

<b>Title</b>	<b>Apply IT technical knowledge and professional practice to provide support of a computer's hardware, software and network</b>		
<b>Level</b>	<b>4</b>	<b>Credits</b>	<b>15</b>

<b>Purpose</b>	<p>People credited with this unit standard are able to: disassemble and assemble a personal computer to and/or from components; install and configure an operating system and application software on a personal computer; configure network, storage and security options for a personal computer; and describe professional and ethical principles and practices to comply with legal and organisational IT requirements.</p> <p>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].</p>
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<b>Classification</b>	Computing > Computer Support
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<b>Available grade</b>	Achieved
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### Guidance Information

- 1 Recommended skills and knowledge:  
Unit 29795, *Apply ethical behaviour when using digital tools*, or demonstrate equivalent knowledge, skills and experience.
- 2 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. Where naturally occurring evidence is used for assessment against this unit standard, a verifier's checklist is acceptable if accompanied by evidence that includes examples from the learner's performance.  
  
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](http://www.nzqa.govt.nz).
- 3 Performance of outcomes 1-3 are to be carried out in accordance with provided specifications, legal and organisational requirements, and good practice.

- 4 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 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.
- 5 Definitions
- Codes of ethics* refer to a document that outlines the professional practice guidelines and a code of ethical principles of a professional organisation or group. This may also be referred to by organisations or groups as organisational values and/or behaviours.
- Ethics* refer to moral principles that guide user behaviour in the use of computers or digital devices. An *ethical dilemma* refers to a personal conflict between two or more core values such as – personal values, beliefs, attitudes, professional values.
- Good practice* 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. In this standard the *information technology sector* refers to IT related roles whether that is in an ICT sector business, other business organisations, or the community.
- Malware* refers to a type of malicious software 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.
- Organisational requirements* refer to an organisation's standards and procedures and may include – quality assurance, documentation, security, communication, timeframes, cost or cost estimate, health and safety, professional behaviour.
- Other network resources* refer to peripherals – 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.
- Personal computer* means a computing system that is only usable by one person at a time.
- 6 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  
Electronic Transactions Act 2002  
Films, Videos, and Publications Classification Act 1993  
Harmful Digital Communications Act 2015  
Health and Safety at Work Act 2015  
Official Information Act 1982  
Privacy Act 2020  
Unsolicited Electronic Messages Act 2007  
and any subsequent amendments.  
Current legislation and regulations can be accessed at <http://legislation.govt.nz>.

## 7 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 <https://www.worksafe.govt.nz/topic-and-industry/work-related-health/musculoskeletal-disorders/ergonomics/safely-using-computers-at-work/>.

*He Tirohanga o Kawa ki te Tiriti o Waitangi - A guide to the principles of the Treaty of Waitangi* as interpreted by the Waitangi Tribunal and the Courts, has been produced by Te Puni Kōkiri, Ministry of Māori Development and is available at <https://www.tpk.govt.nz/en/a-matou-mohiotanga/crownmaori-relations/he-tirohanga-o-kawa-ki-te-tiriti-o-waitangi>.

IT Professionals New Zealand (ITP) *Code of Ethics* is available at <https://itp.nz/Members/Code-of-Ethics>.

IT Professionals New Zealand (ITP) *Professional Practice Guidelines* is available at <https://itp.nz/Members/Practice-Guidelines>.

Karaitiana Taiuru, *What is Maori Data*, is available at

<https://www.taiuru.maori.nz/maori-data-sovereignty-and-digital-colonisation/#What is Maori Data>.

*Principles of Maori Data Sovereignty, 2018*, available from Te Mana Raraunga

<https://static1.squarespace.com/static/58e9b10f9de4bb8d1fb5ebbc/t/5bda208b4ae237cd89ee16e9/1541021836126/TMR+Ma%CC%84ori+Data+Sovereignty+Principles+Oct+2018.pdf>.

Te Mana Raraunga, Māori Data Sovereignty Network available at

<https://www.temanararaunga.maori.nz/>.

Ministry of Justice, Waitangi Tribunal Te Rōpū Whakamana I te Tiriti o Waitangi

<http://www.justice.govt.nz/tribunals/waitangi-tribunal/treaty-of-waitangi>.

## Outcomes and performance criteria

### Outcome 1

Disassemble and assemble a personal computer to and/or from components.

Range components may include but are not limited to – random access memory (RAM), power supply unit (PSU), internal cables, storage devices, case fan, central processing unit (CPU); CPU cooling assembly, motherboard, expansion card(s).

### Performance criteria

- 1.1 A personal computer is disassembled into component parts.
- 1.2 Components of a personal computer are assembled.
- 1.3 A personal computer is assembled which passes a Power-On-Self-Test (POST).

### Outcome 2

Install and configure an operating system and application software on a personal computer.

**Performance criteria**

- 2.1 The operating system software is installed, configured and customised according to the requirements in the provided specifications.
- Range includes – creation of administrator and standard user logon accounts with password protection; installation and testing of other input/output devices that require installation of device drivers and/or software; configuration of device drivers and/or software to ensure compatibility and functionally; may include but is not limited to – language packs including Māori; security and sharing settings.
- 2.2 Specifications have been followed in the installation of applications and other software.
- Range software includes – three or more applications; a current device driver for a non-plug-and-play device (peripheral device, network device).
- 2.3 The personal computer is configured and tested to ensure hardware and software operates.

**Outcome 3**

Configure network, storage and security options for a personal computer.

Range includes – connecting a computer to a local area network with internet access; customising end-user security settings; connecting to remote storage (network drive and/or cloud storage); other network resources.

**Performance criteria**

- 3.1 The computer system is connected to a network.
- Range includes creating, retrieving, and updating a file from a local and remote storage location; access network devices and the internet.
- 3.2 Security options are activated.
- Range includes but is not limited to – browser settings, anti-malware configuration, firewall settings, file-sharing settings.

**Outcome 4**

Describe professional and ethical principles and practices to comply with legal and organisational IT requirements.

**Performance criteria**

- 4.1 The criteria for professional and ethical behaviour in the information technology sector in New Zealand are identified and described according to the documented criteria of an IT membership organisation or workplace.
- Range may include – ITP Professional Practice Guidelines and ITP Code of Ethics; organisation requirements and codes of practice; Te Tiriti o Waitangi/Treaty of Waitangi.
- 4.2 Professional practice in relation to working on a customer’s personal computer is described, distinguishing between ethical and unethical behaviour and legal responsibilities.
- Range may include – ethical dilemma, organisation requirements, codes of practice.
- 4.3 Relevant government legislation is identified and described in terms of its purpose and the implications for information technology professionals.
- Range privacy, intellectual property, copyright, consumer rights, official information, unsolicited messages, harmful digital communications, health and safety; ngā kaupapa o te Tiriti o Waitangi (the principles of the Treaty of Waitangi).

<b>Planned review date</b>	31 December 2026
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**Status information and last date for assessment for superseded versions**

Process	Version	Date	Last Date for Assessment
Registration	1	28 April 2022	N/A

<b>Consent and Moderation Requirements (CMR) reference</b>	0099
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This CMR can be accessed at <http://www.nzqa.govt.nz/framework/search/index.do>.

**Comments on this unit standard**

Please contact Toi Mai Workforce Development Council [qualifications@toimai.nz](mailto:qualifications@toimai.nz) if you wish to suggest changes to the content of this unit standard.