, 11/06*



More Support

Solaris has attracted a vigorous community. *Charles Babcock, InformationWeek, 4/06*

Open source drew us to Solaris. *Kirk Skaugen, vice president, Intel server products, 1/23/07*

The move to OpenSolaris has been a good one. *Bill Zeittler, IBM systems group, in Cnet, 4/06*

Jonathan Schwartz was telling people that all Sun software would be open source, and the OpenSolaris folks were showing us how it could be done. *Dave Johnson, Java developer, 5/06*

They're pushing the envelope. *Tony Iams, Ideas International, Cnet, 4/06*

Sun's commitment to community development is unquestionable. *InfoWorld, 12/06*

They have the world's fastest growing open source community. *Paul Murphy, ZDNet, 4/06*

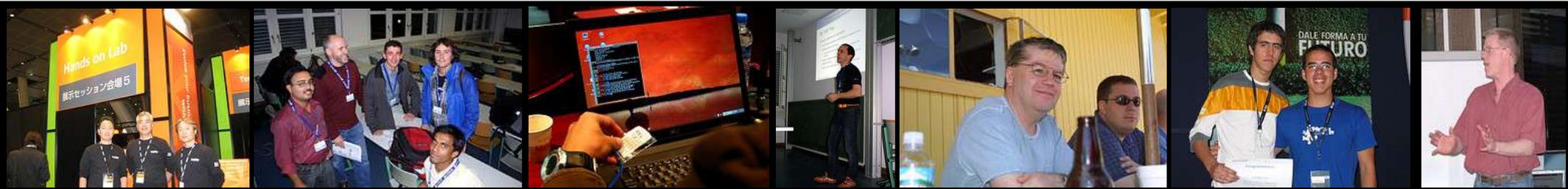




How to Participate

Contributing to the OpenSolaris Community

- ♦ Register on opensolaris.org – *get a free Starter Kit.*
- ♦ Participate on opensolaris.org forums and mail lists.
- ♦ Localize site content and write new content.
- ♦ Report and fix bugs. Re-write closed binaries.
- ♦ Initiate and lead new development projects.
- ♦ Port OpenSolaris to new platforms and build new distributions.
- ♦ Start and lead user groups, communities, projects, portals.
- ♦ Present at conferences, user groups, OpenSolaris Days.
- ♦ The opportunity is **yours**. Tell me what **you** want? Tell me about **your** community. Tell me about **your** market. I'll learn from **you**.



Code, Community, Market

OpenSolaris Code

We have great code, and we are proud of that code.
But there's always room to contribute new code.

OpenSolaris Community

The community is leading this effort, and
we welcome your participation.

OpenSolaris Market

A market is forming around this code, and there
are more opportunities than we can imagine.



OpenSolaris Resources

- OpenSolaris <http://opensolaris.org/os/>
- OpenSolaris Starter Kit <http://get.opensolaris.org/>
- Development Process (draft) http://opensolaris.org/os/community/onnv/os_dev_process/
- Source Code Management <http://opensolaris.org/os/community/tools/scm/>
- Governing Board <http://opensolaris.org/os/community/cab/>
- Governance <http://opensolaris.org/os/community/cab/governance/> | Charter <http://opensolaris.org/os/community/cab/charter/>
- Communities <http://opensolaris.org/os/communities/>
- Projects <http://opensolaris.org/os/projects/>
- Code <http://opensolaris.org/os/downloads/>
- Code Browser <http://cvs.opensolaris.org/source/>
- Participation <http://opensolaris.org/os/communities/participation/>
- Code Contributions http://opensolaris.org/os/bug_reports/request_sponsor/
- Bug Activity: http://opensolaris.org/os/bug_reports/
- ARC Cases from Community Code http://opensolaris.org/os/bug_reports/arc_table/
- Request Sponsor <http://opensolaris.org/os/community/on/crt/>
- Sponsor Tasks <http://opensolaris.org/os/community/on/crt/sponsor-tasks/>
- Licensing of OpenSolaris <http://opensolaris.org/os/licensing/> & <http://sun.com/cddl/>
- Licensing Paper from Sun http://www.sun.com/software/opensource/whitepapers/free_open_licensing.pdf
- Roadmap <http://opensolaris.org/os/about/roadmap/>
- Blogs <http://opensolaris.org/os/blogs/> | <http://planet.opensolaris.org/> | <http://opensolaris.org/os/blogs/?startDate=2005-06-14>
- Discussions <http://www.opensolaris.org/jive/index.jspx> | [#opensolaris](http://irc.freenode.net)
- Presentations http://opensolaris.org/os/community/os_user_groups/os-presentations/
- Photos <http://www.flickr.com/photos/tags/opensolaris>
- Metrics <http://opensolaris.org/os/community/marketing/metrics/latest/>
- Newsletter <http://opensolaris.org/os/project/content/newsletter/>
- Sun in OSS <http://sun.com/opensource> | <http://www.sun.com/software/opensource/learnmore.jsp>

OpenSolaris China Resources

- Joey Guo's Blog <http://blogs.sun.com/joeyguo/>
- OpenSolaris China Portal <http://opensolaris.opentech.org.cn>
- China University Portal <http://www.opentech.org.cn>
- Sun Developer Network China <http://developers.sun.com.cn>
- Beijing OpenSolaris User Group http://opensolaris.org/os/community/os_user_groups/bjosug/
- Shanghai OpenSolaris User Group http://opensolaris.org/os/community/os_user_groups/shosug/
- Shenzhen OpenSolaris User Group http://opensolaris.org/os/community/os_user_groups/szosug/

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Thank you!

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Community Manager, OpenSolaris Engineering

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<http://opensolaris.org/> | <http://jp.opensolaris.org/> | <http://get.opensolaris.org/>

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