

A Strategy of the Electronic Business as a Way to a Successful Competition

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Abstract

This article is devoted to discussion of development of the electronic business. The features of the electronic business are described. Some advantages of the electronic business in enterprises are shown. The modern business is characterized by constant growing of global competition and increasing level requirements of customers. The role of the electronic business in increasing of competitiveness is considered. For preparing and organization successful in competitive fight electronic business recommendations are suggested.

This paper gives an overview of current on – line payment systems of UzNet in Uzbekistan, determines which are they and how do they work. Also these systems compared and analyzed from functionality, security and cost point of view.

Also the question of necessity of using the digital signature in e-Procurement systems is considered in this paper. Such technology will allow to faultless identification of the person who have signed document, and an invariance of the signed document.

1. Introduction

The electronic business presents itself facility of conduct of the business in global scale. It allows the companies effectively and flexible realize the internal operations, in greater depth interact with supplier and quicker to respond to requests and waiting customer. The companies get the possibility of the choice best supplier regardless of geographical location, as well as possibility of the output on global market with their own goods and service. The electronic business unites the broad spectrum a business-operation, which comprise of itself:

- exchange by information;
- determination contact, for instance, between potential customer and supplier;
- before- and after sale support, for instance, presentation to detailed information on product and service, documentation, answer to questions of customer;
- sale goods and services;
- electronic payment, including with use the electronic payment systems;
- spreading the products, including as delivery control and its tracing for physical products, so and direct delivery of the products, which can spread by the electronic way;
- possibility of organization virtual enterprises - a groups separate specialist or even independent companies for conduct of joint commercial activity;

- realization business-processes, together operated by company and its trade partners.

The possibilities of the electronic business contribute the following new elements in modern business:

- Growing to competitions;
- Globalization of activity spheres;
- Personalization of interactions;
- Reduction channel of distribution goods;
- Economy of the expenses.

1.1 Growing to competitions

The modern business is characterized by constant growing of global competition and increasing level requirements of customers. In response to this the leading enterprises all over the world change the ways to organizations and business control. Occurs the refusal of old hierarchical structure, disappear the barriers between branches of the companies, it is simplified interaction between companies. The business-processes reform and leave for old borders. Possible bring the ensemble an example, when, having begun with one, two companies, in separate branch processes change the ways of conduct of the business touch and the customer, and supplier, and rival.

Electronic commerce allows the supplier to raise competitiveness, become to the customer closer. Many companies use technologies of electronic commerce to offer extended before-and after sale support, including granting the detailed information on product, instruction on its use and quick reaction on claim of the customer. Accordingly, the customer gets the more high quality of service.

1.2 Globalization of activity spheres

Internet vastly changes spatial and time scales of conduct to commerce. Internet is the global facility of communication, not having any territorial restrictions, at cost of the access to information does not depend on remoteness from it, as contrasted with traditional facility, where this dependency straight proportional. Thereby, electronic commerce allows even the smallest supplier to reach the global presence and do business in world scale. Accordingly, the customers also get the possibility of the global choice from all potential suppliers, offering required goods or services regardless of geographical location. The distance between seller and buyer plays the role only with standpoint of the costs of transportation in step of deliveries goods. The time scale in ambience Internet also vastly differs from usual and allows the company to come to a conclusion in several times quicker, than earlier. Information and services in Internet are available night and day. Besides, Internet possesses high flexibility, allowing easy produce changes of presented information and hereunder supports its urgency without time delay and expenses on spreading.

1.3 Personalization of interactions

Using facilities of the electronic interaction, companies can get detailed information on request of each individual customer and automatically give the products and services, corresponding to individual requirements. The level of such service shall compare to that that offer the specific suppliers, but on mass market prices. One of the simple examples is the personal presentation of Web-site for each of the customers of the producer or distributor.

1.4 Reduction channel of distribution goods

In many events electronic commerce allows greatly to shorten the way of goods from supplier to the customer. Goods are successfully delivered from producer consumer directly, in pass-by traditional channel in the manner of wholesale and retail storehouse and trade point. The reason of the reduction channel of distribution is a possibility for companies to undertake to functions, traditionally executed by specialist of intermediate sections, as Internet possesses the more efficient possibility of the interaction with consumers and simultaneously allows tracing information on consumers.

The special event is the products and services, which can be delivered by electronic way. At the way of delivery grows shorter greatly. The electronic way is broadly used for delivery of the digital products to industry of the amusements (the films, video, music, journals and newspapers), information, facilities of the education and is effectively used by companies, concerning with development and supply of software.

1.5 Economy of the expenses

One of the main of the achievements of electronic commerce is an economy of the expenses at transaction and its following service. Thereby, any business-process, in which possible use the electronic interaction, has a potential for reduction of the expenses that, in turn, can be a base of the price reduction for the customers.

As we saw in developed countries, where high techs are widespread and service sphere is developed, everyone, businessmen or even ordinary people could not imagine his or her life without account in certain payment system. Recently ICT is developing rapidly and penetrating to each sphere of activity. If such terms like "on – line payment system", "electronic commerce" formerly seemed unusual, now they are in use in our society and penetrating into our everyday life.

The procurement system in Uzbekistan is developing since first years of independence of the Republic, and has been repeatedly changed. First of all, the tender requirements on placing of orders have been carried out, bases of legal regulation of procedures of tenders and purchases are put in pawn. However, this system requires the further development.

The last years Uzbekistan is adopted a number of the standard documents, concerning mechanisms of regulation of electronic commerce. Most essential of them – the Laws of the Republic of Uzbekistan «On Electronic Commerce» [4], «On Electronic Document Flow» [5], «On Electronic Payments» [6], Decision of the President of the Republic of Uzbekistan «About additional measures on the further development of information-communication technologies» [7]. In the regulatory legal acts is considered the new factor, which capable seriously to affect to the relation between the customer and suppliers, such as mass distribution to a business life of the country IT and, the Internet service. Today purchases still assume "paper" document flow, which considerably reduces their efficiency. System of the competitive auctions on the basis of network technologies is actual question for modern Uzbekistan. The publication in the network of the open information about operating auctions and their results gives a advantage in efficiency and general availability of performance.

E-Procurement system is assumes adequate technical realization of legal relations between customers and suppliers of the goods and services. At traditional document flow obligations accepted by the parties and data given by them prove to be true the signed paper documents. However a number of the legal conditions provided by the legislation, for example,

confidentiality of the application submitted in a sealed envelope, are technically provided exclusively with conscientiousness of the organizer of the tender. At transition to electronic document flow technical realization of these legal relations, besides other, should guarantee performance by the parties of the conditions provided by the legislation. At electronic document flow the autographic signature is replaced with the digital signature. The Act, which has taken effect since December, 11th, 2003, of the Republic of Uzbekistan «On electronic digital signature» [8] urged to create a necessary legal basis for such replacement. The law defines legal conditions at which observance digital signature the electronic document admits to the equivalent autographic signature on the paper document. Technically equivalence is provided with that Digital signature guarantees an invariance (protection against a fake) signed digital signature the electronic document, faultiness against the signature and allows to identify the person who has signed the document unmistakably. Digital signature is the integral component of an infrastructure of an open key (PKI - public key infrastructure) [9].

2. Strategy of the electronic business - a way to successful competition

2.1 The role of the electronic business in increasing of competitiveness

Main part of business is a consumer. So companies of electronic commerce must more take care of business-processes of clients, than about their own internal procedures. To help the enterprise in their force in area of electronic commerce, Gartner Group conducts discussing the reasons of the failures and approach, provided success project on electronic commerce, as well as need be orientated on creation new quality consumptions (customer-perceived value). Transition to electronic commerce gave the many enterprises small increase incomes or reduction of the expenses. However for this has not followed expected cutting the increase the share market. Regrettably, only a few enterprises has made the necessary actions to their own internal business-processes with business processes of clients, is sewn on by him thereby more powers and new consumer quality. However exactly this is required that electronic business became successful and has enlarged its share in market.

Some reasons of the fail attempts of enterprises to enlarge its share in market by means of electronic commerce:

- Projects of the electronic business were too narrow are determined, and so too weakly influenced upon the total income, satisfaction and deduction client.
- It was not created mechanisms of the tracing to capacity, which possible use for estimation of efficiency of the electronic business.
- Exhibit Web-technology to process is not part of mechanism of the making the cost (value creation mechanism).
- Inability to do the interfaces of the processes more production.
- Initiatives of the electronic business are developed disregarding possibilities business partner, and so cannot be applying in practice.

There are examples, when enterprises successfully introduce the electronic business and obtained the significant results, including:

- Increase the profit;
- Reduction to duration of the cycle supply-production-sale;
- Optimization of the money flow;
- Reduction storage spare;
- Reduction of the administrative expenses;

- New marketing channels and distributions.

As a result of entailments of the initiatives of the electronic business some enterprises could get the competitive advantages. For preparing and organization successful in competitive fight electronic business, for enterprises it is recommended:

- To create the kit a document, defining, what work the existing business-processes of the chain of the making the added cost between enterprises. For this it is reasonable to use the technologies of modeling of the processes.
- To define the participants of the process.
- To collect the data about contribution of each process in total results of participants.
- To define the participants of the chain of the making the added cost inwardly enterprise, getting most advantage from process in its persisting type.
- To conduct the analysis, what advantages of the current business are possible to intensify by introducing the methods of electronic conduct of the business.
- To analyze the instruments of the electronic business, which possible use instead of some action in processes between enterprises and document the results.
- To collect well-timed data about the market.
- To document and value any obstacles for changes to process in chain of the adding the cost.

The enterprises obtained success in electronic business, do not value its success comparatively success rival in traditional business. They refuse from business-processes, "working" for traditional ways and methods of the interaction with contractor, but unfit for electronic business. The successful enterprises of electronic commerce strive anew to value and create the chain of the reception of the added cost, on-other interact with supplier and consumer. The succeeding electronic business inherent concept accompaniments new quality consumptions in business-processes between enterprise by using instrument and technology of the electronic business.

To improve quality consumptions of their own products and services, suppliers must understand the system of valuables their own client, but clients in turn must know what exactly they can get, having access to all possibility of the supplier. Making the successful electronic business requires the profound knowledge of business-bases of clients and processes, influencing upon this basis. So business partners must make the counsels on strategies, on which it is necessary to discuss the concept of the possible improvements, directed on creation new added cost as result of the electronic business. In some cases suppliers can be even united with rival to offer the total client qualitative services.

The certain situations managing director on marketing need to be studied in detail. Frequently managing directors cannot wait for receipt of the information in parts. Some situations demand carrying out of formal research. And as the managing director does not have, as a rule, either time, or skill for reception of such information by own forces, carrying out of formal marketing research needs to be ordered. Marketing researches are regular definition of a circle of the data necessary in communication with facing firm by a marketing situation, their gathering, the analysis and the report on results. Many large companies have own departments of marketing researches. In such department can be from one up to several tens employees. Operating service of marketing researches usually submits to vice-president on marketing and carries out functions of the head of researches, the manager, the adviser and the defender of interests of firm.

Among employees of a department there are developers of plans of researches, statistics, sociology, psychology, experts on modeling.

The electronic business in system of marketing researches solve following problems:

- Studying of characteristics of the market;
- Gauging of potential opportunities of the market;
- Analysis of distribution of shares of the market between firms;
- Analysis of selling;
- Studying of tendencies of business activity;
- Studying of the goods of competitors;
- Short-term forecasting;
- Studying of reaction to the new goods and its potential;
- Long-term forecasting;
- Studying of policy of the prices.

The modern level of information of a society predetermines use of the newest technical, technological, software in various information systems of economic objects. Also it is possible to place economic information system in a global network the Internet.

Thus under the law of Republic of Uzbekistan «About information» the state bodies, legal and physical persons can include the information systems in the international information networks and in the world information network the Internet in the order established by the legislation. Inclusion of the information systems containing information resources of limited access to the international information networks, including in the world information network the Internet, is carried out only after acceptance of necessary protective measures.

The basis of any system of the analysis of the marketing information is made by statistical bank and bank of models. The base of models and the techniques necessary for ordering and standardization of initial data, is formed in common by experts in the field of marketing and experts in the field of the software. For operative and qualitative analysis of the marketing information an essential role play automated workplace of the head which use modern information technologies as network technologies of the general access, statistical packages, geo-information systems, case-technologies, systems of support of decision making.

2.2 Case study of national on-line payment systems

2.2.1 Examination of current Uzbek payment systems

It is significant that in contrast from bank payment systems non – banking payment systems, namely retail payment systems are developing rapidly in our country. Several companies are working in the sector of retail immediate payment systems, such Paynet, E – Pay, Fast – Pay, UniPay, Cyberplat, Superkassa and others. These companies are working with broad network of the agents, in accessible areas for population and accept payments for services of mobile operators, Internet – providers, international telephone call operators. Also payments for fixed telephony, electricity and natural gas services are also available in Tashkent city. The convenience of these services based on large number of agents, and also any amount of payment in certain sizes is available. Average fee for their services is 2% from sum of payment. But functions which allow using these systems for commercial purposes (transactions) in all these systems are absent. Just dealers of companies have access to them, and systems are used only for paying of services [18].

In contrast to retail payment systems such Paynet, there are systems which work with electronic wallets, these are eKarmon, Mobliss, Webmoney and iPAY through them users could pay not only for services of providers but also could make on–line purchases.

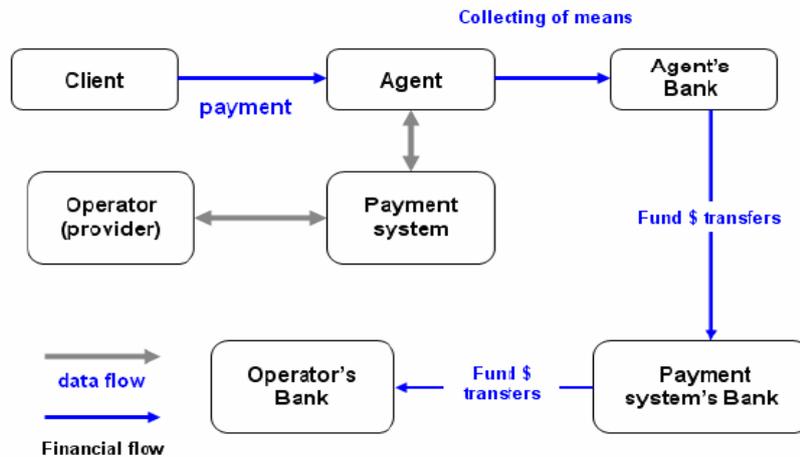


Figure 1. Scheme of interaction of members of non-banking payment systems, like Paynet, Unipay and others [2]

Ltd “eKarmon Group” with company “Multisoft Solutions” implemented “eK Web” (two versions of technology are available eK Web Pro, eK Web Light) and “eK Mobile” (also two versions are available “eK Mobile Pro”, “eK Mobile Light”) [19].

Difference between two above mentioned technologies is that with “eK Web” users can operate their accounts via Internet, “eK Web Pro” may be used in each computer with electronic digital signature (EDS) and “eK Mobile Pro” is used on mobile phone also with EDS. In contrast, them eK Web Light and eK Mobile Light are used without EDS but via using password and login.

Table 1. Comparative table of reliability of UzNet on – line payment systems

Characteristics				
Encryption	SSL Technology	SSL 3.0/TLS 1.0 (128bit)	RSA algorithm	data n/a
Anonymity of private clients	–	+	+	+
blacklist system	data n/a	data n/a	+	data n/a
SMS - service	–	–	+	data n/a
Other methods of security	EDS	–	certification and arbitration	data n/a
Multi – factor authentication	two – factor authentication based on EDS (key length 2048 bit)	password – program – wallet	password – file – key	data n/a
Multi Monetary	only national currency Sum	only national currency	Sum, ruble ³ , \$, €, grivna ⁴	only national currency Sum

But for eK Mobile Light special software should be downloaded. Advantage of eK Web Light is that user should not take his EDS in USB to each office, Internet café. But security level of this version is low. So users decide which is good in each situation, because not always he or she can use USB in Internet cafes. At the present time Ltd “eKarmon Group” is offering “eK SMS” service, that developed by company “Multisoft Solutions”. This service

allows payments for goods and services via sending SMS from mobile phone. In “eK SMS” all operations are available that existing in the eKarmon system. As regards “Mobliss” trademark, they offer services without using electronic digital signature (EDS), but also provide high level of security, for entering to their personal data in the system users input login and passwords.

So we can see below from the table of reliability of Uznet on – line payment systems, how eKarmon, Mobliss, WebMoney and ipay fit with encryption, anonymity, blacklist system, multi – factor authentication and additional methods of security. Here WebMoney putted on the list for consideration, as a successful system but in the case of Uzbekistan it has some limits because of we have not law on “Digital cash” (Electronic cash).

From table we can draw conclusion that from security point of view WebMoney is leading. In addition, there are online exchange points used for exchanging electronic currencies of WebMoney Transfer system, denominated in U.S. dollars, Euros, Russian and Belarusian rubles, Ukrainian hryvnas, and to currencies of other types of electronic payment systems, such as, Yandex.Money, RuPay, E-gold, etc [20]. By exchanging WMY money to other currencies, the clients of the system can use them for purchasing consumer electronics, computers, communication devices and other products.

Next are ekarmon and Mobliss. Ekarmon as we told above requires EDS for entering to the system.

One of the features of Mobliss system, according to:

- 1) Data in the table was gathered from official web-sites of these companies and representatives;
- 2) Not national product, service offered by LTD «Tillo - Garant», (a guarantor of WebMoney Transfer);
- 3) Letter code RUB, digital code 643 Russian unit of currency;

Table 2. Cash input ways and partners of selected systems

System	Cash Input ways	Bank – Partners
	via Paynet, Bank network, infokiosks	InFinBank, Ipak Yuli, Aloqa Bank, Ravnaq Bank
	via Bank network, prepaid cards, plastic cards	all banks of Uzbekistan
	front – office, dealers, Bank network, Fastpay, plastic cards	UzSanoatQurilish Bank, Savdogar Bank
	via Savdogarbank, SuperKassa, prepaid cards	Savdogarbank

4)Unit of currency and weight in Ukraine (hryvna) information from “Mobile Link Services” company is that in order to ensure security in transactions, the user will be given unique personal password of the payment. Also representatives of Mobliss enumerated following technologies that provide system’s security [21]:

- Blocking of the connection by IP – address (user of the system may indicate his or her IP address, after this accesses from any other addresses shall be blocked, setting of the present mechanism this progressed optionally and as users wish);
- Stability in relation of communication breaks provided on the system level (in making of transaction cash always stored in sender’s wallet or payee’s wallet. There is no intermediate state of the system. Thus in principal situations when cash may be lost are impossible);
- There is no direct access to Internet for system database, that automatically prevent from possible foreign access to the data;
- Servers of the system are supervised by twenty-four-hour physical protection and video observation;

Table 3. Costs for account operations

System	Cost of connection and cash input	Cost of cash output	Cost of cash transferring from one wallet to another
	free	only to bank account 3%	1%
	free	0,01%	1% (0, 01 – 0, 6%)
	free (depends on banks)	Service n/a	0.5%
	free	1%	0, 8%

Table 4. Commissions of partners

System	Commission of partner (Merchant)	Commission of partner (Provider)
	0%	1%
	0,09% ⁵	1%
	0,5%	for Mobile services 1%, from Fastpay 2% for PIN – cards 0%, depends on banks
	0,6 - 0.8%	0,6 – 0,8 %

Representatives of iPAY told that it is the safer, easier way to make an online payment or set up a merchant account, because of they are working for exchange and auction sector. But currently only uzbex.com works with this system and users can pay just for services of Ucell mobile operator. There no any shops and no other services offered. No data on security technologies on site, only providing of confidentiality is explained [5].

Tables below show costs for services of these systems and methods of cash inputting and number of partners. We see that besides WebMoney other systems don’t allow cash your

money, you can only transfer them to your bank account, while in Mobliss system even transferring to bank account not available. While iPAY have not any partners – online shops, but all banks are its partners, in future this serves for its leadership, if it improves and develops its security issues.

Table 5. Reasons for not shopping online [16]

Reasons	% of respondents
No access to the Internet	43.7%
Prefer to make purchases personally	35.3%
Do not know what can they buy and how	26.6%
Do not trust	6.1%
Absence of delivery service offered to the respondents home / not possible to pay online	5.5%
No need / no interest	5.4%
Prices in the online stores are higher	5.0%
No PC / no Internet access from home	1.3%
Not enough skills	0.5%
Do not know how to use the Internet	0.4%
Cannot answer	1.6%

Also Mobliss has great opportunities thanks to its mobility and anonymity, while eKarmon cannot provide anonymity because of using EDS. So systems should improve their reliability and security and provide anonymity.

It is important to hold PR and advertisement activities to attract both new clients and merchants for eKarmon, Mobliss and especially iPAY. The majority of respondents – 43.7% did not make purchases online because they do not use the Internet at all, 35.3% prefer to make purchases traditional way and 26.6% do not know what they can buy on the Internet and how.

Table 6. Interactive characteristics of the web-sites of polled organizations [17]

Interactivity	% of web - sites
No interactive features on the web-site	57.8%
Registration and access to specialized information	15.6%
Online payment transaction systems gateway	10.9%
Credit/plastic card payment gateway	10.9%
Order form/shopping cart feature	37.5%

3. Digital Signature in the E-procurement Systems

3.1 E-Procurement and PKI

In e-Procurement systems directly participate: the organizer of the e-auctions; the state customers; suppliers. It is supposed, that all these legal bodies are provided by certificates of keys of the signature, belonging to corresponding authorized officials. There, where on the paper document there should be an autographic signature of the official, on the similar

electronic document is put it digital signature, under the law equivalent by the autographic. Correctly signed electronic document has the same validity, as paper. All legally significant actions of participants prove to be true electronic documents with digital signature. If necessary on documents time press (timestamp) is put down.

3.2 Publication of the tender documentation

The customer, willing to participate in e-Procurement systems, should be registered preliminary on a server of purchases and receive access (a name and the password). The operator of the customer perform remote editing of the tender documentation on a server should know them only. As the operator, he is not the official representative of the customer, and cannot sign documents on behalf of the customer. Two files of documents are connected with each declared tender for a server: the operational (opened for editing by the operator under report HTTPS guaranteeing protection against a fake and confidentiality) and published (opened for a general review in the Network). The operator cannot edit directly the published file.

Originally there is only a working suite; powers are necessary for its publication (digital signature) the corresponding official. The operator can edit the working suite and after the publication, but thus published suite does not vary: for the publication of the executed changes again it is required digital signature the official. During editing the operator fills fields of the forms received from a server and sends them on a server. The server on this basis automatically generates a part of tender documents; the customer prepares other documents independently and sends them to a server, specifying in corresponding fields names of files.

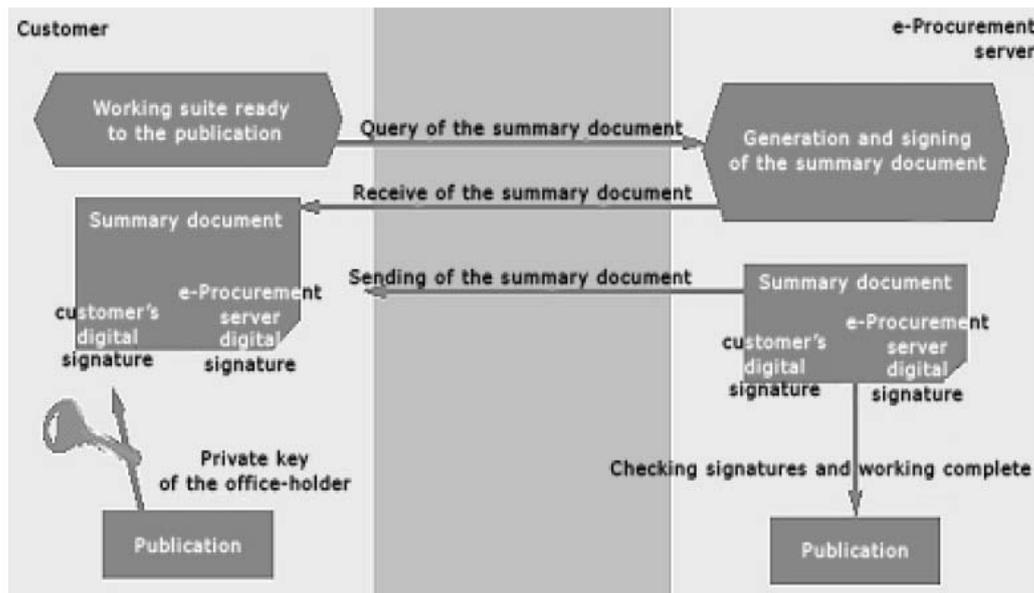


Figure 2. The publication of the working suite

When the operational suite is ready to publication, the operator requests the summary document where all data entered by editing of the operational suite (values of all fields, and also names and dates of all sent files) are reflected of a server. This summary document is signed by digital signature a server to guarantee an invariance of the operational suite. Any

change by the operator of the operational suite after signing by a server of the summary document cancels this signature.

As the publication sanction departure on a server of the summary document in addition signed digital signature of the official of the customer, this action authorized for fulfilment serves. The server, having received the signed summary document, checks, whether on a place both signatures and whether was changes after signing by a server, and publishes the operational suite (Fig. 1). Such procedure guarantees, that the published suite completely corresponds to the summary document signed by the customer.

3.3 Application appealing

At the first stage of realization of e-Procurement systems the supplier prepares documents on the basis of the samples published on a server. If necessary they subscribe digital signature the supplier. The suite includes also documents of the third parties, as a rule, initially existing only in the paper form; they are necessary for transforming in electronic, having assured digital signature the electronic notary. The organization of an e-notariat, possibly, will be late, therefore at an initial stage of operation of system electronic documents of the third parties can and to be included in the e-suite of the application, supposing the e-suite along with the traditional paper. In process of development of infrastructure digital signature, it is necessary to refuse paper document flow and completely to pass to the electronic.

Nobody should have possibility to read the application till the opening moment. On the other hand, the supplier should not have possibility to block perusal of the application sent to it if he has not refused it to the caused term.

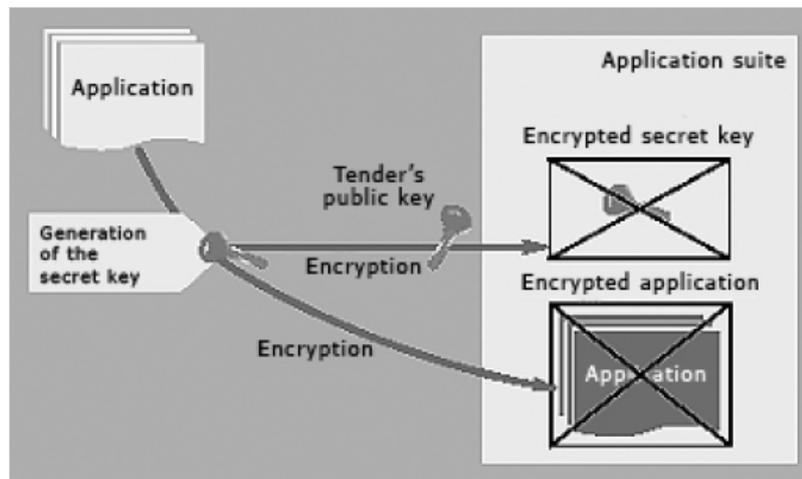


Figure 3. Application encryption

It is possible to offer the following mechanism of maintenance of privacy till the moment of application opening, providing same level of reliability, as digital signature. For each tender the entrusted certifying centre at the desire of the customer makes asymmetric key pair (tender keys). The secret key of the tender keeps certifying centre as fiduciary till the moment of application opening. The open key of the tender is transferred to a server of purchases for encryption arriving applications.

Having prepared the suite of documents of the application, the supplier sends it on a server of purchases under report HTTPS. In the answer the server sends to the supplier the receipt on the application reception, signed digital signature a server and supplied with time press. In the

receipt the identifier of the application which is used by the supplier at a parcel of corrections or at refusal of the application contains. Having received the application suite, the server "hurriedly" generates a confidential symmetric key and ciphers it the accepted suite (fig. 2). Together with the application suite the confidential key ciphered by means of an open key of the tender remains also. The confidential key is destroyed right after encryption.

Updating of the offered scheme is possible: generation of a confidential key and application encryption are carried out on the party of the supplier by means of the specialized means providing immediate destruction of a confidential key. The application and a confidential key are sent on a server already ciphered. Such variant excludes doubts that the confidential key by means of which the application is ciphered, is known to the personnel of a server of purchases. In this case the open key of the tender should be published in the tender documentation.

Application corrections subscribe, archive and are ciphered in the same way, as well as the application.

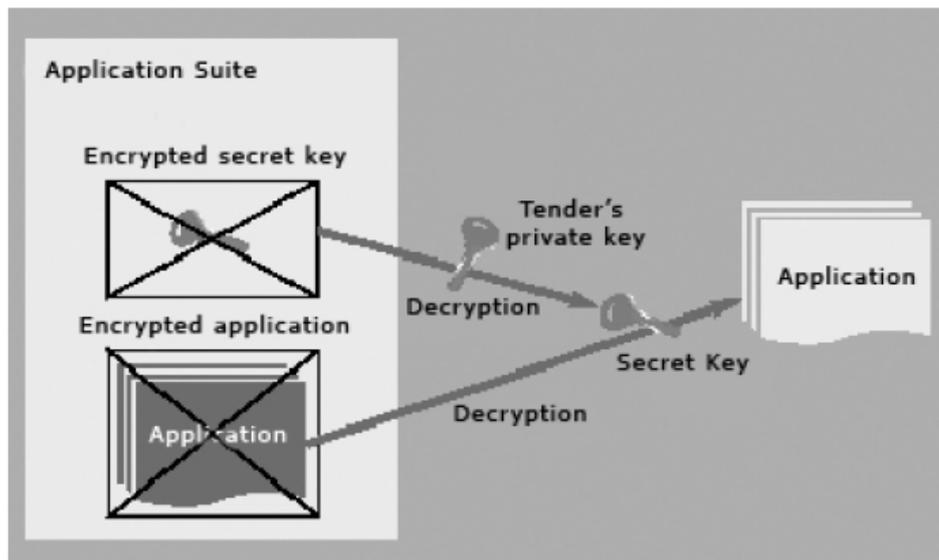


Figure 3. Application opening by the private key of the tender

Refusal of the application, the identifier including it, should be signed DS the supplier for a validity and protection against malefactors. In reply to corrections or refusal the server sends the receipt signed digital signature of a server. On the application, corrections, refusal and all receipts returned by a server, time seal is set. The ciphered applications and corrections together with the ciphered confidential keys are stored on a server; generally speaking, there is no necessity to store them in the protected storehouse. To read the application stored on a server anybody cannot, including, and the server personnel: the private key of the tender is known only to the entrusted certifying centre. A lack of the offered scheme is absence of state standards on asymmetric encryption (unlike digital signature and symmetric encryption), therefore the software realizing this scheme, cannot be certificated. Also it is not quite clear, whether service in storage of as fiduciary private key of the tender enters into number of the services connected with use digital signature which the certifying centre can give. If the certifying centre does not undertake granting of such service it is necessary to create specialized structure for this purpose.

The main thing is to separate responsibility for preservation of secret of applications from responsibility for their reception which bears a server of purchases.

3.4 Application opening

When the moment of opening of applications comes, the customer receives the private key of the tender at the entrusted certifying centre and deciphers it confidential keys of applications stored on a server, and by means of them is also applications (fig. 3). The supplier who in time has not withdrawn the application, cannot prevent its opening in any way and with impunity refuse the obligations.

4. Conclusions

Thereby, integral part of the successful electronic business must become the new quality of the consumption in interaction partner. The electronic business must more take care of business-process their own client, than about their own internal operation. To create the successful electronic business, enterprises must know, what use technologies of the electronic business in business-process, as well as know, what changes of business-processes necessary that enterprises could successfully compete in new condition. They also must have clear purposes, which possible realize in life at presence of the real strategy. In purpose of increasing to competitiveness their own goods and services of companies must keep a check on development of the electronic business in the world and introduce leading technologies of the electronic business in activity of their own companies.

So there are following problems according those systems of on – line payments not used widely and are not developing:

- no computer and Internet access;
- user do not trust;
- no skills of using Internet and payment technologies;
- difficult to operate (even if user decided to use these systems, first stage of entering to the technology may difficult because in contrast from payments with real cash on-line payment systems require activation of special card or downloading and installing of software);
 - For the present time via iPAY only services of Ucell are paid, no merchant partners
 - Review of ICT development in Uzbekistan for 2006 – 2008, UNDP ICTP Project
- problems with interactivity of on – line shops, limited number of on – line shops and services, on- line shops are still using cash on delivery;
 - even if on – line shop provide on – line payments, costs for goods and services are high than in the real markets, or on – line shop do not provide that payment systems which are used by clients;
 - transaction costs of cashless payments is about 30 – 40 % of payment, that people do not want use plastic cards, not each shop has POS – terminal.

Solution of these problems:

- custom charges of the import of the techniques should be reduced and then computers cost may be more decreased and people can buy;
- law on electronic digital signature should be developed, also other security issues should be determined, system breakdowns should be prevented;
- law on digital cash (electronic cash) should be passed;

- Seminars and trainings should be held in certain stages: in first stages people should be taught for basic computer skills and Internet using, in the second stage security provision should be explained and only after these stages people could understand how to work with on – line payment systems in the third stage of trainings.
- Promotion of on – line payment systems as majority people do not know that in Uzbekistan these services are already related.
- Discounts for active users also should be provided;
- Payment systems should work on their technology and carry out surveys, on – line polls from users: ask what is important and convenient, what lack is and what is difficult for users. Periodically carried out surveys of this kind could give ideas of improvement for developers of on – line payment systems – Payment system should provide many instruments of payment: electronic cash, plastic cards (also international).
- Authorities of the sphere should determine exact fee for transaction: that exact share or percent of the payment which should be charged from customer and buyer and also which is both suitable for merchant and customer.
- And also problems of convenience of using EDS, in case of eKarmon potential user should visit office of company with passport to identify his or personality. But ideal on – line payment systems should provide on – line registration. So for this purpose EDS may be solution of problem because registering on on – line user could identify his or her personality with EDS. As payment systems send user data to Certification Center, and it confirms personality and there is no need to go for identification and signing up papers at office. Realization of these issues provides best development of payment technologies and penetration among population.

As a whole it is necessary to summarize, that application of e-Procurement systems has the big prospects. Experience of the largest foreign industrial enterprises power, oil and gas and other spheres testifies that by means of application e-Procurement systems probably to reach economy of money resources in comparison with usual methods of purchases. In sphere of purchases of the state and corporate enterprises it should be applied an e-Procurement systems, that provides a financial transparency of an expenditure of means and their economy. By working out of mechanisms of the organization of e-Procurement for needs of the state and corporate enterprises it is represented expedient to consider similar experience in e-Procurement sphere of foreign countries.

References

- [1] Khamdamova G.A. "Strategy of the electronic business - a way to successful competition" Proceeding on ITPA 2009 (Sept. 21 ~ 25, 2009), pp.285-288.
- [2] Vasilahon Karimova, Sung Soo Kim "Case study of national on-line payment systems"
- [3] Proceeding on ITPA 2009 (Sept. 21 ~ 25, 2009), pp. 289-293
- [4] Rustam Hamdamov, Anton Tujilin "Digital Signature in the E-procurement Systems"
- [5] Proceeding on ITPA 2009 (Sept. 21 ~ 25, 2009), pp.298-301
- [6] Semenov M.I. The automat information technologies in economy.-M.: F&S, 2000.
- [7] Zakaryan I., Filatov I. The Internet is as the tool for financial investments. - SPb: BHV, 2000
- [8] Daniyelyan T.Ya. Information technologies in commercial activity. Educational book, M., MESI, 2000
- [9] Golubkov E.N. Marketing communications. – M., ICC "Dis", 2004
- [10] Law of the Republic of Uzbekistan "On Electronic Commerce" (29/04/2004, № 613-II);
- [11] Law of the Republic of Uzbekistan "On Electronic Document Flow" (29/04/2004, № 611-II);
- [12] Law of the Republic of Uzbekistan "On Electronic Payments" (16/12/2005, №3PY-13);
- [13] Resolution of the President of the Republic of Uzbekistan dated 08.07.2005 # PP-117 "On Additional Measures for
- [14] Further Development of Information and Communication Technologies";

- [15] Law of the Republic of Uzbekistan "On electronic digital signature" (11/12/2003, № 562-II);
- [16] Gorbunov-Posadov M. M. Elektronniye gosudarstvenniye zakupki (E- procurement) M.: IPM M. V. Keldysheva ,
- [17] 2004. ISBN 5-98354-002-5, <http://goszakupki.ru/about/>
- [18] Review of ICT development in Uzbekistan for 2006 – 2008, UNDP ICTP Project.
- [19] www.ekarmon.uz
- [20] www.webmoney.uz
- [21] www.mobliss.uz
- [22] www.ipay.uz
- [23] 7 Review of ICT development in Uzbekistan for 2006 – 2008, UNDP ICTP Project