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STRATEGIC PLANNING OF MECHANISM OF CLOUD SERVICE FOR ORGANIZATIONAL AND COMMUNICATION PLATFORM FOR MECHANICAL ENGINEERING ENTERPRISES

In the given article, the description of the idea of creating a cloud service for strategic management of business processes in enterprises using the organization - communication-term platform. The problem is that this service is intended to solve - is the base of the cloud, which is offered to ensure the rapid and effective process management. The method of scheduling mechanism of cloud service for organo-civilizational - communication platform for enterprise business process management oriented to enhance of the competitiveness of enterprises as the basis for dynamic development.

Keywords: strategic management, cloud services, web services, competitiveness, business processes.

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СТРАТЕГІЧНЕ ПЛАНУВАННЯ МЕХАНІЗМУ ХМАРНОГО СЕРВІСУ ДЛЯ ОРГАНІЗАЦІЙНО-КОМУНІКАЦІЙНОЇ ПЛАТФОРМИ ІНЖЕНЕРНО-МЕХАНІЧНИХ ПІДПРИЄМСТВ

У статті запропонований опис ідеї створення хмарного сервісу для стратегічного управління бізнес процесами на підприємствах за допомогою організаційно-комунікаційної платформи. Проблема, яку покликаний вирішувати даний сервіс – це база хмари, яка пропонується з метою забезпечення швидкого та ефективного керування процесами адміністрування. Обраний спосіб планування механізму роботи хмарного сервісу для організаційно – комунікаційної платформи підприємств для управління бізнес процесами зорієнтовано на підвищення конкурентоспроможності підприємств як основу динамічного розвитку.

Ключові слова: стратегічне управління, хмарний сервіс, веб-сервіс, конкурентоспроможність, бізнес процеси.

Introduction. A characteristic feature of modern management is the introduction of strategic planning at all levels of administrative units. Cloud technology is one of the leading trends in the world that are designed to implement a new quality management system of business processes and effective management of processes at the level of small business units. Designers of software and managers of companies are deploying IT infrastructure model and distributing this software in order to gain additional computing resources. Paid infrastructures, the so-called cloud services, are also very popular. Nowadays they are the office applications for browser, the storage on cloud hard drives, the means of synchronization of the user information on mobile devices. Every day new successful cloud startups appear and the giants such as Microsoft, Amazon and Apple are building data centers, designed to deploy cloud services.

The cloud technology is as sophisticated inside as it is easy outside. The basic concept of cloud is providing resources as an Internet service. Classically, cloud services are divided into the following types of architectures: Infrastructure-as-a-Service (IaaS), Platform-as-a-Service (PaaS) and Software-as-a-Service (SaaS).

However, the update of issue of building cloud service becomes more urgent that is why the deployment of cloud service for the strategic enterprise management is a necessary change of management. All cloud architectures are combined by two common aspects: they provide an “on-demand” computing resources and data storage. These two factors mean that software development was limited by the capabilities of the provider of cloud hosting and capability of applications and services scalability. Cloud platform has the following characteristics: high availability, reliability and flexibility.

The paper presents a method for solving the problem of strategic planning for cloud service management business processes at enterprises.

Cloud computing-based electronic document management at enterprises can provide continuous access to electronic documents. Using a cloud computing environment such as organizational communications platform at engineering enterprises will be useful for managers at all levels. Most of enterprises the infrastructure of electronic document flow is not enough used, and in some cases, is used at sufficiently low level. Therefore, the proposed system of strategic planning mechanism for cloud service organizational and communication platform for enterprises is useful in cases when the document flow is only partly in electronic form. In order to ensure the balance of resource consumption the flexible

technologies usage is proposed in this paper [1, 2, 3]. Organizational and communication platform for business processes management system and electronic document flow work in a hybrid cloud, new methodologies must be taken into account for the project based on the problem of virtual computer lab. This type of cloud-based hybrid species provides new mixed methodology, the use of which may be useful for businesses in general. In this project, the base of the cloud is proposed for quick and effective management of organizational and communication administrative processes.

Review of recent research sources and publications. The problem of information support of management processes for the machine building enterprises are explored by a number of Ukrainian scientists, namely, V. Ponomarenko, I. Zolotarova, R. Butov, G. Plekhanova and others. The main attention is paid to methodological bases of information systems and their role in managing the economy. Modeling business processes, building their regulations, is a very important component in understanding the IT infrastructure company [1, 3]. Information resources management at the enterprise is impossible without building company services using cloud computing [5]. It is important to consider the restructuring and transformation of the company, using tools for data mining [2, 7, 8]. Organizational principles of business process reengineering machine building companies [4, 6, 9].

Setting objectives. The purpose of this article is to analyze the concept of socio-economic development of machine building companies for strategic planning of the organizational-communication platform of an enterprise in the cloud services.

Basic material and results. The integration of enterprises into the world community has always correspondent with modern, progressive process management. This enhanced knowledge of working with cloud services and becoming an increasingly popular tool for managing large enterprises. One of the most important factors for effective management at enterprises and budget funded organizations is the document flow. At the enterprises, it is a continuous process of the document movements that objectively reflects the activity of the enterprise and enables the operative management. A large amount of archival information, a long-lasting document search, losses, duplicates, delays associated with sending and receiving, human errors - is not an exhaustive list of problems connected with inefficient workflow construction engineering companies. The mentioned conditions may slow down and, in some cases, completely paralyze the work of modern institutions. Therefore, effective and timely solution is an electronic document flow that runs on a

single cloud platform and is a mandatory part of effective enterprise management. The document flow is important for the proper organizational and communication platform for the enterprise. The advantage over traditional electronic document flow is indisputable, because the main problem of traditional document flow management technology is impossibility in practice to centrally track the movement of documents of the organization.

To accomplish the task, it was decided to use cloud services to meet the needs of enterprises in the workflow.

In order to achieve the goal of strategic planning of cloud service content it was determined to study and solve these problems:

- to develop conceptual provisions of strategic planning as a tool for organizational and communication platform of an enterprise;
- to justify the interpretation of strategic planning of socio-economic development of enterprises according to the characteristics and requirements of the present stage of development;
- to form the methodological principles of strategic planning as a management function;
- to create tools for the implementation and deployment of cloud technologies in the public institution.

There are some approaches to creating monitoring systems at enterprises as well as two kinds of text data - structured and unstructured. Meanwhile there is a large volume of structured information which creation, processing and transmission are provided by corporate information systems. The logical step in the development in enterprises for strategic planning of organizational and communication platform at enterprise-level administration is a strategy of socio-economic development of mesosystems. These are the departments that enable the creation and processing of information contingent on their performance, training programs, electronic methodological support and more. The current system of strategic management, in this case, machine-building enterprises - is especially designed strategy at all levels of management. Socio-economic development of a company is a major prerequisite for its competitiveness. The identifying the basis of economic and social development of an enterprise we need to calculate the shares of the share manufacturing together with the share of employment.

Working in the cloud is interesting because you can work with unstructured information, as described above, and be sure that all information will be structured and processed with mathematical precision by using intellectual data mining.

The processing of information is done through a free service RapidMiner, where businesses are able to scale easily data, to create predictive models and implementing analysis in force in any business process that occurs in the workplace.

Let's name the workflow at the enterprise a business process that needs to scale and expand as an organizational and communication platform. You need to describe these business processes from a mathematical point of view. One of the methods of intellectual analysis is Data Mining.

The main goal is to give the analyst a possibility to work with large amounts of source data by automating the process and to extract relevant information. The technology of effective analysis and digital text data is able to act as a tutor, who, having treated the entire course, teaches only the most crucial and important information. Thus, the user does not have to "sift" huge amount of unstructured information. Developed on the basis of statistical and linguistic analysis and artificial intelligence technologies such as Data Mining and Text Mining are precisely designed for semantic analysis, providing navigation and search unstructured text. Using built on the basis of their system, users can get a new valuable information. The method which is used in this case is the clustering that means splitting a large set of documents into groups of affinity styles, shapes, different frequency characteristics of the detected keywords.

The task of clustering can be considered as the construction of optimal partitioning of objects into groups. The optimality can be defined as a requirement to minimize mean square error breakdown.

Using the proposed model allows the best way to organize the process of cloud by using mathematical methods of data mining and create a planning monitoring and evaluation strategies, where implementation of performance clustering system of objects is functioning of organizational-communication platform of an enterprise.

Conclusions. This article is reflecting the description of the establishment of cloud services for strategic management of business processes at enterprises by using the organization - communication platform. The problem, that this service is intended to solve, is the base of the cloud, which is offered to ensure the rapid and effective process management administration.

At any given time, businesses will have to transfer their document flow into electronic form. However, getting more and more opportunities for development and improvement of activities, based on the system, which is stable and focused to a set of interrelated activities (sequence of operations). And the clustering technology transforms inputs into outputs according to the rules of data mining. Through the mechanism of formation of organization - enterprise communication platform as the foundation of its strategic management of socio-economic development.

From the beginning of the work, an analysis of the subject area was done. Based on this statement, the objective settings were done and a free software RapidMiner was used to analyze large volumes of data.

The concept of software which was performed within the paper elaboration, will be useful for machine-building enterprises in respect to business process management.

In the future, the improvements of the product by creating a system for mobile platforms could be foreseen.

The designed service is sufficiently reliable and secure, as well as it has a wide functionality. The system is currently undergoing testing in different browsers and settings models of documentation processes, forms, tables, reports and more.

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