OpenNMS Community
Welcome Guide

Revision: 0.1

Contents

1 Getting Started with the OpenNMS Community

Welcome to the *OpenNMS community* - the place of the worlds first enterprise network management platform developed under the open source model. This document is meant for anyone interested in learning about *OpenNMS*. It is intended for new community members and give information you are looking for to get started. In this document you will also find the way how the development process works, which kind of people are involved and the basic "rules" of our community. If you have additional questions, please contact our mailing list `opennms-discuss@lists.sourceforge.net`. You can subscribe the list on `https://lists.sourceforge.net/lists/listinfo/opennms-discuss`

2 What is OpenNMS?

OpenNMS is a network management platform to give you the ability to solve problems in the FCAPS[1] categories. The application gives you access to the management data through a web interface. The *OpenNMS* project is a collaboration of developers and network management specialists around the world, to produce an open standard for a network management platform. The project aims to deliver a solution for all types of network management issues, massively scalable and feature rich. The technology consists of a series of interrelated programs delivering various components for a cloud infrastructure solution.
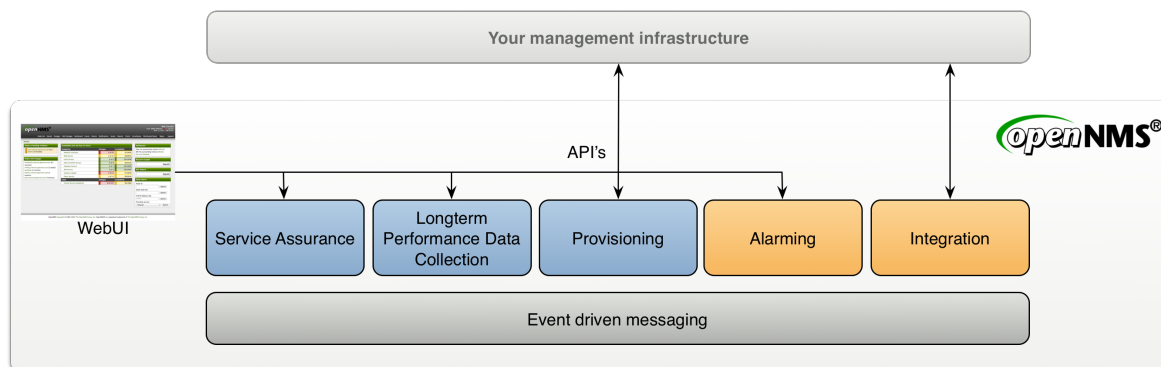
Figure 2.1: OpenNMS parts and principles

The platform of *OpenNMS* today provides a platform for long term performance data collection, service assurance and integration points for your management infrastructure.

2.1 OpenNMS Principles

- Open development model: All of the code of *OpenNMS* is freely available under GNU Public License Version 3[2].

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[1] ISO Telecommunications Management Network model and framework for Fault, Configuration, Accounting, Performance and Security categories

[2] GPLv3 license: `http://www.gnu.org/copyleft/gpl.html`

- Open development process: Every year the development community holds a developers conference to gather requirements and write specifications for the upcoming release.

- Open community: *OpenNMS* is dedicated to producing a healthy, vibrant, and active developer and user community. Most decisions will be made using a lazy consensus model.

2.2 OpenNMS Projects

Network management has many different aspects of integration. Developing integration on configuration management databases or integrate vendor specific management architectures. Otherwise there are also technology specific topics, like different strategies to store and use time series data. All these different integrations projects are developed in the public git repository hosted on `https://www.github.com/opennms`.

2.3 Release Process

OpenNMS is currently on a **???-month** release cycle, which consists of **x-many** stages. Details on `http://www.opennms.org/ReleaseCycle`.

2.3.1 Planning

Do we have a kind of a planning phase to decide which of the features come into a next release? Discussion, feedback to focus on the next release and lightweight spec writing.

2.3.2 Developers Conference

The OpenNMS Group, Inc. sponsors every year a developers conference - *DevJam*. This conference brings all core developers, community members to work together on the project. The conference is also used to discuss concepts around the project. We track *DevJam* topics in our wiki which can be found on `http://www.opennms.org/wiki/Dev-Jam`.

2.3.3 JIRA

OpenNMS uses *Atlassian JIRA* to track issues and for development planning. The development follows the agile *Scrum* development process. Features are described as stories and will be developed in sprints. Details how we use *JIRA* for the development process is documented in `http://www.opennms.org/wiki/???`

2.3.4 Implementation

The Implementation stage is split into a number of milestone iterations. The work in progress is published in a feature 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. Is it that way?!

2.3.5 Quality Assurance

For quality assurance we use *Atlassian Bamboo* as continuous integration system[3]. It is publicly available on `http://bamboo.internal.opennms.com:8085`. *Bamboo* compiles and runs tests for feature- and master branches. Additional we use *SonarQube*[4] for statistic code analysis. `Where-is-the-URL-to-Sonar-I-dont-know?!`. There are also branches intended to fix bugs and do not introduce new features. This branches are named after the *JIRA* issue followed the pattern NMS-{issue-number}. Builds are automatically triggered with committing to a feature- or master branch.

2.3.6 Release

Before an stable version is released, we have a release candidate freeze (RCF). This happens a **x-days/weeks/months** before an actual **Release Day - do we have one?!**. *OpenNMS* releases are numbered using the **YYYY.N time based scheme (our detailed scheme here, I have seen we changed with Bamboo our release scheme a bit.)**. For example, **an example follows here**. The release is identified using a codename. Code names are **Is there a pattern for our code names? Code names are chosen by people in the IRC channel or whatever :) More details on** `https://www.opennms.org/wiki/Release_Naming???`.

2.4 Governance

The *OpenNMS* project is governed by **your group here - OGPs + OpenNMS Group?!**. **Some ideas how OpenStack organized it, Foundation board of directors, technical committee, user comittee and a wiki page** `http://wiki.openstack.org/Governance/Foundation/Bylaws`

3 The OpenNMS Foundation

The *OpenNMS Foundation Europe e.V. (OFE)* promotes the development, usage and adoption of the network management platform *OpenNMS*. As the independent place for *OpenNMS*. The *OFE* organizes conferences and trainings and acts as an advocate for free open source

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[3]Open Source Licensed, https://www.atlassian.com/software/bamboo
[4]SonarQube website: `http://www.sonarqube.org/`

software. The *OFE* initiates software development and studies which are made available to the public under the *GPL* or a suitable successor. The goal of the *OFE* is to build and establish an ecosystem by providing a set of shared resources, provide a place for users to share, enable technology vendors targeting the platform, assist developers to build the best free network management platform in the industry. The statues of the foundation can be found in `http://www.opennms.eu/statutes/` (in German). You can join the foundation on `http://www.opennms.eu/membership/`. Members are expected to participate in the *OpenNMS* community through technical contributions or community building efforts.

4 OpenNMS Community

In *OpenNMS* we have a global community consisting of developers, corporations, service providers, researchers and users.

4.1 OpenNMS Developers

4.1.1 JIRA ID

Atlassian JIRA is the "home" for the project management and its developers: create a *JIRA ID* on `http://issues.opennms.org/secure/Signup!default.jspa` if you don't have one already. You'll need it to report bugs, issues or enhancements.

4.1.2 Licensing

If you are a developer that would like to contribute to the OpenNMS project you will need to sign the *OpenNMS Contributor Agreement (OCA)*. If you are contributing on behalf of a company, an authorized representative of your company should also sign the *OCA*. You find the instructions and the agreement on `http://www.opennms.org/wiki/Contributor_Agreement`.

4.1.3 Core Principles

Familiarize yourself with *OpenNMS* 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://wiki.openstack.org/ReleaseCycle`

5. **The OpenStack branch model** `http://wiki.openstack.org/BranchModel`

4.1.4 Get the Code

The source code is hosted on *GitHub* on `https://github.com/opennms`. Code contributions can be merged into *OpenNMS* with *pull requests*. The workflow to get your source code into *OpenNMS* is shown in picture 4.1 on page 12.

4.1.5 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` **- THIS IS NICE**

4.1.6 Other good resources for developers

- Development Mailing List: `https://lists.sourceforge.net/lists/listinfo/opennms-devel`

- IRC #opennms on Freenode `http://webchat.freenode.net/`

- **Project meetings held publicly on IRC, Google Hangouts, other ideas?!**

4.2 Documentation

- Getting Started Get up and running quickly with *OpenNMS* you can use *VirtualBox*[5] and *Vagrant*[6] which is documented on `http://www.opennms.org/wiki/OpenNMS_and_Vagrant_with_VirtualBox`.

- Install on *OpenNMS* on *Debian/Ubuntu* is documented on `http://www.opennms.org/wiki/Installation:Debian`

- Install on *OpenNMS* based systems on *CentOS/RedHat* is documented on `http://www.opennms.org/wiki/Installation:Yum`

- General installation documentation can be found on `http://www.opennms.org/documentation/installguide.html`

- **LINK to operational documentation**

- **LINK to developer documentation**

- **LINK to API documentation on the *RESTful APIs* provided by *OpenNMS***

- **Link to glossary with a list of terms and their definition**

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[5]VirtualBox web site: `https://www.virtualbox.org/`

[6]Vagrant web site:`http://www.vagrantup.com/`

4.2.1 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. Anne Gentle is the coordinator for all documentation efforts, both community-based and "official" docs. The page `http://wiki.openstack.org/Documentation/HowTo` describes the methods we use to create the basis for world-class documentation for OpenStack developers and users. A GUESS WE DONT HAVE SOMETHING

4.3 OpenNMS Ecosystem

A robust ecosystem is essential to *OpenNMS's* success. There are several ways your company can join this growing and vibrant ecosystem.

4.3.1 Sponsor the OpenNMS Foundation

Organizations can apply to become new members. You can join as an individual or as a company member. Details on the membership can be found on `http://www.opennms.eu/membership`.

4.3.2 Individual Member of the Foundation

Any person can join the *OFE*. As an individual member you can get active in the *OpenNMS* community as a user, developer, business person, art maker, or however you want to contribute.

4.4 Other userful tools

4.4.1 Questions and Answers (ask.opennms.eu)

The place where people can ask questions and give answers about *OpenNMS* deployments, operations and development `http://ask.opennms.eu`.

4.4.2 Wiki

A lot of good information on getting started with *OpenNMS* project 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. The wiki entry is can be found on `http://www.opennms.org/wiki/Main_Page`. In the left navigation you can find also links to official documentation, white papers and FAQs.

4.4.3 Bug Reporting

The *OpenNMS* community appreciates testers and their feedback. To report a bug you must first sign up for a *JIRA* account. Check that the bug you found has not already been reported by searching *JIRAs* bugs list: `http://issues.opennms.org/issues?jql=project%20%3D%20NMS%20AND%20issuetype%20%3D%20Bug`

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 or unstable branch.

- Information about your Java environment which is used by OpenNMS. You can find it in the configuration `java.conf` in your OpenNMS configuration directory and by running `java -version`

- Any deployment specific info is helpful as well. Example: Ubuntu 10.04, which version of PostgreSQL, JRobin, RRDtool, store-by-group- or store-by-foreignsource settings.

4.4.4 Keeping in touch

- Twitter: @opennms

- Blogs of users and developers: `http://planet.opennms.org/`

- Internet Relay Chat (IRC) is where developers hold real-time discussions. Channel #openstack on Freenode (`http://webchat.freenode.net` via browser client)

- YouTube Channel with videos from conferences:
  `http://www.youtube.com/user/opennms`

- Last conference material and slide from OUCE 2013:
  `http://ouce.opennms.eu/en/ouce2013/public/events`

4.4.5 Mailing Lists

The project runs many mailing lists. All our important mailing list can be found on the wiki page `http://www.opennms.org/wiki/Mailing_lists`. The most used traffic is on the lists *opennms-discuss*, *opennms-install* and *opennms-devel*. The list *opennms-announce* is mentioned to be a low traffic list.

The OpenNMS Group, Inc.

The OpenNMS Group, Inc. is the biggest sponsor to the project. The software itself is licensed under GPLv3+. The company *The OpenNMS Group, Inc.* provides professional support and gives people a place who want to spend significant time of their life to the project. Code development in commercial environment is reflected as a code contribution to the free software project. Beside code contribution there are other topics like packaging and continuos integration which is also provided publicly to the project.

Order of the Green Polo

The super secret brotherhood (OGP) and developers of the *OpenNMS Project*. You can recognize and *OGP* member by their good looks as well as their super-flashy, very coveted *OpenNMS Green Polo*. As Tarus Balog said:

> Back in fall of 2004, I wanted to find a way to recognize those people who make *OpenNMS* what it is, and to thank them in some fashion. Ever since the advent of "business casual" workplace attire, the "logo" polo shirt has become a fixture in IT departments around the world. We sell black and white polos with the *OpenNMS* logo on our web site.

> But this is much, much, much, different. These are "green" polos, very rare, and they will never be available for sale. Think of them as equivalent to winning *The Masters* golf tournament's green jacket - only harder to get. In order to get one, all one has to do is give up all hope of having a life outside of *OpenNMS*, work long hours for free, and basically become a closed superhero, squashing bugs (or uncovering existence) in a single bound.

OpenNMS Foundation Europe

The *OpenNMS Foundation Europe e.V.* (OFE) was founded in July 31st. OFE is a registered non-profit organization in Germany. The objective of the organization is to promote, develop, educate and research around free software and network (management) technologies, especially *OpenNMS*. To do this, the *OFE* organizes the OpenNMS User Conference Europe (OUCE) running by foundation members and volunteers. The OFE web site with links to material of the conference can be found under `http://www.opennms.eu`.

5 OpenNMS Events

6 OpenNMS Wiki Layout

6.1 Starting page

6.2 Recent Changes

6.3 Find Page

6.4 Help Contents

You decided to
improve code -
AWESOME!

Account on
Github? — no → Create an github
account

yes

Sign the OCA

fork OpenNMS in your
github repository

Checkout and create your
working branch

Type of
code — patch fixing
a bug → Create issue or add
comment to an existing
JIRA issue

enhancement with
new functionality

Create wiki page describe
your feature

Create your awesome
topic branch

Create JUnit tests

Make your commits
fast-forwardable

git pull request

Code review with OGP

Merge into
`staging-branch`
for Continious Integration

Bamboo
build — failed → fix bugs or failed tests

successful

Guarded master

merge to OpenNMS master and ready to be
planned into stable release cycle

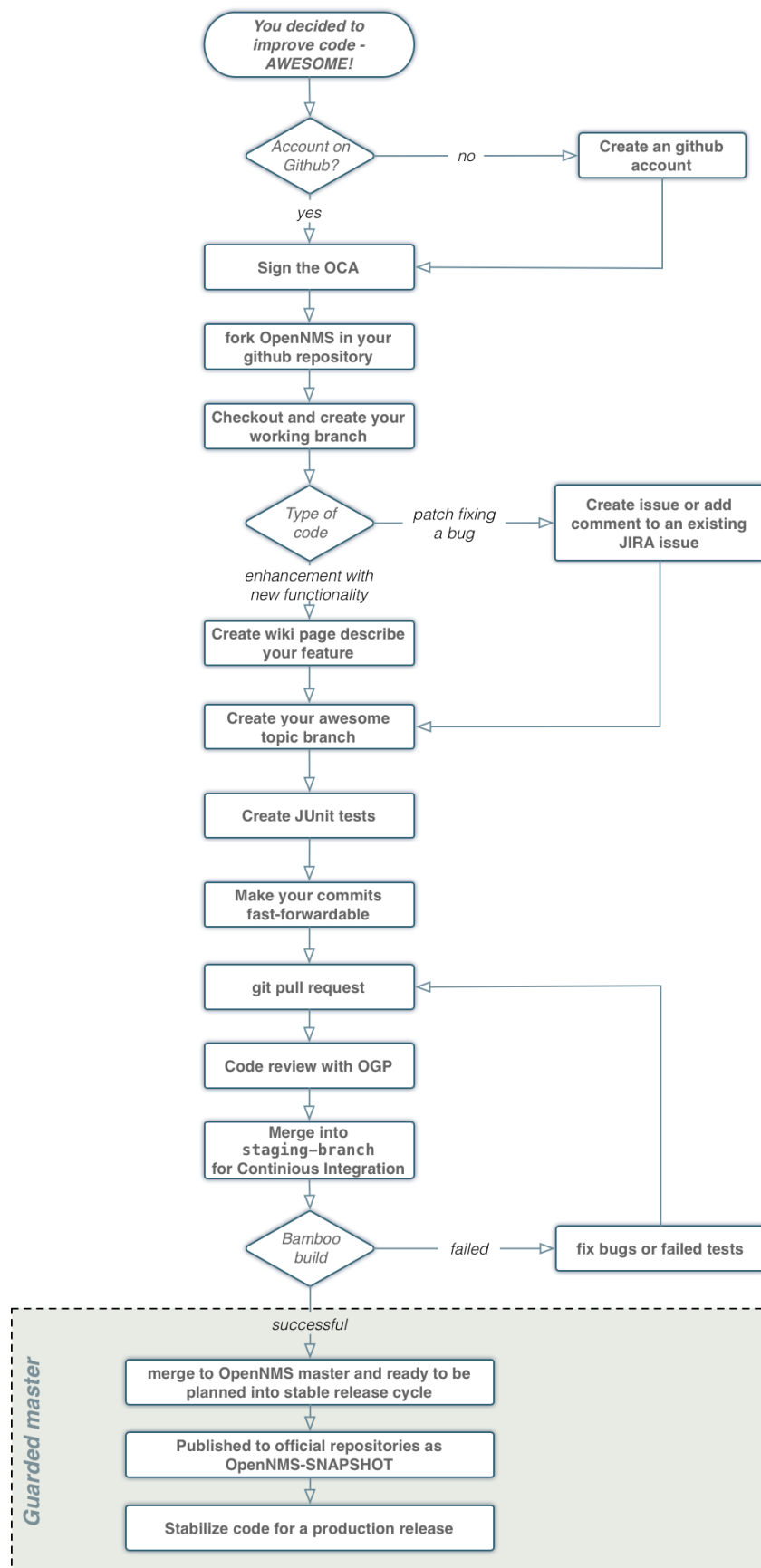Published to official repositories as
OpenNMS-SNAPSHOT

Stabilize code for a production release

Figure 4.1: Workflow for code contribution

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