



Opening Ceremony & Briefing

Organised by



iTrust
Centre for Research
in Cyber Security

Supported by



OPENING REMARKS

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&**

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TIMELINE

Date	Time (GMT+8)	Event
10 Sep	13:00 hrs	Opening Ceremony & Briefing
17 Sep – 19 Sep	48 hrs from 09:00 hrs	CTF
19 Sep – 27 Sep	Daily from 09:00 hrs	Script Ranking
30 Sep	13:00 hrs	Award Ceremony

PRIZES

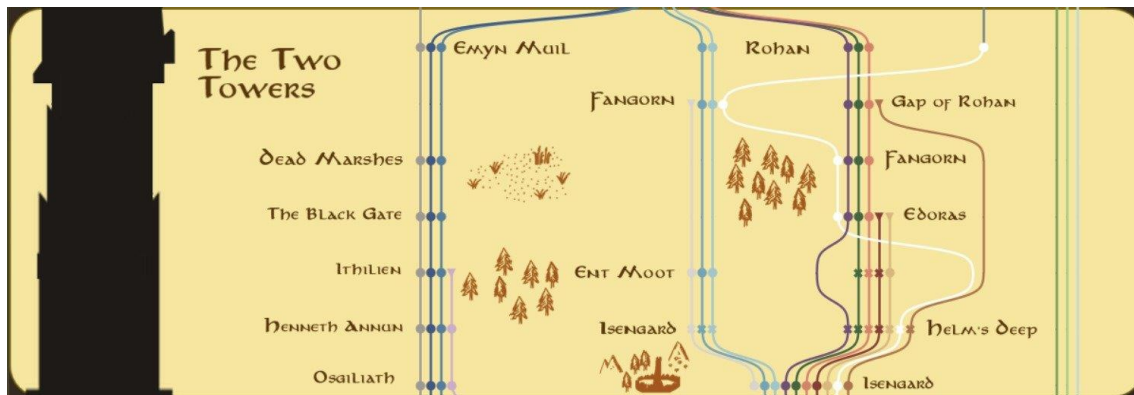
TOP 3 TEAMS

- 1st Place – S\$4000
 - 2nd Place – S\$2000
 - 3rd Place – S\$1000
- Medal Coin



SCENARIO

Saruman the Wise, once a trusted advisor, has fallen under the sway of **Sauron the Dark Lord**. From the Orthanc Tower, he plots to corrupt Middle-earth's industrial heartland, Isengard. You, a member of the **Free Peoples' OT security team**, have been tasked with infiltrating **Isengard Industrial Complex (IIC)** and thwarting Saruman's schemes.



FORMAT

- Tuesday, 17 Sep 09:00 hrs to Thursday, 19 Sep 08:59 hrs (GMT+8)
- 8 persons of concurrent playtime per team
- The Orthanc Obstacles themed Jeopardy CTF format
- CTF Platform (ctf.d) (<https://ciss2024.ctfd.io/>)
- Discord for communications (<https://discord.gg/9f89bEjmse>)
- Team are ranked by number of points (ties broken by time)



GROUND RULES

- 1. Fair Play:** No cheating! This includes sharing flags, brute-forcing, or seeking outside help beyond general research. Let's keep it fair and challenging for everyone.
- 2. Suspicious Activity:** Suspicious activities will be investigated. We may request a video conference to review your progress.
- 3. Report Bugs:** If you encounter any issues on the CTFd platform, please contact us through the ticketing system.
- 4. Flag Format:** The flag format will be provided with each question. Example:
`ciss24{read_carefully_here}`
- 5. Disqualification:** Cheating will result in disqualification.

IMPORTANT PLATFORMS



CTF.D PLATFORM

- Register on the CTF.D <https://ciss2024.ctfd.io/>
 - a. Use Registration Code: Forth, Eorlingas!
 - b. Create/Join a team
- Complete this by Mon, 16 September so that you will be ready for the CTF
- At Tue, 17 September 09:00 (GMT+8), the challenges will be unlocked for you.

Register

User Name

Your username on the site

Email

Never shown to the public

Password

Password used to log into your account

Registration Code

Registration code required to create account

Submit

Welcome to CISS 2024!

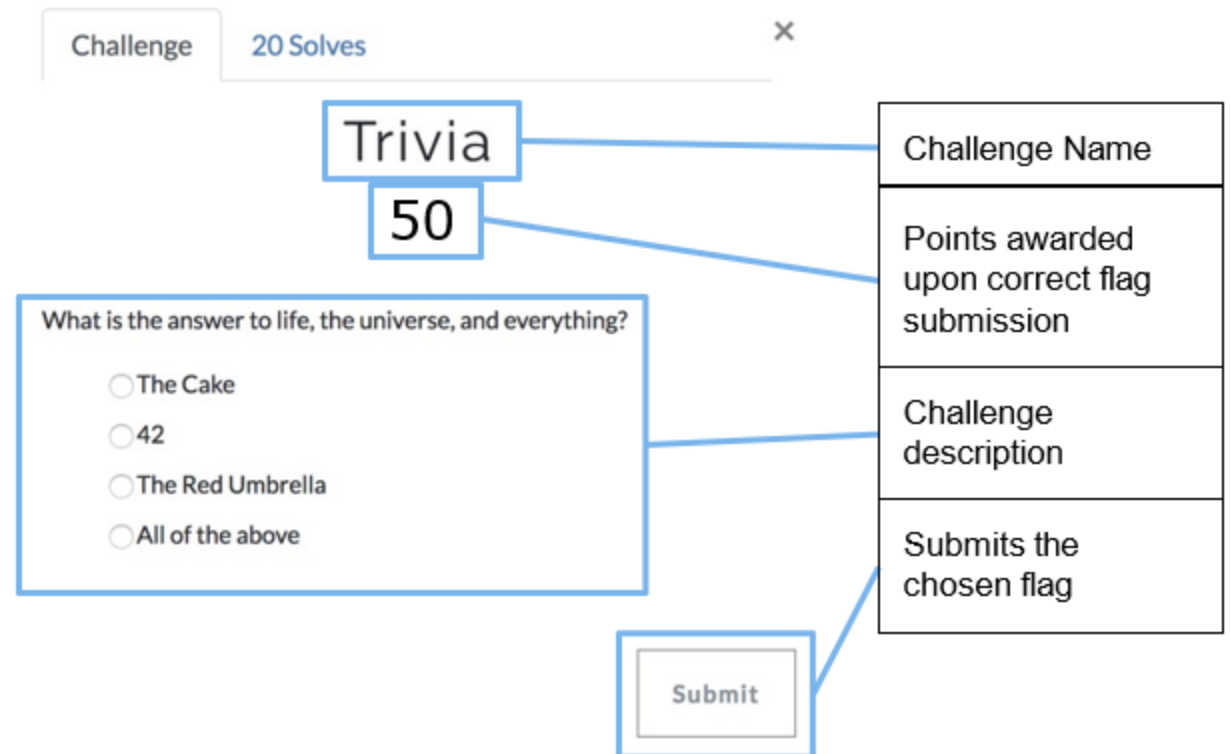
In order to participate you must either join or create a team.

Join Team

Create Team

CHALLENGE TYPES

- Classic multiple-choice questions.
- Max 2 attempts.
- 20 points each.



CHALLENGE TYPES

- Standard Questions.

The screenshot shows a challenge interface with the following elements:

- Challenge Title:** Too Many Puppies
- Points:** 100
- Description:** Here is a zip file full of just the finest little pippers. Can you find the hidden flag in the pile of pupper pictures?
- Hint:** The answer is `flag(0h_y0u've_found_me)`
- Connection Info:** Connection: `puppers-server`
- Unlock Hint:** A button labeled "Unlock Hint for 20 points".
- File Download:** A button labeled "puppy.zip" with a download icon.
- Flag Input:** A text input field labeled "Flag".
- Submit:** A button labeled "Submit".

Annotations on the right side of the interface:

- Contains connection info:** Points to the "Connection: puppers-server" text.
- Hints to unlock. Number is the cost of unlocking points:** Points to the "Unlock Hint for 20 points" button.
- File to download:** Points to the "puppy.zip" button.
- Input field to enter the flag you've found. Usually case sensitive:** Points to the "Flag" input field.

SCRIPT SUBMISSION

- There are 2 scripting questions. Teams are required to craft and submit to a specific objective within the OT environment.
- The specifics of the objectives will be accessible via ciss24.CTFd.io
- Teams may choose their preferred scripting language that needs to be compiled before submission.
- The OS environment in which the script will be executed will be provided.
- Submit the script with documentation as a zip file.
- Teams will then be ranked based on the **total number of packets generated (P)** by the script and **each unique IDS/IPS signature triggered (S)** by their script, as shown in the equation below. A dynamic score will be awarded based on the rank.

$$R_i = \left(\frac{S_i}{\sum_{i=1}^n S_n} \cdot 0.7 + \frac{P_i}{\sum_{i=1}^n P_n} \cdot 0.3 \right)$$

DISCORD FOR COMMUNICATION

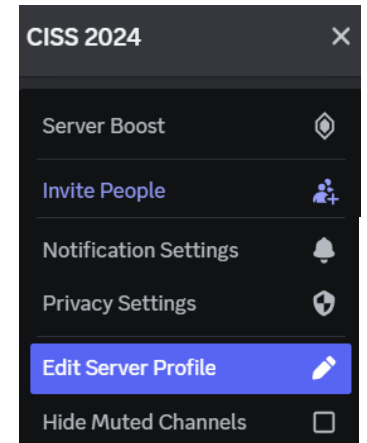
- Join the Discord for communications
- Add your team's name as a suffix to your server nickname (e.g. Andy_iTrust)
- Each team will be given a channel to communicate with the admins.
- You may use this channel for communication among members
- Please join by the end of the day
- If you face any issue in joining the Discord, please email itrust@sutd.edu.sg



<https://discord.gg/9f89bEjmse>

SERVER NICKNAME

Andy_iTrust



TICKETING SYSTEM

CISS 2024 ▼ # ticketing-system 📄 🔔 📌 👤

📅 2 Events
👤 Members

welcome

HOME +

rules-of-the-othanc 📄

memes 😄

support 🆘

announcements

ADMINISTRATION +

CTF TOOLS +

general

write-ups


ticketing-system 👤 ⚙️

#


Welcome to #ticketing-system!

This is the start of the #ticketing-system private channel.


[Add members or roles](#) [Edit Channel](#)


 Admins MEE6 Ticket Tool Challenger MenInWhite 24/7 Support


August 20, 2024

 **Ticket Tool** ✓ APP 08/20/2024 1:58 PM

Support Ticket

To create a ticket react with 

 TicketTool.xyz - Ticketing without clutter

 **Create ticket**

TICKETING SYSTEM

CISS 2024

ticket-0005

2 Events

Members

welcome

HOME

rules-of-the-othanc

memes

support

announcements

ADMINISTRATION

CTF TOOLS

general

write-ups

ticketing-system

RED TEAMS I

RED TEAMS II

CREATED TICKETS

ticket-0005

#

Welcome to #ticket-0005!

This is the start of the #ticket-0005 private channel.

[Add members or roles](#) [Edit Channel](#)

Admins MEE6

September 6, 2024

Ticket Tool APP Today at 4:30 PM

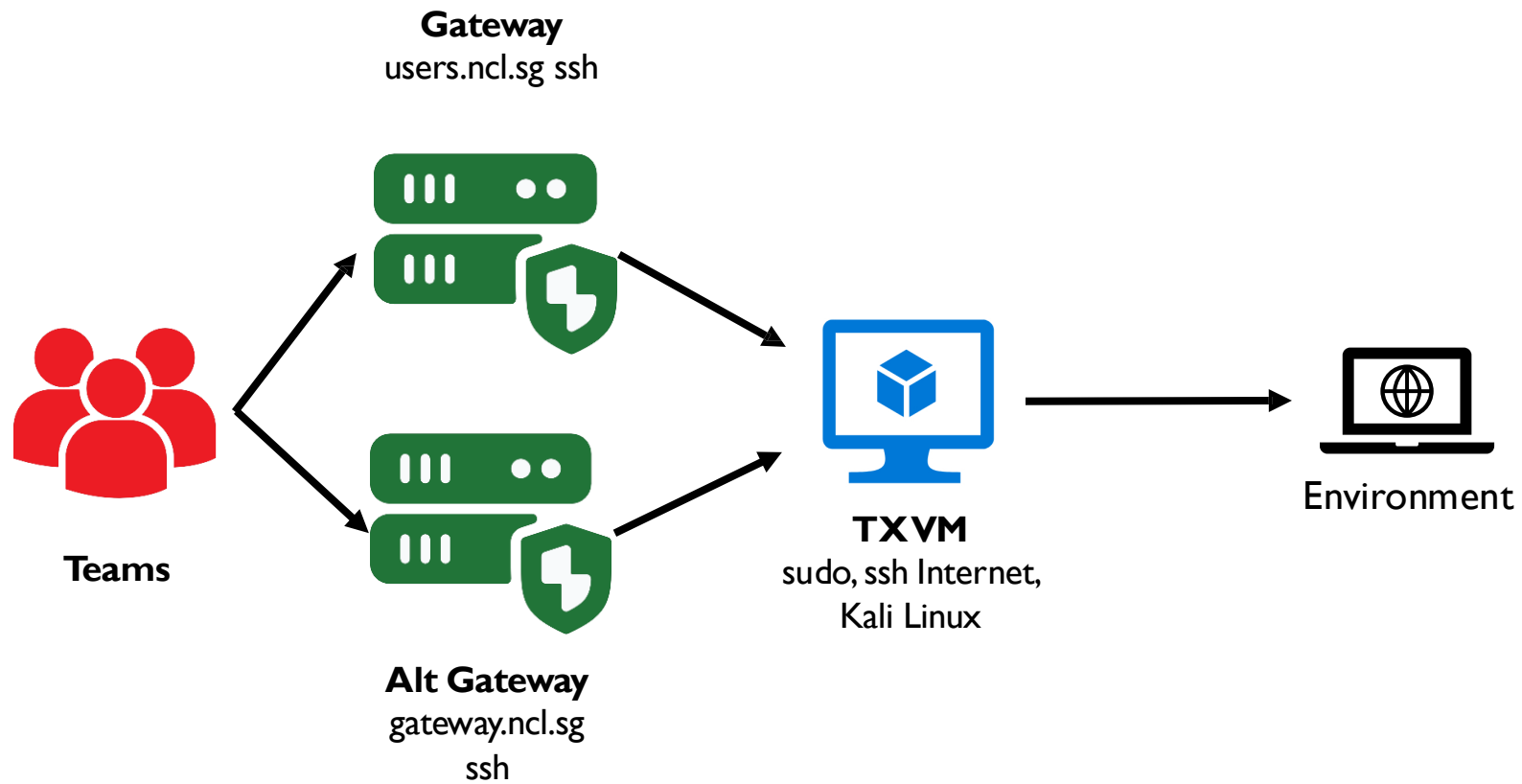
@Andy_iTrust Welcome

Support will be with you shortly.
To close this ticket react with 🗑️

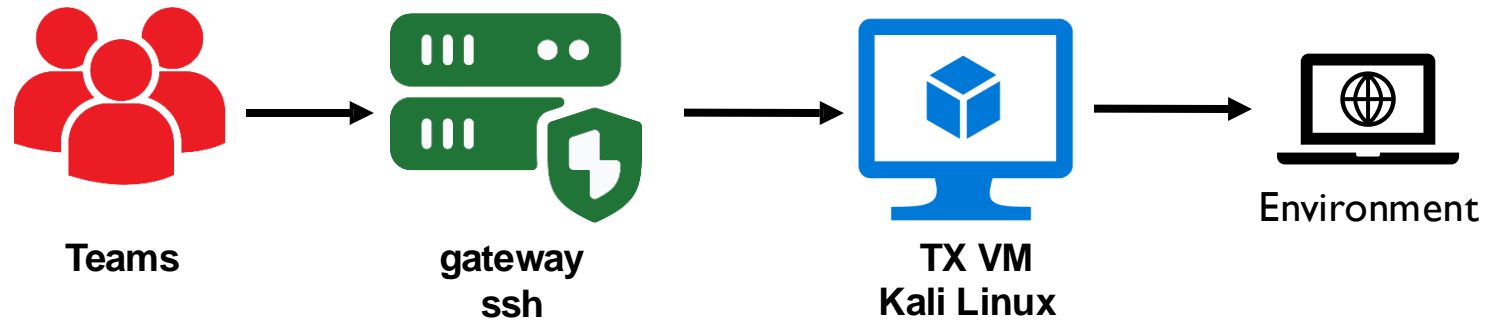
TicketTool.xyz - Ticketing without clutter

Close

CONNECTION DETAILS



CONNECTION DETAILS



CLI `ssh -p port -j user@gateway user@txvm`
`ssh -L localhost:5000:externalhost:5000 -p port -j user@gateway user@txvm`



Windows: Recommended to use MobaXterm.
Mac/Linux: Recommended to use RoyalTSX.

*You are free to use any other ssh clients or native terminals.

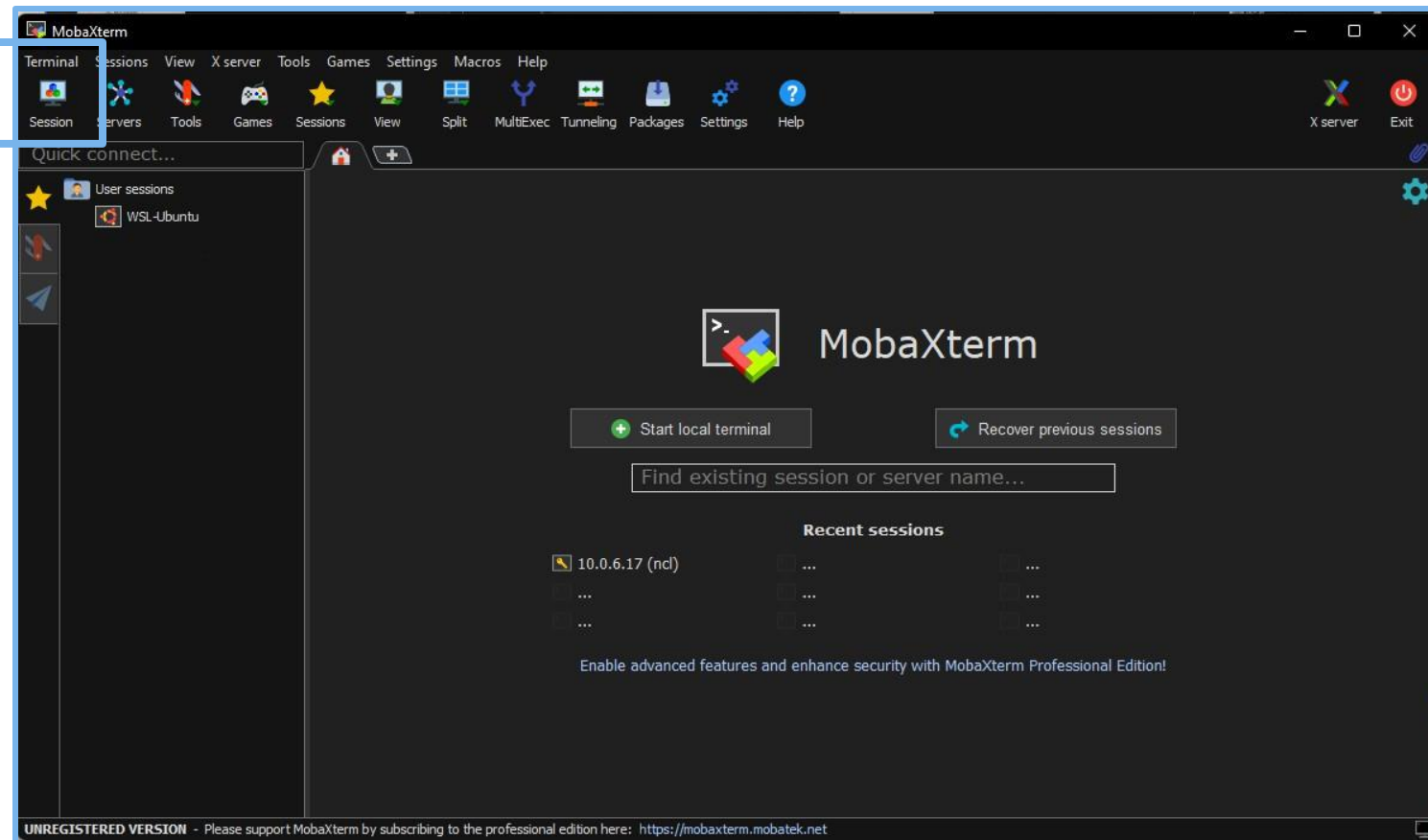


Set jumphost settings in Network settings of Session settings. Credentials will be sent in the Discord channel.

CONNECTION DETAILS



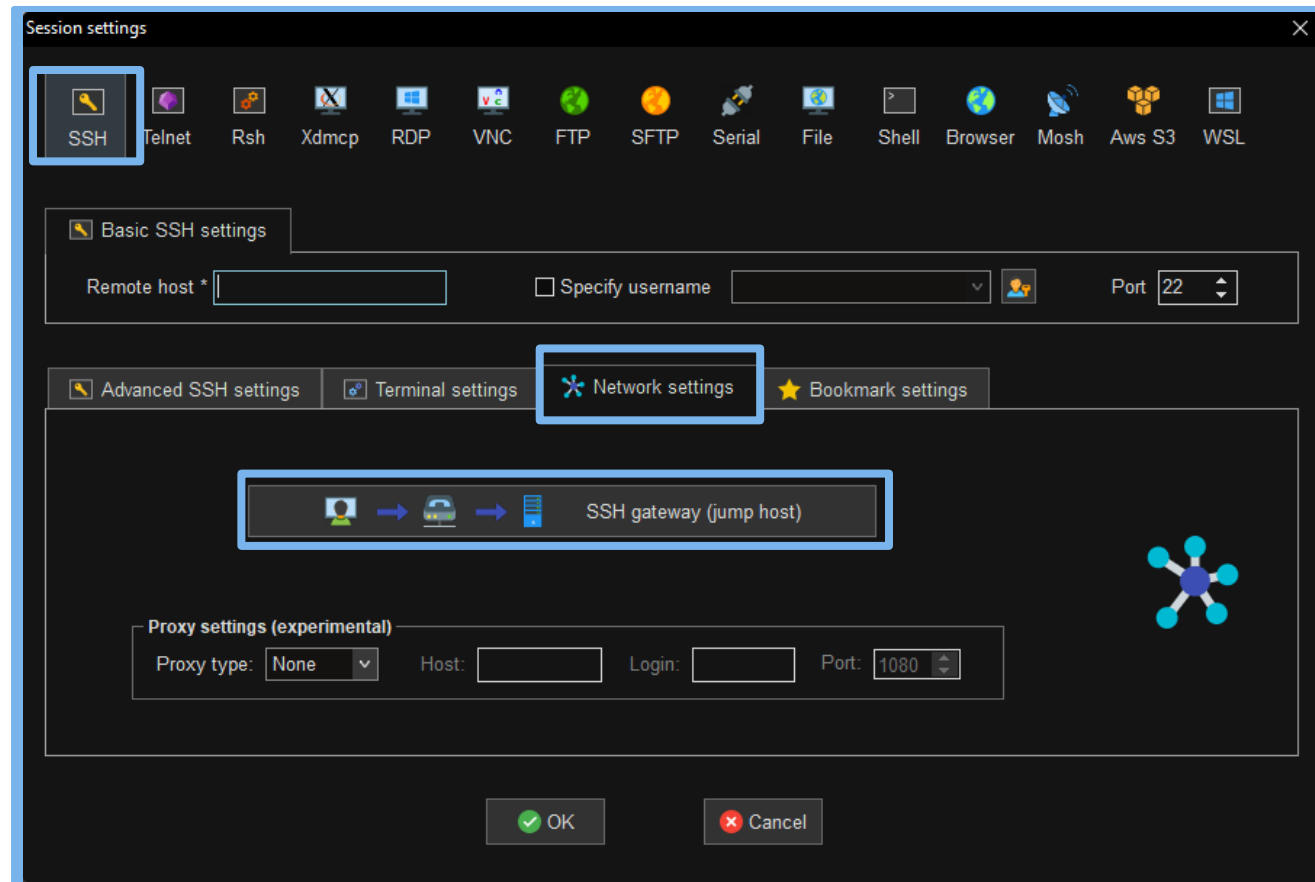
Recommended to use MobaXterm. Set jumphost settings in Network settings of Session settings. Credentials will be sent to your channel.



CONNECTION DETAILS



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CONNECTION DETAILS



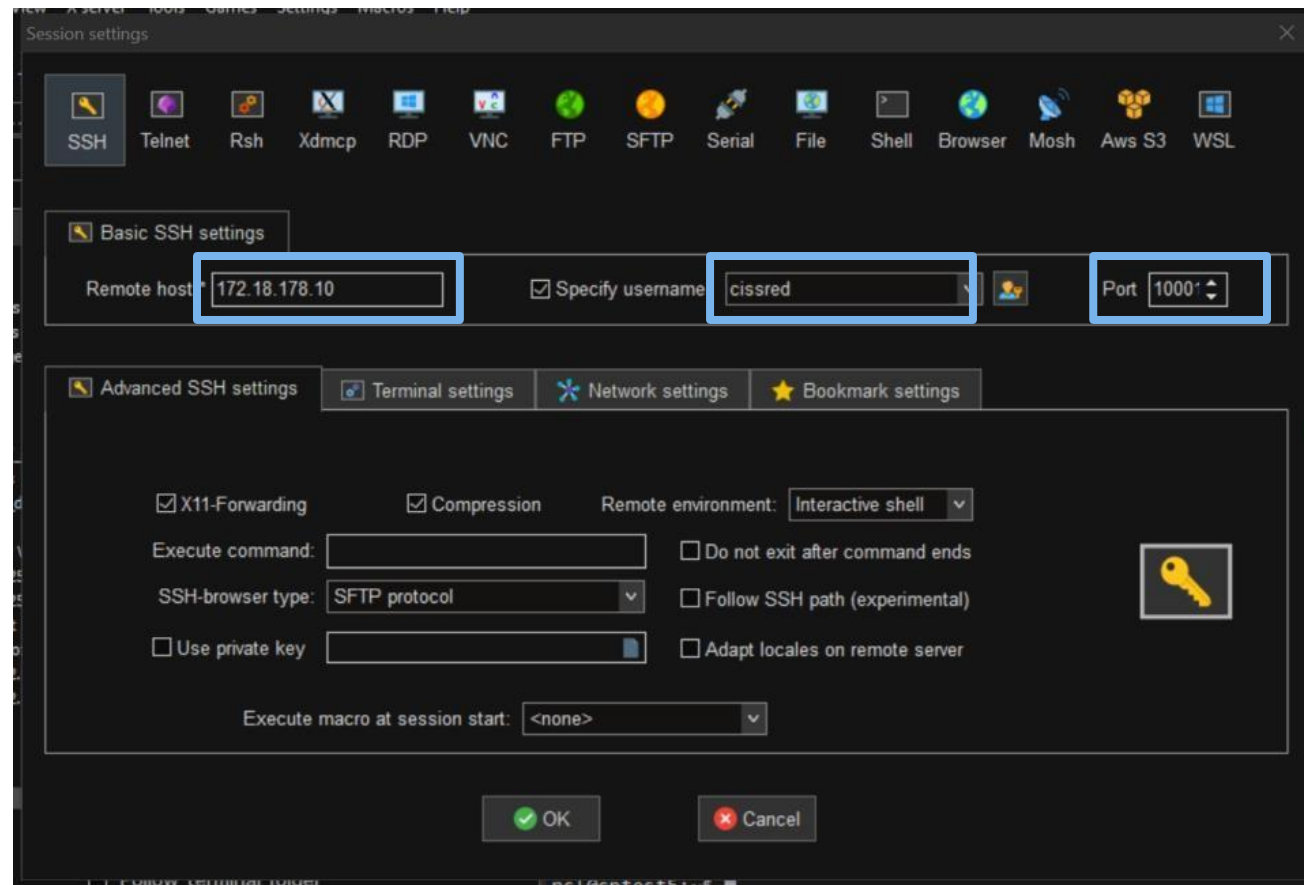
Recommended to use MobaXterm. Set jumphost settings in Network settings of Session settings. Credentials will be sent to your channel.

A screenshot of the "MobaXterm jump hosts configuration" dialog box. The dialog has a dark background and a light blue border. At the top, it says "Define one or several SSH jump hosts" and "(Jump through one or several SSH servers in order to reach your end-server)". Below this, there are four input fields: "Gateway host" with the value "gateway.ncl.sg", "Username" with the value "user1", "Port" with the value "22", and "Use SSH key" which is a checkbox that is currently unchecked. There is a red minus button to the right of the "Use SSH key" field. Below the input fields, there is a button with a green plus icon and the text "Add another jump host". At the bottom, there is a button with a green checkmark and the text "OK". At the very bottom, there are faint "OK" and "Cancel" buttons.

CONNECTION DETAILS



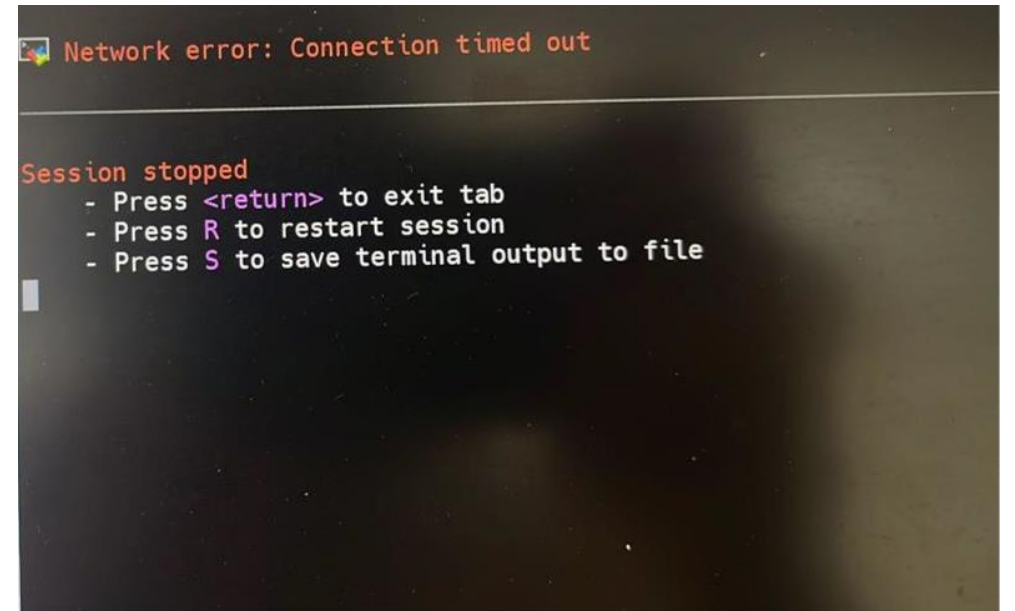
Recommended to use MobaXterm. Set jumphost settings in Network settings of Session settings. Credentials will be sent to your channel.



CONNECTION ISSUES

Connection issues may look like this:

Create a Discord ticket immediately



```
Network error: Connection timed out

Session stopped
- Press <return> to exit tab
- Press R to restart session
- Press S to save terminal output to file
```

SUMMARY

1. Join the Discord. <https://discord.gg/9f89bEJmse>
 - a. Add your team's name to your server nickname. (e.g. Andy_iTrust)
2. Register on CTF.D using Registration Code: Forth, Eorlingas!
(<https://ciss2024.ctfd.io/>)
 - a. Create/Join a team with a password
3. Tue, 17 08:50 hrs (GMT+8), all teams will be given access to test connection
4. Tue, 17 09:00 hrs (GMT+8), challenges on CTF.D will open

FAQ

Q:What do I need to prepare? Recommended operating system or tools?

A working laptop or desktop with any peripherals you require and Internet connection.All the challenges are OS agnostic but may be easier in a particular OS. Consider installing your favourite text editor, programming languages, IDE(s), reverse engineering tools and network analysis tools installed.

Q:Are any VMs provided with prepared tools?

We only provide a VM (“TXVM”) with Python3 installed to access the services required for the challenges.Teams may install the necessary tools/packages on the VM.

Q: Do you allow all team members use the same account/password to log in the jumphosts and TVMs?

Yes, all 4 team members are allowed to use the same account to log in the host and TVMs at the same time, but one member’s action may make influence of other members work under this situation.

FAQ

Q: Do you allow all team members change account/password to log in the host and TVMs?

Team's login account is not allowed to be changed. A random login password will be sent to each team at the beginning time, and you are allowed to change the password. But if you forget your password after changed it, we will not help you reset the password. A new TVMs will be created for you in the next hour. (If you changed your password and lost it, your work in the previous TVM will not be transferred to the new TVM)

Q: If I break the TVM or make it not ssh accessible, will my previous work be transferred the new TVM?

No. If you shutdown the TVM, we will help you power up. But if you break the OS or disable the network manager which make the system not accessible, we will shutdown the old TVM and create a "empty" new one.

FAQ

Q: Do all members need to register?

A: Yes, all members should be registered in Discord and CTF.D

Q: Can members of a team be changed after the registration cut off?

A: No, once registration is closed, team composition should not change

Q: Is there a winner for each challenge/category?

A: No, winners are decided based on the overall score, subject to follow-on verification.

Q: Can some members of a team leave the competition after a while?

A: Yes, but full attendance is encouraged.

Q&A



A scenic landscape featuring a wide river flowing through a valley, surrounded by mountains and a large teepee on the right side. The sky is overcast with soft light. At the top of the image, there are three horizontal bars: a dark blue bar on the left, a medium blue bar in the middle, and a grey bar on the right.

KEEP CALM AND CYBER EXERCISE

CISS 2024 Committee