Level 3 Implementing an ICT systems security policy (7266/7267-511)

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Assignment guide for Candidates
Assignment D

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Introduction – Information for Candidates

About this document

This assignment comprises all of the assessment for Level 3 Implementing an ICT systems security policy (7266/7267-511).

Health and safety

You are asked to consider the importance of safe working practices at all times.

You are responsible for maintaining the safety of others as well as your own. Anyone behaving in an unsafe fashion will be stopped and a suitable warning given. You will **not** be allowed to continue with an assignment if you compromise any of the Health and Safety requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, you must acquire the habits required for the workplace.

Time allowance

The recommended time allowance for this assignment is **5 hours**.

Level 3 Implementing an ICT systems security policy (7266/7267-511) Candidate instructions

Time allowance: 5 hours

Assignment set up:

This assignment is made up of **four** tasks

Scenario

You work as an IT systems support engineer specialising in IT security. A customer has just purchased a new system but is sceptical about the level of security threats that actually exist. The new system has not yet been installed.

The data contained within the customer's system is commercially sensitive and extremely valuable. Data back-ups are done once a week and back-up tapes are stored on-site.

The customer's new system covers two separate sites, half a mile apart with a wireless link between the two. Within each site there is a network using wireless, Cat 5 and fibre-optic media. There is an interactive company website with a facility to contact the company directly, via email, using an on-site mail server. Employees are allowed unlimited use of the Internet and email facilities for work purposes.

You have been asked to research a range of current threats to businesses that use email, the Internet and other electronic means of communication. You have also been asked to report on the security implications of the various transmission media in the new system and to make recommendations for improvement. Your findings will be in the form of a report that will include an overview of possible effects of these threats on the business and ways that the effects can be minimised. You will then be asked to carry out surveys and preventative actions on an IT system.

Read all of the instructions carefully and complete the tasks in the order given.

Task A

Use the narrative description of the company system organisation and available research resources such as the Internet, library etc for the following tasks.

1 Identify **four** parts of the system and organisational activities that make the system and its data vulnerable to attack, either physically or digitally. Make written notes of your findings for use in writing reports.

At least one of the threats must be a physical one. For **each** of the security risks identified, you must provide reasons why this is a risk on this particular system.

2 Write a report for the customer covering the risks to their business you have identified. The report should include

- details of the **four** weaknesses and how they could be used to disrupt the system and/or steal data
- risk levels associated with **each** mode of attack and **one** possible intended outcome for each mode of attack
- **three** different motivations of the people who may attempt to attack the company
- the likely effects **each** type of attack could have on the company's business and also that of their customers

Information should be gathered from all available sources. Information obtained should be listed with source references.

Task B

1 Make recommendations to the customer as to how the risks from each of the **four** threats identified in Task A could be minimised, including

- recommended actions/solutions proposed
- **three** key issues to consider when costing security solutions
- a relative estimate of cost (eg 'this proposal is likely to cost about x% more/less than the original')
- **two** possible impacts to the business if the recommendations are not accepted and implemented
- The importance and purpose of a defined security policy.

Task C

The customer has asked for information about what should be done in the event of a security breach on the system.

1 Give an overview of the following when gathering evidence of a breach of security.

- Preservation of evidence.
- Collection of evidence.
- Chain of custody.

2 Describe the roles and responsibilities of key personnel, in an Incident Response Team, following a major Denial of Service (DOS) attack that has disabled the company's main server. Briefly outline the effect such an attack might have on the business.

3 Outline a typical password policy **and** give reasons why such a policy should be adopted for the system.

Task D

You are required to configure a computer to access the corporate network using wireless. The computer you will be given will not have any protocols or wireless software installed on it.

1 Select, install and configure the most secure wireless networking protocol available to you.

2 Install the wireless software provided and configure the computer to access the wireless network using the most secure encryption method available to you

When you have finished working:

- Sign each document above your name and label all removable storage media with your name.
- Hand all paperwork and removable storage media to your assessor.

If the assignment is taken over more than one period, all paperwork and removable media must be returned to the test supervisor at the end of each sitting.

End of assignment

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