

**Information and Communications Technology Industry Training Advisory Committee
Software Products and Software Services (SW) branch
Unit of Competencies**

1. Title	Build, evaluate and review a target technology architecture reference model	
2. Code	ITSWAR615A	
3. Range	Develop a target technology architecture reference model from various viewpoints to align with the business requirements as well as requirements from higher level architecture [Architecture – Technology Architecture]	
4. Level	6	
5. Credit	5	
6. Competency	<p>6.1 Understand different technology architecture models</p> <p>6.2 Understand the functions of each building blocks in the technology architecture reference model</p> <p>6.3 Build target technology architecture reference model</p>	<p><u>Performance Requirement</u> Be able to</p> <ul style="list-style-type: none"> ▪ understand the technology trends and the different leading technology architecture frameworks and models (See Remark 1) ▪ identify best technology architecture model(s) applicable to the business ▪ identify the best technology architecture reference model(s) to be developed <p>Be able to describe the functions and service requirements of individual building block for the selection of best implementation technology based on the architecture building blocks developed (See Remark 2)</p> <p>Be able to further refine the architecture building blocks of the initial technology architecture into the target technology architecture reference model. The target technology architecture should</p> <ul style="list-style-type: none"> ▪ be easily understood in terms of how the services required in the target system will be grouped after considering all viewpoints ▪ provide an abstraction of the business requirements in the form of a collection of discrete services that can be clearly defined ▪ be documented by appropriate tool and methodology to reflect the inter-relationship of the building blocks ▪ enable solution building blocks to be identified for implementation

	<p>6.4 Evaluate and review a technology architecture reference model</p> <p>6.5 Exhibit professional behaviour</p>	<p>Be able to</p> <ul style="list-style-type: none"> ▪ assure that all stakeholder concerns are addressed. If they are not, create new models to address concerns not covered or augment exist models. ▪ ensure that all information requirements in the business architecture, data architecture, application and integration architectures are met ▪ cross-check affinity groups against requirements ▪ ensure that all the views have been considered in the architectural model ▪ validate that the architectural model supports the principles, objectives and constraints of the business ▪ identify solution building blocks that would be used to implement the architecture building blocks ▪ check the architecture model for completeness against requirements ▪ select standards for each of the architecture building blocks, reusing as much as possible from the selected reference models or existing building blocks library <p>Be able to</p> <ul style="list-style-type: none"> ▪ produce a technology architecture reference model up to a professional standard ▪ perform trade-off analysis to resolve conflicts among different views
7. Assessment Criteria	The integrated outcome requirements of this UoCs is the ability to produce a target technology architecture reference model to meet the business goals and objectives as well as the requirements from other higher level architectures such as Architecture Vision and Business, Data, Application, as well as Integration Architectures.	
Remark	<ol style="list-style-type: none"> 1. Examples of technology architecture frameworks and models are: client-server, web-based, SOA, J2EE, and dotNET. 2. Pre-requisite: ITSWAR507A 3. Co-requisites: ITSWAR605A, ITSWAR611A, ITSWAR519A 	