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| **Qualification details** |  | | |
| **Training Package code and title:** | ICT – Information and Communications Technology | | |
| **National Qualification**  **Code & Title:** | ICT40418 Certificate IV Information Technology Networking  ICT40118 Certificate IV Information Technology  ICT41015 Certificate IV Computer Systems Technology | **State code** | BEH0  BEH4  AVZ7 |

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| **Assessment Task** | AT02 – Project | | |
| **Location of assessment** | South Metropolitan TAFE  Murdoch Campus – Floor 1 – T Block – Room T108/T102  Rockingham Campus – Block F – Room RHF30  Thornlie Campus – Block 8 – Room 8G31 | | |
| **National Code & Title** | ICTICT426 OAQ12 Identify and evaluate emerging technologies and practices | | |
| **Date Due** | 13/3/2020 | **Date Received** | Click here to enter a date. |

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| **Student Name and ID** | Richard Pountney 30007736 |
| **Student Declaration** | I declare that the evidence submitted is my own work:  RBP  ………………………………………….. |

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| **Assessor Name** | **Assessor Name** | | | |
| **Assessment Decision** | Satisfactory | | Not Yet Satisfactory | |
| **Assessor Signature** |  | | **Date** | Click here to enter a date. |
| **Is student eligible for reassessment (Re-sit)?** | No | Yes | **Reassessment Date:** |  |

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| **ASSESSMENT FEEDBACK** | | | | |
| **Assessment Decision** | Attempt 1 | | ☐ Satisfactory | ☐ Not Yet Satisfactory |
| Attempt 2 | | ☐ Satisfactory | ☐ Not Yet Satisfactory |
| Attempt 3 | | ☐ Satisfactory | ☐ Not Yet Satisfactory |
| **Assessor Name** |  | | | |
| **Assessor Signature** |  | | **Date:** |  |
| **Feedback to student** | | | | |
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| **Feedback from student** | | | | |
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| **Student name** | |  | | |
| **Student’s signature** | |  | **Date:** |  |

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| **INFORMATION FOR ASSESSORS** |
| Students are required to answer a series of knowledge-based questions.  A marking guide has been provided |
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| **INFORMATION FOR STUDENTS** | |
| Purpose of Assessment | This assessment evaluates your knowledge of:   * Planning the implementation of new technology into a business * The impact the new technology will have on the business |
| Allowable materials | Weekly Readings, Class notes, Weekly Activities |
| Required resources | Computer with:   * Computer operating system; * Internet Access; * Word processing software; * Access to online learning system; |
| Assessment Presentation and Submission | For this project assessment you must complete ALL tasks.  Use of research tools in formulating answers are acceptable – but work submitted must be student’s own work.  Final documentation is to be uploaded to the appropriate area in the Blackboard course created for this class.  If you are marked as NYS (Not Yet Satisfactory) on your first attempt, you will be provided with another opportunity to re-attempt the assessment at the discretion of the lecturer. |
| Project contents | This assessment consists of 3 sections   1. Identify emerging technologies and practices in IT 2. Evaluate the impact of emerging technologies and practices 3. Develop strategies to prepare for emerging technologies and practices |
| Skills being assessed | To complete the unit requirements safely and effectively, you will demonstrate skills related to the following:  ICTICT426 - Identify and evaluate emerging technologies and practices   * Identify emerging technologies and practices in IT * Evaluate the impact of emerging technologies and practices * Develop strategies to prepare for emerging technologies and practices   Performance evidence  Describe and evaluate purpose, features, attributes and potential applications of:   * three emerging technologies * three emerging practices in the ICT sector   Develop a strategy to respond to each of the three emerging technologies and three emerging practices, including:   * potential organisational opportunities and threats resulting from the emerging technology and practice * likely impact on current organisational technologies and practices * objectives of the organisation in responding to the emerging technology or practice * changes required in order to achieve intended objectives of the organisation * considerations for how to implement the changes required   Time Allocation: 12 hours, in session 5,6 (See DAP) |

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| **Reasonable Adjustment** |
| Please refer to the DAP for reasonable adjustment guidelines |

**ASSESSMENT INSTRUCTIONS**

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| **SCENARIO** |
| You work for a small managed service provider (MSP), “CITEMS”. CITEMS provides technical support to businesses in the Perth area. As part of the full-service approach that CITEMS takes with their customers, CITEMS is often called upon to design new systems and implement new technologies into their customer’s businesses. The questions below will be used by management to decide if you are able to move from a service desk role, into a role more aligned to designing technology solutions for their customers.  Further information about CITEMS can be found at [www.citems.com.au](http://www.citems.com.au), including the mission, policies and contact information  Specific components of the scenario are against each task. |
| **STUDENT SUMMARY INSTRUCTIONS** |
| 1. Complete ALL questions in the assessment 2. Once ALL questions are answered, submit the assessment to Blackboard under AT02. |

1. Identify emerging technologies and practices in IT

1.1 Access sources of information on emerging technologies and practices in the IT industry

1.2 Identify and document emerging technologies and practices relevant to organisational context

# Part 1 - Identify emerging technologies and practices in IT used by industries

## Scenario

As an employee for CITEMS, part of your job is to look at the industries your customers work in, and consider technology solutions that may assist them in the future. In order to do this, you need to be familiar with what the industry is currently using, and also new technologies they can use in the future.

## Task 1 – Analyse industries and practices

Select TWO **industries** from the industry list.

* Medicine (hospitals, GPs or similar)
* Teaching and training
* Insurance
* Transport
* Help desk or IT support desk

Select TWO **technologies** from the list for **each of the industries** you have chosen

* Artificial Intelligence (AI)
* Virtual Reality (VR)
* Augmented Reality (AR)
* Big Data
* IoT (Internet of Things)
* Blockchain
* 5G

Describe

* An overview of current technology used in the industry
* Emerging **technology** from the list that the industry will use in the near future, or have recently started using.
* How will this technology change the work **practices** in this industry?
* Reference 2 sources of information you have used to perform this analysis.

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| Industry #1 | Help desk &or IT support desk |
| Industry overview | It is a communications center for providing a single point of contact (SPOC) between a company, its customers, employees & business partners. The currently used technology is phones, computers, automation technology, AI, IoT, and remote connection software. |
| References used for overview. | <https://www.techtarget.com/searchwindowsserver/definition/service-desk>  <https://www.beyondtrust.com/blog/entry/what-is-it-support-your-technical-support-tools-and-service-desk-explained> |
| Technology #1 | Big Data |
| Describe how the industry will use the new technology | <describe how your industry can use the new technology> |
| Describe how the technology will change the industry practices | <describe how this technology will change how the industry operates> |
| 2 references you used for research | <https://www.coursera.org/articles/big-data-technologies>  <https://www.techtarget.com/searchdatamanagement/definition/big-data>  <https://www.javatpoint.com/big-data-technologies> |
| Technology #2 | 5G |
| Describe how the industry will use the new technology | <describe how your industry can use the new technology> The industry will use 5G |
| Describe how the technology will change the industry practices | <describe how this technology will change how the industry operates> |
| 2 references you used for research | <https://www.techtarget.com/searchnetworking/definition/5G>  <https://www.ericsson.com/en/5g>  <https://www.qualcomm.com/5g/what-is-5g> |

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| Industry #2 | Teaching and training |
| Industry overview | <provide an overview on the industry, and what technology is currently common> |
| References used for overview. |  |
| Technology #1 | Augmented Reality |
| Describe how the industry will use the new technology | <describe how your industry can use the new technology> |
| Describe how the technology will change the industry practices | <describe how this technology will change how the industry operates> |
| 2 references you used for research | <provide 2 links to sources of information used when researching this business and technology> |
| Technology #2 | <select a **second** technology from the list> |
| Describe how the industry will use the new technology | <describe how your industry can use the new technology> |
| Describe how the technology will change the industry practices | <describe how this technology will change how the industry operates> |
| 2 references you used for research | <provide 2 links to sources of information used when researching this business and technology> |

2. Evaluate the impact of emerging technologies and practices

2.1 Evaluate features and functions of emerging technologies and practices to determine advantages and disadvantages relevant to organisational context

2.2 Assess and document potential impacts of emerging technologies and practices on current organisational technologies and practices

2.3 Seek and obtain feedback from organisational representative on assessment of impact of emerging technologies and practices and incorporate feedback into report

**Scenario**

CITEMS is looking to expand. They plan on opening new service desk sites where they can be closer to their customers. CITEMS need to consider the technology solutions they will use in the new offices. The solutions they are looking at fall into 2 broad categories:

Servers: The server used to log in can either be on-premise (on-site server 2019), or in the cloud (Azure or AWS)

Internet: The Internet connection is critical to the business. They are looking at either 5G or gigabit fiber as options for the new sites.

Before starting this section, look at the citems.com.au site under services > application development > mission. This will give an overview of the philosophy the company works under. Also provided is the “CITE-MS strategic plan” and “CITE-MS Existing Network” so you can see what is already in place, and what they are planning on doing.

## Task 2 - Evaluate the impact of emerging technologies and practices

Open the document “Technology Evaluation Report”. This is a pre-built template for your technology evaluation. Complete parts 1 and 2, evaluating server and WAN options.

The document requires you to seek feedback from your lecturer. Note the feedback in the section provided. Updates to your report based on the feedback should be highlighted to show where the updates happened.

3. Develop strategies to prepare for emerging technologies and practices

3.1 Develop and document strategies to prepare organisation for impacts of emerging technology and practices

3.2 Identify and document changes to organisational technologies and practices required based on strategies to determine organisational response

3.3 Seek and obtain feedback from organisational representative on strategy and organisational response from organisation and incorporate feedback into strategy and organisational response

## Task 3 - Develop strategies to prepare for emerging technologies and practices

**Scenario**

For the following example, assume the following 2 technology solutions have been chosen: Azure for the domain controller hosting, and Gigabit NBN for the WAN/Internet solution

Before implementing the technology into CITEMS, you will need to examine:

* The impact on the stakeholders
* The impact on the operation of the organization
* How to plan the implementation

Complete this analysis in “Part 3 - Develop strategies to prepare for emerging technologies and practices” in the technology evaluation report.

Once complete, have your lecturer provide feedback. Document any feedback and update the report. Highlight the updates.

**Once complete, upload “AT02 – ICTICT426” (this document) and the “Technology Evaluation Report” together to AT02 on Blackboard.**