Quarterly Review
Infrastructure / CTO

Q4 - 2014/15

Agenda

Analytics
Release Engineering
Services
Technical Operations

Performance
Research & Data
Design Research
Security

Quarterly Review
Analytics

Q4 - 2014/15

Approximate team size during this quarter: 6 FTE

Q4 - *Analytics*

Objective	Measure of success	Status
Provide metrics, a [dashboard](#) and ad-hoc support for Editing Team	The dashboard for Editing is used over time (measured in Pageviews for the dashboard)	GREEN - The objectives were completed, and we see an average 1.9 of unique visitors per day (114 visits in Q4)

Q4 - *Analytics*

Dan Andreescu worked with Aaron Halfaker from the Research & Data team to vet and sanitize the data collected in EventLogging from the Visual and Wikitext Editors.

We added "Failure Types by User Types" to the dashboard.

Learning: The Editing Dashboard isn't getting used as often as we expected. More work needs to be done with stakeholders to define the right metrics to visualize for the dashboard to be useful on a daily basis.

Q4 - *Analytics*

EventLogging

6x performance increase for the EventLogging *Consumer* service
Generally, we have increased our capacity, but we do not have hard numbers on the overall performance of the system. We moved EventLogging to a new server and solved all software bottlenecks we can in the current EventLogging architecture. We are now dealing with technology bottlenecks and in the works of implementing a scalable architecture.

5 incidents in Q4; 4 in Q3
All but one incident were clustered during the first month of the quarter. We have not seen incidents related to performance during the last 2 months. We are not firefighting anymore.

Q4 - *Analytics*

Pageviews

Starting April 2015, the analytics is counting Pageviews using unsampled logs and a new Pageview definition. This puts an end to our reliance on the Research & Data's team to generate counts from the sampled logs.

Year-Month	Pageviews
2015-04	18,427,191,488
2015-05	18,527,171,200
2015-06	16,322,601,407

Q4 - *Analytics*

Wikimetrics: We had an unofficial goal this quarter to reduce by 50% the number reports that were executed and left in a failed state. We achieved this goal.

Month (2015)	Report "Successes"	Report Failures	
January	1724	751	
February	2730	256	
March	1826	104	
April	2020	31	
May	1392	18	
June	1721	18	82% decrease from March

Quarterly Review
Release Engineering

Q4 - 2014/15

Approximate team size during this quarter: 6 (Reduction from 7)

Q4 - *Release Engineering*

Objective	Measure of success	Status
Release MediaWiki 1.25 Team: 1	The software that runs Wikipedia and sister projects has a successful release for third-party users.	**Success!** (Announcement)
Deployment Tooling: Assessment and Planning Team: 4	A plan for how to attack the problem of multiple deploy tools that don't meet everyone's needs.	**Success!** Read the assessment and plan for next quarter.
Create the Staging cluster Team: 4	A cluster that more closely mimics production with fewer differences than the Beta Cluster.	**Paused.** We were unable to complete this during the quarter and paused it mid-way through so other goals wouldn't be jeopardized.
Isolated CI Infrastructure Team: 1 (+1 external)	Working Proof of Concept (instances booting with jobs running)	**Delayed**. However, the Labs team has improved their infra. and there is a proof of concept of spawning instances.

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Q4 - *Release Engineering*

In late May the team had its **first team offsite** (directly before the Lyon Hackathon) 10 months after the team's inception. This activity had multiple successes:

1) *solidifying team morale and identity*,

2) *group assessment of our team's needs with help of Team Practices Group*

3) *a plan of action to address those needs.*

The team made the right (but hard) decision to **pause the staging project** in an effort to accomplish other goals.

Q4 - *Release Engineering*

The team **broadly estimated the work** needed to accomplish our goals. Implementation needed to complete each project was largely **siloed**.

We're addressing this issue by **pairing regularly on triage and implementation** so that no one team member is tasked with moving a project forward—if a "baton" is dropped there will be someone else on the team with the right knowledge to pick it up. See: the staging and isolated CI instances projects.

The team **lost a backfill position** (aka: total team size was reduced from 7 to 6 for the next fiscal year). This will cause us to **not do** or **delay** project requests from other teams. Full list in-progress.

Q4 - *Release Engineering*

OPTIONAL: If there are ongoing work areas that you see as essential for understanding your team's work and took up a significant part of its resources in this quarter, but were not covered by its stated quarterly objectives, you can briefly list them here (not more than 1 line per area). These should include metrics giving a sense of the volume of activity that is going on - such as the number of contract requests processed by the Legal team in [this example](), *see also the 2014* ["Ongoing work areas" document]() *for further examples.*

Quarterly Review
Services

Q4 - 2014/15

Approximate team size during this quarter: 3 FTE

Q4 - *Services*

Objective	Measure of success	Status
API support for mobile VE *Team members involved: 2*	Develop and deploy section retrieval and save API	Built and partially deployed API VE team discovered additional requirements, might tackle those next quarter.
Support Parsoid and VE teams in reducing HTML size Separate metadata from HTML. *Team members involved: 0*	Provide storage and API support once Parsoid & VE are ready to work with separate metadata	Deferred: VE and Parsoid teams did not have time to work on this.
Streamline and mentor service development / deployment *Team members involved: 2*	Half the number of steps needed during service code deployment Guide and support service developments	Reduced number of code deploy steps from 11 to 3 (using Docker, Ansible) Graphoid deployed & exposed through RESTbase Mobile App service ready for deployment

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Q4 - *Services*

Early in the quarter, we Introduced a global /api/ namespace, and exposed the REST API at /api/rest_v1/. This greatly reduced time to first byte by

- eliminating extra DNS lookups,
- using geo-distributed HTTPS termination, and
- supporting SPDY connection sharing with HTTPS.

Marko Obrovac helped Marielle Volz of the editing team clean up and improve the Citoid service used to convert URLs to citation metadata in VisualEditor.

Towards the end of the quarter, we hired Petr Pchelko (Russia) as a Software Engineer (contractor), bringing the team size to four FTE.

Q4 - *Services*

The VisualEditor team did not have as much time for mobile editing work as expected, which made our VisualEditor goals difficult to achieve. We did create the planned section edit APIs, but more work is needed in VisualEditor and Parsoid before we can reduce HTML size further and enable section editing in VisualEditor.

Expanding the Cassandra cluster turned out to be harder than expected, as we ran into stability issues with larger instances. Going forward, we will keep instance sizes moderate with more aggressive horizontal scaling.

Quarterly Review
Technical Operations

Q4 - 2014/15

Approximate team size during this quarter: 18 FTE

Q4 - *Infrastructure / TechOps*

Objective	Measure of success	Status
Streamline deployment steps for SOA services *Team members involved: 5*	Reduce the number of individual manual service deployments steps from currently (typically) 11 to <= 5 using consolidation, increased abstraction and automation	A typical deployment is now a 5 step, guided process
	Implement a configuration discovery system to aid fully automatic configuration of load balancing, Varnish caching and availability and metrics monitoring in one automated process	*etcd* discovery system has been deployed and integrated with PyBal and Varnish
	Evaluation of container systems and deployment system options	Early evaluation of deployment systems (with RelEng) is now available, but container systems were not evaluated

Q4 - *Infrastructure / TechOps*

After some initial struggles, we were able to successfully define and implement our quarterly objective by focussing on the current *obstacles* around deploying and managing new services, rather than starting with technology choices. Thanks to Marko (Services) for helping with this observation.

We managed to hit our goal of reducing the number of deployment steps for new services by:

- defining a [clear process](#) for acquiring all required information from the developers early on
- developing a new layer of abstraction for services in the form of the generic `service::node` Puppet module
- providing a `new_wmf_service.py` script that guides service developers through many steps and creates a template to work with.

The introduction of the new *etcd* service discovery system takes care of many challenges people inside and outside Operations have in deploying new services or nodes to load balancing and monitoring, by making these changes automatic and machine editable. It's an important building block for future tooling to be developed by Ops, RelEng and Services.
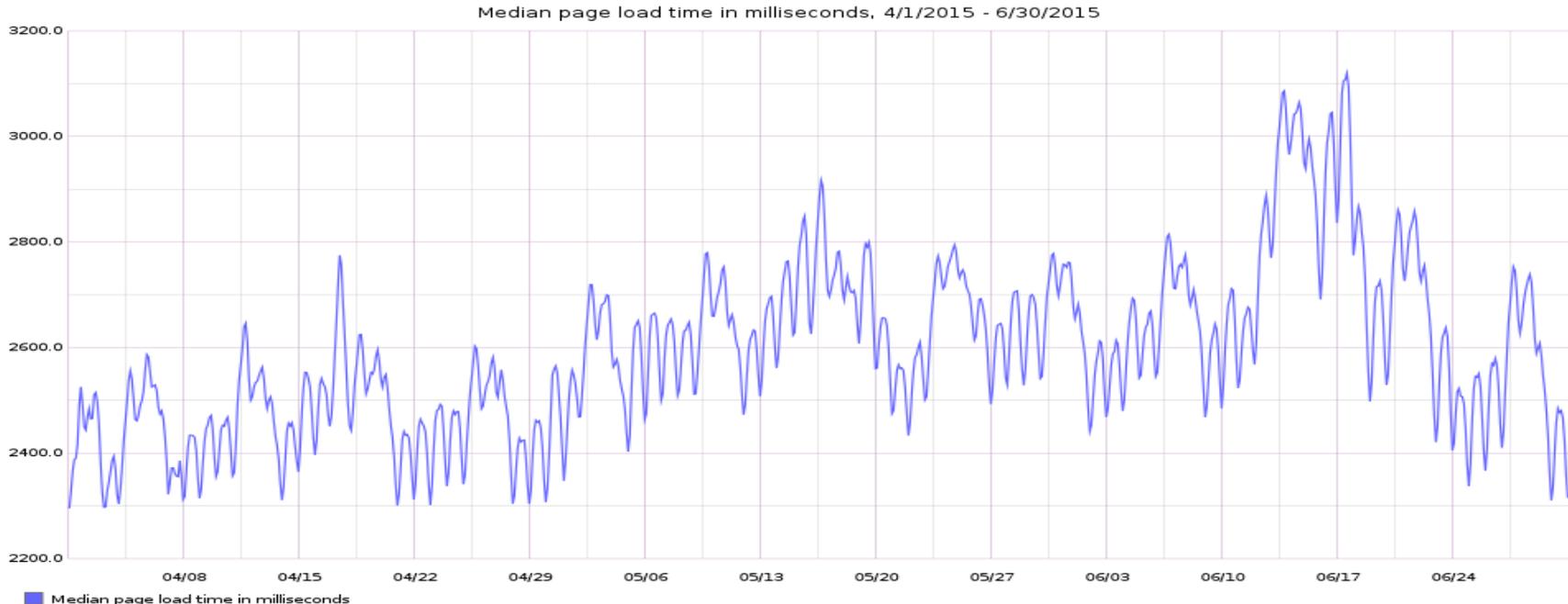
Q4 - *Infrastructure / TechOps*

Although we assisted the Release Engineering team in their goal of formulating a plan for a generic software deployment tool, we did not also start the (related) evaluation of container systems - we redefined the goal as it was deemed too large in scope, and we lacked the necessary bandwidth. The new processes for coordination and definition of goals that are being instated should avoid this in the future.

A related experimental goal for *next* quarter is to investigate and implement a container based distributed cluster environment in ToolLabs (initially). This work will be done with production use in mind as well, and should prove to be useful for both environments.
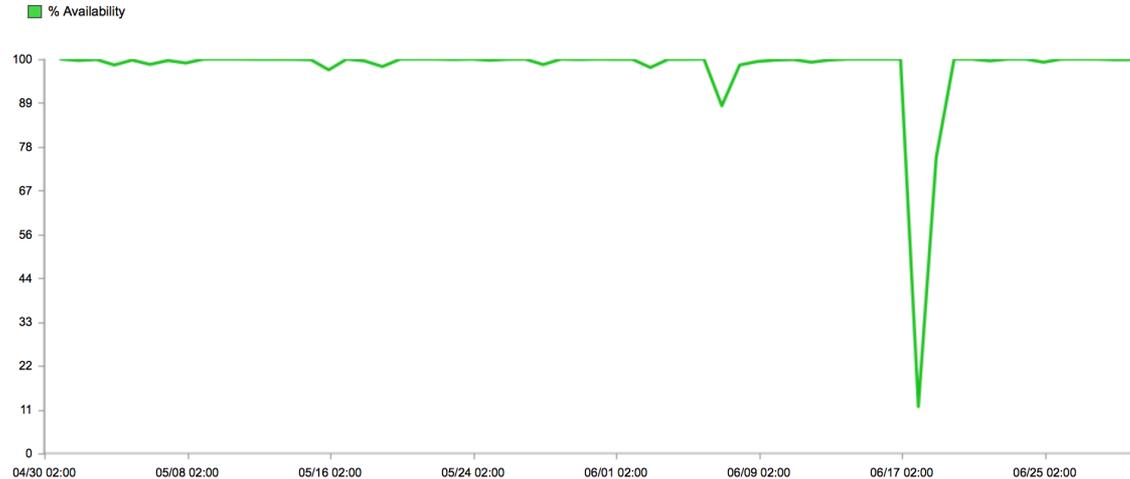
Q4 - *Infrastructure / TechOps*

During the past quarter we also successfully migrated all wiki projects to HTTPS only, to improve user privacy. Full HTTP redirects to HTTPS have been put in place, and HSTS has been deployed. Due to the related uptake of the SPDY protocol in this move, the impact on user perceived performance has been more positive than expected.

Median page load time in milliseconds, 4/1/2015 - 6/30/2015

Median page load time in milliseconds

Q4 - *Infrastructure / Labs*

Objective	Measure of success	Status
Improve reliability of ToolLabs *Team members involved: 3*	ToolLabs has at least 99.5% *provable*, measured uptime for each individual 'service' that ToolLabs provides its users	Cumulative average availability from May 1 - June 30 was an *appalling* 97.589% after a long storage outage.

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Q4 - *Infrastructure / Labs*

Although this has clearly not yet resulted in acceptable availability for (Tool)Labs due to problems at the lower levels, many significant improvements on especially the higher layers of ToolLabs have been made: The ToolLabs nodes & services have been made redundant across compute nodes, and been Puppetized more thoroughly. Automatic service monitoring & restarts for user tools have been reimplemented and made reliable. Proper monitoring of ToolLabs has been implemented using our new external monitoring service, giving us much better insight into the problems & performance issues.

Near the end of the quarter, the focus has been on reducing unneeded dependencies on underlying (storage) infrastructure while its problems were being addressed, and this has made many Labs projects much more resilient.

Q4 - *Infrastructure / Labs*

Due to several severe outages on underlying Labs compute node & NFS storage infrastructure, ToolLabs had disastrous availability of 97.6% over the period of May 1 - June 30. This was caused by:

1. hardware and kernel issues on the old & on the new replacement hardware (now resolved)
2. the fragility of the Labs NFS storage setup, presenting a SPOF for nearly all Labs instances.

The suboptimal NFS storage layout provided performance only just adequate for regular use, and *greatly complicated and delayed* the creation of backups and the migration to a better architecture - almost any additional disk operations caused service degradation. This storage migration also *triggered* the corruption of the Labs NFS file system, resulting in the large scale outage on June 18th.

However, a positive side effect of this very unfortunate downtime event was our ability to cut through the remaining storage migration steps, and we came out with a significantly more performant and resilient storage setup at the end. We're now much better positioned to provide a high reliability setup, and will continue to make this the main focus of the Labs team in the upcoming quarter.

Through more hands-on involvement of multiple team members and more explicit discussion about these system design decisions and implementation details with expertise of the entire team, we will avoid such problems in the future.

Q4 - *Performance*

Objective	Measure of success	Status
Hire additional team members	Make sure the team is staffed to fulfill its mandate.	Recruited Peter Hedenskog, Timo Tijhof

Quarterly Review
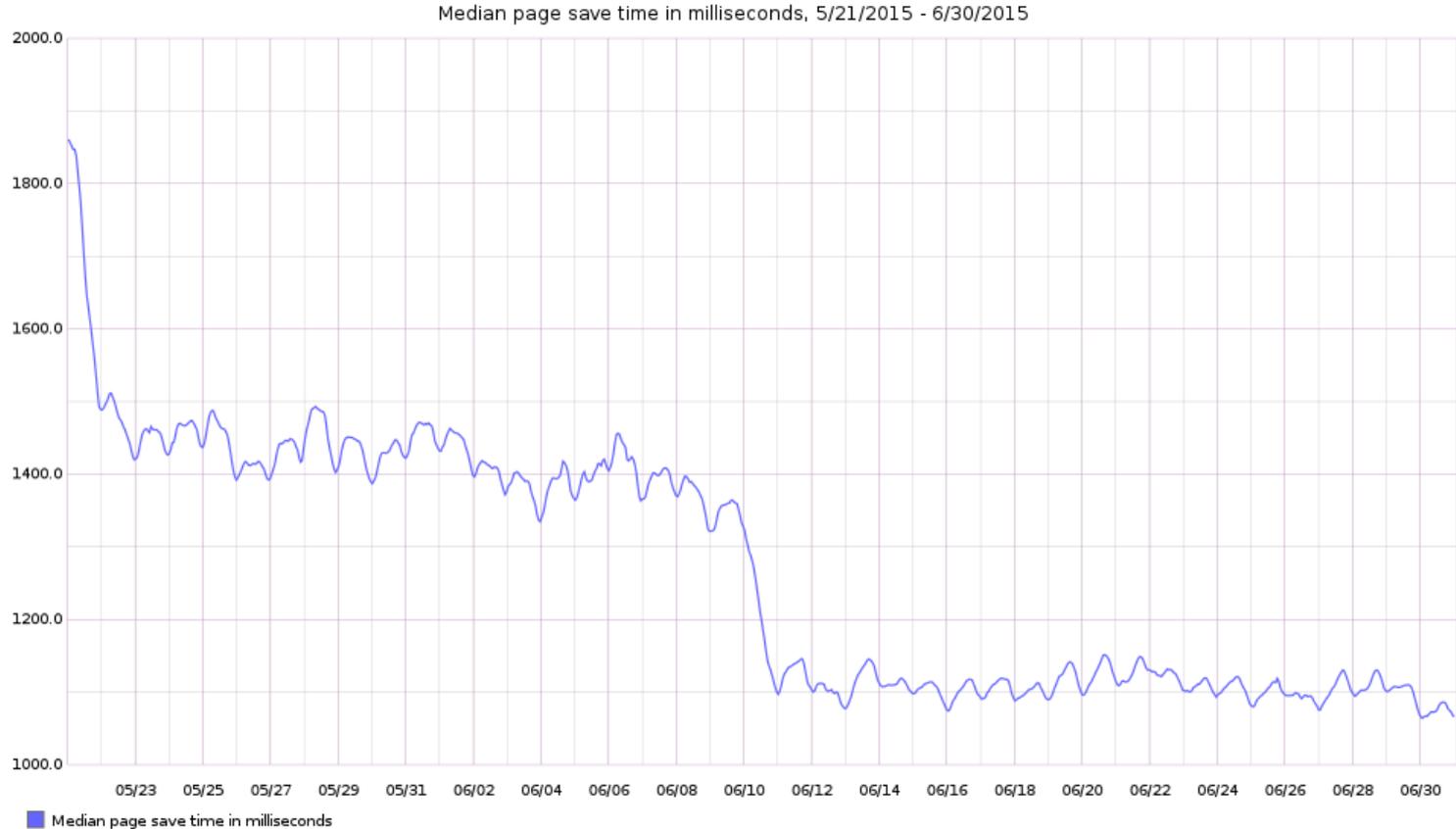## *Performance*

Q4 - 2014/15

Q4 - *Performance*

Median page save time in milliseconds, 5/21/2015 - 6/30/2015

Q4 - *Performance*

- Reduced page save time from 3.5s to 1.1s (104% improvement)
  - 20m edits a month = 48m seconds saved
  - Saves cumulative 1.5 years of waiting time every month. :)
- Created performance metrics portal https://performance.wikimedia.org/
- Provided instrumentation to support HTTPS migration.
- Added profiling / stats reporting capabilities to MediaWiki core.

Quarterly Review
Research and Data

Q4 - 2014/15

Team size during this quarter: 5

Q4 - *Research and Data*

Objective	Measure of success	Status
Design a series of controlled tests and analyze them in order to support the Editing team in preparing for a successful launch of Visual Editor *Team members involved: 1*	Provide guidance to the Editing team based on these tests to help them decide if the software meets the requirements to ship	**Success!** ● Results ● Discussion

Q4 - *Research and Data*

Objective	Measure of success	Status
Article creation recommendations *Team members involved: 2 (+ 1 research fellow)*	• Design and evaluate an algorithm for personalized content translation recommendations. • Complete a pilot experiment	**Success!** Model design / evaluation completed. Conducted one pilot and completed a first test in production in French Wikipedia. See Report.
Revscoring *Team members involved: 1*	• Prototype service online for 5 wikis • Labeling service online • Article quality model deployed • Caching layer deployed	**Success!** See Report
Improving linking structure *Team members involved: 1 (+ 1 research fellow)*	• Release dataset of browsing traces	**Paused** Postponing data release to end of Q1 to allow for paper submission. See Report.
Impact of HTTPS rollout *Team members involved: 1*	• Produce a report on the impact of the HTTPS rollout on traffic	**Success!** See Report

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Q4 - *Research and Data*

The team successfully completed two major experimentation projects such as the VE and the content translation A/B tests with complex dependencies (Legal, Comms, CL, Design Research, Product, Analytics Dev). TPG was instrumental in making this possible.

Outcomes

- Clear product recommendations for the VE launch
- Promising [first results](#) on the impact of article translation recommendations on engagement and content growth

Q4 - *Research and Data*

Other achievements beyond our stated goals:

- Completed migration to Phabricator
- Successful ICWSM Wikipedia research workshop:
  40+ attendees, 20 accepted papers
- Finalized legal requirements for NDA with Los Alamos National Lab collaboration
- Wikipedia Knowledge Graph study with Stanford/DeepDive

Q4 - *Research and Data*

Blockers and dependencies for article recommendation experiment: running experiments takes a lot of time. (thanks to Ori, Dan, Michelle + Legal, Echo team, LangEng and CL for their support)

Our **mandate** and **engagement model**, post reorg, is still in flux: team receives requests that should in principle be honored by the audience teams.

Q4 - *Research and Data*

- [Research & Data team page](). Describing goals, processes and projects.

- [Goals for Q1 FY16](): What we are planning to do in the coming quarter

- [FY16 priorities](): Top priorities for the fiscal year

- [Phabricator workboard]():What we are currently doing

Quarterly Review
Design Research

Q4 - 2014/15

3 researchers and 1 half time participant recruiter

Q4 - *Design Research*

Objective	Measure of success	Status
Objective 1: Evaluate the usability and user experience of editing tasks for VE launch. *Team members involved: 2*	Basic editing tasks tested and clear communication of any usability issues to be addressed. Iteration support.	Successful iteration: Two rounds of research done: Round 1: On Wiki, Deck. Round 2: On Wiki, Deck More to come for Link inspector and new user education.
Objective 2: Start REFLEX : user segment based tasks to evaluate effects of changes to products and services on users experience over time.	Providing a better understanding of the user experience and impacts of design changes in functionality on users over time.	Objective redefined during quarter (was not funded for future, so we refocused on pragmatic personas.)

Q4 - *Design Research*

- Set of **Pragmatic Personas** and a workshop to iterate the pragmatic personas and align with designers, PMs and track leads. <u>Posters</u> / <u>Hand outs</u>
- **Evaluative Research** for mobile:
  - <u>Collections heuristic</u>, <u>Collections research</u> (experience and usability)
- **Generative Research** for Flow:
  - <u>Flow</u> workflow research.
- **Re-aligning with product teams** on how to work most effectively together in the new post re-org structure.
- **Began managing our work flow in Phabricator** so our work is more visible to the rest of the organization.
- **Working to address the gap in design leadership** post re-org with UX team (researchers, interaction and visual designers) and executives.

Q4 - *Design Research*

- The REFLEX (benchmarking) goal focused on understanding user experiences with basic tasks within Wikipedia would have helped to better understand, over time, how various user types (personas) experience Wikipedia, and the impacts on experience our changes to the UI have on the users' experiences. We refocused work on pragmatic personas instead.

- Participant recruiter contract ended and we are figuring out how to fill this much needed position moving forward.

Q4 - *Design Research*

- [Design Research page](#) on Mediawiki. Describing goals, processes and completed research.

- [Goals for Q1 Fy15/16](#) What we are planning to do next quarter

- [Phabricator workboard](#) What we are currently doing

- [Phabricator Backlog board](#) Requested and staged work not yet being worked on.

Quarterly Review
Security

Q4 - 2014/15

Approximate team size during this quarter: 1.5 (new hire May 19th)

Q4 - CTO / *Security*

Objective	Measure of success	Status
Begin building the security team, while continuing ongoing auditing and response work. *Team members involved: 1*	Application Security Engineer hired	Done (Darian Patrick hired and onboarded)
	Initial risk assessment of engineering groups	Done (https://www.mediawiki.org/wiki/Wikimedia_Security_Team/WMF_Engineering_risk_assessment)

Q4 - CTO / *Security*

Significant improvement in Ops security, and user account security through Ops' effort (https / ipsec).

Learning: Hiring dedicated security people works. Let's discuss hiring onto specific teams next year.

Q4 - CTO / *Security*

Metrics for ongoing, operational work has not been established, making it hard to determine success for the majority of our work.

Learning: Goals for Q1 include establishing metrics for security bugs (review metrics will be worked on in Q2).

Q4 - CTO / *Security*

- Security audit and response
  - Security issues: 21% fewer issue fixed than opened
  - Reviews: 9 requested, 10 completed
- Training
  - Secure Code and Secure Architecture and Design trainings at Lyon Hackathon

Appendices

Q4 - *Analytics*

Links:

Visual Editor dashboard

Pageview definition (current and legacy)

Pageview Specification

Pageviews & how we count them

Projectviews (aggregated Pageviews per project)

https://performance.wikimedia.org/

Wikimetrics

EventLogging

EventLogging incidents

EventLogging performance testing

EventLogging maintenance

Q4 - *Release Engineering*

- **Team page on mediawiki.org** outlining purpose, projects, and goals of the team.
- **Goals for next quarter** (on wiki)
- Phabricator tracking of goals:
  - **#releng-201415-Q4**
  - **#releng-201516-Q1**
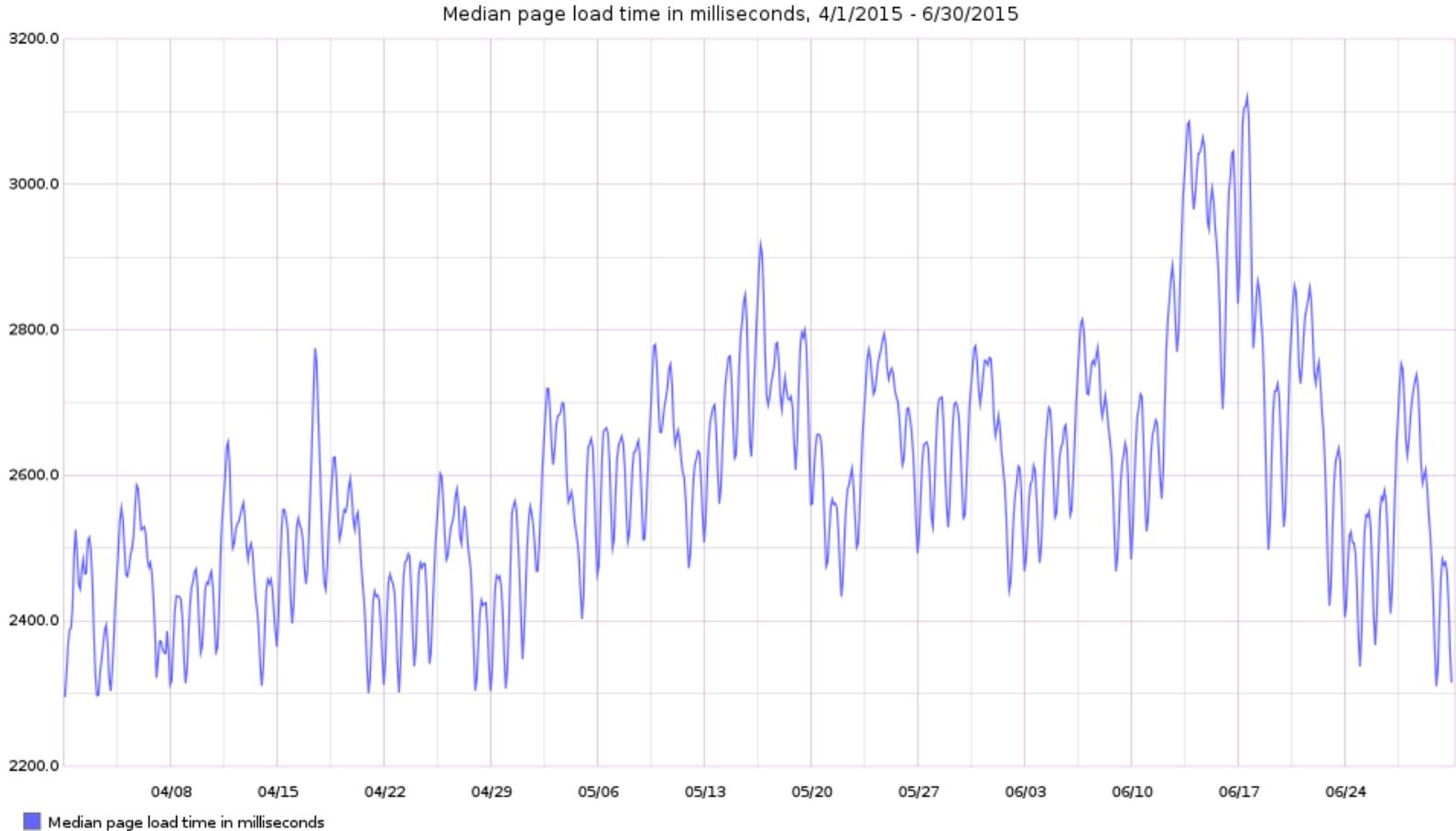
Q4 - *TechOps accomplishments (1/2)*

- Migrated all wikis to HTTPS-only
- Managed through the NTP leap second insertion
- Automated fundraising firewall config generation
- All Labs virtualization hosts replaced with new hardware
- Completed deployment of OpenStack Designate in Labs
- Expanded RESTbase cluster with 3 additional nodes
- Upgraded/replaced many ToolLabs nodes with Ubuntu Trusty
- Replaced BigBrother service with a new stable Webservice Manifest Monitor
- Implemented Nodepool in Labs for CI [with RelEng]
- Replaced bad production rack switch
- Deployed Parsoid cluster in codfw
- Implemented Labs instance creation/deletion with Horizon
- Implemented ToolLabs instance redundancy across diverse Labs hosts

- Refactored Varnish/cache and LVS Puppet manifests increasing automation
- Consolidated `bits.wikimedia.org` into the text cluster for SPDY efficiency
- Deployed a new Debian package builder host
- Deployed Graphoid in production
- Implemented a new GPG based password store
- (Nearly) finished migration from ganglia to ganglia-new Puppet module
- Migrated dsh groups to Hiera
- Assisted Services with generation/hosting of HTML dumps
- Removed Labs instance dependencies on idmap
- Implemented Catchpoint monitoring for ToolLabs
- Evaluated service discovery systems, and implemented etcd in production
- Implemented procedure for collecting information for new service deployments
- Implemented CWDM system between esams and knams, and activated 3rd dark fiber link
- Implemented support for Last-Access cookie [with Analytics]

Q4 - *TechOps accomplishments (2/2)*

- Backported custom patches and upgraded Varnish to version 3.0.7
- Implemented availability alerts for ToolLabs
- Deployed new HTTPS caches in codfw
- Puppetized ToolLabs grid engine exec nodes
- Upgraded salt to newer version across all hosts
- Upgraded all Labs hosts for Venom vulnerability
- Wrote generic Puppet service::node abstraction for Services
- Implemented early XML stub dumps for all wikis to reduce latency
- Expanded Logstash cluster with 3 extra nodes
- Implemented Redis redundancy in Labs
- Migrated NFS storage from RAID6 to RAID10 for improved speed and redundancy
- Integrated PyBal and Varnish with etcd
- Implemented OCSP stapling on HTTPS clusters
- Implemented redundant hosts for Labs control services
- Severely reduced unnecessary Labs instance dependencies on NFS storage

- Various security upgrades & hardening changes across the cluster
- Built and deployed new HHVM packages
- Deployed Ganeti misc services virtual cluster in eqiad
- Migrated Puppet tree to Ruby 1.9 compliance
- Rolled out MariaDB buffer pool automatic dump/load in production
- Helped refactor mathoid to service-runner/service::node
- Supported Language Engineering in rolling out many new languages in ContentTranslation

Q4 - *Performance*

Median page load time in milliseconds, 4/1/2015 - 6/30/2015

Legend: Median page load time in milliseconds

Q4 - *Availability*

New external monitoring availability metrics based on new Catchpoint data.
Period: *two* months[1], May 1st - June 30th 2015.

Services audience	Availability cumulative average over 1 day interval
(R)eaders	**99.944%**
(C)ontent Contributors	**99.942%**
(M)ovement Partners (volunteers, developers, etc.)	**99.901%**
(E)xternal Partners	**99.951%**
(D)onors	**99.957%**

[1] New monitoring mature and stable since the end of April 2015.

Q4 - *Availability*

Audience	Monitoring End Points
Readers	HTTPS: commons.wikimedia.org, de.wikipedia.org, donate.wikimedia.org, dsb.wikipedia.org, en.m.wikipedia.org (CACHED), de.wikipedia.org (CACHED), en.wikibooks.org, en.wikinews.org, en.wikiquote.org, en.wikisource.org, en.wiktionary.org, en.wikipedia.org, en.wikipedia.org (CACHED), fi.wikipedia.org, fr.wikipedia.org, mediawiki.org, uk.wikipedia.org, wikidata.org, blog.wikimedia.org. API: en.wikipedia.org (Search), restbase.wikimedia.org
Contributors	HTTPS: commons.wikimedia.org, de.wikipedia.org, donate.wikimedia.org, dsb.wikipedia.org, en.wikibooks.org, en.wikinews.org, en.wikiquote.org, en.wikiversity.org, en.wiktionary.org, en.wikipedia.org, fi.wikipedia.org, fr.wikipedia.org, mediawiki.org, stream.wikimedia.org, uk.wikipedia.org, wikidata.org. Transaction: en.wikipedia.org (Login/Edit/Save) API: en.wikipedia.org (Search), restbase.wikimedia.org Email: pollonium.wikimedia.org
Movement	HTTPS: dumps.wikimedia.org, blog.wikimedia.org, gerrit.wikimedia.org, phabricator.wikimedia.org, wikitech.wikimedia.org. API: en.wikipedia.org (Search), restbase.wikimedia.org Email: pollonium.wikimedia.org
External	HTTPS: dumps.wikimedia.org Email: pollonium.wikimedia.org
Donor	HTTPS: donate.wikimedia.org, civicrm.wikimedia.org, frdata.wikimedia.org, fundraising.wikimedia.org/IPNListener_Standalone.php, payments.wikimedia.org/index.php/Special:SystemStatus, payments-listener.wikimedia.org/globalcollect Email: pollonium.wikimedia.org

Q4 - *User-facing incidents (1/5)*

Date	Time-frame	Summary	Impact
2015-04-01	02:15 - 05:24	Labs NFS overload due to hardware I/O timeouts	Stalls on nearly all Labs instances due to dependencies on NFS
2015-04-03	07:41 - 10:20	User triggered LUA error and a LuaSandBox bug causes infinite recursion, creating reparsing MediaWiki jobs, and cascading overloads	Wikimedia API performance degradation
2015-04-06	until 2015-04-14	Newly introduced MediaWiki bug started corrupting Flow db data	Some Flow content not displaying properly on enabled wikis
2015-04-08	12:25 - 12:35	MediaWiki bug allows SiteStats DB queries to be run on s2 wikis	Database errors on s2 shard wikis
2015-04-13	17:30 - 21:12	Labs NFS I/O starvation due to inefficient RAID6 setup	Stalls on nearly all Labs instances due to dependencies on NFS

Q4 - *User-facing incidents (2/5)*

Date	Time-frame	Summary	Impact
2015-04-22	02:00 - 16:30 (next day)	Virtualization bug on new Linux kernel on new replacement hardware causes performance problems	Poor performance and interruptions on Labs instances that already migrated to new hardware.
2015-04-23	03:40 - 04:55	Cascading failures on Wikimedia API cluster due to lack of various resource limits, triggered by a user editing pages with extremely large image galleries	Intermittent unavailability (5xx responses) of the Wikimedia API due to resource starvation
2015-04-24	01:45 - 18:00	Newly deployed Parsoid code in an emergency deployment causes corruptions for VisualEditor saves	VisualEditor edit corruptions on < 40 saved edits on enabled wikis

Q4 - *User-facing incidents (3/5)*

Date	Time-frame	Summary	Impact
2015-04-29	08:07 - 08:14	New Parsoid code deployment causes brief outage	Parsoid cluster downtime for 6 minutes, affecting VisualEditor on enabled wikis
2015-05-03	20:25 - 15:17 (next day)	Saturday deployment causes Redis delays/overload and makes Job Runners ineffective	Slowness/delays for editing
2015-05-18	16:45 - 17:20	One Labs compute node becomes unresponsive for a suspected kernel issue	~13% of Labs instances unavailable
2015-05-19	18:20 - 18:45	Another Labs compute node becomes unresponsive for a suspected kernel issue	~13% of Labs instances unavailable

Q4 - *User-facing incidents (4/5)*

Date	Time-frame	Summary	Impact
2015-05-19	17:00 - 21:00	Mailman issues after a maintenance window	Moderation of all messages sent to the lists during the time window
2015-05-19	13:11 - 14:36	RESTbase unavailable due to unproper disabling of Puppet during a deployment	RESTbase unavailable, affecting all users (VisualEditor, OCG, CXServer)
2015-05-27	20:41 - 01:08	MediaWiki deployment introducing an unexpected new Cookie destroys cache performance	Reduced performance and increased 503s
	22:52 - 22:57		Full site outage for 5 minutes due to revert of the deployment during troubleshooting
2015-05-27	18:20 - 20:00	ToolLabs GridEngine dying due to unusually large `/etc/hosts` file	New ToolLabs Grid jobs not starting

Q4 - *User-facing incidents (5/5)*

Date	Time-frame	Summary	Impact
2015-06-07	01:00 - 05:18	Network switch problems and a not puppetized network setup on the Labs NFS server cause stalls	Nearly all Labs instances stalled due to NFS SPOF.
2015-06-13	18:54 - 19:13	A side effect of the HTTPS migration causes PyBal monitoring to stop working	Unavailability of HTTP redirects (but not HTTPS) for 20 mins
2015-06-15	07:00 - 15:00	Java GC memory problems across the entire ElasticSearch cluster prevent the cluster from recovering until full restart	CirrusSearch searches partially unavailable
2015-06-16	04:35 - 06:08		
2015-06-18	00:30 -	Catastrophic file system corruption during underlying storage migration causes unavailability and data loss	Labs NFS unavailable, blocking Labs instances still depending on it. Filesystem eventually restored from backup, taking a long time.
2015-06-19	- 06:30		