



PRIFYSGOL CYMRU
Y Drindod Dewi Sant
UNIVERSITY OF WALES
Trinity Saint David
SWANSEA - ABERTAWE

Applied Computing

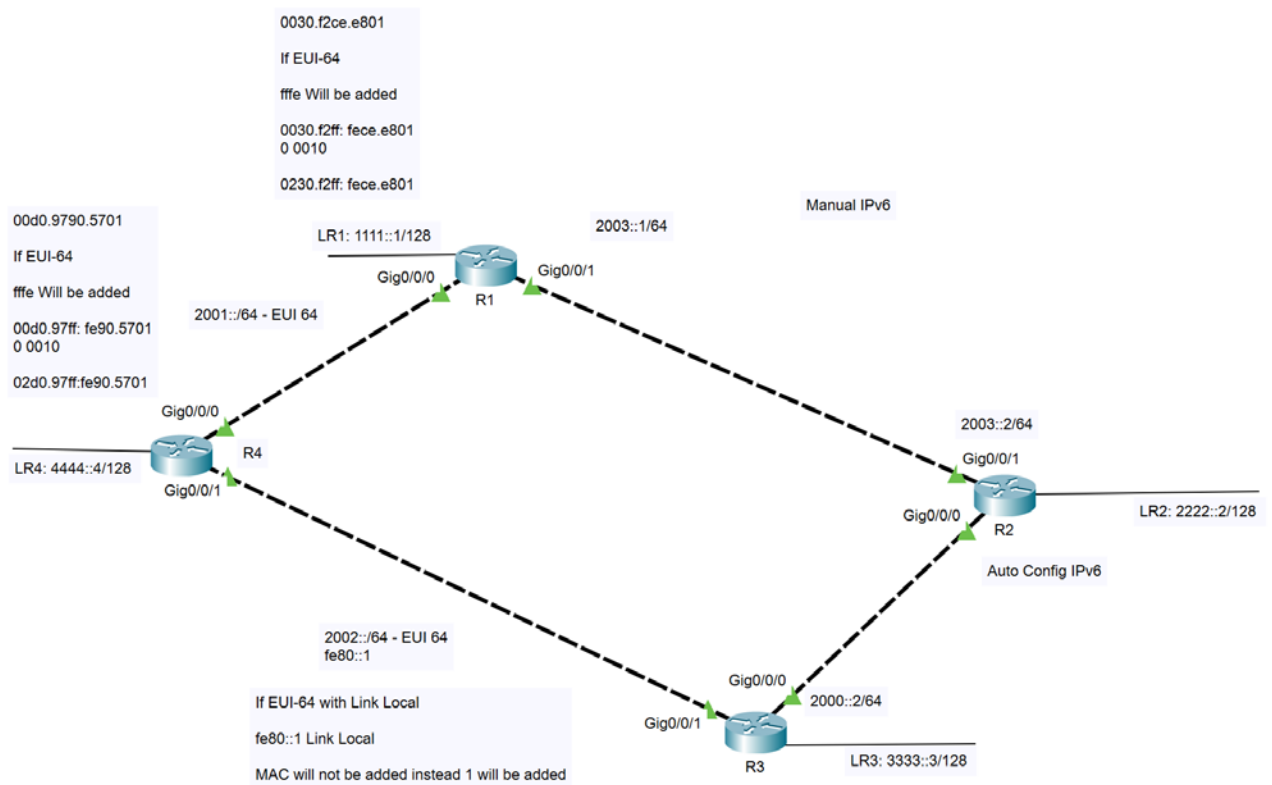
Wales Institute of Science and Art (WISA)

Advanced Networking (ACCA5024)

Lab 9: (Part 1) IPv6 Static Routing

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Topology



TASK 1

References (*Configuring IPv6 Address*) Practice the below commands with the above topology.

Manual Configuration

R1 Gi0/0/1 ipv6 address 2003::1/64

R2 Gi0/0/1 ipv6 address 2003::2/64

EUI – 64 Configuration

R1 Gi0/0/0 ipv6 address 2001:: /64 eui-64

R4 Gi0/0/0 ipv6 address 2001:: /64 eui-64

GigabitEthernet0/0/0 [up/up]

FE80::2D0:97FF:FE90:5701

2001::2D0:97FF:FE90:5701

EUI – 64 Configuration with Link Local

R3 Gi0/0/1 ipv6 address 2002:: /64 eui-64 ↴ fe80::1 Link Local

R4 Gi0/0/1 ipv6 address 2002:: /64 eui-64 ↴ fe80::2 Link Local

GigabitEthernet0/0/1 [up/up]

FE80::1

2002::1

GigabitEthernet0/0/1 [up/up]

FE80::2

2002::2

Auto Configuration

R3 Gi0/0/0 ipv6 address 2000:: 2/64 eui-64 ↴

R2 Gi0/0/0 ipv6 address Autoconfig eui-64 ↴

GigabitEthernet0/0/0 [up/up]

FE80::260:47FF:FE8A:E01

2000::2

Other Commands

Show interface gi0/0/0

Show ipv6 interface brief

Show ipv6 interface brief

Debug ipv6 nd

Debug ipv6 packets

Ping

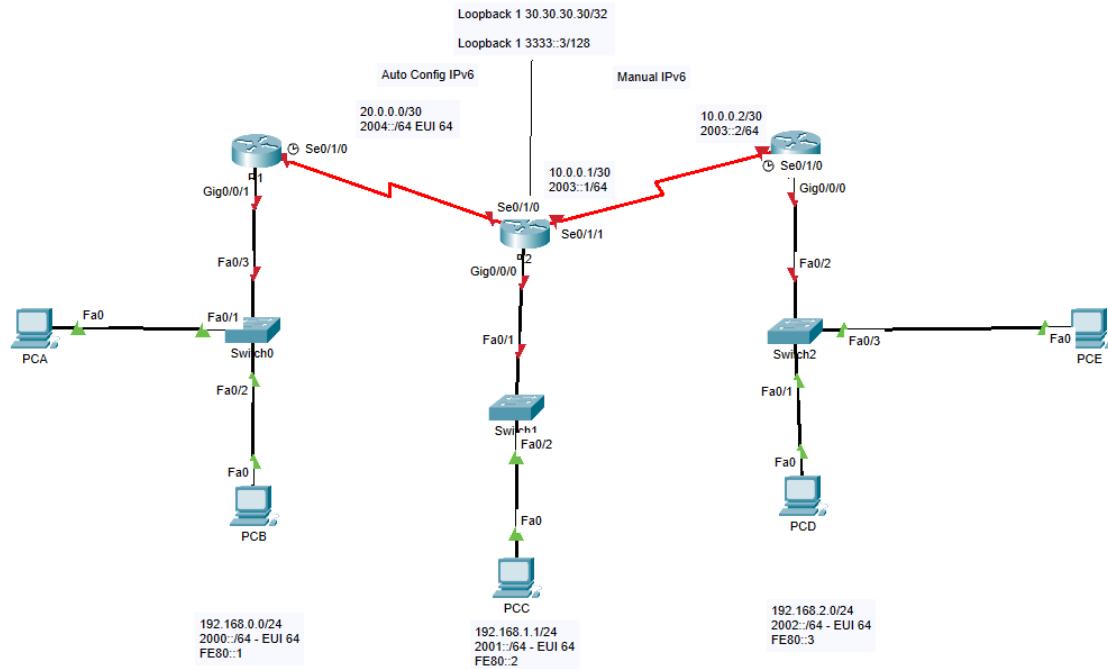
Configuring Static IPv6 Route

Ipv6 route ipaddr (1111::/16 or /64 as per scenario) Next hop ip address 2000:12::1

Ipv6 route ipaddr (::/0) Next hop ip address 2000:12::1

TASK 2

Design this Topology and Configure IPv4 and IPv6 Addresses as per the description below (image) and configure Static/ Default routes to establish communication successfully.



TASK 3

Complete the two PKA Files (Available in Moodle and Teams)