ICASAS408A Complete data transition in data migration process

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with *ICA11 Information and Communications Technology Training Package version 1.0*

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to undertake manipulation, migration and conversion of data between systems or databases while maintaining data integrity.

Application of the Unit

This unit applies to individuals involved in the implementation of new systems who are required to ensure that existing data is migrated to the new system.

Licensing/Regulatory Information

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of endorsement but users should confirm requirements with the relevant federal, state or territory authority.

Pre-Requisites

Not applicable.

Employability Skills Information

This unit contains employability skills.

Elements and Performance Criteria Pre-Content

Element	Performance Criteria
Elements describe the essential outcomes of a unit of competency.	*Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold italicised text is used, further information is detailed in the required skills and knowledge section and the range statement. Assessment of performance is to be consistent with the evidence guide.*

Elements and Performance Criteria

1. Perform data transition	1.1 Identify and document the data that is to be migrated, transferred or archived
	1.2 Collect required data, target *database* requirements and implementation details
	1.3 Clean up data to match new data structures and rules
	1.4 Write and test conversion programs if required by the implementation plan, or use *conversion tools*
	1.5 Ensure clean data take-on by re-keying or converting according to database requirements and conversion plan
	1.6 Migrate data to target environment
	1.7 Archive data according to requirements
2. Check data transition	2.1 Run reports and other tests on old and new data to verify the quantity and quality of data transition
	2.2 Run production or specialised programs against data to confirm control totals
	2.3 Check referential integrity and data constraints and requirements against database requirements and conversion plan
	2.4 Verify that data transition has been completed according to requirements and plans

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Required Skills and Knowledge

This section describes the skills and knowledge required for this unit.

Required skills

- analytical skills to analyse new data structures and their match to existing data
- literacy skills to interpret and produce technical documentation
- technical skills to:
    - archive data
    - undertake low-level programming
    - use conversion tools.

Required knowledge

- detailed knowledge of:
    - current industry-accepted hardware and software products, including their general features and capabilities
    - new and existing systems' current functionality
- overview knowledge of:
    - change-management systems when performing data transition and checking data integrity
    - database structures
    - quality assurance practices when checking data integrity
    - software tools
    - system data requirements
    - client business domain when checking data transition
    - client's data management and data security policy and procedures.

Evidence Guide

The evidence guide provides advice on assessment and must be read in conjunction with the performance criteria, required skills and knowledge, range statement and the Assessment Guidelines for the Training Package.

Overview of assessment	
Critical aspects for assessment and evidence required to demonstrate competency in this unit	Evidence of the ability to: • transfer data from one system to another • produce consistency in results, database verification, and integrity and security of data • use organisation's record-keeping arrangements and security and access level procedures • demonstrate knowledge of data structures.
Context of and specific resources for assessment	Assessment must ensure access to: • conversion program, if necessary • data conversion plan • databases to store data • implementation plan • appropriate learning and assessment support when required • modified equipment for people with special needs.

Method of assessment	A range of assessment methods should be used to assess practical skills and knowledge. The following examples are appropriate for this unit:
	• verbal or written questioning to assess candidate's knowledge of:
	  • data structures
	  • transition tools
	  • quality assurance
	  • system backup and restore procedures
	  • change management
	• direct observation of candidate:
	  • archiving data
	  • adjusting data to match new data structures
	• review of reports generated by candidate that verify the data transition.

Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, where appropriate. Assessment processes and techniques must be culturally appropriate, and suitable to the communication skill level,

	language, literacy and numeracy capacity of the candidate and the work being performed.
	Indigenous people and other people from a non-English speaking background may need additional support.
	In cases where practical assessment is used it should be combined with targeted questioning to assess required knowledge.

Range Statement

The range statement relates to the unit of competency as a whole. It allows for different work environments and situations that may affect performance. Bold italicised wording, if used in the performance criteria, is detailed below. Essential operating conditions that may be present with training and assessment (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) may also be included.

Database may include:	• commercial off-the-shelf (COTS) database packages • object-relational databases • proprietary databases • relational databases.
Conversion tools may include:	• data mart management tools • tools for cleansing data, e.g. integrity, enterprise and integrator • tools for extraction and transformation, e.g. ETI Extract, Passport, Warehouse Manager, InfoPump, InfoHub, InfoRefiner and InfoSuite • tools that analyse data quality, e.g. QDB/Analyze, WizRule, and Unitech Systems Inc.

Unit Sector(s)

Systems administration and support