SOME ASPECTS OF THE THEME "INFORMATION PLATFORM" IN THE TRAINING OF STUDENTS IN ECONOMIC MAJORS

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Abstract. Information Platform has a major impact on the core activities and development of businesses.

In this connection it is necessary for students of economics (the future leaders of such entities) to submit any problems related to the Information Platform, the risks they may pose, and exemplary approach to solve part or all of the problems and minimizing risks.

The current issue examines the adaptation of the above problems when presenting them to students in economic majors.

To the students are presented generalizations based on long observation of the occurrence and development of Information Platforms to the businesses in Bulgaria in a growing market economy.

1. Introduction

At the present moment Information Technologies have very significant position in the development of global socio-economic processes. They are always a bearer of progress and development. It is again expect of them to push forward economic development and promote the rapid exit of crisis.

Very important part of educating Students of Economics is the understanding of the structure of the Information Platform and the interconnection of all parts and possible problems and risks associated with them. Many of them from the student bench get down to business environment of rapidly growing substantially changing Information Platform and become part of teams responsible for managing change.

For the purposes of this paper let us introduce refinements to the following terms:

Information Platform is the entire set of hardware, software, services, and settings, rules and procedures, standard and good practices, etc. It consists of two main parts:

Infrastructure is the set of internal and external communications, hardware platform, structural cable systems, air condition (ventilation and acclimatization),

power supply, security, etc.

Information Environment is the set of universal and specialized software, business applications, internet access, e-mail, shared file resources, rules and procedures, standard practices, etc.

2. Information platform in the business objects

I.Origin and Development of Information Platform.

When considering these issues attention should be paid to the following three groups of Information and Communication Technologies:

- Central Information and Communication Technologies and devices;
- Local Information and Communication Technologies and devices;
- PC Infrastructure and peripheral devices.
- Special items of the information environment

Typically, the Information Platform of a Business object arises and evolves with it in the following order:

- PC and peripherals;
- Internet access, e-mail, WEB;
- Shared resources (file server, ftp server, etc.);
- Specialized applications and ERP, DB and Application server, BI Systems;
- Remote Access;
- Remote offices, warehouses, manufacturing facilities and more;
- Etc.

Problems most often arise from:

- Lack of build local (for the economic subject) legislation regulating the operation of the Company associated with Information Technologies;
- Lack of procedures and practices - internal rules, emergency action plan and others;
- Gaps in the architecture, security, operation and administration of all elements of Infrastructure and Information Environment.

Significant impact at this time have processes of continuously changing environment:

- Mergers and acquisitions of companies leading to the need to consolidate the ICT Infrastructure and Information environment and their elements;
- Corporate and external regulatory requirements;
- Complexity and heterogeneity of networks and protocols, of database management systems and business applications themselves;

- Continuing need to optimize operations and provide new services.

II. Categorization and description of the problems of Infrastructure and Information environment

Problems related to LAN structure can classified for the following areas:
- Network environment:
  - Passive part,
  - Active part,
- Physical Security;
- Power supply;
- Servers, Local and network operating system;
- Specialized and universal program applications;
- Database management systems;
- Business application;
- Other.

When added remote offices, warehouses, manufacturing facilities and others as result is obtained WAN structure.

In such structure often experience the following problems:
- Activities are being outsourced to people out of the company and the support in settings is without clear regulation, contract, and responsibilities;
- All or most of the users have local administrator rights;
- The architecture of the Internet node is built with a firewall for SOHO solution (or absent), insufficient reliability and functionality;
- There is no Virtual Private Network (VPN) and connectivity is supported by Windows Remote Desktop Connection (usually);
- Lack of resources and environment for the reservation of the connectivity between offices;
- On some computers are added "real" static IP addresses, with no or minimal protection measures;
- Allow remote access (for staff, external persons and organizations) in the absence of regulation and 'fuzzy' responsibilities;
- Use of business-critical applications are provided without any means of reticence;
- There is installed and used a variety of centralized services - Internet access, e-mail, Database and "applications" Server which is not provided with adequate documentation and maintenance.
- Mixed roles of central and local services and applications on one hardware;
- There is no and it is not possible the use of remote monitoring and administration of equipment and software;

- Some of the servers are ordinary workstations that do not provide adequate reliability, security and productivity;
- Qualifications, competence, knowledge, skills and size of staff dealing with information technology are not able to cover all the real needs of the operator;
- Authorized remote access (for staff persons and organizations) in the absence of regulation and 'fuzzy' responsibilities;
- There are no rules and procedures for the regulation of remote access for external organization users to the company information located on servers and workstations;
- There are no profiles, standards and policies for ICT use.

III. Categorization and description of the risks

The above problems cause the following major risk groups:
- Irreversible loss of data caused by negligence, intent, accident, disaster or incident;
- Long-term business interruption as a result of accident or incident in the central office - the central facilities;
- Outdoor breakthrough (intrusion) in the information environment because of:
  - Incorrect configuration of protective and other means (FireWalls, AV, system and application software, etc.),
  - Lack of clear and precise regulation (including liability) in relation to external people and organizations in the field of ICT;
- Disturbances in the normal operation of the company caused by:
  - Lack of scalability of Information Platform,
  - Inability to centralize the monitoring results, leading to increased operational costs,
  - Lack of a unified strategy for the delivery of technical and programming tools and consumables,
  - Lack of uniform policy for warranty and non-warranty services of Information Technologies (IT),
  - Lack of adequate resources for monitoring and diagnostics,
  - Insufficient qualifications, competence, knowledge and skills of the users of IT,
  - Inappropriate use of funds;
- Operational risks:
  - Related to exchange, conservation and protection of corporate (including confidential) information,
  - Lack of regulation and safety in maintenance and development of business-critical resources,
  - Resulting from the communication with contractors, giving rise to losses and lost profits, due to a lack of attractive channels of communication,

▪ Serious financial losses in case of loss of equipment in disaster or accident because of lack of insurance.

IV. Goals, Results, Solutions

In the event of problems, some of them require immediate action. Others require planning and development of projects for their gradual elimination.

The goals to be set:
- Creating opportunities for scalability;
- Reserved, reliability and high-availability ICT environment
- Centralized Management;
- Reduced operational costs.

The results, which should be achieved:
- An integrated, standardized and documented infrastructure - power, air conditioning, structured cabling for LAN and telephony, security, Fire Alarm Systems (FAS), CCTV;
- Dedicated hardware and software platforms for the transmission environment (LAN, WAN, WLAN, Internet access) and the protection of «the perimeter»;
- Means of remote monitoring, diagnostics, and administration;
- Hardware and software server platforms for all centralized services - Internet, e-mail, FTP, WEB, company data, fax, data protection and others.;
- Reliable, Dependable, reserved and with sufficient capacity VPN for connectivity between offices (and other) and HQ sites;
- Standardized user profiles to meet business needs;
- Unified hardware and software appropriate to the user profiles;
- Qualified staff working in synchrony, able to maintain and develop the ICT and coordinating specific activities outsourced contractors;
- Comprehensive, integrated package rules and procedures for working with ICT;
- Overall concept and model for the automation of business processes and work with customers;
- Guaranteed service levels;
- Modern, attractive and adequate communication channels for relationship connection based on modern technology;

As an example, should be received the following company's structure.
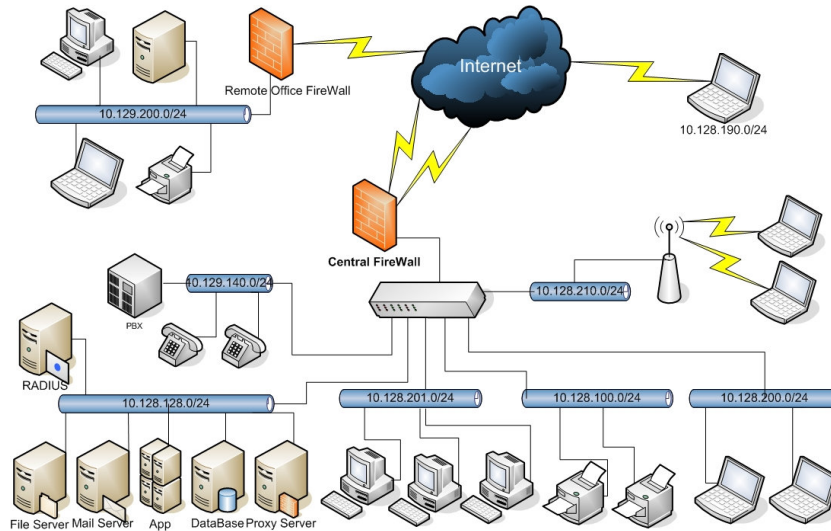
Exemplary proposal for the opportunities for improvement of the condition of Information Platform:

- Segmentation of the network environment.
- Documentation and certification.
- User's profiles.
- Means of monitoring, diagnostics, and administration.
- Power supply. Physical security and others.
- Communications.
- Remote access to information resources.
- Centralized sharing services.
- Centralized business applications.
- Centralized other applications.
- Centralized access to the Internet.
- Disaster recovery plan.
- WAN structure. Channel reservation.
- Attractive channels of communication with contractors.

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