

## **Notebook Security Check System Another Example on Integrating Card Access, WebForm Through Proper Process Design and System Integration**

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### **Abstract**

WebForm had been commonly use in Motorola Penang for years, so is card access. By putting a proper process and enforcement in the process, a quick and effective web application system can be setup easily for Notebook Security Checking.

This paper describes how the Notebook Security Checking is developed by putting two standalone systems, i.e. Card Access System and Permanent Material Pass Form created by WebForm.

### **Introduction**

In the pass, notebook security checking at the security check point is base on the label stick on the notebook by the (CGISS) notebook support group or a permanent material pass carry by the notebook owner which is issue by (ESG) notebook support group. The issue of these methods of checking is that, it can be easily overlook by the security. With more and more notebook issue to the employees, this method of checking becomes not too effective.



Figure-1

*Notebook Security Checking System is a web base application developed to help security to check if the notebook taking out from the factory belong to the notebook owner. The system is installed at the security check point where all employees have to pass through on the way leaving the factory or workplace. How the system work is that, upon the walking out the securities check point with the notebook, the security will take out the notebook, scan the factory bar-coded serial number and the photo of the owner will appear in the system display as show in*

figure-1. In cases where notebook was not register or authorize, a “No Data Found” message will appear on the screen as shown in figure-2. With the help of this system, the security now is able to identify if the person is authorize to bring out the notebook effectively.

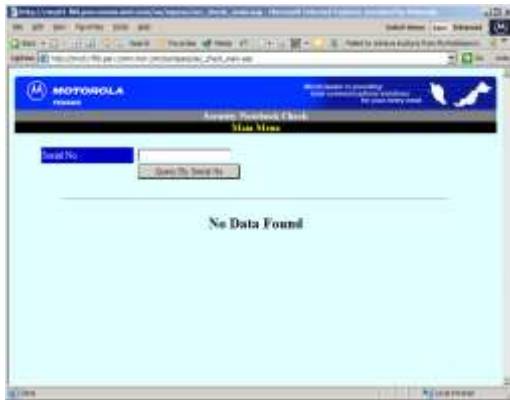


Figure-2

*Card Access System* with was implemented in Motorola Penang since 1998. The *Badge/Photo-ID* which is carry by all Motorola Penang employees is actually a RF Access Card come along with the Card Access System. All Motorola Penang employee are required to take their photo by security admin when they first reporting to work in order to get their *Badge/Photo-ID*. Therefore, *Card Access System* actually has all the employee photos that *Notebook Security Checking System* needs.

*WebForm* was developed in 2000. The *Permanent Property Pass Request Form* was created in year 2001 in order to approve an authorize notebook owner bring their notebook back and forth between their home and factory/workplace. Therefore, *Permanent Property Pass Request System* actually have all the information on which notebook are authorize to which owner for carrying it out from factory/workplace.

The key of success of implementing the *Notebook Security Checking System* is to design and collaborate the two processes of the two standalone system by making minimum changes of the two processes and making sure the collaborated process able to provide continue support and maintaining up-to-date data for the newly develop system.

## Development / Improvement

### Notebook Issuance / Permanent Property Pass Request

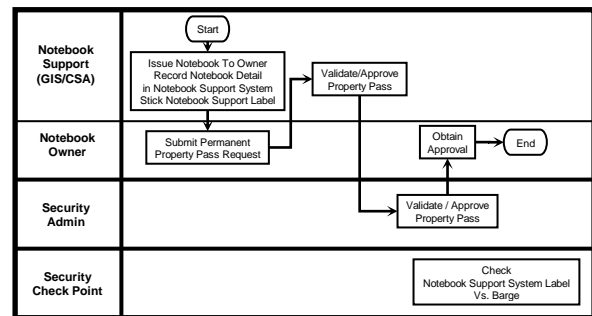


Figure-3

Figure-3 shows the “Is/Was Map” and process the notebook owner supposes to go through when a notebook is issue to them. Note that after the notebook being issue to the owner. The owner supposes to submit the “Permanent Property Pass Request Form” for approval. The process end there and the security checking at the security check point basically just check for the label stick on the notebook. There is quite a number of loop holes in the process:

1. If the owner never submits the “Permanent Property Pass” for approval, the security will not know, unless they login the system and check.
2. At time, the security might overlook the label that actually stick on the notebook.

### Notebook Return / Permanent Property Pass

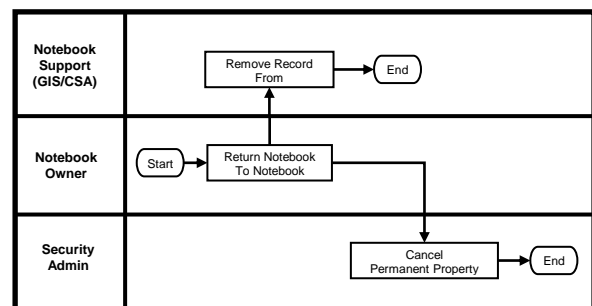


Figure-4

Figure-4 shows “Is/Was Map” and process the notebook owner supposes to go through when a notebook is return to the notebook support. Note that after the notebook is return to the notebook support group, the owner suppose to inform the security to cancel the record. However, if the owner did not inform the security, the record will remain as a valid record.

Notebook Issuance / Permanent Property Pass Request / Notebook Security

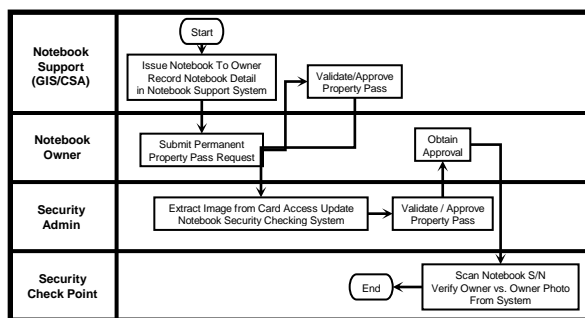


Figure -5

Figure-5 shows the “Should Map” and process the notebook owner supposes to go through when a notebook is issue to them. The process now collaborates with the Card Access System which is managed by the security group. With this collaboration security admin now have to extract the photo into the Notebook Security Checking System before they validate the approval. Once the application is approved, the security will be able to verify if the notebook have been approved by scanning the bar-coded S/N which was stick by the manufacturing of the notebook. If the notebook is approve by both Notebook Support and Security Admin to be taken out, the photo of the notebook owner will appear on the system. If it had not been approve, A “No Data Found” will alert the security to take corrective action.

Notebook Return / Permanent Property Pass

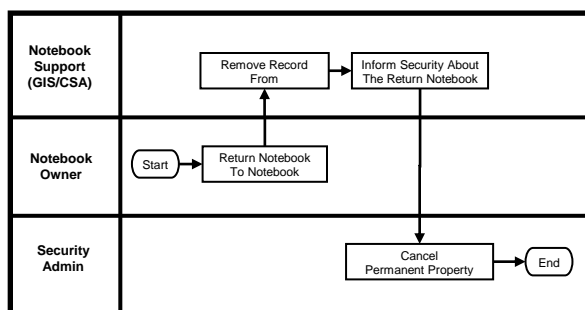


Figure-6

Figure-6 shows “Should Map” and process the notebook owner supposes to go through when a notebook is return to the notebook support. Since all notebooks will be return to Notebook Support, the Notebook Support now has to inform security on all return notebooks in order for security to cancel the Permanent Property Pass from the system.

With this improve collaborated process. The maintenance are cut down to minimum and continue support is ensured.

## Technically Know How

With the improved collaborated process, we design the Notebook Security System to collaborate with the two exiting standalone system and make it into a one useful application.

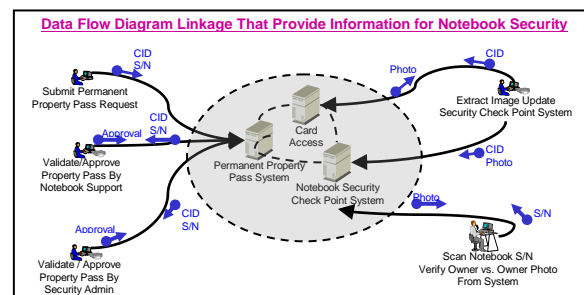


Figure-7

Figure-7 Shows the data flow diagram on how the Notebook Security Checking System works. The data information is basically resided in three difference server. Permanent Property Pass information is resided in WebForm Oracle/Unix database, the Card Access Photo is resided in a NT4 card access system folder and the Notebook Security Checking System is resided in NT2000 web application server.

When the notebook owner submit the Permanent Property Pass Request Form, S/N and personal information are store in the WebForm database, Notebook Support will validate the notebook detail submitted by the notebook owner before making the approval, the approval will then route to security admin. The security admin, will base on the information from the form submission transfer the photo to Notebook Security Checking System before approval the Webform. Once the form is approved by the security admin, the admin will be notified through the e-mail. The notebook owner will then authorize to take out the notebook from the factory check point. Upon going thru the check point, the security will take out the notebook, scan the S/N on the notebook, verify the photo id display on the system and verify if the notebook belong to the person taking out the notebook. In cases where the photo is different from the person who bring out the notebook, the security can than take correct action toward it.



## **Conclusion**

Notebook Security Checking System, is just a tools to help the security to verify the notebook taking out from the factory belong to an authorize owner effectively. The system can be effectively maintained if the securities perform consistent scanning on all notebooks that go thru the security check point. If the security consistently scanning thru all the notebooks going thru the security check point it can be a very effective system.

## **Reference**

- [1] "WebForm with Form Generator". Technical Symposium 2000, Lee Ping Hoe, Chang Kok Leong, 2000.