

Edexcel GCE

Applied Information and Communication Technology

Unit 9: Communications and Networks

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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.

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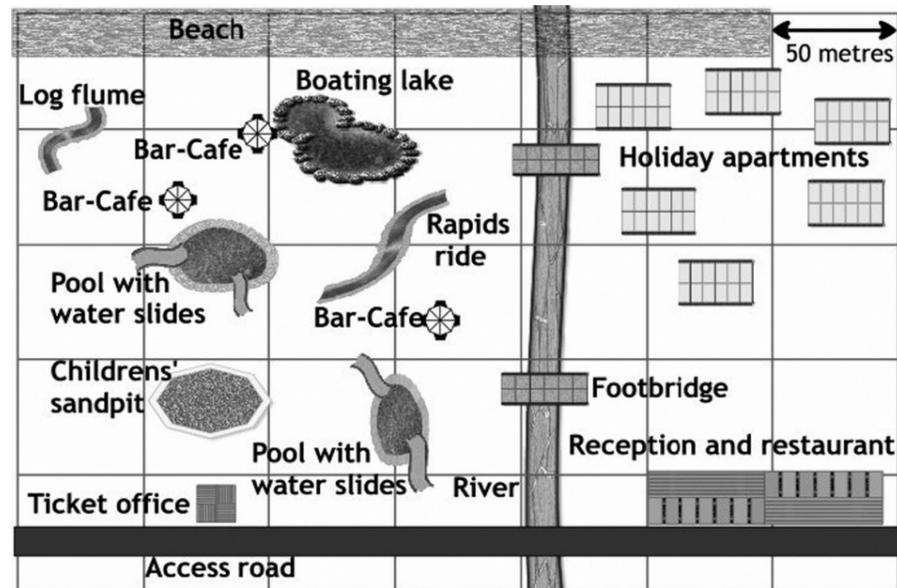
Water Wonders Holiday Park

The Water Wonders company is based in London. It owns six sites in Spain. The sites contain swimming pools, water slides and other water-based rides, as well as facilities such as bar-cafes. They open daily and are popular tourist attractions.

Last year, the company bought a holiday apartment complex next to a Water Wonders site. The company is now in the process of combining them to form a Water Wonders Holiday Park.

The project manager is Janet Cartwright. She has hired you to advise her on the design and construction of the I.T. system for the holiday park. Janet also wants you to provide appropriate networks and communications training materials. These will be used by trainee site managers as they need an understanding of the systems on their site.

The layout of the holiday park is shown on the sketch map.



The I.T. system for the original Water Wonders site is in the ticket office. It consists of:

- three network-enabled ticket machines with integrated credit card readers
- a PC
- a router with a broadband Internet connection to the Spanish telephone system
- a networked, black and white laser printer
- an eight port switch.

The I.T. centre for the holiday apartments was located off-site and connected by a WAN. The connection and much of the I.T. equipment was removed when the property was sold. The remaining equipment consists of:

- four PCs in reception
- a shared colour laser printer
- a PC in the manager's office next to the reception area
- a network-enabled black and white laser printer in the manager's office.

The existing equipment on both sites will be retained and will form part of a new Water Wonders Holiday Park LAN. The new I.T. centre for the holiday park will be in the reception block.

Janet wants the LAN to be made up of two copper cabled star networks, one in each half of the holiday park, joined by a multi-mode fibre optic cable.

During your first meeting with Janet you discussed an access and payment system. She outlined some of the issues that need to be considered.

1. The holiday park will be open to day visitors as well as residential guests. Some form of electronic access control will be required at the footbridges to keep the day visitors out of the apartment area.
2. Residential guests will have free use of all the rides (log flume, rapids ride and boating lake.) Day visitors will pay as they go.
3. The rides, bar-cafes, and the ticket office must be connected to the LAN.
4. A residential guest must be able to obtain items at the bar-cafes and charge the cost to their account.
5. People are likely to be wearing only a swimming costume.
6. Residential guests will include children who may use the Water Wonders facilities unaccompanied. Parents must be given a method of restricting a child's privileges, e.g. what they may purchase and which rides they may use.
7. Any access or payment device used in the system must be waterproof, shockproof and robust. It must use contactless technology. (No direct contact between the reading device and the object being read.)
8. There should be a common method of operation for all access and payment points.

Janet asks you to think about these issues and to present her with some options in a few days time.