

УО «Алматы Менеджмент Университет»



ALMA
ALMATY MANAGEMENT
UNIVERSITY

i-START

**«Инновационное предпринимательство:
перезагрузка 3.0»**

**Сборник материалов
ежегодной научно-практической
конференции студентов и магистрантов
14 апреля 2017**

Алматы, 2017

УО «Алматы Менеджмент Университет»

i-START
**«Инновационное предпринимательство:
перезагрузка 3.0»**

Сборник материалов ежегодной научно-практической конференции
студентов и магистрантов
14 апреля 2017

Алматы, 2017

УДК 005.511 (063)
ББК 05.290-93
I 10

Редакционная коллегия

<i>Мырзакожа Д.А.</i>	д.х.н., директор управления стратегического планирования и исследований
<i>Укибаев Д.К.</i>	редактор журнала Центра научных исследований
<i>Ибжарова Ш.А.</i>	к.ф.н., доцент кафедры «Информационные технологии и общеобразовательные дисциплины»
<i>Арын Ә.А.</i>	магистр экономических наук, зав. кафедрой «Финансы, учет и аудит»
<i>Абдуллин Р.Ж.</i>	магистр экономических наук, старший преподаватель кафедры «Финансы, учет и аудит»
<i>Еспергенова Л.Р.</i>	к.э.н., доцент кафедры «Финансы, учет и аудит»
<i>Мукушев А.Б.</i>	магистр экономических наук, старший преподаватель кафедры «Финансы, учет и аудит»
<i>Дауренбекова К.С.</i>	магистр экономических наук, старший преподаватель кафедры «Экономика и сервис»
<i>Ордабаева А.Б.</i>	магистр юридических наук, старший преподаватель кафедры «Государственная и общественная политика и право»
<i>Өмірсерік О.</i>	магистр экономических наук, старший преподаватель кафедры «Менеджмент и маркетинг»
<i>Сәуірбаева Ә.Т.</i>	главный специалист Центра научных исследований, секретарь Оргкомитета

I 10 i-START «Инновационное предпринимательство: перезагрузка 3.0» Сб. мат. ежегод. науч.-прак. конф. студ. и магистран., 14 апреля 2017 г. – Алматы: Алматы Менеджмент Университет, 2017 – 519 с.

ISBN: 978-601-7470-72-2

Все статьи прошли проверку в системе Антиплагиат.ру (уникальность текста не ниже 70%).

УДК 005.511 (063)
ББК 05.290-93

ISBN: 978-601-7470-72-2

© Алматы Менеджмент Университет, 2017

22	Маманова Бота, Ким Даниил, Хамраев Шамиль <i>Краткое руководство нахождения себя</i>	82
23	Молчанов Владимир Сергеевич <i>Маркетинг эмоций</i>	84
24	Мукажанов Кайдар Кайратович <i>Modern problems of retaining talented employees in the companies</i>	88
25	Мұхатаева Бану Каип-Рахманқызы <i>Новые маркетинговые инструменты в казахстанской индустрии гостеприимства</i>	92
26	Новичкова Валерия Александровна <i>Управление автотранспортной сферой на основе механизма ГЧП</i>	95
27	Нұрғалиев Әлімжан Нұрланұлы <i>Маркетинг на рынке сертификации</i>	99
28	Ordabekov Anuar <i>Economic efficient of cloud computing</i>	102
29	Өтебәлі Нұргүл Бекенқызы <i>Психология конкуренции</i>	105
30	Өтебәлі Нұргүл Бекенқызы <i>Исследование конкуренции рынка технологических оборудования на примере ТОО «КазТехПром-Сервис»</i>	107
31	Панасевич Татьяна Сергеевна <i>Особенности продвижения товаров на рынке b-2-b в Казахстане</i>	114
32	Рысбекова Айым Чингизқызы <i>Criteria for corporate culture</i>	117
33	Сариева Раушан Азирамановна <i>Теоретические основы развития рынка маркетинговых коммуникаций</i>	121
34	Сарыстанова Динара Әлжанқызы <i>Развитие системы управления качеством и обеспечение ее конкурентоспособности на примере гостиницы «Казахстан»</i>	124
35	Суртай Асель Ануарқызы <i>Исследование маркетинговой деятельности сети интернет школы «4WEB»</i>	130
36	Тулинова Виктория Викторовна <i>Перспективы развития черной металлургии на основе внедрения инновационных технологий производства высококачественного сырья</i>	135
37	Шакиева Юлиана <i>Организационные формы маркетинговых исследований</i>	139

СЕКЦИЯ 2

Белгісіздік жағдайындағы қаржы және бухгалтерлік есеп: мүмкіндіктер мен тәуекелдер Finances and accounting in conditions of uncertainty: opportunities and risks

Finance and accounting in conditions of uncertainty: opportunities and risks

1	Акдулеуов Торехан Онгарович <i>Местные бюджеты в развитии регионов</i>	141
2	Арыстан Айжан <i>Қазақстан Республикасында адами капиталды қаржыландырудың кейбір мәселелері</i>	145
3	Асканбаев Ганибет Ерболатович <i>Анализ формирования оптимального портфеля АО «ЕНПФ»</i>	148
4	Ахмадиев Серик Тыныбекович <i>Использование модели Блэка-Шоулза в расчете временной цены опциона</i>	151
5	Бақберген Жадра Жомартқызы <i>Инвестиционная привлекательность Казахстана</i>	156
6	Бимуратов Ерлан Айханұлы <i>Совершенствование управления собственным капиталом АО «Цеснабанк»</i>	158

ECONOMIC EFFICIENCY OF CLOUD COMPUTING

Ordabekov A.A.

Almaty Management University, «Management», 2-course, Almaty

Scientific advisor: Kenzhegaranova M.K., PhD, Senior Lecturer

Business world is in permanent movement and developing every day. The development of a business is not only a raise in profit, but in a scale. The raise in scale is also craft that shows organization's ability to be elastic. In this way, elasticity of the organization is skill helping to be protected in any situation, and implement defensive or aggressive strategies when it needs. Fortunately, technologies are developing very rapidly and now fully ensure requests of any complex requirements.

It is not a secret that to be out of innovation – to be out of market. The history shows the companies, not transferring, for example, from mainframes to PC, remained behind the line of business world [1]. This is a mandatory requirement of a competition and distinguishing feature of organizations that stay afloat. Nowadays, information technologies industry is developing on the way of providing services mostly in corporate world. Almost last 5 years management quite often thought about cloud computing in order to ensure organization's communication, workflow, and data exchange. But there is a logical question: why don't they change traditional model to cloud computing. The main problem is to understand appropriateness of cloud computing, economic effectiveness of changing IT model or in which way start creation of IT infrastructure. To better understand the problem, it is necessary to review type of IT model, give definitions, and compare realization's economic part of models.

There are two types of IT organizational model: own data center and cloud computing. Data center, talking in the scale of organization, is a place that ensures communication of all end-devices between each other, store massive data, provides continuous data exchange. To implement this type in organization, management team should firstly hire well-organized, skilled IT team which can not only support IT infrastructure, but build a fundament and rise walls of IT communication, secondly, plan a place where data center will be organized, predict needs of employees, calculate expenses for creation a sustainable communication, corresponding to a future business process of an organization. But creation of a place for data center is not just buying new equipment. Data center must be in particular conditions, including temperature, humidity, safety, security etc. Besides, company should fully understand and calculate expenses for supporting, power consumption. These require huge amount of investments, making impossible for some companies, and are very time consuming process, making impossible for such companies, which cannot give away time. Actually, these situations are not rare, but IT industry has another decision.

Cloud computing is a technology of distributed data, in which possibilities and power of a computer can be provided as internet-service [2]. Unlike traditional model, cloud computing is a service. It makes it more available, from the point of finance and investment, especially for new companies. To discern a power of cloud computing, short description is given below. There are three types of cloud computing services:

- Infrastructure as a Service;
- Platform as a Service;
- Software as a Service;

The lowest level in the separation of the technology is Infrastructure as a Service. When the word infrastructure is faced, means logically developed network and in this understanding is not an exception. Cloud computing providers allow clients to develop own infrastructure and manage hardware network devices like routers, switches, firewalls. The service is advantageous in a way of economy, because the prices of the network devices are high, but in order to ensure uninterrupted qualitative process, organizations need to allocate budget on purchase, maintenance, depreciation. Despite remote network devices, the functions, manageable and control settings are same as if organizations have owns [3].

The middle level is Platform as a service. This service allows organizations to manage on the level of operation system. Obviously, having middle level service means having also IAAS, because the system must be installed on hardware. In this case, organizations have manageable functions of OS [3].

Software as a service, based on a name of the service, means managing software. Provider takes all responsibilities and administrating functions and provides organizations software, to ensure business process [3].

Cloud computing considers a sequence of steps to implement. Management should understand how much power and resources do company need to provide a workflow. Calculation of power consumption, capacity, resources are very important, because the price is depended on these and leads to a step of choosing an appropriate type of cloud computing – all of these are not easy process, but economically effective as will be shown below. In the sequence of steps choosing of cloud computing provider must be included. Providers are differs between each other in the sense of services, tariffs, but the main point is one.

Advantages of cloud computing:

1. Remote use of computer resources, HR mobility (Basically it depends on specific of business. Considering most of the organization, it is possibility to change working schedule and make it more flexible that makes, by the way, a step in the future Management 3.0);

2. Reducing expenses on data center and supporting (Supporting means not only hire or get service maintenance on equipment producer. Any of equipment in data center should be updated in certain years and these are a lot of expenses);

3. Skip the preparation time for information system to be involved in the process;

4. Reliability, safety, uninterrupted work (All the responsibilities are on providers ensuring cloud service. Cloud provider must correspond to a quality of a service in order to a competitive, although depended on company);

5. Elasticity and scalability – ability to change the size using resources base on needs (Obviously companies don't use all possibility that equipment can give. This is explained as technical feature of equipment manufacturer's economic model, unstable working load, seasonal business, even off hours. So expenses on amortization, power consumption are included, but in cloud computing organizations pay for use – without any problem change size and power);

6. Decreased risk of outage – condition of server crash is usually envisaged. It means that cloud computing provider ensure reserved server in order to protect organization from closedown.

Cloud computing as an economic solution is apparently better than traditional model. Considering new-opened companies, startups, in this case there is no need to organize data center, technical support, utilize old equipment, buy new equipment. But if this solution is appropriate for startups, for well-known huge companies this perspective is more risky. These organizations have usual, habitual business processes and change of IT model can shock business. So, a recommendation is to introduce the model partly – it can be one project by one or develop more complex decision introducing the structure of an organization sequentially. In this case, management should think about two questions: is it necessary to invest on change of model, which is indeed risky and make the system unstable even on a short period of time or will lack of cloud computing make an organization less competitive in the future. The degree of risks are depended on a business and expediency of such decisions should be considered by change management and risk management team. Comparing economic effectiveness and differences of two models, defining specific distinguishing features, will be helpful to consider and make a decision.

Table 1 was constructed in order to compare expenses in a traditional model and a cloud computing service. The table shows periodic and one-time payment comparing two models. Colors of a text means rate of expenses (red – high, orange - average, green - low)

Based on Table 1, cloud computing, talking about one-time payment, requires less expenses than traditional model. There is no need to buy very expensive equipment and include amortization in prices of own products or services.

Table 1. Expenses on IT model in traditional model and cloud computing [4]

Payment	Traditional model	Cloud Computing
One-time	Equipment buying, HR qualification, equipment utilization, the development of a software or application	HR qualification, the development of a software or application
Periodic	Salary, technical support, rent of place, applications update	Salary, technical support, rent of cloud, applications update

Of course, annual payment for cloud computing will be included in the cost, but the difference is appreciable. Differences between traditional model and cloud computing in periodic payment are in size of payments. Using cloud computing reduces expenses on salary, rent. In some cases, there is no need in salary, because of no stuff in IT department, and all responsibility hung on a provider's shoulder.

Economic efficiency is reflected very rare in a short-term perspective, but always in long-term perspective. Calculation should consider expenses not only on such factors like salary, support, rent, but on power consumption, using hours, because excluding these parameters does cloud computing nonsensical. It is impossible to affirm that a cloud computing is more efficient, without consideration of cases where it is not. This has a good reflection in the formula given below.

Researchers from Berkley proposed the formula to calculate and compare cloud computing effectiveness:

$$tc(I - Chc) \geq tdc(I - \frac{Chdc}{L}) \tag{1}$$

where, tc –period of using cloud; Ic – income; Chc – cost of cloud one hour; $Chdc$ – cost of datacenter one hour; L – average loading of datacenter. In the left part of the formula, I is income, which organization can get from using of cloud, in the right part, possible income from datacenter. Two parts is similar, except average loading of datacenter. This parameter according to (1) makes two parts different and if average loading of datacenter L is 10% - number is average and normal for the organization use, - $Chdc$ will be multiplied by 10 and traditional model's efficiency will go down. In this way appears logical question – why wouldn't organizations use less powerful equipment. There are many cases when using less power equipment is impossible: specific of business doesn't allow using less power equipment: seasonal activity of business, when activity goes up and down very often,- as noticed above, manufacturer doesn't

produce such equipment. Also, purchasing an expensive servers, storage devices, switches means having a sustainable communication. From the one hand, it is a right decision, because risks decreased. But economically, it is incorrect, to invest on things that company doesn't use. Researchers argues that ideal situation when $0,9 \leq L \leq 1$, but on a practice this situation is unacceptable, because it means almost 100% loading [5]. The calculation shows that cloud computing economically more efficient, based on average indicator of loading datacenter. Considering a situation of almost full-loaded data center (i.e 60%-70%), it is possible, but a life of equipment is minimal due to aggressive use. This leads to early updates in data center and new expenses. Outcomes of these reasoning is that appropriateness of changing traditional model to cloud is specific feature of business. For the most of companies, who doesn't connect to IT industry, is a good decision, dropping out calculation of risks, changing business processes. Considering IT organizations like Oracle, Microsoft, this approach is possible partly due to a main point of business.

The most powerful advantage of cloud computing service are ability to calculate need resources like power consumption. Expenses are decreased by the time managed use - cloud computing allows organization to construct the graphic of use, regulate dedicated memory, manage other resources. Such approach represents cloud as attractive investment and less consuming in long-term perspective, from the attitude of finance, that in sum make it economic efficient.

References:

1. Analytical research of IDC (International Data Corporation) - <http://www.idc.com/>
2. Yakusheva N.A, Raschet Ekonomicheskoi aktivnosti: VestnikMGTU, 2012, p.225.
3. Lizhe Wang, Gregor von Laszewski, Marcel Kunze, Jie Tao. Cloud computing: A Perspective Study", 2008.
4. CNews Analytics - <http://www.cnews.ru/>, 2011.
5. Above the Clouds: A Berkeley View of Cloud Computing / M. Armbrust, A. Fox, R. Griffith, A.D. Joseph and al. Electrical Engineering and Computer Sciences, University of California at Berkeley. Technical Report No. UCB/EECS-2009-28. <http://www.eecs.berkeley.edu/>, 2009.