



**Examiners Report: March 2018** 

BTEC Level 2 Technical Diploma Digital Technology (Data Management, Digital Applications, Networking and Cybersecurity)

21262K - Unit 5: IT Service Solutions

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# **Grade Boundaries**

# What is a grade boundary?

A grade boundary is where we set the level of achievement required to obtain a certain grade for the externally assessed unit. We set grade boundaries for each grade at pass, merit and distinction.

## **Setting grade boundaries**

When we set grade boundaries, we look at the performance of every learner who took the external assessment. When we can see the full picture of performance, our experts are then able to decide where best to place the grade boundaries – this means that they decide what the lowest possible mark is for a particular grade.

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**Unit 5: IT Service Solutions** 

	Level 2					
Grade	Unclassified Pass Merit Distinction					
<b>Boundary Mark</b>	0	15	22	30		

# Introduction

This was the first series of the new specification, and as such, the first time that this unit has been externally assessed.

The question paper followed the format identified in the sample assessment materials. The paper was split into four sub tasks. Each sub task required learners to demonstrate knowledge and understanding of a range of specification topics and apply this knowledge to the scenario.

Each of the sub tasks were marked using a 'levels based' approach to assessment where the overall quality of the response was considered rather than the specific number of facts stated from the indicative content, although this obviously had a bearing on the quality of the response. More detail can be found below in the individual sub task section of the report.

# Overall performance of the unit

This report has been written to help you understand how learners have performed overall in the exam. For each sub task there is a brief analysis of learner responses. You will also find examples of learner responses to the sub tasks that have been well answered. These should help to provide additional guidance. We hope this will help you to prepare your learners for future examination series.

Learner performance varied throughout the paper. The style of the assessment is challenging due to the depth and breadth of knowledge required to fully address the demands of the paper. Each question demanded depth of knowledge and across the paper this also required breadth as each of these questions examined different areas of the specification.

The emphasis in this paper is on learner's application of their knowledge to a variety of IT related situations. The higher mark bands focused on the ability to demonstrate application rather than the ability to recall theory. Learners that were able to access higher marks for these questions were able to apply their knowledge and understanding to the stimulus and provide realistic and appropriate responses. It will be important for learners to have practice in doing this in their preparation for the assessment and for centres to use the level based mark schemes in the sample assessment materials (SAM's) when preparing learners for this assessment in future.

It is essential that centres stress to learners the need to read the scenario information carefully before they answer the sub tasks and to be prepared to use this information within their responses. Where learners are unable to apply the scenario information in their answer it will significantly restrict the number of marks learners can receive. Generic responses will only gain limited credit.

# Individual sub tasks

The following section considers each sub task on the paper, providing examples of common learner responses and a brief commentary of why the responses gained the marks they did. This section should be considered with the live external assessment and corresponding mark scheme.

#### Task 1

Learners were required to complete an IT service catalogue to explain the benefits and drawbacks of current working practices. There were 9 marks available for this task.

## Assessment guidance

Assessmen t focus	Band 0	Band 1	Band 2	Band 3
Activity 1: IT service	0	1-3	4-6	7-9
catalogue	No rewardable ma	Generic benefits and drawbacks may be presented rather than linking knowledge and understanding related to the given IT service catalogue and the organisation's needs.	Explanation of benefits and drawbacks are mostly supported through linkages and application of knowledge and understanding related to the given IT service catalogue and the organisation's needs.	Explanation of benefits and drawbacks are supported throughout by linkage and application of knowledge and understanding related to the given IT service catalogue and the organisation's needs.
	aterials.	Limited or inaccurate use of specialist terms and technical language.	Some appropriate and accurate use of specialist terms and technical language.	Appropriate and accurate use of specialist terms and technical language.

Learner A has made comments on each of the current services in place and has related some of the benefits to the scenario and where drawbacks have been included they provide reasons why they are considered a drawback. The learner has included sufficient benefits and drawbacks with sufficient detail to be considered for marks in the top mark band but there are a few missing and some comments are not considered detailed enough for the higher marks in the top mark band. This response was awarded 7 marks which is at the lower end of mark band 3.

### Learner A:

Service name	Service description	Benefits	Drawbacks
Landline telephone	Used to:  • discuss initial design requirements with the client arrange meetings with the client and the builder  • contact the client with any issues on the designs  • get feedback from clients	Using calls is simple and quick which would use less time instead of travelling to talk/meet each other. Tom would also be able to get feedback from the clients on what they think about the designs because he could discuss the designs over the phone.	It isn't face to face so he can't show them the designs which might lead to the clients not liking them. Which then would mean he has wasted his time doing them and travelling to the clients to show them for nothing wasting his time and money.
Desk and stationery (paper, pencil, rubber, ruler etc.)	Used to:     draw the designs onto suitably sized paper     make alterations to designs	If he has made a mistake it is easily rubbed out because he has used a pencil and rubber. He has enough space on the paper to draw out his designs.	If he kept making mistakes he would have to go through many sheets of paper and the deigns would look scruffy if they keep getting rubbed out. Because there would be lines and marks all over them which would make the clients find it hard to understand the designs.
Photocopier and filing cabinet	Used to:     provide a copy for the client and the builder     store a master copy of designs at the office	The clients and builders would be able to get to see his designs that he has done and is easy to access the designs because they are stored in the office.	Having the designs stored in the office could lead to damage and theft which then would mean all of designs are gone. His clients could lose the copies of the designs or delete them accidently.
Office space and method of travelling	Used to:     meet with clients     travel to the construction sites and clients' homes	He gets to show the clients what he has designed up to now and what they think about it. Tom also gets to see how the builders are doing on the construction sites and on the client's homes.	If he has to travel far it will waste time when he could have been getting on with his business. It would also cost him a lot if he had to travel far because he would have to travel by bus, car or train.

Learner B has included some explanations of benefits and drawbacks but some of these are very simplistic and not all are appropriate. There is some accurate use of specialist terms and technical language when they refer to the current IT services. The response is sufficient for marks to be awarded in mark band 2 but at the lower end where 4 marks were awarded.

#### Learner B:

Service name	Service description	Benefits	Drawbacks
Landline telephone	Used to:     discuss initial design requirements with the client     arrange meetings with the client and the builder     contact the client with any issues on the designs     get feedback from clients	I and line telephones are barely able to lose signal due to it being hooked up to a phone line using telephone instead of messaging services make it easier for the client and Tom to get points across to each other good for keeping the customer informed on the current situation	landline telephones are not portable devices meaning Tom cannot do his work when out and about     not everyone has access to phones meaning Tom cannot contact some customers     having to ring in to give feedback seems like a bad choice to have as most sites and companies today have a website where you can leave feedback not only in an easier fashion but it will also be kept public meaning people can view what customers think and Tom has not made that an option
Desk and stationery (paper, pencil, rubber, ruler etc.)	Used to: • draw the designs onto suitably sized paper • make alterations to designs	pencil is easy to rub out and can be fixed with ease sketching with pencil can be a lot easier than dragging and dropping lines on a computer meaning he gets a more accurate design it's a quick method of making rough design alterations so the client can choose the best one that they like where as that is harder to do on a computer (takes longer)	using stationery is not professional for a business which can put off customers     unlike a sketch, when designing on a computer you can generate a 3d model so it can be viewed from multiple angles which on paper you cannot do
Photocopier and filing cabinet	Used to:     provide a copy for the client and the builder     store a master copy of designs at the office	it's a good way to make sure that people within the business can get a copy of the work instead having to share one document with all of them     having multiple copies can mean if Tom loses the main document it won't matter as much as Tom will have copies of the same work meaning he will not lose it	photocopiers can cost quite a bit of money compared to what he could save if he had done all the work on the computer as he could email the work the other client/employees with a document they can either view or edit     filing cabinets with the house designs is good if Tom wishes to keep certain documents together but if he is out and about he will have to of taken the documents in order to look at them as he will not have the filing cabinet on him at all times
Office space and method of travelling	Used to:     meet with clients     travel to the construction sites	<ul> <li>Having a portable office makes going about a lot easier as he Tom can do his work whilst on the go</li> </ul>	Not having a big HQ/office means that he has not got a designated area clients cannot find Tom in one spot if there seems
	and clients' homes		to be an emergency to the plan etc.

Responses that achieved lower marks in this sub task tended to:

- repeat the service description without any consideration of benefits or drawbacks
- include benefits and drawbacks without fully considering the scenario and the service description

Where learners did well they tended to have a systematic approach to benefits and drawbacks and appeared to understand the current service descriptions and how they affected the organisation and stakeholders.

# Task 2a

Learners were given a second scenario with additional information on the organisation. They were asked to provide IT recommendations to meet the organisation's needs. There were 16 marks available for this task.

# Assessment guidance

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Activity 2:	0	1-4	5-8	9-12	13-16
IT recommend- ations	No rewardable material.	Recommendations evidence:  I imited awareness of the scenario  I imited understanding of the organisation's key IT service needs  I imited coverage of: o information and data requirements for the stakeholder o the hardware and software to be used o how components of the system will be connected and/or communicate  I imited recommendation(s)	Recommendations evidence:  some awareness of the scenario  some understanding of the organisation's key IT service needs  some coverage of: o information and data requirements for the stakeholder o the hardware and software to be used o how components of the system will be connected and/or communicate  some recommendation(s)	Recommendations evidence:  detailed awareness of the scenario  adequate understanding of the organisation's key IT service needs  adequate coverage of: o information and data requirements for the stakeholder o the hardware and software to be used o how components of the system will be connected and/or communicate  adequate recommendation(s) considering the additional preferences	Recommendations evidence:  comprehensive awareness of the scenario  comprehensive understanding of the organisation's key IT service needs  comprehensive coverage of: o information and data requirements for the stakeholder o the hardware and software to be use o how components o the system will be connected and/or communicate  effective recommendation(s) considering the additional preferences

Learner C has considered a range of recommendations and has included some of the drawbacks in task 1. They have included some of the current IT issues but there are a few that have not been covered. Some of the recommendations make statements but don't fully explain the improvement the recommendations would make to the organisation. There is some coverage of software and hardware and there are detailed comments. There is sufficient coverage of the assessment criteria to award a best fit mark of 13 which is at the lower end of mark band 3.

#### Learner C:

Current IT issues	Stakeholders affected	Recommended improvements	Software and Hardware
Clients wish to see designs electronically so they do not have to attend/travel to meetings with Tom or Isaac	The Clients	Instead of doing all the designs on pencil and paper Tom/Isaac could create a 3D model of the design either from scratch or after one of them has finished the sketch up of it.	Software like Auto cad architecture or Sketch up would be great for designing 3D models as these will allow the client or builder to move around the model checking it from all angles to see if they are happy with what is produced. For hardware it's recommended that Tom has a mid to high range laptop that is capable of rendering 3D models at speed. It would have to be a laptop as Tom is usually mobile/out and about, whereas Isaac can have a mid to high range desktop because he is at the office and not out and about, twould need to be able to handle fast rendering speeds for graphically intensive tasks.
Tom and Isaac both want remote access to designs when they are with the clients or the builders	Tom, Isaac, clients and builders	Tom and Isaac can invest in to having a cloud storage system. This would allow both Tom and Isaac to have access to the same files no matter where they are so long as they have a connection or either have the file downloaded. This means that when Tom or Isaac is showing the client or builder what the design is they can access it with ease and can regularly be updated by both Tom and Isaac without having to email the file back	Some of the software they can invest in could be companies like OneDrive, Google Drive or any other 3" party cloud storage software. Having this installed on all the devices within the company will allow the user to access

		and forth.	
Communicate electronically	Tom, Isaac, clients and builders	The company should invest into work phones as that will improve productivity with things like accessing the cloud and communicating with the clients and builders a lot quicker. There is also communication that can be done via desktop/laptops as they have compatible apps that will allow Tom and Isaac to use to communicate. If they do not have any sort of connection to the internet then it is recommended that Tom and Isaac get a contract with a broadband in order for them to communicate via things like email or social media	Either a phone or laptop for Tom as he will be out and about, for Isaac he will need either a phone or a desktop as he will be working in the office and desktop would be a much better choice over laptop due to power. Either communicating via email or having their own chat service on a website would be the recommendation for their company. The hardware they would need for the internet would have to be things like Ethernet cables, a modem, some routers and Wi-Fi cards if wireless connection is needed if there computers do not already have them built in
Storing data securely	Tom and Isaac	If Tom and Isaac are to store data securely and safely they will have to both upload the backups to the cloud storage in case of data loss and one big thing they can invest in would be a server as this will allow both Tom and Isaac to connect the server and save files on a LAN meaning no one can get access to it unless they hack it	Hardware equipment for a server would be things like Ethernet cables, network switches, SSD's, a functioning desktop and a case to hold it all etc. these types of things are what would make a fast secure reliable server so Tom and Isaac can always have their files saved and not have to worry about it as much than having it in a filing cabinet
Tom wants to transfer his business from a paper-based product and electronic based product	Tom and Isaac	Tom can have all his work done on computer like I said before but for any of his work he had done before it can be scanned with special scanners actually have the documents uploaded to the computer.	Things like a 3D printer or a special scanning mouse (it scans whatever the mouse is hovering over and prints it on to the screen which can be edited) which would be ideal for Tom. Also as said before a desktop for Isaac and a laptop for Tom would be the way to go to make sure they meet their business needs.

# Task 2b

This task required learners to produce an IT system diagram to correctly represent the hardware and software recommended in Task 2a. There were 8 marks available for this task.

#### **Assessment criteria**

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Activity 2:	0	1-2	3-4	5-6	7-8
IT recommend-	No.	Recommendations evidence:	Recommendations evidence:	Recommendations evidence:	Recommendations evidence:
ations	rewardable material.	limited technical understanding     limited use of an appropriate IT system diagram	some accurate technical understanding     some use of an appropriate IT system diagram	mostly accurate technical understanding     mostly accurate use of an appropriate IT system diagram	accurate technical understanding     accurate use of an appropriate IT system diagram
	·-	Recommendations are vague	Recommendations are mostly clear.	Recommendations are clear.	Recommendations are sound.

The system diagrams shown were both awarded 4 marks which is at the top of mark band 2.

Diagram 1 – the learner considered some hardware, software and storage and indicated that the internet would need to be used to access software and storage.

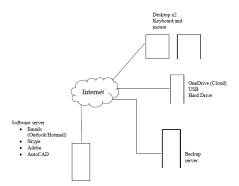
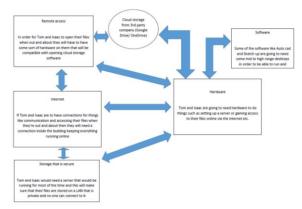


Diagram 2 - the learner has identified hardware, software, remote access, the use of the internet and storage but these are all limited. There is some attempt to connect them.



Learners should be reminded that they need to connect the various components of the system.

#### Task 3

Learners were required to analyse the recommendations made in Task 2a. They needed to consider:

- how their recommendations would address the needs of the organisation
- benefits and drawbacks of their recommendations to the company and its stakeholders
- the implications that their recommendations would have for the organisation

There were 12 marks available for this task.

# Assessment guidance

Assessment focus	Band 0	Band 1	Band 2	Band 3	Band 4
Activity 3:	0	1-3	4-6	7-9	10-12
Impact and implications review	No rewardable material.	Limited analysis of recommendations and how they meet the needs of the organisation  Shows limited consideration of benefits and drawbacks of recommendations.	Some analysis of recommendations and how they meet the needs of the organisation  Shows some consideration of benefits and drawbacks of recommendations.	Adequate analysis of recommendations and how they meet the needs of the organisation  Shows adequate consideration of benefits and drawbacks of recommendations.	Comprehensive analysis of recommendations and how they meet the needs of the organisation.  Shows comprehensive consideration of benefits and drawbacks of recommendations.
		Shows limited consideration of the implications of the recommendations for the organisation.	Shows some consideration of the implications of the recommendations for the organisation.	Shows adequate consideration of the implications of the recommendations for the organisation.	Shows comprehensive consideration of the implications of the recommendations for the organisation.

Both of the learner responses for this task were awarded 9 marks which is at the top end of mark band 2.

Learner D has included some suggestions on how some of their recommendations will address the needs of the organisation but these are quite basic. Some benefits and drawbacks of the recommendations have been included and these are appropriate. There are also appropriate implications covered. None of the sections have been answered comprehensively which is why marks at the top of mark band 3 were awarded.

#### Learner D:

# How your recommendations will address the needs of the organisation 2. Desktop x2 (Keyboard and mouse)-3. Skype- want to be able to communicate electronically with builders and clients. 4. Outlook (emails)- show clients designs electronically to reduce the number of face-to-face meetings. 5. OneDrive (cloud), USB, Hard Drive, Backup server- be able to store original designs and backups securely. Benefits of your recommendations to the organisation and its stakeholders 1. They are software's that you can use to design such as buildings instead of using the need of paper. You can also delete and change things easily when using them which saves time instead of just drawing them out. Having two desktops would mean that both workers Tom and Isaac would be able to both work at the same time which would mean that more work would be done faster. Because they only have one computer to work on at the moment which would mean they aren't getting enough work done. 3. They would be able to communicate face-to-face electronically instead of travelling to see each other which would cost time and money to do so. 4. Would be able to send the clients the designs electronically over email which would let them see them without travelling to meet each other with would save them 5. They would have everything backed up so they won't lose any of their work and they will know where it all is. Drawbacks of your recommendations to the organisation and its stakeholders They would take time for the need of training to use these, because you wouldn't be able to use it straight away because you will need to learn how to use the different tools that come with it. They would have to go out and buy another computer. It could start crashing whereas they won't be able to communicate to each other properly or they might not be able to hear each other clearly which might lead to them overhearing something incorrectly. Clients might accidently delete them whereas they can't see them anymore or could have a problem signing into their emails where they won't be able to access it They could lose or damage whatever their work is backed up on which would mean that they would have lost everything that they had backed up. The implications that your recommendations will have for the organisation It would take time training to be able to use these which would mean they would have to spend time away from their work.

- Which would cost money for the business because they have to pay for it and would cost them time from their work because they would have to go out and find
- one.

  3. If they are on a tablet/phone it could easily run out of charge which would mean it will switch their device of shutting their Skype down
- Which would mean they won't be able to see the designs that has been sent to them which might lead back to having to travel to each other.
   So they won't be able to get all of their work back which would lose them time because they would have to start everything all over again. Which might lead them to losing money on their business because they would have to replace what has been lost/ damaged and because all of their work, designs would be gone.

Learner E has identified how their recommendations will address the needs of the organisation and are guite detailed. There are benefits and drawbacks but these are not as detailed. Implications are also quite limited but what has been covered is fairly detailed. This response meets the requirements for the top of mark band 2.

#### Learner E:

#### How your recommendations will address the needs of the organisation

Most of the recommendations I have made for Tom and Isaac mainly are to invest in hardware and a bit of software. The server and cloud storage help solve the problem of not having files secured safely as well as not being able to access the files when out and about with either clients or builders. Having work phones and internet will me that they can access their files when using the cloud and also they can communicate with the client/builder either via email or social media. Having some new pieces of hardware like a 3D printer means he can now start to use more hardware and software in order to meet his business need which was to make his company turn from a paper based company to an electronic based company. The software recommended for making 3D models of the house will make it a lot easier for builders to see what they will be producing and clients will have a much better understanding at what they want and how they want it to look, also the main purpose of the software was instead of doing all the designs on pencil and paper Tom/Isaac could create a 3D model of the design either from scratch or after one of them has finished the sketch up of it.

#### Benefits of your recommendations to the organisation and its stakeholders

All of the recommended pieces of hardware and software will benefit everyone. Things like phones, being able to communicate via email/social media will be beneficial for both Tom and Isaac as well as the client and builders instead of having to meet up face to face. Having a sever will help Tom and Isaac keep their files safe instead of having to file them in a cabinet or have them saved to the device only (causing a risk of loss of data).

#### Drawbacks of your recommendations to the organisation and its stakeholders

One of the main drawbacks to what I have suggested for Tom and Isaac is the cost. The cost for all the hardware and software would be so expensive both to buy and to maintain monthly that they would either have to borrow money from the bank or make enough money from their business in order to cover the cost. Some other drawbacks could be things like a fire hazard with electronics like the server being on for most of the time or desktop/laptops overheating. Clients will have to have an electronical device that will be capable of running either a video or the file type of the 3D model of the house.

#### The implications that your recommendations will have for the organisation

Overall the gist of what I have recommended to Tom and Isaac is that when they transform their company to completely electronic from paper based, they will have more portability, more security, more secure storage, happy and satisfied customers and builders and better overall work produced from them

# **Summary**

Based on their performance on this paper, learners should:

- use appropriate technical language throughout their responses
- tailor their response based on the command word in the question, e.g. explain requires an expansion of a point made
- be clear about terminology used in the specification as these words will be repeated in the task
- use the task scenarios to demonstrate their ability to apply their knowledge
- check their work carefully to ensure they have answered all questions
- use the assessment criteria to see the requirements for each task to understand what they have to do to achieve the marks.

An overall summary of recommendations on how learners could improve their performance in the assessment has been included:

## Task 1

Learners should take time to read the scenario and service catalogue to fully understand the current working practices. Where the organisation is not currently using IT, learners should consider how IT could be used by using their knowledge of IT systems within organisations. Learners need to explain benefits and drawbacks of current working practices rather than just provide a list. They need to justify why they consider them to be a benefit or a drawback.

#### Task 2a

Learners are expected to provide recommendations based on the drawbacks they have considered in task 1. The more drawbacks they include, the more recommendations they will have for this task. Learners are not expected to justify their recommendations in this task (this is required in task 3).

# Task 2b

This task was not well answered. Learners should be reminded that they must include a diagram rather than statements/paragraphs of written text. Diagrams submitted tended to be limited in content and some did not include any connections. Learners should be encouraged to research existing diagrams to provide them with an idea of what they should include in theirs. Where connections were included, learners did not always consider the direction of the connection.

#### Task 3

Although learners included the basics for the task, there was little evidence of comprehensive analysis of the recommendations for marks to be awarded in the top mark band. Learners need to be reminded that they have to analyse the recommendations rather than just list them.