

THE ISSUES OF DEVELOPING UNIVERSITY'S INTERATED INFORMATION ENVIRONMENT

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The information environment of University (IEU) is totality of infrastructure, enterprise data, and information systems integrated to solve informatization tasks. IEU is specific projection of University business-processes on information technology domain. The distinctive feature of the modern demands on IEU is active impact of information technology to University's business-processes. The fulfillment of a number of demands is necessary to IEU is able to impact to University.

1. All staff (employees and teachers) and students of University are the users of IEU independently of location. The users have access rights to information resources according to their roles into the University. Access rights management is carried out automatically.
2. The applications of IEU have to cover the basic activities of University. The applications have to implement necessary functions including data acquisition and storage, processing and analysis, planning and decision making.
3. The component model is the basic architecture of IEU. It allows implementing integration of applications and data.
4. The integrated repository allows supporting high level of data integration.
5. There are advanced systems of data actualization and recovery procedure to restore work.
6. The extraction general functions of the applications into separate modules covered the group of the procedures.
7. The use of reliable and scalable hardware-software platforms and technologies for different purposes: data base management systems, Dock

flow systems, geoinformation systems, Internet, virtual net, distributed computing, and OLAP- technologies.

8. The use of efficacy indicator allows estimating applications need. The use of load balancing algorithms allows increasing performance of IEU.
9. Documentation of archiving and restoring procedures is necessary for IEU .

The component model is the base of IEU meeting the demands [1,2]. Application integration can be implemented using the component approach. The model allows integrating into IEU of Vladivostok State University of Economics applications developing with .Net (C#, ASP), OAS (J2EE), C++, Delphi, MSObject/MapXtreme, Lotus Notes, MS SQL Server, Oracle, Lotus Notes, and Active Directory.

Data integration can be implemented by several ways. First data can be connect with each other by logic way. It implies that the relations between data are known to the projects and web-services but not data themselves. Second data integration is implemented under union of University and its branches [2]. Third some servers of IEU hold sampling replications from different DBMS of other servers.

Data integration is dominant feature providing the support of the most of the demands. But the logic data integration is very difficult to be implemented into the complex distributed information environment. Logic data integration must be described in general repository of IEU.

Besides metadata of different DBMS descriptions of their interrelationship, usage in the projects and web-services of IUE [1] are stored into general repository. Data actualization procedure, replication of integrated data, automatic generation of the forms for directories editing are carried out basing on the general repository. The IEU projects and web-services operate data using general repository too.

References

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