Free research paper on cybersecurity against virus attacks

Business, Management

A computer virus can simply be defined as a piece of code or program that is able to replicate itself, runs on a computer against the owner’s wishes, and spreads from one computer to another. Currently, computer viruses have no commercial value but are highly known to be implemented in the military. Many organizations or individuals use viruses to harness competition especially in businesses. A virus can be developed to perform a specific purpose. This includes corrupting files in computers and databases (destructive viruses), hacking (obtaining information from computers and databases).

An increase in technological advancements has led to an increase in targeted organizations, hence an increase in vulnerabilities. Therefore, effective cyber security program has become essential in minimizing these vulnerabilities and reducing the cost. The following measures should be taken: Installation of Intrusion Detection Systems (IDS) and anti-virus. Intelligence based solutions should also be implemented in order to identify targets that are most at risk so that they can be protected. This can be done by monitoring the network continuously, as well as implementing vulnerability and risk management systems. All these measures ensure protection, readiness and solutions in case of an attack.

Prior to cyber attack, various computer security equipment can be used to control access to various computers thus ensuring only authorized persons can be able to access the required information. The computer security equipment that management should invest in includes Intrusion Detection Systems (IDS), firewalls, biometric scanners and dongles. Firewalls are used for securing local area network hence keeping off intruders that are not

allowed to access computers in the local area network via the internet. It can also be used to limit remote access to resources outside the local area network. A firewall does this by filtering the packets that pass through it. On the other hand, dongles and biometric scanners are used for authentication (retina and fingerprint scan) hence performing identification before allowing access.

References

Ludwig, M. A. (1996). The Little Black Book of Computer Viruses. Arizona: American Eagle.

nCircle. (2013). Retrieved June 12th, 2013, from http://www. ncircle. com: http://www. ncircle. com/index. php? s= resources_improving-cyber-security

Siemens Industry, Inc. (2012). Smart Grid Cybersecurity. 1-8.