



# AWACASH FINANCIALS

Business Description: Bringing Forth Financial Innovation To Our Daily Life

# Proposal for Awacash Financial Seamless Transaction

2024 KREATENG BOOTCAMP HACKATHON PROJECT

#### Abstract

The main objective of this proposal is to analyze the enterprise information system in a financial organization, summarizing the benefits and identifying the essence of the system, followed up by a proposal of system changes with the aim to compensate the identified project. Firstly, it is necessary to present theoretical perspective on the business description: defining what a financial transaction system is, outlining the types of Awacash information systems, and describing a life cycle of a seamless transaction information system. Next, there is described environment of the enterprise information system, its implementation, as well as the enterprise information system itself – hardware, software, people, and processes. In the last part of this project we are dealing with the proposal of the website application and transaction platform.

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(http://awacash.com).

Peer-review under responsibility of the Organizing Committee of Kreateng Software & Creative Design Company. *Keywords:* Information system, selecting of information system, ERP, criterions for the selection;

# 1. Introduction

In every large financial institution, information system (IS) is an important tool for database in managing the organization. Information systems are mainly used to automate performance of routine activities of the management and administrative management system. Information and work with information is considered as a key economic resource. Field of information technologies is special in the fact that it reflects the dynamic changes. Information. Financial transaction systems are constantly evolving. Every year there are new versions of software and hardware elements of IS as well as new technologies. Financial systems need incorporating of legislative changes; therefore, the development of information systems is a never-ending process.

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To keep the business competitive, it should keep pace with the advent of new technologies. The use of new technologies, of course, does not automatically create a competitive advantage, since it is a work with information. IS is only helpful for decisions and the decisions themselves should create a competitive advantage.

In this project we will look in details at the information system of the selected company, analyze the financial system used technology and processes and consequently we will propose amendment, which the organization should take in order to optimize the information system. We will bear in mind the fact that the cost of construction and operation of this financial system should be adequate to its features and benefits for the organization and to the society at large.

In this project, we describe the information system of a private company; it is described in a more complex manner moreover we propose changes to optimize the information system.

The main objective was to describe the information system of the selected company, followed by proposals for system optimization. The authors evaluate the pros and cons of the existing system and propose measures to correct deficiencies. Examination of the information system was carried out comprehensively. While the information system consists of hardware, software, people, processes and data, all the components of IS were examined. We were not focused only on the type of software. The corrective measures have been proposed so as to be able to benefit from new trends in information technology (virtualization, clouds etc.) but at the same time taking into account the cost of development and operating an information system, which should be adequate to its features and benefits for the organization.

#### 1.1. Hardware

An important part of every information system is hardware. Examined the issue was divided into three parts:

- Networks
- Servers
- Client computers and accessories

**Network infrastructure** is tackled by active network components - routers and switches. All computers are connected using cable network, Wi-Fi network is used, but it is limited only to selected users. Internet access is provided from a fixed line company Beneštra (GTS), whose bandwidth is 50 Mbit / s. Line end is using Cisco ASA box. The company has one public IP address; the other IP addresses are internal. Internet access is provided via a proxy server. Network switches are located in the server, as well as in the building and in the warehouse and sales department.

**Servers** are located in the main building in the server room. This room is provided with air conditioning and in case of power failure the UPS modules are installed to ensure power for a short period of time and correct server shutdown. Access to the room is limited and security of the room is sufficient. The company uses Hewlett-Packard servers for securing important parts of IS but also 'no name' servers or rather workstations used as a server, to secure some less essential systems.

Following servers are used:

- File server for sharing of documents and files,
- Database server for accounting and PAM,
- Mail server server for e-mail,
- Proxy server providing Internet access for users,
- Domain parent server server for the Active Directory service,
- Backup Server server for storing backups

All servers are physical, virtualization is not used. The latest server is three years old, the other servers are older and some are after expiration date. Cloud computing is not used, an attempt to use the cloud failed, this topic will be discussed in separate sections. Servers are installed regarding high availability.

Client computers and accessories were provided successively, as the company was expanding, with the prize of the computer being the most important factor. The purchase method is also applied at present. Purchases are made

from local suppliers of IT. Brand of computers is not fixed. Ordinary workers use desktop computers, department managers use laptops. Sales representatives use tablets. The number of personal computers throughout the company is 72. Life cycle variations hardware is not controlled. In the event of inadequate computer performance, the employee must contact his immediate superior to request a replacement.

The company makes extensive use of printers. All printers are mainly Hewlett-Packard but to a lesser extent they also use Canon and Samsung printers. Altogether, the company has 32 printers; all printers are the property of the company. The graphics department uses network scanner. Scanners are also included in some network multifunction printers but primarily are not used for scanning.

#### 1.2. Software and data

This area of IS will be divided into two parts: operating systems, application software

Mainly Microsoft server operating systems are used and also versions of Windows Server 2003 and Windows Server 2008 are used. Mail service is ensured by Linux. Also, Domain Services Active Directory is used. Client computers that are in the Professional edition are connected to this domain. Windows operating systems are in the OEM version.

Workstations mainly use Windows 7 (57 computers), as well as Windows XP (12 computers) and Windows 8 (3 computers). System versions are OEM, no Volume license agreement was concluded with Microsoft. Some computers are in Home edition, so are not connected to the domain. Tablets used by agents use Android system, especially because of easy installation of applications on connected to storage management.

Application software can be divided into two groups: office systems, ERP.

In the field of office systems mainly Microsoft Office is used. These applications use all users of electronic mail (Outlook) and people who work with word processing and spreadsheets. There were attempts to deploy applications of free Open Office which, which are free and can save the organization license fees, but problems with file compatibility arose, especially with Excel files. The company therefore has no problem, where relevant, if end-user requests the MS Office package. ERP systems are the main applications of the internal enterprise information system, which serves to identify a resource planning for business needs. In the monitored enterprise, the following three main applications are used: Golem, Omega from Kros company, Olymp from the Kros company.

#### 2. Material and Methods

When creating this article, it was necessary to study professional literature and consultation with competent staff of enterprise as well as with programmers and administrators of the IS application. In the process of gathering information were used methods of analysis and synthesis followed by a comparative method. In this section we compare the current information system deployed with the requirements and trends of modern information systems.

At the outset, we define systems, information systems, we describe the types of information systems, life cycle of the information system, the basic functions of IS, we describe ERP systems, server virtualization and cloud computing. At the same time objectives and methods of investigation were set.

Furthermore, we devote to description of an information system in its comprehensive sense, i.e. description of the hardware, software, people, processes and description of selected data.

In the final part of the examination, results are compared to the set target of this article, our own attitudes to which we have come together with competent staff of enterprises are assessed and also the recommendations that we have created on the basis of available information.

## 3. Results

## 3.1. The Graphical User Interface System

This system can be considered as the main part of the interface system, as it is the input for most of data into the database, and after processing it is one of the major suppliers of the output data. The observed organization operates in the distribution of goods and it needs to record inputs and outputs of goods. This ensures friendlier user interface system.

Simply put Awacash Financial (Transaction) system can be considered to be the warehouse management that is linked to the accounting system and the aggregated outputs of purchases and sales are used by sales department managers and even the Director-General. The programs are used primarily by sales workers, warehouse workers but also the sales department personnel who are in charge of ordering supplies and monitoring of the sale of goods for which they are responsible.

The functionality of the application does not currently differ from the modules of warehouse management of most similar systems. The program mainly serves for development of warehouse management agenda and of creation of inventory documents and inventory itself.

Features and functionality of the application:

- Working with multiple warehouses
- Automated Teller Machine cards
- Mass Changes in Graphical Interface
- Bookkeeping of movements in Database
- Transaction receipts
- · Production of Cards
- Statement of Account
- Loan Application
- Purchasing of Bills (Utility)
- · Physical Interaction
- · Import and export of data

#### 3.2. Database system

The database system is used mainly by the Data Analyst department. It is mainly used for bookkeeping, invoicing and VAT. The CEO uses management outputs of this module as an information source when making decisions. We do not know the application details therefore we have used information materials from the website of the software manufacturer.

The system includes the following modules:

- · Double entry accounting
- · Billing and trade
- Workforce
- Customer Relations
- Assets
- · Network connection

**Double-entry accounting** enables the recording and accounting of all types of documents using the automatic account coding patterns and the possibility of accounting for the marketing year. In addition to all the basic accounting information the module also provides financial analysis. It is possible to register a charge of repayments in the module. The module includes an overview of important financial indicators in the company. The program itself carries out checks ledger and the general ledger, suggests a way of correction and allows correcting the document directly in the data overview. It includes remote banking (Data banking SLSP). It is possible to create domestic and foreign payment orders and use the possibility to import bank statements in the accounts.

Additional functionality:

- · Accounting to the centers
- · Accounting for the contract

- Domestic treasury
- · Foreign currency treasury
- The VAT module
- Tax returns, accounting notes
- · Exchange rates

**Billing and trade** enables convenient creation of customer invoices, credit notes, advance invoices as well as cancellation or penalty invoices. It also offers delivery notes, reminders, claims and repair order. Invoicing is connected with the stock and accounting. Final documents can be printed in several versions. For VAT payers the VAT module is essential. The module orderly administrates sent and received orders; it checks the condition of equipment orders or reservations.

**Workforce Management** - the company investigated does not use this module. In the program there is a possibility to create an unlimited number of warehouses. Warehouse Management supports the stock price via FIFO method or does averaging. Invoicing and warehouse are linked in handing out of goods. For managing the efficiency of inventory, it is possible to use tracking of minimum and maximum amount of each type of goods. For each warehouse there is a large menu of reports and printouts (i.e. Income from sales, sale checks, the status of the stock, movement of stock, inventory, etc.).

**Relationships with customers**- The CRM module allows the entire customer communication, all phone calls, emails and documents found in one place. There is a full communication history with the customer, which is very valuable within customer support. Very practical is the calendar feature with reminders where you can schedule meetings, phone calls, business trips and other important events. The module also includes a statistical evaluation.

The asset is a complete evidence of current assets with an overview of the accounting and tax deduction. It contains an overview of inventory and the amount of output reports and allows monitoring of any movement of assets, including printing the necessary reports (a placement report, exclusion protocol, comparing the accounting and tax deduction, inventory, labels and cards of fixed assets, etc.).

It includes the following modules: Current assets, non-current assets

**Rides**—it allows you to record rides of private and company vehicles at home and abroad. It includes distances dial, dial of compensation for the use of vehicles and it can print tax return of the vehicle to an original form and submit it electronically. The program easily creates a travel order directly from the ride records. Creating a travel order can be done manually but also via import of the log book. Board and pocket money for domestic and foreign travels calculates the program automatically.

# 3.3. The Project Management System

The Project Management System is mainly used by the department of project management. It is accessed by the finance director and outputs of the application are sent to the General Director.

Project manager and human resources is an arm for quick and correct calculation of payroll and human resources management. The system is primarily designed for the calculation of salaries, as well as processing fees for other types of employment, such as part-timers, statutory and shareholders. For each employee it can conduct thorough and comprehensive record of the amount of personal and professional data. Thanks to convenient operation and advanced features it makes payroll processing quick and easy. The program is appropriate for the calculation of wages under the Labor Code and according to Public Interest Act.

The program includes more than 200 output sets and reports to health insurance, to social insurance and to tax authorities. These reports can also be printed in their original forms or sent electronically.

#### 4. Conclusion

Companies with its own capital that originated in early 90s began to build their information systems gradually. Given the prices of hardware and software at the time, information systems were not automated by computers and were only in paper form. Only later they started to gradually automate information systems, started purchasing personal computers, servers and software. This way of building information system was applied also in the company of our choice. The aim of the project was to analyze the current state of Awacash financial information system, compare the current situation and then propose solutions to optimize the financial information system. We designed the optimization of all components of the financial information system. Examined company built its information system gradually and in certain areas did not respond to the dynamic changes taking place in information technology. We pointed out these shortcomings and propose solutions to optimize the financial information system with regard to new trends in information technology but at the same time we took into account the cost of development and operation of

the information system, which should be adequate to its features and benefits for the organization. The proposed changes should optimize (see below) the existing information system so that the company keeps pace in the field of information and at the same time optimize the costs of operation of the system and ensure the availability of services.

To clarify the proposed steps to optimize our designs we present the following summary:

- Graphical User Interface consolidation
- Use of virtualization
- Ensuring high availability of financial services.
- Establishing general contract with a verified ICT organization. (Kreateng)
- Unify the brand of purchased computers (Brand New Gadgets)
- To purchase computers with the longest guarantee period and with a secure service
- Define the concept of seamless transaction variations.
- Supplying of Point of Sale Machine (POS)
- Close volume licensing contract with NDIC
- Purchase of Software Insurance for seamless transaction
- Start using mobile app for seamless transactions.
- Start using CRM system
- Update of system development of customer's database
- Upgrade the website.