COMPARATIVE ANALYSIS OF ELECTRONIC DOCUMENT MANAGEMENT SYSTEMS

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Abstract. The system ensures the processing of both paper and electronic documents, regardless of the channel of their receipt into the organization. Incoming documents received by e-mail can be automatically registered in the EDMS "BUSINESS" while preserving the attribute composition. Paper documents can be converted into digital format and saved as an image or recognized text.

Outgoing and internal documents prepared in the organization are registered in the system after passing all the necessary procedures for approval/approval of projects. The entire history of working with them, including unapproved versions, is stored in the EDMS. Depending on the rules established for document flow, approved projects can only be saved in digital form (electronic originals) or printed with visualization of signatures and visas.

Keywords: The system provides processing of current documents, outgoing and internal documents, digital form, electronic originals.

The process of globalization together with technological progress today is far from being the latest phenomena, but their development does not stand still. Comparative analysis of electronic document management systems, including television, radio, and new digital technologies such as the Internet and computers, are powerful tools for changing the nature of education.

Record keeping is a set of measures to ensure the pre-school education of an enterprise or organization. The traditional organization of the work of office work services (such as business management, the secretariat, the office, the sector of letters and appeals from citizens, and other departments) is aimed at streamlining work with documents and involves the following functions:

-organizational and documentation support for the organization's activities;

-organization of a uniform procedure for working with documents in departments;

-organization of individual and joint substantive preparation of documents in departments;

-exchange of documents within and between structural divisions of the organization;

-creation of unified technological procedures for passing and processing documents in the organization's divisions;

-use of unified forms for submitting and processing documents;

-registration of all documents received by the organization with subsequent forwarding of correspondence to management and departments for consideration;

-registration, accounting, publication, distribution and return, ensuring storage and use of outgoing and internal documents, draft documents;

-registration of the movement of documents, including directions, resolutions, implementation reports, approval (signing) of documents;

-writing off documents into files and extracting them from files; ensuring the safety, recording and use of documents;

-exchange of information between employees of one or several structural divisions;

-exercising control over the timely execution of instructions from the highest bodies of state power, instructions and instructions from the management of the organization, letters and appeals from citizens, appeals from institutions and organizations;

-checking the accuracy and timeliness of execution of documents;

-creation of appropriate conditions for documentation, organizational and technical support for the work of the organization's management; timely provision of complete, accurate and reliable information on the state of preparation and execution of documents and instructions;

-carrying out information, reference and analytical work on issues of documentation support for management;

-receiving reports, including statistical ones, based on information about documents and the status of their execution.

All of the above functions are formalized and secured by relevant state and industry standards and regulatory materials, which creates the basis for their automation using information computer technologies for document processing.

The purpose of this work is to analyze software systems for office automation and document flow and to develop principles for selecting office automation and document flow systems (SADD) to automate office work and document flow processes, and, in particular:

-conducting a survey of a number of software systems for office management and document flow in order to identify their user characteristics and functionality;

-assessment of the surveyed systems from the point of view of their suitability for automation of office work and document flow, as well as the depth (completeness) of automation of office work processes;

-assessment of basic computer and information technologies used in specific software systems, taking into account the prospects of their use, as well as a forecast of technology development for the coming years.

As a result of the analysis, a list of necessary requirements for the office work and document flow automation system is determined using the following approach to the classification of office work and document flow systems:

-on the office work technologies used;

-in accordance with the main tasks of office work;

-according to the functional characteristics of systems;

-on software implementation;

-according to cost indicators.

In terms of assessing the functional completeness of software systems, the analysis was brought to the formation of integral and differential estimates for specific systems, representing the number of functions implemented in each system out of the total number of functions of the analytical group under consideration. A comparison of cost and other indicators, in turn, made it possible to comprehensively assess the capabilities and suitability of automation systems offered on the domestic market, primarily for government agencies.

Working with paper documents is rapidly becoming a thing of the past. Outdated versions, poor information security and paper piles on desktops mean that companies lose important documents, valuable data and their time.

A modern solution for electronic document management and automation - EDMS - will help you move away from paper to digital documents. Such programs help to restore order in the office, create a transparent and secure storage and accounting system, and establish interaction between employees of different departments without unnecessary calls and human errors. Some of the EDI systems on the market also allow you to set up legally significant document flow with suppliers, customers and partners.

Today there is no question of deciding to implement an EDI system. Many companies have already done this, including government agencies, for example, the Ministry of Education and Science, the Treasury, the Federal Tax Service (you must agree, the declaration process has become much more convenient).

The electronic document management system Elma 365 ECM is a product from ELMA, designed to automate document flow processes in organizations. It is based on the principles of BPM (Business Process Management) and offers a number of opportunities for the digital transformation of document flow.

• Office automation;
• Work with organizational and administrative documentation;
• Archive of documents;
• All business processes related to documents.
• Integration with other information systems;
• The entire cycle of working with documents;
• Flexible customization options.

Digitalization capabilities in Elma 365 ECM:

Advantages of Elma 365 ECM:

• Document management;
• Coordination, signing, registration and control of execution of documents;
• Ability to collaborate with documents;
• Monitoring and setting tasks, tracking projects;
• Comparison of documents using artificial intelligence;
• System scalability to meet growing business needs.
• Range of intelligent services;
• Flexible system setup;
• Opportunities for adapting the system to the task.

The Directum RX system is designed to optimize business processes and document flow using low-code technologies and ready-made solutions from the Directum developer.

Among the main features are:

Advantages of Directum:

• Working with various types of documents;
• Management of all documents;
• Integration with other IT systems;
• Document search;
• Management of incoming and outgoing correspondence;
• Monitoring the completion of tasks.

1F EDMS is an electronic document management system of the First Form company. It automates document management, correspondence processing and improves control over task execution.

• Flexible customization options;

• Data security;

• Work in a mobile application.

Main features of 1F EDMS:

Advantages of 1F EDMS:

• High speed;

• Customization options;

• Affordable development.

The Tessa solution was developed by SYNTELLECT and is intended for document management in organizations. The system has industry-specific solutions.

• Automation of incoming and outgoing documents;

• Setting tasks and their control;

• Template for creating a document approval process;

• Document archive and search;

• Tracking changes in the text;

• Ability to version documents.

The Tessa system provides the following capabilities:

Benefits of the Tessa solution:

EDMS Thesis is a universal solution for optimizing document flow and transferring various business processes to the digital level from the HAULMONT company.

• Automation of document flow;

• Setting tasks and monitoring their implementation;

• Coordination and approval of documentation;

• Optimization of office work;

• Organization of meetings;

• Application of electronic signature and legally significant electronic document management;

• Comparison and recognition of various documents;

• Integration with accounting systems;

• Edit documents online.

• Integration ability with other information systems;

• Web client with full functionality;

• Low-code tools for making changes.

The Docsvision system is designed for working with documents and tasks, created by DocsVision.

• Storage of electronic documents;

• Document flow under contracts;

• Office work;

• Specialized solutions;

• Support for different document formats;

• Tracking changes in documentation;

• Notifications about new tasks and events.

• Flexible system setup;

• Scaling the solution if necessary;

• Security of data storage.

Docsvision

The Docsvision system has the following capabilities:

Advantages of Docsvision EDMS:

Comparison table of electronic document management systems:

The choice of an electronic document management system depends on the needs and size of your company. It is important to take into account functional requirements, the cost of licenses and integration with other corporate systems. We hope that this table will help you quickly compare electronic document management systems and choose the best option.

Today it has also become important in which country the development is being carried out, whether the developer uses foreign components, and whether the software makes it possible to conduct document flow strictly within the framework of the legislation of Uzbekistan.

It is important that the EDMS includes not only classic document routes and a storage system. It is worth paying attention to the following list of settings, without which the implementation of the EDMS will not bring the desired results:

• Flexible access settings. You should be able to configure permissions for different categories of users, individuals, and departments. Without this, the EDMS will only make sense for small companies where access control is not an issue.

• Convenient search. Make sure that the EDMS takes into account all search parameters as much as possible. Check whether there is full-text and attribute search, whether you can search by author, status, modification date, etc.

• Versioning. It is important to be able to track changes, compare one version of a document with another, and restore the previous version at any time.

• User friendliness. There is no point in the system if an employee spends half of his working time just trying to figure out how to submit a document for approval. Pay attention to the interface, the ability to customize it to suit your brand and tasks, the presence of a mobile version and the convenience of the UI in general.

• Electronic signature. For different types of documents, different types of electronic signatures are used in accordance with Federal Law N63-FZ. Make sure that the developer has taken this point into account, and the EDMS supports the look you need. For example, in personnel document flow, employees can use UNEP, and the employer can use UKEP. For full-fledged electronic document management in personnel, you will need both signatures.

Main functionality:

• Electronic office for full-fledged office work. Includes registration, continuous numbering, number reservation, including for companies with offices in different cities and countries.

• Built-in approval and review routes to automate office work. Employees do not waste time searching for an approver and can focus on their current tasks.

• Communication tools: tasks, messages, channels, document discussions, notifications. All correspondence is saved and remains available at any time.

• Convenient archive with search by parameters: name, phone number, company, current tasks by document, creation date, status, etc. You can customize your folder structure and search filters.

• Digital signature and external document flow. You can coordinate contracts and invoices with your counterparties, sign them electronically, maintain a register of signed documents and track each document by current status.

• Low-code tools make it easy to customize interfaces to suit your needs. The business process designer also works on the low-code principle: users quickly learn to assemble simple processes by throwing the necessary tasks onto the field. At the same time, the ability to use code significantly expands the built-in functionality. Additionally:

• SaaS, but there is also a "private cloud" and an On-Premise version;

• Supports various types of documents;

• Uses artificial intelligence LegalDoc.AI for smart routing, document comparison and correctness checking;

• The developer has provided ready-made solutions for "Contract Management", "Office Notes", "ORD", "Correspondence";

• Integration with OnlyOffice, P7-Office;

• Provides the opportunity to organize your own support service through ServiceDesk and operators who receive incoming messages directly in the system.

DOCUMENT FLOW

Domestic EDMS based on the 1C platform. The developer offers both ready-made document flow routes that affect the entire document life cycle, as well as tools for communication between employees. There are several tariff plans that will suit companies of different sizes.

Main functionality:

• A classic set of tools for organizing electronic office, storing documents, and processing correspondence. It is convenient to work with documents directly from the list; they can be printed, sent for execution, or sent by e-mail.

• Pre-configured document routes, which, however, may require detailed modification to suit the needs of your company. There are ready-made statuses for monitoring the status of a document.

• Version control, online file editing, document comparison.

• Built-in email client for linking letters to documents.

• Digital signature: simple signature, enhanced unqualified and enhanced qualified.

• Manual and automatic accounting of labor costs: employees can enter information about the work done manually at the end of each day or indicate the objects on which they worked. Labor costs for objects will automatically appear in reports for labor cost analysis.

The EDMS offers both functionality for simple exchange of documents within the company, and opportunities for legally significant document flow in accordance with current regulations. The simplicity of low-code tools makes it easy to customize the system to suit your requirements. Important: low-code and drag-and-drop are used not only in the process designer, as is often the case, but also for working with interfaces. Additional ready-made solutions for contract work, personnel processes, and organization of internal documents reduce implementation time to a minimum.

All the EDMS discussed in this review allow you to set up high-quality electronic document management for your business and ensure the proper level of information security. Registration, storage, basic routes, templates, integration capabilities are presented in all solutions.

However, some systems go beyond document flow and allow you to automate any internal and external processes, establish communication between departments and offices, and build a completely digital company. From this point of view, we recommend paying attention to ELMA365, DIRECTUM and DOCVISION.

Each EDMS includes tools for additional configuration and customization. It seems to us that low-code is most fully represented in ELMA365. It is included in the platform regardless of the version and allows you to customize literally everything: business processes, task cards, documents and other system objects (for example, customers, contacts, equipment), pages with instructions for users, dynamics on forms. The Low-code designer interface is intuitive and works on the drag-and-drop principle. Additionally, free training on how to use it is available, including video tutorials.

We would recommend the THESIS system to specialized companies: holding companies, the public sector, and the oil and gas sector.

Try the EDMS you like live by getting free demo access. Evaluate interfaces, responsiveness, and user friendliness. We recommend choosing a solution for EDI automation that will give your company the opportunity to expand and grow, without stopping only at standard document cards and the simplest built-in routes

During the survey, the following problems of the company when working with documents were identified: - fragmentation of documents (they are stored on many different media and personal contact between employees is necessary to interact with documents); - inability to track staff's work on documents (timely track errors that arise when working with documents and make changes); - limited application software package (working with a specific application is complicated if the intervention of several employees is required).

Let's pay attention to the functionality of electronic document management systems, which is included in the packaged solutions - that is, in the initial delivery. Ratings of electronic document management systems often do not take this aspect into account. The functions you need should not only be implemented in the solution, but should also be included in the packaged version, in case you decide to limit yourself to it.

We believe that a system that is developed by an experienced vendor is more secure - this guarantees that the system will develop and adapt to your tasks and technological progress.

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