

TUGAS JARINGAN KOMPUTER

SUBNET TROUBLESHOOTING GAME



Disusun Oleh:

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Kelas: SK5 C

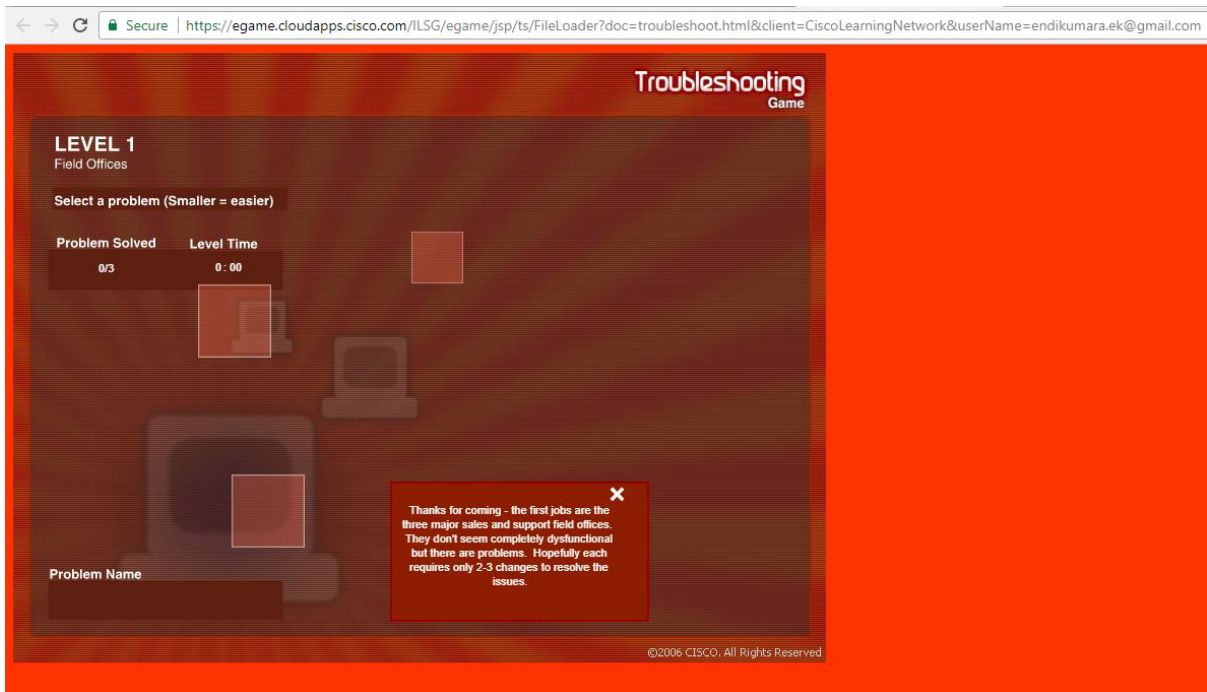
Jurusan Sistem Komputer

Fakultas Ilmu Komputer

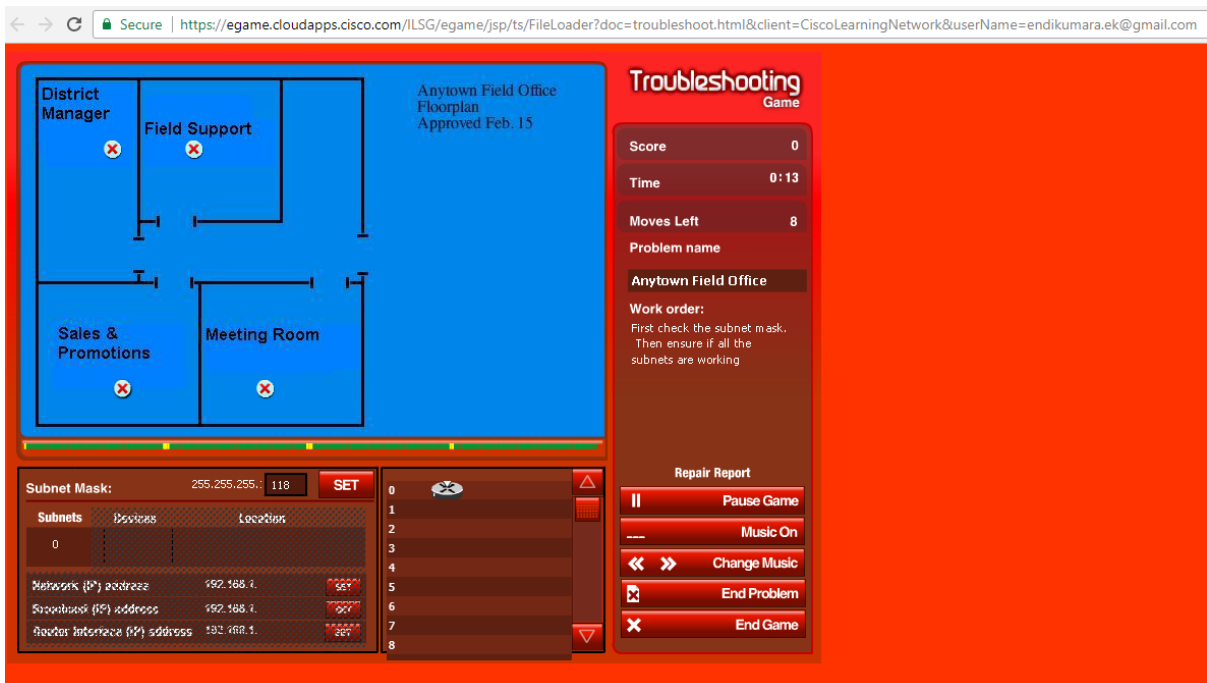
Universitas Sriwijaya

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Pada game troubleshooting ini terdapat tiga kasus pada level 1 yaitu Anytown Field Office, Metropolis, Burbsville pada level 1 ini menggunakan IP kelas C.



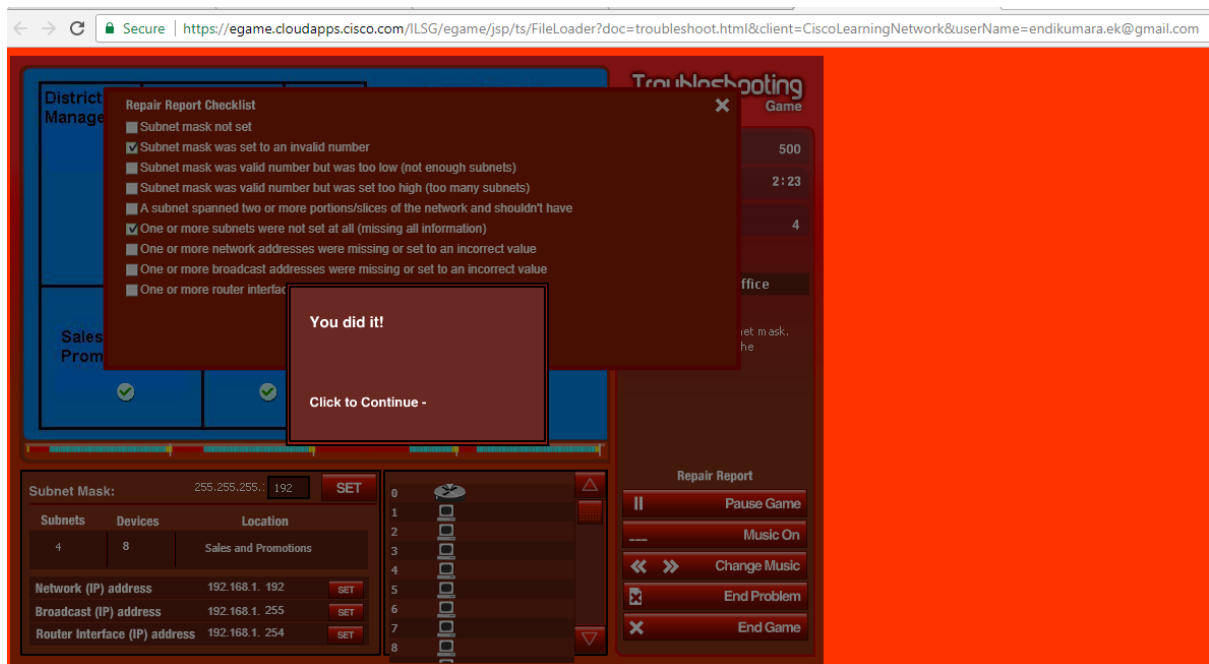
Kasus pertama yaitu Anytown Field Office terdapat empat router yang dimana ke empat router tersebut masih belum terhubung karena subnet mask dan ip nya masih belum di atur.



Setelah subnet mask nya di atur menjadi 255.255.255.192 dan IP pada router sales & promotion di atur yaitu: network ip 192.168.1.192, broadcast ip 192.168.1.255, router interface ip 192.168.1.254 untuk mendapatkan IP tersebut dengan cara perhitungan subnetting.



Setelah router sudah cheklist semua maka cheklist pada bagian repair report apa saja yang sudah dibuat.



Kasus kedua yaitu Metropolis terdapat delapan router yang masih belum terhubung serta IP nya masih ada yang salah

Score: 500
Time: 2:53
Moves Left: 10
Problem name: Metropolis
Work order: Sometimes people forget to fill in all the information because they're rushing.

Repair Report

Subnet Mask:	255.255.255.240	SET
Subnets	Devices	Location
16	8	Sales and On-site Storage
Network (IP) address	192.168.1.192	SET
Supernet (IP) address	192.168.1.255	SET
Router Interface (IP) address	192.168.1.254	SET

Setelah melakukan perhitungan di dapat subnet mask pada kasus kedua ini yaitu : 255.255.255.224, setelah subnet mask nya di masukkan ternyata masih ada tiga router yang masih silang (X).

Score: 500
Time: 7:03
Moves Left: 9
Problem name: Metropolis
Work order: Sometimes people forget to fill in all the information because they're rushing.

Repair Report

Subnet Mask:	255.255.255.224	SET
Subnets	Devices	Location
8	4	District Manager
Network (IP) address	192.168.1.0	SET
Broadcast (IP) address	192.168.1.31	SET
Router Interface (IP) address	192.168.1.30	SET

Pada router Office Support Staff ternyata network IP nya belum di berikan, setelah melakukan perhitungan ternyata network IP nya yaitu 192.168.1.98.

The screenshot shows the 'Troubleshooting Game' interface. The floorplan on the left shows the 'Office Support Staff' router location with a red 'X' icon, indicating it is not yet configured. The configuration panel below the floorplan shows the following settings:

Subnet Mask:	255.255.255.224	SET
Subnets	8	
Devices	0	
Location	Office Support Staff	
Network (IP) address	192.168.1.98	SET
Broadcast (IP) address	192.168.1.127	SET
Router Interface (IP) address	192.168.1.126	SET

The right panel shows game statistics: Score 500, Time 8:31, Moves Left 8, and Problem name Metropolis. The work order states: 'Sometimes people forget to fill in all the information because they're rushing.'

Selanjutnya router pada Local IT sama seperti router Office Support Staff tadi network IP nya masih kosong, setelah melakukan perhitungan ternyata network IP nya 192.168.1.128

The screenshot shows the 'Troubleshooting Game' interface. The floorplan on the left shows the 'Local IT' router location with a red 'X' icon, indicating it is not yet configured. The configuration panel below the floorplan shows the following settings:

Subnet Mask:	255.255.255.224	SET
Subnets	8	
Devices	0	
Location	Local IT	
Network (IP) address	192.168.1.128	SET
Broadcast (IP) address	192.168.1.159	SET
Router Interface (IP) address	192.168.1.158	SET

The right panel shows game statistics: Score 500, Time 10:59, Moves Left 7, and Problem name Metropolis. The work order states: 'Sometimes people forget to fill in all the information because they're rushing.'

Lalu router terakhir yaitu One Site Storage network IP nya yaitu 192.168.1.224

The screenshot shows the 'Troubleshooting Game' interface. On the left is a network floorplan titled 'Metropolis Field Offices: Floorplan as of April 16'. The floorplan includes rooms like District Manager, Local Marketing, Local Engineer Staff, Office Support Staff, Local IT, Meeting Room, Sales Support Staff, and On-site Storage. A central vertical corridor is labeled 'Elevator Banks'. Green checkmarks are visible in several rooms, indicating successful connections. On the right, a 'Troubleshooting Game' panel displays: Score: 500, Time: 11:36, Moves Left: 6, Problem name: Metropolis, and a work order: 'Sometimes people forget to fill in all the information because they're rushing.' Below this is a 'Repair Report' section with buttons for 'Pause Game', 'Music On', 'Change Music', 'End Problem', and 'End Game'. At the bottom, a configuration panel shows 'Subnet Mask: 255.255.255.224' and a table of subnets.

Subnets	Devices	Location
8	0	On-Site Storage

Network (IP) address	192.168.1.224	SET
Broadcast (IP) address	192.168.1.255	SET
Router Interface (IP) address	192.168.1.254	SET

Repair report?

This screenshot shows the 'Repair Report Checklist' and a 'You did it!' message. The checklist includes items like 'Subnet mask not set', 'Subnet mask was set to an invalid number', 'Subnet mask was valid number but was too low (not enough subnets)', 'Subnet mask was valid number but was set too high (too many subnets)', 'A subnet spanned two or more portions/slices of the network and shouldn't have', 'One or more subnets were not set at all (missing all information)', 'One or more network addresses were missing or set to an incorrect value', 'One or more broadcast addresses were missing or set to an incorrect value', and 'One or more router interfaces were missing or set to an incorrect value'. A 'You did it!' dialog box is overlaid on the floorplan, with a 'Click to Continue' button. The 'Repair Report' section on the right shows a score of 1200 and a time of 47:56. The configuration panel at the bottom shows the same settings as the previous screenshot.

Kasus ketiga yaitu Burbsville terdapat empat router ada tiga router yg masih silang (X)

Troubleshooting Game

Score: 1200
Time: 1:20
Moves Left: 9
Problem name: Burbsville

Work order:
It's possible the subnet mask is set wrong to start with.

Repair Report

Subnet Mask: 255.255.255.128 SET

Subnets	Devices	Location
2	0	On-Site Warehouse

Network (IP) address: 192.168.1.224 SET
Broadcast (IP) address: 192.168.1.255 SET
Router Interface (IP) address: 192.168.1.254 SET

Pada router Distrik Manager setelah melakukan perhitungan di dapat lah subnet mask nya 255.255.255.192 dan broadcast IP 192.168.1.191 dan router interface IP 192.168.1.190

Troubleshooting Game

Score: 1200
Time: 5:52
Moves Left: 6
Problem name: Burbsville

Work order:
It's possible the subnet mask is set wrong to start with.

Repair Report

Subnet Mask: 255.255.255.192 SET

Subnets	Devices	Location
4	0	District Manager

Network (IP) address: 192.168.1.128 SET
Broadcast (IP) address: 192.168.1.191 SET
Router Interface (IP) address: 192.168.1.190 SET

Pada router On Site Warehouse setelah melakukan perhitungan di dapat network IP 192.168.1.192 broadcast IP 192.168.1.255 router interface IP 192.168.1.254

The screenshot shows the Cisco Troubleshooting Game interface. On the left, a network diagram displays a hierarchy: Field Support Division (top), which branches into Lunch Area and District Manager, both of which then connect to On-Site Warehouse at the bottom. All nodes have green checkmarks. Below the diagram is a configuration panel for the On-Site Warehouse. The Subnet Mask is set to 255.255.255.192. The configuration table is as follows:

Subnets	Devices	Location
4	0	On-Site Warehouse
Network (IP) address	192.168.1.192	SET
Broadcast (IP) address	192.168.1.255	SET
Router Interface (IP) address	192.168.1.254	SET

On the right, the game status shows a score of 1200, time of 8:22, and 3 moves left. The problem name is 'Burbsville' with a work order: 'It's possible the subnet mask is set wrong to start with.' A 'Repair Report' panel at the bottom right contains buttons for Pause Game, Music On, Change Music, End Problem, and End Game.

Repair report:

The screenshot shows the game interface after completion. A large 'Level Complete!' message is centered on the screen. Below it, a 'Repair Report Checklist' is displayed with the following items:

- Subnet mask not set
- Subnet mask was set to an invalid number
- Subnet mask was valid number but was too low (not enough subnets)
- Subnet mask was valid number but was set too high (too many subnets)
- A subnet spanned two or more portions/slices of the network and shouldn't have
- One or more subnets were not set at all (missing all information)
- One or more network addresses were missing
- One or more broadcast addresses were missing
- One or more router interfaces were missing or set to an incorrect value

The configuration panel for the On-Site Warehouse is visible at the bottom, showing the same settings as in the previous screenshot. A 'Click to continue' button is overlaid on the configuration panel. The game status on the right shows a score of 2600 and a time of 10:36. The 'Repair Report' panel at the bottom right contains buttons for Pause Game, Music On, Change Music, End Problem, and End Game.