

Document Management with Zybert GEM/S

TripleA™

GEM/S provides comprehensive data handling and security functionality. In particular, all documents stored on GEM/S are covered by Zybert TripleA™ system:

- Fully automatic disk-to-disk backup
- Hot-swap backup disks for off-site storage
- Automatic archiving of previous versions of all files (with Admin Archive Management tool to control archive files retention rules)
- Hardware encryption of all disks, including off-site disks. Each disks has its own key that is required before the disk can be read.
- SPOK Secure Remote Access making file transfer unnecessary in most cases.

This functionality is available, automatic and independent of the way data on disks are written or accessed. GEM/S provides a whole range of data access protocols (HTTP, HTTPS, FTP, SFTP, SCP, IMAP, IMAPS, POP3, POP3S, RSYNC and others) and they are all covered by the TripleA™ functions.

Subversion Revision Control System

Apache Subversion is a powerful Revision Control System. It is installed and available on each GEM system. Detailed information about Apache Subversion functionality and usage can be found here: <http://subversion.apache.org/docs/>

Following is the list of basic functions provided by Subversion:

- Files and folders stored in a fast database, accessible locally or from network via Apache WEBDAV SVN module.
- Basic access control provided by Apache WEB server with additional controls available through Subversion module and through GEM firewall.
- The system stores all versions of all files, keeps a detailed log of all modifications and allows authorised users to download (*checkout*) and store (*commit*) individual files or folders. Author, date, author's comments as well as a list of author-defined parameters is kept for each revision of each file or folder.
- Users can update their *working copy* from the subversion repository. They can also extract any previous revision from the repository.
- Access to repository is through freely available client tools for Windows, OS X or Linux or directly via WEBDAV compatible interfaces available on all systems as well as built into many commercial applications. For Windows OS a shell extension called *TortoiseSVN* adding subversion client function to *Windows Explorer menus*.
- On the GEM the Subversion database is handled by the TripleA™ system to ensure automatic data protection and disaster recovery. Additionally – if required - Subversion repository can be mirrored to a different location for full continuity.

Additionally Subversion on GEM can offer tools for file revision verification and audit:

- File fingerprint, together with author, date, comment and optionally other information can be stored in a separate database on the GEM or in a different location. Access to *fingerprint* database can be independent of access control to the repository. This allows a copy of the file to be checked against the fingerprint database – to confirm that the file has not been modified and to obtain detailed information about the file without requiring access to the file repository. The detailed level of information provided by the fingerprint database can be customised.
- For enhanced security Zybert Computing offers SecureFolder™ system, which allows the user to keep sensitive information on portable media (USB sticks, CDs, Laptops) encrypted with the encryption controlled by the central server, even when the media are misplaced. This allows the owner of the file to control file access even after the carrying medium has been lost or stolen.