

openstack™

OpenStack Community

Welcome Guide

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Getting Started with the OpenStack Community

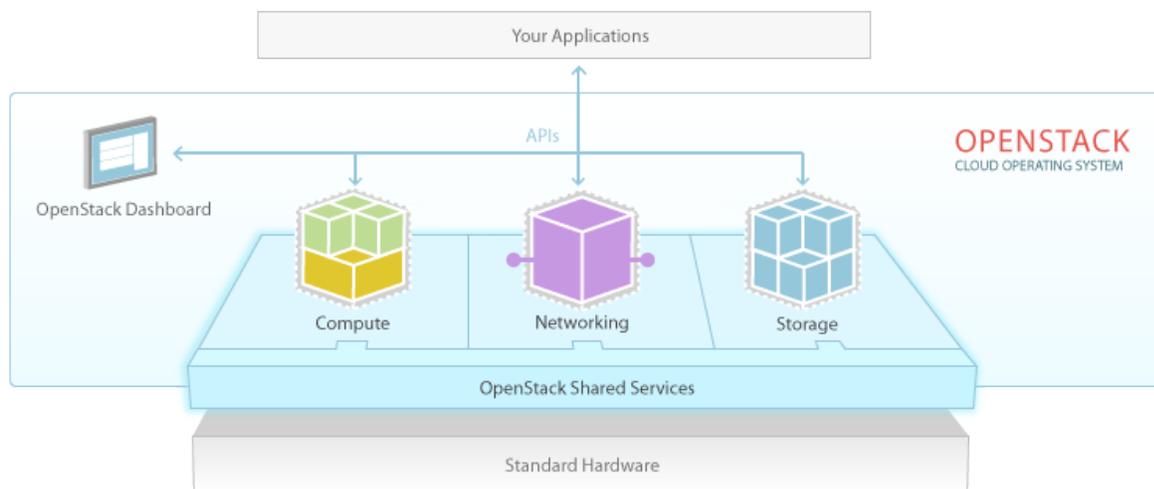
Welcome to the global OpenStack community, home of the leading open source cloud infrastructure solution. This document is meant for anyone interested in learning more about OpenStack, how the community operates, and where to go for the information you need. It is intended for new community members looking to get started, and as a way to quickly understand the development process and basic community “rules.”

If you need more information or have additional questions, please contact the community manager, Tom Fifield, at communitymgr@openstack.org.

What is OpenStack?

OpenStack is a cloud operating system that controls large pools of compute, storage, and networking resources throughout a datacenter, all managed through a dashboard that gives administrators control while empowering their users to provision resources through a web interface.

The OpenStack project is a global collaboration of developers and cloud computing technologists producing the open standard cloud computing platform for both public and private clouds. The project aims to deliver solutions for all types of clouds by being simple to implement, massively scalable, and feature rich. The technology consists of a series of [interrelated programs](#) delivering various components for a cloud infrastructure solution.



OpenStack Principles

- **Open development model:** All of the code for OpenStack is freely available under the Apache 2.0 license. Code reviews and roadmaps are public.

- **Open design process:** Every six months the development community holds a design summit to gather requirements and write specifications for the upcoming release. The summits are open to the public and attendees include users, developers, and upstream projects.
- **Open community:** OpenStack is dedicated to producing a healthy, vibrant, and active developer and user community. Most decisions will be made using a lazy consensus model. All processes are documented, open and transparent.

OpenStack Projects

The OpenStack project is organised around three major concepts (compute, storage, networking) and shared services.

- **OpenStack Compute:** Provision and manage large networks of virtual machines. Codename Nova.
- **OpenStack Storage:** Object storage (codename Swift) and Block storage (codename Cinder) for use with servers and applications.
- **OpenStack Networking:** Pluggable, scalable, API-driven network and IP management.

OpenStack has several shared services that span the three pillars of compute, storage and networking, making it easier to implement and operate your cloud. These services including **identity, image management**, a web interface and many more, integrate the OpenStack components with each other as well as external systems to provide a unified experience for users as they interact with different cloud resources. More details on <http://www.openstack.org/software>

Release Process

OpenStack is currently on a 6-month release cycle, which consists of four stages. Details on <http://docs.openstack.org/project-team-guide/release-management.html>

Planning

The Planning stage usually lasts 3 weeks and consists of discussion and feedback on what the next release will focus on. After deciding on the features, we write the corresponding specs on how to make them happen. The Design Summit usually takes place during the second week of the planning stage.

Design Summits

During the summit developers submit session ideas to discuss upcoming features for the next release cycle. These features get reviewed and scheduled by the summit drivers. The sessions are not formal presentations but rather open discussions on a given subject or feature. Summits happen every 6 months, in the spring and fall, so check the events listing for the next one. Details on <http://wiki.openstack.org/Summit>

Launchpad Blueprints

OpenStack uses Blueprints to track the design and implementation of significant features during the planning and implementation stages. Details on <https://wiki.openstack.org/wiki/Blueprints>

Implementation

The Implementation stage is split into a number of milestone iterations. The work in progress is published in a branch, which should then be proposed for merging when ready. Code is proposed several weeks before each milestone release date so that it can be reviewed in a timely manner.

QA

This is the testing phase. Testing, prioritizing bugs, and documentation are key parts of the QA phase. Only branches that fix bugs and do not introduce new features are allowed to enter the release branch.

Release

The Release Candidate period is typically several weeks before the actual Release Day. OpenStack releases are numbered using a YYYY.N time-based scheme. For example, the first release of 2015 will have the 2015.1 version number. During the development cycle, the release is identified using a codename. Those codenames are ordered alphabetically: Austin was the first release, Bexar is the second, Cactus the third Diablo, etc.

These codenames are chosen by popular vote among a pool of cities or counties near where the corresponding OpenStack design summit took place. An exception (called the *Waldon exception*) is granted to *elements of the state flag that sound especially cool*. More details on <http://governance.openstack.org/reference/release-naming.html>.

Governance

As of September 2012, the OpenStack project is governed by a number of bodies, defined by the OpenStack Foundation bylaws on <http://www.openstack.org/legal/bylaws-of-the-openstack-foundation/>

- Foundation board of directors
- Technical Committee
- User Committee

The OpenStack Foundation

The OpenStack Foundation promotes the development, distribution and adoption of the OpenStack cloud operating system. As the independent home for OpenStack, the Foundation is made of thousands of individual members from all over the world and hundreds of different organizations, secured more than USD 10 million in

funding and is ready to fulfill the OpenStack mission of becoming the ubiquitous cloud computing platform.

The goal of the OpenStack Foundation is **to serve developers, users, and the entire ecosystem by providing a set of shared resources to grow the footprint of public and private OpenStack clouds, enable technology vendors targeting the platform and assist developers in producing the best cloud software in the industry.**

Like the software, membership within the OpenStack Foundation is free and accessible to anyone. Members are expected to participate in the OpenStack community through technical contributions or community building efforts. Join the foundation on <https://www.openstack.org/join/>

The Foundation wouldn't be possible without the support of so many innovative companies that have contributed in many different ways. To learn more about our Platinum, Gold, Corporate Sponsors and other supporters, check out the supporter recognition page. More details on <http://www.openstack.org/foundation/>

OpenStack Community

OpenStack is a global community consisting of developers, corporations, service providers, researchers, and users.

OpenStack Developers

Launchpad ID (OpenID provider)

Launchpad is the official OpenID provider for most of the tools used for project management and development. Most people will need to have a Launchpad ID on <http://launchpad.net> to commit code, edit the wiki and other activities.

Licensing

If you are a developer that would like to contribute to one of the above core projects you will need to sign an *Individual Contributor License Agreement*.

If you are contributing on behalf of a company, an authorized representative of your company should also sign a *Corporate Contributor License Agreement*. You'll find the most up to date instructions on how to sign the agreements on <http://wiki.openstack.org/HowToContribute> (don't follow bookmarks from older instructions as they may reference to invalid processes).

Core Principles

Familiarize yourself with core OpenStack principles:

1. What "Open" means <http://wiki.openstack.org/Open>
2. Design tenets <http://wiki.openstack.org/BasicDesignTenets>

3. Coding standards <http://wiki.openstack.org/CodingStandards>
4. The release cycle <http://docs.openstack.org/project-team-guide/release-management.html>
5. The OpenStack branch model <http://wiki.openstack.org/BranchModel>

Get the Code

OpenStack manages source code in git using a code review tool called Gerrit. The workflow for working with Gerrit is described at <http://docs.openstack.org/infra/manual/developers.html> . Git repositories are mirrored to Github for ease of fetching, but pull requests are not accepted there. Instead use the Gerrit Workflow.

To get a copy of any of the other OpenStack projects, you can look at the Github [OpenStack organization](#) and browse, or you can clone a repo. More details on <http://wiki.openstack.org/GettingTheCode>

Bugs

Bugs can be a good place to get your coding feet wet. The bugs confirmed and triaged that should be simple to tackle are tagged 'low hanging fruit' <https://bugs.launchpad.net/openstack/+bugs?field.tag=low-hanging-fruit>

Other good resources for developers

- Development Mailing List: <http://lists.openstack.org/cgi-bin/mailman/listinfo/openstack-dev>
- IRC
[#openstack on Freenode Pop In](#) (via browser client)
- Meetings <http://wiki.openstack.org/Meetings>
Project meetings are held publicly on IRC.

Documentation

- [Getting Started](#) Get up and running quickly with [DevStack](#) or [TryStack](#) <http://www.openstack.org/software/start/>
- [Installing and running OpenStack](#) Installation, Configuration and Deployment guides for production-sized systems and how to use them <http://docs.openstack.org>
- [Operations Guide](#) Architectural planning and operations guide OpenStack cloud service providers <http://docs.openstack.org/ops>
- [Security Guide](#) An overview of security best practices, guidelines, and recommendations for increasing the security of an OpenStack deployment <http://docs.openstack.org/sec/>

- [Developing OpenStack](#) Python developer documentation, continuous integration documentation, and language bindings documentation for OpenStack projects <http://docs.openstack.org/developer>
- [SDKs](#) Resources for application development on private and public OpenStack clouds. <http://developer.openstack.org/>
- [API](#) Documentation on the RESTful APIs provided by OpenStack services <http://developer.openstack.org/api-ref.html>
- [Glossary](#) A list of terms and their definitions <http://docs.openstack.org/glossary/content/glossary.html>

Contribute to Documentation

At the core of OpenStack is the community and collaboration that we do - the same rules for the code apply to documentation too. Ideally any code contribution that is merged into the base has documentation to go with it. The page <http://docs.openstack.org/contributor-guide> describes the methods we use to create the basis for world-class documentation for OpenStack developers and users.

OpenStack Ecosystem

A robust ecosystem is essential to OpenStack's success. There are several ways you or your organisation can join this growing and vibrant ecosystem.

Individual Member of the Foundation

Any person can join the OpenStack Foundation for free. Individual Members:

1. Get active in the OpenStack community as a user, developer, business person, art maker, or however you want to contribute
2. Run for an elected position such as Project Technical Lead for projects you contribute to, Technical Committee Member, or Foundation Board of Directors Member
3. Vote in elections such as for the Board of Directors
4. Stay informed of the latest OpenStack news through member updates

Become a Supporting Organisation

Fill out [the form](#) and send your logo to supporterlogos@openstack.org to have it listed on our website.

Sponsor the OpenStack Foundation

Organizations can apply to become new **Gold Members**, and will become Members *subject to board approval*. Learn more on <http://openstack.org/join>

Companies can also choose to become Corporate Sponsor of the Foundation with two sponsorship levels

Corporate Sponsor (Start Up)

A “Start Up” is defined as “in business less than 2 years and less than 5 million revenue”. The quota for is set to \$10k/year and grants:

- Access to OpenStack restricted use logos for commercial use if and as long as product meets technical requirements (your support helps the foundation promote and protect the OpenStack brand)
- Designation as Startup sponsor with corporate logo placement in supporters section of openstack.org
- Profile on openstack.org detailing your organization's support for OpenStack, with a link to your site
- Early access to sponsorship opportunities, like OpenStack Design Summit & Conference
- OpenStack Startup Sponsor badge available for corporate website or marketing material
- Opportunity to be included in OpenStack newsletter

Corporate Sponsor (Established Company)

For companies that are not “Start Up” the quota is set to \$25k/year and grants:

- Access to OpenStack restricted use logos for commercial use if and as long as product meets technical requirements (your support helps the foundation promote and protect the OpenStack brand)
- Designation as Corporate sponsor with corporate logo placement in supporters section of openstack.org
- Profile on openstack.org detailing your organization's support for OpenStack, with link to your site
- Early access to sponsorship opportunities, like OpenStack Design Summit & Conference, before non-sponsors
- OpenStack Corporate Sponsor badge available for corporate website or marketing materials
- Opportunity to be included in OpenStack newsletter

OpenStack User Groups

OpenStack users from around the world are creating local OpenStack User Groups to promote the open source project and their associated technologies. Find your local group at <https://groups.openstack.org>.

If there is no group in your area and you are interested in establishing a user group in your area, please join the International Community mailing list on <http://lists.openstack.org/cgi-bin/mailman/listinfo/community>

Other useful tools

Questions and Answers ([ask.OpenStack.org](https://ask.openstack.org))

The place where people can ask questions and give answers about OpenStack deployments, operations and development <https://ask.openstack.org>.

Wiki

A lot of good information on getting started with OpenStack core projects can be found in the wiki. The search function in the upper right hand corner of the wiki is very powerful and is searchable by both title and by content.

<http://wiki.openstack.org/>

Bug Reporting

The OpenStack community appreciates testers and their feedback. To report a bug you must first sign up for a Launchpad account.

Check that the bug you found has not already been reported by searching the Launchpad bugs list: <https://bugs.launchpad.net/openstack/+bugs?orderby=-importance&field.status:list=CONFIRMED&field.status:list=TRIAGED>

If you found a new bug, fill out a bug report:

- Give a clear, concise summary
- Provide as much detail as possible in the description. Paste in your command output or stack traces, link to screenshots, etc.
- Be sure to include what version of the software you are using. This is especially critical if you are using a development branch. Example: "*Austin release*" vs *lp:nova rev.396*.
- Any deployment specific info is helpful as well. Example: *Ubuntu 14.04, multi-node install*.

Keeping in touch

- Twitter: [@openstack](https://twitter.com/openstack)
- The OpenStack Blog: <http://www.openstack.org/blog/>
- A blog aggregated from developers and other key players of OpenStack projects: <http://planet.openstack.org/>
- [Internet Relay Chat](#) (IRC) is where developers hold real-time discussions on various projects. Public meetings are also held on IRC. Channel [#openstack on Freenode](#) (<http://webchat.freenode.net> via browser client)
- Official YouTube Channel with videos from conferences and other interesting material: <http://www.youtube.com/openstackfoundation>
- If you have any questions about OpenStack, and haven't been able to find answers elsewhere, try one of these knowledgeable people: <http://wiki.openstack.org/Contact>

Mailing Lists

The project runs many mailing lists. The most important ones are:

- **General list** You should join this list when you start to know OpenStack. Request for help and community announcements are allowed on this list. Its rate can be up to 100 messages per day.
http://wiki.openstack.org/MailingLists#General_List
- **Development list** This list for the *developers* of OpenStack to discuss development issues and roadmap. It is focused on the next release of OpenStack: you should post on this list if you are a contributor to OpenStack or are very familiar with OpenStack development and want to discuss very precise topics, contribution ideas and similar. Do not ask support requests on this list. http://wiki.openstack.org/MailingLists#Development_List
- **Operators** This is a specific list for existing OpenStack cloud operators. It is a forum to exchange best practices around operating an OpenStack installation at scale. You can ask for support on this list.
<http://wiki.openstack.org/MailingLists#Operators>

OpenStack Events

OpenStack Summits take place every 6 months. OpenStack also participates in many cloud and open source conferences throughout the year.

If you are planning an OpenStack event or meet up and you would like it added to the events page <http://openstack.org/community/events/> please email your event information to events@openstack.org.