



AimValley is a world class engineering and innovation center that designs and builds networking solutions. We are based in Hilversum, with a strong presence in the USA and India. We started in 2003 as a spin-off from Lucent Technologies (a successor from the American company AT&T), that is why we have a strong background in telecommunication solutions and have build-up vast expertise in real-time processor techniques. Most of our design & development is done in-house.

Product development entails preparation of requirement documents, specification of system architecture, electronic development (block diagrams, board design, system certification, mechanical design), FPGA/ASIC development, software development, system verification and product/factory introduction. AimValley makes use of FPGAs to process high speed transmission functions. Real-time requirements are also key in our software development.

Our business is about people and our teams are dynamic, skilled and passionate about technique. Recruiting and training the right talent is an essential part of the AimValley DNA. We have over 80 employees of which 75% works as design expert in the R&D organization. All R&D employees have a college or university level education.



**Project Introduction - Volume 2.0**

AimValley uses an in-house developed volume system to store documents. This system was designed 15 years ago and is now somewhat dated. We searched in the market for a suitable replacement but could not find one that integrates equally well in the AimValley development process without the loss of the necessary threats for ISO and other certifications. AimValley works for various industries like, medical, avionics etc where authentication, authorization, accounting and traceability is key. In other words we need to be able to identify each user and control the access rights for each user to each document and maintain a log of changes and versions. This is large project and we have split the development into several phases. So far there is a basic presentation layer, backend and database which supports authorization.

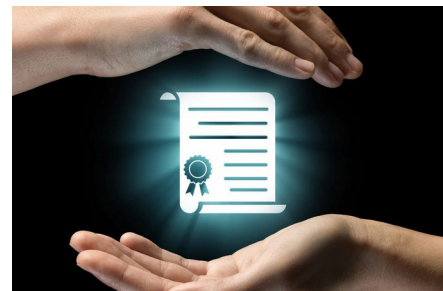
**Project Description**

For this assignment the primary scope is the storage, version control, accounting, process control and the integration of those in the current implementation. The assignment includes an investigation to an architecture that supports the following:

- > Support different types of documents (xml, zip, open and Microsoft document formats, pdf, etc.).
- > Design a storage system.
- > Design a presentation layer that presents the documents in a directory like structure to the user.
- > Select and integrate a version control system with the capability to write, retrieve, diff each version.
- > Secure accounting of all the actions.
- > Integration with our ticketing system, enforcing the AimValley development process. This includes the support of document states (draft, review, accepted, ..) controlled via the ticketing system while honoring the configured access rights to a document.
- > The design must be modular. In other words it must be possible to replace the ticket or version system without the need to redesign a larger part of the system.

**Complexity**

- > Largely the complexity lies with the versioning of the documents and the coupling with the access control and accounting. Note that documents can be moved to other directories and/or be renamed without loss of version control and accounting.
- > Coupling with the ticket system to enforce the process.

**Keywords for this project**

- > Angular 9, Typescript
- > Spring boot framework
- > Spring Security, Hibernate JPA,
- > Spring MVC, Tomcat Server,
- > MySQL server, Java Script

**Affinity**

- > Web applications
- > Databases
- > Version Control
- > Python and Perl

**Skills**

- > Communicative
- > Independent
- > Competent in English

Are you a student with a can-do attitude and a passion for technology?  
AimValley is your company!

**Why not join us today: [working@aimvalley.com](mailto:working@aimvalley.com)**