

# CM50123 Networking

## Assignment 1 of 2

Set: Wednesday 25 October 2023  
Due: 8pm, Tuesday 14 November  
Marks: 10% of unit total  
Set by: Russell Bradford

The purpose of this coursework is (a) to learn how to use **traceroute** and **interpret its output** to discover the shape of some of the Internet; and (b) do this by **discovering and using the various tools available** that document the Internet.

1. Use **traceroute** to various UK Universities to discover, as far as possible, how each of the regional academic networks is connected to JANET.
2. Use **traceroute** to various Canadian Universities to discover, as far as possible, how each is connected to the Internet.

To help with this you should find and use tools that help you interpret the data that **traceroute** provides.

You should hand in, via Moodle, your answers for each part, together with any extra information you feel will clarify your answers.

You should hand in a PDF of your report: *not* DOC or DOCX or other variant.

### Notes

- Versions of **traceroute** are available online from various sources; you may use your own, if it works. Make sure all your traces start from the same point
- The phrase “as possible” means “as possible within the time constraints of this assignment”
- Not all routers respond very informatively to **traceroute** packets, especially when heavily loaded, so try to do this at relatively quiet times (note that “quiet” in Canada is not the same as “quiet” in the UK)
- Use your judgement on the number of **traceroutes** you run: if you blast out hundreds some hosts might interpret this as an attack.

### Assessment Criteria

- A good solution will be a correct depiction of the relevant topology, with complete supporting evidence and discussion of the quality of the tools you have used,
- A passing solution will substantially correct depiction of the relevant topology, with some supporting evidence,
- A poor to failing solution will show little evidence of interpreting the **traceroute** output successfully.

### Marking and Feedback

Feedback on this assignment will be given via Moodle, normally within three semester weeks.

This unit will be marked anonymously, so you may wish not to put your name on your submission.

This is individual coursework. Plagiarism is not acceptable: all work must be your own.  
<https://library.bath.ac.uk/referencing/plagiarism>

If you have a good reason for an extension to the deadline for this coursework, please apply to your Director of Studies. Forms to apply for an extension are on Moodle (on the Student Zone page, not the Unit page).