

open



USE



IMPROVE



EVANGELIZE

OpenSolaris: Opening in a Storm

Jim Grisanzio

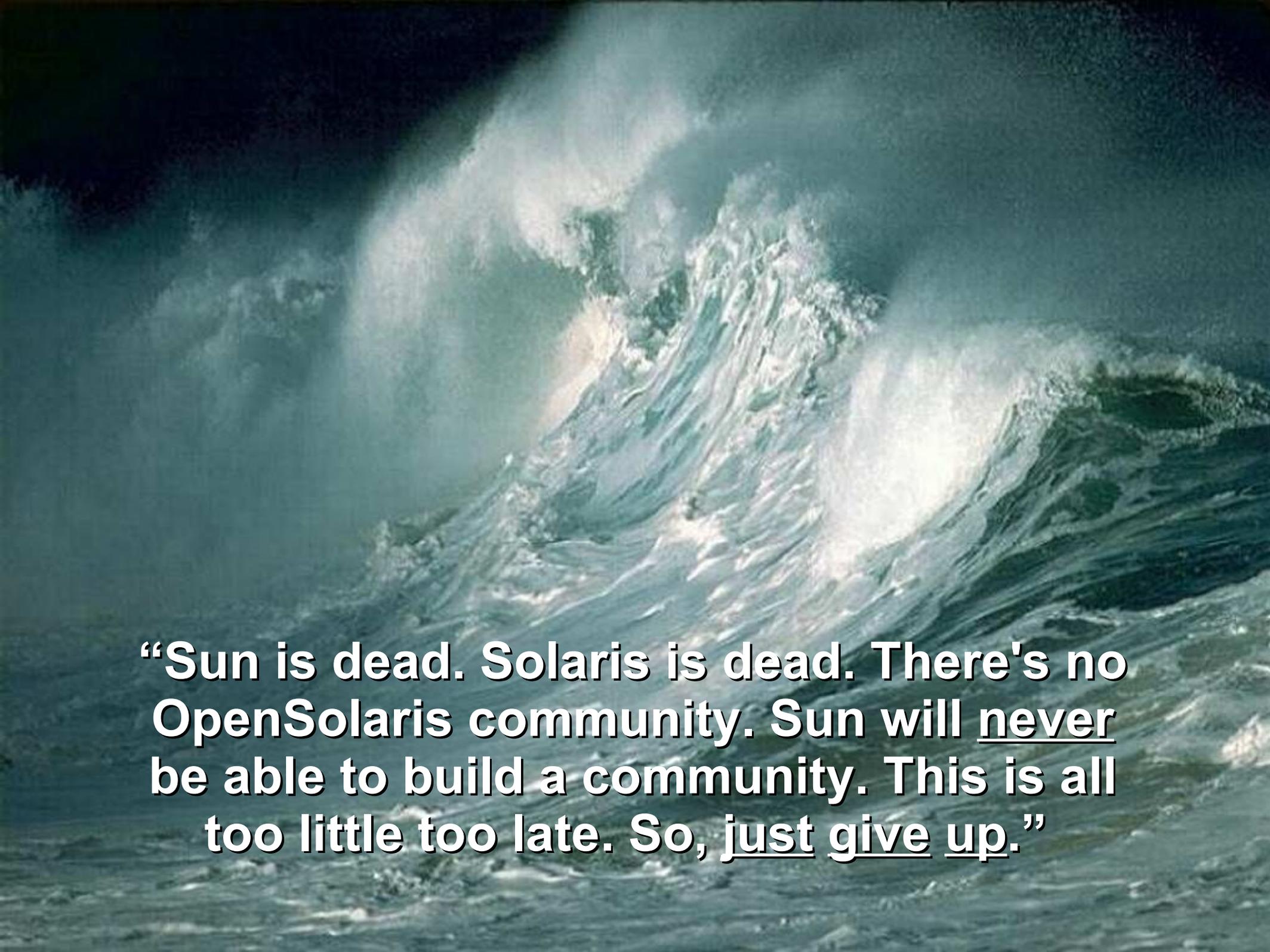
Community Manager, OpenSolaris Engineering

Sun Microsystems, Inc.

Tokyo, Japan

ジム グリサンズィオ サン・マイクロシステムズ

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ОТКРЫТЫЙ
வெளிப்படை



“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, 1/1707.

What is OpenSolaris?

openSOLARIS™

An open engineering 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

Community Values

Honesty
Openness
Independence
Transparency
Quality
Respect



Project: 日本ポータル

プロジェクトの概要

FAQ センター

一般的な内容に関する FAQ
はじめての開発者のための
FAQWeb サイトに関する FAQ
Common Development and
Distribution License (CDDL) に
関する FAQOpenSolaris バイナリライセン
スに関する FAQPublic Documentation License
(PDL) に関する FAQOpenSolaris の商標とロゴの使
用に関する FAQSun Contributor Agreement
(SCA) に関する FAQ

ライセンス

Blogs

Announcements

Events

News

リンク

ダウンロードセンター

ディスカッション

OpenSolaris コミュニティ:

Nevada 開発

OpenSolaris 開発者向けリファ
レンス・ガイド

OpenSolaris Project: 日本ポータル

[Affiliate with this project](#)

```

static int
copys(char startfd, char *fname, int flenmode, int createmode)
{
    struct pathnames prc;
    vnode_t *vp, *dup;
    file_t *fp, *atd;
    enum vtype type;
    int error;
    int fd, dupfd;
    vnode_t *st;
    proc_t *p;

    if (startfd == DCV0) {
        /* Regular copy */
        /*
         * Start up file.
         */
        startvp = NULL;
        error = 0;
    } else {
        /* We're here via opserv()
         *
         * Make sure we have a valid request.
         * We must either be a real fd or AT_FDCWD
         */
        if (startfd != AT_FDCWD && startvp == NULL) {
            error = EINVAL;
            goto out;
        }
    }

    if (startchar != '\0') {
        /* If startchar is / then startfd is ignored
         */
        if (startchar == '/')
            startvp = NULL;
        else
            if ((startvp = getfd(startchar, startfd)) == NULL)
                return (EINTR);
            else
                startvp = startvp->vnode;
            if (startvp == NULL)
                return (EINTR);
    }

    if (fname == NULL)
        return (EINTR);

    if (copys(fname, startchar, sizeof(char))
        return (set_errno(EINTR));
  }

```

OpenSolaris プロジェクトとは

OpenSolaris プロジェクトは、オープンソースコミュニティであり、OpenSolaris テクノロジーのコラボレーション、話し合いの場です。

コミュニティは、広く世界中さまざまな人々から成り立っています。システムに機能を追加する開発者の人々、新しいアプリケーションやプラットフォームにテクノロジーをカスタマイズしている人々、データセンタにおいて、Solaris テクノロジーを提供しているシステム管理者の人々、大学においてオペレーティングシステムの研究を行っている教育者および学生の人々、テクノロジーを探求している、あるいは、OpenSolaris が新しい機会を提供することを発見しようとしている新しいのユーザの人々です。

OpenSolaris のソースコードは、すでに最先端ですが、技術革新は、いたるところで起きており、皆さんの参加を歓迎いたします。以下がコミュニティから提供されています。



[プロジェクトの概要](#) と [ロードマップ\(英文\)](#) を参照することから始めて下さい。

(Solaris オペレーティングシステムの情報が必要な場合は、こちら([日本語](#), [英語](#))を参照して下さい。)



ほとんどありとあらゆるトピックに関する話し合いが行われている [ディスカッション・フォーラム\(英語\)](#) に参加して下さい。新しいメンバの方であれば、[opensolaris-announce](#)を、[購読](#)したいと思うかもしれません。そうでなければ、[opensolaris-discuss](#)での議論に参加して下さい。irc.freenode.net [#opensolaris](#)上の [IRC](#)での会話に参加することもできます。



参加の方法のすべてを知るためには、[Community Portal](#) を訪問してみてください。あるいは、[Nevada](#)を調べてみてください。

数値データで見ると

コミュニティによるコード修正の貢献(英文)を確認して下さい。コミュニティの統計情報(英文)を参照して下さい。

わいがや

[opensolaris-discuss](#) [購読]での活発な会話

irc.freenode.net
[#opensolaris](#)上のIRC

ボタンとバナー

GET [opensolaris](#)

あなたのブログ、ウェブサイトにかっこいいボタンやリボンを使って下さい!

Why OpenSolaris?



Perfect Opportunity to Build a Community

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



An Open Strategy

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放的 வெளிப்படை açık ::::: livre offen
的 OTKРЫТЫЙ

Open Communications, Open Development

- **Engineers** driving this strategy and building this community.
- Engaging Solaris communities, developers, admins, 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>



A Market Develops



Powered by
Nexenta OS

ZFS ports: FUSE/Linux,
FreeBSD, Mac OS



Sun's Supported Solaris
Products and Updates



Sun's SXCE & SXDE

Polaris

marTux Distribution
DTrace ports:
FreeBSD, Mac OS



↖ ↗
openSOLARIS™

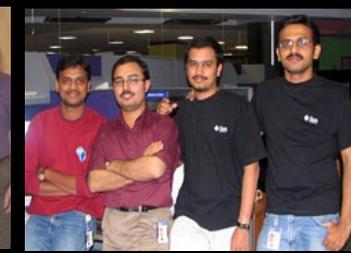
Nevada Source Gate



Products, Ports, Distributions



BeleniX



A Community Opening

The Opening Sequence

- **2/04:** Execs talk openly about opening Solaris. Program team forms. Research, analysis, and diligence begins.
- **6/04:** Schwartz announces in China. Engineers engage developers. Two-part pilot program begins and runs for a year.
- **1/05:** opensolaris.org opened, DTrace released, announced license and intention to form a governing board. 7K sign up.
- **4/05:** Board members announced. First meeting held.
- **6/05:** 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

- 25,000 members, 72 projects, 40 communities, 42 user groups.
- 180 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, 50+ universities using OpenSolaris in computer science classes.
- **Charter, Governance, Development Process, Infrastructure.**

The Future: Growth, Diversity

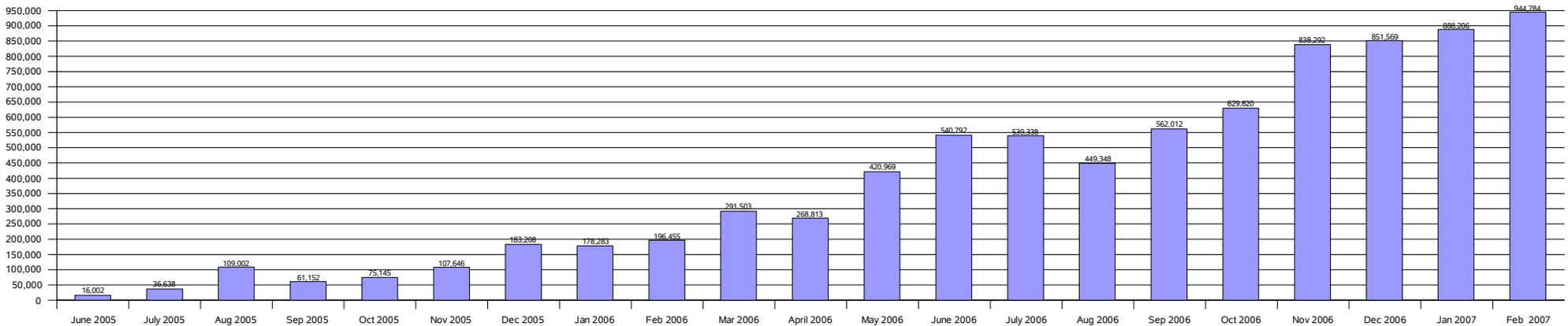
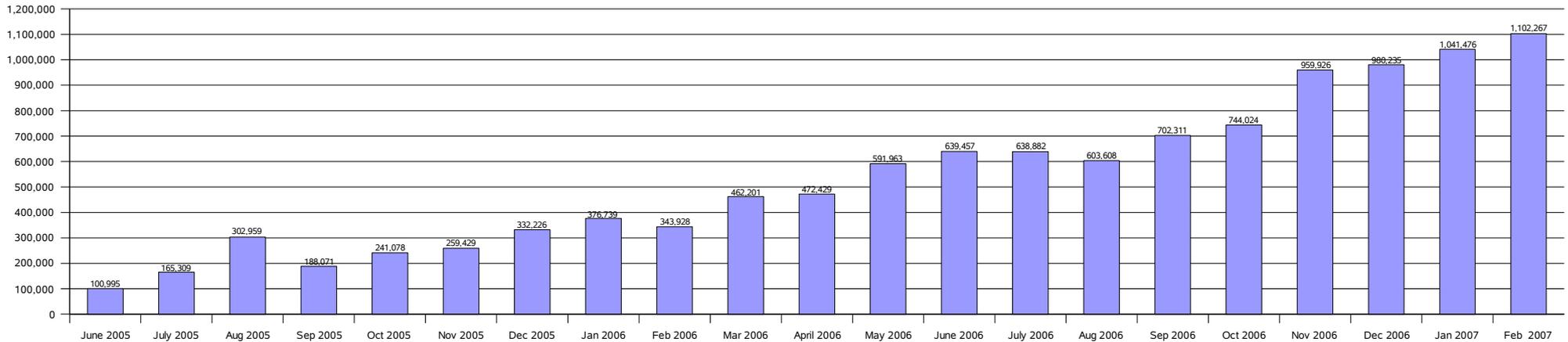
- Kernel/app developers, admins, users, professors, students.



Everyone's Talking

180 Mail Lists & Jive Discussion Forums

Total Views: 10.7M | Unique Visitors: 7.8M | Threads: 21K | Messages: 88K



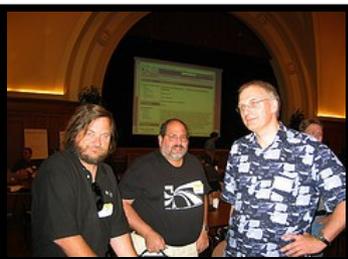
Weaving it all Together

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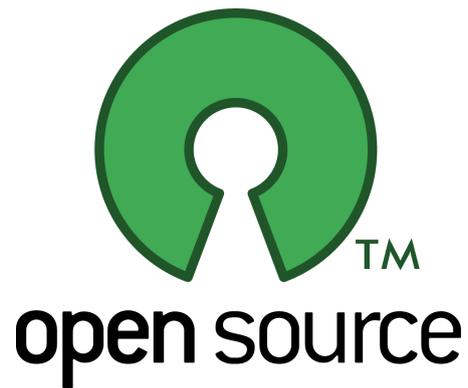
Infrastructure
enables open development

opensolaris™
community participation

Governance
fosters independence and meritocracy



An Open License



Common Distribution & Development License

- All licensing strategies considered for OpenSolaris.
- Needed to be mixable with other licenses.
- Open Source Initiative (OSI) approved.
- Based on Mozilla Public License (MPL) with minor changes.
- Able to help grow the OpenSolaris community.
- CDDL & GPLv3 dual license **conversation and controversy.**



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.
- ♦ Community Membership: Groups, Participants, Contributors, Core Contributors, Emeritus Contributors.
- ♦ Governance approved by Sun. Ratification, elections coming.



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 gate – shooting for late spring.
- ♦ All contributors to follow development process and earn committer status over time – just like new 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 program prior to SCM infrastructure.
- ♦ Bug fixes and enhancements offered. Sun engineers pair with contributors for approval process, testing, and integration.

Current request-sponsor Data

- ♦ 50+ engineers working with 60 contributors. 858 bugs reported, 276 submissions, **150 putbacks**, 69 in progress, 11 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*

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

OpenSolaris evangelism is now a full time job. *Ben Rockwood, OpenSolaris Admin, 10/06*

OpenSolaris will be larger than the Linux community, and every OS community except Microsoft's will have copied the key ideas including its organisational structure, the core provisions in the community development license, and Solaris specific technologies including ZFS and DTrace. *Paul Murphy, ZDNet, 12/06*



More Support

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

The OpenSolaris community has been highly successful. *Stephen Walli, 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 Zeitler, 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*

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*





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 bins.
- Initiate development projects.
- Port OpenSolaris to new platforms and build distros.
- Start and lead user groups, communities, projects, portals.
- Present at conferences, user groups, OpenSolaris Days.
- The opportunity is **yours**. Tell me what **you** want to do? Tell me about **your** community. I want to learn from **you**.

Get Your Free Kit »



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.



open



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Thank you!

Jim Grisanzio

Community Manager, OpenSolaris Engineering

jim.grisanzio@sun.com | <http://blogs.sun.com/jimgris/>

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