Part 1.

1.0  Update Inventory with newly received stock

2.0  Update Inventory decrementing for items used

3.0  Generate Orders

4.0  Make Payments

5.0  Check inventory net balance

DS4 Inventory Database

Order

Incoming inventory

Outgoing inventory

Invoice

Payment

New items

Stock on hand

Request Inventory data

Inventory data

Re-ordering

Part 2.

1.0  Check Crime Information

2.0  Check Parking Service Types

3.0  Check Directions

4.0  Check Parking Availability in DC

Crime and Service Information Feed

Update Parking Types

Request Parking Types

Request Crime Info

Parking Types

Crime Info

Location

Update crime info

Complete parking availability info in DC

Directions

Area of interest in DC

User

Google Maps API

*includes crime-related info, directions, types of parkings
Part 3.

Coordinating Ministry of Economic Policy (MCPE)
Quito, Ecuador

September 17, 2013

To: Gabriela Robalino
From: Julio C. Zambrano
Subject: Applying Open Source policy in the government

On August 29, 2013, during the last session of the Cabinet, the President Rafael Correa asked to his Coordinating Ministries assessing the feasibility of implementing open software as mandatory use policy in the public sector. There have been a lot of questions regarding the pertinence to substitute closed source software with open source software during the last years. According to Pous (2011), we have to take into account the following elements to answer the previous question:

- The difference between free software and open source software has to be clear. We have to know that not because open source software is using free software to operate today, it will be the same case tomorrow. In effect, open source software could choose to operate with other software providers with non-open source license. For example, a possible scenario is that we were using open source software, with free software programs, but as time goes by, our software providers obligate us to begin using non-open source license to continue operating with their system.
- According to Ransbotham (2010), cited by Pous (2011), security is not ensured with open source software. The vulnerability risks could be higher than closed source. This is a very important point to take into account, because of the high confidential level of the information that is used by the government.
- A cost-benefit analysis shall be implemented. At first glance, open source could be considerate cheaper that closed source. However, not only we have to investigate about the possible hidden cost in maintenance and support costs but also, institutional goals, interoperability, compatibility, and support service availability during all the useful life of the software.

In addition to the previous observations, it is worth to mention that contract services in the public sector have to follow many administrative and legal procedures. Enterprises that provide open source services have to be legally conformed and meet all the qualifying requirements to provide services to the state. It is less common to find open source providers with those qualifications than closed source providers.

Another consideration shall be staff training. Undoubtedly, this variable has to be taking into account in the cost analysis.

Under this consideration, it is a priority that our IT Unit, supported by a technical committee of the other institutional units, elaborating a comprehensive analysis of this policy to answer the requirement of the President prior to the next Cabinet meeting on October 7, 2013.
Copy to:
Esteban Rodas
Director of IT Unit
MCPE

*jz

References


Part 4.-

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2. Definition: First, the IT specialist has to conduct a feasibility analysis of the program, particularly related to the technical one. Cost and estimated schedule are also responsibilities of the IT specialist. The next step, after the feasibility analysis approval by the authorities, the IT specialist has to prepare a system requirement document. It contains an explanation of how selected inputs will be transformed in outputs. In this step, the user’s requirements are interpreted by the IT specialists.

Construction: In this step, the IT specialists are responsible for the construction of the physical design of the system. Using the requirement definition of the previous step, they build a reliable, user friendly and flexible system, through user acceptance testing.

Implementation: The main responsibility in this step is to install the hardware and software. Moreover, maintenance turns in one of the most popular requirements from users to IT specialists.

5. Parallel Strategy: You can use the old system if there are problems with the new one.

Pilot Strategy: You can test the system in only one portion of the organization. After fixing any problem, you can implement in the rest of the organization.

Phasing Strategy: Big projects can be divided into small ones. After this, achieving the benefits of the new system can be made more quickly.

Cutover Strategy: Moves the organization to the new system faster. The old system is changed completely by the new system.

7. This is because the construction step will use as an input the requirements definitions for the physical construction of the system. If the requirements were established wrongly, the organization will lose a lot of economic resources to fix the problem. Before the requirements definitions, everything was done in paper, and could be easily erased and fixed. After this step, it is difficult to amend any mistake.

13. This is because the relationship between both parts is based on outcomes and not staff. Communication is vital to obtain satisfactory results.
3. The requirement definition is critical in the SDLC process. Most of the mistakes can be generated in this step. Users and IT specialists have to speak the same language. Without appropriate communication, a wrong system would be designed. This is a risk of adopting a “water-fall” approach. A mistake generated in a previous step, will be intensified in the next step if nobody fixes it.