Design Specification, Technologies & Test Plans

## SYSTEM DESIGN

This basic topic talks about security system that has to be designed, in this, the system must be able to access any form of menace in their order of significance, and this significance of menace must be design by the security designer and carefully include analysis of the specific risk of the network system. Vulnerability and threat should be carried out in an orderly manner to access all the requirement of the network.

## SECURITY NETWORK REQUIREMENT AND FIREWALL POLICY

There are several ways in which firewalls can be tested and the very good one is by gathering of information from several people who have responsibility on it, talking about this people it comprises of some members of a system administrator, audit team, policy team member, network administrators, and other personnel in the information security. There is purpose of doing it which has to do with the collection of each person’s perception about how firewalls should be operated and how it can be configured in the network and its system. Then a documentation on the firewall should be written as well as showing some diagram to give a proper understanding in the verification of such interviews, as well all know firewalls are controlled designed to reflet policies, which means that before configuring a firewall a good policy must be put in place and adhere to. After this, information is collected the auditor has a development in an understanding the firewall architecture and ensure that the firewall is configured correctly and defending of the network information. In this aspect every bank or organization is responsible for the protection of its network resources. which include

* In a bank where they have sensitive information or data, that information should be encrypted before they are transmitted over the network. This sensitive data includes passwords and log 10s.
* A risk assessment should be carried out by the bank in order to determine the specific place the firewalls should be mounted. The configuration of the firewall should have outgoing access to the internet, although there must be a limited incoming access of data by the system user of the network.
* Computer with sensitive information should be protected by firewall before they are connected to the internet, this act as a means of protecting such information from threat.
* Should be mindful of email gateway command use cause some crackers can access such command and use it prob the user address
* Tools like editors, compliers and some other programming tools for development should be remove from the system that will allow any cracker to install backdoors and TROJAN horse software.
* All downloaded software should be scanned immediately for Trojans horse or computer virus.
* The software that are available in the network which are downloaded should not be loaded into hard disk but into flash drills. This software should be checked on and make sure that is free from computer virus or Trojan horse before it can be put into the drive.
* User special entrance access used should not permitted when using 100pholes in the firewalls system
* There is some violation that should brought to notice of the management system for disciplinary act such as the violation of procedures, violation of standards, and the termination of appointments. In this process users should be made to limit and scope their area of specification.

## PROGRAMMING AND TESTING

When talking about programming it is stapled on any operation perform in giving the result needed in a computing work. Problem can be express by requiring of programming language and understanding its significant nature of the computer program. A program was implemented which is the visual basic editor, even as at that the program was not included in the bank computation while running the program there were certain conditions that were brought forward against the testing and implementing the security policy. The flow of the program is given below in the flow chart.

Start

Set up data

Display greeting

8 display menu option

Accept menu option

Is menu option A

Yes

Display security policy

Is menu option B

Display-Personnel policy”

Return to menu?

Go to 8

Is menu option c

Display “Mis responsibility

Stop

Is menu option D

Is menu option E

Yes

Display “menu option not included in the list

Go to 8

Count - 1

10 accept user code

All both input valid

Display “unauthorized access”

Is count > 3

Yes

Display error report

Count = count + 1

M - 1

Is count =3?

Accept code

Display “last chance”

Sleep M

M = m+s

Display “checking code"

No

No

Is code valid

Yes

Go to 8

Go to 10

No

## IMPLEMENTATION

Definition of several section of a bank is very difficult because network security is attached to all area of operation in the banking sectors, therefore, passwords should be used in providing adequate security to date and files in the banking environment. Let’s take for instance, were a wrong password is implemented severally, the program with no excitation generate an error report and then terminate the entire program. In other for such program to be implemented the bank should incur a special system analysis that has the necessary requirement and information of their activities as to prevent their network from threats and make it more secured.

## HAND OVER/CHANGE OVER

Using change over method it depends on the type of system an organization uses and the way they are structured internally. This method includes

* Pilot change over: This has to do with the changing of parts or a small portion of the program in two ways either by directly or by parallel by testing and evaluating, during pilot implementation feedback are provided by test group users on the system which makes the users rollout to go without hindrance.
* Parallel change over: is the process of running old and new system by the usage of same input until their confidentiality that the new method is satisfactory with low risk, using this method the new system takes the place of old system by disconnecting the old system.
* Direct change over: this has to do with the stoppage of old system completely and starting the new system by doing this all data present in the old system goes to the new system. This is also known as big bang adoption.