

deutsche.hochschul.cloud –An initiative to promote the networking of German universities and research institutions

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The starting point is the ever-increasing networking of the research and education landscape, especially at the application level, in the form of so-called File Sync & Share services. In order to be able to respond to today's modern research landscape, it is important to provide the appropriate tools for users in education and research to support organisation-wide and cross-organisational cooperation. Over the last five years, enormous progress has been made. Several services have been successfully put into operation - in particular in Baden-Württemberg (bwSync and Share), Berlin (tubCloud), North Rhine-Westphalia (sciebo), Bavaria (LRZ Sync + Share, FAUBox) and Lower Saxony (GWDG Cloud Share), with a reach of million users. In addition, innumerable colleges and research institutes operate their own services. Another important step has been taken by the DFN e.V. with the DFN-Cloud initiative, which allows educational and other facilities to access other members' cloud services without operating their own File Sync & Share service. These are, however, predominantly regional or island solutions.

File Sync & Share is an established tool for the exchange of digital learning and teaching content, scientific studies, as well as administrative processes. However, a cross-departmental relationship between users of commercial monolithic cloud applications, such as Dropbox, is still missing.

To this end, we present the initiative "deutsche.hochschul.cloud" (DHC).

The aim of the "deutsche.hochschul.cloud" (DHC) initiative is to promote the regional, national and international networking of universities. The digitisation of educational infrastructures in working groups has already been discussed at the National IT Summit 2012, in Essen. Nowadays, the Internet has become more and more a part of everyday life for students, teachers and university administrators. The globalisation of education is taking place.

The purpose of the DHC is to coordinate and promote the networking of existing clouds and software development on the basis of trustworthy services. Important key points are the establishment of trust centres at the institute, state and federal level, the security of the cloud services through encryption and the use of existing security infrastructures (PKI + AAI); In addition, the rapid networking of the other universities should not be lost sight of. In a nationwide context, the DFN e.V. could play an important key role as a central trust centre.

The initiative presented here also has the following aims:

- The technical implementation of the necessary software functions, which is usually referred to as the "Federated Cloud".
- To win the support of the existing and new service operators.
- To create consensus and support at the political level.
- To work in conjunction with similar initiatives such as "Open Cloud Mesh".

Several intuitions, such as Karlsruhe Institute of Technology (bwSync&Share), GWDG, Leibniz Rechenzentrum, RRZE (FAUBox) and several more institutions, already joined the DHC initiative and provide support in form of use case descriptions, functional testing and financial contributions. Altogether the starting members provide a reach of about one million users in academia in Germany (of 2,7 million total).

This would enable the initiative "deutsche.hochschul.cloud" to make an important social contribution to digitalization in Germany.



Figure 1: deutsche.hochschul.cloud Logo



Figure 2: deutsche.hochschul.cloud Institutions

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