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IMPLEMENTATION OF A UNIFIED BILLING SYSTEM IN HOUSING AND COMMUNAL SERVICES

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ВНЕДРЕНИЕ ЕДИНОЙ БИЛЛИНГОВОЙ СИСТЕМЫ В ЖИЛИЩНО-КОММУНАЛЬНОЕ ХОЗЯЙСТВО

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Abstract. In this article, the main topics and goals of the work such as the study of billing systems of public services and the development of requirements, determining the needs in the system being created, analyzing the world's best practices for combining all public services in one information field, determining ways to create a complex of unified billing system taking into account common technical requirements for billing systems, determining ways to develop and update the software to improve the quality of services to consumers in a single billing system are widely revealed. It is also worth noting that in this article, based on the study of modern Russian and international experience in implementing and improving a unified billing system in the industry of housing and communal services analyzed the existing barriers and the development of the industry, describes the main opportunities and promising areas of program support, organizational-economic and administrative measures to improve accessibility and improve housing and utilities and minimize utility costs of the population. Specific directions for Federal and international regional authorities to increase the investment attractiveness of innovative housing and communal services and the transition of this industry to an innovative vector of development are proposed.

Аннотация. В данной статье широко раскрыты такие основные темы и цели работы, как изучение биллинговых систем коммунальных служб и выработка требований, определение потребностей в создаваемой системе, анализ передового мирового опыта по объединению всех коммунальных служб в одно информационное поле, определение путей создания комплекса единых биллинговых систем с учетом единых технических требований к биллинговым системам, определение путей разработки и обновлению программных обеспечений для улучшения качества оказания услуг потребителям в единой биллинговой системе. А также стоит отметить, что в данной статье на основе исследования современного российского и международного опыта в области внедрения и совершенствования единой биллинговой системы в отрасли жилищно-коммунального хозяйства проанализированы существующие барьеры и специфика развития отрасли, раскрыты основные возможности и перспективные направления программно-целевой поддержки организационно-экономических и управленческих мер в целях повышения доступности и возможности улучшения жилищно-коммунальных хозяйств и минимизации коммунальных затрат населения. Предложены конкретные направления для федеральных и международных



региональных органов власти по повышению инвестиционной привлекательности инновационного жилищно-коммунального хозяйства и перехода данной отрасли на инновационный вектор развития.

Keywords: unified billing system, communal services, housing and communal services, customer, service provider.

Ключевые слова: единая биллинговая система, коммунальные услуги, жилищно-коммунальное хозяйство, клиент, поставщик услуг.

Introduction

In recent years, Uzbekistan has been purposefully implementing information and communication technologies (ICTs), including providing interactive public services to the population and legal entities. Currently, more than 400 interactive public services are provided by state bodies through their websites and the Government portal of the Republic of Uzbekistan.

E-government is a way of providing information and providing an already formed set of public services to citizens, businesses, other branches of government and government officials, in which personal interaction between the state and the applicant is minimized and information technologies are used as much as possible.

This is an entire system of public administration based on automation of the entire set of management processes across the country and serves the purpose of significantly improving the efficiency of public administration and reducing the cost of social communications for each member of society.

The creation of e-government involves the construction of a national distribution system of public administration that implements the solution to the full range of tasks associated with managing documents and processes of their processing.

However, in individual industries, there is a need to modernize information systems in order to ensure integration with the “e-government” system.

Recipients of utility services are legal entities with any form of ownership and individuals-citizens of the Republic of Uzbekistan, foreign citizens, and stateless persons.

Public utilities in the framework of e-government provide information to the public and legal entities, and provide interactive services, but do not always take into account the latest developments in the field of information technology. This creates a lot of inconveniences for consumers of public services, leads to excessive document flow and low efficiency of accounting at its high cost [1–4].

Most often, consumers mention the opacity of accruals, the lack of consumer control over the receipt of paid amounts to the personal account, and the inability to quickly monitor the status of their debt online.

Also, a problem is the low awareness of the population about their rights and obligations in relation to the maintenance of residential and non-residential stock, the lack of information about the structure of public services provided the distribution of responsibility in this area between economic organizations and enterprises.

Analysis of the world's best practices on the issue under consideration

We selected the following countries based on the level of automation of public services, the success of the introduction of information and communication technology, and the level of satisfaction of the population from the activities of various public services.

Russian Federation

In the Russian Federation the “Unified settlement cash centers” were studied (USCC)

USCC have been created in the form of municipal unitary enterprises or municipal institutions since 2000 in accordance with the Decree of the Government of the Russian Federation of August 3, 1999 no. 887 “On improving the system of payment for housing and utilities and measures for social protection of the population”.

Main functions of the USCC:

– Maintaining databases for invoicing, processing meter readings, charging rates and meter readings with discounts, short deliveries, and recalculations.

– Formation and organization of delivery to residents of a single payment document that summarizes the accruals of suppliers of housing and utilities and other services and resources, taking into account current benefits and subsidies.

– Organization of reception of the population, allowing residents to get information about all provided housing and utilities and other services, accruals and payments for them (single window);

– Registration of documents requested by the population, certificates, statements, etc., as well as the formation of a package of documents for the provision of subsidies for housing and communal services.

– Interaction with payment systems, dispatching and distribution of payments preparation of reports on accruals and fees.

– Introduction of a single payment document for payment for housing and utilities and other services, ensuring payment processing, receiving data from service providers on charges for services and resources, as well as information about recalculations made in connection with changes in tariffs.

– Claim work with the population.

Financing of activities: mainly from the budget of the municipality. But there are centers created in the form of joint-stock companies, whose founders are municipalities (a controlling stake) and service providers.

Financial flows:

– Payments are collected in the Bank to the current account of the USCC. Most often, this is the second settlement account, all operations on which are associated only with the passage of payments to the population, that is, they are separated from the rest of financial and economic activities.

– Electronic payment registers and notifications (if any) from all payment points, whether banks, post offices, payment terminals, are sorted in the USCC by the settlement points where the accruals were made.

– The settlement point uses the payment registers to determine the amount of the fee per day for each service provider.

– For the amount of the fee per day, a payment order is issued to transfer money to each supplier.

– Based on the amount of accruals for each personal account, payment is calculated for service providers represented in a single receipt.

– Estimated data (how much money is owed to which supplier from the fee amount per day) is sent to each management company.

– Interaction of service providers (electricity, heat, water, gas and elevator facilities, waste disposal, providers of intercoms, cable TV, etc.) with service consumers is carried out through the

USCC. This approach will improve the quality of public services and customer satisfaction, as well as provide solutions to the problems of interaction of the population with various providers of energy and housing services.

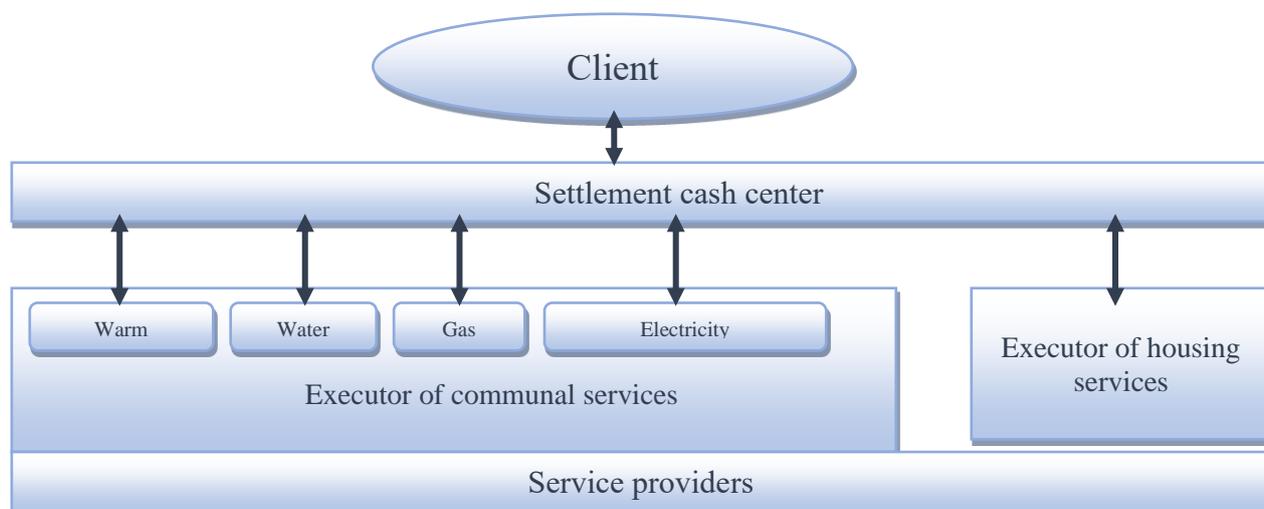


Figure. The scheme of interaction between the client and service providers.

Interaction of participants in the housing and communal services market is carried out as follows. Service providers perform billing of their services in the RIS housing and utilities system or transmit calculated data about services rendered. This serves as the basis for the formation of a single payment document (SPD). After printing, the SPD is passed to the consumer, who fills in the data on accounting devices and pays for services. Payment is recorded in the housing and utilities RIS and distributed to service providers and management companies.

The created system can unite the administration, consumers and suppliers of housing and communal services, as well as other services into a single information space. It centralizes and systematizes information about payers (for example, family composition, category of benefits, etc.), receipt of payments, and payments for services rendered. In addition to public utilities, social protection services and energy supply companies, whose requirements and interests should also be taken into account in such projects, can become participants in such a settlement system.

The results of the first implementation of utility billing systems that combine all payments of the population in a single loop have shown their high potential in terms of improving the efficiency of housing and utilities.

Advantages of USCC:

- Creation of a single information space for all subjects of the housing and communal services market using software products.
- Maintaining a unified method of accrual for housing and communal services.
- Availability of a Single customer service center for all types of housing and communal services and the same type of SPD.
- Support for the operation of a wide network of payment acceptance points.
- Integration of administrative bodies into the regional information system.
- Unplugged (water, electricity) and non-unplugged (housing and heating) services are paid for with a single receipt, so partial payment of the receipt leads to a debt for all services, including those that are disconnected, which is fraught for the payer.

Conclusion

To conclude it is worth saying that Unified billing system in housing and communal services gives a range of opportunities to manage information about customers and all stages of providing them with services in real time, and is designed to serve from several hundred customers to several million. Additionally, it helps to determine the volume of consumption and calculating the payment for electricity consumed by consumers and generates invoices, warnings, orders for disconnecting and connecting. Besides, it allows entering received payments both manually and by importing files provided by banks and recording the results of completed control rounds, drawn up acts of violation of the rules of use, performed disconnections and connections, legal support of debtors. The system independently monitors staff errors and blocks incorrect actions of operators, maintaining the correctness of the database. Moreover, there is a full control and transparency of payments, restoring order in previous periods and transparency of payments will significantly increase the efficiency of work with debtors, increase fees. And, finally, there is a chance to implement complex calculation algorithms. Consequently, relying on the above-mentioned advantages and opportunities given by using Unified billing system it is obvious that housing and communal services can get only success implementing this system into its field.

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