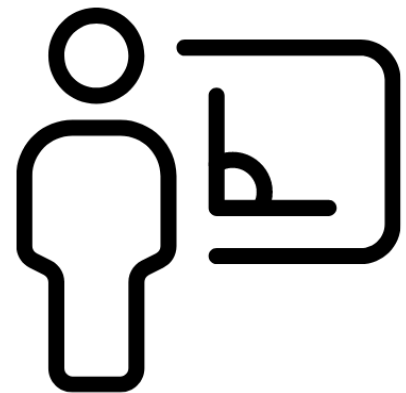


# Instructors Guide



On the following pages is a sample module from our Instructor Guide. It provides the instructor with a copy of the material and a Lesson Plans box.

The key benefit for the trainer is the Lesson Plan box. It provides a standardized set of tools to assist the instructor for each lesson. The Lesson Plan box gives an estimated time to complete the lesson, any materials that are needed for the lesson, recommended activities, and additional points to assist in delivering the lessons such as Stories to Share and Delivery Tips.



*Cloud is about how you do computing, not where you do computing.*

*Paul Maritz*

## Module Two: The Cloud



While “the cloud” has become a part of our everyday vocabulary, many people do not fully understand what it is, or how it works. A working definition of the cloud and its uses, is essential for the success of its implementation. Anyone who works with the cloud should also be aware of different trends surrounding the process. With a clear understanding of the cloud, you will be able to make the best decisions for your customers and your business.

### Definition



There is no such thing as a physical cloud. In reality, it is a network of servers that are used to share, store, and track data. The information is on the different servers, which makes sharing easier and provides you with a backup if something should happen to your hard drive. There are different cloud services available, both public and private. Many companies choose the hybrid option, which combines cloud servers with internal data storage.

The exact size of the cloud is not known, but there are some estimates that it is an Exabyte or one billion gigabytes.

<b>Estimated Time</b>	<b>7 minutes</b>
<b>Topic Objective</b>	Review the definition of the cloud.
<b>Topic Summary</b>	<b>Definition</b> Discuss the cloud.
<b>Materials Required</b>	<b>Flipchart/board, marker</b>
<b>Planning Checklist</b>	None

<b>Recommended Activity</b>	Discuss the definition of the cloud. How would you define the cloud in a single sentence? List ideas on the flipchart / board.
<b>Stories to Share</b>	Share any personal, relevant stories.
<b>Delivery Tips</b>	Encourage everyone to participate.
<b>Review Questions</b>	What does not exist?

## History



The idea of the cloud began with early computers in the 1950s. During this time, computers were massive and expensive. The personal computer was a dream. Different users shared the computer at assigned times to access the same data. The idea of data sharing advanced in 1969.

J.C.R. Licklider developed ARPANET or the Advanced Research Projects Agency Network before 1970, attempting to make information and programs available across the globe. With the growth of the internet, Licklider's idea became more accessible. In the 1990s, the term "cloud computing" was coined by Ramnath Chellappa. The bandwidth was finally able to make sharing software and applications online possible. The cloud has continued to evolve to include the different models, which we will discuss later in the manual.

<b>Estimated Time</b>	<b>8 minutes</b>
<b>Topic Objective</b>	Consider the history of the cloud.
<b>Topic Summary</b>	<b>History</b> Discuss the history of the cloud.
<b>Materials Required</b>	<b>Flipchart/board and marker</b>
<b>Planning Checklist</b>	None
<b>Recommended Activity</b>	Based on the history of the cloud, what changes do you predict for its future? List ideas on the flipchart / board.
<b>Stories to Share</b>	Share any personal, relevant stories.
<b>Delivery Tips</b>	Encourage everyone to participate.
<b>Review Questions</b>	What were computers like in the 1950s?

## Current Uses



There are different uses for the cloud. The average user will use it with social media and other applications. However, there are a few basic reasons why businesses will use the cloud.

### Common Uses:

Storage – The cost of storage is much cheaper than maintaining onsite storage.

Backup – Remote backup solves the problem of hard drive crashes and lost flash drives.

Disaster recovery – The data is safe when the site is not.

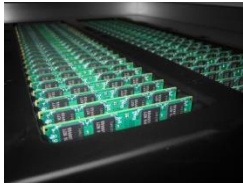
Planning – Analytics help establish planning and growth.

Other uses for the cloud include: Customer Relationship Management, E-commerce, and Testing and Developing software. The organization's functions and needs will determine the uses of the Cloud.

<b>Estimated Time</b>	<b>8 minutes</b>
<b>Topic Objective</b>	Review the uses of the cloud.
<b>Topic Summary</b>	<b>Current Uses</b> Discuss the uses of the cloud.
<b>Materials Required</b>	<a href="#">Worksheet 1: Uses</a>
<b>Planning Checklist</b>	None.

<b>Recommended Activity</b>	Complete the worksheet individually. List ideas on the flipchart/board.
<b>Stories to Share</b>	Share any personal, relevant stories.
<b>Delivery Tips</b>	Encourage everyone to participate.
<b>Review Questions</b>	What is the average use for the cloud?

## Trends



Like any other technological advancement, there are ever-changing developments and trends with the cloud. There are several noticeable trends in cloud computing. These trends may change over time, so pay attention to what is going on around you.

### Current Trends:

- Users are implementing multiple cloud services
- Hybrid use of public and private clouds are popular
- Most organizations keep work in the cloud
- There is an increase in IT centralization
- Focus on the cost and wasted spending
- Amazon Web Service, AWS, rules the world of cloud hosting

These are just a few common trends. There is more complex and in-depth information that you can examine, if necessary.

<b>Estimated Time</b>	<b>7 minutes</b>
<b>Topic Objective</b>	Review trends in the cloud.
<b>Topic Summary</b>	<b>Trends</b> Discuss trends in the cloud.
<b>Materials Required</b>	<b>Flipchart/board, marker</b>
<b>Planning Checklist</b>	None
<b>Recommended Activity</b>	Discuss trends. How do you think these will change? Place ideas on the

	flipchart/board.
<b>Stories to Share</b>	Share any personal, relevant stories.
<b>Delivery Tips</b>	Encourage everyone to participate.
<b>Review Questions</b>	What are current trends?

## Practical Illustration

Cameron was not ready to use the cloud for his catering business. He did not trust using outside



networks, and he believed he lacked the knowledge to use a private one. His manager, Samantha, urged him to reconsider. During storm season, a tornado damaged the main building. The computer system was damaged beyond repair, and the Cameron lost most of his records. Even the outside drive was lost. Samantha managed to find some of the data, but the client list was lost.

## Module Two: Review Questions

1.) What is an Exabyte?

- a) One billion gigabytes
- b) One million gigabytes
- c) One thousand gigabytes
- d) Unknown

The exact size of the cloud is not known, but there are some estimates that it is an Exabyte or one billion gigabytes.

2.) What is a cloud option?

- a) Public
- b) Private
- c) Hybrid
- d) All of the above

There are different cloud services available, both public and private. Many companies choose the hybrid option, which combines cloud servers with internal data storage.

3.) What did Licklider develop?

- a) Cloud
- b) ARPANET
- c) A & B
- d) None of the above

J.C.R. Licklider developed ARPANET or the Advanced Research Projects Agency Network before 1970, attempting to make information and programs available across the globe. With the growth of the internet, Licklider's idea became more accessible.

4.) When was the term cloud computing coined?

- a) 1970s
- b) 1950s
- c) Unknown
- d) 1990s

With the growth of the internet, Licklider's idea became more accessible. In the 1990s, the term "cloud computing" was coined by Ramnath Chellappa. The bandwidth was finally able to make sharing software and applications online possible.

5.) What will determine the uses of the cloud in a business?

- a) Functions
- b) Needs
- c) A & B
- d) Unknown

Other uses for the cloud include: Customer Relationship Management, E-commerce, and Testing and Developing software. The organization functions and needs will determine the uses of the Cloud.

6.) What is typically true about storage in the cloud?

- a) Cheaper
- b) More expensive
- c) More secure
- d) None of the above

Storage is one of the common uses for the cloud in business. The cost of storage is much cheaper than maintaining onsite storage.

7.) What is true of trends?

- a) They are consistent
- b) They change
- c) They can be ignored
- d) All of the above

Like any other technological advancement, there are ever-changing developments and trends with the cloud. As of 2017, there are several noticeable trends in cloud computing. These trends may change over time, so pay attention to what is going on around you.

8.) What is the leading cloud service?

- a) Amazon
- b) AWS
- c) A & B
- d) None of the above

Amazon is an important service to monitor when determining cloud trends. Amazon Web Service (AWS) is still leading.



9.) From the Practical Illustration what damaged the computer?

- a) Water
- b) Storm
- c) Tornado
- d) A & C

During storm season, a tornado damaged the main building. The computer system was damaged beyond repair, and the Cameron lost most of his records.

10.) From the Practical Illustration what data was lost?

- a) All
- b) None
- c) 30 percent
- d) Client list

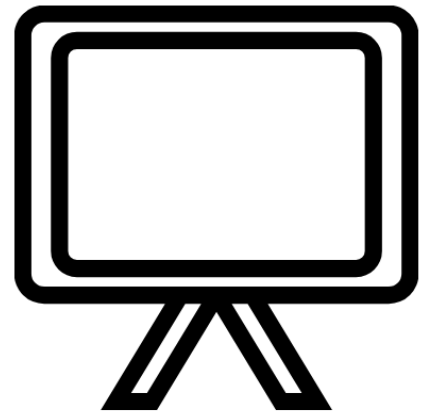
The computer system was damaged beyond repair, and the Cameron lost most of his records. Even the outside drive was lost. Samantha managed to find some of the data, but the client list was lost.

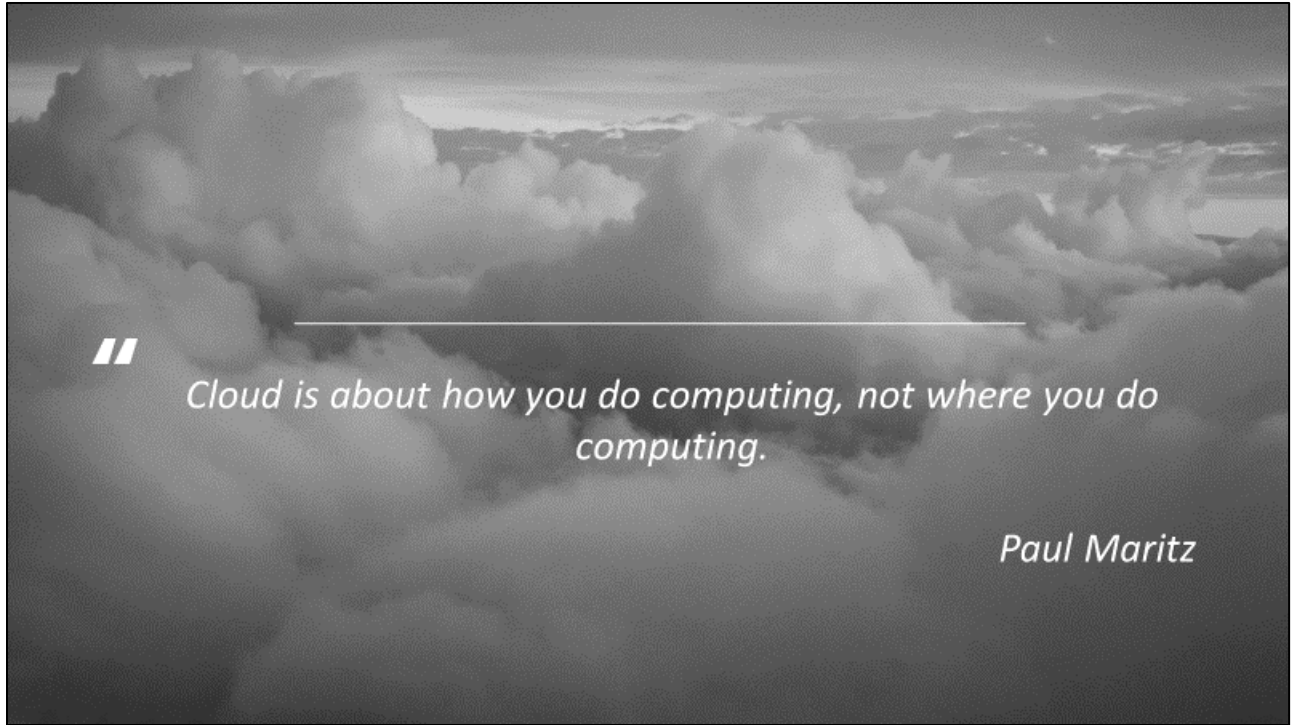
# PowerPoint Slides



Below you will find the PowerPoint sample. The slides are based on and created from the Instructor Guide.

PowerPoint slides are a great tool to use during the facilitation of the material; they help to focus on the important points of information presented during the training.





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*Cloud is about how you do computing, not where you do computing.*

*Paul Maritz*

MODULE TWO

## The Cloud

With a clear understanding of the cloud, you will be able to make the best decisions for your customers and your business.



## Definition

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The exact size of the cloud is not known, but there are some estimates that it is an Exabyte or one billion gigabytes.

## History

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The idea of the cloud began with early computers in the 1950s.





## Current Uses

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Storage

Backup

Disaster  
recovery

Planning

## Trends

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- Most organizations keep work in the cloud
- There is an increase in IT centralization
- Focus on the cost and wasted spending



## Practical Illustration



- Definition
- History
- Current Uses
- Trends

## Module Two: Review Questions

1. What is an Exabyte?

A. One billion gigabytes

B. One million gigabytes

C. One thousand gigabytes

D. Unknown

# Quick Reference Sheets



Below is an example of our Quick Reference Sheets. They are used to provide the participants with a quick way to reference the material after the course has been completed. They can be customized by the trainer to provide the material deemed the most important. They are a way the participants can look back and reference the material at a later date. They are also very useful as a take-away from the workshop when branded. When a participant leaves with a Quick Reference Sheet it provides a great way to promote future business.



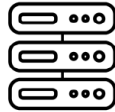
# The Cloud and Business

## Quick Reference Sheet



### Definition

There is no such thing as a physical cloud. In reality, it is a network of servers that are used to share, store, and track data.



The information is on the different servers, which makes sharing easier and provides you with a backup if something should happen to your hard drive.



There are different cloud services available, both public and private. Many companies choose the hybrid option, which combines cloud servers with internal data storage.



### Labor Finances

One of the largest savings that the cloud offers is through labor. Upgrades, maintenance, and administration that are taken care of in the cloud will reduce the time that local IT employees must spend on these aspects. With these tasks reduced, IT employees have the opportunity to focus on more important tasks, which will reduce overtime and extensive labor costs.

Cloud computing that is automated has an even higher impact on labor. A test run by IBM reveals that automation reduced labor by 30 percent to 50 percent. Before reducing the labor force, however, it is important to understand each task of the data center and how it relates to the cloud.



## Benefits

There are many different benefits to connecting multiple devices in the cloud. Common advantages include:

- Offloading – Moving applications and tasks to the cloud improves performance.
- Storage – The devices will be able to access large data without having to store it locally.
- Security – Information is less secure in mobile devices than it typically is in the cloud.
- Vendor Lock-in – Mobile devices accept platforms that were originally limited to local devices.



These benefits work together to ensure that the data flows quickly and safely between devices while remaining accessible to employees.

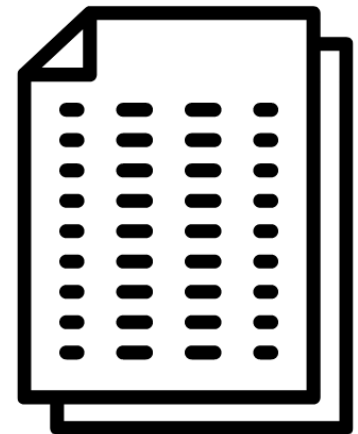
# Handouts



Each course is provided with a wide range of worksheets.

Worksheets help check your participants' understanding. If a lesson calls for a worksheet, it will be listed in the Lesson Plan box under Materials Required. All worksheets are customizable and can be found in the Appendix of the Instructor Guide and the Training Manual.

As a trainer, icebreakers give your participants the opportunity to get to know each other better or simply begin the training session on a positive note. Icebreakers promote collaboration, increase engagement, and make your training more light-hearted and fun. Below is an example from the Icebreakers folder.



## Sample Worksheet 1

# *Uses*

In which ways do you already use the cloud?

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Are there other ways you might want to use the cloud?

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## Icebreaker: Related Topic

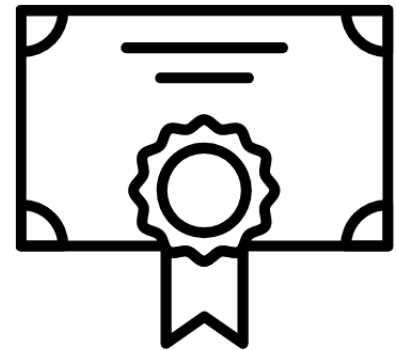
Include a short activity here that is related to the topic of the workshop. You can use the one below if you like.

1. Have the participants at each table answer the following questions:
  - a. Why are they here?
  - b. What is their level of experience with the cloud in business?
  - c. What they hope to get from this class?
  - d. What was their most memorable vacation or trip?
2. Have someone be designated a scribe and have them jot down the answers to question C above.
3. On a separate piece of paper, have the scribe write down the most interesting or exotic vacation or trip from only one table member.
4. Have the scribe hand the note with the answers to question C to you.
5. Have the scribe stand and introduce the table to the class.
6. Then have the scribe share the most interesting vacation or trip from their group.
7. Have the class guess the person that had the most interesting or exotic trip or vacation.
8. Go around to each table until all have given you their answers to question C and shared their most interesting trip or vacation.
9. Debrief by sharing all the answers to question C with the class.
10. Thank participants for sharing.

# Certificate of Completion



Every course comes with a Certificate of Completion where the participants can be recognized for completing the course. It provides a record of their attendance and to be recognized for their participation in the workshop.



CERTIFICATE OF COMPLETION

**[Name]**

*Has mastered the course  
The Cloud and Business*

Awarded this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

Presenter Name and Title

\_\_\_\_\_