**Establishing Modern Master-level Studies in Information Systems   
561592-EPP-1-2015-1- FR-EPPKA2-CBHE-JP**

**ІT – infrastructure**

**Guidelines to perform laboratory works**

Laboratory work # 3

Topic: Development of recommendations for choosing infrastructure providers

**draft version**



**Theoretical information**

Information activities, like any other, are characterized by the use of resources, production processes, production and provision of services.

Information service is the receipt and provision of user information products. The main kind of information products is information.

Most of the information services offered to consumers are based on various databases.

There are the following types of information services:

• retrospective search of information;

• preparation and provision of information services.

• Remote access to remote databases.

• Connection services.

The preparation and provision of information services includes:

• data processing, software; development of information technologies; development of information systems.

• Technical support for hardware and software, including support for multivendor solutions.

• organization, operation and comprehensive maintenance of information systems

• Rental of computing power

• creation and maintenance of uninterrupted operation of customer's information systems in data storage and processing centers.

• Providing information security.

There are many companies in the market of IT infrastructure providers (ITIS) that position themselves as suppliers of equipment and services.

Price policy in Ukrainian companies is somewhat more flexible than that of foreign colleagues, as the latter are, as a rule, in certain corporate frameworks in the questions of price formation. Approaches to realization of projects in Ukrainian companies are closer to the conditions of doing business in Ukraine. All Ukrainian companies officially operating on the IB market are licensed by the State Service for Special Communications and Information Protection of Ukraine (GSSZI). Thus, one of the main criteria for selecting a company for the implementation of the IB project can be considered the existence of a license for activities in the field of information protection, issued by the USCISE of Ukraine. This gives a certain assurance to the customer that the company has appropriate equipment and personnel for the work of the IB.

It is advisable to identify the following types of ITIS companies:

• product developers (software and hardware);

• System integrators for ITIS solutions;

• distributors of ITIS products;

• ITIS consultants;

• IT auditors;

• companies that provide training on ITIS;

• Insurance companies in ITIS;

• Information resources in ITIS.

Most companies are engaged in system integration and consulting, training of specialists and audit of information systems.

The company integrator analyzes the IT infrastructure of the customer and offers a set of technical solutions. Next, integrator specialists choose a set of hardware and / or software, install and configure it for work in a specific environment. As a rule, the customer's personnel learns how to use equipment and software, and to respond to problems.

Distributors of products and solutions are ideally a link between developers and integrators. Their main task is to support the system integrator, including consultants when implementing the project.

Most products and solutions require additional costs for their installation and adjustment. In addition, most require a periodic renewal of the license (usually once a year.) Purchase of equipment or software is only possible after the following measures:

• risk assessments for information assets (software and hardware);

• Internal audit of IT infrastructure;

• calculation of return on investment in IB;

• necessarily having the support of management and owners of information assets.

**Financial criteria for choosing a vendor:**

• the cost of the project and the expected return on the project (how much and when);

• what will happen if the project is not;

• cost of ownership and resources needed for maintenance;

• how the project will affect the image of the manager in the event of failure or successful implementation (career);

• How much the project facilitates or complicates the performance of everyday tasks.

**Task**

Object of development - IT infrastructure of the enterprise (company) for which IT infrastructure audit in the laboratory work No. 1 was performed.

To formulate comparison and restriction criteria for supply of IT infrastructure.

Perform a comparative analysis of the services provided by IT infrastructure providers available to companies in Vinnitsa.

Develop recommendations for selecting infrastructure providers.

Develop a project of an infrastructure contract with a potential vendor.

Prepare report.

**Testing questions:**

1. Infrastructure contracts. Types of infrastructure contracts.

2. Types of agreements in the field of creation and disposal of rights to objects of intellectual property.

3. Types of infrastructure contracts. Contract on Spint. Fixed Price / Fixed Scope.

4. Types of infrastructure contracts. Time and Materials. Time and Materials with fixed requirements and cost constraints. Time and Materials with variable requirements and cost constraints.

5. Types of infrastructure contracts. Staged development.

6. Types of infrastructure contracts. Bonuses and fines. Fixed profit.

7. Types of infrastructure contracts. "Money for nothing, changes for free".

8. Types of infrastructure contracts. Joint ventures.

9. Infrastructure Outsourcing. Advantages and disadvantages of infrastructure outsourcing. IT outsourcing management.

10. Outsourcing of data centers. Outsourcing of networks.

11. Infrastructure Outsourcing. Security Management.

12. Infrastructure Outsourcing. Cost management.

13. Infrastructure Outsourcing. Software Management.

**LIST OF RECOMMENDED LITERATURE**

1. Олейник А. И., Сизов А. В. (2012) ИТ-инфраструктура [Текст]: учеб.-метод. пособие / А. И. Олейник, А. В. Сизов; Нац .исслед. ун-т «Высшая школа экономики». — М.: Изд. дом Высшей школы экономики. — 134 с.
2. ITIL - IT Infrastructure Library - Available at <https://www.axelos.com/store>
3. Bernard S. A. (2005) Introduction to Enterprise Architecture; Publisher: authorHOUSE™
4. Alter S., "Work System Theory: Overview of Core Concepts, Extensions, and Challenges for the Future" (2013). Business Analytics and Information Systems. Paper 35.
5. Adner R., Kapoor, R. (2016). Right Tech, Wrong Time. Harvard business review, 94(11), 60-67.