Engineering Communities
Organization, Infrastructure, Development

COSCUP, Taiwan, August 2009
Living & Managing Globally
A Builder`s Approach
The OpenSolaris Program
A Project Management Perspective

Customers, Privacy & Legal Issues, Processes, Politics, Market Disruptions, PR, Source, Binaries, **Website Infrastructure**, Tools, **Community Organizing**, Resources, Licenses, Dependencies, Constraints, Bug Tracking, Universities, Governments, SCM, Competition, AR, IR, Goals, Transparency, Language, Culture, Content, Distance, **Open Development**, Governance, Business Models, Documentation, Values, Schedules, Leadership, Marketing, Testing, IP, Press Leaks, **Contributing**, Field Sales, Analysis, Project Management, Metrics, Market Research, Applications, Roadmaps, Trademarks, Branding, Distributions, OSUGs, Flame Wars, Conflicts ...
Product, Website, Community

Just exactly what is OpenSolaris?

- A supported Sun binary product at .com with a corresponding development project at .org.
- A website platform of applications for global engineering operations and hundreds of open source development projects at .org.
- A global community of users, developers, administrators, and students at .org, .com, and other sites around the world.
Program Profile

- **Who:** Sun + Partners + Customers + Developers
- **Where:** opensolaris.org and opensolaris.com.
- **When:** Started in 2005.
- **Why:** To build a developer community.
- **How:** Open Development.
- **License:** Common Development & Distribution License.
- **Priorities:** Distribution. Developers. Users. Infrastructure.
Opening Sequence

• A Multi-Year Implementation Plan
  - **2003**: Internal discussions start in engineering.
  - **02/04**: Discussions go external. Engineering team forms. Research, analysis, diligence begins.
  - **06/04**: Announced in China. 2-part pilot begins. 300 people.
  - **01/05**: Site opened. DTrace source published. License and governing board plans announced. 7K sign up.
  - **04/05**: Board members announced. First meeting held.
  - **06/05**: Kernel source published. 150 engineers blog.
  - **06/05 to present**: 65+ releases: source, binaries, tools, tests, projects, consolidations, docs, distros, ports.
  - **05/08**: OpenSolaris binary distribution launched.
  - **08-09**: Website, dev infrastructure, and product updates.
Organizing Engineering Communities
Community organizing is personal. It's an art, not a science. It involves technology and infrastructure, but it's all about people and it's based on relationships of trust.
Get Involved!

- There are no short cuts. It takes time.
- Take the initiative. Assert yourself.
  - Find a Community or Project. Join the list, observe, introduce yourself, ask questions, start small.
  - Offer to do something specific: Fix something. Translate something. Write some code. Start a UG. Submit a bug. Port a package. Get a commitment from leaders to engage.
  - Go and do that something. Actually do it.
  - Ask leaders to walk you through their contribution process.
  - No process? Write one. No leaders? Be one.

- Participate

  http://opensolaris.org/os/participate/
Contributions
Contributions offered and contributions wanted


Projects, Communities, User Groups, Sponsor Program, Other Sites
Challenges

• What we want
  – Creative and motivated people who write code and content and who organize, translate, test, evangelize, whatever.
  – People who can solve problems.
  – People who can cut through bureaucracy.

• The challenge
  – No single method to engage. No single access point.
  – Lots of information spread out all over the place. It can be confusing – but there is a lot of opportunity!

• Engaging the challenge
  – We are documenting how to contribute, pointing to those who are contributing, and re-engineering the website to make it easier to work with us and others around the world.
Governance

- OpenSolaris Governing Board
  - Initially: Community Advisory Board (CAB). Community elected two, Sun appointed two and selected one.
  - CAB started during pilot program and grew into OpenSolaris Governing Board (OGB) with an expanded mandate.

- Governance Based on Meritocracy
  - Board and community membership, leadership, elections, decisions, conflict resolution, community structure, priorities.
  - Constitution approved by Sun 1/07 and ratified by community vote 3/07 with the election of the new 7-member OGB.
  - Simplification and reorganization attempts failed in 2009.
Community Structure

**Current**

- Charter, Constitution
- Hierarchy
- Centralized processes

**Recently Rejected**

- Electorate
  - OGB
- Membership Processes
- Project Life Cycle Processes

License: CDDL

Common Development & Distribution License
- All licensing strategies considered during year-long review.
- 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 with updates.
Website Infrastructure
What is opensolaris.org?

- Website platform with multiple applications.
- Supporting open development engineering operations, product development projects, and community-building programs.
- Rebuilding the existing site to provide:
  - Complete open development platform for community and product engineering (ON & Nevada development already tied to opensolaris.org in critical ways).
  - More scalability and flexibility to enable expansion and enhancement of features and support – a modular approach.
  - Customized wiki functionality integrated with new user management application & community governance structure.
Website Profile

- 8,000+ web pages, 10K+ attachments
- 100,000 site registrations.
- 400 lists, 115 forums, 13,000 subscribers.
- Tens of thousands of list messages.
- Tens of millions of web forum views.
- 2 SCM systems and 2 DTS
- 150 user groups in 30 countries.
- 212 projects, 47 communities.
- 13 language portals.
- 15 application services
- 25+ computers in 3 data centers: SF, LV, Prague
- Hundreds of blogs.
- Hundreds of contributions and contributors.
opensolaris.org Services

- arc.opensolaris.org Architecture Review Committee case data
- auth.opensolaris.org Membership/account management application
- bugs.opensolaris.org Bugs-by-mail submission to Sun's Bugster database
- cr.opensolaris.org Code review tool
- defect.opensolaris.org Open defect tracking
- hub.opensolaris.org Beta XWiki-based site
- jucr.opensolaris.org Package/spec file submission
- mail.opensolaris.org Mailing list management
- pkg.opensolaris.org Open source package repositories
- pkgfactory.opensolaris.org Automated collection/build/submission of FOSS to jucr.os.org
- poll.opensolaris.org Community voting
- repo.opensolaris.org Source code management console: Mercurial and Subversion
- rti.opensolaris.org Open request-to-integrate (RTI) tool under development
- src.opensolaris.org Source browser
- test.opensolaris.org Access to test farm
Site Changes Coming – NOW

- **New infrastructure architecture**
  - Addresses issues with original os.org portal application.
  - Enables continued site evolution.

- **New membership management system**
  - Membership management of community data: employee status, SCA on file, commit rights, etc.
  - Registration and single sign-on.
  - Localized into 18 languages.
  - Will enable code commits to be automatically checked against the new database before changes are accepted.
  - Supports current constitution. Flexible for future changes.

- **Wiki functionality**
Building a New Foundation

• Changes implemented in multiple phases
• At least three phases this summer
  - Phase 1: New database and membership management
    • http://auth.opensolaris.org
    • DONE – August 3rd
  - Phase 2: Migration of main site content to XWiki
    • http://hub.opensolaris.org
    • TARGET – Sept 14th
  - Phase 3: Details TBD.
    • Will involve migration & integration of remaining client apps to Auth and work on features not implemented in Phase 1 or 2 (bug database updates, lists/forums, etc).
Open Development
Open Development: 1

• Open Development Infrastructure
  – To enable the community to engage fully in development.
  – Multi-step, multi-year process to open tools, processes, and infrastructure: source code management, defect tracking, integration tools, source repositories.

• Source Repositories
  – Project Repositories:
    • 332 Mercurial
    • 67 Subversion
  – ON consolidation mirror repository.
  – Mercurial:
    • ON gate moved to Mercurial internally in Aug 08. Work on development tools and education continues.
Open Development: 2

- Open Development Infrastructure
  - Contribution Programs:
    - Investigating bug/fix-submission project to facilitate code contributions with direct community putbacks.
  - Defect Tracking: Reducing big barrier to participation.
    - bugs.opensolaris.org: Investigating new enhancements but will still not be true Bugster bridge.
    - defect.opensolaris.org: Evolve by upgrading Bugzilla, integrating with Auth and then investigating next steps.
    - 2,792 bugs via bugs.os.org. 1,886 via defect.os.org.
    - Working on information architecture to enable development tools to be agnostic regarding defect tracking systems.
Open Development: 3

- **Sponsor Program: Consolidations**
  - Preliminary code contribution process prior to SCM.
  - 192 contributors via sponsor program.
  - 827 contributions offered, 434 integrated.

- **Notable Community Contributions: Projects**
  - ksh93, Emancipation: significant contributions.
  - SPARC disassembler: first community re-implementation.
  - Czech: first translation of Solaris messages.
  - Auth: 17 language translations from G11N Community.
  - Mercurial, XWiki, Bugzilla: requirements & selection.
  - LatencyTOP project integrated from Intel.
  - New device driver integrated from Myricom.
  - DTrace and distro contributions: core code.

- **Surprise**
  - First contribution 3 days post launch, integrated 2 weeks later!
Sponsor Program Integrations 8/09

Total: 827
Awaiting Sponsor: 1%
In Progress: 13%
Integrated: 51%
Closed: 12%
Suspended: 23%
Sponsor Program Contributors 8/09

Total: 192 Contributors in Sponsor Program
Organizations Participating

- **AMD**: Code integrations and Project on site.
- **Intel**: Code integrations and multiple Projects on site.
- **Myricom**: Code integrations.
- **NEC**: Project on site.
- **NSA**: Project on site.
- **Ohio State University**: Code integrations.
- **Sine Nomine**: Project on site.
- **Songbird**: Project on site.
Contribute Right Now
GET IT NOW!

http://opensolaris.com/get/
OpenSolaris 2009.06

This is a product people use to get work done and a tool for organizers to build engineering communities.

- 3rd release, main project in the community.
- IPS and package manager improvements.
- SPARC support. Automated install.
- Networking improvements.
- More hardware/driver support.
- Desktop enhancements.
- New software repositories.
- Storage additions, developer tools.
- **Contribute Packages** [http://opensolaris.org/os/package/](http://opensolaris.org/os/package/).
Finally, Please Remember …
Your voice matters. Express it.
"In software, ideas are expressed in code. The implementation is the idea."

-- Bryan Cantrill

"Having your voice listened to is a privilege, not a right, and it's a privilege that's earned in proportion to the contribution level, not the volume level."

-- Alan Burlison
Quick OpenSolaris Resources

Community Organizing
http://blogs.sun.com/jimgris/entry/building_opensolaris_communities
http://blogs.sun.com/jimgris/entry/running_successful_opensolaris_user_groups
http://opensolaris.org/os/community/advocacy/usergroups/ug-leaders/
http://opensolaris.org/os/community/advocacy/newsletter/

Website Infrastructure: Code, Plans Discussions
http://opensolaris.org/os/about/roadmap/
http://opensolaris.org/os/community/web/
http://opensolaris.org/os/project/website/
website-discuss@opensolaris.org

Open Development
http://opensolaris.org/os/project/opendev/

Help
http://opensolaris.org/jive/forum.jspa?forumID=31

Download & Distros
http://opensolaris.org/os/downloads/

Contributing

Mailing Lists
http://mail.opensolaris.org/mailman/listinfo
Taiwan OpenSolaris User Group

- Website:  
  http://opensolaris.org/os/project/twosug/

- Mailing List & Jive Forum:  
  http://mail.opensolaris.org/mailman/listinfo/ug-twosug  
  http://opensolaris.org/jive/forum.jspa?forumID=228

- Contact:  
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That's it. Thank you!

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Credits: The content in this presentation comes from the OpenSolaris Open Development Team and the OpenSolaris community. The open development content was created in collaboration with Bonnie Corwin, Sr. Engineering Manager, OpenSolaris Open Development Team (http://blogs.sun.com/bjc/). Photo of Jiaotong University in Beijing, China by Jim Grisanzio. Photo of Japan by NASA.

Special thanks to Ben Wu of the Taiwan OpenSolaris User Group: http://opensolaris.org/os/project/twosug/.  
Special thanks to the conference organizers at COSCUP in Taiwan: http://coscup.org/2009/en/.

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