Investigate and implement IT security



Overview

This unit is about your ability to investigate and identify sources of threat to IT systems and how you make recommendations on IT security procedures and counter measures.

There are three elements

- 1 Investigate and identify sources of threat to IT systems
- 2 Contribute towards recommendations on IT security procedures
- 3 Make recommendations on IT security counter measures

Target Group

This unit is aimed at members of staff who are involved in preventing e-crime.

Investigate and implement IT security

Performance criteria

Investigate and identify sources of threat to IT systems

You must be able to:

- P1 location of IT system(s) is established
- P2 you contribute towards allocating value to **IT systems** within the organisation
- P3 you contribute to the analysis and identification of threat to IT systems
- P4 the type of threat is defined
- P5 the probability of threat is graded
- P6 level of risk to organisation is graded and prioritised
- P7 potential target(s) are identified
- P8 security report is produced and distributed to appropriate persons(s)

Contribute towards recommendations on IT security procedures

You must be able to:

- P9 recommendations are made on siting of IT systems
- P10 recommendations are made for virus checking procedures
- P11 recommendations are made on access levels
- P12 recommendations are made for implementation of restrictions to access
- P13 all recommendations made are commensurate with own level of responsibility
- P14 recommendations are recorded and submitted to **appropriate persons** for consideration

Make recommendations on IT security counter measures

You must be able to:

- P15 recommendations are made on the frequency of line management monitoring checks
- P16 recommendations are made on the installation of access restrictions
- P17 recommendations are made on the frequency of systems audits
- P18 all recommendations made are commensurate with own level of responsibility
- P19 recommendations are recorded and submitted to **appropriate persons** for consideration

Investigate and implement IT security

Knowledge and understanding

You need to know and understand:

K1 types of threat

K2 validity of threat

K3 likelihood of threat

K4 information dissemination policy and procedures of organisation

K5 perimeters of access

K6 use of dedicated areas

K7 restriction of `lone working'

K8 supervision of visitors

K9 user authentication

K10 enforced paths

K11 segregation of networks

K12 remote diagnostic port protection

K13 network connection controls

K14 network routing controls

K15 log on procedures

K16 organisational reporting procedures

K17 regulatory and legislative requirements

K18 data encryption

K19 message authentication

K20 operational software controls

K21 changing control procedures

Investigate and implement IT security

Additional Information

Scope/range related to performance criteria

Investigate and identify sources of threat to IT systems

1. IT systems

- 1.1. single
- 1.2. multi site

2. Appropriate persons

- 2.1. line manager or other higher authority
- 2.2. IT manager
- 2.3. security manager

3. Type of threat

- 3.1. espionage
- 3.2. terrorist
- 3.3. sabotage
- 3.4. subversive
- 3.5. personal security

Contribute towards recommendations on IT security procedures

4. Access

- 4.1. internal
- 4.2. external

5. IT systems

- 5.1. single
- 5.2. multi site

6. siting of systems

- 6.1. on-site
- 6.2. remote

7. Appropriate persons

- 7.1. line manager or other higher authority
- 7.2. IT manager
- 7.3. security manager

Make recommendations on IT security counter measures

8. types of access restrictions

- 8.1. software
- 8.2. hardware

Investigate and implement IT security

- 8.3. personnel8.4. external8.5. internal
- 9. Appropriate persons
 - 9.1. line manager or other higher authority
 - 9.2. IT manager
 - 9.3. security manager

Investigate and implement IT security

Developed by	Skills for Justice
Version number	1
Date approved	February 2006
Indicative review date	February 2008
Validity	Current
Status	Imported
Originating organisation	Skills for Security
Original URN	SfJ ZH6
Relevant occupations	Public Services; Information and Communication Technology; ICT for practitioners; Financial Institution and Office Manager; Public Service Professionals; IT Service Delivery Occupations; Public Service and Other Associate Professionals
Suite	Countering E-Crime
Key words	investigate IT security, implement IT security, security recommendation