Git, SVNServe, Apache, HTTPS

Rustam Tagiew

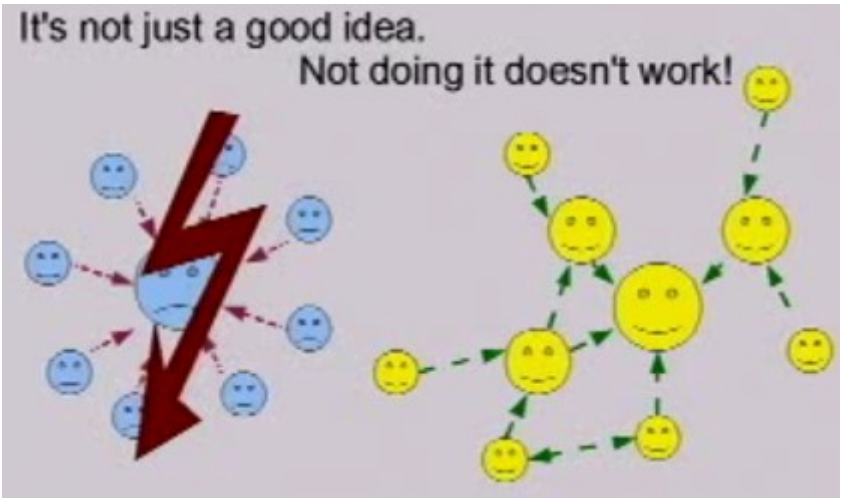
Freie VCSs

Zentrales Repository:

CVS (veraltet), SVN ...

Dezentral:

git, Bazaar, ...



[L. Torvalds]

Gründe für dezentrale Lösungen

Was du rein getan hast, bleibt genauso drin
(eben auf deiner Festplatte)

Die Performance ist besser

Keine „Politik“ notwendig

Branching (bei SVN möglich) ist einfacher

Der Unterschied

Zusätzliche Operation pull und push

& Erheblich mehr „MERGE“

|| besser gesagt: die „Politik“ danach
(Objektivität + Netzwerk des Vertrauens =
Epidemische Ausbreitung)

Tipp: cvs2svn
Convert a cvs repository to a subversion,
bazaar or git repository

"I'm an egotistical bastard, and I name all my projects after myself. First Linux, now git."
Linus Torvalds

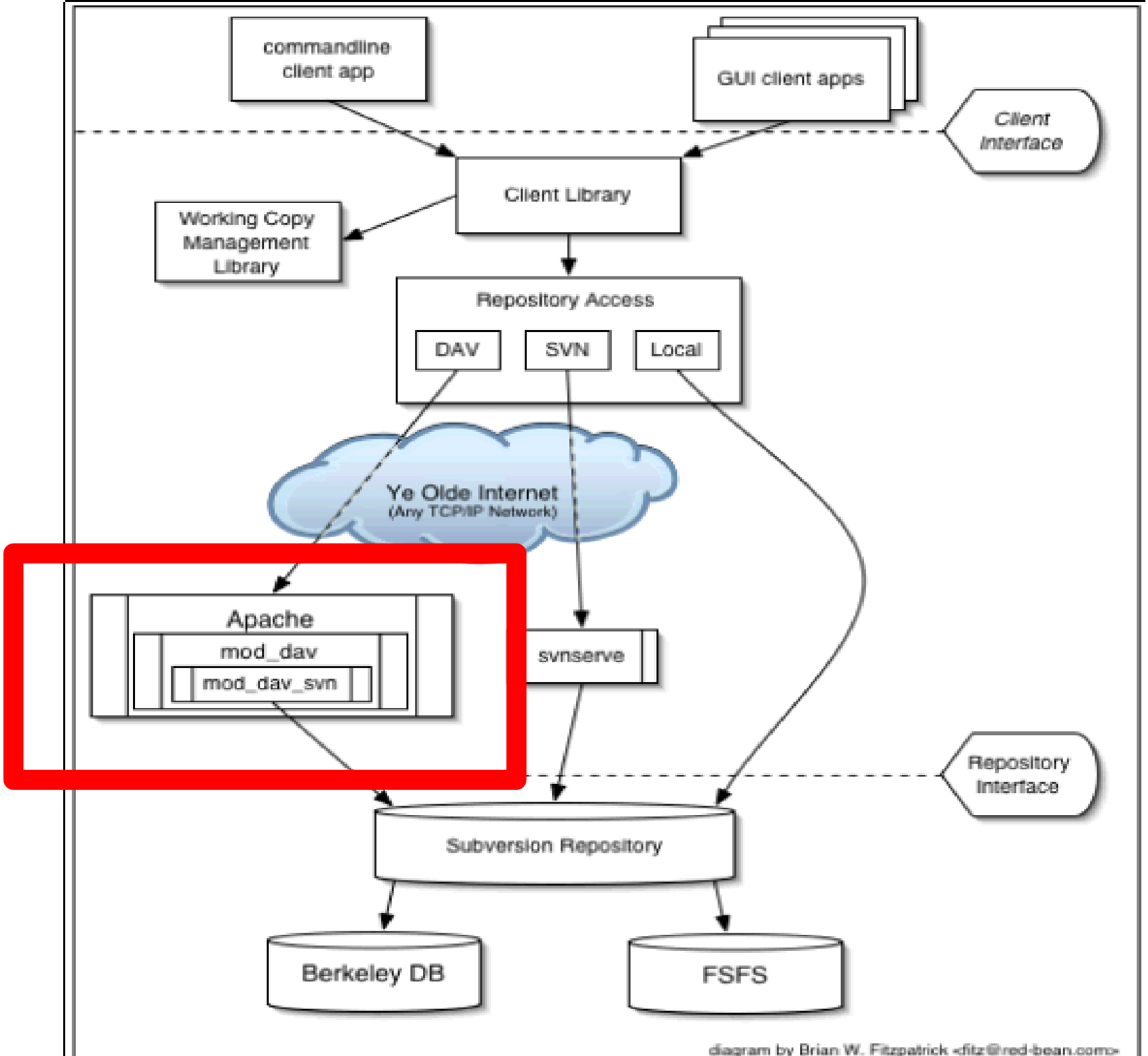
Git natively supports ssh, git, http, https, ftp, ftps, and rsync protocols –
Jeder hat, was er haben will!

git

add	Add file contents to the index
bisect	Find by binary search the change that introduced a bug
branch	List, create, or delete branches
checkout	Checkout a branch or paths to the working tree
clone	Clone a repository into a new directory
commit	Record changes to the repository
diff	Show changes between commits, commit and working tree, etc
fetch	Download objects and refs from another repository
grep	Print lines matching a pattern
init	Create an empty git repository or reinitialize an existing one
log	Show commit logs
merge	Join two or more development histories together
mv	Move or rename a file, a directory, or a symlink
pull	Fetch from and merge with another repository or a local branch
push	Update remote refs along with associated objects
rebase	Forward-port local commits to the updated upstream head
reset	Reset current HEAD to the specified state
rm	Remove files from the working tree and from the index
show	Show various types of objects
status	Show the working tree status
tag	Create, list, delete or verify a tag object signed with GPG

Zurück zu SVN: Zugänge

SVNServe	Daten werden plain verschickt Passwörter über CRAM-MD5 SASL als Abhilfe
Apache HTTP	Alles plain
Apache HTTPS	wird mit *public key* codiert
SVN+SSH	ähnlich


commandline client app
GUI client apps
Client Interface
Client Library
Working Copy Management Library
Repository Access
DAV
SVN
Local
Ye Olde Internet
(Any TCP/IP Network)
Apache
mod_dav
mod_dav_svn
svnserve
Repository Interface
Subversion Repository
Berkeley DB
FSFS
diagram by Brian W. Fitzpatrick <fitz@red-bean.com>

Jetzige Konfiguration

https://tigerdb.informatik.tu-freiberg.de/svn/

Wie kann man HTTPS knacken?

Installation auf Windows kurz

Apache installieren

httpd.conf editieren, und zwar

```
LoadModule  dav_svn_module    modules/mod_dav_svn.so
LoadModule  authz_svn_module modules/mod_authz_svn.so
LoadModule  ssl_module           modules/mod_ssl.so
```

Die Module oben kopieren!

Installation auf Windows kurz

Weiter mit httpd.conf

```
<Directory … >
   …
   deny from all
</Directory>
```

“deny from all“ auch an anderen Stellen

```
Include .../httpd-ssl.conf
Include .../subversion.conf
```

Installation auf Windows kurz

Inhalt von subversion.conf

```
<Location /svn >
  DAV svn
  SVNPath C:/svnrepos

  AuthType Basic
  AuthName "SVN-Repository of AI&DB group"
  AuthUserFile .../svn-auth-file

  Require valid-user

  AuthzSVNAccessFile .../svn-acl
</Location>
```

Installation auf Windows kurz

Inhalt von svn-acl

```
[SVN:/Teaching]
@students = r
@group1ss2010 = r
@group2ss2010 = r

[SVN:/Teaching/Group1SS2010]
@group1ss2010 = rw

[SVN:/Teaching/Group2SS2010]
@group2ss2010 = rw
```

svn-auth-file wird mit htpasswd editiert
(Password danach entfernen!)

Installation auf Windows kurz

Inhalt von httpd-ssl.conf

```
…
SSLSessionCache ".../ssl_scache(512000)"
SSLCertificateFile "...server.crt"
SSLCertificateKeyFile "...server.key"
```

Und nicht vergessen server.crt und server.key zu erstellen!