

Test Project

Module D Troubleshooting

IT Networks Systems Administration

Independent Test project Designer: Thushjandan Ponnudurai

Independent Test Project Validator: Krawitz Hwang SCM

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Instructions for the 3-hour Troubleshooting challenge.

1. There will be 15 “Troubleshooting tickets” to solve, each ticket describes a situation from a user perspective.
2. All Competitors will receive printed copy of the tickets in English, as well as online copy in the Helpdesk System. Competitors WITH Interpreter will receive additional printed copy of tickets in language of their choice.
3. Competitors WITHOUT Interpreter will use the helpdesk system to submit their answers in English.
4. Competitors WITH Interpreter will use the helpdesk system to submit their answers in their preferred language.
5. The competitors have to provide answers regarding **“What are the cause of the problem”** and the **“Recommended solutions to fix this”** for each Troubleshooting ticket.
6. At the end of the competition, the Interpreter will be given a maximum of 60 minutes to translate the answers into English, without the presence of their Competitor and Expert.
7. The Interpreter will enter the translated answers in the ticket system as the comment or additional reply to the same ticket without modifying the original answers submitted by the Competitor.
8. The Expert is not allowed to verify the translated answers.
9. The Marking Team will only assess English answer in the helpdesk system.

Important, please be aware that you are NOT required to physically fix the problem, you only need to “describe” the cause of the problem and the recommended solution to fix it. Every ticket consists of two causes may or may not be related. You need to identify these two causes to the problem and provide recommended solutions to fix the problem.

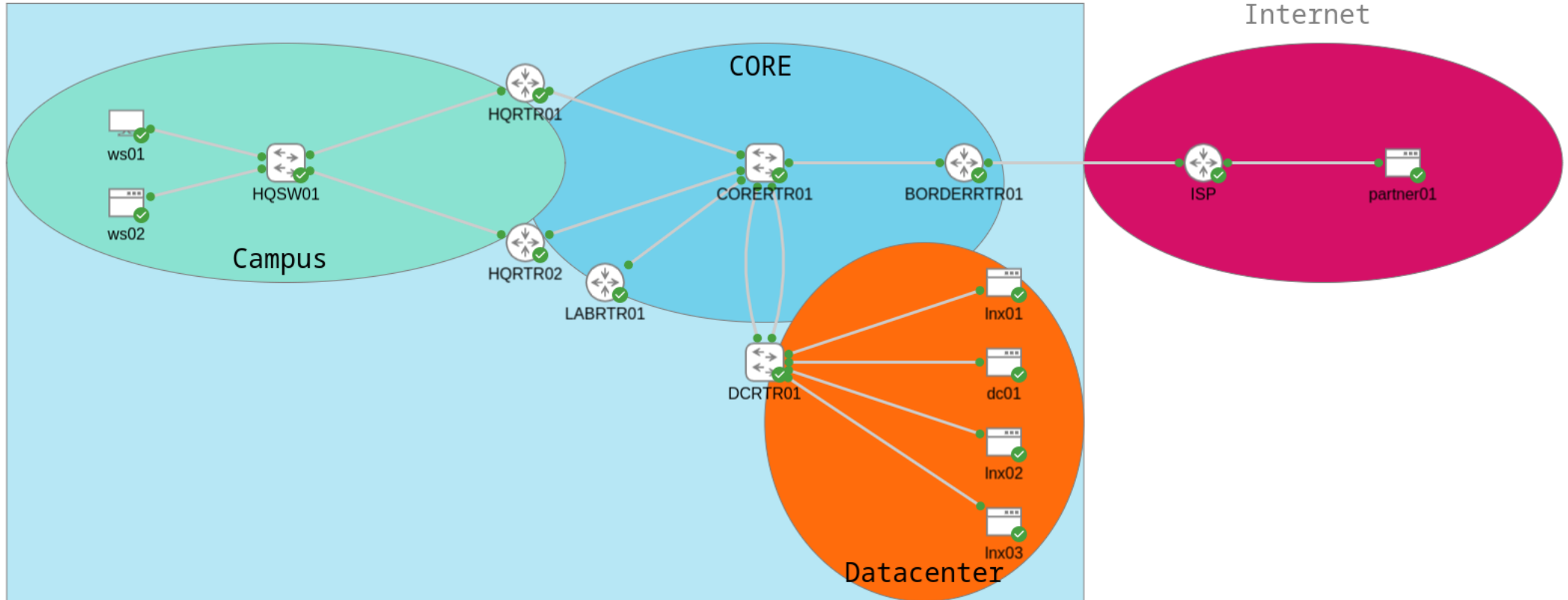
The Troubleshooting Scenario will use the UVdesk Helpdesk System which you were able to practice on familiarization day, and access to the UVdesk Helpdesk System will be the same. The layout is presented on next page.

All the VM and network devices’ usernames, passwords and IP addresses etc. within the troubleshooting scenario are presented on page 4. The URL/IP Address and Login Information for accessing the CML2 instance can be found on [Annex A](#) whereas for UVdesk Helpdesk System guide, it can be found on [Annex B](#).

For all answers submitted, the Marking Teams will NOT judge your spelling, grammar, or wordings, only the actual cause and solutions.

Topology Diagram

WSC2024.local



Network information

VM Name	IP address	Operation System	Credentials	Services
dc01	10.1.64.20/24 2001:db8:cafe:200::20/64	Windows Server 2022	sysop / Skill39@Lyon	AD DS, DNS, File Sharing
Inx01	10.1.64.10/24 2001:db8:cafe:200::10/64	Debian 12.5	sysop / Skill39@Lyon	Web, DNS, DHCP
Inx02	10.1.64.11/24 2001:db8:cafe:200::11/64	Debian 12.5	sysop / Skill39@Lyon	Web
Inx03	10.1.64.12/24 2001:db8:cafe:200::12/64	Debian 12.5	sysop / Skill39@Lyon	Web, Web Proxy
ws01	DHCP & SLAAC	Windows 11 Enterprise	sysop / Skill39@Lyon	
ws02	DHCP & SLAAC	Debian 12.5	sysop / Skill39@Lyon	
HQSW01	VLAN150: 10.1.128.10/25	Cisco IOS	admin / Skill39@Lyon	
HQRT01	Loopback0: 10.254.1.11/32 & 2001:DB8:CAFE:254::11/128 Gi0/0.100: 10.1.0.2/23 & 2001:DB8:CAFE:100::2/64 Gi0/0.150: 10.1.128.2/23 & 2001:DB8:CAFE:150::2/64 Gi0/1: 10.254.254.0/31 & SLAAC	Cisco IOS		
HQRT02	Loopback0: 10.254.1.12/32 & 2001:DB8:CAFE:254::12/128 Gi0/0.100: 10.1.0.3/23 & 2001:DB8:CAFE:100::3/64 Gi0/0.150: 10.1.128.3/23 & 2001:DB8:CAFE:150::3/64 Gi0/1: 10.254.254.2/31 & SLAAC	Cisco IOS	admin / Skill39@Lyon	
CORERT01	Loopback0: 10.254.1.10/32 & 2001:DB8:CAFE:254::10/128 Gi0/0: 10.254.254.1/31 & SLAAC	Cisco IOS		

	Gi0/1: 10.254.254.3/31 & SLAAC Gi0/2: 10.254.254.7/31 & SLAAC Gi1/1: no IPv4 & SLAAC Po1: 10.254.254.5/31 & FE80::1/64			
DCRTR01	Loopback0: 10.254.1.13/32 & 2001:DB8:CAFE:254::13/128 Po1: 10.254.254.4/31 & FE80::2/64 VLAN200: 10.1.64.1/24 & 2001:DB8:CAFE:200::1/64	Cisco IOS		
BORDERRTR01	Loopback0: 10.254.1.14/32 & 2001:DB8:CAFE:254::14/128 Gi0/0: 10.254.254.6/31 & SLAAC Gi0/1: 20.20.1.193/31 & 2001:DB8:FAFE:42::2/64	Cisco IOS		
LABRTR01	Loopback0: 10.254.1.15/32 & 2001:DB8:CAFE:254::15/128 Gi0/0: no IPv4 & SLAAC	Cisco IOS		
ISP	Various IP addresses	Cisco IOS		
partner01	31.22.11.32 2001:AB12:10::10	Debian 12.5	sysop / Skill39@Lyon	Web, DNS, FTP

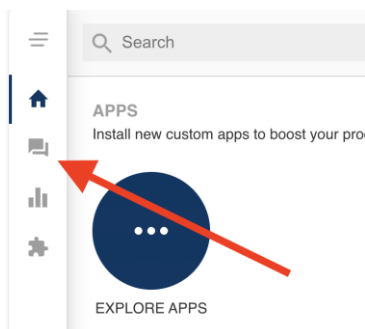
NOTE: Domain users default password is Skill39@Lyon

Annex B

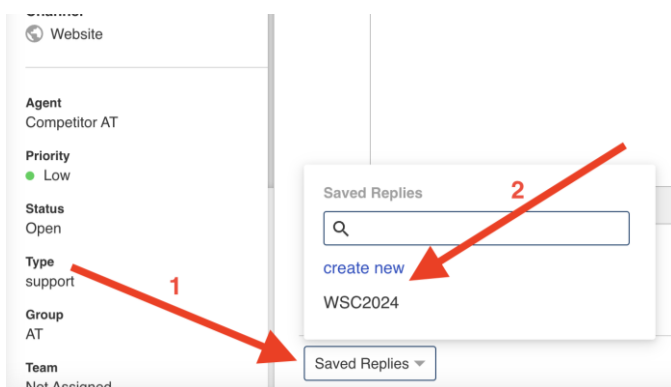
Step 1: Access the UVdesk Helpdesk System using the Internet Browser and go to <URL>.

Step 2: Enter username in email format and password provided and click Login.

Step 3: After you've login, click on "Tickets" in the left sidebar to view the 15 Tickets.

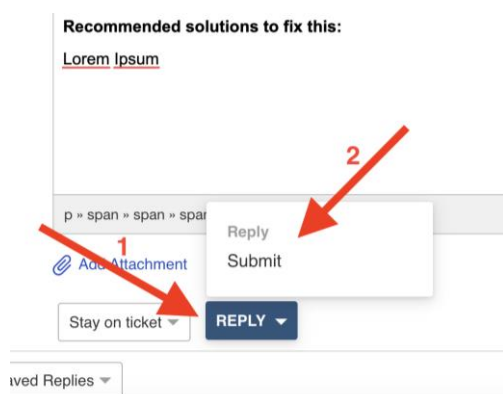


Step 4: Click on any ticket to view the issue and click on "Saved Replies" to use the predefined answer template



Step 5: Provide your answers for the two questions in the textbox "Write a reply".

Step 6: Click on "Reply" and afterward "Submit" when you are ready.



Troubleshooting ticket 1

Problem

Dear support,

Today is a special day for me because I brought my dog for the first time to the office. My coworkers in the marketing department were excited to see him. Before I did the round tour with my dog in the office, I turned on my workstation, ws02. After returning from the round tour, I would like to start work and launch my internet browser, but I couldn't open any web pages like <http://app.wsc2024.local>. Could you please help me?

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 2

Problem

SUPER IMPORTANT, an extremely critical synchronization job, called “partner-sync” on lnx01 server is not running every 15 minutes anymore and is unable to retrieve any data after a change by a junior system engineer!!!! This job downloads mission-critical data from our partner via FTP.

This needs to be fixed As Soon As Possible! The error message from the job says “failed: Connection timed out”

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 3

Problem

Hi mate, I did a software upgrade on HQRTR01 and assumed that HQRTR02 would take over. However, all workstations experienced an outage and couldn't connect to the domain controller. Management wants to know the root cause by the end of the day. Can you find out why HQRTR02 didn't take over the traffic?

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 4

Problem

Hello, my newly created GPO called "WSC2024_DO_NOT_ALLOW_REGEDIT" is not applied to users at the finance department. I noticed that ws01 doesn't apply the new GPO. Please have a look, why this GPO is not applied.

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 5

Problem

Our team is having trouble connecting to the HQRTR02 over SSH using IPv6 over its loopback interface from Inx01. We are currently attempting with the admin user. Can you please have a look into it?

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 6

Problem

Dear Sir or madam,

I am having trouble connecting to Inx01 over SSH with my local user account, john with Skills39@Lyon as the password, from Inx03. I tried to login locally over Console too, I am not able to login. I'm sure the password is correct.

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 7

Problem

Dear support team, my name is Kyle Carter. I am currently employed in the finance department and working on my computer ws01. I am experiencing difficulty in accessing and editing any files on the departmental file share located on dc01 . The network share is mapped as letter Z on my computer ws01. I already asked your colleague and he told me that he will check but never let me know when he can resolve the issue. Please help me resolve this issue by end of today! I have a super important deadline!

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 8

Problem

Hi support, it's William from the finance department. My colleague advised me to enter www.wsc2024.org into the browser from ws01 to access our public webpage running on lnx01. My colleague told me I should be able to see a "Welcome to WSC2024.org" message. However, I am unable to access the site at all! Your internet sucks!

Best regards,

William Hull

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 9

Problem

Hi guys, I followed a tutorial from the internet and completely messed up Inx02 after following it! I am no longer able to log in to our server Inx02 with any user. The root account isn't working as well! I don't get any password prompts. Moreover, the Inx02 is not accessible through IPv6 at all.

Please HELP!!

TIP) It is recommended to utilize both access options in CML, namely VNC and Serial. Grub will exclusively display its output through VNC, and Linux kernel will alter the output to serial during boot.

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 10

Problem

Hi guys, I am testing a new application. For that purpose, I have overwritten the domain resolution by adding a new entry in the hosts file on lnx03. If I attempt to curl the domain app.wsc2024.org on lnx03 using the command "curl -L app.wsc2024.org", it is expected to land on lnx03 and not on lnx01. I should receive a text similar to "Welcome to the NEW webpage of WSC2024.org". But my domain resolution overwrite is not working at all. What am I doing wrong?

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 11

Problem

Greetings, I am attempting to access my new secret webpage `http://app.wsc2024.local:8080` from `ws01`. The website should return a website containing "Welcome to Secret app at WSC2024.org". However, I am receiving the webpage running on port 80 with the content "Welcome to WSC2024.org.", which I don't expect from port 8080. As the web application is still under development, I don't want anybody to access the site using default port 80. Please help me to resolve the issue.

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 12

Problem

Dear Sir or madam, my name is Nigel and I'm from Marketing department. Since yesterday, I cannot copy my file on ws01 called C:\data\popular_influencers.csv to the marketing file share when I sign in using my account. The marketing group share is mapped as network drive Z: on my computer ws01. There is another problem as well. I have just discovered that other members from the marketing department can see the confidential project folder "PROJECT_ALPHA" located in the marketing share. However, they cannot access it, which is fine. It is confidential, so please make sure this folder is not listed in the Windows Explorer for them.

Best regards,

Nigel Weiss

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 13

Problem

Hi pal, Inx03 is having trouble pinging 8.8.8.8 since yesterday. I am really busy. Can you please take over this issue for me and have a look?

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 14

Problem

Hi there, I am evaluating a new router model in our lab. I have connected the new lab router named LABRTR01 to our core router, CORETR01, and configured the most important things on both of them to get IPv6-only connectivity. But I am unable to ping 2001:DB8:CAFE:254::14. I have spent many hours trying to troubleshoot this issue, and I am still not sure where to look.

What are the causes of the problem?

Recommended solutions to fix this:

Troubleshooting ticket 15

Problem

Hello, I am a PowerShell developer and last week I have heard that there is a new version of Powershell. I think the newest version is called Powershell 7. Yesterday, I was playing around on my machine ws01 using the sysop local account and now I can no longer start pwsh.exe anywhere from cmd anymore, instead, I need to start the pwsh.exe from C:\Program Files\PowerShell\7 folder instead. Can you resolve this problem?

By the way, I met in the morning my colleague Reese Terry from the night shift and she complained that she was unable to work last night on ws01 as she was unable to login. Due to this reason, she instead dealt with the paperwork throughout the entire night. Could check this issue as well before she starts her night shift again?

What are the causes of the problem?

Recommended solutions to fix this: