

WorldSkills Germany Test Project

IT Network Systems Administration (39) Module E – Troubleshooting

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Introduction to Test Project

Contents

This Test Project proposal consists of the following documentations/files:

1. WSG2025_TP_39_Module_E.docx

Introduction

In addition to implementing and maintaining new systems and infrastructure, the core activities of a system engineer include troubleshooting and providing technical support to users. This test project aims to test your analytical and troubleshooting skills.

For this test project you get access to an already existing and configured infrastructure. Down below in this test project you will find several short descriptions of problems.

Your task is to take care of the described problems, analyze them and provide a possible solution fix them.

Instructions to the competitor

For each case you'll be given a short problem description. Additionally, some documentation of the infrastructure is provided in the appendix. Any other information you may want is not provided. It's up to you find it out.

You're required to answer two questions for each ticket:

How did you troubleshoot the issue?

Describe how you tracked down the issue. Provide the commands / actions you did and why.

What did you observe? What was odd?

How can the problem be solved?

Provide the commands to be executed, changes to apply or actions to be carried out to fix the issue. Don't provide any reasoning, just the steps to fix the issue.

Scope

Every case is the result of a technical problem. It's not caused by the user (no layer 8 problem), there is real problem that must be solved by someone.

The issues are located within the virtualized environment, in the Windows-, Linux- or Cisco- VMs. You don't need to look for issues within the Proxmox configuration.

All cases are separate. They don't depend on or relate to each other.

Cases

Case 1

Description

Some user reported that his computer `client-remote` doesn't start anymore.

Case 2

Description

The user `Michael Brown` from marketing working on `client-01`, operating the website `http://isp.net` on `srv-isp`, reports that the website is offline.

Case 3

Description

The User `Linda Jones`, working on client-01, can't find her recycle bin.

Case 4

Description

The User `William Martin` is unable to log in on `client-1`.

Case 5

Description

Users from Hanover complained that they are unable to resolve `brutal.de` via `1.1.1.1`.

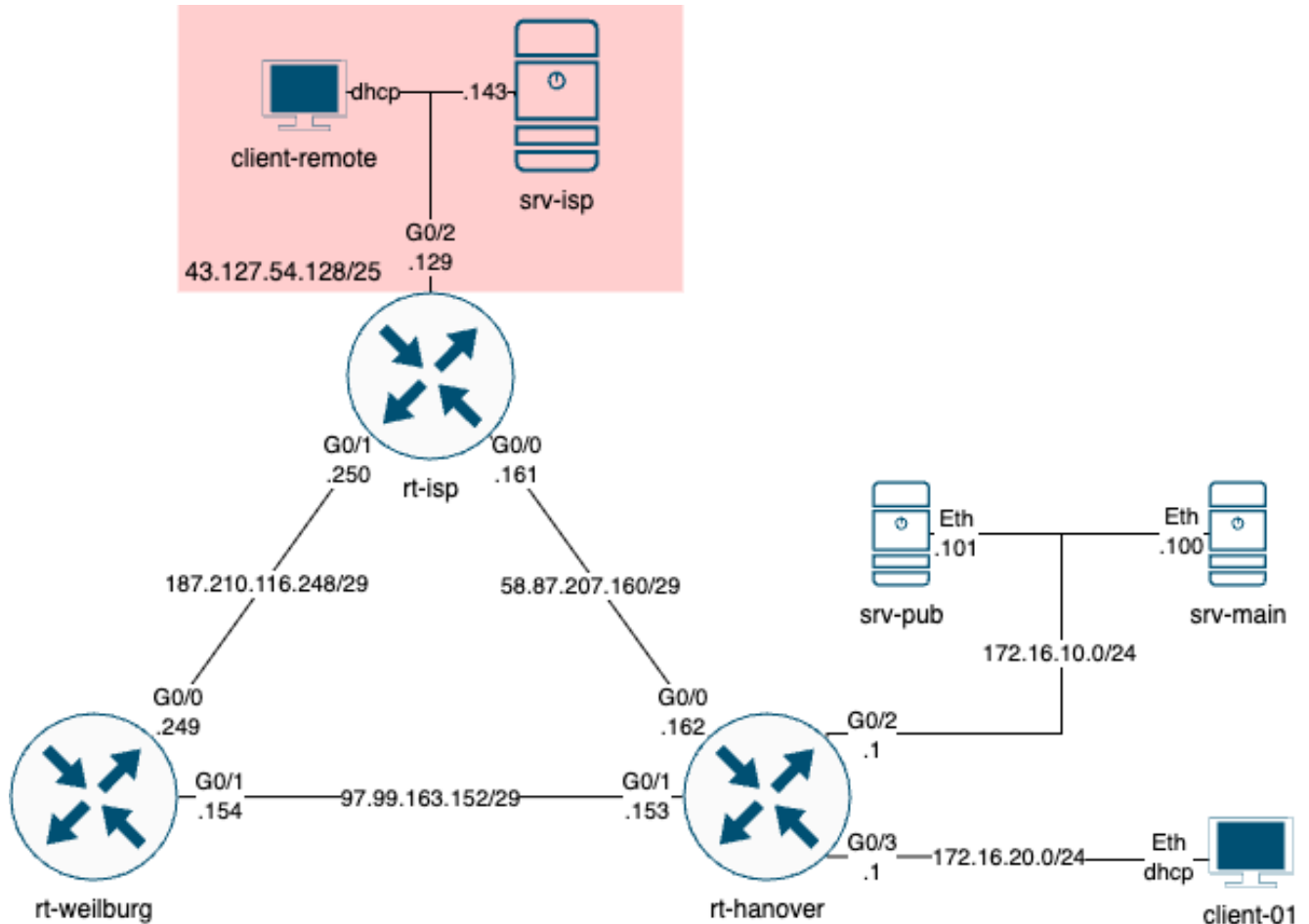
Case 6

Description

User `Joseph Martin` is unable to paste files into the `INTRANET` share.

Documentation

Topology



Credentials

The password for everything is Passw0rd!

Linux Shell : root

Linux GUI: ws-admin

Windows Local: Administrator

Windows Domain: ITNSA\Administrator

You can login as any domain user on domain-joined devices with the default password.

Cisco devices don't have any login in place

IP Addressing

rt-weilburg	Cisco IOSv	187.210.116.249 97.99.163.154
rt-isp	Cisco IOSv	43.127.54.129 187.210.116.250 58.87.207.161
rt-hanover	Cisco IOSv	172.16.10.1 172.16.20.1 97.99.163.153 58.87.207.162 43.127.54.1
srv-main	Windows Server 2022	172.16.10.100
client-01	Windows 10	dhcp
srv-isp	Debian 12	43.127.54.143 1.1.1.1
client-remote	Debian 12	dhcp
srv-pub	Debian 12	172.16.10.101