**Chapter 2 Problems and Exercises Tips**

**1) Do some Internet research on virtual desktops and desktop-as-a-service (DaaS).** **Develop a professionally formatted 1000- to 1500-word document, or an 8- to 10-slide presentation, that summarizes the following:**

* **How virtual desktops differ from traditional desktops**
* **Why businesses are adopting virtual desktops**
* **How businesses are using virtual desktops**
* **How/why virtual desktops can lower a business’s IT costs**
* **How/why virtual desktops contribute to enterprise network security**

**Your document/presentation should identify at least three recommended online sources (and their URLs) for learning more about virtual desktops and DaaS. It should also include a complete list of all sources/references used to develop your document or presentation, using APA or MLA format.**

**Tips for Success**: Businesses are increasingly using VDs to support remote work, and this problem/exercise is a useful vehicle for learning more about VDs. It also illustrates how enterprise networks extend to the cloud and how cloud applications are used to support businesses. If your university provides a VD option for students, you should consider using it to complete this exercise.

Strive to find three or more substantive online articles that describe VDs and how and why they are being used by businesses. Make sure that your document or presentation is sufficiently long and make sure that it answers/summarizes all the listed questions. Proofread your document or presentation to ensure that it does not include spelling or grammatical errors and make sure that it is professionally formatted. Also make sure that the articles cited on your reference list conform to MLA or APA format.

Your instructor may use a grading rubric like the one below.

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| **Criterion** | **Description** | **Points** |
| On time? | Is document or presentation submitted on or before its due date | 10 |
| Format | Does the document/presentation have a professional format? | 10 |
| Length | 1000- to 1500-words or 8 to 10 Slides? | 5 |
| References | Three or more? | 5 |
| URLs | Do references include URLs? | 5 |
| Reference format | Do references conform to APA or MLA format? | 5 |
| Error Free? | Is submission free of spelling errors, formatting inconsistences, grammatical, and syntax shortcomings? | 10 |
| VD vs. traditional | Is it clear that student understands the differences between virtual and traditional desktops? | 10 |
| Adoption | Does student provide several reasons why businesses are adopting VDs? | 10 |
| Use | Does student provide several examples of how businesses are using VDs? | 10 |
| Cost reduction | Does student explain how/why VDs can lower IT costs | 10 |
| Security | Does student explain or provide examples of how VDs contribute to security? | 10 |

**2) Do some Internet research that focuses on the types of business applications that are commonly located in private clouds or VPCs. Your research should focus on determining the types of applications that businesses have been reluctant to move to public cloud environments and the reasons why they have been reluctant to do so. Summarize your findings in a professionally formatted two- to five-page document or five- to eight-slide presentation that includes a reference list (including URLs) in APA or MLA format of the sources used.**

**Tips for Success**: Although public cloud services are widely used by businesses, there are some applications that they prefer to keep in house or to support using private cloud services or VPCs. This exercise provides a vehicle for understanding the nature of such applications and the reasons for business reticence to support them using public cloud services.

Strive to find two or more substantive articles that are directly related to this topic. Make sure that your document or presentation is sufficiently long and is free of spelling and grammatical errors. Also make sure that it is professionally formatted and identifies several different examples of applications that businesses are more likely to support in-house or in private clouds or VPCs instead of public clouds. Also make sure that you identify reasons why businesses are reluctant to use public clouds to support these applications.

A grading rubric like the following may be used by your instructor to evaluate your work.

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| **Criterion** | **Description** | **Points** |
| On time? | Is document/presentation submitted on or before its due date | 10 |
| Format | Does the document/presentation have a professional format? | 10 |
| Length | Two to five pages or five to eight slides? | 5 |
| References | Are references included? | 5 |
| URLs | Do references include URLs? | 5 |
| Reference format | Are references in MLA or APA format? | 5 |
| Error Free? | Is submission free of spelling errors, formatting inconsistences, grammatical, and syntax shortcomings? | 10 |
| Private clouds and VPCs | Is it clear that student understands the characteristics of private clouds and VPCs? | 10 |
| Applications | Does student identify different types of applications that businesses have been reluctant to move to public clouds | 20 |
| Reasons | Does student identify several reasons why businesses have been reticent to more such types of applications to the cloud. | 20 |

**3) Do some Internet research on the business use of community clouds. Find examples of business community clouds (business-focused use cases). Develop a professionally formatted 750- to 1250-word document or six- to eight-slide presentation that:**

**• Explains how community clouds differ from private and public clouds**

**• Identifies several different ways that businesses are using community clouds**

**• Summarizes the advantages and disadvantages of community clouds**

**• Summarizes security challenges associated with community clouds**

**Your document/presentation should identify at least two recommended online sources (and their URLs) for learning more about the business use of community clouds. It should also include a complete list in APA or MLA format of all sources/references used to develop your document (including URLs).**

**Tips for Success**: Community clouds are often used to support supply chains, but there are other business use cases for community clouds and this exercise provides a vehicle for better understanding community clouds, their business uses, advantages and shortcomings, and security challenges.

Strive to find two or more substantive articles that describe community clouds and include examples of how they are being used by businesses. Make sure that your document or presentation is sufficiently long and is free of spelling and grammatical errors. Also make sure that it is professionally formatted and that it explains how community clouds differ from private and public clouds. Your document or presentation should also identify several different examples of how community clouds and the advantages and disadvantages of community clouds from a business perspective. The security issues and challenges associated with community clouds should also be identified. Make sure that the articles cited on your references list conform to MLA or APA format.

Your instructor may use a grading rubric like the following to evaluate your work.

|  |  |  |
| --- | --- | --- |
| **Criterion** | **Description** | **Points** |
| On time? | Is document or presentation submitted on or before its due date | 10 |
| Format | Does the document/presentation have a professional format? | 5 |
| Length | 750- to 1250-words or 6 to 8 Slides? | 5 |
| References | Two or more? | 5 |
| URLs | Do references include URLs? | 5 |
| Reference format | Do references conform to MLA or APA format | 5 |
| Error Free? | Is submission free of spelling errors, formatting inconsistences, grammatical, and syntax shortcomings? | 10 |
| Community vs. private vs. public | Is it clear that student understands the differences between community, private and public clouds? | 15 |
| 5Use cases | Does student identify/describe different ways that businesses are using community clouds | 10 |
| Advantages/shortcomings | Does student identify/describe several community cloud advantages and shortcomings | 20 |
| Security issues | Does student identify/describe several security challenges associated with community clouds | 10 |

**4) Do some Internet research on application firewalls and web application firewalls (WAFs). Develop a professionally formatted 750- to 1250-word document or six- to eight-slide presentation that:**

**• Explains how application and web application firewalls work**

**• Identifies examples of rules used to block incoming requests or outgoing data**

**• Identifies and briefly describes the threats these firewalls protect against**

**• Identifies and briefly describes the security limitations of these firewalls**

**Your document/presentation should identify at least two recommended online sources (and their URLs) for learning more about application and web application firewalls. It should also include a complete list in APA or MLA format of all sources/references used to develop your document (including URLs).**

**Tips for Success**: This exercise enables you to gain a clearer understanding of firewalls, especially those designed to protect business applications, including web applications. It provides a vehicle for better understanding of some of the technologies used to secure business applications.

Strive to find one or two substantive articles that focus on application firewalls, and one or two articles that focus on WAFs. Don’t be concerned if there are overlaps between the topics discussed in these articles. Make sure that your document or presentation is sufficiently long and is free of spelling and grammatical errors. Also make sure that it is professionally formatted and that it explains how application firewalls and WAFs work and identifies several examples of rules used to filter incoming requests and outgoing data. Your document or presentation should also identify threats that application firewalls and WAFs protect against and the security limitations of these types of firewalls. Make sure that the articles cited on your references list conform to MLA or APA format.

Your instructor may use a grading rubric like the following to evaluate your work.

|  |  |  |
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| **Criterion** | **Description** | **Points** |
| On time? | Is document/presentation submitted on or before its due date | 10 |
| Format | Does the document/presentation have a professional format? | 10 |
| Length | 750- to 1250-words or 6 to 8 Slides? | 5 |
| References | Two or more? | 5 |
| URLs | Do references include URLs? | 5 |
| Reference format | Do references conform MLA or APA format? | 5 |
| Error Free? | Is submission free of spelling errors, formatting inconsistences, grammatical, and syntax shortcomings? | 10 |
| How they work | Does student clearly explain how application and web application firewalls work? | 15 |
| Firewall rules | Does student identify examples of application/web application firewall rules used to block incoming and/or outgoing data traffic? | 15 |
| Threats | Does student identify/describe threats that application/web firewalls strive to address? | 10 |
| Security Limitations | Does student identify/describe several security limitations of application and web firewalls? | 10 |

**5) Do some Internet research on enterprise mobility management (EMM) and its various components: MDM, MAM, MIM, etc. Develop a 1000- to 1500-word document or 8- to 10-slide presentation that:**

* **Explains why businesses have embraced EMM**
* **Briefly describes why a business’s EMM program may include MDM, MAM, MIM, and other components**
* **Explains why employees may resist EMM and MDM policies and requirements**
* **Explains how EMM programs and policies affect bring-your-own-device (BYOD) programs and policies**
* **Explains how EMM and its components contribute to the protection/security of enterprise applications**

**Your document/presentation should identify at least one recommended online source (and its URL) for learning more about EMM in today’s businesses. It should also include a complete list in APA or MLA format of all sources/references used to develop your document (including URLs).**

**Tips for Success**: Because many enterprise network applications are supported on mobile devices, the importance of technologies used to manage and secure mobile applications including EMM, MDM, MAM

and MIM, has been elevated. This exercise enables you to gain a better understanding of some of the technologies that businesses are using to manage and secure applications on employee mobile devices.

Find one more substantive articles about EMM that encompasses the topics that your document or presentation should address. Make sure that your document or presentation is sufficiently long and is free of spelling and grammatical errors. Also make sure that it is professionally formatted and that it explains why businesses have adopted EMM. Make sure that your document or presentation identifies the differences between EMM, MDM, MIM, and MAM and explains how EMM is related to BYOD programs and policies. Also make sure that your document or presentation explains why EMM and MDM requirements may be resisted by employees and describes how EMM contributes to application security. Make sure that the articles cited on your references list conform to MLA or APA format.

Your instructor may use a grading rubric like the following to evaluate your work.

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| --- | --- | --- |
| **Criterion** | **Description** | **Points** |
| On time? | Is document/presentation submitted on or before its due date | 10 |
| Format | Does the document/presentation have a professional format? | 10 |
| Length | 1000- to 1500-words or 8 to 10 Slides? | 5 |
| References | One or more? | 5 |
| URLs | Do references include URLs? | 5 |
| Reference format | Do references conform to APA or MLA format | 5 |
| Error Free? | Is submission free of spelling errors, formatting inconsistences, grammatical, and syntax shortcomings? | 10 |
| EMM adoption | Does student identify reasons why businesses have adopted EMM? | 10 |
| Components | Does student explain why EMM may have multiple facets/components and the differences between MDM, MAM, and MIM? | 10 |
| Resistance | Does student explain why EMM and MDM may encounter employee resistance? | 10 |
| EMM and BYOD | Does student explain how EMM relates to BYOD programs/policies? | 10 |
| Security | Does student explain or provide examples of how EMM and its components contribute to enterprise network application security? | 10 |