Year and Semester 2018 FALL

Course Number CS-336

Course Title Intro. to Information Assurance

Work Number HA-01

Work Name Selected Problems from Stallings Textbook: Chapter 01

Work Version Version 1

Long Date Sunday, 26 August 2018

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Abstract

In this article I will be going over problems 1.1, 1.4 and 1.7 from Chapter 1.

1 Problem 1.1

Consider an automated teller machine (ATM) in which users provide a personal identification number (PIN) and a card for account access. Give examples of confidentiality, integrity, and availability requirements associated with the system and, in each case, indicate the degree of imporance of the requirement [1].

1.1 Confidentiality

The ATM must ensure that only the User is allowed to see their bank information, and that the User will not be able to access another User's bank information. The User is required to provide their card and PIN to prove that they have access to view their account information.

1.2 Integrity

The ATM must prevent the User's account from being tampered with. The ATM can only change the user's account data if the user as athorized the manipulation of their account information.

1.3 Availability

The ATM must be able to access the user's account information when the user wishes to use the ATM. If a user wishes to retreive money from their account, the ATM must be able to tender out the money that the user withdrew from their account.

2 Problem 1.4

For each of the following assets, assign a low, moderate, or high impact level for the loss of confidentiality, availability, and integrity, respectively, Justfy your answers.

(a) An organziation managing public information on its Web server[1].

  Confidentiality This is why....

  Availability   This is why...

  Integrity   This is why...

(b) A law enforcement organization managing extremely sensitive investigative information [1].

    Confidentiality This is why....

    Availability   This is why...

    Integrity   This is why...

(c) A financial organization managing routine administrative information (not privacy. related information) [1].

    Confidentiality This is why....

    Availability   This is why...

    Integrity   This is why...

(d) An information system used for large acquisitions in a contracting organization contains both sensiteve, pre-solicatation phase contract information and routine administrative information. Assess the impact for the two data sets separately and the infomation system as a whole [1].

    Confidentiality This is why....

    Availability   This is why...

    Integrity   This is why...

(e) A power plant contains a SCADA (supervisory control and data acquisition) system controlling the distribution of electric power for a large military installation. The SCADA system contains both real-time sensor data and routine administration information. Addess the impact for the two data sets separately and the information systems as a whole.

    Confidentiality This is why....

    Availability   This is why...

    Integrity   This is why...

3   Problem 1.7

References

[1] STALLINGS, W., AND BROWN, L. *Computer Security Principles and Practice*, 3 ed. Pearson Education, One Lake Street, Upper Saddle River, New Jersy 07458, 7 2014.