

Unit 501 Plan for the Delivery of ICT Support Services, and Assist in the Acquisition of ICT Systems Level 3 (Core)

Rationale

This unit will enable the candidate to evaluate a customer’s current ICT system and support provision, assess future requirements and make detailed recommendations on system and support services acquisition. It will also enable the candidate to produce implementation and contingency plans for the enhancement of the customer’s system.

There are 4 outcomes to this unit. The candidate will be able to:

1. determine customer requirements for ICT systems and support services
2. evaluate available ICT systems and services against customer requirements
3. prepare and present suitable options for the acquisition of ICT systems and support services
4. develop plans to ensure that the ICT infrastructure delivers the required functionality, capacity and level of support.

Guided learning hours

The recommended guided learning hours for this unit are 90.

Connections with other awards

NVQ links

Outcome	This award contributes to the knowledge and understanding of the following elements of NVQ(s)
1	<i>C&G 4300 Installing and Supporting IT Systems Level 2</i> 323.1 Prepare for the evaluation of products and services
2	323.2 Evaluate the suitability of products and service providers
3	323.3 Make recommendations on products and service providers
1, 2	324.1 Prepare for the acquisition of products
3	324.2 Provide technical support during product acquisition
3, 4	332.1 Make recommendations for improving customer use of information technology
	<i>C&G 4348 IT Services (Customer Systems Support) Level 2</i>
1, 2	27.1 Assess the requirements of customers for technical expertise
1, 2	27.2 Obtain technical information to support customers
3, 4	28.1 Deliver technical advice to customers
1	29.1 Monitor the performance of IT systems
2	29.2 Identify potential improvements to IT systems
1, 2	34.1 Identify customers’ requirements for services
1, 2	34.2 Assess the support required by customers
3	34.3 Prioritise the requirements of customers
1, 2	38.1 Identify customers’ requirements for technical information
4	38.2 Deliver technical information to customers
4	38.3 Review the provision of technical information to customers

Key Skills links

Communication	C 3
Application of number	
IT	IT 2
Working with others	
Improving own learning	LP 2
Problem solving	PS 3.1, PS 3.2

Assessment

Assessment will be by means of a **set assignment** covering practical activities and a **multiple choice test** covering underpinning knowledge.

Outcome 1: Determine customer requirements for ICT systems and support services

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. identify and document the requirements of the customer for ICT system functionality and capacity, e.g. current: <ul style="list-style-type: none"> • documents they process/use • information they store/keep • how they use stored information • transactions made with others • reports or documents they need to produce • designs they produce • what communications systems they use • who they communicate with proposed: <ul style="list-style-type: none"> • number of users • data processing • transaction processing • design (e.g. graphics, web design, CAD) 2. identify and document the details of the customer's current system support provision 3. identify and document any customer constraints on the required ICT systems and services <ul style="list-style-type: none"> • implementation timescale • compatibility with existing systems • physical/environmental • availability • regulatory • financial • reliability 4. carry out physical and electronic audits and monitoring to determine the extent and configuration of the customer's existing system, e.g. <ul style="list-style-type: none"> • details of system components (printers, servers, workstations, etc.) • details of system configuration (lay-out, transmission media, topology, etc.) • details of the current operating system(s) and application software (location, version, revision, licensing and usage) • details of current security arrangements (firewalls, virus protection, authorisations, password systems, etc.) • load distribution and levels over a period <p>Continued ...</p>		

<p>5. identify sources of information on ICT systems, and the provision of ICT services, e.g.</p> <ul style="list-style-type: none">• web sites• sales brochures• product specifications.		
---	--	--

Underpinning knowledge

The candidate will be able to:

1. describe the reasons for determining customer requirements
2. describe commonly used methods of obtaining valid customer feedback
 - oral (face-to face, telephone) communication
 - written (e-mail, questionnaire)
3. describe the features of different levels of support, e.g.
 - on site repair
 - hours per day/days per week/response times
 - return to workshop
 - warranty
 - contracted time and materials
 - escalation
 - technical courier
4. describe commonly available ICT systems and services
 - hardware
 - software
 - development, e.g. designing, creating, implementing and integrating ICT components
 - support, e.g. training, maintenance, advice and assistance
5. describe the type of constraints which customers may impose
 - implementation timescale
 - compatibility with existing systems
 - physical/environmental
 - availability
 - regulatory
 - financial
 - reliability
6. describe available sources of information on ICT systems and providers of ICT services and how to assess their reliability. Sources should include:
 - direct (e.g. from the manufacturer or service provider)
 - independent (e.g. press reviews, existing users)
7. describe how ICT systems are specified in terms of function and capacity
function:
 - inputs
 - processes
 - outputscapacity:
 - access, e.g. number of simultaneous users, speed of response
 - processing
 - storage
8. describe how ICT services are specified
 - services to be provided
 - periods of availability
 - procedures to be followed when requesting and delivering services.

Outcome 2: Evaluate available ICT systems and services against customer requirements

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. evaluate obtained system and support information by comparing it with customer requirements, identifying shortfalls and documenting the results 2. select suitable equipment to meet customer needs, e.g. <ul style="list-style-type: none"> • stand alone PC • networked PC • server • operating system (e.g. MS Windows/Unix/proprietary) • applications software 3. create documentation to define a customer's service requirements in detail, e.g. reports, procedures, presentation. 		
<p>Underpinning knowledge The candidate will be able to:</p> <ol style="list-style-type: none"> 1. describe the factors to be taken into account when assessing obtained information against customer needs and constraints <ul style="list-style-type: none"> • implementation timescale • compatibility with existing systems • physical/environmental • regulatory • financial • reliability 2. describe areas of ICT system use that may be inefficient, covering: <ul style="list-style-type: none"> • hardware (location, quantity, type, configuration) • software (ease of use, functionality, configuration) • use of materials (type, wastage) • services (coverage, level, availability) 3. describe suitable formats for recording evaluation results <ul style="list-style-type: none"> • spreadsheets • database • documents. 		

Outcome 3: Prepare and present suitable options for the acquisition of ICT systems and support services

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. present a range of possible system solutions, making recommendations, taking into account, e.g. <ul style="list-style-type: none"> • cost • timescales • limitations • benefits • maintainability • availability • reliability 2. prepare and present two alternative specifications for a service level agreement (SLA), to include, e.g. <ul style="list-style-type: none"> • on site/return to workshop/time and parts/remote • response timescales (same day/next day/office hours/24 hours/Monday-Friday/7 days • warranty arrangements • consultancy • preventative maintenance • life cycle management • training • help desk • on-line assistance. 		

Underpinning knowledge

The candidate will be able to:

1. describe methods of improving the efficiency of ICT system use covering:
 - hardware/software, e.g. re-configuration, upgrades, replacement
 - use of materials, e.g. other sources, storage, stock control
 - services, e.g. improved response rates
2. describe the factors contributing to the feasibility or otherwise of potential improvements
 - cost
 - impact on customer organisation
 - effectiveness
3. describe the essential points of a service level agreement (SLA), e.g.
 - details of parties to the agreement
 - level of service to be delivered
 - any penalties for failure to conform
 - any bonuses for delivery above target
 - start and finish times
 - measurement criteria
 - equipment covered
4. explain the importance of presenting recommendations in a manner suited to the needs of the customer
5. identify required customer ICT skills.

Outcome 4: Develop plans to ensure that the ICT infrastructure delivers the required functionality, capacity and level of support

	Candidate's signature	Date
<p>Practical activities The candidate will be able to:</p> <ol style="list-style-type: none"> 1. create a plan to implement previously agreed changes to system and support services including, e.g. <ul style="list-style-type: none"> • upgrade/replacement of existing system hardware/software • enhancements to support provision • changes to system functionality, capacity and maintenance • user training requirement as a result of the changes • methods of monitoring the effectiveness of the support provision 2. devise change control documentation for use during change implementation 3. develop an outline contingency plan to enable recovery from <ul style="list-style-type: none"> • hardware failure (PC, server, mainframe) • environmental disaster (flood, fire, terrorist attack, earthquake etc.) • power failure • major loss of data • serious security breaches to enable <ul style="list-style-type: none"> • business continuity in another location • recovery of existing system function • restoration of data. 		

Underpinning knowledge

The candidate will be able to:

1. describe methods to measure the effectiveness of customer support functions
2. explain reasons why the effectiveness of service delivery should be monitored and recorded
3. explain reasons why change control must be maintained, e.g.
 - conformance to BS/ISO standards
 - to define the current state of IT systems and services
 - to ensure work is carried out in a controlled manner
 - to prevent misunderstandings and unauthorised modifications to an ICT system or service
4. explain why customer's staff may require coaching, e.g.
 - new product(s)
 - new service(s)
 - new procedure(s)
 - new staff
 - skill uplift needed
5. describe the business/commercial reasons for contingency planning
6. describe the relative value of data compared to systems
7. describe different back up methods for a range of data types, e.g.
 - invoices
 - payroll
 - HR records
8. describe different levels of contingency planning, e.g.
 - hardware
 - range
 - PC
 - server
 - mainframe
 - power
 - business continuity.