

000008 Build and maintain a simple network for an organisation

Kaupae Level	5
Whiwhinga Credit	15
Whāinga Purpose	<p>This skill standard is for people who want to learn how to create simple networks in organisational contexts.</p> <p>It is for computer technicians, help desk and technical support officers, and anyone else employed in roles that involve Information Technology (IT) technical support.</p> <p>It can be used in the New Zealand Diploma in Information Technology Technical Support (Level 5) [ref. 2596]</p>

Hua o te ako me Paearu aromatawai | Learning outcomes and assessment criteria

Hua o te ako Learning outcomes	Paearu aromatawai Assessment criteria
1. Evaluate network architecture for organisational use	a. Apply network concepts and architecture to support an organisation.
	b. Evaluate network protocols and models, topology, standards, network devices and services to meet an organisational need.
2. Create a network in accordance with industry standards, policies and best practices	a. Apply knowledge of network devices and cabling to design and build a network.
	b. Apply industry standards, policies, and best practices to design and build a network
3. Troubleshoot a variety of network devices using appropriate tools and techniques	a. Perform basic switch and router configurations and verifications using CLI.
	b. Apply knowledge of IP addressing and subnetting using IPv4 and IPv6.
4. Apply a range of solutions to mitigate network security issues	a. Evaluate security threats, vulnerabilities, and attacks.
	b. Identify security mitigation techniques
	c. Configure network devices with device hardening features to mitigate security threats

Pārongo aromatawai me te taumata paearu | Assessment information and grade criteria

Assessment specifications:

You will need to apply the skills outlined in the assessment criteria to creating a simple network in an organisational context.

The assessment must take place in a realistic practical setting which incorporates industry standard technologies relevant to current practice.

To complete this standard, you must observe expected standards of behaviour for IT practitioners in New Zealand. The IT Professionals NZ Code of Ethics provides a guideline for these behaviours.

Ngā momo whiwhinga | Grades available

Achieved

Ihirangi waitohu | Indicative content

- Network concepts and architecture
 - Reference models
 - Topologies
 - LAN and WAN
 - IPv4 and IPv6
 - Network Operations
- Network OS
 - DNS
 - Virtualisation
 - Cloud networking concepts
- Designing Networks
- Industry standards, best practices, and network theory
- Network Troubleshooting
- Network Security

Rauemi | Resources

- The IT Professionals New Zealand Code of Ethics is available at <https://itp.nz/practice-guidelines>.

Pārongo Whakaū Kounga | Quality assurance information

Ngā rōpū whakatau-paerewa Standard Setting Body	Toi Mai Workforce Development Council
Whakaritenga Rārangi Paetae Aromatawai DASS classification	Computing and Information Technology > Computing > Generic Computing
Ko te tohutoro ki ngā Whakaritenga i te Whakamanatanga me te Whakaōritenga CMR	0099

Hātepe Process	Putanga Version	Rā whakaputa Review Date	Rā whakamutunga mō te aromatawai Last date for assessment
Rēhitatanga Registration	<type here>	[dd mm yyyy]	[dd mm yyyy]

Arotakenga Review	<type here>	[dd mm yyyy]	[dd mm yyyy]
Kōrero whakakapinga Replacement information	<type here>		
Rā arotake Planned review date	[dd mm yyyy]		

Please contact Toi Mai Workforce Development Council at qualifications@toimai.nz to suggest changes to the content of this skill standard.

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