



Australian Government

ICTSUS801 Plan and manage virtualisation for ICT sustainability

Release: 1

ICTSUS801 Plan and manage virtualisation for ICT sustainability

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Application

This unit describes the skills and knowledge required to analyse, plan and manage options using virtualisation and managed services for organisational processes to meet sustainability targets.

It applies to individuals who have responsibility for conducting or managing information and communications technology (ICT) infrastructure projects, such as network managers, ICT infrastructure managers, network planners and designers, consultants or contractors.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Unit Sector

Sustainability

Elements and Performance Criteria

ELEMENT	PERFORMANCE CRITERIA
<i>Elements describe the essential outcomes.</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Develop organisational plan to implement ICT virtualisation	1.1 Critically analyse current enterprise operations to determine what processes or practices can be realised using virtualisation to ensure long-term sustainability within organisational guidelines 1.2 Research and analyse alternative virtualisation scenarios, including risk analysis and relative comparisons of each, considering return on investment (RoI) 1.3 Produce results of analysis, prioritising sequence of processes to be virtualised based on enterprise priorities and setting of sustainability targets for organisation

ELEMENT	PERFORMANCE CRITERIA
2. Manage strategies for deploying virtual machines	2.1 Critically analyse business factors that cause enterprises to migrate to virtualisation 2.2 Identify virtualisation inhibitors preventing organisation from deploying strategies on local virtual machines 2.3 Produce virtualisation management plan to capitalise on using virtual machines according to enterprise priorities
3. Manage outsourced services and cloud networks	3.1 Critically analyse ICT requirements of organisation to produce cloud architecture, using multiple cloud computing elements indicating layers of cloud client stack 3.2 Produce cost–benefit analysis 3.3 Produce analytical justifications that will determine deployment model to meet business requirements of organisation 3.4 Establish service level agreement (SLA) with managed services provider (MSP) or network provider to ensure responsibilities of stakeholders are specified and agreed to

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance Criteria	Description
Reading	1.1, 1.2, 2.1, 2.2, 3.1, 3.3	Critically analyses documentation from a variety of sources and records and consolidates information to determine requirements
Writing	1.2, 1.3, 2.3, 3.3, 3.4	Prepares analytical reports, management plans and SLAs, and documents technical requirements and procedures for a diverse range of people in required format
Numeracy	1.2, 3.2	Analyses and confirms capacity and interoperability requirements, calculates cost–benefit analysis and produces budget requirements and limitations
Navigate the world of work	1.1, 1.3, 2.3, 3.3	- Works autonomously, making high level decisions to achieve and improve organisational goals - Develops and implements strategies that ensure organisational policies, procedures and regulatory requirements are being met - Monitors and reviews the organisation's policies,

		procedures and adherence to legislative requirements to implement and manage change
Get the work done	1.1, 1.2, 1.3, 2.1, 2.2, 3.1, 3.3, 3.4	- Plans strategic priorities and outcomes within a flexible, efficient and effective context, in a diverse environment exposed to competing demands - Gathers and analyses data and seeks feedback to improve plans and processes - Makes high impact decisions in a complex and diverse environment, using input from a range of sources - Explores and incubates new and innovative ideas through unconstrained analysis and critical thinking to develop and improve the organisation's goals - Uses digital technologies to manage business operations and actively investigates new technologies for strategic and operational purposes

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTSUS801 Plan and manage virtualisation for ICT sustainability	ICASUS701A Plan and manage virtualisation for IT sustainability	Updated to meet Standards for Training Packages. Minor edit to the competency title. Recoded and minor changes to performance criteria to meet AQF requirements.	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTSUS801 Plan and manage virtualisation for ICT sustainability

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Release 1	This version first released with ICT Information and Communications Technology Training Package Version 1.0.

Performance Evidence

Evidence of the ability to:

- develop an effective plan for virtualisation and manage strategies, including managed services
- determine and meet client requirements for installation and testing of virtual server
- perform information and communications technology (ICT) power-consumption calculations
- install, integrate and test virtualisation components according to vendor and technical specifications
- produce an accurate cost-benefit analysis and virtualisation management plan for justification
- establish an effective service level agreement (SLA).

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- research and specify best practice approaches relevant to sustainability
- contrast common business processes, including:
 - relevant organisational policies, procedures and protocols
 - relevant systems and procedures to aid in the achievement of workplace sustainability
- determine the client business domain, including client organisational structure and business functionality
- define cloud computing architecture
- outline compatibility issues and resolution procedures
- specify the configuration of internet protocol (IP) networks
- critique current industry-accepted products

- research and specify energy consumption and energy audit methodologies
- outline environmental and sustainability legislation, regulations and codes of practice applicable to the industry and organisation
- explain the environmental impact of products, processes, systems and services
- explain linkage between policies and the development of processes and practices
- explain principles, practices and available tools and techniques of sustainability management relevant to the ICT industry
- describe quality assurance systems relevant to own organisation
- identify a range of relevant managed services, including software, network and support
- describe technologies and other requirements relevant to virtualisation, including:
 - cloud computing
 - power supply requirements and management
 - server design and network architecture
 - set-up and configuration procedures
 - single and multiple processors
 - vendor specifications and requirements for software installation
 - virtual server functionality
 - system diagnostics
 - using software simulation.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the sustainability field of work and include access to:

- relevant documentation
- current server virtualisation
- site and equipment on which servers can be virtualised.

Assessors must satisfy NVR/AQTF assessor requirements.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>