

## **ELECTRONIC DOCUMENT MANAGEMENT SYSTEM'S CORE DESIGNING**

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With an iterative approach of software developing, at requirements analysis stage, recommended to detail 10% of use-cases, for create a common vision of problem, tasks and possible threats of project, and also may include the prototype programming [1].

If prototype will be correspond to main system's requirements, then it can be used as core of the system.

**Core** — a set of functions, which creates the base of the entire system. Any core of a system has own architecture with according difficult. Main type of cores:

1. **Integrated (monolith)** – whole functionality implemented as one service (program), which performs all work;
2. **Distributed (microservices)** – functionality presented as a set of a small services (programs), which communicating and distributing tasks.

To specify main components of core, the working domains should be defined and described. Then found common elements between domains, and divided into a groups and set the priority for each group. When specifying the priority, most convenient approach is to use marks scale from 0 (not important) to 5 (most important). Groups with a highest priority (4,5), must be implemented in system's core.

**Electronic document management system (EDMS)** — automated system, whose main purpose is to providing of management and automation of paper work and processes within it, execution controlling, paper and electronic documents storing and processing [2]. Using this definition, main functionality groups for system's core can be defined:

1. **Modules system** — has most important priority (5). This system provides flexibility of entire system, which will be simplified the maintenance. Each other system can be implemented as module;
2. **Overload management system** — has most important priority (5). EDMS workflow includes high system's load, because many people may work simultaneously;
3. **Document processing system** — has the highest priority (5). This system realizes main workflow. Consists of routing mechanism and documents accounting;
4. **Security system** — also has the highest priority (5). Presented in all other systems in different ways, for example, the most of users actions must be verified by system. It's system is complex, and includes many subsystems, which can communicate with each other;
5. **Storing and archiving system** — one of more important system (5). It's necessary part of document management workflow. Implements storing and archiving mechanisms and controlling access to the internal storage or archive;
6. **User control system** — has the high priority (4). Presented as a set of accounting, security, main workflow components for controlling users and their actions within the system;

**7. Localization system** — has the middle priority (3). Provides internationalizations for different regions. Consists of culture aspects, languages, locale restrictions etc. It can be implemented by the internal system functionality.

### **Conclusion**

One of the possible approaches to determining the main elements of the core of the electronic document management system was considered, as a result of which it was determined that the core of the electronic document management system should provide at least 6 important systems that will be responsible for various aspects of the system and provide a solid foundation for further development electronic document management.

### **References**

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