Edexcel GCE

Applied Information and Communication Technology

Unit 9: Communications and Networks

January 2012

Scenario	Paper Reference **6959/01**

The scenario should be distributed to candidates at least three working weeks before the examination.
Note: There are **no** practice files for this examination.

This scenario should be used for the purposes of preparing candidates for the examination. This copy **must not** be taken into the examination. The information contained in the scenario will be included in the examination paper.

Further details are in the Instructions for the Conduct of Examinations (ICE), available from the Edexcel website for this qualification.

Edexcel will not accept any request for special consideration should candidates be given the incorrect scenario for the examination they are sitting.

Turn over

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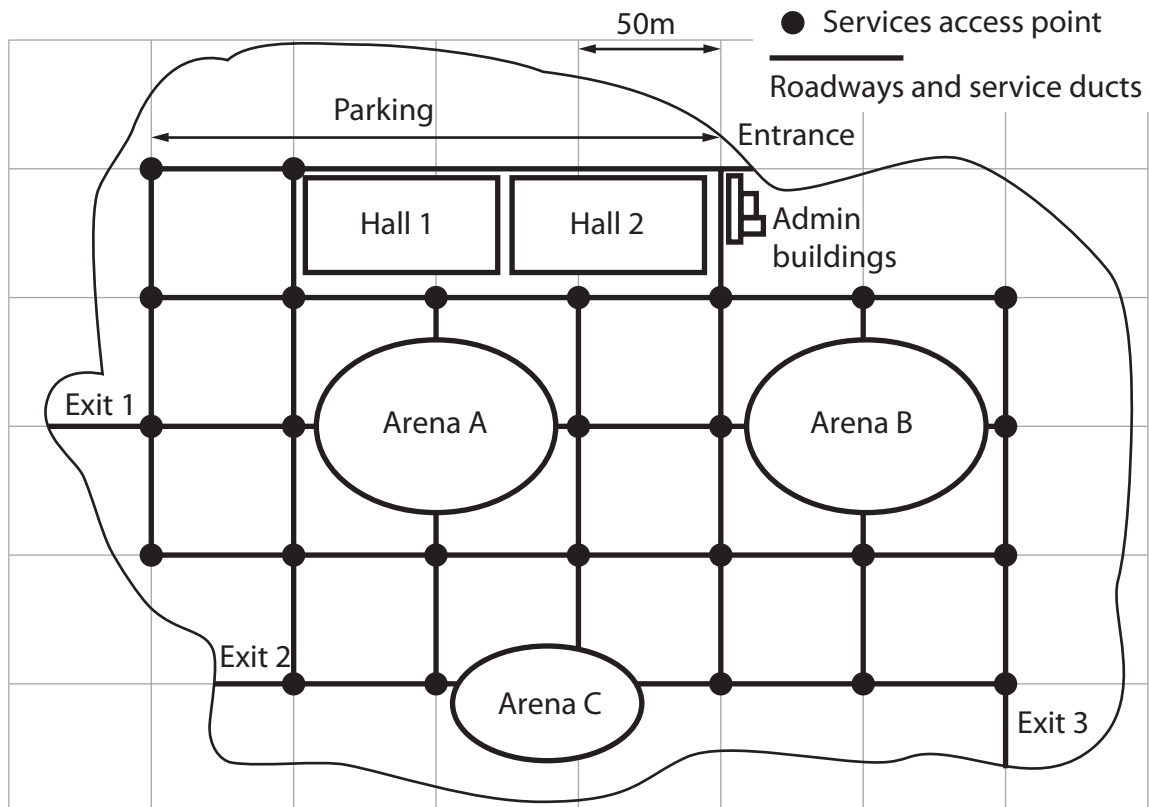**Scenario**

Lyonesse Showground Ltd

Lyonesse Showground Ltd (LSL) is owned and run by the Knight family. The showground is used to host a wide variety of events throughout the year. Typical events are music festivals, agricultural shows, vintage vehicle rallies, and camping exhibitions.

LSL is planning to install an improved IT system for the whole showground and you have been hired to advise the company. Your point of contact is Tristram Knight, the Works Director, who manages the setting up of the showground for the different events.
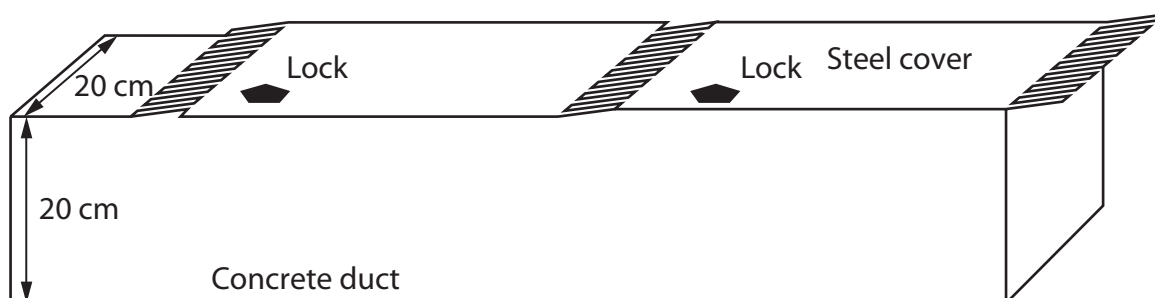
Tristram has a working knowledge of the present systems but is not an IT expert. He believes that it is essential for him and his staff to understand any new infrastructure and your contract requires you to provide suitable briefing documents and training material.

The Lyonesse Showground

The showground has some permanent features, as shown on the sketch map. These are the two exhibition halls, three arenas, the admin buildings, a car park and a grid of roadways. The rest of the showground is covered in grass. LSL owns numerous marquees, ticket booths, mobile toilets, catering booths and other temporary structures, which can be set up within the showground.

There are service ducts running beside the roadways. These consist of 20 cm square concrete channels with lockable steel covers. The covers are in one metre lengths with flexible rubber at each end. This allows easy installation of cables and pipes. You may assume that Hall 1, Hall 2, and the admin buildings have connections to the service ducts wherever they are required.

All of the service ducts have water pipes and mains (240v) electricity cables running through them. Other services such as a gas supply or telephone cable are installed when needed. This makes the system very flexible.

There is a services access point at most roadway junctions. A services access point contains various sockets and taps to allow connections to be made to nearby areas. The flexible nature of the services system means that pipes and cables never need to be laid across a roadway, and when laid across the grassed areas they are exposed for the minimum possible distance.

The existing IT system

The two exhibition halls and the admin buildings are connected to each other by an internal telephone system. Communication to all other areas of the showground is by radio and/or mobile telephone.

The two exhibition halls and the admin buildings have reception areas with external telephone connections and broadband Internet access.

The admin buildings contain a small Local Area Network (LAN) controlled by a server running Windows Server 2003. It is outdated and will be completely replaced.

The two exhibition halls each contain a recently installed copper-cabled LAN, purpose built for running events within each hall. Each of these LANs is an independent domain with its own server, running Windows Server 2008. These LANs will be kept but will need to be linked to the new system.

The new system

An admin and IT centre will be set up in a new extension to the admin buildings.

Following a discussion with Tristram, it is agreed that the new system will consist of:
- the two existing LANs in the exhibition halls, linked to the new system
- a new LAN in the admin buildings
- links to all parts of the showground, including the arenas and temporary structures set up for particular events.

It is also agreed that:
- the admin building LAN will use copper cable
- links to the showground will use a mixture of optical fibre and copper cable.