**SVN and GIT Comparison**

**SVN**

SVN or Subversion is Centralized Version Control (CVCS) tool and belongs to second generation of Version Control tools. SVN is the third implementation of a revision control: RCS, then CVS and finally SVN. SVN offers VCS features (labeling and merging), but its tag is just a directory copy (like a branch, except you are not “supposed” to touch anything in a tag directory), and its merge is still complicated, currently based on meta-data added to remember what has already been merged.

**GIT**

GIT is Decentralized Version Control (DVCS) tool and belongs to third generation of Version Control tools.

Every GIT working directory is a full-fledged repository with complete history and full revision tracking capabilities, not dependent on network access or a central server.

GIT is a **file content management** (a tool made to merge files), **evolved into a true Version Control System**, based on a DAG (Directed Acyclic Graph) of commits, where branches are part of the history of data (and not a data itself), and where tags are a true meta-data.

So, on the basic features, SVN and GIT can be compared as follow:

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| 1.       GIT works in distributed environment  i.e.  Each user has its own local repository and when user commit changes first changes go to local repository. It saves some accidental commits to main repository.  2.       User can not push changes to central repository until he pulls latest changes.  3.       Every GIT working directory is a full-fledged repository with complete history and full revision tracking capabilities, not dependent on network access or a central server.  4.       Git is extremely fast. Since all operations (except for push and fetch) are local | 1.       SVN does not.  i.e.  There is no local repository concept, changes directory committed to central repository.    2.       User can commit the changes without taking update, this may revert someone else’s changes.  3.       SVN involved the network for these operations.    4.       You can’t do any operations on svn if there is no network connection.  So it works slowly. |

**Conclusion**: After the comparison of GIT and SVN, I would like to recommend GIT over SVN.

Team’s suggestions are welcome.