ICA60211 Advanced Diploma of Network Security

Release 2

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Modification History

Release	Comments
Release 2	*This version first released with ICA11 Information and Communications Technology Training Package Version 2.* Addition of two new units of competency to electives.
Release 1	This Qualification first released with *ICA11 Information and Communications Technology Training Package version 1.0.*

Description

This qualification provides the skills and knowledge for an individual to plan, design, manage and monitor an enterprise information and communications technology (ICT) network as an independent ICT specialist or as part of a team responsible for advanced ICT network security systems. The qualification has a high-level ICT technical base with appropriate security units and the ability to specialise in a number of areas, including voice, wireless, network infrastructure and sustainability.

Job roles
Possible job titles relevant to this qualification include:

- e-security specialist
- ICT security specialist
- IT security administrator
- IT security analyst
- IT security specialist
- systems/network administrator
- network security analyst
- network security specialist
- network security administrator
- senior network administrator
- systems security analyst.

Pathways Information

Pathways into the qualification

Preferred pathways for candidates considering this qualification include:

- after achieving ICA50411 Diploma of Information Technology Networking, or other relevant qualifications or units equivalent to the core of ICA50411

OR

- with documented vocational experience in a range of work environments in senior network support roles, including administrator, operations analyst, technician, operations or support coordinator/technician.

Pathways from the qualification

ICA11 Vocational Graduate Certificate qualifications or other higher education sector qualifications.

Licensing/Regulatory Information

There is no link between this qualification and licensing, legislative or regulatory requirements. However users should confirm requirements with the relevant federal, state or territory authority. There may be some alignment with industry standard certification competencies.

Entry Requirements

There are no entry requirements for this qualification.

Employability Skills Summary

The following table contains a summary of the employability skills required by industry for this qualification. The employability skills facets described here are broad industry requirements that may vary depending on qualification packaging options.

Employability skill	Industry/enterprise requirements for this qualification
Communication	• articulating complex security scenarios in a clear and concise manner relevant to all levels of the organisation • documenting information related to attacks, threats, risks and controls in a security plan • writing complex briefs and reports for business, requiring depth of analysis and evaluation of information • documenting and presenting recommendations for improvement and referring them to appropriate technical specialists
Teamwork	• managing group facilitation and presentation skills in relation to transferring and collecting information • reviewing the security strategy, with security approved by key stakeholders
Problem-solving	• troubleshooting, developing controls and contingencies to alleviate security threats • taking corrective action on system implementation breakdowns • responding to evolving complex scenarios of security threats
Initiative and enterprise	• anticipating risks and devising contingencies to address them • actively pursuing and implementing new and emerging improvements in ICT sustainability • managing project risks proactively
Planning and organising	• developing security plans • planning for controls and contingencies when designing an IT security framework
Self-management	• having accountability and responsibility for self and others in achieving workplace outcomes • taking responsibility for own and others' outputs in relation to broad quantity and quality parameters
Learning	• keeping informed of current industry-accepted hardware and software products, including thorough knowledge of security features and capabilities
Technology	• identifying technology needs • sourcing, purchasing, installing, configuring and testing components, including software and hardware • using technological capability assessment skills involving analysis, diagnosis and evaluation in a range of areas

	• estimating current and future capacity requirements and evaluating against client's future requirements

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Packaging Rules

Total number of units = 12
5 core units plus
7 elective units, of which:

- 5 units must be from the elective units listed below
- the remaining units may be from the elective units below or from elsewhere in ICA11 or any other Training Package or accredited course at Diploma level or above.

The elective units chosen must be relevant to the work outcome and meet local industry needs.

Core units
ICANWK502A Implement secure encryption technologies
ICANWK509A Design and implement a security perimeter for ICT networks
ICANWK601A Design and implement a security system
ICANWK602A Plan, configure and test advanced server based security
ICTSUS6233A Integrate sustainability in ICT planning and design projects

Elective units
BSBPMG517A Manage project risk
CPPSEC5003A Assess security risk management options
CPPSEC5004A Prepare security risk management plan
CPPSEC5005A Implement security risk management plan
CPPSEC5006A Determine strategy for the implementation of biometric technology
CPPSEC5007A Assess biometric system
CPPSEC3009A Prepare and present evidence in court
ICAICT609A Lead the evaluation and implementation of current industry-specific technologies
ICANWK603A Plan, configure and test advanced internetwork routing solutions
ICANWK604A Plan and configure advanced internetwork switching solutions
ICANWK605A Design and configure secure integrated wireless systems
ICANWK606A Implement voice applications over secure wireless networks
ICANWK607A Design and implement wireless network security
ICANWK608A Configure network devices for a secure network infrastructure
ICANWK609A Configure and manage intrusion prevention system on network sensors
ICANWK610A Design and build integrated VoIP networks
ICANWK611A Configure call processing network elements for secure VoIP networks
ICANWK612A Plan and manage troubleshooting advanced integrated IP networks
ICANWK613A Develop plans to manage structured troubleshooting process of enterprise networks
ICANWK615A Design and configure desktop virtualisation
ICANWK616A Manage security, privacy and compliance of cloud service deployment
ICTSUS6234A Establish a business case for sustainability and competitive advantage in ICT projects
ICTSUS7235A Use ICT to improve sustainability outcomes
ICTSUS7236A Manage improvements in ICT sustainability
ICTTEN8195A Evaluate and apply network security

ICTPMG8149A Evaluate and use telecommunications management networks
ICTPMG8143A Manage a telecommunications project

Selecting elective units for different outcomes
The following examples are designed to assist in the selection of appropriate electives for particular outcomes at this level, but are in no way prescriptive.

Network security
Core units plus:
ICANWK608A Configure network devices for a secure network infrastructure
ICANWK609A Configure and manage intrusion prevention system on network sensors
ICANWK612A Plan and manage troubleshooting advanced integrated IP networks
Four additional units from elective units as appropriate to the specific job role.

Network infrastructure
Core units plus:
ICANWK603A Plan, configure and test advanced internetwork routing solutions
ICANWK604A Plan and configure advanced internetwork switching solutions
ICANWK612A Plan and manage troubleshooting advanced integrated IP networks
Four additional units from elective units as appropriate to the specific job role.

Wireless networks
Core units plus:
ICANWK605A Design and configure secure integrated wireless systems
ICANWK606A Implement voice applications over secure wireless networks
ICANWK607A Design and implement wireless network security
ICANWK612A Plan and manage troubleshooting advanced integrated IP networks
Three additional units from elective units as appropriate to the specific job role.

Voice networks
Core units plus:
ICANWK610A Design and build integrated VoIP networks
ICANWK611A Configure call processing network elements for secure VoIP networks
ICANWK612A Plan and manage troubleshooting advanced integrated IP networks
Four additional units from elective units as appropriate to the specific job role.