

Overview

This NOS sets out the skills, knowledge and understanding for you to test that security systems integration and communications are operational and comply with the relevant standards

Electronic security systems integration by definition specialises in bringing together sub-systems into one system and sharing information while ensuring that those sub-systems still function in their own entirety. This includes data communications between a protected premises and remote monitoring.

This NOS covers the three activities listed below and can be applied to one or more of the following: device to panel, local integration (LAN) and centre to centre (WAN)

1. Carry out tests to confirm required system operation
2. Carry out systems integration
3. Test systems communications

Performance criteria

You must be able to:

Carry out tests to confirm required system operation

- P1 identify the relevant tests that you are to carry out on the system
- P2 make sure that test equipment is working properly and calibrated where necessary before starting tests
- P3 confirm testing arrangements with customers and third parties where necessary, that are mutually acceptable
- P4 carry out required tests on both systems in line with approved procedures and codes of practice
- P5 take appropriate action to remedy situations where systems or equipment do not meet their operational requirement
- P6 record tests results accurately and fully, using the approved recording methods and formats
- P7 provide tests results in the approved format to the relevant person, within agreed timescales

Carry out systems integration

- P8 using approved procedures and manufacturers guidelines carry out systems integration
- P9 install all integration and system components in accordance with the specification

Test systems communications

- P10 Test data signals between components
- P11 Test data signals between systems
- P12 Test data signals between and centres
- P13 Confirm the communications have been received in line with the specification
- P14 Record and provide evidence of the communications

Knowledge and understanding

You need to know and understand:

Carry out tests to confirm required system operation

- K1 current relevant legislation, regulation, standards, codes of practice and guidelines relating to electronic security systems integration
- K2 the expected operation of systems and equipment being tested, including the expected results of the tests you carry out
- K3 why it is important to make sure test equipment is working properly, and calibrated where necessary
- K4 the purpose of and how to use the relevant test equipment and interpret results
- K5 how communication and integration takes place between component, systems and centres
- K6 How to interpret the results of the communication and integration tests you carry out
- K7 the limits of your authority and responsibility in taking direct action to deal with equipment that does not meet its operational requirement

Carry out systems integration

- K8 The relevant information on each of the systems installed
- K9 Current relevant legislation, regulation, standards, codes of practice and guidelines for systems integration and data transmission
- K10 How you are going to integrate systems and components of sub systems
- K11 Different types of system interfaces, uses and installation procedures

Test systems communications

- K12 The different types, methods and properties of system communications
- K13 Current relevant legislation, regulation, standards, codes of practice and guidelines relating to electronic security systems data transmission and communications

K14 Carry out required tests in line with approved procedures and codes of practice

K15 Have knowledge of communication signal types

- Passive signalling communications
- Active signalling communications

Scope/range

Competency must be demonstrated in two of the seven areas including at least one of the core areas:

Core areas

- Intruder
- Fire Alarm
- CCTV
- Access Control

Other areas

- Nurse Call
- EAS Systems
- Cloud Based System

Glossary

In these National Occupational Standards;

communications: the data flow between system components or centers. For example (but not exhaustive) wired, wireless, networking

Electronic security systems: a generic term that includes: intruder, fire, cctv, access, remote monitoring systems and other types of protective installations. It also encompasses the integration of existing and new systems.

electrical supply systems: supply to the system components, such as primary and secondary supplies

sites: premises of installations. For example (but not exhaustive) commercial; industrial; retail; domestic; governmental

specification: the specific detail containing design, installation, commissioning or maintenance requirements

systems: a set of components working together as an interconnecting network. For example (but not exhaustive) new installations; extensions; modifications

tests: For example but not exhaustive - visual; electrical, operational, induced faults

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