

Case Study



Customer: Warehouse Department - Ministry of Interior

Project Name: Warehouse Management System

Project has been implemented during 2009

Background:

Most businesses and government organizations work on increasing the efficiency in their daily operations and reducing the routine by using new technologies which helps them making the right decision at the right time.

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The warehouses department at MOI (Ministry of Interior) is responsible for managing devices within its warehouses and installing these devices at different government agencies in KSA.

Every operation and task at the department should go through many approvals before releasing it, which takes a lot of time and effort from the employees. Accordingly, the warehouses department decided to take a step in moving toward process automation world instead of the general paper processes.

Business Challenges:

We will list hereunder the major business challenges encountered by this department at the MOI:

- Hundred of devices go to warehouses per week, and every warehouse has many sections. These devices are classified to categories based on their characteristics.
- All operations and procedures go through different stages and through group of people, whom they have privileges and responsibilities. No one can withdraw a device unless he takes consent from the general manager, even technician people can't pay a visit unless they got official request from the management. In addition, receiving technical support requests goes through several stages starting from receiving the request by maintenance manager then assigning it to one of his staff.
- Large number of operations occurred weekly which takes a lot of efforts; therefore, the warehouseman has to be so careful and precise during the work.
- The warehouseman has to work continuously on managing devices withdrawing priorities based on devices that have entered first to make sure no old devices would be available in the warehouse

The Solution:

CLEAR has studied in details all the procedures in the department, and then designed a business processes diagrams to arrange the operations and standardize the lifecycle. All the restrictions and conditions on each business process have been taken into considerations.

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The system was developed with the following technologies:

- PHP programming language and Apache Application Server.
- MySQL Database Server.

The main objectives that were achieved by this Warehouse Management System are:

1. Automating all devices entry operations, withdrawing operations, installation, and maintenance.
2. Giving a chance to divide the warehouses to many sections where each device has its own section.
3. Applying conditions/restrictions on all the system operations (withdrawing, maintenance ...) so that requests will be executed only after obtaining approval from the person who's in charge.
4. Providing a way that allows adding users with different privileges according to their tasks and roles.
5. Designing a system for communicating with all system users (internal email).
6. Giving a chance for the system administrator to watch and follow-up all the operations within the system.
7. Providing reports and statistic about devices stock, entry, withdrawing, and maintenance.

Results:

The warehouse Management System has achieved important strategic objectives. Utilizing this system has resulted in speeding up the work and facilitating the procedures between technicians and administration, as well as giving flexibility in transferring data between users, and providing a way to watch all the operations and to obtain the required reports and statistic.