



Stage I Briefing

Organised by



iTrust
Centre for Research
in Cyber Security

Supported by



National
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Laboratory

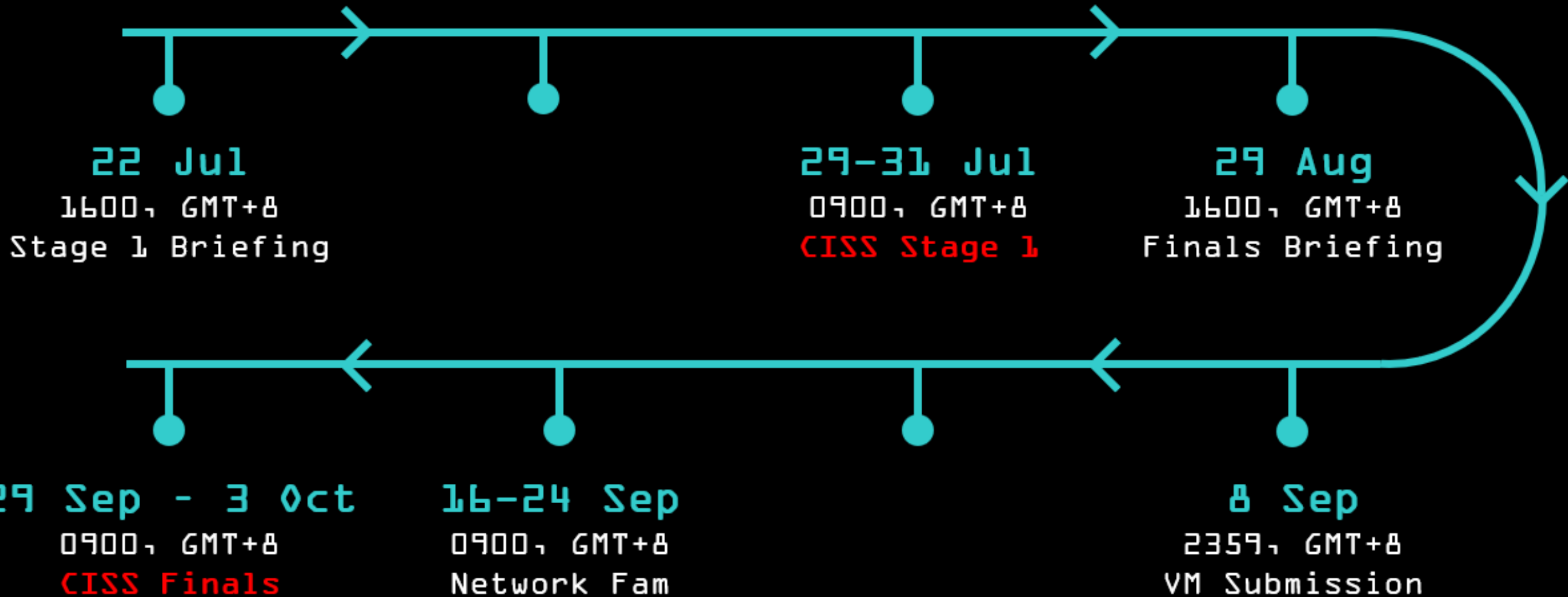


Opening Remarks

ME6 Joel Fong

Digital & Intelligence Service, SAF

TIMELINE:



PRIZES

Top 3 Red Teams

- 1st Place – S\$5,000
 - 2nd Place – S\$3,000
 - 3rd Place – S\$2,000
- Medal Coin



SCENARIO - THE SIEGE OF MINAS TIRITH: A CALL TO THE RED GUARD

As the forces of Mordor mass at the Pelennor Fields, the White City of Minas Tirith stands as the last bastion against the darkness. You are members of the Red Guard - elite defenders tasked with protecting the city's most critical infrastructure from sabotage and infiltration.

Your Mission

As the Red Guard, you must secure these critical systems against enemy infiltration and sabotage. The fate of Gondor - and all of Middle-earth - rests not only on the strength of sword and shield upon the walls, but on your vigilance in the depths below.

"The board is set, the pieces are moving. We come to it at last - the great battle of our time."

Stand fast, defenders of the White City.

Let no shadow pass your watch.



SCENARIO - THE SIEGE OF MINAS TIRITH: A CALL TO THE RED GUARD

1. **The Aqueduct of Mindolluin** (Water Treatment System)
2. **The Fire-Channels of Anórien** (Gas Pipeline System)
3. **The Luminous Spire** (Power Grid)
4. **The Fleet of Pelargir** (Maritime Shipboard System)
5. **Palantir Network** (5G System)



THE AQUEDUCT OF MINDOLLUIN

The Aqueduct of Mindolluin - Ancient channels carved into the mountain itself bring fresh water from the sacred springs to every level of the city. Should these be poisoned or blocked, the defenders will fall not to sword and flame, but to thirst and disease within days.

This can be compared to a modern-day water treatment plant.



THE FIRE-CHANNELS OF ANÓRIEN

The Fire-Channels of Anórien - A network of ancient conduits that carry the sacred flames from the Citadel's forge-fires throughout the city. These channels fuel the beacon fires, power the great engines of war, and provide heat to the barracks and armories. Their corruption would leave the city cold, dark, and defenseless. This can be compared to a modern-day gas pipeline system.



THE LUMINOUS SPIRE

The Luminous Spire - The mystical heart of Minas Tirith's power, channeling energy through crystalline conduits that illuminate the seven levels and power the city's automated defenses. Should this system fail, the White City would be plunged into darkness, its magical wards failing just as the Enemy's assault begins. This can be compared to a modern day power system.

THE FLEET OF PELARGIR

The Fleet of Pelargir - The great river barges and supply vessels that navigate the Anduin, carrying vital provisions, oil for siege engines, and reinforcements from the southern fiefs. These floating lifelines are Minas Tirith's umbilical cord to the outside world. The largest of these vessels, the *Pride of Lebennin*, carries precious lamp oil and Greek fire components essential for the city's defense. Enemy corsairs and fell creatures of the water seek to sink or corrupt these supply lines, cutting off the city's last hope of resupply before the final assault.

PALANTIR NETWORK

The Palantír Network of Minas Tirith represents a revolutionary fusion of ancient seeing-stone magic and modern telecommunications infrastructure, serving as the city's critical 5G communication backbone during the siege crisis. This mystical network consists of primary beacons strategically positioned throughout Minas Tirith's levels, interconnected through ethereal pathways that enable ultra-low latency communication, massive device connectivity, and network slicing capabilities essential for coordinating the city's smart infrastructure.

FORMAT

- Tuesday, 29 Jul 0900 to Thursday, 31 Jul 08:59 hrs (GMT+8)
- 8 persons of concurrent playtime per team
- The 'Return To Control' themed Jeopardy CTF format (LOTR)
- CTF Platform (ctf.d) (<https://ciss2025.ctfd.io/>)
- Discord for communications
- 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:
`ciss25{read_carefully_here}`
- 5. Disqualification:** Cheating will result in disqualification.

IMPORTANT PLATFORMS



CTF.D PLATFORM

- Register on the CTF.D <https://ciss2025.ctfd.io/>
 - a. Use Registration Code:
[TO BE SHARED ON DISCORD TOMORROW]
 - b. Create/Join a team
- Complete this by Fri, 25 July so that you will be ready for the CTF
- On Tue, 29 Jul, 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

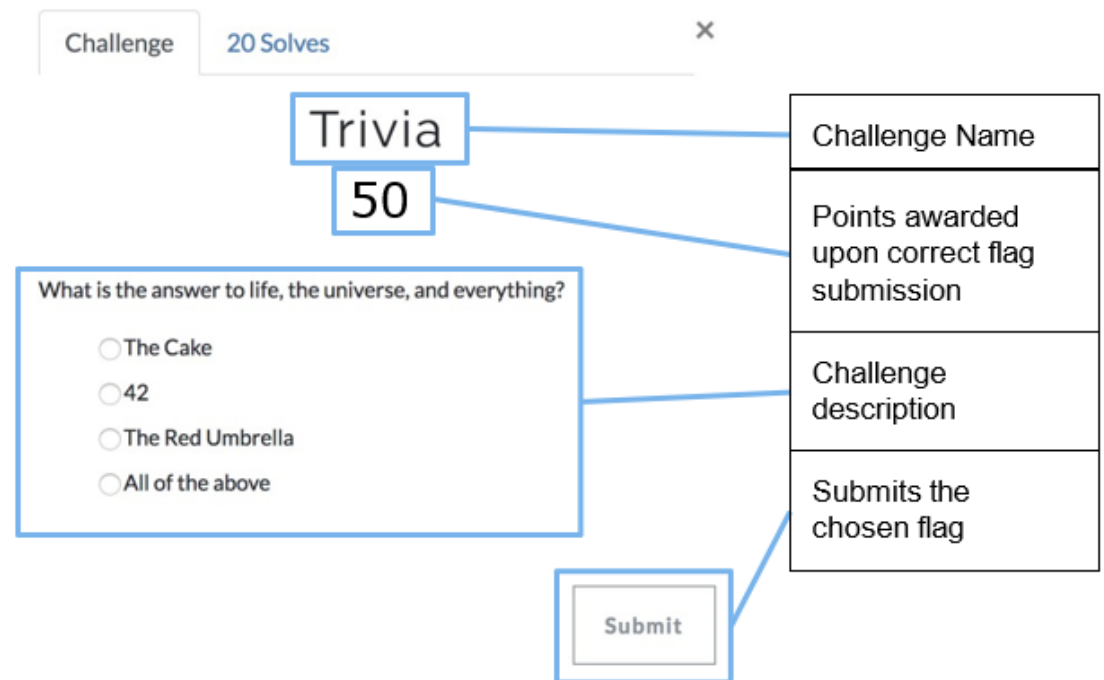
Registration Code

Registration code required to create account

Submit

CHALLENGE TYPES

- Classic multiple-choice questions.
- Max 1 attempt
- 100 points each
- Testing OT-specific knowledge



CHALLENGE TYPES

- Standard Questions.
- Different points (100-300)
- Max 10 attempts
- Overall failed Attempts will be subtracted from the score to get the final score
- Hands-on activity with associated assets

Challenge ×

Too Many Puppies

100

Here is a zip file full of just the finest little pippers. Can you find the hidden flag in the pile of pupper pictures?

The answer is `flag(0h_y0u've_found_me)`

Connection: `puppers-server`

Unlock Hint for 20 points

puppy.zip

Flag

Contains connection info
Hints to unlock. Number is the cost of unlocking points
File to download
Input field to enter the flag you've found. Usually case sensitive


DISCORD FOR COMMUNICATION

- Join the Discord for communications
- Add your team's name as a suffix to your server nickname i.e. Team Name_Server Nickname)
- 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 issues in joining the Discord, please email itrust@sutd.edu.sg

SERVER NICKNAME

Andy_iTrust

Notification Settings 

Privacy Settings 

Edit Server Profile 

Hide Muted Channels

TICKETING SYSTEM

The screenshot displays a Discord server interface for 'CISS 2025'. The main channel is '#ticketing-system', which is a private channel. The channel header includes a search bar and a server banner with the text 'Arise now, arise, Riders of Théoden! Dire deeds awake: dark is it eastward. Let horse be bridled, h...'. The channel description reads: 'Welcome to #ticketing-system! This is the start of the #ticketing-system private channel. Arise now, arise, Riders of Théoden! Dire deeds awake: dark is it eastward. Let horse be bridled, horn be sounded! Forth Eorlingas! Arise, arise, Riders of Théoden! Fell deeds awake: fire and slaughter! Spear shall be shaken, shield be splintered, a sword-day, a red day, ere the sun rises! Ride now, ride now! Ride to Gondor! - King Théoden to the Riders of Rohan'. Below the description are buttons for 'Add members or roles' and 'Edit Channel'. A list of roles is shown: MEE6, Challenger, Admins, 24/7 Support, and MenInWhite. The date '1 July 2025' is displayed. A message from MEE6 (verified application) dated '01/07/2025, 16:12' says: 'How can we help? Welcome to our tickets channel. If you have any questions or inquiries, please click on the 'Open ticket' button below to contact the staff! (edited)'. An 'Open ticket' button is located at the bottom of the message.

CISS 2025

ticketing-system

Arise now, arise, Riders of Théoden! Dire deeds awake: dark is it eastward. Let horse be bridled, h...

Search

Events

Members

Server Boosts

welcome

Home

announcements

rules

memes

support

CTF Tools

general

ticketing-system

tickets-transcript

Administration

admins

support-team

Created Tickets

11-axolul

Claimed Tickets

Arise now, arise, Riders of Théoden!

Arise, arise, Riders of Théoden!

How can we help?

Welcome to our tickets channel. If you have any questions or inquiries, please click on the 'Open ticket' button below to contact the staff! (edited)

Open ticket

TICKETING SYSTEM

The screenshot shows a Discord interface with a sidebar on the left containing various channels and sections like '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', and 'CREATED TICKETS'. The main channel view is for '#ticket-0005', which is a private channel. It features a welcome message: 'Welcome to #ticket-0005! This is the start of the #ticket-0005 private channel.' Below the message are options to 'Add members or roles' and 'Edit Channel'. A date separator for 'September 6, 2024' is visible. A notification from 'Ticket Tool' is shown, stating 'Support will be with you shortly. To close this ticket react with 🗑️'. The notification includes a 'Close' button.

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 **NEW**

Ticket Tool ✓ APP Today at 4:30 PM

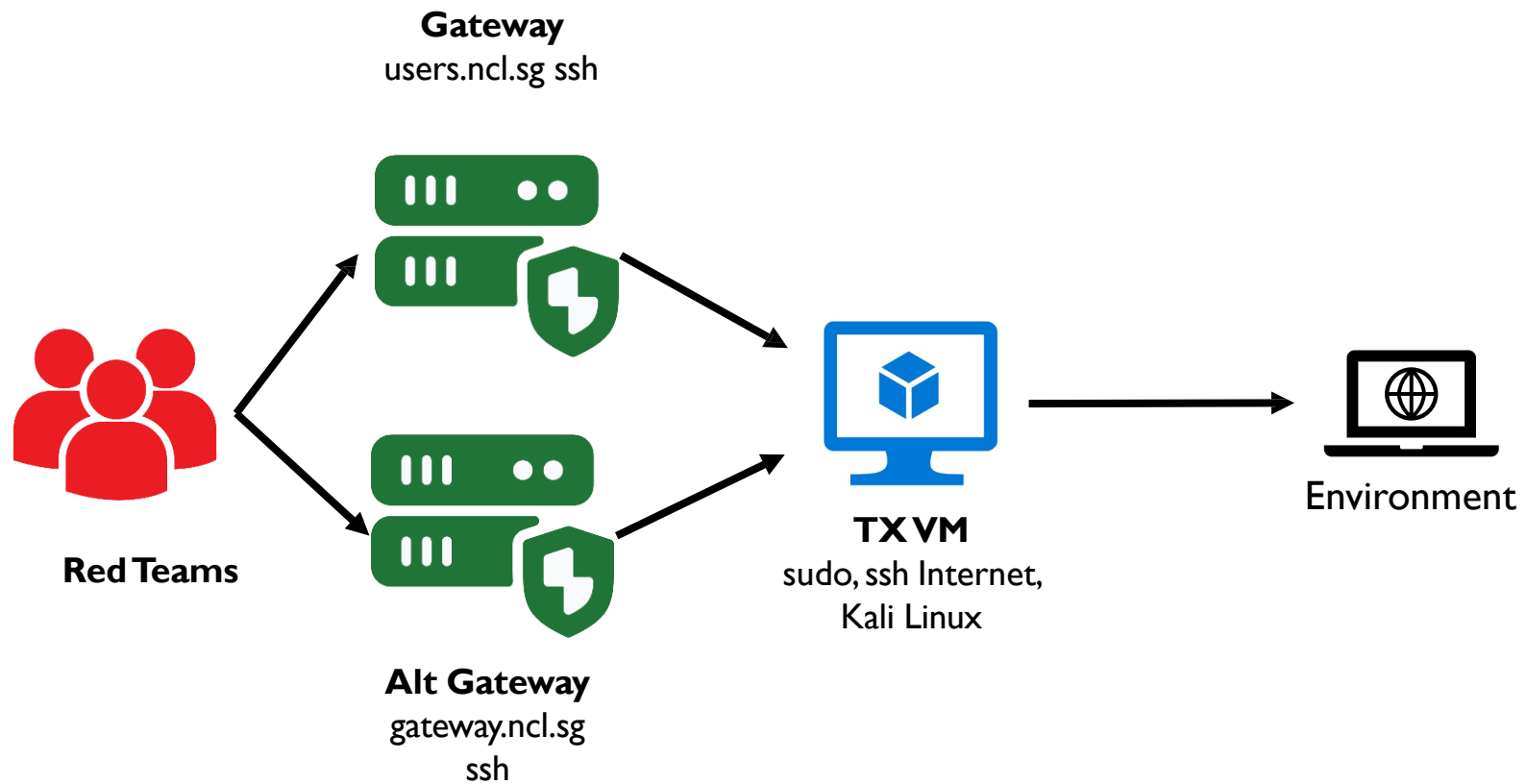
@Andy_iTrust Welcome

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

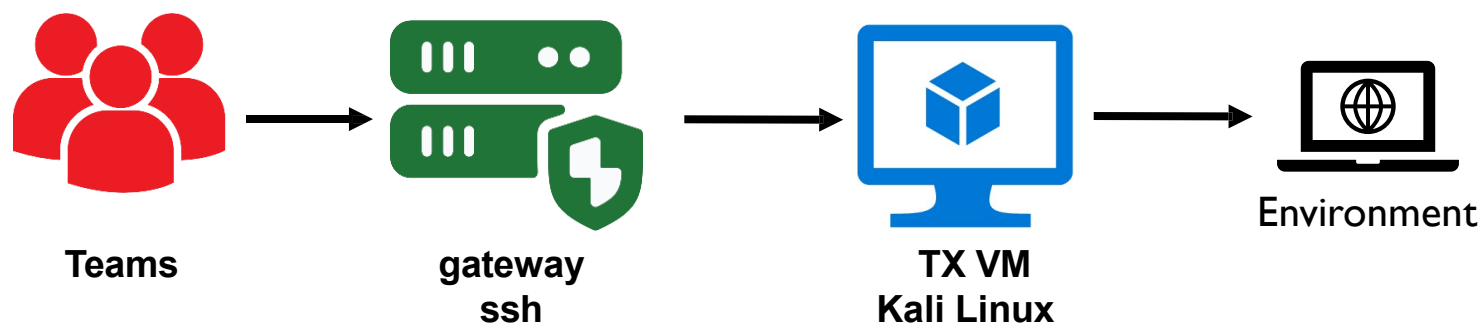
TicketTool.xyz - Ticketing without clutter

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.

EXAMPLE

29 July 0850HR: Credentials Shared

29 July 0900HR: Challenges Opened

Team 01 Connection Info # gateway

Username: *[username]*

password: *[password]*

#TX vm:

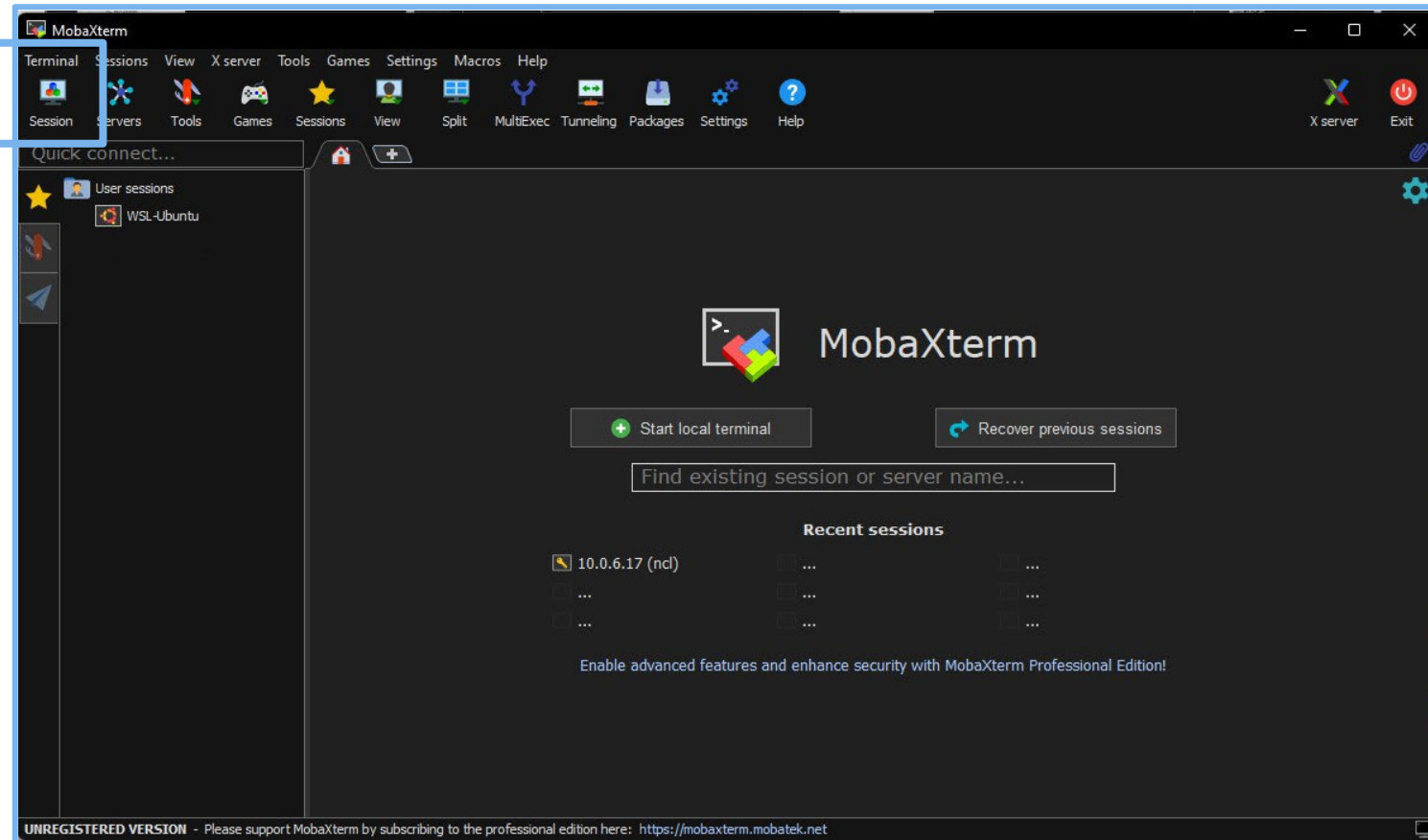
ssh -p 11011 -J *[username]*@gateway.ncl.sg cissred@172.18.178.10

password: *[password]*

CONNECTION DETAILS



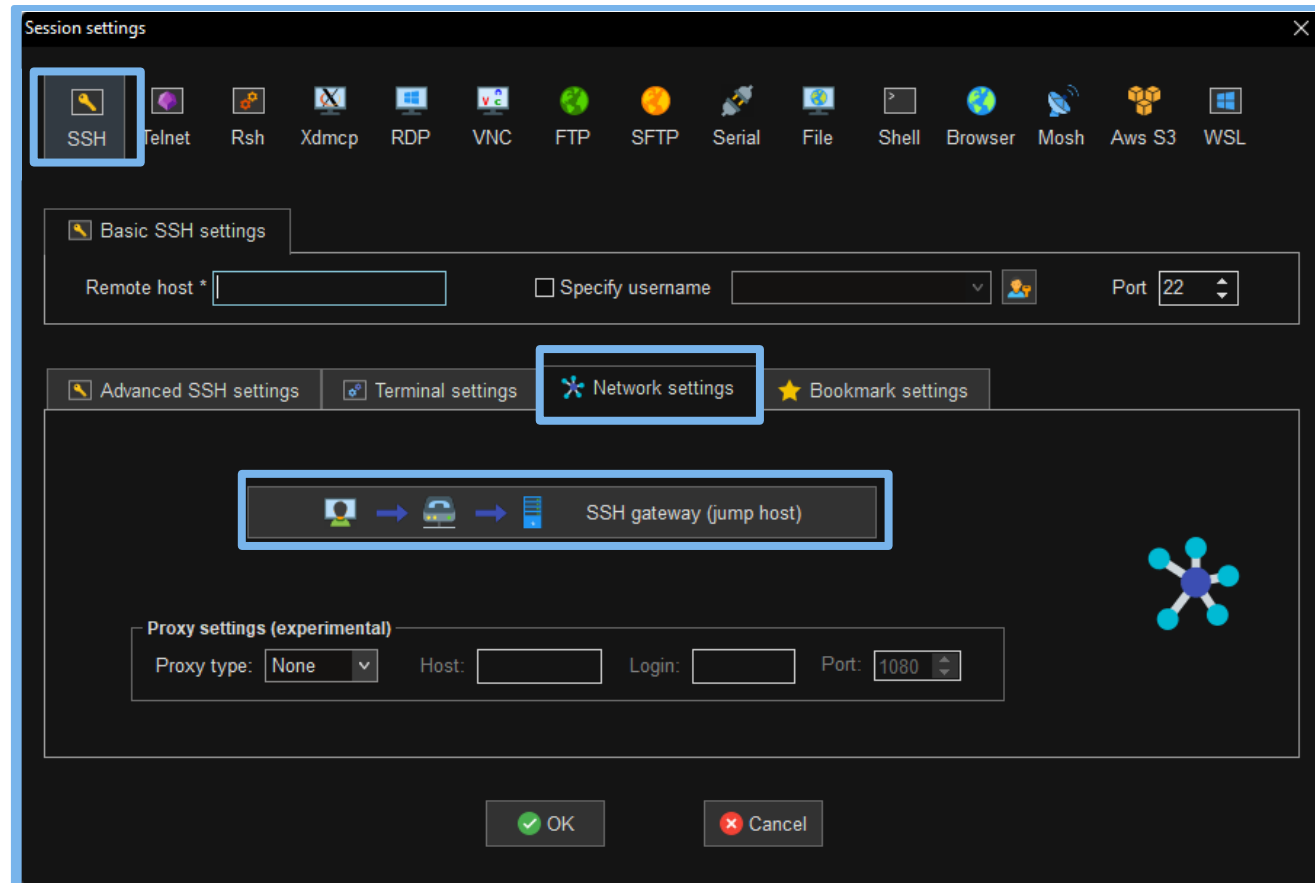
Recommended to use MobaXterm. Set jumphost settings in Network settings of Session settings. Credentials will be sent to your channel.



CONNECTION DETAILS



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



CONNECTION DETAILS



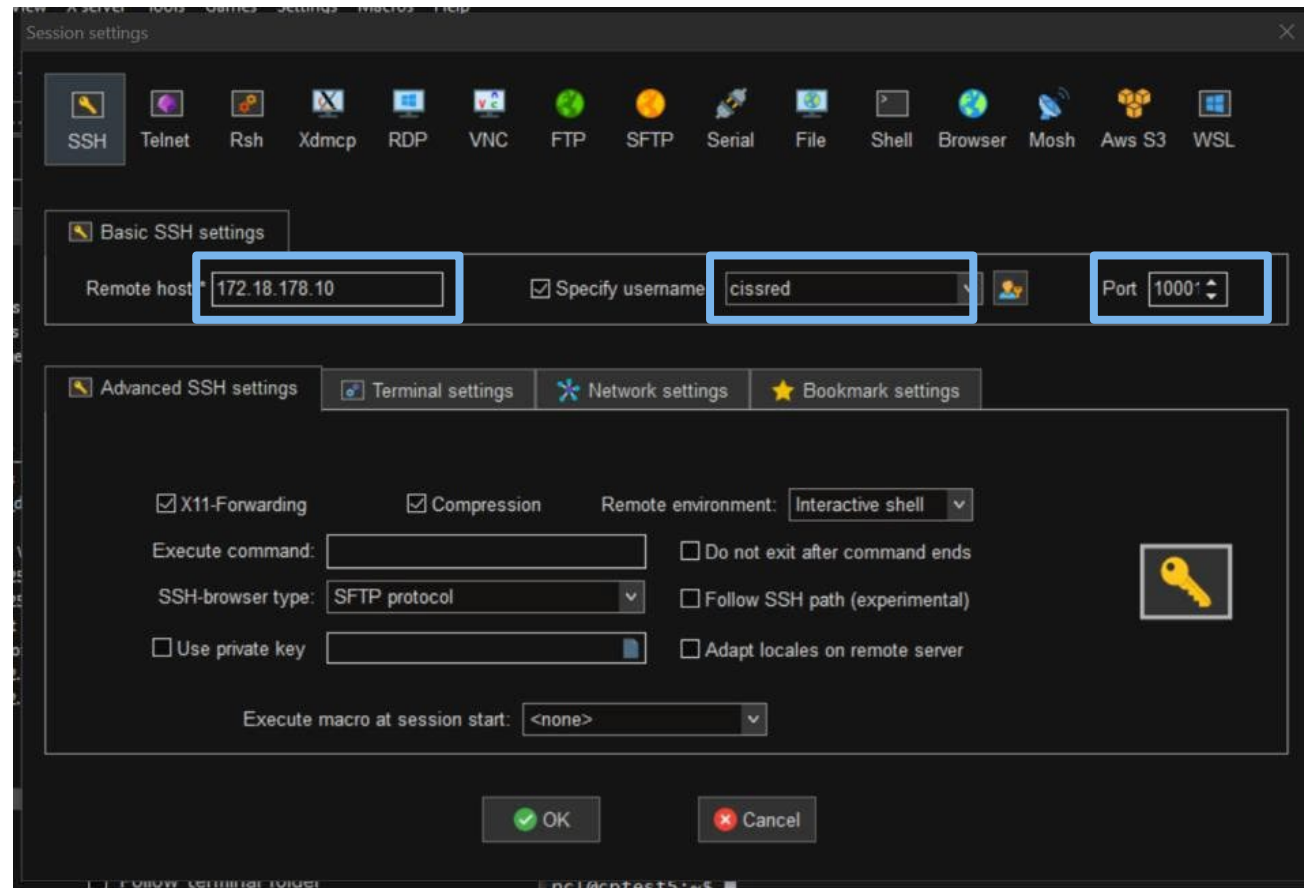
Recommended to use MobaXterm. Set jumhost settings in Network settings of Session settings. Credentials will be sent to your channel.

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 plus sign and the text "Add another jump host". At the bottom, there is a green checkmark button labeled "OK".

CONNECTION DETAILS



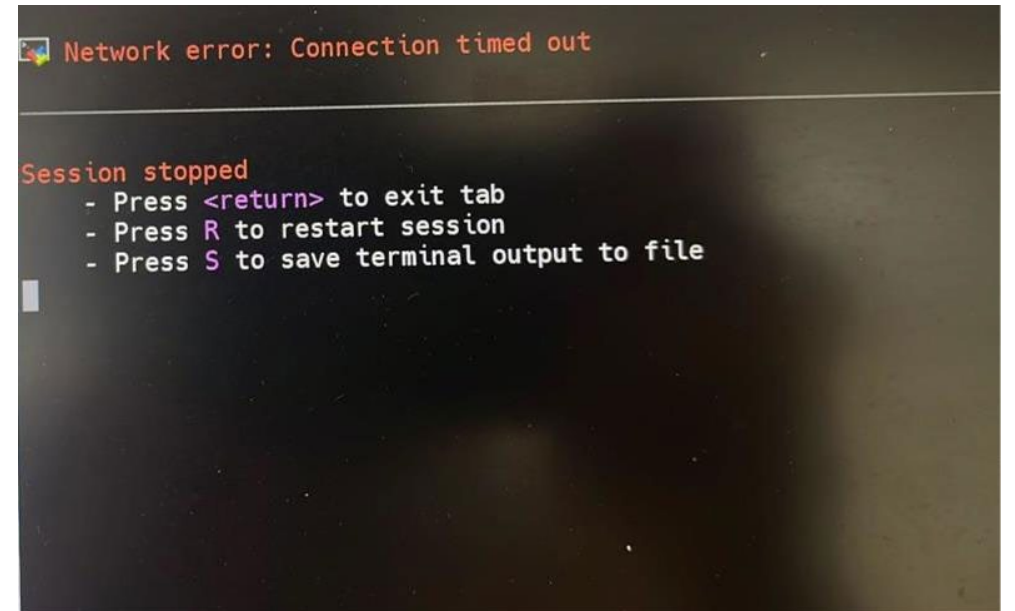
Recommended to use MobaXterm. Set jumphost settings in Network settings of Session settings. Credentials will be sent to your channel.



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
 - a. Add your team's name to your server nickname
2. Register on CTF.D using Registration Code: (<https://ciss2025.ctfd.io/>)
 - a. Create/Join a team with a password
3. Tue, 29 Jul 08:50 hrs (GMT+8), all teams will be given access to test connection
4. Tue, 29 Jul 09:00 hrs (GMT+8), challenges on CTF.D will open
5. Top 10 teams qualify for Finals (max one team per organization)

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 Kali VM (“TXVM”) with Python3 installed to access the services required for the challenges.Teams may install the necessary tools/packages on the VM. This Kali VM has SSH, Internet, and sudo enabled.

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

Yes, all team members (max 8 concurrent connections) 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

