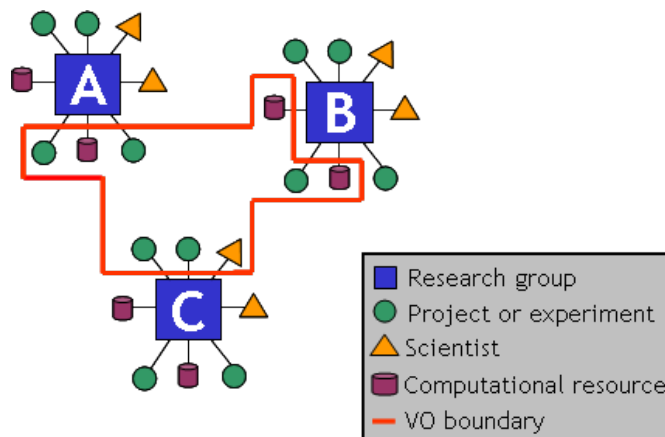


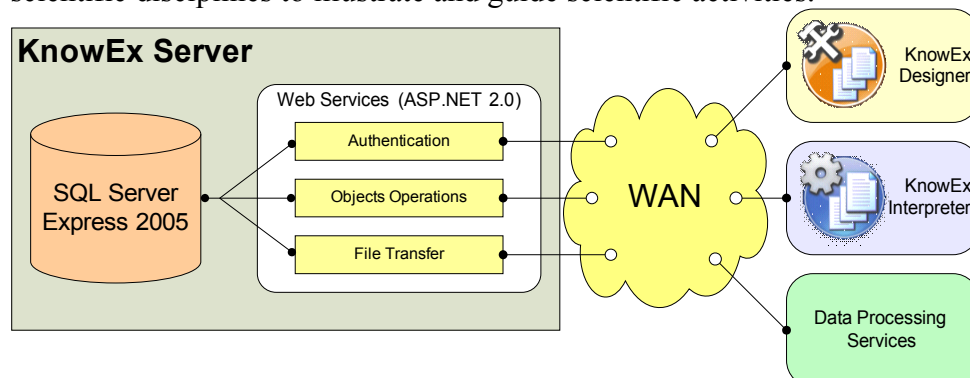
KnowEx : The Knowledge Exchange

In the virtual laboratory based KnowEx project a new methodology is developed that enables an effective collaboration between research groups from various disciplines in virtual organizations (VOs). KnowEx has realized a collaborative environment in which these very different groups can work together on a common project. In these type of collaborations, there



is a requirement to combine efforts from different organizations or research groups in order to answer a scientific question. This implies that different organizations have to share their resources such as experimental data, processing routines, computational resources etc. This can be realized in the flexible VO's of KnowEx. The KnowEx project is an integral part of the Dutch Telescience Laboratory.

KnowEx provides many easy ways to capture and store information. It is also a powerful information manager and is further developing as information organizer to help researchers keep track of their data, provide relevant retrieval, capture and store experiment data, implement dynamic raw data files (not to interrupt their possible processing at the time), individual bookmark collections for personalized access to user's recurring topics. Client/server technology and security features make KnowEx a responsive tool for sharing information throughout organizations to research communities providing data integrity and security of sensitive experimental data and insider discussion threads.. The crucial difference from existing information management systems is that the stored meta-data is based on actual experimental workflows. Workflow diagrams are used on every day basis in majority of scientific disciplines to illustrate and guide scientific activities.



The KnowEx system is currently being evaluated in two EU-projects to share round robin data. It facilitates a bilateral collaboration between Johns Hopkins medical school and the FOM-institute for atomic and molecular physics targeting the investigation of the molecular basis of breast cancer. For that purpose KnowEx provide remote access to histological data in Baltimore and MS image data in Amsterdam. Its use is also evaluated in biomarker research where from KnowEx various GRID tasks are initiated with the purpose to speed up processing of large scale proteomics datasets. The required processing settings in turn are also provided by the meta-data database.