CS 136: I am having Connection Problems with Seashell

Tim Brecht
Links in this video will be made available

• Either in Piazza or on a web page
Outline

• Problems connecting to Seashell
  ◦ VPNs
• Problems staying connected
• How to look for problems with your Internet connection
Problem 1: Could not connect to the websocket!
Problem 1: Could not connect
Are You Using Multiple VPNs?

• Some people use an Alibaba VPN and then try to use the UW VPN
• We suspect that using multiple VPNs may cause problems
• Try using only the UW recommended VPN (CISCO AnyConnect)
• Instructions for using the UW VPN are here:

https://uwaterloo.ca/information-systems-technology/services/virtual-private-network-vpn
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Testing your connection

• Try connecting to Learn  
  ◦ If you CANNOT connect to learn you may have Internet problems  
  ◦ More on what to do later

• Try using this web page  
  https://student.cs.uwaterloo.ca/~seashell/connection_test.html

• If that works you should be able to connect to Seashell
Testing your connection

• Try connecting to Learn  https://learn.uwaterloo.ca
  ◦ If you CANNOT connect to learn you may have Internet problems
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Testing your Internet connection

Check your IP address


If you are using a VPN it should start with a 10 (e.g., 10.0.0.124 or 10.32.5.27)
You need access to high numbered TCP ports

• Seashell uses a high numbered port (e.g., 30281, 46123, etc.)
• Several things can block this, none of which we can control
• It may be that your firewall security is set too high
  ◦ In some cases the “Maximum” setting in some firewalls blocks high numbered ports (and you can’t connect to Seashell)
  ◦ In other cases you or your service provider may use a firewall that prevents the use of high numbered ports
How to get access to high numbered ports

Possible solutions might be:

◦ Use the UW VPN to bypass the restriction
◦ Talk to the provider of your Internet service and explain that you need to be able to use “high numbered TCP ports” (e.g., 30142, 46123 etc.).
**Problem 2: Lost Connection (while working)**

![Screenshot of an interface with the message: Something bad happened! Try reconnecting again, or logging in again. Any work you do while disconnected may not be saved.](image)

- **Assignments**
- **Tutorials**
- **Lectures**
- **Personal**
Problem 2: Lost Connection (while working)

Something bad happened! Try reconnecting again, or logging in again. Any work you do while disconnected may not be saved.
You Likely have a Poor Internet Connection

• Poor Service from Internet Service Provider (ISP)
• Poor WiFi connection
• Both

Problems are often (hopefully) temporary
Simple Test of Your Internet Connection

% ping -c 5 uwaterloo.ca // On Windows use -n (instead of -c)
CMD Window (command line interface) on Windows

Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.

Open: cmd

C: \WINDOWS\system32\cmd.exe

Microsoft Windows [Version 10.0.19042.746]
(c) 2020 Microsoft Corporation. All rights reserved.

C: \Users\wjwsz>ping -n 5 uwaterloo.ca

Pinging uwaterloo.ca [129.97.208.23] with 32 bytes of data:
Reply from 129.97.208.23: bytes=32 time=4ms TTL=249
Reply from 129.97.208.23: bytes=32 time=5ms TTL=249
Reply from 129.97.208.23: bytes=32 time=5ms TTL=249
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Ping statistics for 129.97.208.23:
Packets: Sent = 5, Received = 5, Lost = 0 (0% loss),
Approximate round trip times in milli-seconds:
Minimum = 4ms, Maximum = 7ms, Average = 5ms
Terminal (command line interface) on MAC OS

Last login: Tue Jan 19 22:33:24 on ttys003
brecht@tmac.home 201% ping -c 5 uwaterloo.ca
PING uwaterloo.ca (129.97.208.23): 56 data bytes
64 bytes from 129.97.208.23: icmp_seq=0 ttl=244 time=15.252 ms
64 bytes from 129.97.208.23: icmp_seq=1 ttl=244 time=21.092 ms
64 bytes from 129.97.208.23: icmp_seq=2 ttl=244 time=24.357 ms
64 bytes from 129.97.208.23: icmp_seq=3 ttl=244 time=18.386 ms
64 bytes from 129.97.208.23: icmp_seq=4 ttl=244 time=18.021 ms

--- uwaterloo.ca ping statistics ---
5 packets transmitted, 5 packets received, 0.0% packet lossound-trip min/avg/max/stddev = 15.252/19.422/24.357/3.084 ms
brecht@tmac.home 202%
Simple Test of Your Internet Connection

% ping -c 5 uwaterloo.ca  // On Windows use -n (instead of -c)

PING uwaterloo.ca (129.97.208.23): 56 data bytes
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64 bytes from 129.97.208.23: icmp_seq=1 ttl=244 time=30.735 ms
64 bytes from 129.97.208.23: icmp_seq=2 ttl=244 time=23.285 ms
64 bytes from 129.97.208.23: icmp_seq=3 ttl=244 time=38.872 ms
64 bytes from 129.97.208.23: icmp_seq=4 ttl=244 time=104.466 ms

--- uwaterloo.ca ping statistics ---
5 packets transmitted, 5 packets received, 0.0% packet loss
round-trip min/avg/max/stddev = 23.285/46.167/104.466/29.579 ms
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Ping times should be low, ? under about 500 milliseconds (ms)
Packet losses should be minimal (test with more pings: 10-100)
Maybe it is your WiFi: Tips for Using WiFi

• DON’T USE WIFI:
  ◦ Use an ethernet cable (USB ethernet “dongle” ~$15-30 CAD)
  ◦ Plug your computer/laptop into the access point / router

• If you must use WiFi:
  ◦ Location Matters (try to work close to your WiFi access point)
  ◦ Try to move your access point to a more central location
  ◦ Or try to sit closer to the access point
If the problem is not your Internet (or it persists)

Report the problem via Piazza (include the following information)

1. Are you using a VPN?
2. Which VPN are you using (e.g., Cisco AnyConnect or Alibaba)?
3. The IP address Seashell sees for your connection found via: [https://student.cs.uwaterloo.ca/~seashell/ip.php](https://student.cs.uwaterloo.ca/~seashell/ip.php) (will post this link)
4. Output from:
   - `ping -c 10 uwaterloo.ca` // Mac OS & Linux
   - `ping -n 10 uwaterloo.ca` // Windows
5. Optional: If you don’t mind, which city and country you are in
6. Can you connect to and use Learn?
If the problem is not your Internet (or it persists)

7. Can you connect to and use this web page

https://student.cs.uwaterloo.ca/~seashell/connection_test.html