



From Monitoring to DevOps: 10+ years
OSS community building

Michael's story and best practices



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Developer Evangelist



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GitLab

Agenda



- Git init
- Source?
- Joining a community
- Heroes together
- Team work
- Iterate
- Everyone Can Contribute
- Beyond code
- DevOps community culture



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git init





- 1983: git init
- 1995: Turbo-boost from 33 to 66 Mhz
- 1999: What's inside a computer?
- 2002: Hardware/Software Systems Engineering in Hagenberg
- 2005: Not so much hardware, more software: NFC at mobilkom Austria in Vienna
- 2006: Multimedia streaming on Linux
- 2009: DNS development. Monitoring. Open Source @ UniVie ZID
- 2012: Travel the world, from Vienna to Nuremberg
- 2016: Community builder & trainer
- 2019: From Monitoring to DevOps. 10y Open Source maintainer.
- 2020: First time all-remote at GitLab



- This is my personal Open Source story
- Nagios, Icinga, Monitoring inside
- GitLab is included
 - ~2018
 - More DevOps since March 2020
- <https://dnsmichi.at/about/>



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Source?





- Joined University of Vienna in March 2009
- DNS Development
- Cross-team meeting - Monitoring
 - Past team member developed Nagios Oracle adapter
 - “Oh, I know Nagios. Used that in the Students dorm.”
- Earned myself a new project 😏



- Written in C
- Linux daemon
 - Learned development on Windows ;)
 - fork() and waitpid() - uhm?
- Configuration
- Backends
 - File based
 - MySQL
- Frontend
 - Printf HTML CGIs in C



- Mailing lists
 - -users, -devel
- IRC (unofficial)
- SCM: CVS
- Issue tracker: Mantis BT
- Who is the maintainer?
 - Single person
 - Blocked, no progress



- Forum based on Woltlab (unofficial)
- Events and meetups
 - Open Source Monitoring Conference
- Planned and announced a fork of Nagios
 - Icinga
- Get in touch, asked how to contribute



- Icinga changed from CVS to Git in May 2009
- Problem
 - Michael needs to learn Git
 - Maintainer fixes master branch after Michael force pushed
- Issue tracker
 - Redmine - new experience
 - No labels - milestones
 - No templates



- Learn Oracle
 - `last_insert_id()` vs. sequences
 - `INSERT ON DUPLICATE KEY UPDATE?` (upsert)
- Learn PostgreSQL (easier - haha, no)
 - Added in autumn 2009
 - Reason why NASA deployed Icinga on the ISS
- Document every step in a wiki
- Build new Monitoring releases
- Learn RPM packaging



- Nagios started in 1999, 10 years history
- Config parser
 - xodtemplate.c - 10,000 LoC
 - add_host() has 56 parameters
- Community support
 - Help users to learn features
 - Debug problems reported
- Send patches back upstream to Nagios
 - Found myself banned being a fork maintainer



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Joining a community






- I was snarky at first
- I assumed users did not read the docs, and told them so
- Explaining things resulted in being seen as arrogant teacher
- Mixing German and English is toxic for existing communities
- Bringing a new project / fork forward
 - Responsive on the forum
 - Fast issue responses
 - Developer AND community supporter = burnout



- Reach out in private when
 - Public discussions getting rough
 - Someone's feelings may be hurt
- Engage and push users who come back
- Give users a voice and influence the project roadmap
- Be open for changes
- Transparency on decisions

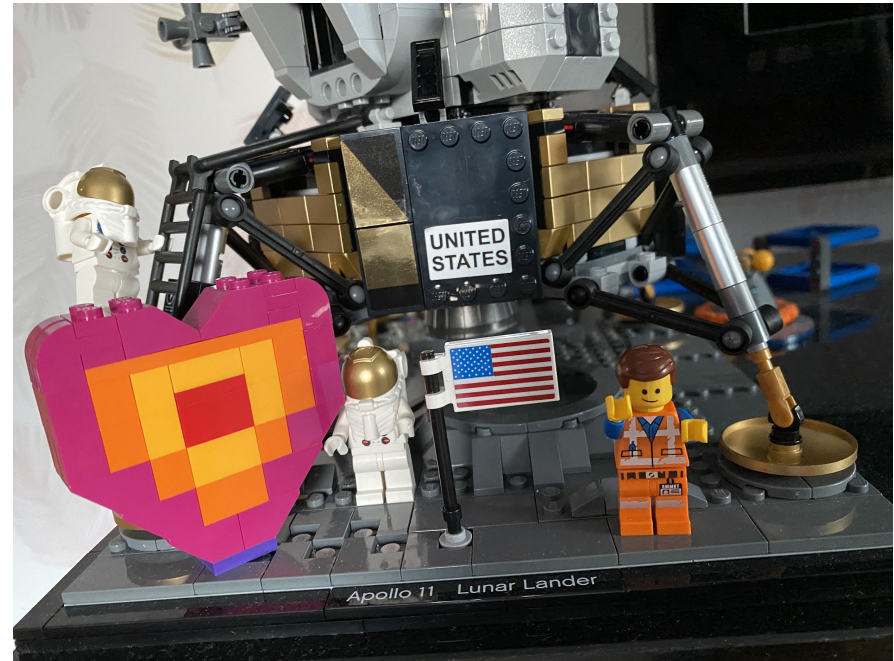


- Self-managed Git server
 - Needs admin access to create repos
 - Roles and permission management has no “self-service”
 - Custom self service implementation?
- GitLab, GitHub, Bitbucket, etc.
 - Online collaboration suite
 - Groups & organizations as permission model
 - “Self-Service in place”
- Automated tests with CI/CD 



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Heroes together





- You fixing the bug is great
- Seek for appreciation and feedback
 - You'll get appreciation when you cheer to users
 - Provide guidance on Git, rebase, debugging the problem
 - Be kind
- Make it easy to contribute
- Help resolve blockers in reviews and issues
- Join the conversation




- Give users a platform
 - Self-service: Marketplace of plugins, addons, integrations
 - Curated blog posts with guest authors
- Highlight contributions
 - Your talks
 - Social media
 - Friends & customers



Share best practices



- Issue templates, Labels, READMEs - send PRs/MRs
- Opening a project - the first impression counts


 **dnsmichi** commented on 20 Apr 2017 Collaborator


Wanted to provide that a while ago.

Added tables for config settings, corrected their names. Better formatting, including a TOC and screenshots which help users to see what's going on here. Further improved the installation list by adding examples on how to do it. Also reverse engineered the local graph settings graph.ini file.

I've added 4 screenshots but only enabled 2 of them. Those are extracted from <https://monitoring-portal.org/index.php?thread/39830-grafana-module/>


👍 1

 Enhance the documentation, add screenshots cc7e73d

 **Mikesch-mp** merged commit fe9ed7b into Mikesch-mp:master on 20 Apr 2017 Revert

 **Mikesch-mp** commented on 20 Apr 2017 Owner

Tausend Dank für Deinen PR. Ich bin leider kein großer Doku Schreiberling :)

 **dnsmichi** commented on 20 Apr 2017 Collaborator Author

You're welcome. You now have a good base for enhancements, and it looks good too :-)

👍 1

Mikesch-mp / icingaweb2-module-grafana

Enhance the documentation, add screenshots #27

Mikesch-mp merged 1 commit into Mikesch-mp:master from dnsmichi:feature/enhance-docs on 20 Apr 2017

Files changed 6

```
... .. @@ -1,78 +1,97 @@
1 - # Grafana module for Icinga Web 2
2 + # Grafana module for Icinga Web 2
3
4 - ## General Information
5 + ## Table of Contents
6
7 - Insert Grafana graphs into Icinga Web 2 to display performance metrics.
8 + 1. [About](#about)
9 + 2. [Requirements](#requirements)
10 + 3. [Installation](#installation)
11 + 4. [Configuration](#configuration)
12 + 5. [FAQ](#faq)
13 + 6. [Thanks](#thanks)
14
15 - ## Requirements
16
17 - Icinga Web 2 (>= 2.4.0)
18 + ## About
19 +
20 + Add Grafana graphs into Icinga Web 2 to display performance metrics.
21
22 - Grafana (>= 4.1)
23 + [Icinga Web 2 Grafana Integration](doc/images/icingaweb2_grafana_screenshot_01.png "Grafana")
24 + [Icinga Web 2 Grafana Integration](doc/images/icingaweb2_grafana_screenshot_02.png "Grafana")
25 +
26 + ## Requirements
27
28 - InfluxDB, Graphite and PHP(untested)
29 + [Icinga Web 2](https://www.icinga.com/products/icinga-web-2/) (>= 2.4.0)
30 + [Grafana](https://grafana.com/) (>= 4.1)
31 + [InfluxDB](https://docs.influxdata.com/influxdb/), [Graphite](https://graphiteapp.org) or [PHP](https://docs.php-nagios.org/) (untested) as backend for Grafana
```

Share best practices - become a mentor



Proposal: Issue Milestones, Labels, Styleguide, Contributing, Changelog #34

Edit New issue

Closed dnmichi opened this issue on 23 Apr 2017 · 3 comments



dnmichi commented on 23 Apr 2017 · edited · Collaborator

Your module is becoming quite popular, and since I've started to add my PRs too, I just wanted to suggest certain organizational things:

Milestones

- use milestones as target versions for resolved issues and PRs (<https://github.com/Mikesch-mp/icingaweb2-module-grafana/milestones>)
- use these milestones to tag/create releases

Labels

- Assign enhancement/bug labels to newly created issues (you as the owner can do it, but no-one else)
- Add more labels and coloring (e.g. Grafana, Graphite, InfluxDB, Configuration, Documentation) to selectively view and organize issues.

Styleguide

I'd suggest to apply the same code style guide as known from Icinga Web 2. Such a thing could be implemented into Travis-CI tests which are checked on each PR too.

Contributing

Add a CONTRIBUTING.md file which explains contributions and PRs. We've recently started to apply this to Icinga 2, might be worthwhile to do the same (this also involves uses milestones for the roadmap).
<https://github.com/icinga/icinga2/blob/master/CONTRIBUTING.md>

Changelog

Once you've settled issues with milestones, you can automatically generate a CHANGELOG.md file from that. Follow these instructions: <https://github.com/icinga/puppet-icinga2/blob/master/RELEASE.md#2-changelog>

Assignees

Mikesch-mp

Labels

enhancement

Projects

None yet

Milestone

No milestone

Linked pull requests

Successfully merging a pull request may close this issue.

None yet

Notifications

Customize

Unsubscribe

You're receiving notifications because you modified the open/close state.

2 participants



Lock conversation

Pin issue

Transfer issue

Mikesch-mp / icingaweb2-module-grafana

Code Issues 37 Pull requests 4 Actions Projects Security Insights

Add GitHub issue template #73

Mikesch-mp merged 1 commit into Mikesch-mp:master from dnmichi:feature/github-issue-template on 5 Jun 2017

Conversation Commits Checks Files changed

Changes from all commits File filter Jump to

```
... 00 -R- 1,47 80
1  * <!-- Provide a general summary of the issue in the title above -->
2  *
3  * <!-- Formatting tips:
4  *
5  * GitHub supports Markdown: https://guides.github.com/features/markdown/
6  * Multi-line code blocks either with three back ticks, or four space indent.
7  *
8  * ...
9  *
10 * Stacktrace ...
11 * <!--line-->
12 * <!--line-->
13 * ...
14 * <!--
15 *
16 * ## Expected Behavior
17 * <!-- If you're describing a bug, tell us what should happen -->
18 * <!-- If you're suggesting a change/improvement, tell us how it should work -->
19 *
20 * ## Current Behavior
21 * <!-- If describing a bug, tell us what happens instead of the expected behavior -->
22 * <!-- If suggesting a change/improvement, explain the difference from current behavior -->
23 *
24 * ## Possible Solution
25 * <!-- Not obligatory, but suggest a fix/reason for the bug, -->
26 * <!-- or ideas how to implement the addition or change -->
27 *
28 * ## Steps to Reproduce (for bugs)
29 * <!-- Provide a link to a live example, or an unambiguous set of steps to -->
30 * <!-- reproduce this bug. Include configuration, logs, etc. to reproduce, if relevant -->
31 * 1.
32 * ...
```

Mikesch-mp self-assigned this on 23 Apr 2017



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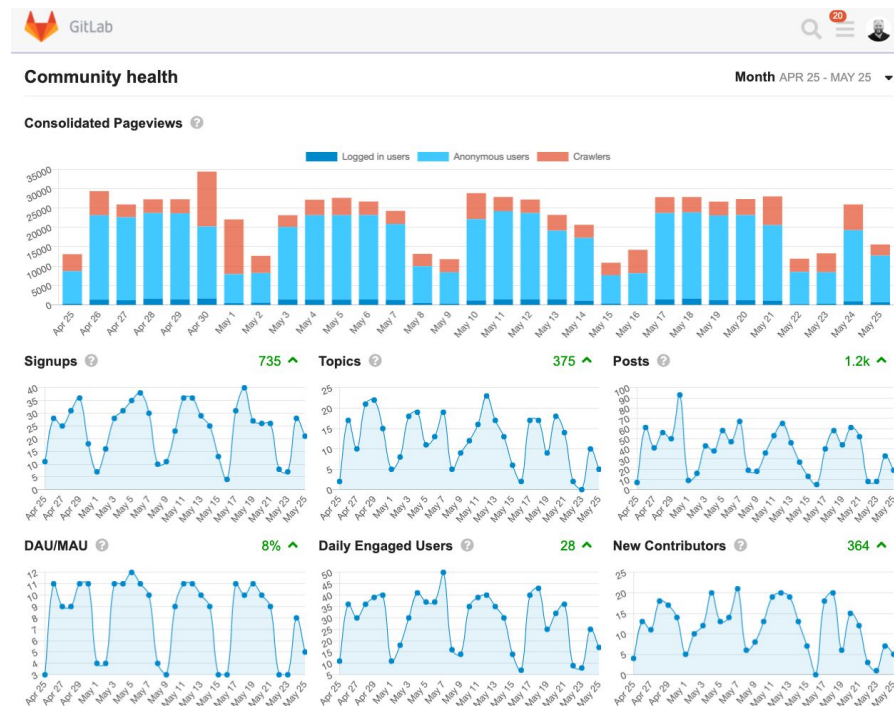
Team work



Make it easy to contribute



- Discourse as async discussion platform
 - Replace mailing lists
 - Replace QA issue trackers
 - Replace IRC
- Migrate from self-hosted Git
- CI/CD run for every contribution
- CONTRIBUTING.md
 - Mini Git tutorial with rebase





- Number of PR/MR
 - Code
 - Discussions
- Contributor count
- Release downloads
- Forum engagements
- Social shares
- Events & meetups highlighting your project



- Milestones and boards
- Open discussion with stakeholders
- Direction and roadmap (updated often)
- Potential mistakes
 - Start “private” development
 - Open-source it at 1.0 without architecture discussion
 - Customers-first vs. wider community requests



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Iterate





- Don't feel stressed to
 - Apply every community best practice guide
 - Manage all tools & platforms
- Discussion forums vs. QA platform
 - Don't force discussions if QA is desired
 - “Mark answer as solution” workflows in discussions



- Issues and comment threads
- Dedicated platforms
 - Discourse - self-hosted & SaaS
 - phpBB, vBulletin, WBB, etc. - self-hosted
- Needs
 - Moderation
 - Guidelines
- Investments
 - **50% project/company**
 - 50% contributors



- Definition of “what’s needed”
 - QA: Steps-to-reproduce
 - Debug: Logs, howto URLs, environments
- Guidelines with a gentle “hi”
- Use cases
 - Issue, MR, epic templates
 - Topic templates in Discourse (Markdown rendered)



- Unclear roadmap?
 - Ask your users, create a poll
- Unclear poll results?
 - Do a more refined survey
- No answers?
 - Create an incentive
 - Use creative social media, ask your friends to amplify
- Find contributors
 - “1st MR merged” appreciation
 - Helpful and in-depth reviews



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Everyone Can Contribute





- Encourage public discussion
 - Negative feedback is good feedback
 - Ideas and discussion often spark new ideas
- Be open
 - Public roadmap and vision/direction
 - Explain a “no” in the same detail as a “yes” and “maybe”
- Assume positive intent
 - “When is the release?” can be an expression of urgency
 - Don’t get lost in translation, not everyone is a native speaker



- Define it as Community Guidelines
 - Discourse comes with a default template
- It is ok to disagree
 - Don't force push your opinion
 - One makes the decision, sometimes not the one you chose.
 - Agree to disagree.
- Not playing by the rules?
 - Enforce the CoC, take responsibility
 - Negative actions in private, no public community blaming



- Grant trust early
- Allow to create Git* projects when needed
- Document guidelines for
 - New projects
 - README, description, etc.
 - Review process
- NEVER remove granted trust without talking about it
 - Do not change project permissions
 - Be kind, contributors and maintainers are your team
 - If it happened by accident, apologize asap



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Beyond code





- Rough day?
 - No reviews or comments
- Rough tone?
 - No oil into the fire
 - Guide and be kind
- Be positive
- Smiling together is healthy





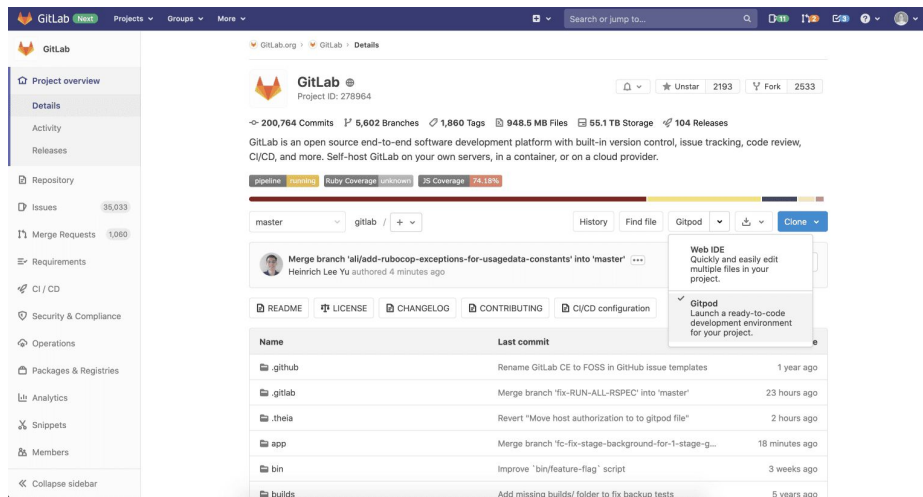
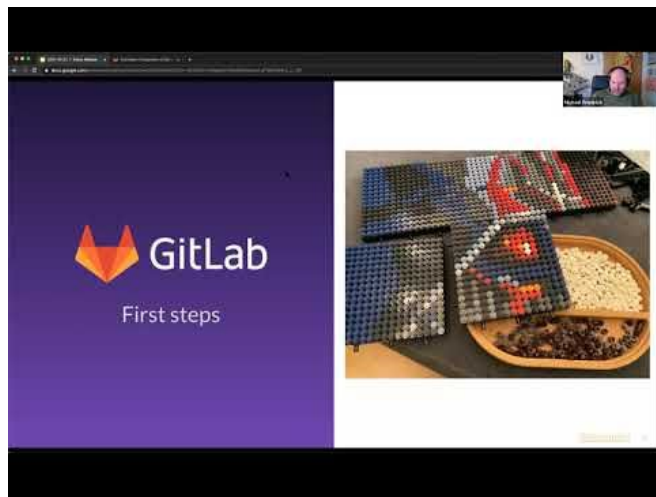
- Inclusive languages
 - Start with English
 - Growth may bring local inclusive languages
- Say thanks often
- Regular contributor hangouts
- Tech coffee chats for everyone
- Help solve problems together
 - Increase identification with the project



- This is a bug!
 - Missing documentation
 - A hard first-time experience
- Howtos and whitepapers are not docs
 - Blog posts
 - Workshops
 - Social threads



- Document everything
- Templates, CI/CD, ...
 - Workshops: <https://gitlab.com/gitlab-de/workshops/gitlab-cicd-go-tanuki-workshop>
- Dev Environments
 - Gitpod: <https://gitlab.com/gitlab-org/gitlab-development-kit/-/blob/main/doc/howto/gitpod.md>





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DevOps community culture





- Assume positive intent
- Be kind to everyone's time
- Provide as much context as possible to continue async
- Contributors are not free developers on the team
 - Be kind
 - Say thanks
 - Create incentives
- Care about well-being
 - Full blue/green contribution charts are not healthy
 - Reach out and build personal relationships



Thank you!



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