Title	**Apply essential IT technical knowledge and concepts to provide support of a computer's hardware, software and network**		
Level	4	**Credits**	10

Purpose	People credited with this unit standard are able to: disassemble and assemble a single-user computer system to/from components; install and configure an operating system and application software on a single-user computer system; and configure network, security and storage options for a computer system; in accordance with provided specifications and good practice. This unit standard has been developed primarily for assessment within programmes leading to the New Zealand Certificate in Information Technology Essentials (Level 4) [Ref: 2594].

Classification	Computing > Computer Support

Available grade	Achieved

Explanatory notes

1   Assessment, where applicable, will be conducted in and for the context of real or realistic situations and/or settings, and be relevant to current and/or emerging practice. The assessor may gather evidence over time from a range of scenarios rather than using one assessment where the learner has to demonstrate all of the required skills. The assessment context for this unit standard must be suitable to meet the criteria for level 4 in the NZQF Level Descriptors, which are available by searching for "level descriptors" at www.nzqa.govt.nz.

2   Performance of all outcomes is to be carried out in accordance with organisation standards and procedures and good practice. Organisation standards and procedures may include – quality assurance, documentation, security, communication, timeframes, cost or cost estimate, health and safety, professional behaviour.

3   A *plan* or *specifications* outlining how the requirements will be realised will be supplied to the learner, and will provide a clear description of both the desirable outcomes sought, any constraints, and a testing requirements. It will contain specifications against which the success or otherwise of the outcomes can be evaluated. Good practice must be applied consistently to meet the requirements.

4   Definitions
        Good practice in this context refers to selecting and assembling the appropriate components according to the manufacturers' instructions to ensure the computer system works as it should. It also refers to safe working practices, anti-static precautions, procedures, cleaning and handling of components.
        Information Technology (IT) is the common term for the entire spectrum of technologies for information processing and related to computing technology, such as networking, hardware, software, the internet or the people that work with these technologies.
        Local area network (LAN) is a computer network that interconnects computers within a limited area such as a home, school, or office.
        Malware refers to a type of malicious code that includes viruses, Trojans, worms, backdoor, spyware and other harmful programs.
        Operating system refers to the software that manages the computer's memory, processes, hardware and software resources.
        Performance refers to how software performs according to normal operating standards.
        Peripherals refer to input, output, and storage devices that are external to a computer's system unit, such as monitors, keyboards, printers, modems, scanners, external hard drives and optical drives.
        Single-user computer system means a computing system that is only usable by one person at a time.

5   Legislation relevant to this unit standard includes but is not limited to:
        Consumer Guarantees Act 1993
        Copyright Act 1994
        Copyright (New Technologies) Amendment Act 2008
        Harmful Digital Communications Act 2015
        Health and Safety at Work Act 2015
        Privacy Act 1993
        and any subsequent amendments.
        Current legislation and regulations can be accessed at http://legislation.govt.nz.

6   References
        ACC5637 Guidelines for Using Computers - Preventing and managing discomfort, pain and injury. Accident Compensation Corporation - Department of Labour, 2010; available from Worksafe New Zealand, at http://www.business.govt.nz/worksafe/information-guidance/all-guidance-items/guidelines-for-using-computers.

Outcomes and evidence requirements

Outcome 1

Disassemble and assemble a single-user computer system to/from components in accordance with provided specifications and good practice.

Range   components may include but are not limited to motherboard, RAM, CPU, PSU (power supply), interface cards, storage devices, peripherals.

Evidence requirements

1.1   A single-user computer system is disassembled into component parts in accordance with good practice.

1.2   Components of a single-user computer system are inter-connected in accordance with assembly specifications and good practice.

1.3   The assembled single-user computer system passes a Power-On-Self-Test (POST).

Outcome 2

Install and configure an operating system and application software on a single-user computer system in accordance with provided specifications and good practice.

Evidence requirements

2.1   The installation of software follows specifications in accordance with good practice.

        Range   software includes – operating system, application(s), and may include device driver(s).

2.2   The software operates according to the software publisher's specifications.

        Range   specifications may include but are not limited to – compatibility, configuration, access, performance;
                  software includes – operating system, application(s), and may include device driver(s).

2.3   The software is configured and customised according to the user's requirements in the provided specifications.

        Range   may include but not limited to – language packs, default folders, security and sharing settings.

Outcome 3

Configure network, security and storage options for a computer system in accordance with provided specifications and good practice.

Range   includes – connecting a computer to a local area network with internet access; customising end-user security settings; configuring storage options.

Evidence requirements

3.1   The computer system can create, retrieve, and update a file from a local and remote storage location on a wired or wireless LAN.

3.2   The computer system can access an external internet web site.

3.3 Security options are activated in accordance with good practice.

Range includes but not limited to – browser settings, anti-malware configuration, firewall settings, file-sharing settings.

Replacement information	This unit standard replaced unit standards 6869, 6870, 6871 and 6872.

Planned review date	31 December 2021

Status information and last date for assessment for superseded versions

Process	Version	Date	Last Date for Assessment
Registration	1	19 January 2017	N/A

Consent and Moderation Requirements (CMR) reference	0113

This CMR can be accessed at http://www.nzqa.govt.nz/framework/search/index.do.

Please note
Providers must be granted consent to assess against standards (accredited) by NZQA, before they can report credits from assessment against unit standards or deliver courses of study leading to that assessment.

Industry Training Organisations must be granted consent to assess against standards by NZQA before they can register credits from assessment against unit standards.

Providers and Industry Training Organisations, which have been granted consent and which are assessing against unit standards must engage with the moderation system that applies to those standards.

Requirements for consent to assess and an outline of the moderation system that applies to this standard are outlined in the Consent and Moderation Requirements (CMR). The CMR also includes useful information about special requirements for organisations wishing to develop education and training programmes, such as minimum qualifications for tutors and assessors, and special resource requirements.

Comments on this unit standard

Please contact NZQA National Qualifications Services nqs@nzqa.govt.nz if you wish to suggest changes to the content of this unit standard.