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# COMPUTERS AND INFORMATION TECHNOLOGY

## Chapter Summary

Information Systems (IS) are the business applications of the computer – Information Technology (IT) is the computing and communications infrastructure on which the IS run.

Computing can be dated to the 1940s and the commercial use of computing to the following decade. Early computing was restricted to large companies and government departments, which used mainframe computers.

Today computers are ubiquitous. There is a PC on every desk and in every home (well almost) and many of us have a smartphone in our bag or pocket (in effect a portable computer). These computers are networked to servers within the company, at the telecom provider and across the world.

Many IS are shared systems, which requires the right combination of clients, servers, mainframes, networks and storage to operate effectively. The IS can be configured as client-server systems. Sometimes the provision of IT is outsourced – one approach to achieve flexible and scalable server resources is cloud computing. It is the job of IS professionals to ensure that the necessary IT is in place to run the IS that they are specifying.

At the heart of all this IT provision is digital computing, constructed out of logic circuits. Computers use binary arithmetic, are designed in accordance with Von Neumann architecture and the operation of the computer is dependent on the programs. The technology element of IT is introduced at the end of this chapter.

