

Asmeninė vaga: BPEZOS Konsorcijas | Operatör PC: LAPTOP-RLR92PLC
Operatör: Z | Nuporūvimo data: 01/06/2023

Eigenschaften Anwesen 11

To nurodymo 11 IPv6

Anwesen 1

1.1] sysrc_ifconfig_enet_ipv6 = "inet6 accept_radv"

1.2] service netif restart.

1.3] ifconfig en0 → fe80::a00:27ff:fe0c:6911

1.4] ifconfig en0 → fe80::a00:27ff:fe4f:6136

1.5] Ping local → Errors MAC war Gateway. He ff:fe origined aus

1.6] netstat -r6 → 9 Empfänger

1.7] Mia

1.8] fe80::% en0 64

fe80::% lo 64

1.9] ping6 ::1. Anwesen 20 ; ūlo zo PC1

1.10] ping6 fe80::a00:27ff:fe0c:6911% en0 → Encuestas

Ar vienape zo išlo xwpis zo "% en0" zo ping6 da anowxosiu

1.11] ping6 fe80::a00:27ff:fe4f:6136% en0 → Encuestas

1.12] Anwesen 20 zo PC1

1.13] Anwesen 20 zo 2 PC mai;

hd00

1.14) 1. Scanhy emd met6 ~~hd00~~:1::2/64

1.15) 1. Scanhy emd met6 hd00:1::3/64.

1.16) Einai perasines zanimes (hd00::1/8). Avilates iphy einai 10.0.0.0/8,
172.16.0.0/12 kai 192.168.0.0/16

1.17) Avo Inet6

1.18) netstat -r6 \rightsquigarrow 11 eppaires (2 vees eppaires)

1.19) Mai ova 2 pc ova opxio /etc/ hosts npodezaue.

hd00:1::2 PC1

hd00:1::3 PC2

1.20) ping 6 PC2 \rightsquigarrow Mai enizxes

1.21) arp -a \rightsquigarrow Mai eppaires

1.22) man udp

1.23) udp -a

1.24) 4 eppaires

1.25) udp -p \rightsquigarrow 0. Eppaires einai aneps frapera tuis
(Eppaires uniprot na za npodezaue: hd00:1::1/64,
fe80::% em0/64 kai fe80::% lo0/64.)

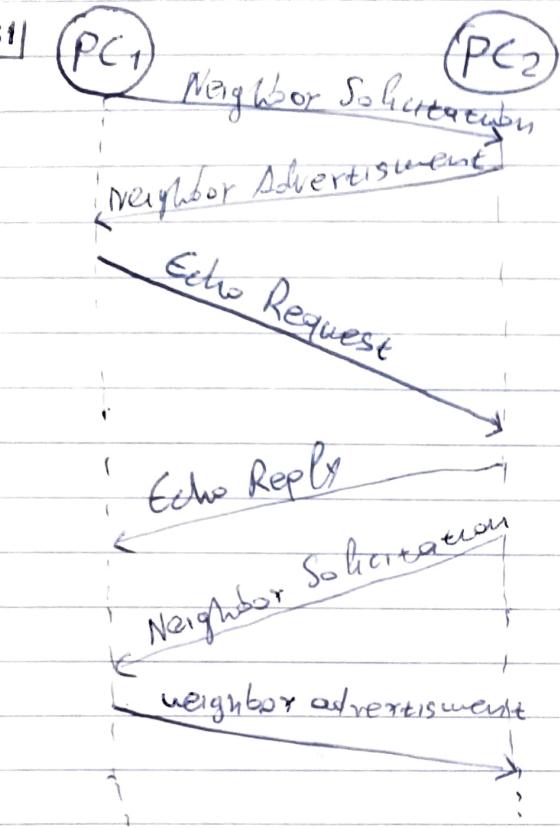
1.26) Ano za neperamia npodezaue emai naa prospiv na xrixiwneim-
Dew anoi za SLAAC einai ota 2 kai 3 kaulis exov za play
"A"

1.27) udp -c

1.28) tcpdump -nv

31) B) Enzyme 6 IPv6 Neighbors

32) Mezajefew pumipara zu ICMPv6. ~~Header~~ Next Header = 58



33) H) Eidwos nroopriopoi zu 1st nauezu eivai unicest solicited Node
mai npomizes suni za zelentzia 24 bit zuo eidwos unicest zuo PC2
ou zuo nroopferoupe zo npodevo. FF02:0:0:0:0:1:FF00:0/24.

33) H) Eidwos nroopriopoi zu 2nd nauezu NS eivai nporehni suni
eidwos mai, exi npomize suni ouideen

34) wfp -a ~ kaiouzeun eppayis mai co PC1 = "S" (seale), pe diapeun
sunis 20h30w025

35) ping6 mai, vizepa wfp -a ~ evexi evadini pezei "R" mai "S" nauezu
oune

36) Nefinou mutis Denet. Apai liFe u eppayis riveti seale.

37) 24 apes

1.38] Παρακαρμένο είναι στην περιφέρεια με τη σύγχρονη (1.35) όπου αυτή
είναι να φέρει και να αναζητεί περιφέρεια ~~στάθμες~~.

1.39] πρώτη PC2 (PC1)
επόμενη -ην (PC2)

Παρακαρμένο είναι μέσω ICMPv6 neighbor solicitation, ~~αλλά~~ με
τη διεύθυνση και μέσω ICMPv6 neighbor advertisement είναι μέσω
ICMPv6 neighbor advertisement ως ανανεώσεις προσετικότητας.
Η ανανεώση γίνεται κάθε 20 sec.

Aanvraag 2)

2.1] `sysrc ipv6_gateway_enable="YES"`
service routing restart.

2.2] `ifconfig em0 inet6 fd00:1:3/64 delete.`
`ifconfig em0 inet6 fd00:2:2/64`

2.3] vtysh
Configure terminal
interface em0
ipv6 address fd00:7::1/64

2.4] interface em1
ipv6 address fd00:8::1/128

2.5] vtysh
Configure terminal
interface em1
ipv6 address fd00:2::1/64

2.6] interface em2
ipv6 address fd00:3::2/128

2.7] route -6 add default fd00:1::1

2.8] route -6 add default fd00:2::1

2.9] tcpdump -i em0

2.10] ndp -c
ping6 -c 1 fd00:2::2 → Den logistiske ondernem, over harci o
R1 Ser fra dece, oppoapir over nivana Spesialistenes eksaminere
hjelpe, fd00:2::2

	IPv6 destination
2.11] ICMPv6 Message	ff02::1: ff00::1
neighbor solicitation	fd00::1::2
neighbor advertisement	fd00::2::2
Echo request	fd00::1::2
Destination unreachable	fd00::1::2
Neighbor solicitation	fd00::1::1
Neighbor advertisement	fd00::1::1

2.12] ipv6 route fd00:2::/64 fd00:3::2

2.13] ping6 fd00:2::2 ~ Δεν λαμβάνει αδιέξοδη προσ ο R2 σετ εξειδίκευμένης εγγύησης που δίνεια σπεσιαλισμός

2.14] ipv6 route fd00:1::/64 fd00:3::1

2.15] ping6 fd00:2::2 ~ To ping διανομέες

2.16] interface em0

no ipv6 nd suppress-ra

2.17] interface em0

ipv6 nd prefix fd00:1::/64.

2.18] interface em1

no ipv6 nd suppress-ra

2.19] ~~ip~~ ipv6 nd prefhx fd00:2::/64

2.20] route -6 delete default

2.21] tcpdump -i em0 -nve icmp6

2.22] service netifP restart

Arsenon 3)

3.1) no ipv6 route $\text{fd100:2::}\text{1}/64$ $\text{fd100:3::}\text{2}$
no ipv6 route $\text{fd100:1::}\text{1}/64$ $\text{fd100:3::}\text{1}$

3.2) router ripng
network em1 }
network em1 } haici zw R1 vnu zw R2

3.3) do show ipv6 route ripng \rightarrow διένεμε μια επαρχιακή

3.4) Είναι $\text{fd80::}\text{100:27ff:}\text{0000:0000:0000:0000:0000:0000:0000:0001}$: Recd: 6911, γενική συγχρόνωση

3.5) ping 6 $\text{fd100:2::}\text{2} \rightarrow$ en1aux1

3.6) tcpdump -i em1 -vvv ip6

3.7) Να παρατηρήσεις την είδη ripng-req. Διείσδυση στην επαρχιακή fd102::9 (αναρριχείται στο $224.0.0.9$ μεταξύ R1 & R2).

3.8) Εκεί αριθμ. 255 για να πάρει πρόσβαση σε ripng-resp και διέλθει στην επαρχιακή

3.9) Την παρατηρούσεις τη UDP που είναι διάφορη σε RIP, UDP που είναι διάφορη σε OSPF

3.10) no router ripng

3.11) do wrce R1

3.12) service br restart

3.13) router ospf6

router-id 2.2.2.2 (R2) / router-id 1.1.1.1 (R1)
ospf router-id 2.2.2.2 (R2) / ospf router-id 1.1.1.1 (R1)

- 3.14) router ospf6
interface en0 area 0.0.0.0
interface en1 area 0.0.0.0
- 3.15) router ospf
interface en0 area 0.0.0.0
interface en1 area 0.0.0.0
- 3.16) do show ipv6 route ospf ~ Pfadliste zu Gruppen
To werden nach unten von oben zu unterteilen zu Sezuen
- 3.17) Ein in 1e80::a00:27ff:fe18:ad32 (R1), ein in own link-local
- 3.18) tcpdump -i en0 -w ip6
- 3.19) OSPFv3 Hello per Nachricht an 1e02::5
- 3.20) Hop Limit = 1
- 3.21) Aprioris Apriorische = 89. Nur ist es zu OSPFv2
- 3.22) Nur propeire
- 3.23) no router ospf6
- 3.24) service frr restart
- 3.25) router-id 1.1.1.1
router bgp 65010
- 3.26) no bgp ebgp-require-policy
- 3.27) no bgp default ipv4-unicast
- 3.28) neighbor 1e00:3::2 remote-as 65020

3.29] address-family ipv6

3.30] network fd00:1::/64

3.31] neighbor fd00:3::2 activate
exit

3.32] Router-id 2.2.2.2

Router bgp 65000

no bgp ebgp-require-polict

no bgp default ipv4-unicast

neighbor fd00:3::1 remote-as 65000

address-family ipv6

network fd00:2::/64

neighbor fd00:3::1 activate

exit

3.33] do show ip route bgp ~ B neighbor via ebgp up

3.34]

3.35] tcpdump -i em1 -vv

3.36] BGP KEEPALIVE, Xerou monoi ei TCP port en Byp 179, enws varou
IPV4

3.37] Hop Limit = 1

3.38] Mai zo ping siver enaxes

3.39] reboot

versh

configure terminal
interface em1

ip6 address fd00:1::2/64

3.43] router-id 1.1.0.0

~~router~~ router bgp 65010

3.44] no bgp default ipv4-unicast

3.45] neighbor fd00:1::1 remote-as 65010

3.46] address-family ipv6

neighbor fd00:1::2 remote-as 65010

3.47] router bgp 65010

neighbor fd00:1::2 remote-as 65010

3.48] address family ipv6

neighbor fd00:1::2 activate

neighbor fd00:1::2 next-hop-self

exit

3.49] do show ip bgp neighbors fd00:1::2

乙so zides ces neppur exer "internal link"

3.50] do show ipv6 route bgp ~ 2 eppuyes

3.51] Den evar eniDgeviv vouliv unykes "neDgev" fiafpopi oren nivuna
Spomolijmre

3.52] H fd00:1::2, parabun zonui fiedwes

3.53] To ping Evar Enizuxis

Aurum 4

4.1] vtysh, configure terminal
interface em0

ip address 192.168.1.1/26

4.2] vtysh

configure terminal
interface em1

ip address 192.168.2.1/26

4.3] vtysh

configure terminal
interface em2

ip address 192.168.1.2/26

ip route 0.0.0.0/0 192.168.1.1

4.4] vtysh

configure terminal
interface em3

ip address 192.168.2.2/26

ip route 0.0.0.0/0 192.168.2.1

4.5] sysrc firewall_enable="YES"

sysrc firewall_watch_enable="YES"

sysrc firewall_type="open"

sysrc firewall_log_if="YES"

4.6] service ipfw start

4.7] ipfw list ~ 12 warones

4.8] To ping external networks

(check)

4.9] ipfw nat64 clat nat64 create clat_prefix Rd00:3::1::/96
plat_prefix 64:ff96::/96 allow private log

4.10] ipfw add 2000 nat64 clat nat64 ip6 from any to netw recv emu

4.11] ipfw add 3000 nat64 clat nat64 ip6 from 64:ff96::/96 to Rd00:3::1::/96
recv emu

4.12] ipv6 route 64:ff96::/96 Rd00:3::2

4.13] sysrc firewall_enable="YES"
sysrc hopenwall_nat64_enable="YES"
sysrc hopenwall_tree="open"
sysrc hopenwall_logif="YES"
service ipfw start

4.14] ipfw ~~allow~~ nat64 create prefix 2.2.2.0/24 prefix6
64:ff96::/96 allow_private log

4.15] ipfw add 2000 nat64sh ip6 from Rd00:3::1::/96 to 64:ff96::/96
recv emu

4.16] ipfw add 3000 nat64sh nat64 ip6 from any to 22.2.0/24 recv emu

4.17] ipv6 route Rd00:3::1::/96 Rd00:3::1

4.18] ip route 0.0.0.0/0 192.168.2.2

4.19] konz za 2 ping siva eni auxi

4.20] lcamby ipfwlog create } (R1)
tcpdump -i ipfwlog

4.21] lcamby ipfwlog create } (R2)
tcpdump -i ipfwlog

4.22) R₁ ~ ICMP echo request
ICMPv6 echo request
ICMPv6 echo reply
ICMP echo reply

R₂ ~ ICMPv6 echo request
ICMP echo request
ICMP echo reply
ICMPv6 echo reply

4.23) Interface end

IP address 172.17.17.2/24
IP address 10.0.0.2/24

4.24) Net mask over 2 interfaces ping

4.25) ipfw nat64lso nat64 slow states

4.26) Diagnosing 60 sec (1 second).

Hannun 5/

5.1) client emd

5.2) ping install wireddo

5.3) srsrc wireddo enable = "YES"

5.4) service wireddo start

5.5) em teredo

5.6) tcpdump -i em0 -w

5.7) 195.140.195.140

5.8) To napozendo UDP mai nello Dipo 3544

5.9) Manipolare ICMPv6

5.10) Manipolare pino ora www.16m.com, ora alla ox,

5.11) ping6 www.16m.com

5.12) Direct IPv6 Connectivity Test

5.13) ~~nasce~~ nasceva ICMPv6 echo reply/request.

5.14) ICMPv6 ne Dipo 3544

5.15) tcpdump -i teredo -w

5.16) ICMPv6 Echo request

ICMPv6 Echo reply

5.17) Ox1, ping6 anazjxiver

5.18) *Nai*, neptunian.

5.19)

5.20) *Oxi*, enderian, frappuccino teredo relax wave yapa