



| NSW Department of Education

Database and Systems Administrator and ICT Security Specialist

The information stored in a business's computer network is invaluable. Database and systems administrators and ICT security specialists ensure systems in their care are one step ahead of security threats, keeping servers backed up and up-to-date.

What database and systems administrators and ICT security specialists do

Database and systems administrators plan and manage an organisation's operating and database management systems. They anticipate the needs of systems and the network, organise, install and support network hardware and software, carry out upgrades and repairs, and train users. They also fix problems reported by staff or automated alerts.

ICT security specialists focus on ensuring that information transmitted over a company's computer network is protected. They plan and manage an organisation's security policies and procedures to ensure database and system integrity, security, backup, reliability, and performance.

This includes monitoring systems for online threats and preventing disruption or misdirection of these services. Due to the rise of hackers and cybercrime, ICT security specialists often collect evidence to be used in criminal prosecution.

education.nsw.gov.au

Will I get a job?

Strong growth in this occupation is predicted with 4,300 new jobs in Australia in the next four years, bringing the total to 41,000.

What will I earn?

Over \$1,650 median full time weekly salary (before tax, excluding super).





You'll like this job if...

You're self-disciplined. You're deadline oriented. You have strong analytical and problem solving skills. You're customer service focused. You pay attention to detail. You approach matters with patience and perseverance. You easily see patterns and look for creative solutions to problems. You make decisions using logical analysis.

A day in the life...

Work as a database and systems administrator and ICT security specialist may involve:

- design and maintain database architecture, data structures, tables, dictionaries, and name conventions to ensure the accuracy of master files
- perform preventive maintenance of backups and recovery procedures
- enforce security and integrity controls
- oversee database guidelines, policies, and procedures
- de-bug, track, reproduce, log, and resolve all identified problems
- liaise with security vendors, suppliers, service providers, and external resources
- analyse, recommend, install and maintain software security applications
- monitor contractual obligations, performance delivery and service level agreements
- troubleshoot and provide service support in diagnosing, resolving and repairing server-related hardware and software malfunctions
- survey computer sites to determine future network and server needs.

VET qualifications

The following government-subsidised qualification is available in NSW:

Diploma of Database Design and Development (ICT50515)

- Up to 2 years full time
- Graduates employed or in further study: 77.6%*

Diploma of Information Technology Systems Administration (ICT50315)

- Up to 2 years full time
- Graduates employed or in further study: 77.6%*

Advanced Diploma of Network Security (ICT60215)

- Up to 2 years full time
- Graduates employed or in further study: 77.6%*



To find out more regarding these related jobs, visit education.nsw.gov.au/job-guides.

Information sources

Income: Australian Government Department of Employment, Australian Jobs Report 2017, Occupation Matrix. ANZSCO ID: 2211. Earnings can vary greatly depending on the skills and experience of the worker, and the demands of the role. Career trend: Australian Government Department of Employment 2017 employment projections to May 2022. Graduate outcomes: National Centre for Vocational Education Research. *Approximately 6 months after they completed VET.

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Roles to look for

- Database administrator
- Database operator
- Database specialist
- Database support
- ICT security specialist
- ICT security administrator
- Systems administrator
- Systems manager

Main employing industries

- Construction
- Mining
- Professional, scientific and technical services
- Government

Other jobs you may like...

- Software and applications programmer
- Computer network professional

