The subject of this work is a study, implementation and test of a shared authentication in multiple servers system. Although it was thought that Shibboleth would be the final studied and deployed system, other solutions were considered too at the beginning.

Shibboleth is a project developed by members of universities participating in Internet2 partnership with the objective to develop and to deploy new middleware. This middleware facilitates the authentication functions of shared resources in multiple servers and makes easier the collaboration between institutions and access to digital contents and e-learning environments in university surroundings.

Shibboleth is a complete solution because it enables the authentication, authorization, accounting, system login and the attributes to use. It makes the scenario very secure without compromising the privacy of the users.

The first part of the work explores the peculiarities of distributed requirements surroundings of e-learning environment, so specific concepts of security as well as the way to apply them were studied.

The next part of the work was a comparison among Shibboleth and other solutions available in the market and in this way the advantages of Shibboleth are described. After that, the work shows the structure and the main issues of Shibboleth and its operation and objectives. The surrounding requirements were also studied, specifically those used in e-learning, and a general concept of the work and of the basis of the technologies implied in Shibboleth were also considered.

Once the technical part was studied and documented, an scenario to test the system was constructed. Each part was proved, and when the basic example proves finished some CMS existing in the market were integrated to the project too. Basically Sakai and BlackBoard, the ones used in on on-campus (the e-learning environment at the Fachhochschule Lübeck) and Moodle as new proposal of use.

The last part is a conclusion and evaluation of how to deal with Shibboleth needs and some improvement suggestions.