

SVN vs Git: What is the Difference Between Git and SVN?

While Git and SVN are both enterprise version control systems (VCS) that help with workflow and project management in coding, they do have their differences. The difference between Git and SVN version control systems is that Git is a distributed version control system, whereas SVN is a centralized version control system. Git uses multiple repositories including a centralized repository and server, as well as some local repositories. SVN does not have a centralized repository or server.

What is GIT?

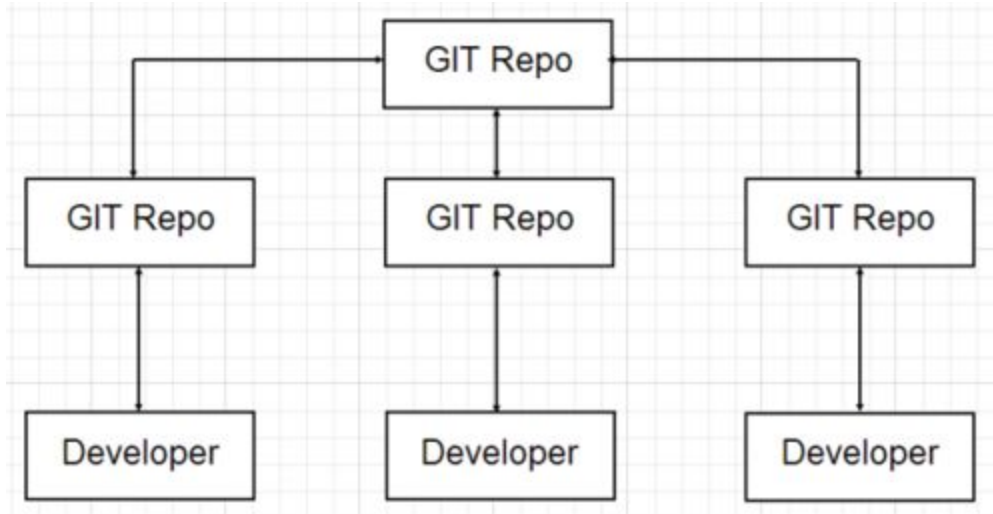


Git is a distributed version control system – which just means that when you do a **git clone (+url of your repository)** what you are actually getting is a complete copy of your entire history of that project. This means all your commits! Woot!

What are the advantages of Git?

Git has a staging area. This just means that if you made 100 new changes to your code, you can break these 100 changes into 10 or 20 or more commits each with their own comments and their own detailed explanation of what just happened! Not only can you stage your commits out to logically display what changes were made, but you can also do patch staging that ask you if you want. You would use patch staging if you and a co-worker are both working on the same file and you only want to commit a particular function that you've worked on. You do a Git patch using "git add -p"

Git Work Flow



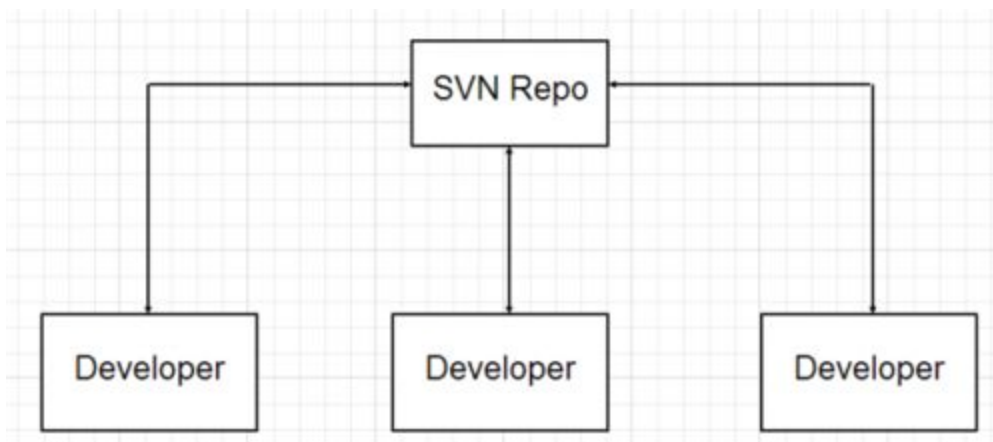
What is SVN?

Subversion (SVN) may be one of the most well known centralized version control systems. In Subversion or SVN, you are checking out a single version of the repository. With SVN, your data is stored on a central server. Having the entire history on your local repository just means that even when you are not connected to the Internet, you can still do commits, diffs, logs, branches, merges, file annotations, etc.

What are the advantages of SVN?

SVN has one central repository – which makes it easier for managers to have more of a top down approach to control, security, permissions, mirrors and dumps. Additionally, many say SVN is easier to use than Git. For example, it is easier to create a new feature. With Git, it takes an extra step to create a new feature. Others say that the way SVN is set up results in greater trunk stability, and having everything on a central server feels more controlled and secure for some.

SVN Work Flow



SVN vs Git

SVN allows you to check out sub-trees (or branches) only whereas Git requires you to check out the entire repository as a unit. This is because there is a .svn in each one of your folders while git only has one .git at the top level parent directory.

Is Git better than SVN?

Git and SVN are each viable workflow and version control systems, but for different reasons. Git may have more difficulty compressing and storing binary files, while SVN doesn't as much. That said, many claim Git is better than SVN because it works well even for developers who aren't always connected to the master repository, as it is available offline. Branching and merging support are also thought to be superior with Git. When it comes to disk space storage, it's pretty close to equal between both SVN and Git repositories. Git is also a bit newer than SVN.

SVN vs Git: It's up to you

I'm sure there are a lot more ways that GIT and SVN differ. If you take time to look for an example or two of how one or the other is best suited to your enterprise or workflow, you may have an easier time talking to management about getting the right VCS for your needs.

To better understand the differences between Git and Subversion. Let's have a look at following significance points.

Git	SVN
It's a distributed version control system.	It's a Centralized version control system
Git is an SCM (source code management).	SVN is revision control.
Git has a cloned repository.	SVN does not have a cloned repository.
The Git branches are familiar to work. The Git system helps in merging the files quickly and also assist in finding the unmerged ones.	The SVN branches are a folder which exists in the repository. Some special commands are required For merging the branches.
Git does not have a Global revision number.	SVN has a Global revision number.

Git has cryptographically hashed contents that protect the contents from repository corruption taking place due to network issues or disk failures.	SVN does not have any cryptographically hashed contents.
Git stored content as metadata.	SVN stores content as files.
Git has more content protection than SVN.	SVN's content is less secure than Git.
Linus Torvalds developed git for Linux kernel.	CollabNet, Inc developed SVN.
Git is distributed under GNU (General public license).	SVN is distributed under the open-source license.

More Links:

<https://www.perforce.com/blog/vcs/git-vs-svn-what-difference>