

Advanced Juniper Networks Routing in the Enterprise

8.a

Lab Diagrams



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Course Number: EDU-JUN-AJRE

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Advanced Juniper Networks Routing in the Enterprise Lab Diagrams, Revision 8.a

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The Internet in the Lab



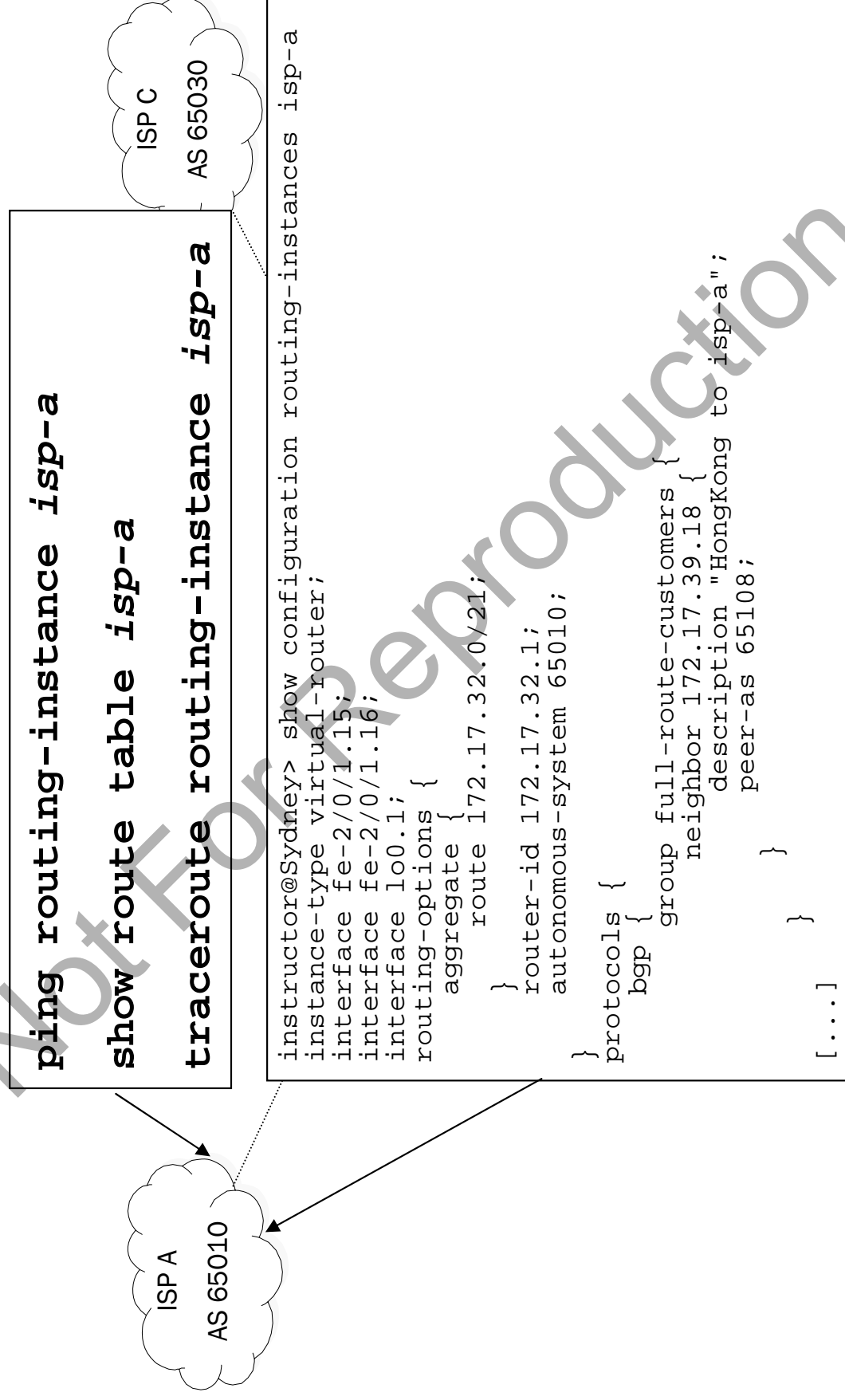
NOTE: These are all implemented as virtual router routing instances on Sydney. You can log in to Sydney and use it as a route server to examine routing tables and execute **ping** and **traceroute** for each of these virtual routers. See your lab guide for more details.

The Internet in the Lab

<p>(master)</p> <ul style="list-style-type: none">• Routing Table (*)• Interfaces• Routing Protocols		
isp-a	isp-b	isp-c
<ul style="list-style-type: none">• Routing Table (isp-a. *)• Interfaces• Routing Protocols	<ul style="list-style-type: none">• Routing Table (isp-b. *)• Interfaces• Routing Protocols	<ul style="list-style-type: none">• Routing Table (isp-c. *)• Interfaces• Routing Protocols

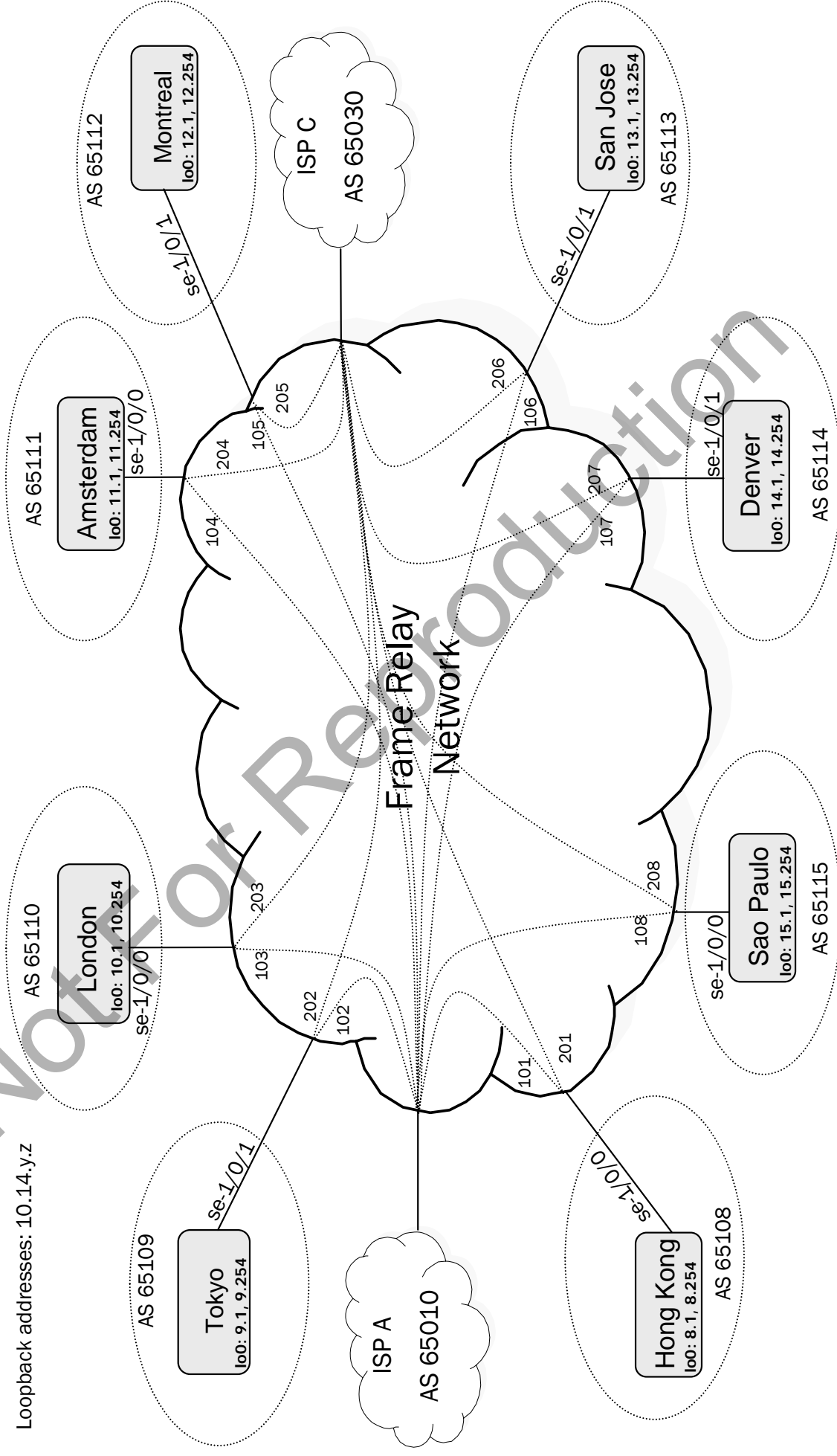


The Internet in the Lab



Lab 1a: Policy

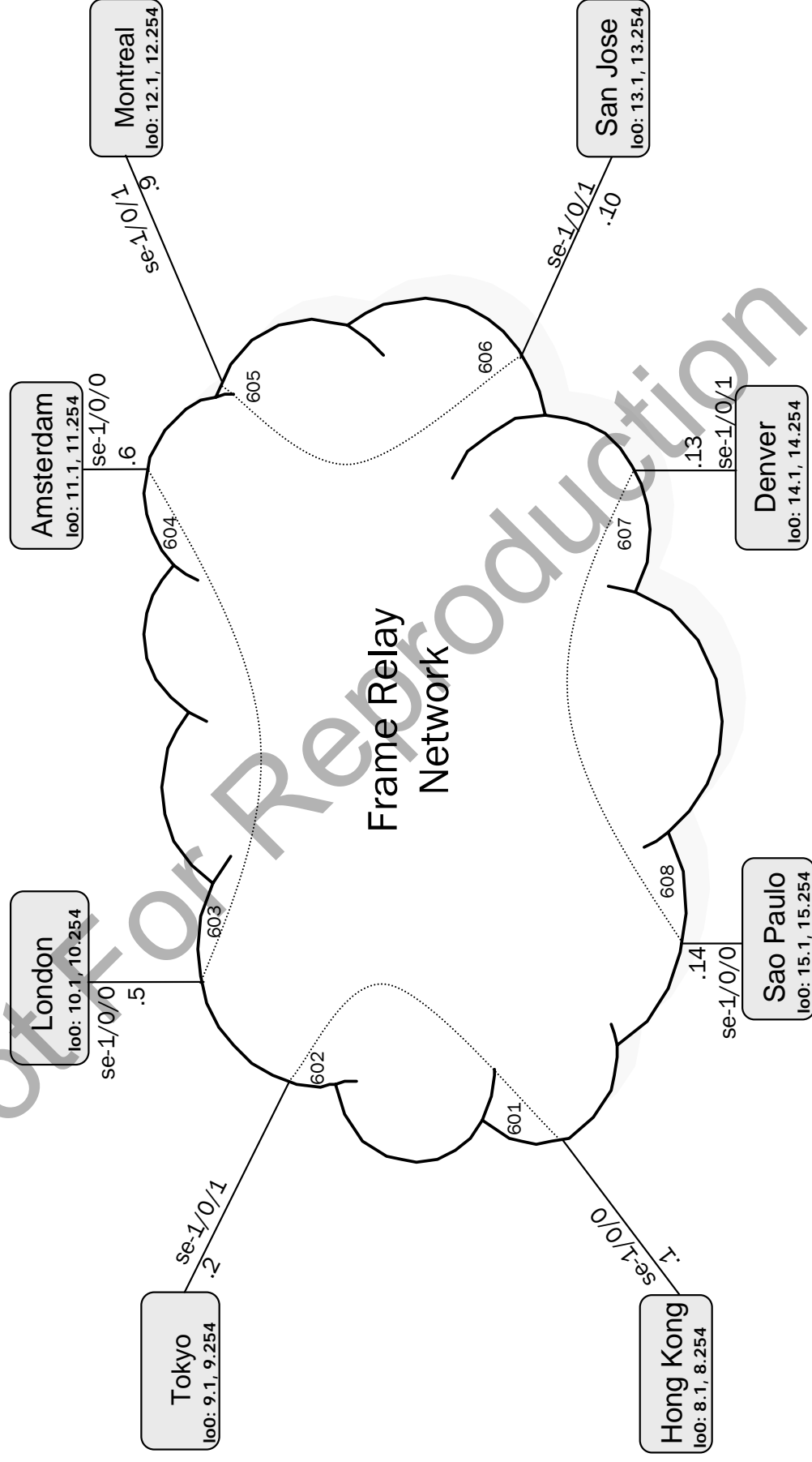
Loopback addresses: 10.14.y.z



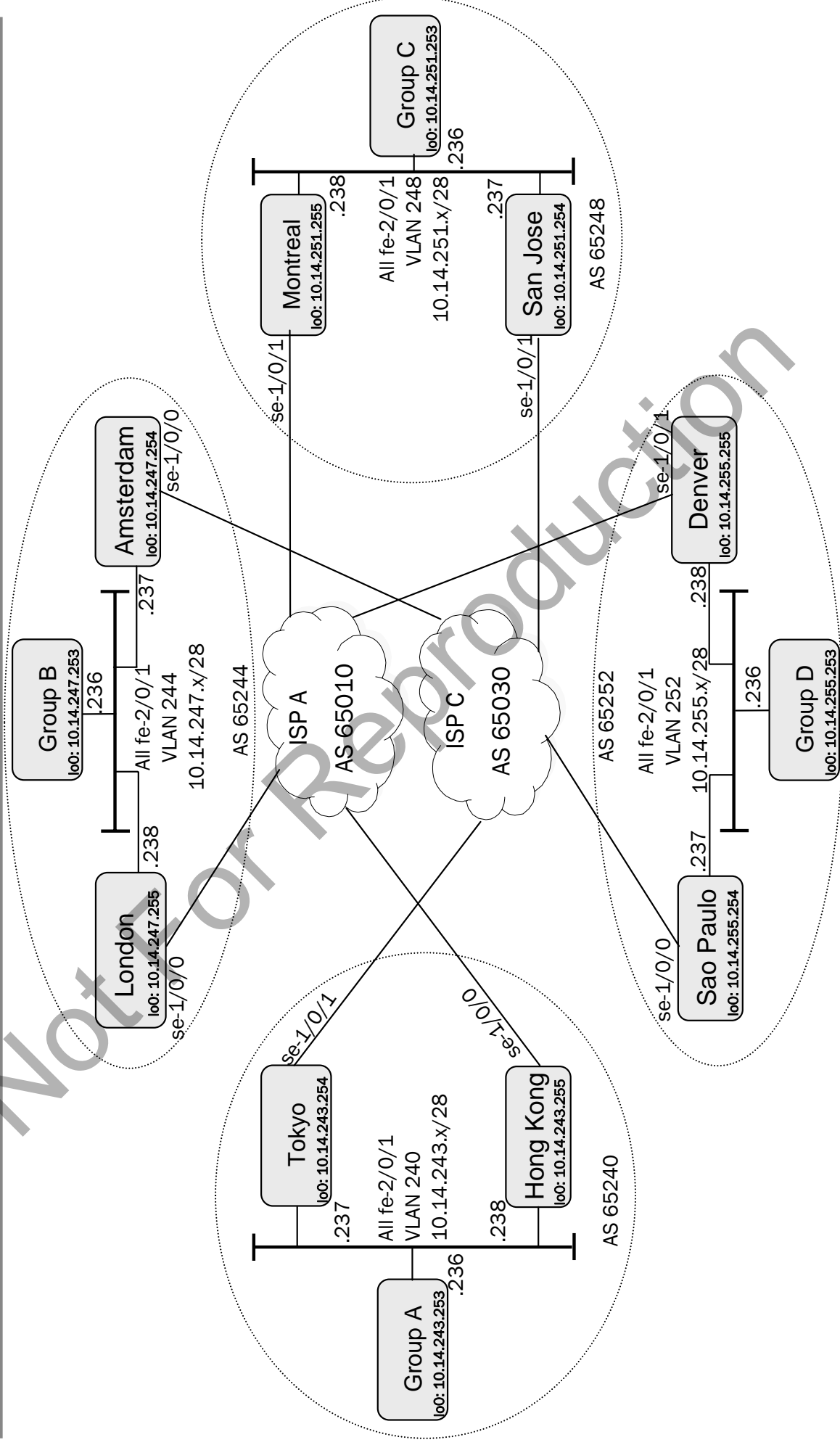
Lab 1b: Policy

Serial addresses: 192.168.25.x/30

Loopback addresses: 10.14.y.z



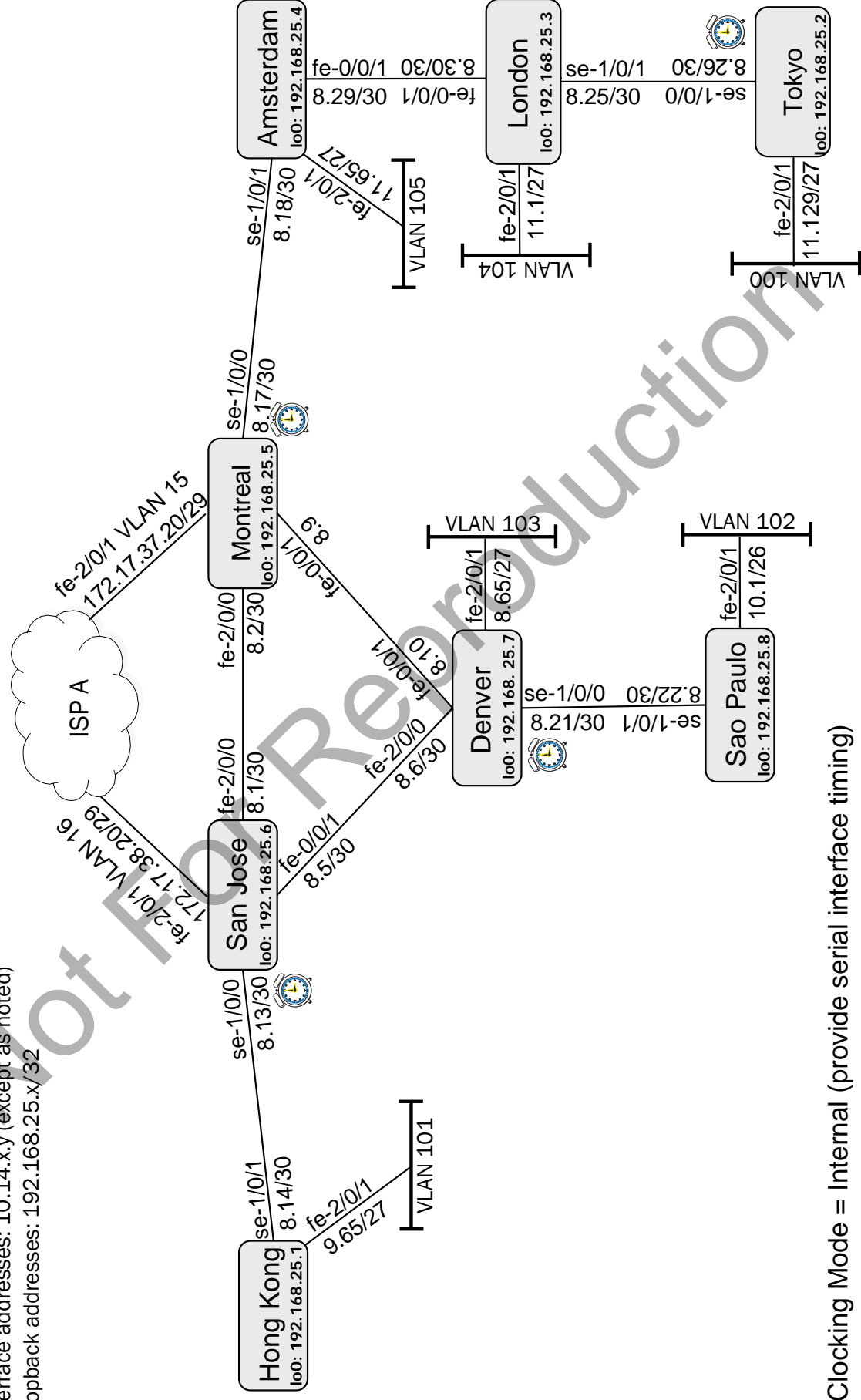
Lab 2: BGP Routing




Lab 3a: IGP Conversion

Interface addresses: 10.14.x.y (except as noted)

Loopback addresses: 192.168.25.x/32



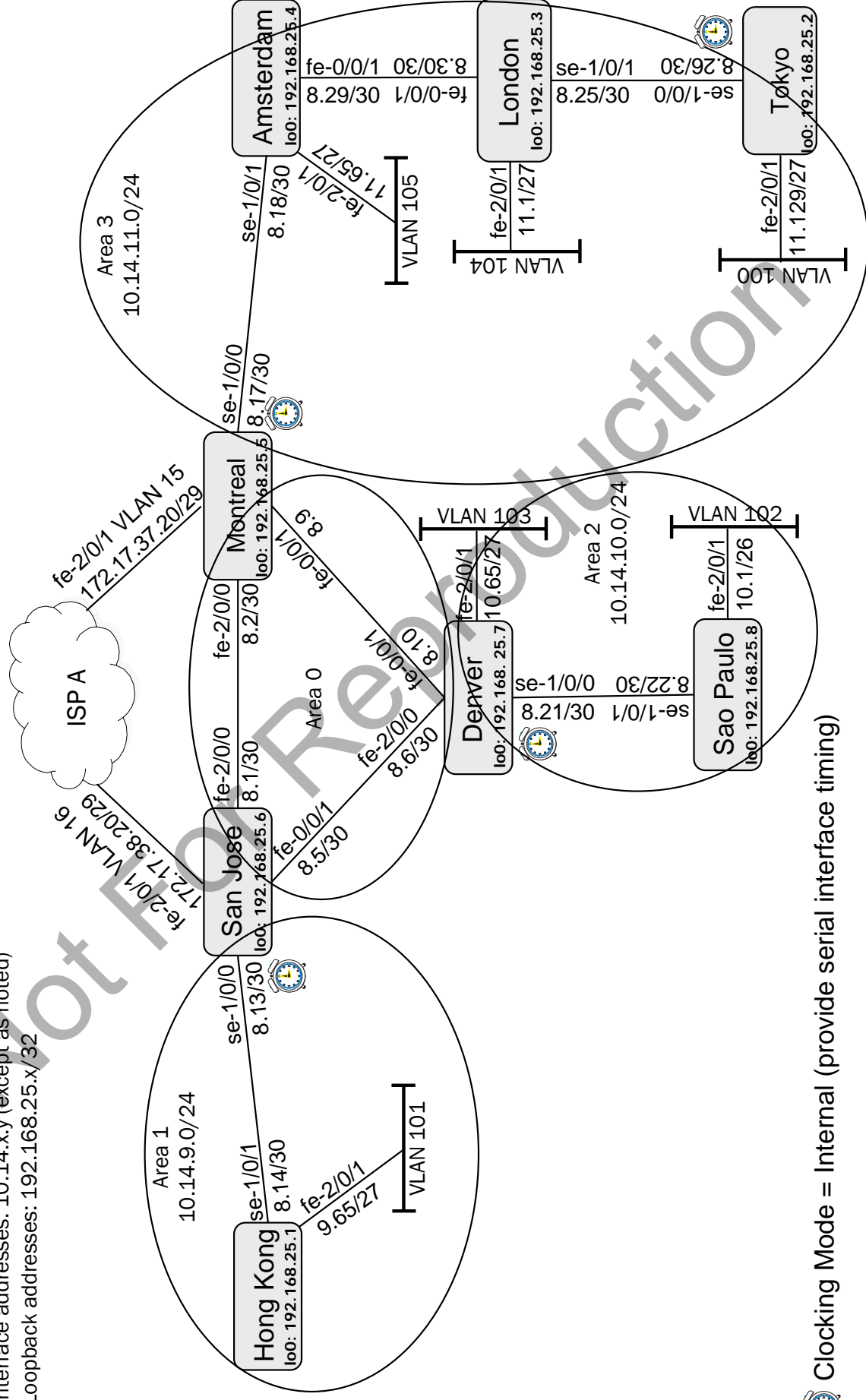
 Clocking Mode = Internal (provide serial interface timing)

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Lab 3b: IGP Conversion

Interface addresses: 10.14.x.y (except as noted)

Loopback addresses: 192.168.25.x/32

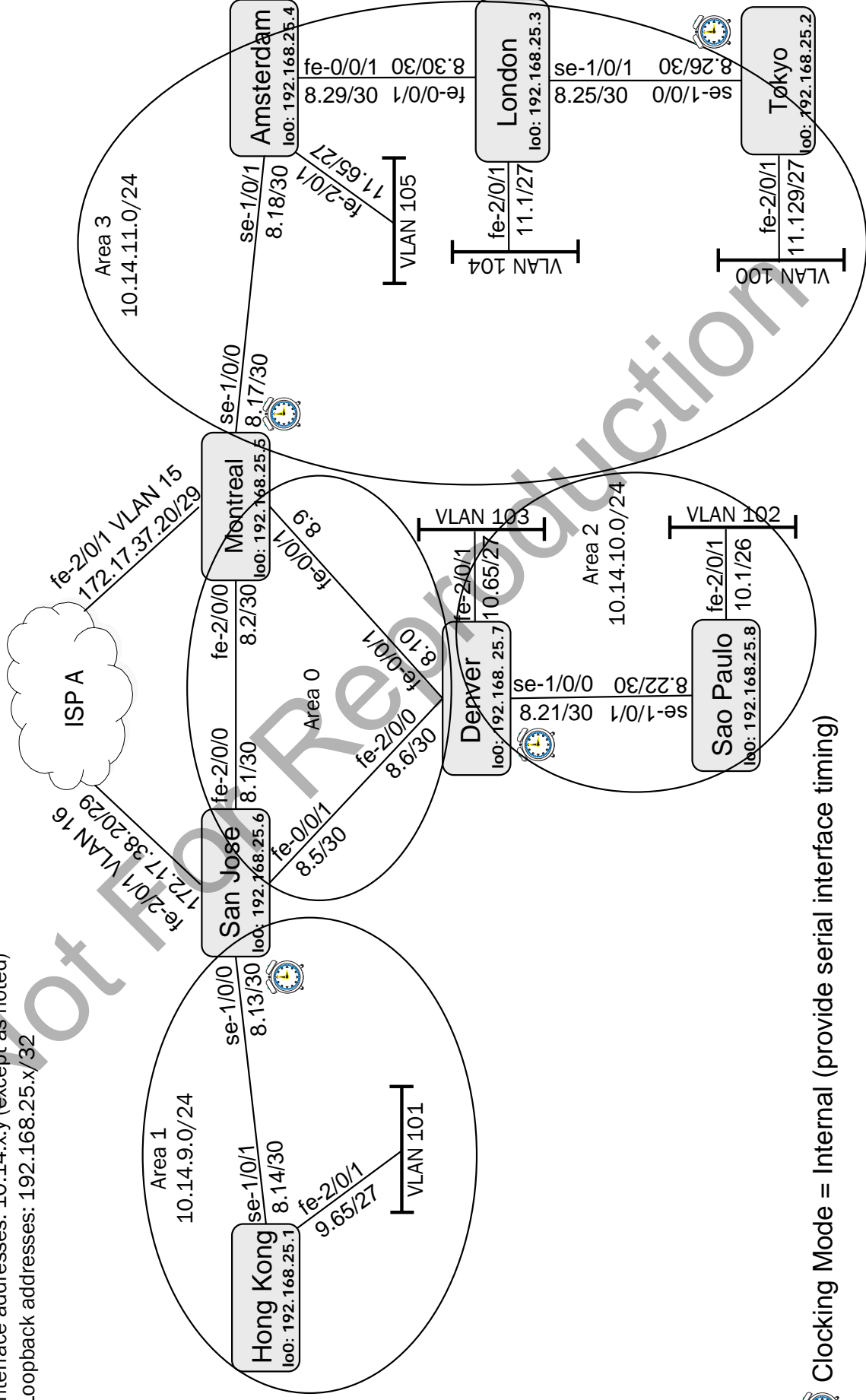


Clocking Mode = Internal (provide serial interface timing)

Lab 4a: CRTP

Interface addresses: 10.14.x.y (except as noted)

Loopback addresses: 192.168.25.x/32

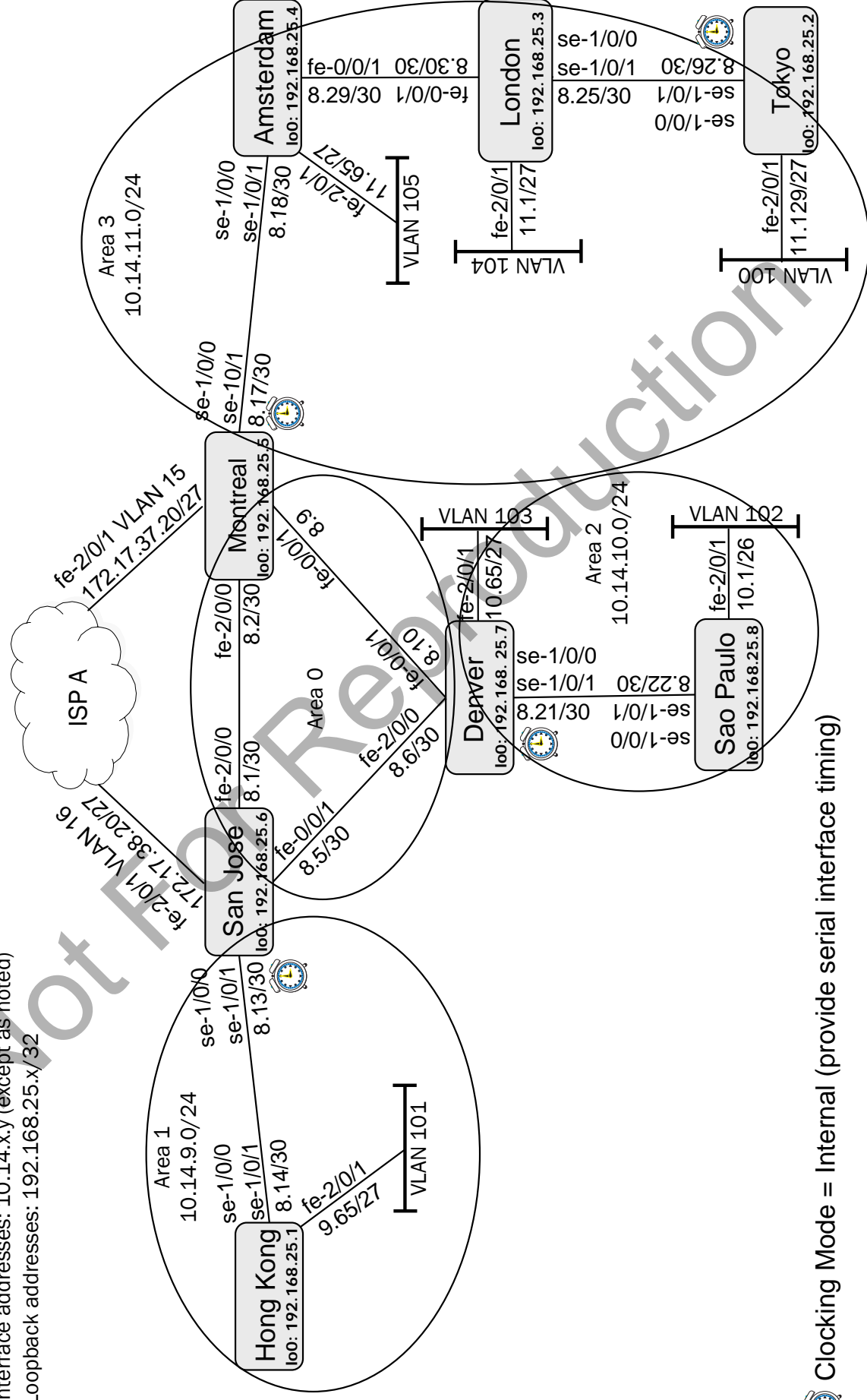


Clocking Mode = Internal (provide serial interface timing)

Lab 4b: Multilink PPP

Interface addresses: 10.14.x.y (except as noted)

Loopback addresses: 192.168.25.x/32

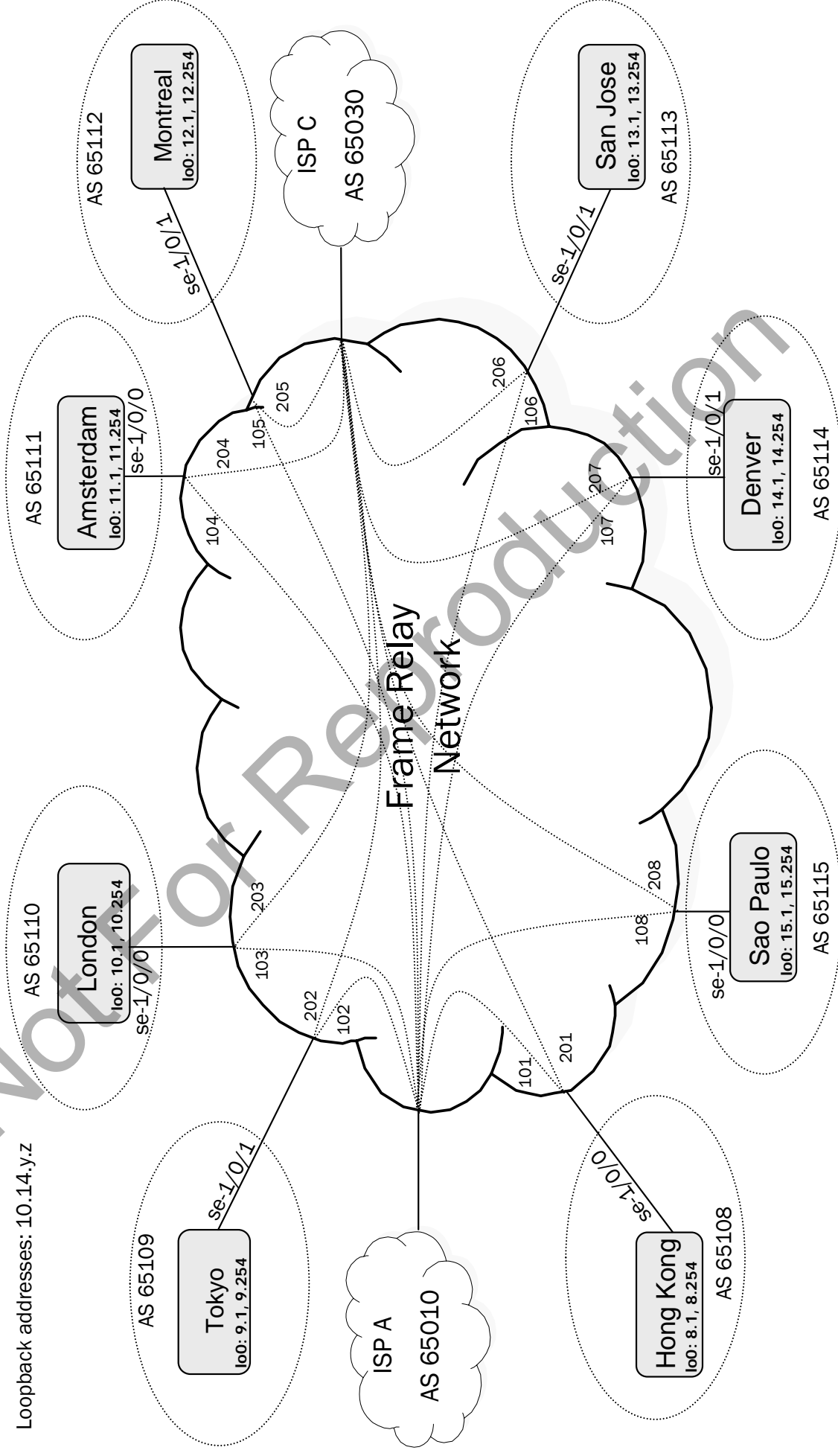


Clocking Mode = Internal (provide serial interface timing)

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Lab 5a: Firewall Policy and NAT

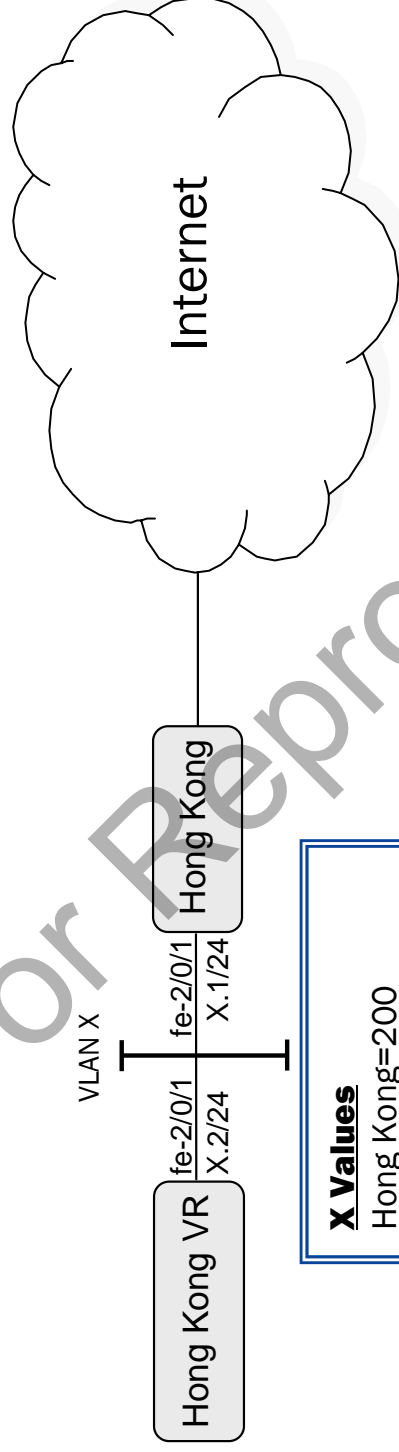
Loopback addresses: 10.14.y.z



Lab 5b: Firewall Policy and NAT

Fast Ethernet addresses: 192.168.x.z

Loopback addresses: 10.14.y.z



X Values

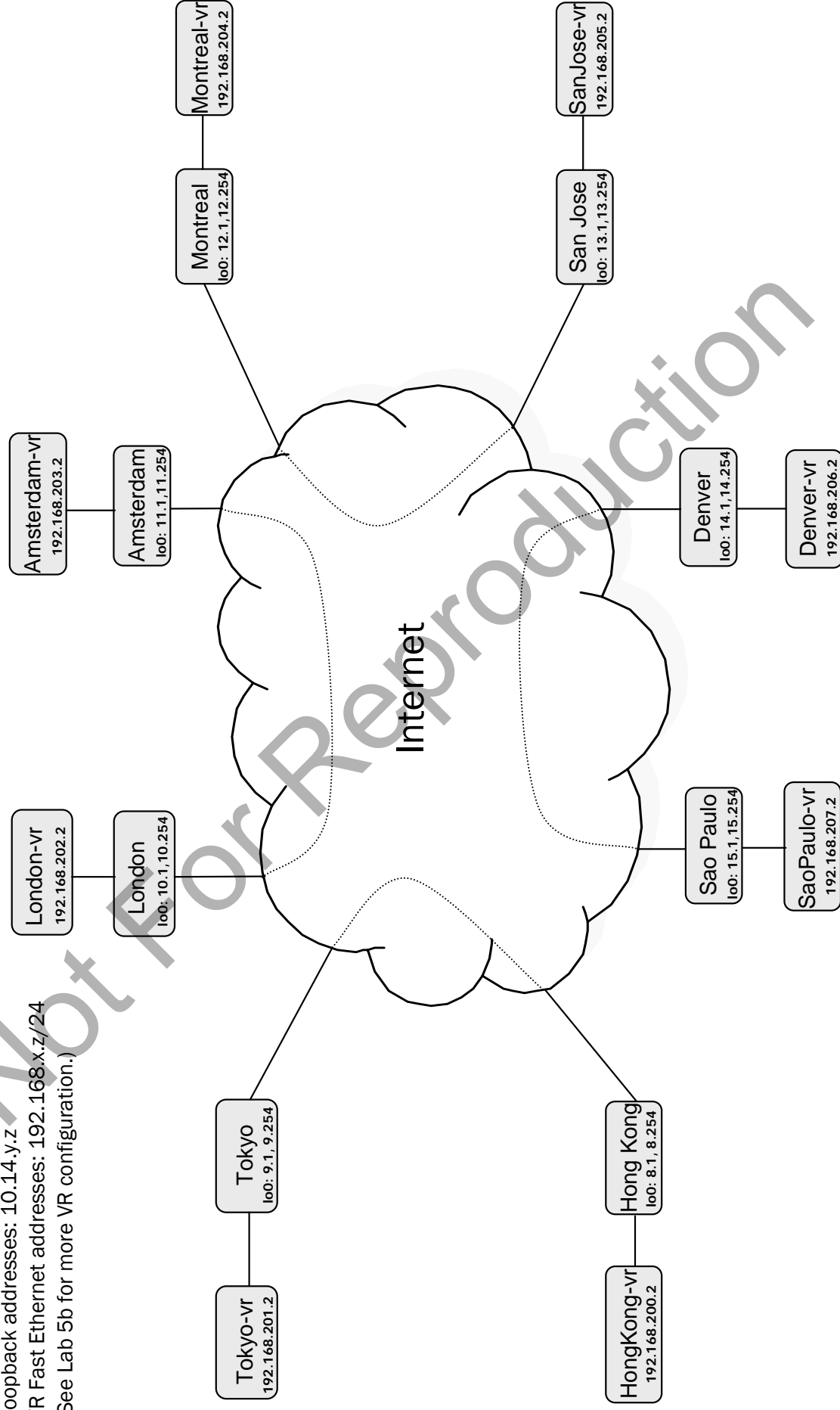
Hong Kong=200
Tokyo=201
London=202
Amsterdam=203
Montreal=204
San Jose=205
Denver=206
Sao Paulo=207

Lab 6: IPSec VPNs

Loopback addresses: 10.14.y.z

VR Fast Ethernet addresses: 192.168.x.z/24

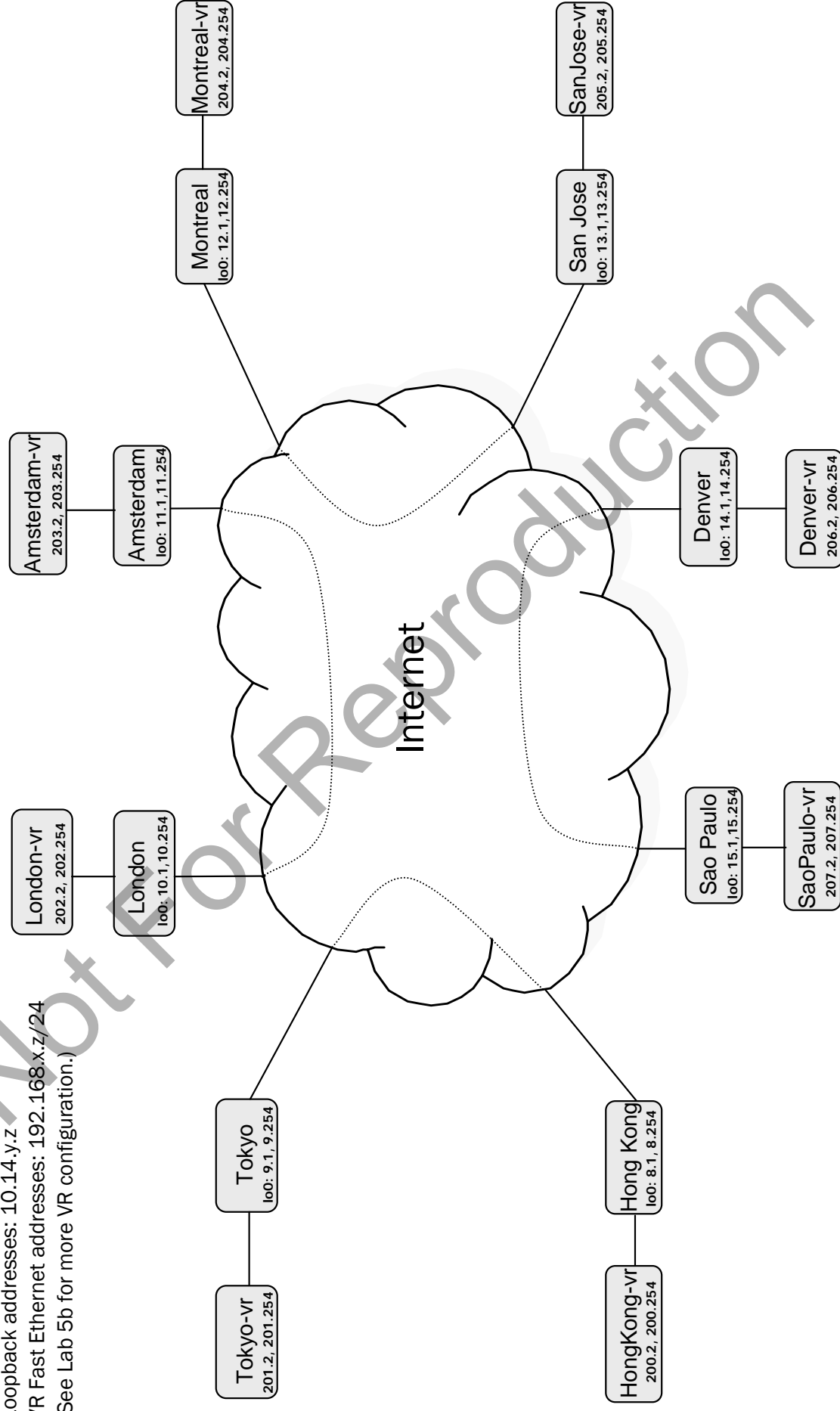
(See Lab 5b for more VR configuration.)



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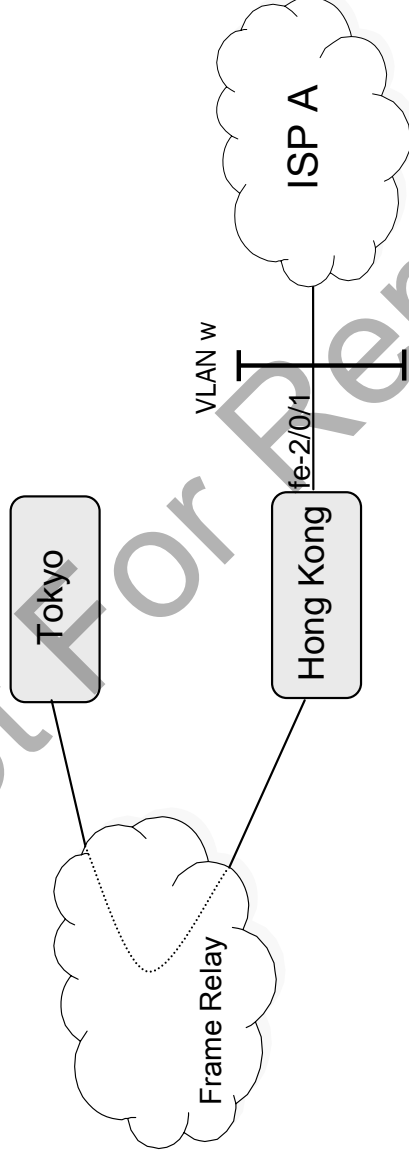
Lab 7: CoS

Loopback addresses: 10.14.y.z
VR Fast Ethernet addresses: 192.168.x.z/24
(See Lab 5b for more VR configuration.)



Lab 8a: Branch Office Connectivity

Fast Ethernet Addresses: 172.17.x.y/29
Provider Gateway: 172.17.x.z



Serial Interface and DLCI

(See Lab 1b diagram for interface, DLCI, and IP address assignments.)

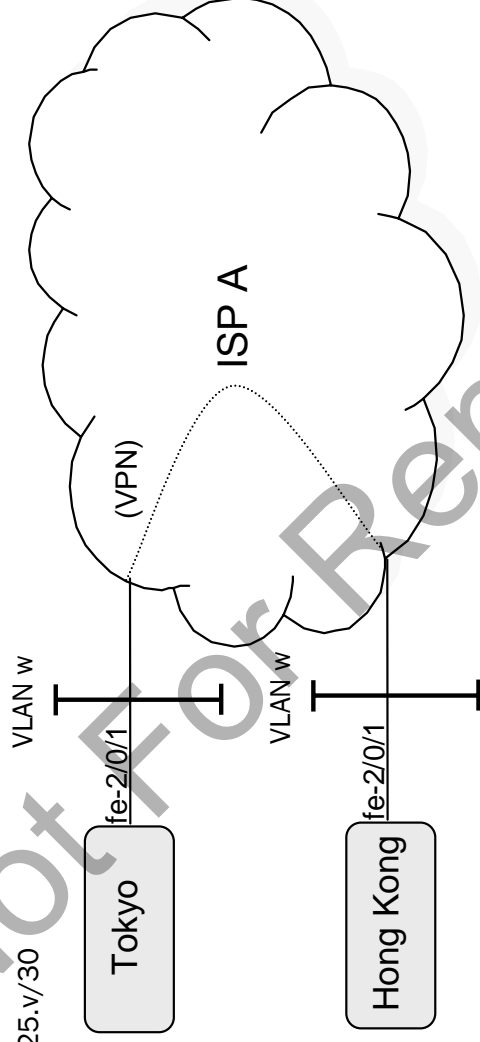
Router	lo0	VLAN (w)	fe-2/0/1 (x.y)	Provider GW (x.z)
Hong Kong	192.168.200.1, .254	11	37.4	37.1
Tokyo	192.168.201.1, .254			
London	192.168.202.1, .254	13	37.12	37.9
Amsterdam	192.168.203.1, .254			
Montreal	192.168.204.1, .254	15	37.20	37.17
San Jose	192.168.205.1, .254			
Denver	192.168.206.1, .254	17	37.28	37.25
Sao Paulo	192.168.207.1, .254			

Lab 8b: Branch Office Connectivity

Fast Ethernet Addresses: 172.17.x.y/29

Provider Gateway: 172.17.x.z

gr-0/0/0.0 address: 192.168.25.v/30



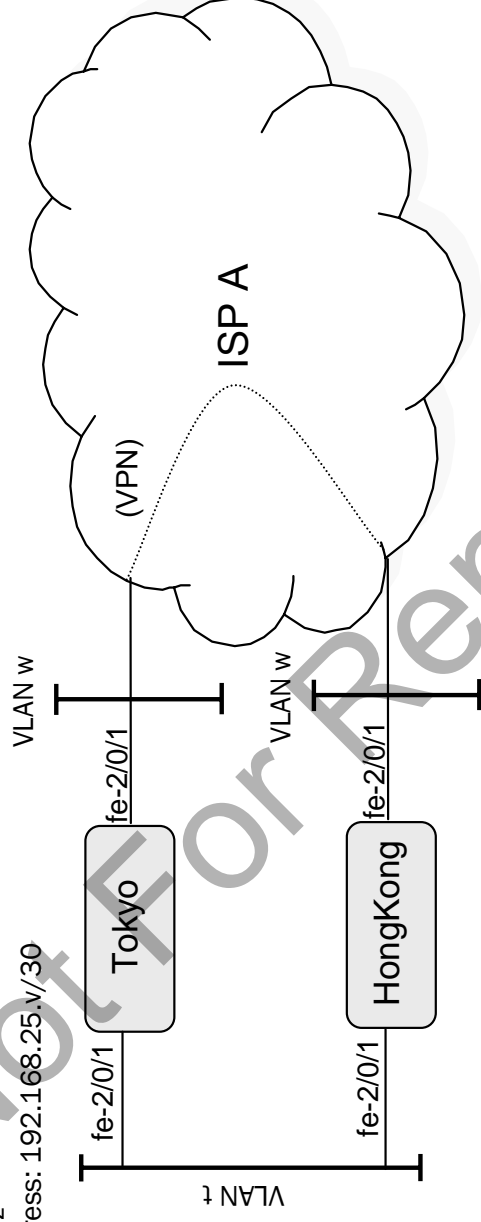
Router	lo0	gr0 (v)	VLAN (w)	fe-2/0/1 (x.y)	Provider GW (x.z)
Hong Kong	192.168.200.1,.254	.129	11	37.4	37.1
Tokyo	192.168.201.1,.254	.130	12	38.4	38.1
London	192.168.202.1,.254	.133	13	37.12	37.9
Amsterdam	192.168.203.1,.254	.134	14	38.12	38.9
Montreal	192.168.204.1,.254	.137	15	37.20	37.17
San Jose	192.168.205.1,.254	.138	16	38.20	38.17
Denver	192.168.206.1,.254	.141	17	37.28	37.25
Sao Paulo	192.168.207.1,.254	.142	18	38.28	38.25

Lab 8c: Branch Office Connectivity

Fast Ethernet Addresses: 172.17.x.y/29

Provider Gateway: 172.17.x.z

gr-0/0/0.0 and L2 VPN address: 192.168.25.v/30



Router	lo0	L2VPN VLAN (t)	L2VPN (v)	gr0 (v)	VLAN (w)	fe-2/0/1 (x.y)	Provider GW (x.z)
Hong Kong	192.168.200.1,.254	601	.1	.129	11	37.4	37.1
Tokyo	192.168.201.1,.254	601	.2	.130	12	38.4	38.1
London	192.168.202.1,.254	602	.5	.133	13	37.12	37.9
Amsterdam	192.168.203.1,.254	602	.6	.134	14	38.12	38.9
Montreal	192.168.204.1,.254	603	.9	.137	15	37.20	37.17
San Jose	192.168.205.1,.254	603	.10	.138	16	38.20	38.17
Denver	192.168.206.1,.254	604	.13	.141	17	37.28	37.25
Sao Paulo	192.168.207.1,.254	604	.14	.142	18	38.28	38.25