

# SIT226 Cloud Automation Technologies

## Pass Task 2.1P

### In-House or In-Cloud?

#### Background

Today we can choose to deploy applications to either using locally hosted infrastructure or using public cloud infrastructure. For any organisation large enough to deliver a service using local infrastructure, at face value it may seem to be a straightforward technical decision between the two choices. It's critical to recognise, however, that the decision also affects the business case and how any costs are accounted for by the organisation. Although these topics represent significant fields of study on their own, in this task we consider some of the issues involved to gain a basic awareness required to work effectively in this field.

#### Get Prepared

Begin by locating and reviewing several articles on the web that discuss how CapEx and OpEx relate to the adoption of cloud computing in the business context. Try to learn what is meant by the CapEx and OpEx terms, how they relate to deploying network services and the choice of platform, and what risks are associated with those approaches. Make sure you take some time to browse through various articles available to ensure that you develop a reasonable understanding of the issues involved.

You should also review the class content for Weeks 1 and 2, and the Week 2 practical, which will provide you with some insight in the kind of hardware and software required for hosting a simple web site.

#### Complete the Task

*Page Limit: 1 page of text formatted reasonably, e.g., 2cm margins, 11 or 12 point font, appropriate headings/spacing, etc.*

Prepare a document according to the following requirements:

1. Reflect on the content for this week. In  $\frac{1}{2}$ - $\frac{3}{4}$  page, identify the most important lessons/topics this week relevant to your future studies/career and explain why they are the most important. Note: Do not present/explain topics, you are explaining why the things you learned are important!
2. Provide one or more screenshots for each activity, demonstrating that you have completed the lab session this week and briefly explain what is shown in each screenshot (one or two short sentences each).
3. In  $\frac{1}{4}$ - $\frac{1}{2}$  page, explain the concepts of CapEx and OpEx and how they relate to locally hosted infrastructure versus cloud computing.
4. In  $\frac{1}{4}$ - $\frac{1}{2}$  page, explain why an organisation may prefer OpEx over CapEx and how the risks would to the business would change moving from locally hosted infrastructure to cloud services.

## Submit Your Task

Prepare your submission using the word processor of your choice and submit a PDF to OnTrack.

## Taking it Further (Optional)

Several dimensions could be considered for further study in the areas addressed by this task:

- To develop a more comprehensive understanding of the issues involved, you first need to have a deeper understanding of the service itself. In this task, the target was only a simple web site, but consider that web site scaling up to something like the Amazon.com shopping service. What services would be involved? How would redundancy be built in? And so on. Investigate what technologies and approaches are used from a technical perspective to understand the problem.
- Public cloud providers continue to develop and introduce new services, and today already represent a somewhat complex product portfolio to learn. Take the time to investigate what services are provided by cloud providers and how they might be useful in different business contexts. Public cloud services are already in very common use throughout organisations at varying levels, so in undertaking a career in information technology you will need to develop awareness of these services over time.
- Information Technology represents one of the most significant investments and costs for any modern business. As a professional working in the field of IT, while you don't need to be an expert in accounting, it is useful to be aware of the costs associated with the various systems we use, including both technology and human based systems, and how they are accounted for. Taking the time to investigate these costs and developing some understanding of accounting processes can be useful. For example, even reflecting on the costs associated with a daily activity could be useful. For example, consider a team of 12 people with an average salary of \$80,000p.a. If these people meet for just one hour to plan a new service, what is the actual cost to the business?
- Risk management is a critical part of decision making in business. Professionals of all disciplines are often called upon to participate in risk management activities including identifying potential risks or developing strategies and actions to mitigate the identified risks. It is also common, even by law, for individuals to be responsible for their own activities which could involve risks of different kinds. If you haven't undertaken any activities or exercises in risk management previously, it's worth taking some time to at least read up on the basics and be aware of this area.

## Citations and Referencing

When completing any work, it is necessary to acknowledge the work of others that you have relied upon. For written assessment, we achieve this through the use of citations and references. Failing to correctly identify the work of others is known as plagiarism and is considered an issue of Academic Integrity.

If your submission to this task has involved the work of others, you must include citations and references where appropriate. Deakin provides a web site that explains how to use citations and references, and includes explanations of various referencing styles:

<https://www.deakin.edu.au/students/studying/study-support/referencing>

You may select any style for your citations/references, however you must be consistent in applying that style in this task (you can use other styles in other tasks if you wish).

Note that any bibliography/list of references is not included in page limits.