

Information technology in a global society
Higher level and standard level
Paper 2

Thursday 17 November 2016 (morning)

1 hour 15 minutes

ARTICLE

Instructions to candidates

- Do not open this booklet until instructed to do so.
- This booklet contains the article required for information technology in a global society higher level and standard level paper 2.

Theme: Politics and government

IT system: use of smartphones and tablets to report a crime or update information about a crime on the cloud server at London police headquarters

5 The UK government has become concerned about the increasing levels of crime in London. One of the reasons proposed for this increase is the out-of-date technology used by the police department in London. In an attempt to solve the problem, the UK government has just spent £200 million on the Total Technology System (TTS), which will be used by the police department in London.

The Total Technology System includes:

- 15000 tablets that will be given to police officers allowing them to access to customized police apps* and other publicly available apps
- the development of a centralized police department database
- 10 • data analysis and report-generating tools
- the use of third-party cloud services, such as data storage.

15 The police department chose this solution because it is compatible with *Apple*, Windows and Android smartphones and tablets. All of the tablets and smartphones had to be authorized by the police department before they could be used by the police officers. The choice of platforms provides several benefits to officers:

- it avoids the increasing cost of hardware purchases caused by using a single supplier
- the range of devices allows police officers to choose the most appropriate one for their role.

20 A crime mapping app has also been created so that crime information can be clearly presented and shared. This app includes three features:

- Crime Report
- Command Central
- Neighbourhood Central.

An example of a city that uses an IT system similar to the Total Technology System (TTS) is Washington DC. **Figure 1** and **Figure 2** show how the features of the TTS would work.

* apps: application software, typically small, specialized programs downloaded onto mobile devices; apps can also run on the internet, on a computer, or on a cell/mobile phone or other electronic device

Feature 1: Crime Report

25 Crime Report allows a police officer to report a crime and also view other crime data for that area.

Figure 1: Crime details

Theft of Vehicle

9/27/2010
 1500 B/O R ST NW
 Identifier: 10140863
 Time: 22:00:00
 Agency: Washington DC

Submit a tip about this crime

Send to a colleague

South Jordan Cemetery
 River-Front Pkwy

Clicking on each symbol gives details about the crime, and allows police to add new crimes or update information about existing crimes.

Figure 2: Crime map

Using Google Maps, crime information for a particular area, eg theft of vehicle, is marked with a symbol (TV).

[Source: adapted from www.crimereports.com]

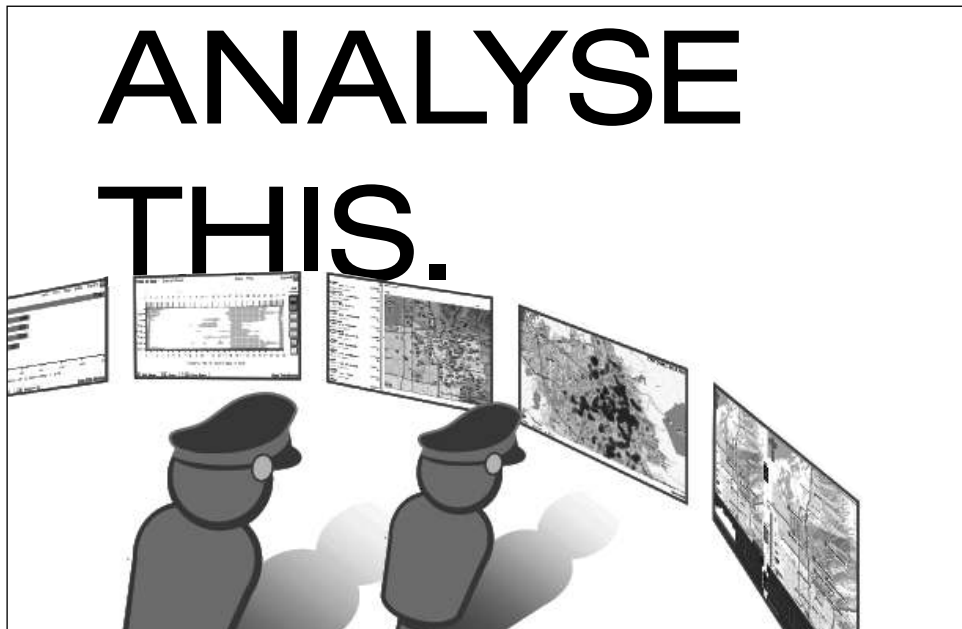
This feature has helped provide useful information to police officers. They can share information about an area, such as victims of crimes who need assistance or known offenders in the area. Cameras on the devices can also be used to gather video evidence in real time and these videos can be added to the police department database.

30 Using mobile devices has allowed officers to log data at the scene, rather than writing in a notebook to type up later at the police station. Previously, police officers entered a victim's name into as many as 12 different systems.

Feature 2: Command Central

35 Command Central (**Figure 3**) allows the police officer to easily carry out data analysis that was not possible previously. With these powerful data analysis tools, police can investigate data by date, time, area and type of crime in a range of graphs.

Figure 3: Command Central data analysis tools



[Source: www.crimereports.com]

Feature 3: Neighbourhood Central

This feature allows the police department to work closely with citizens to create safer neighbourhoods. It provides a central point for accessing published crime data, police announcements and crime activity alerts, as well as allowing citizens to provide updates on known crime.

40 The police department is using cloud-based servers, maintained by a third party, to store the data used for data analysis. This means that the police department does not need to invest in as much IT hardware. This helps cut costs and ensures the technology is still suitable for the future.

45 The use of mobile devices has enabled police officers to remotely access information, take witness statements and collect evidence. Now police officers can spend more time on the streets, keeping citizens safe. The introduction of tablets has resulted in a saving of time equivalent to having 900 more police officers on the streets. The use of digital devices has also provided more accurate records than the paper-based systems that had been used previously.

[Source: www.v3.co.uk]