

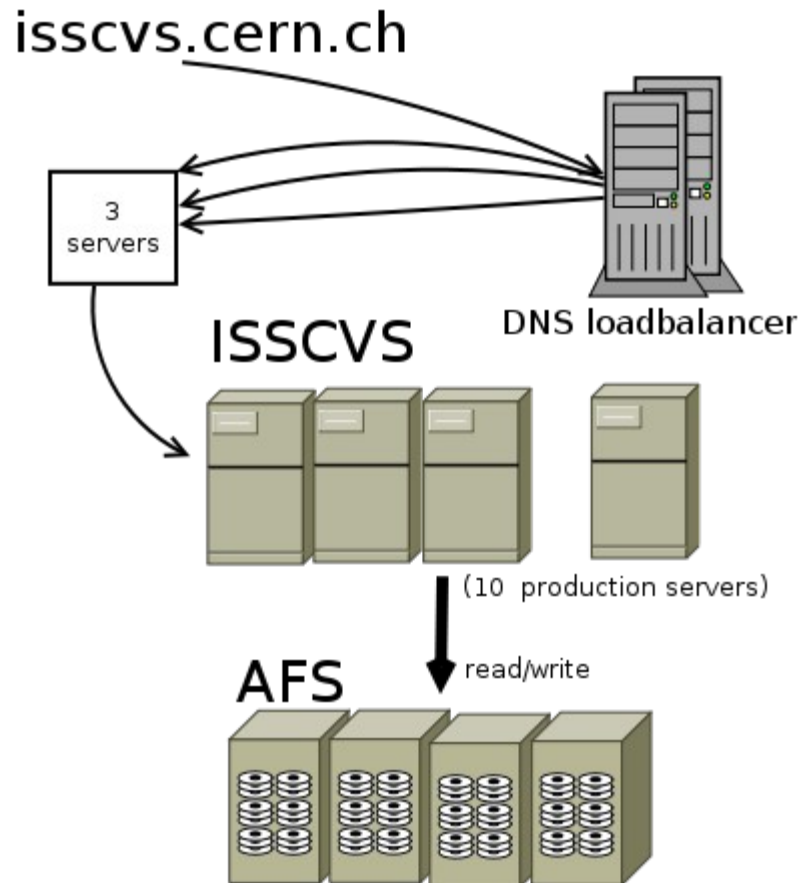
Status of Version Control and Twiki services at CERN

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HEPiX Spring 2011, GSI

- Services: history and architecture
- Service statistics
- Add-ons
- Current issues
- Plans
- New Team
- Conclusions
- TWiki status

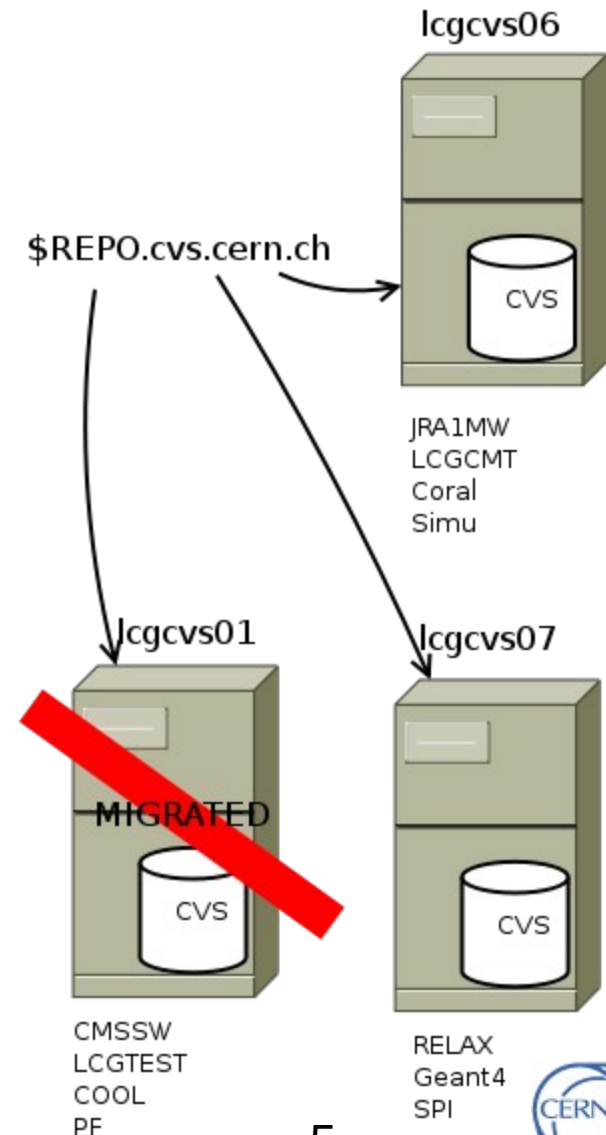
- 3 version control services:
 - SVN:
 - Central SVN service, cluster and AFS based
 - CVS:
 - Central CVS service, cluster and AFS based
 - LCGCVS service, standalone servers and local disc based (Legacy)





- Started in 2000
- Cluster of servers
- Uses DNS load balancing
- AFS to store data
- High availability, no single point of failure
- Planned shutdown for 2013. (CVS is not updated anymore)

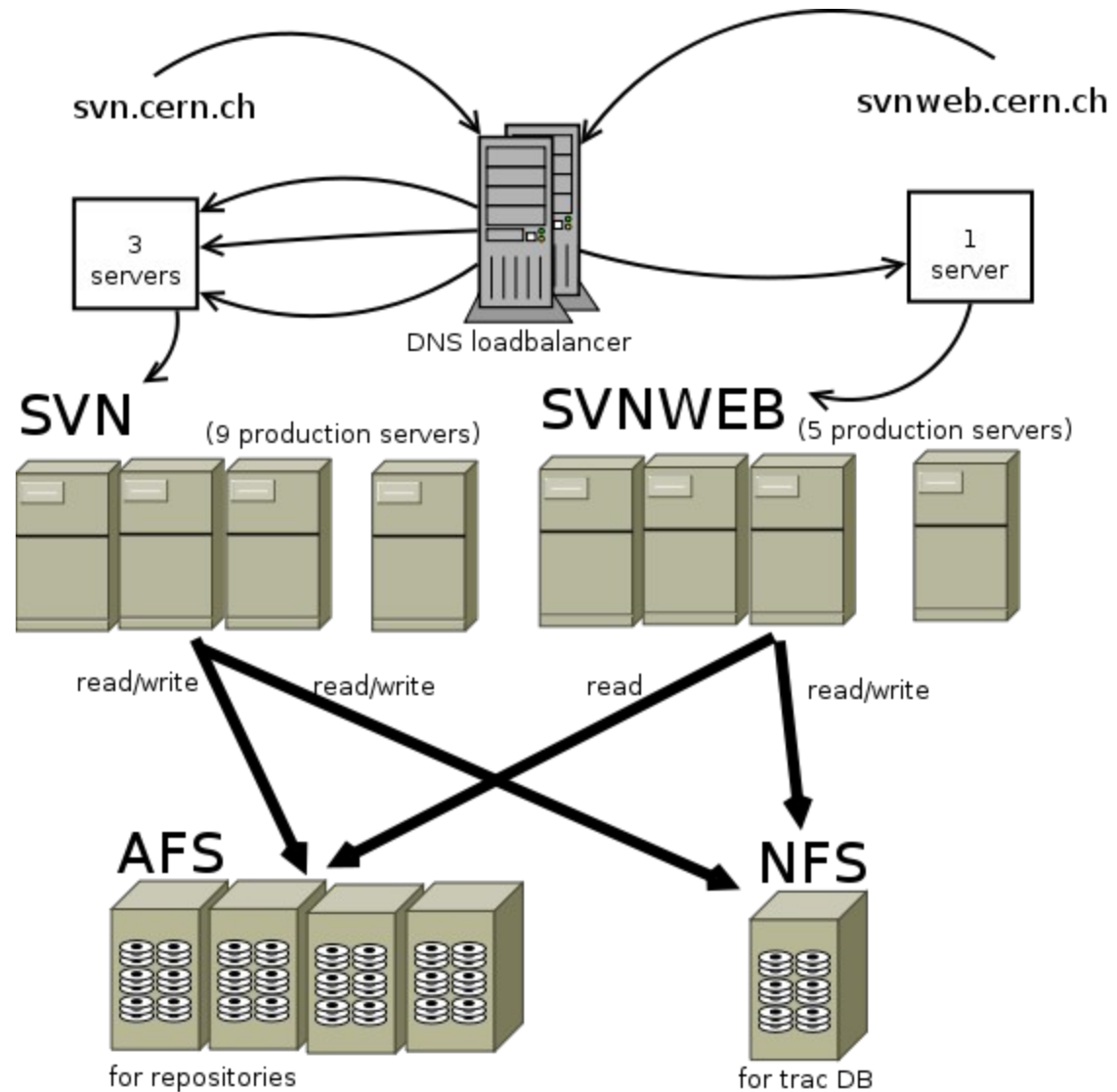
- Started in 2002
- Created on user request
 - AFS *perceived* unstable
 - AFS *perceived too slow*
- Uses local disk to store the data
- No redundancy.
- Shutdown ongoing
 - Recommended replacement: IT svn service
 - Transparent replacement: IT cvs service (afs based)
 - 'Challenging' migrations



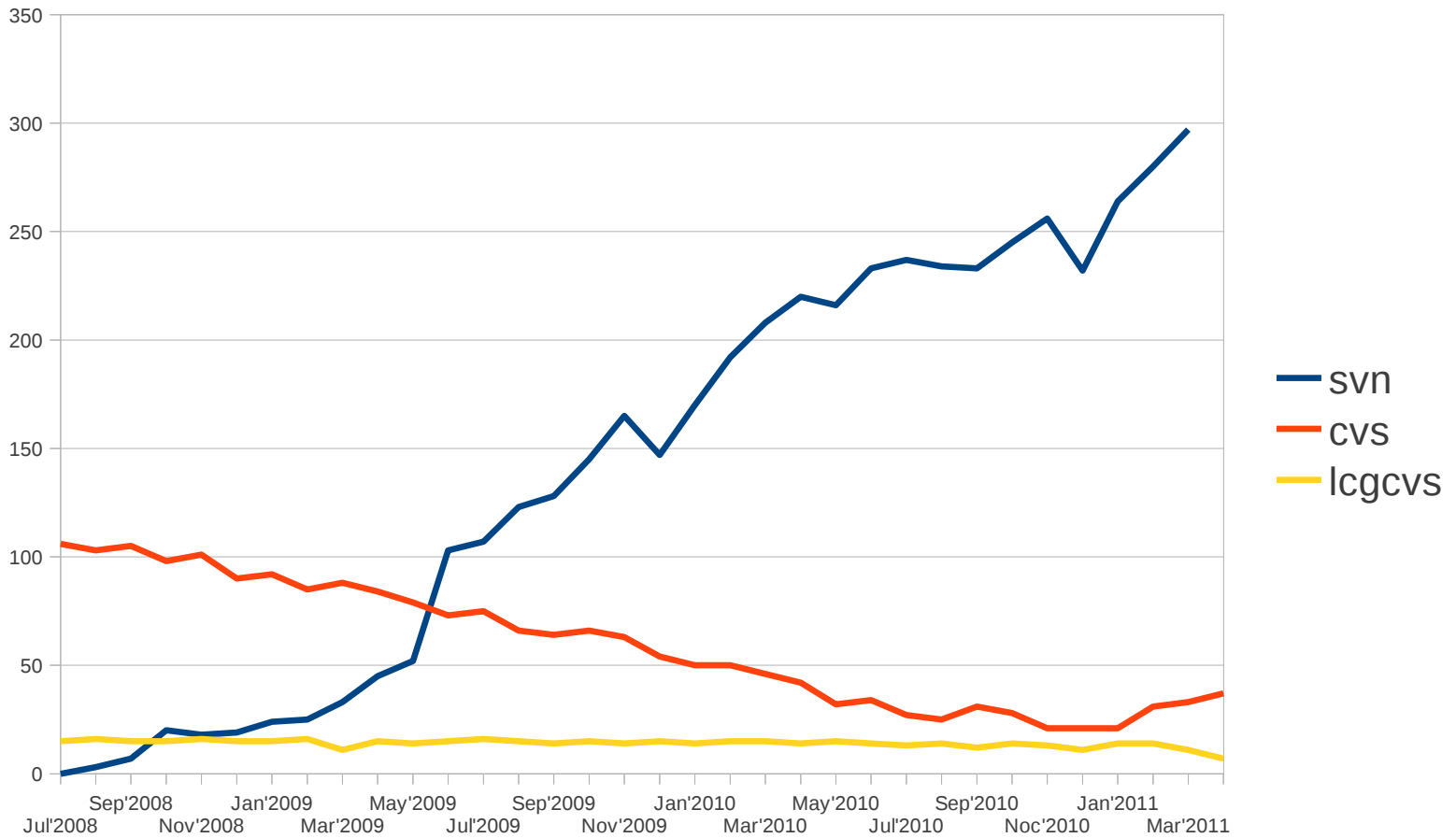


- Started in Jan 2009
- Same design goals as CVS:
 - Cluster:
 - High availability
 - DNS loadbalancing
 - AFS for repositories
 - +NFS for Trac
- Why?
 - CVS not maintained anymore
 - Strong user request

PES SVN architecture



| Service | Total size of projects | Total projects | Active projects | Active users | Commits per month |
|---------|------------------------|----------------|-----------------|--------------|-------------------|
| SVN | 293GB | 734 | ~283 | ~2561 | ~100k |
| CVS | 184GB | 363 | ~25 | ~520 | ~24k |
| LCGCVS | 12GB | 10 | 7 | ~250 | ~3.8k |



- ViewCVS and ViewVC: simple web CVS browsing tool
- WEBSVN: simple web SVN browsing tool, plus:
 - On the fly tar creation
- TRAC: web SVN browsing tool, plus:
 - Ticketing system
 - Wiki
 - Plug-ins (limited effort on development)
- SVNPlot: generate SVN statistics. No need to checkout the source code (svnstats do 'co')



- Loadbalancing:
 - It would be nice to have client affiliation, Single Sign On (Shibboleth) eats our POST variables. Improve AFS caching.
 - It would be nice to have more than one alias for host, reserve servers for interactive
 - Some CVS clients have problems to work with loadbalancing+kerberos. RH/SLC 4/5 ok.
 - Svnweb cannot have more than one server in DNS at the same time, due to Single Sign On and browser redirection loops.

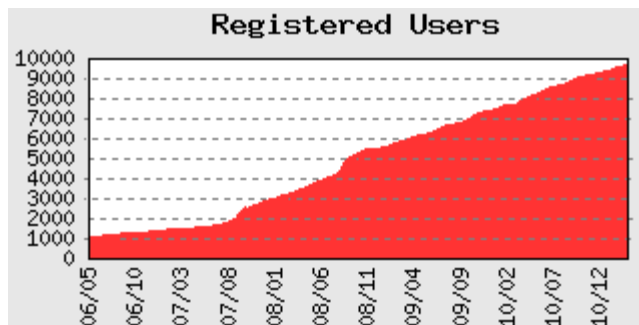
- Infrastructure consolidation
 - Update SVN server version (from 1.5 to 1.6):
 - Repository storage improvements
 - Ssh interface server logging
 - Update and improve internal mirroring and statistics
 - Hardware consolidation (Vms)
 - Improve the service availability and performance monitoring, with focus on SVN.
- Add SVN configuration web-tools for librarians.
- Update and improve user documentation
- Setup a read-only mirroring system. For heavy operations (big nightly builds). (?)
- GiT service (?), not yet!



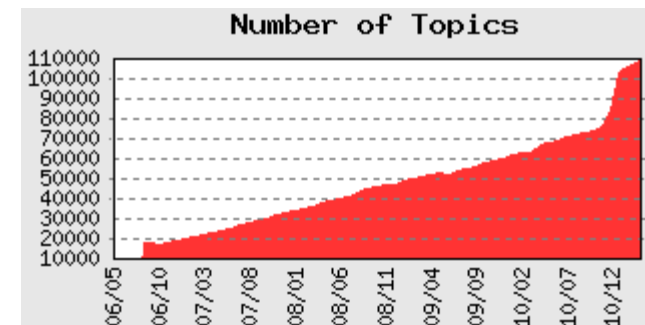
- Due to a CERN IT reorganization the VCS team changed on January 2010.
 - Old team left.
- Service managers:
 - David Asbury (60%)
 - Alvaro Gonzalez (60%)
 - Students:
 - Pawel Zembrzuski (2010)
 - Georgios Koloventzos (2011)
- 2.2 FTEs

- A lot of effort in migrating from old services
- Focus on SVN, Goals:
 - Consolidate SVN service
 - Update tools, svn (server), trac, websvn
 - Add tools for SVN configuration

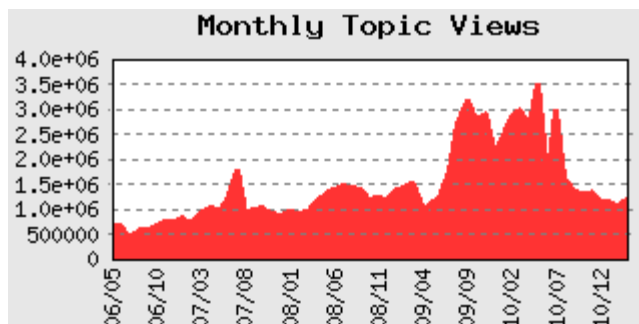




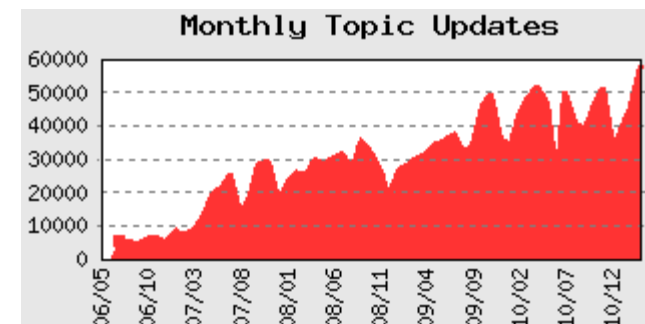
9555 users by March 2011



107426 topics by March 2011

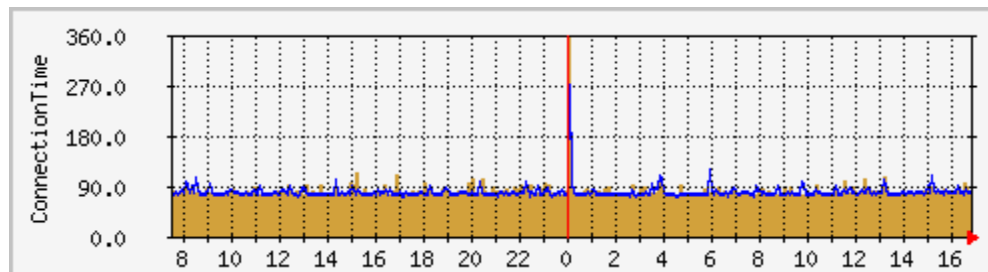


1231861 accesses in March 2011



58101 updated in March 2011

- Current configuration
 - Server DELL Poweredge 1950 2.33GHz, 2 CPU/8 core 48 GB of memory.
 - TWiki 4.3.2 with NFS NetApp storage backend.
- It currently takes ~0.8 sec to load a page.



- Future
 - TWiki 5 available. Next stable release (5.1) in Summer
 - Several plugins in use at CERN need to be updated to the new plugin API.
 - Work ongoing for better SSO integration, e-group integration and hardware load balancing.

Questions?

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Georgios Koloventzos CERN

<http://cern.ch/svn>

<http://cern.ch/cvs>

<http://cern.ch/lcgcvs>

2nd February 2011