



Australian Government

Department of Education, Employment and Workplace Relations

ICAPRG516A Develop integration blueprint for IT systems

Release: 1

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Modification History

Release	Comments
Release 1	This Unit first released with <i>ICA11 Information and Communications Technology Training Package version 1.0</i>

Unit Descriptor

This unit describes the performance outcomes, skills and knowledge required to document and maintain details of the technology and architectural components incorporated into the integration blueprint for an IT system.

Application of the Unit

This unit applies to individuals in senior roles in the development environment who are required to integrate a series of components.

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
<i>Elements describe the essential outcomes of a unit of competency.</i>	<i>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.</i>

Elements and Performance Criteria

1. Review technical architecture documents	1.1 Review technical architecture documents, supplemented with discussions where necessary 1.2 Identify and evaluate technical considerations that cover the overall requirements and provide best technical fit against requirements 1.3 Update the integration blueprint according to best-fit technical specifications
2. Undertake compatibility tests	2.1 Assemble components and component technologies according to design specifications 2.2 Test components for functionality against design specifications 2.3 Identify non-compliance against technical specifications 2.4 Update the integration blueprint to reflect functionality and non-compliance changes
3. Assess risk areas	3.1 Identify the scope of modifications required from compatibility test 3.2 Negotiate modifications required with the suppliers, based on outcomes of compatibility test 3.3 Update the integration blueprint to reflect modifications to risk areas
4. Assess readiness for stress testing	4.1 Continue integration activities until platform is stable 4.2 Evaluate the platform's compliance against technical requirements 4.3 Update the integration blueprint for stress testing

Required Skills and Knowledge

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

Required skills

- analytical skills to apply a range of test procedures
- communication skills to liaise with clients and suppliers
- literacy skills to review and write technical documents and keep accurate records
- problem-solving skills to develop strategic initiatives and manage risk
- technical skills to test components for functionality.

Required knowledge

- sources of technology suppliers and components
- overview knowledge of:
 - current industry development and design methodologies
 - current industry-accepted hardware and software products, features and capabilities
 - current industry-accepted testing procedures
 - stress load testing.

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: • identify and capture technical design changes important for future integration activities on a particular platform • avoid integration activities that have been previously performed.
Context of and specific resources for assessment	Assessment must ensure access to: • design specifications • high-level diagrammatic view of the main system components • 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: • evaluation of systematic methods used to identify and select tests from component test suites to form integration test suites • review of reusable integration infrastructure to build an integration test platform to cope with integration of diversified components • verbal or written questioning to assess candidate's knowledge of: • system components • integration activities.
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.

Requirements may relate to:	• application • business • database • network • people in the organisation • platform • system.
Specifications may include:	• current system functionality • metrics • project plan • software requirements • technical requirements • user problem statement.
Components may include:	• file system object in Windows operating systems • transactional processing component.
Component technologies may include:	• ActiveX • component object model (COM) • common object request broker architecture (CORBA) - distributed component object model (DCOM) • JavaBeans • NET • OpenDoc.
Modifications may include:	• board and chip revisions • custom-designed components • distribution release details • driver and firmware revisions • internal or external hardware model information • software patches and upgrades • software versions • telecommunications hardware and software version details.

Unit Sector(s)

Programming and software development