Australian Government

Department of Education, Employment and Workplace Relations

ICAB5072B Develop integration blueprint

Release: 1

ICAB5072B Develop integration blueprint

Modification History

Not Applicable

Unit Descriptor

Unit descriptor	This unit defines the competency required to document and maintain details of integration technology and architectural components important in developing an integration blueprint. The following units are linked and form an appropriate cluster: • ICAA5054C Validate quality and completeness of system design specifications • ICAT5077B Develop detailed test plan • ICAT5083B Develop and conduct client acceptance test No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Application of the Unit

Application of the unit	

Licensing/Regulatory Information

Refer to Unit Descriptor

Pre-Requisites

Prerequisite units		

Employability Skills Information

Employability skills	This unit contains employability skills.

Elements and Performance Criteria Pre-Content

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

ELEMENT	PERFORMANCE CRITERIA
1. Review technical architecture documents	1.1. Review technical architecture documents, supplemented with discussions where necessary, to ensure complete understanding 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 with the suppliers ***modifications*** required, 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

REQUIRED SKILLS AND KNOWLEDGE
This section describes the skills and knowledge required for this unit.
Required skills
• Risk assessment skills related to problems (e.g. when scope of modifications required is identified from compatibility test)

REQUIRED SKILLS AND KNOWLEDGE
• Design and analysis skills for identifying, analysing and evaluating a range of solutions (e.g. when ensuring that technical considerations cover the overall project requirements and best technical fit against project requirements is identified and evaluated) • Negotiation and influencing skills (e.g. when technical architecture documents are reviewed and additional discussions are held with architect to ensure complete understanding if necessary) • Problem solving skills for a defined range of unpredictable problems involving participation in the development of strategic initiatives (e.g. when integration activities are continued until platform is stable)
Required knowledge
• Knowledge of technology suppliers and components • Broad knowledge of current industry-accepted hardware and software products, with broad knowledge of general features and capabilities and detailed knowledge in some areas (e.g. when undertaking compatibility tests) • Broad knowledge of current industry development and design methodologies (e.g. when reviewing technical architecture documents • Broad knowledge of current industry-accepted testing procedures (e.g. when undertaking compatibility tests) • Broad knowledge of stress load testing (e.g. when assessing readiness for stress testing)

Evidence Guide

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 following is essential: • Assessment must confirm the ability to identify and capture technical design changes important for future integration activities on a particular platform and to avoid integration activities that have been previously performed. To demonstrate competency in this unit the person will require access to: • Design specifications • High-level diagrammatic view of the main system components
Context of and specific resources for assessment	Assessment should demonstrate: • Finding systematic methods to identify and select tests from component test suites to form integration test suites • Defining a reusable integration infrastructure to build an integration test platform to cope with integration of diversified components The breadth, depth and complexity covering planning and initiation of alternative approaches to skills or knowledge applications across a broad range of technical and/or management requirements, evaluation and coordination would be characteristic. Assessment must ensure: • The demonstration of competency may also require self-directed application of knowledge and skills, with substantial depth in some areas where judgement is required in planning and selecting appropriate equipment, services and techniques for self and others.

EVIDENCE GUIDE	
	• Applications involve participation in development of strategic initiatives as well as personal responsibility and autonomy in performing complex technical operations or organising others. It may include participation in teams including teams concerned with planning and evaluation functions. Group or team coordination may also be involved.
Method of assessment	The purpose of this unit is to define the standard of performance to be achieved in the workplace. In undertaking training and assessment activities related to this unit, consideration should be given to the implementation of appropriate diversity and accessibility practices in order to accommodate people who may have special needs. Additional guidance on these and related matters is provided in ICA05 Section 1. • Competency in this unit should be assessed using summative assessment to ensure consistency of performance in a range of contexts. This unit can be assessed either in the workplace or in a simulated environment. However, simulated activities must closely reflect the workplace to enable full demonstration of competency. • Assessment will usually include observation of real or simulated work processes and procedures and/or performance in a project context as well as questioning on underpinning knowledge and skills. The questioning of team members, supervisors, subordinates, peers and clients where appropriate may provide valuable input to the assessment process. The interdependence of units for assessment purposes may vary with the particular project or scenario.
Guidance information for assessment	Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended, for example: • ICAA5054C Validate quality and completeness of system design specifications • ICAT5077B Develop detailed test plan • ICAT5083B Develop and conduct client acceptance

EVIDENCE GUIDE	
	test An individual demonstrating this competency would be able to: • Demonstrate understanding of a broad knowledge base incorporating theoretical concepts, with substantial depth in some areas • Analyse and plan approaches to technical problems or management requirements • Transfer and apply theoretical concepts and/or technical or creative skills to a range of situations • Evaluate information, using it to forecast for planning or research purposes • Take responsibility for own outputs in relation to broad quantity and quality parameters • Take some responsibility for the achievement of group outcomes • Maintain knowledge of industry products and services

Range Statement

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 be in reference to:	• business • system • platform • application • database • network • people in the organisation
Specifications may include but are	• technical requirements • user problem statement

RANGE STATEMENT	
not limited to:	• current system functionality • project plan • software requirements • metrics
Components may include:	• transactional processing component • file system object in Windows operating systems
Component technologies may include:	• CORBA • ActiveX • JavaBeans • COM • DCOM • OpenDoc • NET
Modifications may include but are not limited to:	• software patches and upgrades • internal or external hardware model information • telecommunications hardware and software version details • custom-designed components • driver and firmware revisions • board and chip revisions • software versions • distribution release details

Unit Sector(s)

Unit sector	Build

Co-requisite units

Co-requisite units		

Competency field

Competency field	