Commonly Asked Questions

1. **Can I use my own laptop/ PC to do these experiments ?**

Ans. **Yes! You can use any device you want, may it be your own laptop, University PC's, University servers (digitalis and digitalis2), or NeCTAR VM's**. Do note that using different networks (for ex – your own laptop for 1 host and University server for another) will affect your results slightly and you will be expected to discuss about this in the questions inquiring about your networking conditions and reflection.

2. **The server listed in the spec sheet is down, what do I do now ?**

Ans. The servers presented in the spec sheet are public servers – not managed by the University of Melbourne. These are liable to go down at any given time, hence it is recommended you try and get your tests in as soon as possible for your sake. If you are still unable to connect to the servers then you might want to look at alternate servers available on the internet (any public iperf server will do). For ex - https://iperf.fr/iperf-servers.php.

You might also want to look at whether the server is responding to iperf2 if not to iperf3 just to be sure as some servers respond to only one of these.

Note: If the servers are not responding at the default ports used by iperf then try to change ports, like port 80 or port 5202, and so on.

3. **I cannot calculate std dev because there is no difference in result for ping ?**

Ans. If you are using windows – use HRping. If you are using the Digitalis servers, Mac's, Linux then use sqrt(((mdev1)^2 + (mdev2)^2 + (mdev3)^2) / 3) if you are getting mdev only.

4. **What format should I use to write this assessment ?**

Ans. Mention the relevant question number and answer the question – without pasting the question in your answer document. Place all of your plots (used to discuss in the questions) within the main part of your document whereas the results of your tests should be at the end of the document in the Appendix section.

Example (for illustrative purposes only) :

Section 2

Ans 2.1 Looking at Fig 1 and the result achieved in section 2 of the appendix....

<Place your Figure here>

Some more info about your analysis...

Ans 2.2 And it continues... answering more questions here with their relevant diagrams

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Section 3

Ans 3.1 Looking at Fig 4 and the result achieved in section 3 of the appendix...

<Place your Figure here>

Some more info about your analysis...

Ans 3.2 And it continues... answering more questions here with their relevant diagrams

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References:

<Use your chosen reference scheme: https://library.unimelb.edu.au/recite>

Appendix:

Section 2 Results:

<Place all the results of the commands you ran here>

Calculations of the specific section after getting the results.

Section 3 Results:

<Place all the results of the commands you ran here>

Calculations of the specific section after getting the results.

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The other format specifications are mentioned in the network analysis spec.

5. What can I use to identify the geographical distance ?

Ans. You can use any application/ software package/ website to do so. There are a few examples mentioned on the spec sheet. Do make sure to provide a reference for them else relevant penalties will apply.

6. I cannot access digitalis servers ?

Ans. You all should have access to the Digitalis servers by mid of Week 4 at best. Also, we have shared a guide to access and create your VM on NeCTAR so please feel free to install iperf2 and/ or iperf3 on it and use it for your tests. For guides to installing iperf on a virtual machine (running ubuntu 14.04), please look it up on google – its straightforward and requires one or 2 commands at best.

you can access the digitalis servers then try typing:

>> iperf --version

Press enter. If you see a response which does not say not found or invalid command that means you can run iperf2 on this server.

If you type:

>> iperf3 -- version

Press enter. If you see a response which does not say not found or invalid command that means you can run iperf3 on this server.

If both versions of iperf are available on this then you can use digitalis2 itself and do not need access to digitalis.

7. Can I use nutmeg or dimefox to run these experiments ?

Ans. No. Nutmeg and Dimefox do not have direct access to the internet so you cannot run the network analysis experiment on these. We have provided you two servers - digitalis and digitalis2, which can be used for this experiment.

Most of you might have access to digitalis2 currently so try logging into that until further updates are provided. If you aren't able to login to the digitalis servers then kindly **inform your tutor during the tutorials** instead of sending us an email or opening new threads on the LMS discussion board stating that these servers are inaccessible. The tutors will carry out the needful and an appropriate announcement will be made in Week 4 (near the end of the week).

8. If both iperf2 and iperf3 provide me an output then which one should I use ?

Ans. Use iperf2 where possible because it is more stable, well tested, and highly used. Iperf3 is still a work in progress towards becoming stable and has a different thread modelling system to run tests hence the results would be a bit different. You can set

some of iperf3's params to behave like iperf2 but overall for this part of the assessment, either results would be alright, even if you use the output of some servers as iperf2 and the rest as iperf3 as the main aim here is to derive networking based insights from the trends observed in the charts (can be line charts, bar graphs, etc – ones that allows you to explain what is happening in the network clearly).