

IXP lab address plan

In the following plan 'X' refers to the IXP group number

Addresses for IXP lab backbone

These addresses give access to the route servers, the IXP manager host and the PCs which represent the ISPs networks. The PCs are used to manage the ISP routers after the initial router configuration is done by the students.

Workshop	10.10.0.0/24
manager-grpX.ws.nsrc.org	10.10.0.X0
pc1-isp1-grpX.ws.nsrc.org	10.10.0.X1
pc1-isp2-grpX.ws.nsrc.org	10.10.0.X2
pc1-isp3-grpX.ws.nsrc.org	10.10.0.X3
pc1-isp4-grpX.ws.nsrc.org	10.10.0.X4
pc1-isp5-grpX.ws.nsrc.org	10.10.0.X5
pc1-isp6-grpX.ws.nsrc.org	10.10.0.X6
pc1-isp7-grpX.ws.nsrc.org	10.10.0.X7
rs1-grpX.ws.nsrc.org	10.10.0.X8
rs2-grpX.ws.nsrc.org	10.10.0.X9

Addresses for ISP backbones

These address ranges are used by each of the ISPs and are used to link the ISP PCs to their router:

ISP1	172.2X.10.0/23	fd90:172:2X:10::/60
ISP2	172.2X.20.0/23	fd90:172:2X:20::/60
ISP3	172.2X.30.0/23	fd90:172:2X:30::/60
ISP4	172.2X.40.0/23	fd90:172:2X:40::/60
ISP5	172.2X.50.0/23	fd90:172:2X:50::/60
ISP6	172.2X.60.0/23	fd90:172:2X:60::/60
ISP7	172.2X.70.0/23	fd90:172:2X:70::/60

e.g. Addresses for ISP1 in Group1:

router	172.21:10.1	fd90:172:21:10::1
pc1	172.21.10.10	fd90:172:21:10::10

Addresses for IXP backbone

This range is used to number the IXP peers. These are the addresses that will be used when configuring BGP sessions across the exchange to the route servers and the other peers.

IXP	192.168.X.0/24	fd90:192:168:X::/64
r1-isp1-grpX.ixp.nsrc.org	192.168.X.1	fd90:192:168:X::1
r1-isp2-grpX.ixp.nsrc.org	192.168.X.2	fd90:192:168:X::2
r1-isp3-grpX.ixp.nsrc.org	192.168.X.3	fd90:192:168:X::3
r1-isp4-grpX.ixp.nsrc.org	192.168.X.4	fd90:192:168:X::4
r1-isp5-grpX.ixp.nsrc.org	192.168.X.5	fd90:192:168:X::5
r1-isp6-grpX.ixp.nsrc.org	192.168.X.6	fd90:192:168:X::6

r1-isp7-grpX.ixp.nsrc.org	192.168.X.7	fd90:192:168:X::7
rs1-grpX.ixp.nsrc.org	192.168.X.8	fd90:192:168:X::8
rs2-grpX.ixp.nsrc.org	192.168.X.9	fd90:192:168:X::9

Addresses for IXP switch management

This range is used by the IXP manager to manage the IXP switches.

IXP Management	172.2X.10.0/24	fd90:172:2X:10::/64
sw1-grpX.ixp.nsrc.org	172.2X.10.1	fd90:172:2X:10::1
sw2-grpX.ixp.nsrc.org	172.2X.10.2	fd90:172:2X:10::2
sw3-grpX.ixp.nsrc.org	172.2X.10.3	fd90:172:2X:10::3
manager-grpX.ixp.nsrc.org	172.2X.10.4	fd90:172:2X:10::4

Autonomous system numbers

IXP	AS640X0
ISP1	AS640X1
ISP2	AS640X2
ISP3	AS640X3
ISP4	AS640X4
ISP5	AS640X5
ISP6	AS640X6
ISP7	AS640X7

