

Level 3 ICT systems and network management (7540-368)

Systems and Principles Assignment guide for Candidates

Assignment C

(This assignment can be used as evidence of achievement of 7540-031 Level 3 Networking Principles)



About City & Guilds

City & Guilds is the UK's leading provider of vocational qualifications, offering over 500 awards across a wide range of industries, and progressing from entry level to the highest levels of professional achievement. With over 8500 centres in 100 countries, City & Guilds is recognised by employers worldwide for providing qualifications that offer proof of the skills they need to get the job done.

City & Guilds Group

The City & Guilds Group includes City & Guilds, ILM (the Institute of Leadership & Management) which provides management qualifications, learning materials and membership services, NPTC which offers land-based qualifications and membership services, and HAB (the Hospitality Awarding Body). City & Guilds also manages the Engineering Council Examinations on behalf of the Engineering Council.

Equal opportunities

City & Guilds fully supports the principle of equal opportunities and we are committed to satisfying this principle in all our activities and published material. A copy of our equal opportunities policy statement is available on the City & Guilds website.

Copyright

The content of this document is, unless otherwise indicated, © The City and Guilds of London Institute 2010 and may not be copied, reproduced or distributed without prior written consent.

However, approved City & Guilds centres and learners studying for City & Guilds qualifications may photocopy this document free of charge and/or include a locked PDF version of it on centre intranets on the following conditions:

- centre staff may copy the material only for the purpose of teaching learners working towards a City & Guilds qualification, or for internal administration purposes
- learners may copy the material only for their own use when working towards a City & Guilds qualification

The *Standard Copying Conditions* on the City & Guilds website also apply.

Please note: National Occupational Standards are not © The City and Guilds of London Institute. Please check the conditions upon which they may be copied with the relevant Sector Skills Council.

Publications

City & Guilds publications are available on the City & Guilds website or from our Publications Sales department at the address below or by telephoning +44 (0)20 7294 2850 or faxing +44 (0)20 7294 3387.

Every effort has been made to ensure that the information contained in this publication is true and correct at the time of going to press. However, City & Guilds' products and services are subject to continuous development and improvement and the right is reserved to change products and services from time to time. City & Guilds cannot accept liability for loss or damage arising from the use of information in this publication.

City & Guilds

1 Giltspur Street

London EC1A 9DD

T +44 (0)20 7294 2800

F +44 (0)20 7294 2400

www.cityandguilds.com

learnersupport@cityandguilds.com

Contents

Level 3 ICT systems and network management (7540-368)

Assignment C

Introduction – Information for Candidates	2
Candidate Instructions	3

Level 3 ICT systems and network management (7540-368)

Assignment C

Introduction – Information for Candidates

About this document

This assignment comprises all of the assessment for Level 3 ICT systems and network management (7540-368).

Health and safety

You are asked to consider the importance of safe working practices at all times.

You are responsible for maintaining the safety of others as well as your own. Anyone behaving in an unsafe fashion will be stopped and a suitable warning given. You will **not** be allowed to continue with an assignment if you compromise any of the Health and Safety requirements. This may seem rather strict but, apart from the potentially unpleasant consequences, you must acquire the habits required for the workplace.

Time allowance

The recommended time allowance for this assignment is **4 hours**.

Level 3 ICT systems and network management (7540-368)

Candidate Instructions

Time allowance: 4 hours

Assignment set up:

This assignment is made up of **three** tasks:

- Task A – Reconfigure network switch or router to provide improved performance
- Task B – Write a business report on systems security
- Task C – Write a business report on management technologies

Scenario

A network that you are managing has started to run slowly. You suspect it may be caused by the way a switch or router has been configured. The network configuration then impacts upon the performance of the end user devices such as PCs when logging onto the systems.

You need to look at the supplied network performance data and reconfigure the switch or router to allow for better data throughput and for network monitoring and security.

Finally you will need to write a report on system monitoring techniques which can be implemented by the business including issues which may arise if the system is not properly monitored. This will also include a set of recommendations as to how to improve the overall effectiveness of Business ICT within organisations.

Read all of the instructions carefully and complete the tasks in the order given.

Task A – Reconfigure network switch or router to provide improved performance

In this task you will be given an item of network hardware and associated performance data. You must examine this data and use your analysis to reconfigure the network hardware.

- 1 Initiate the actions required to remedy failures of IT systems to meet operational requirements, by finding out the actual configuration of the device.
- 2 Reconfigure the device to improve the network performance.
- 3 Monitor the network performance and record the data using a screen print.

Continued over...

Task B – Write a business report on systems security

- 1 Explain the importance of controlling user access to system resources.
- 2 Describe **three** commonly available methods for controlling user access to system resources.
- 3 Identify **five** methods and reasons for the prevention of unauthorised access to the network system.

Task C – Write a business report on management technologies

- 1 Identify **six** tools available to monitor the operation and performance of IT systems.
- 2 Describe **six** common causes of IT systems failing to meet operational requirements and the actions required to correct these.
- 3 Describe areas of IT system use that may be inefficient, covering:
 - hardware
 - software
 - use of materials
 - services.
- 4 Describe **six** methods of improving the efficiency of hardware and software in a client server LAN.
- 5 Describe **three** factors contributing to the feasibility or otherwise of potential improvements.
- 6 Explain the importance of presenting recommendations in a manner suited to the needs of the audience.

When you have finished working:

- Sign each document above your name and label all removable storage media with your name.
- Hand all paperwork and removable storage media to your assessor.

If the assignment is taken over more than one period, all paperwork and removable media must be returned to the test supervisor at the end of each sitting.

End of assignment

Published by City & Guilds
1 Giltspur Street
London
EC1A 9DD
T +44 (0)20 7294 2468
F +44 (0)20 7294 2400
www.cityandguilds.com

City & Guilds is a registered charity
established to promote education
and training