Switching Features

Ross Bagurdes
NETWORK ENGINEER

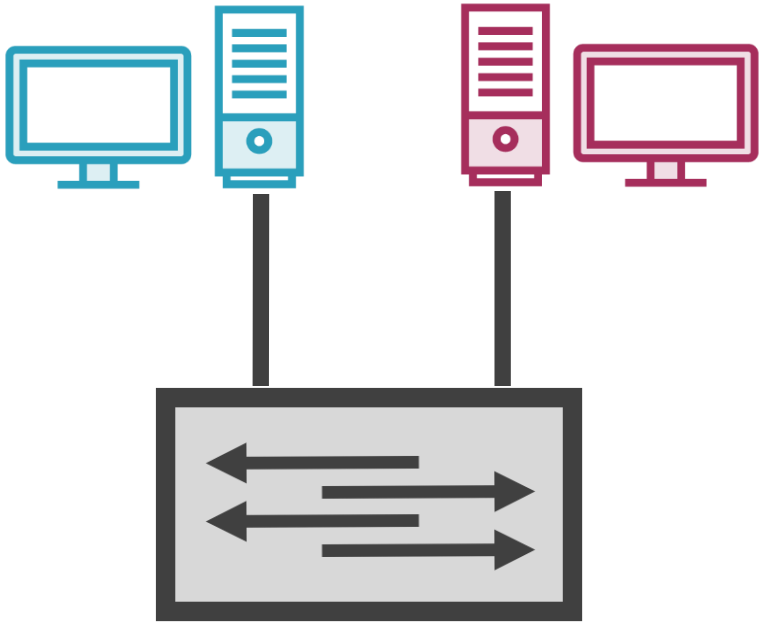
@bagurdes

Module Goals

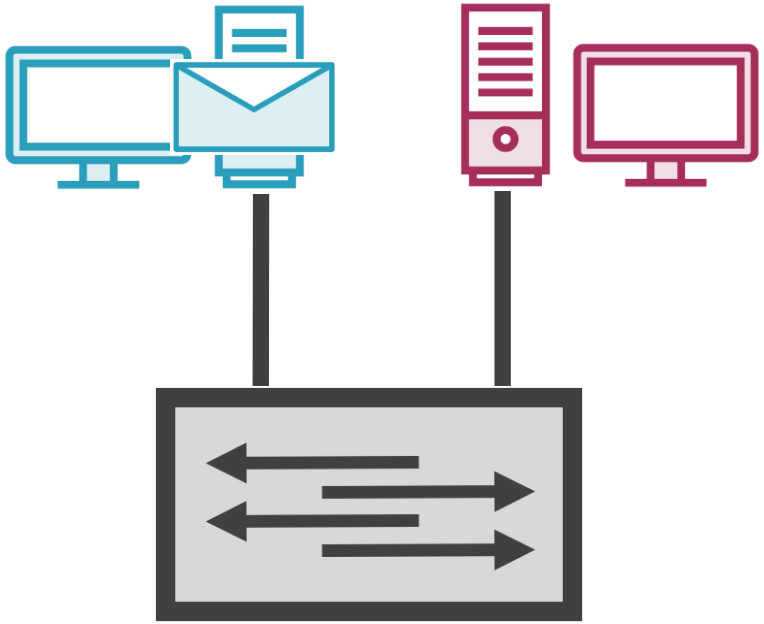
- Broadcast Storms and Prevention
- VLANs
- Mirroring Switchports
- Power over Ethernet

Connecting Switches

Broadcast Messages



Broadcast Messages



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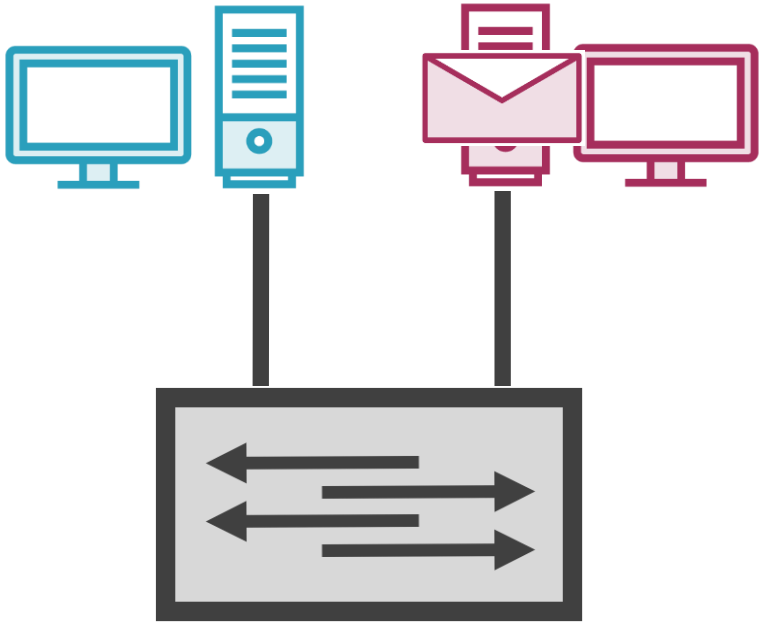

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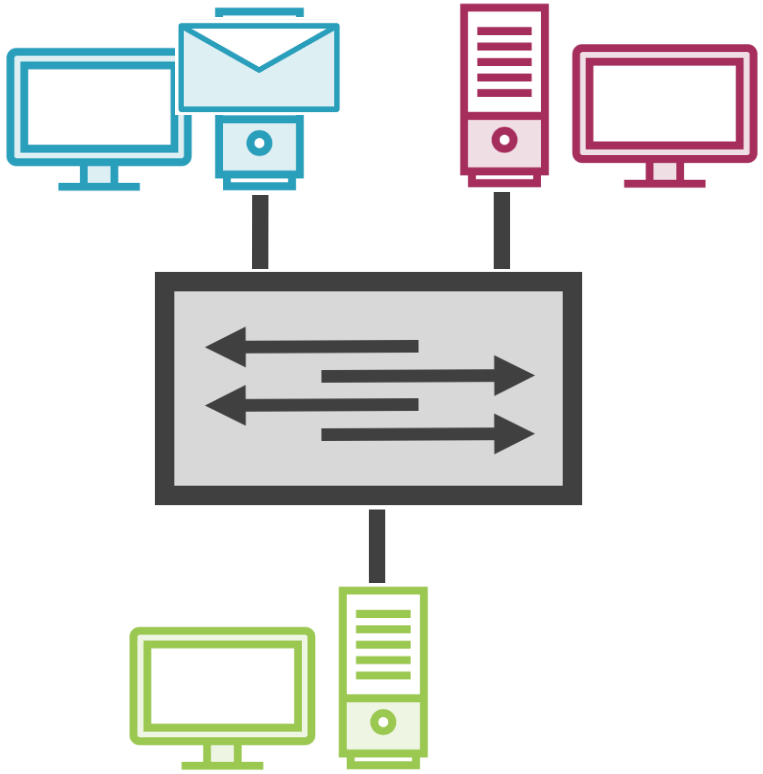

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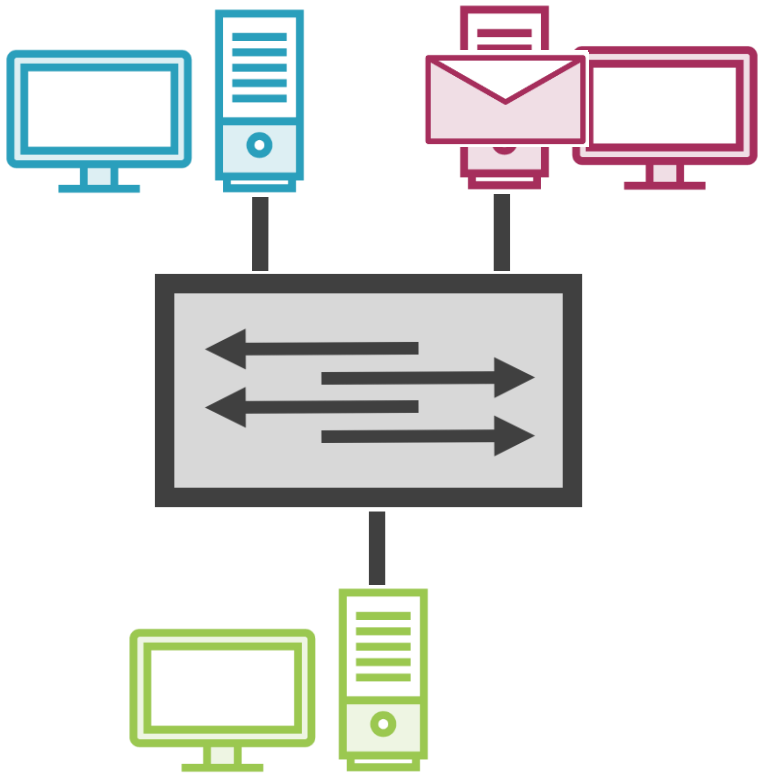

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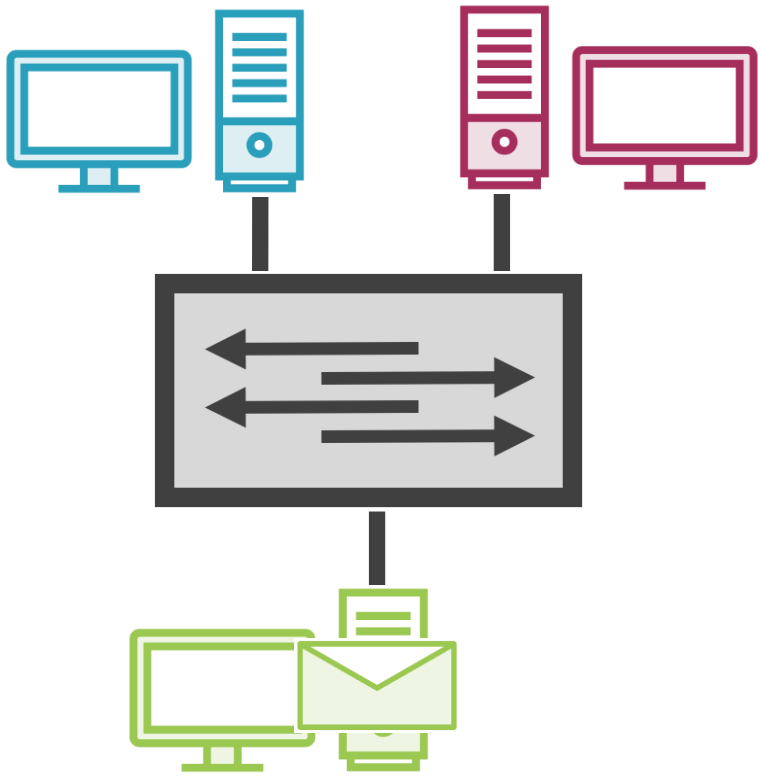

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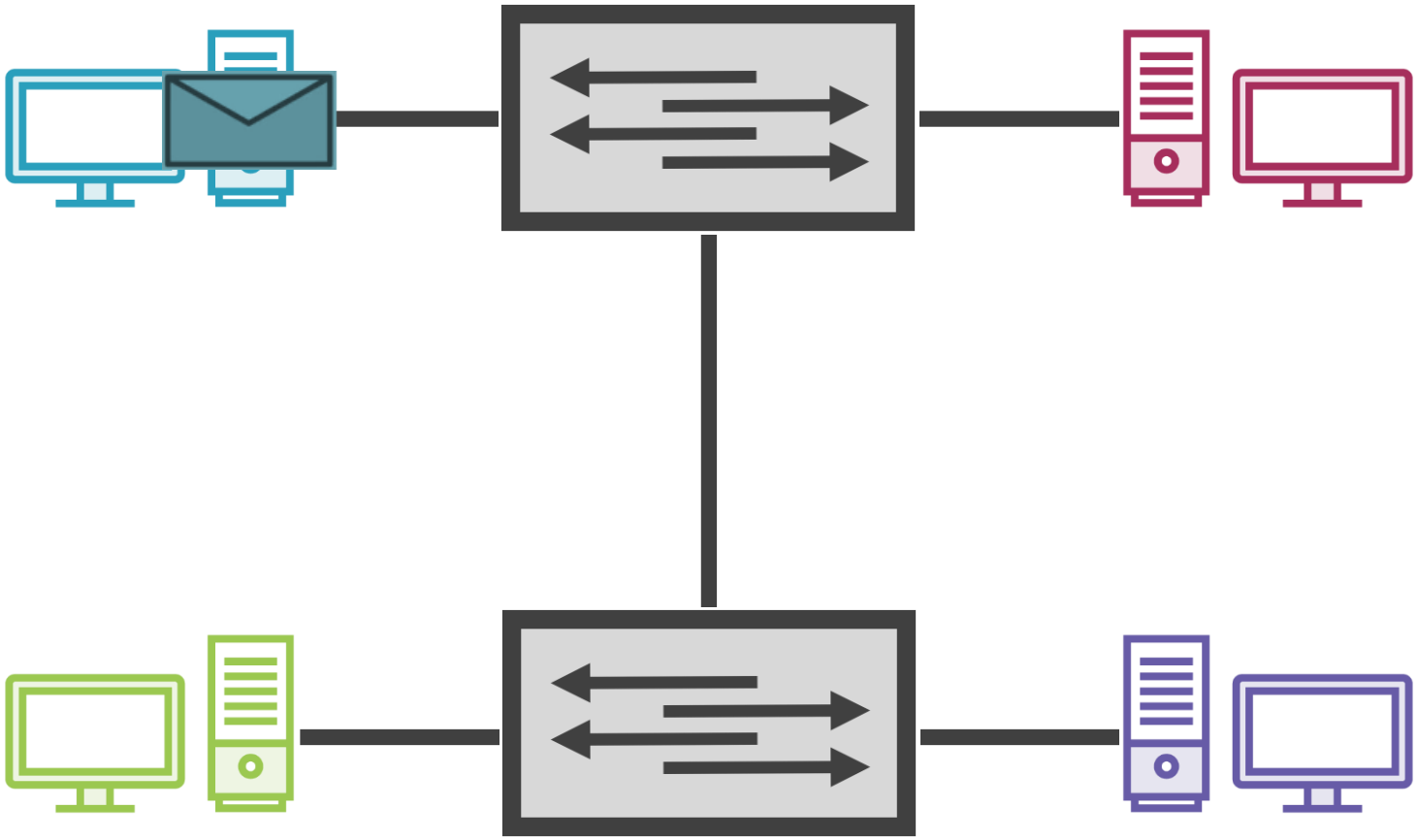

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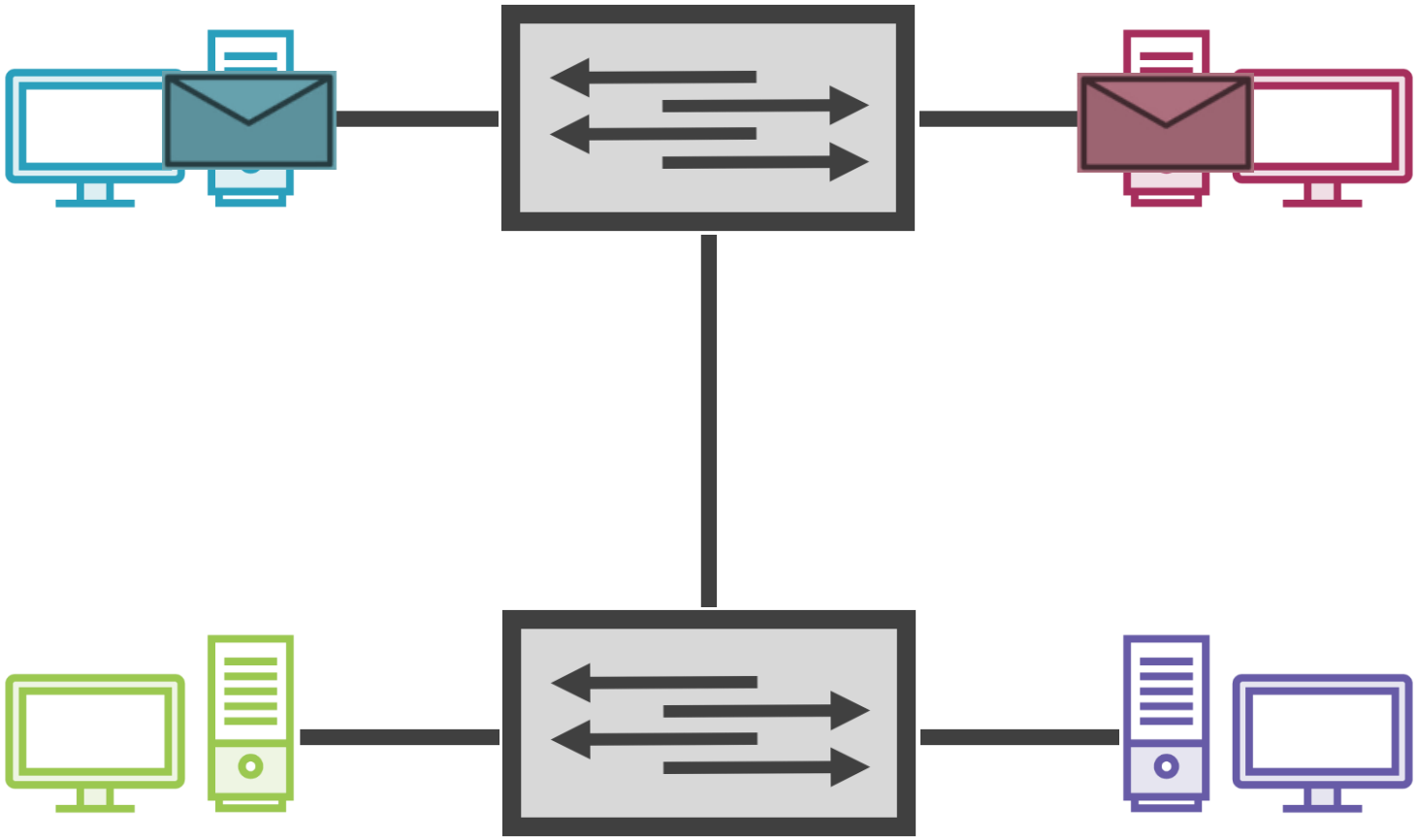

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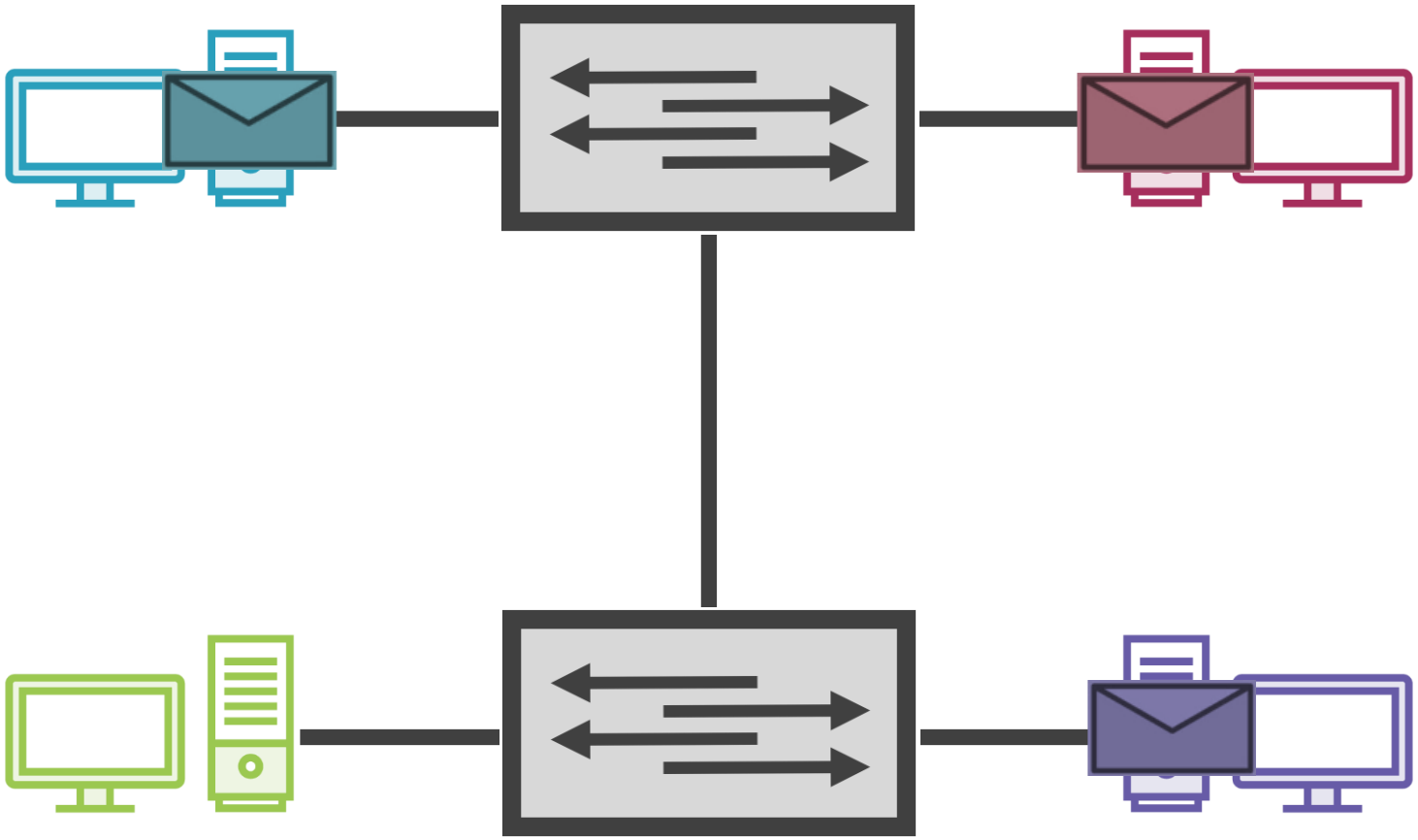

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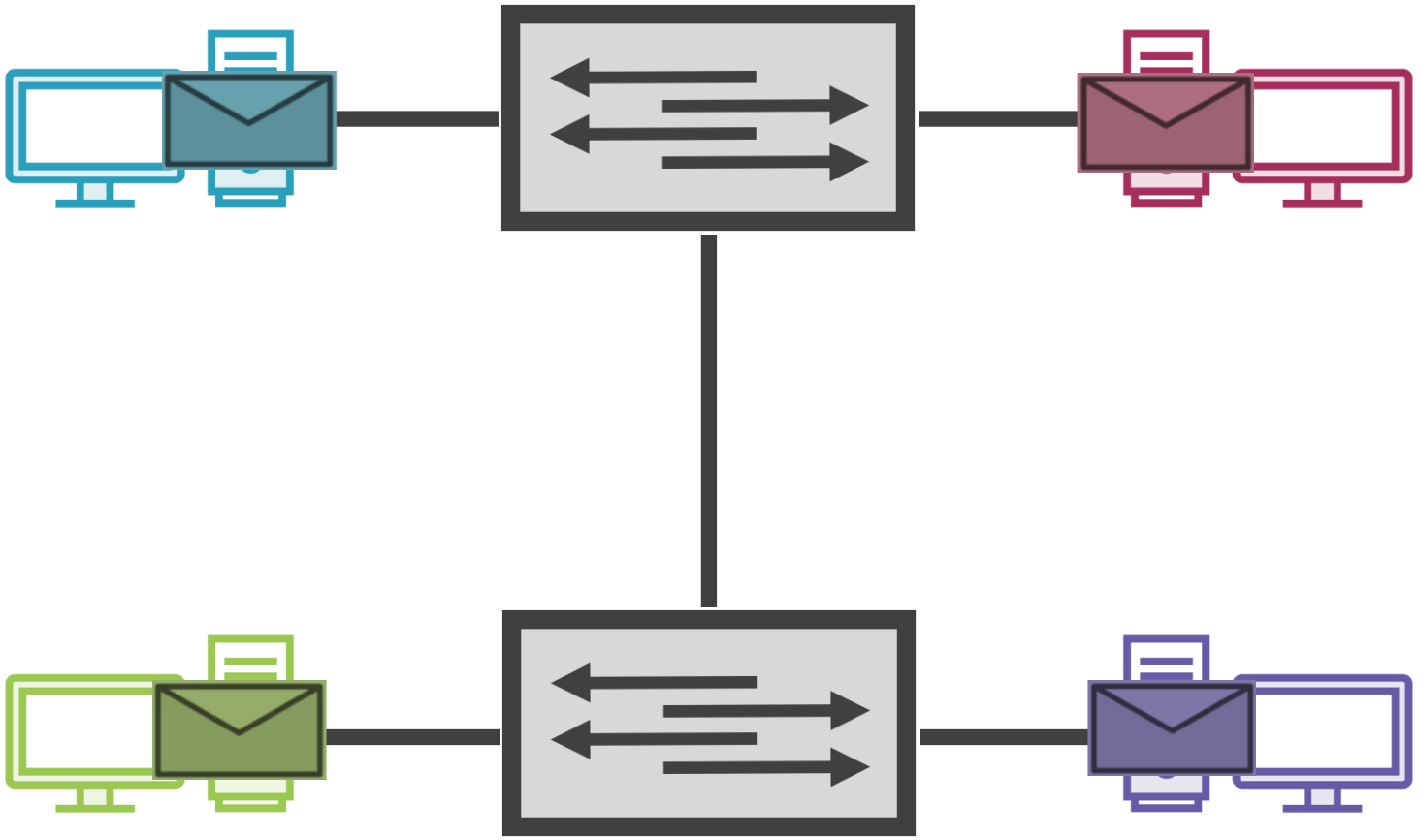

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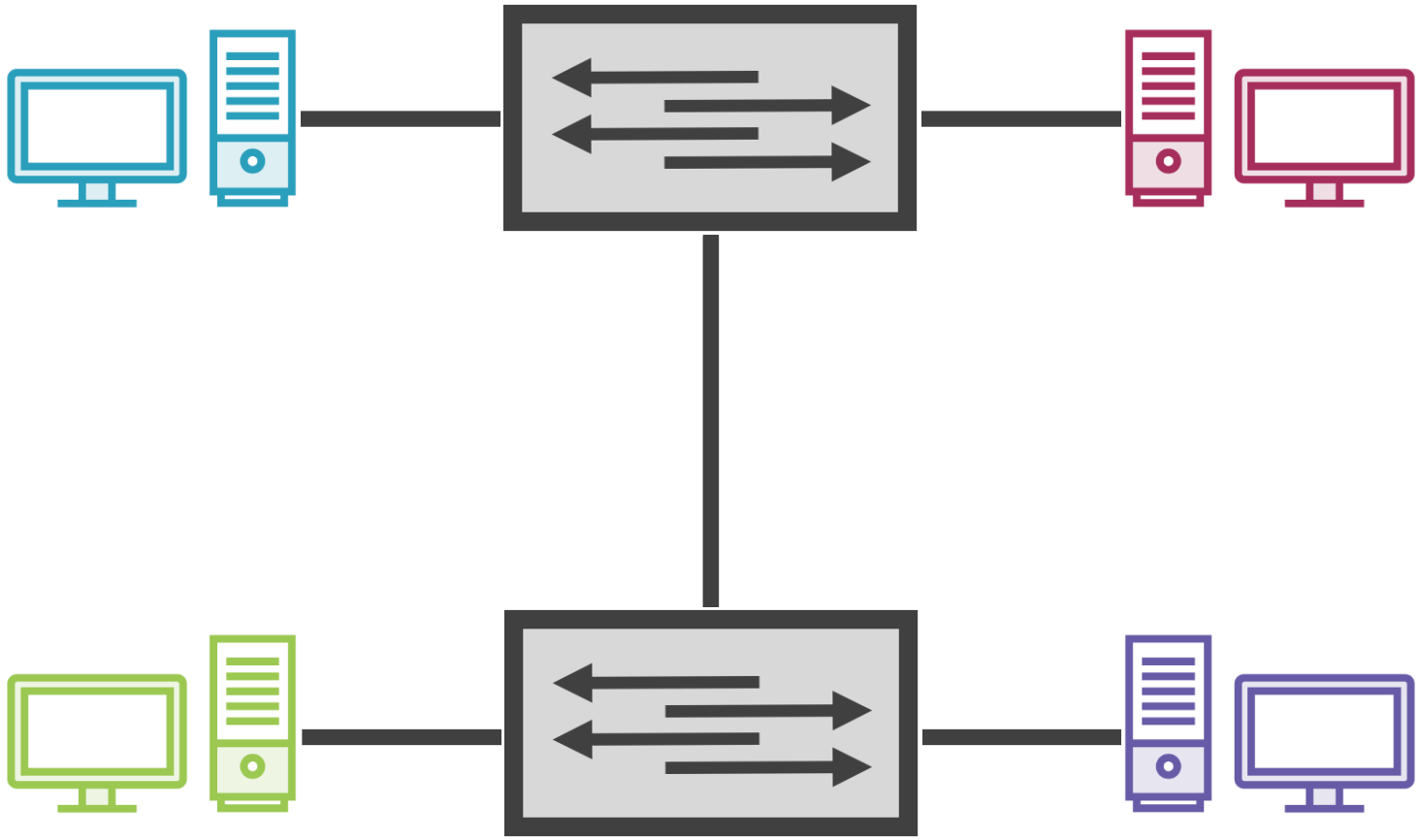

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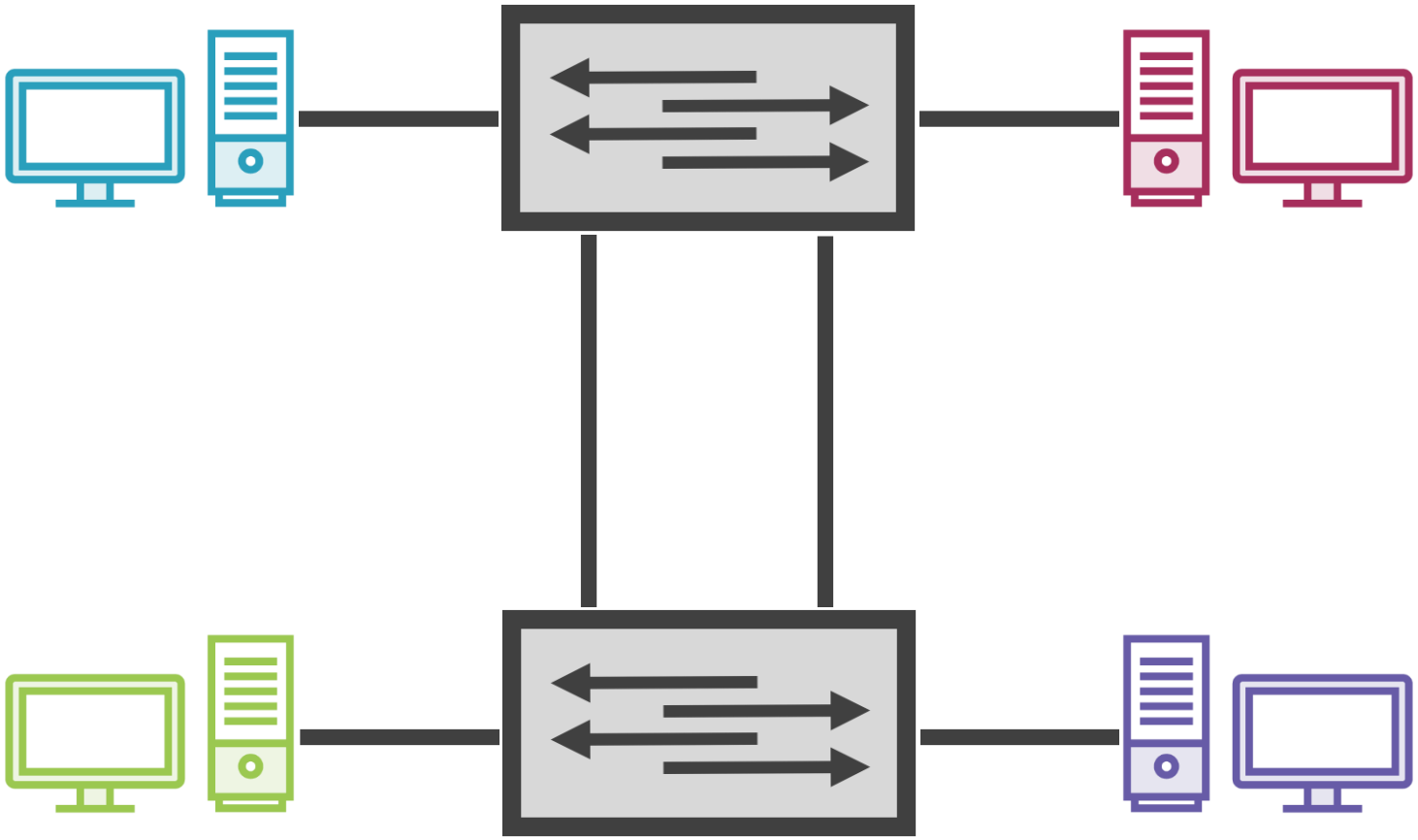

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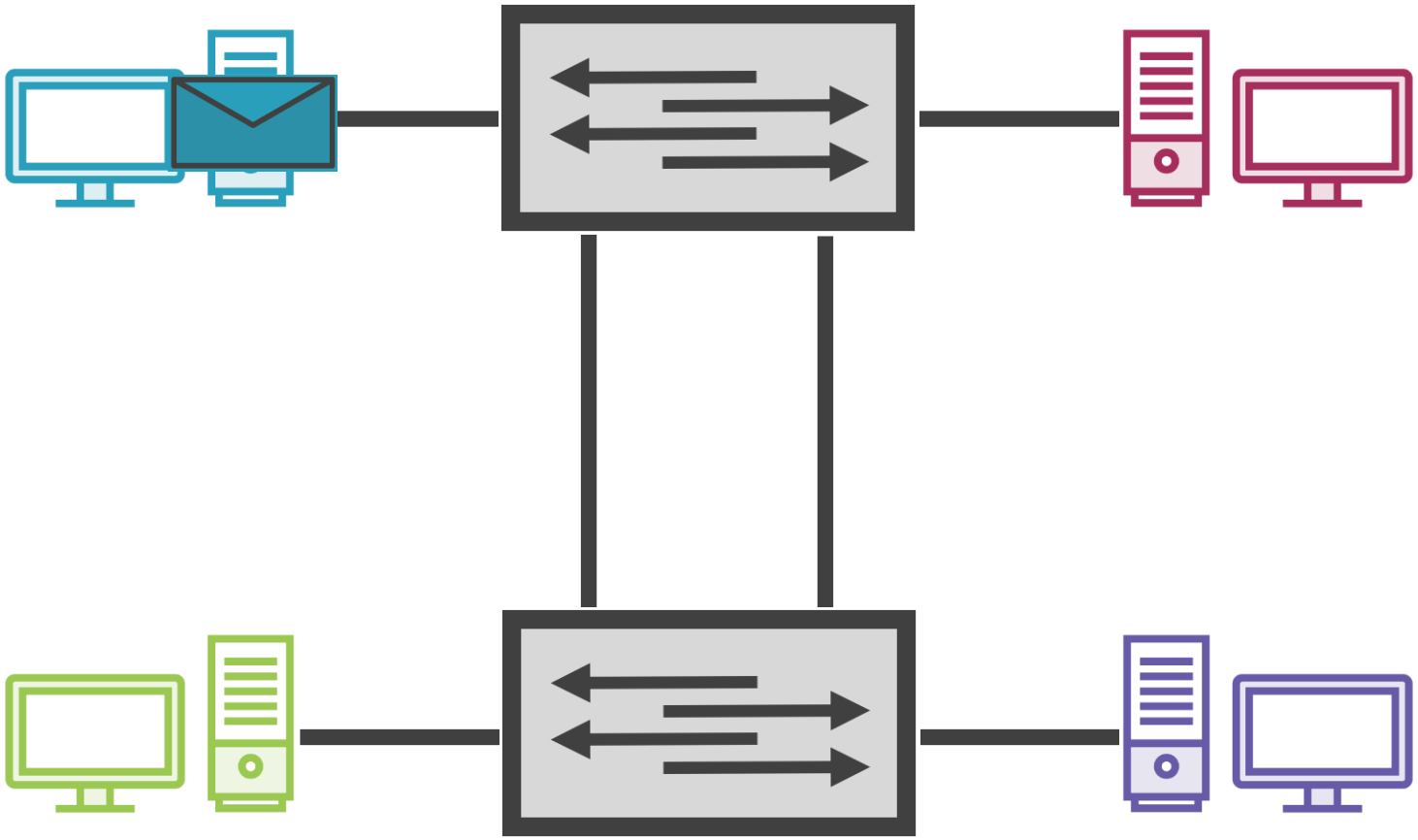

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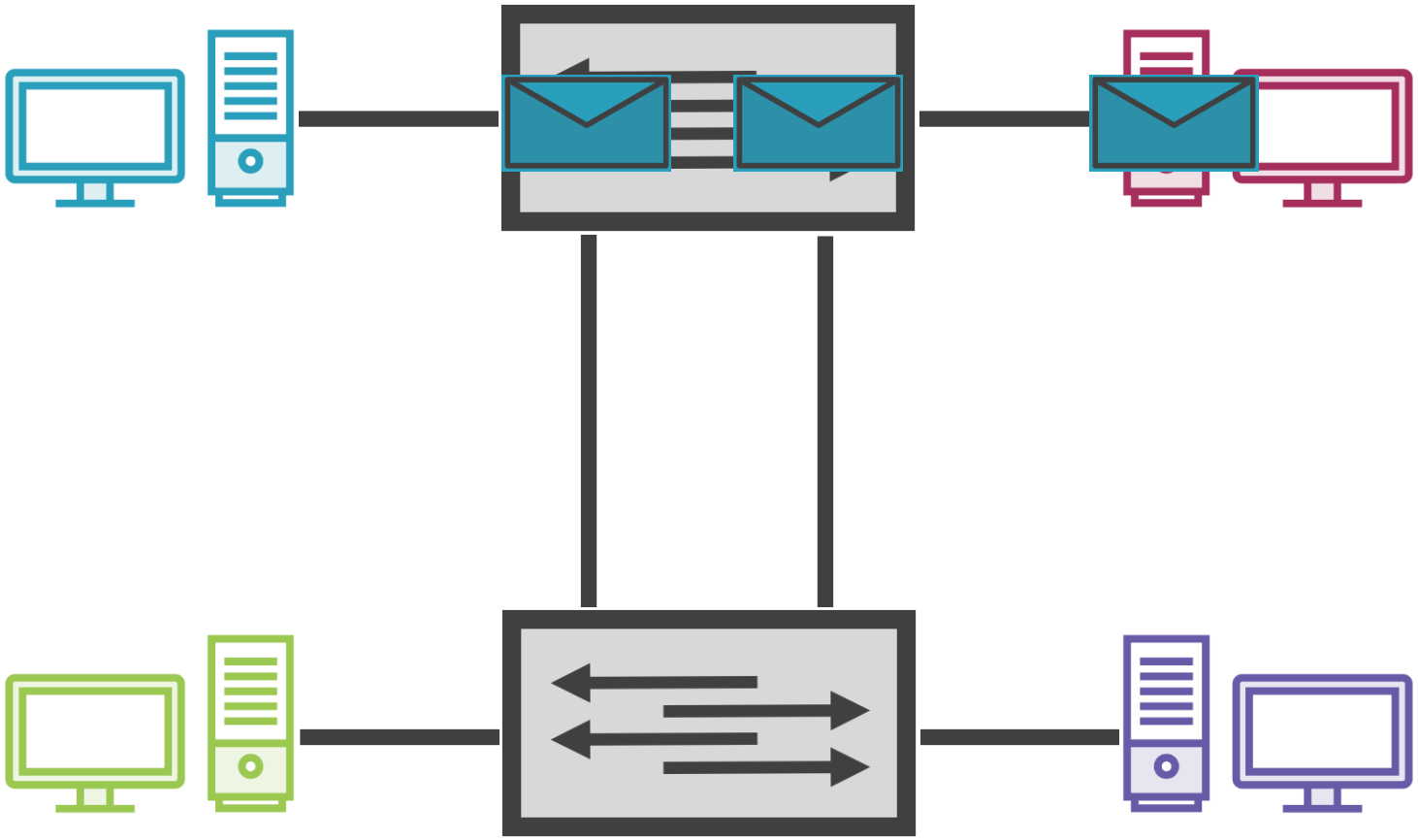

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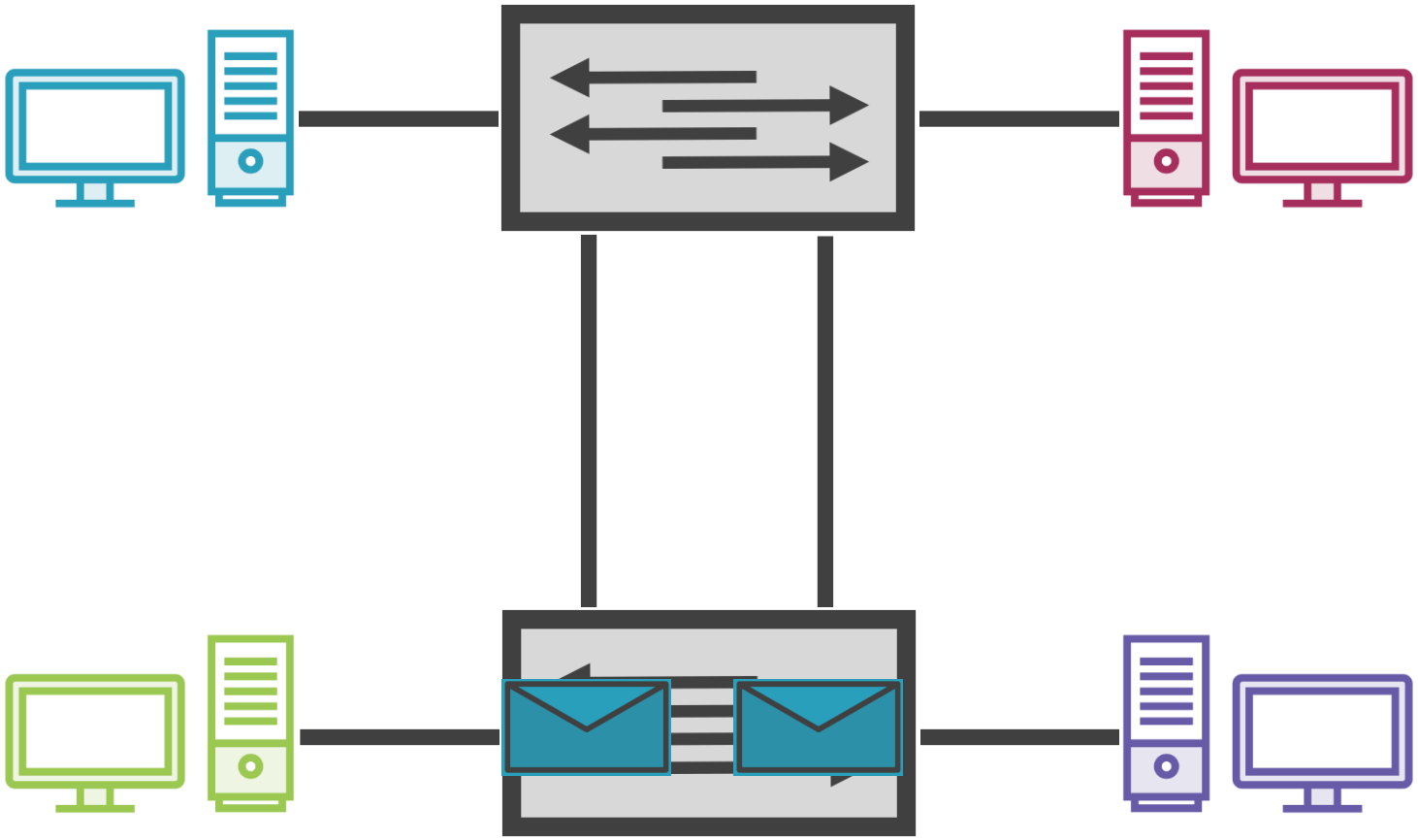

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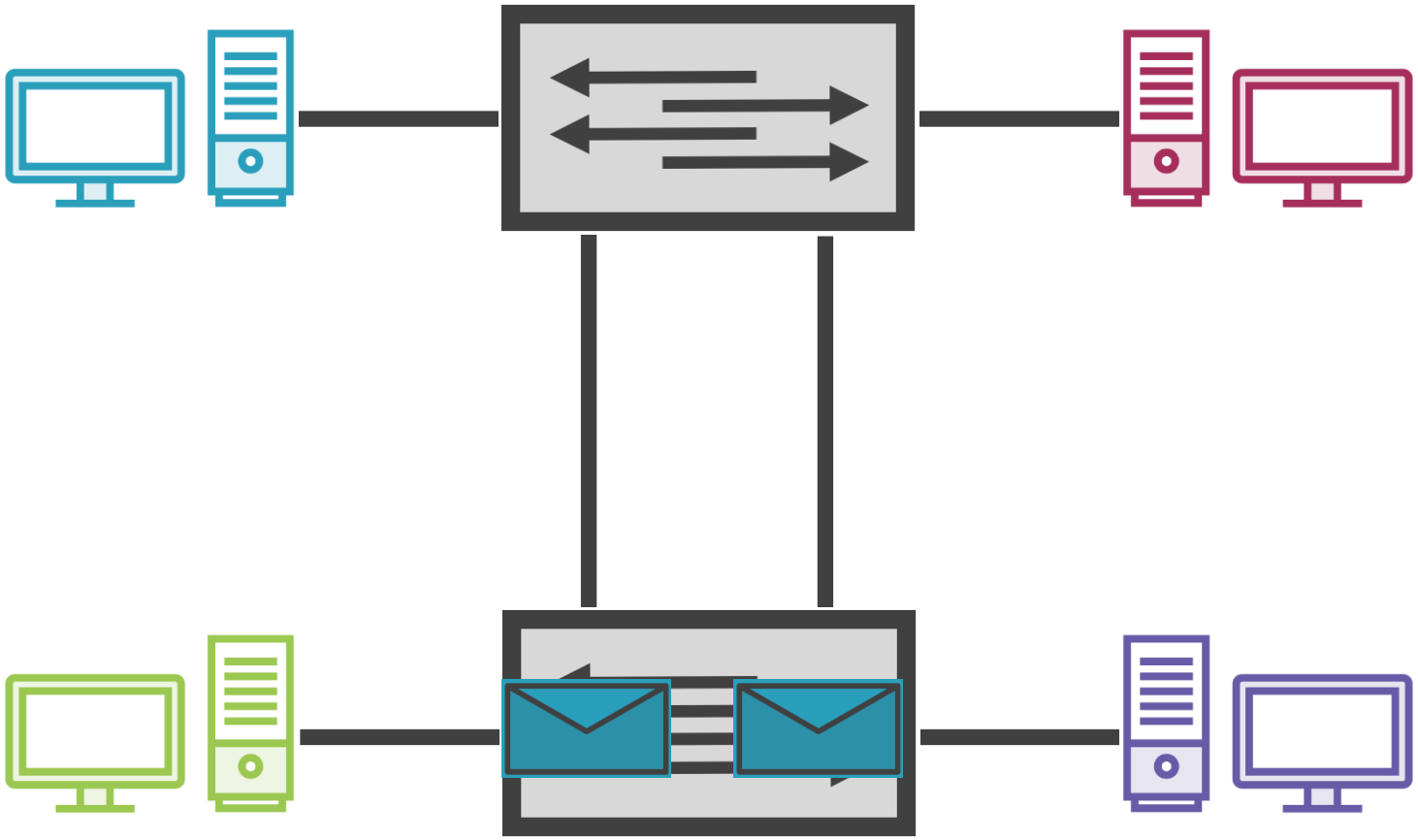

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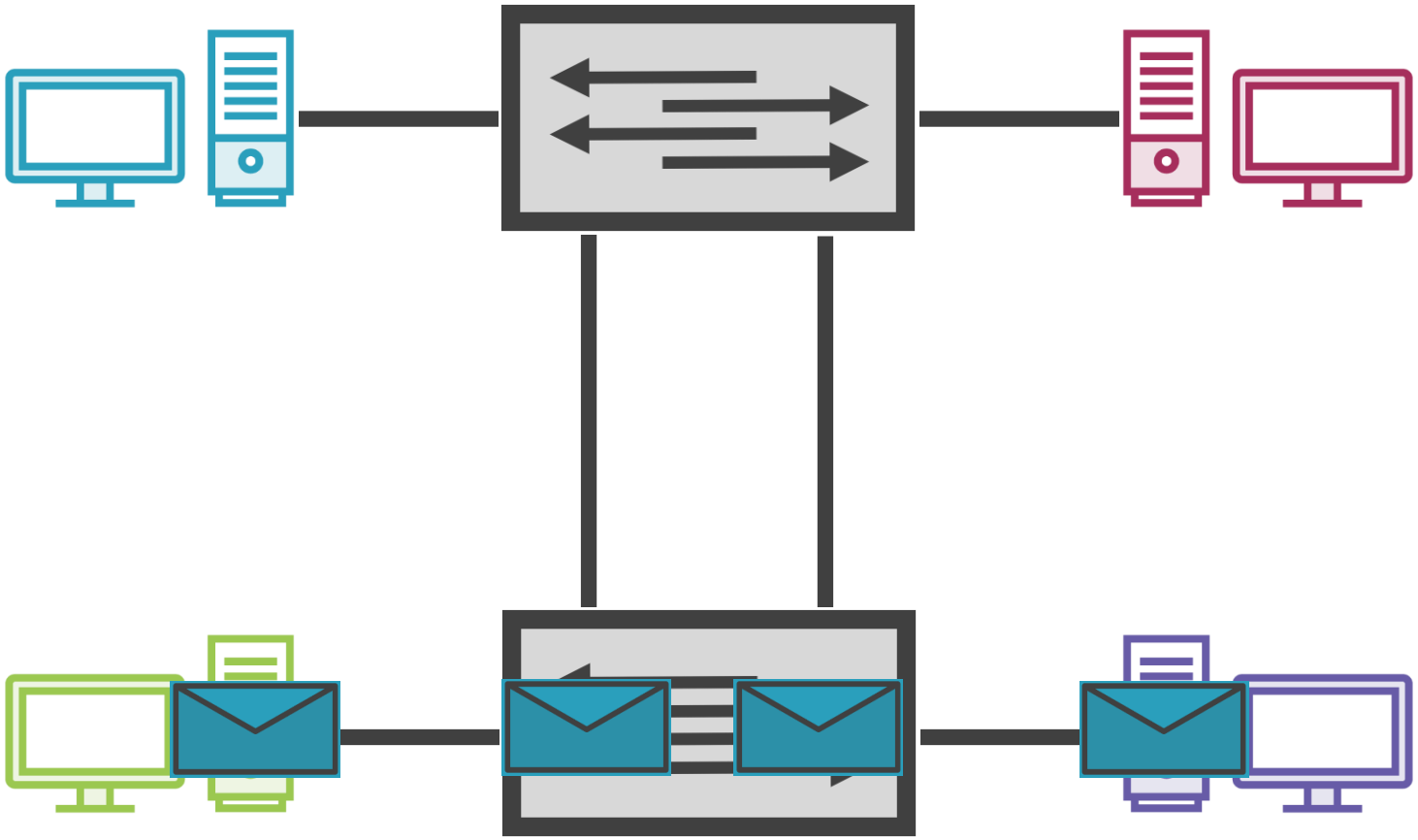

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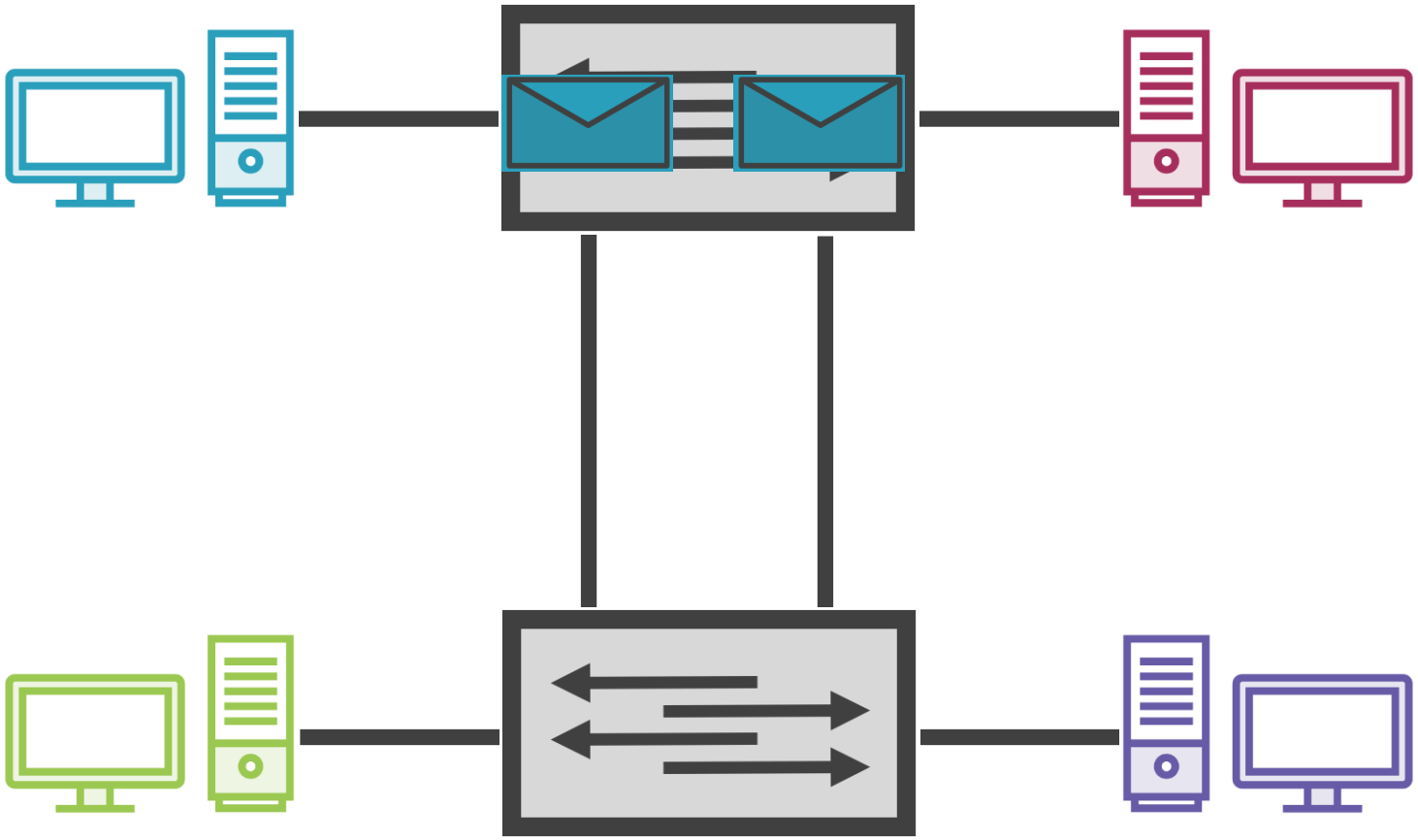

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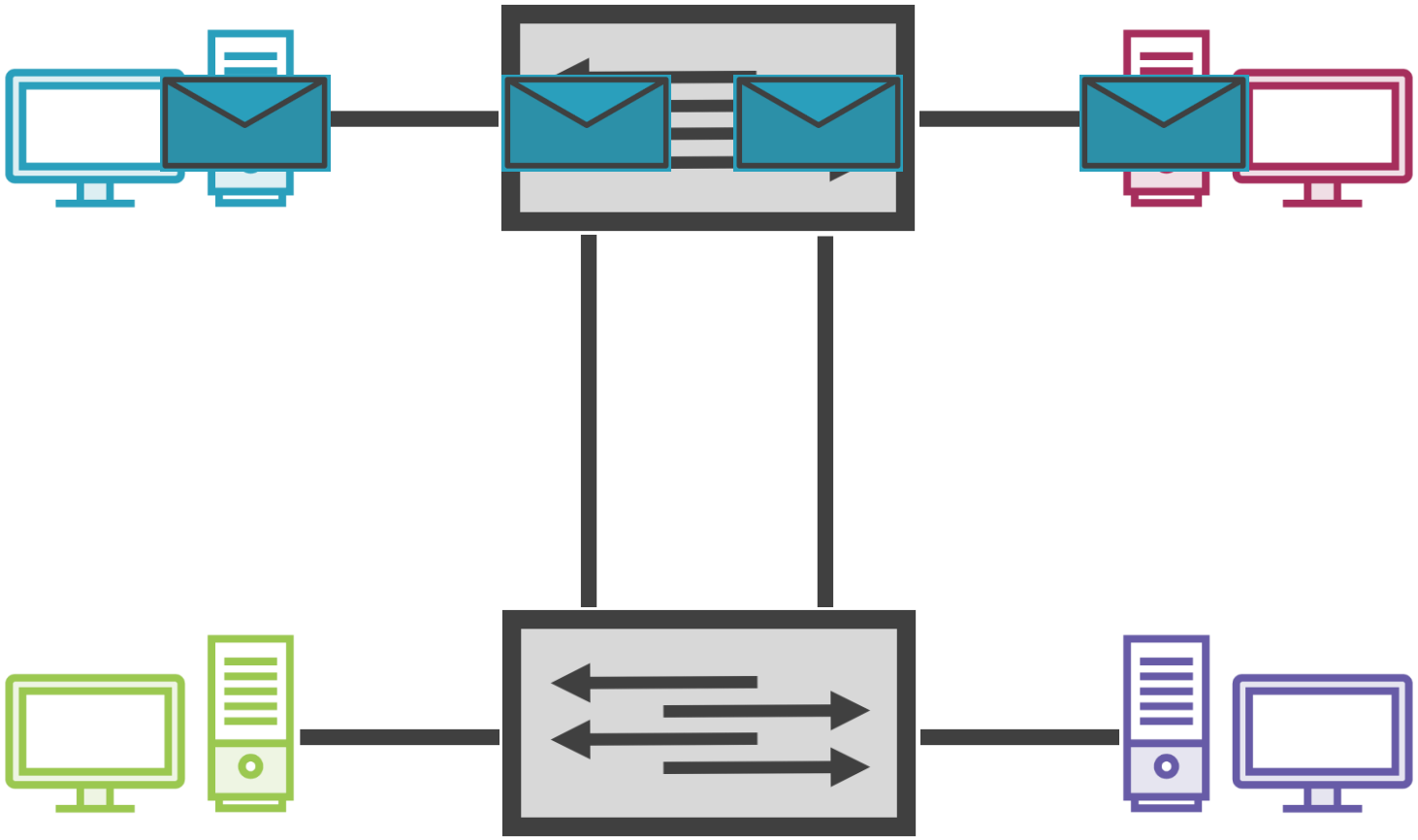

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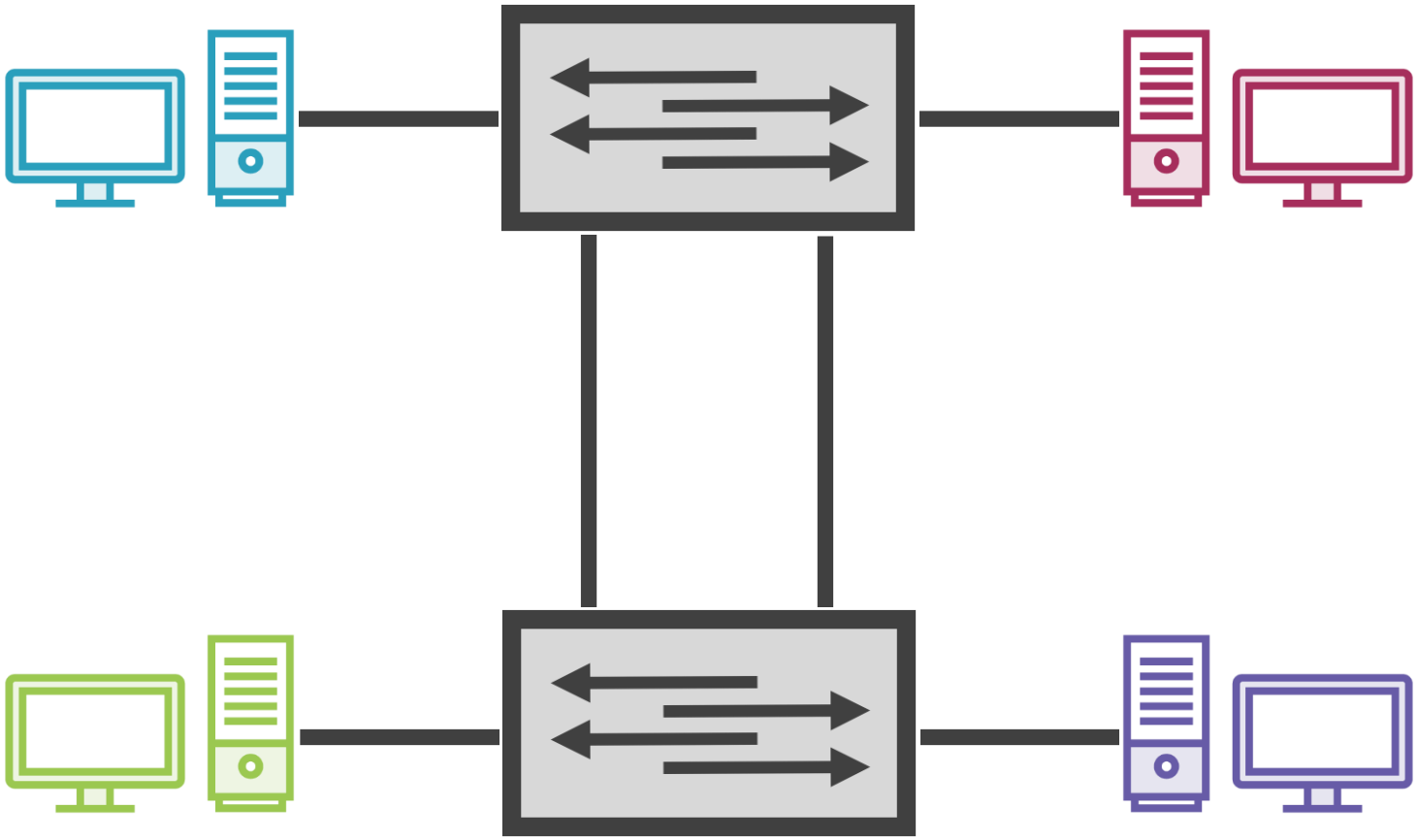

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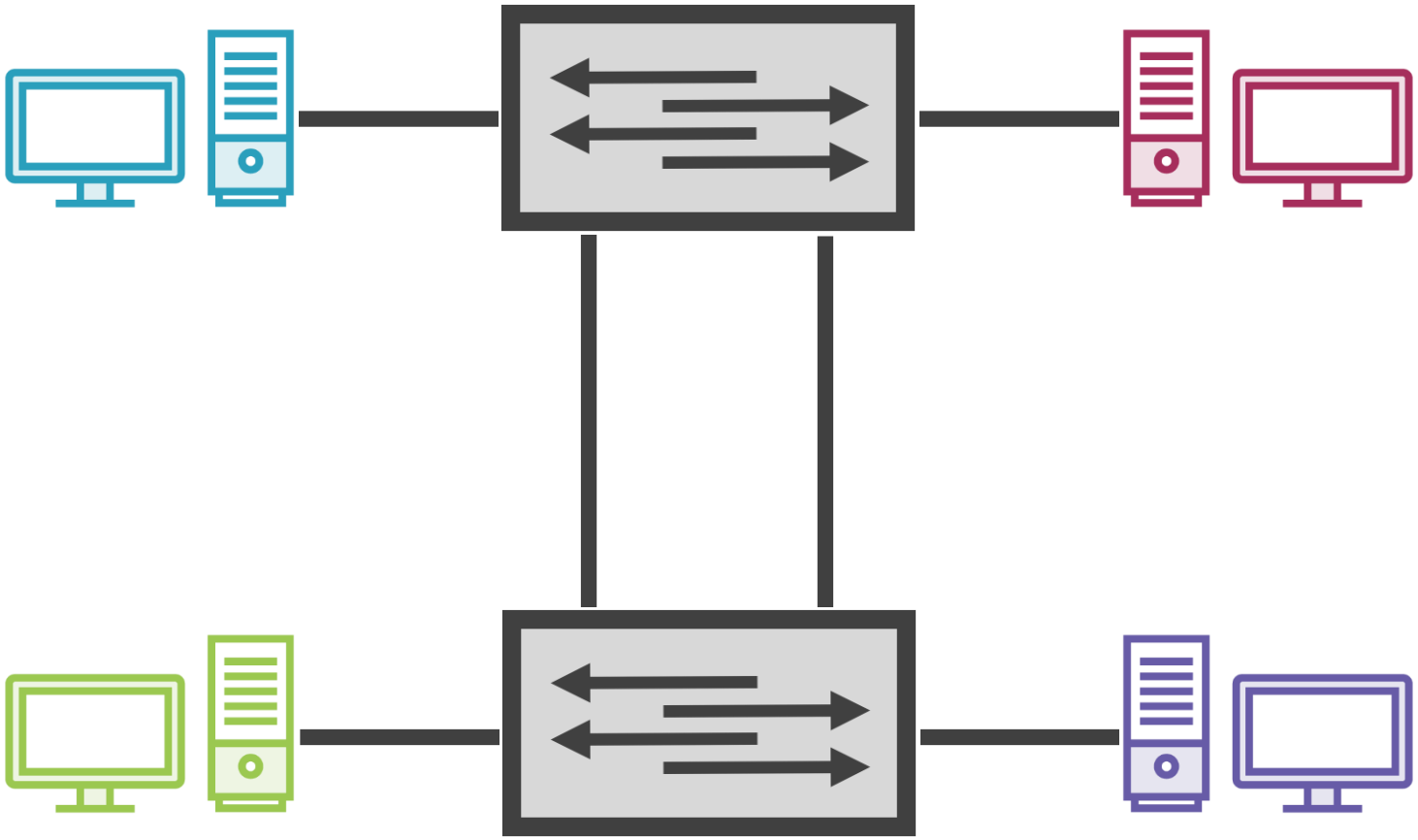

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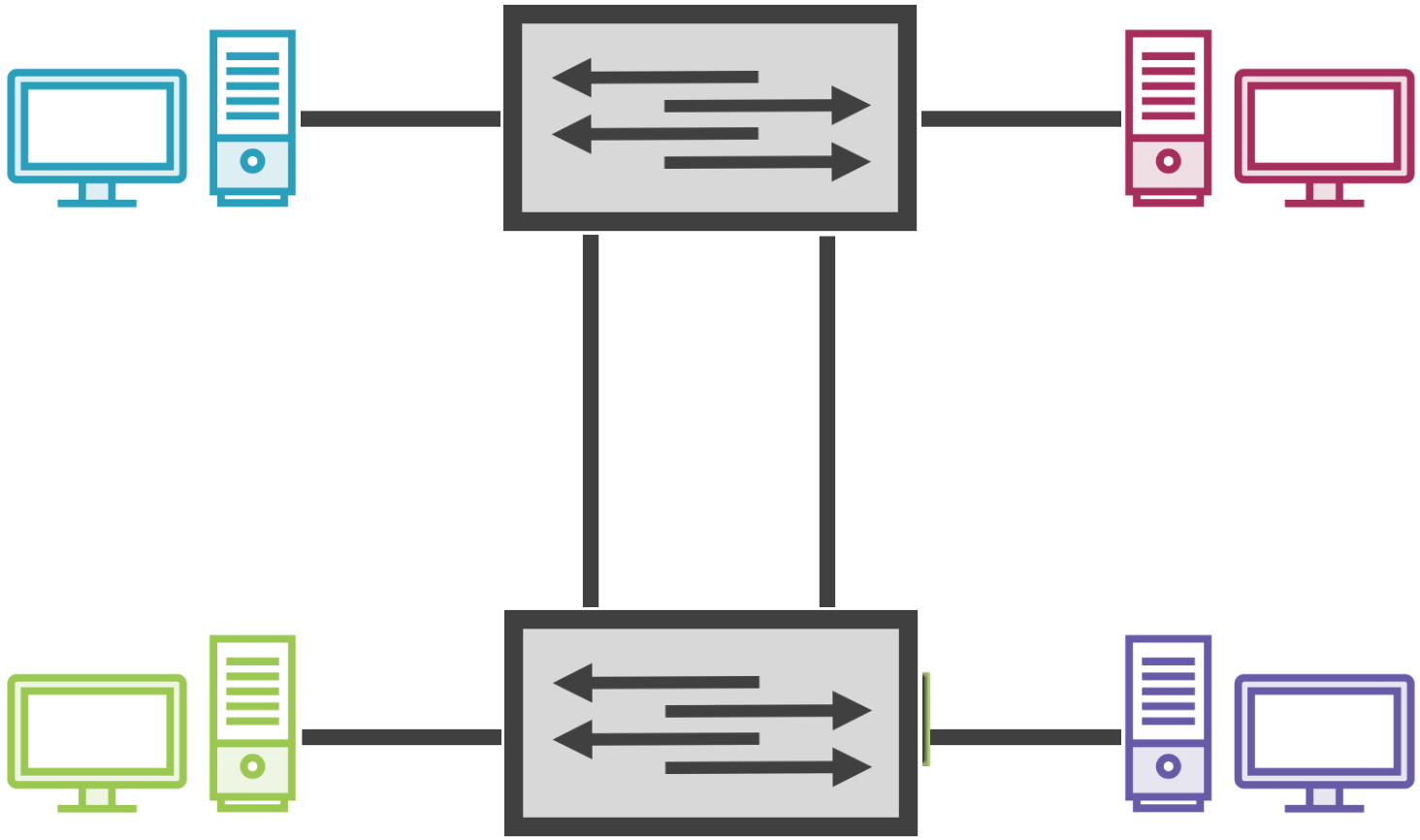

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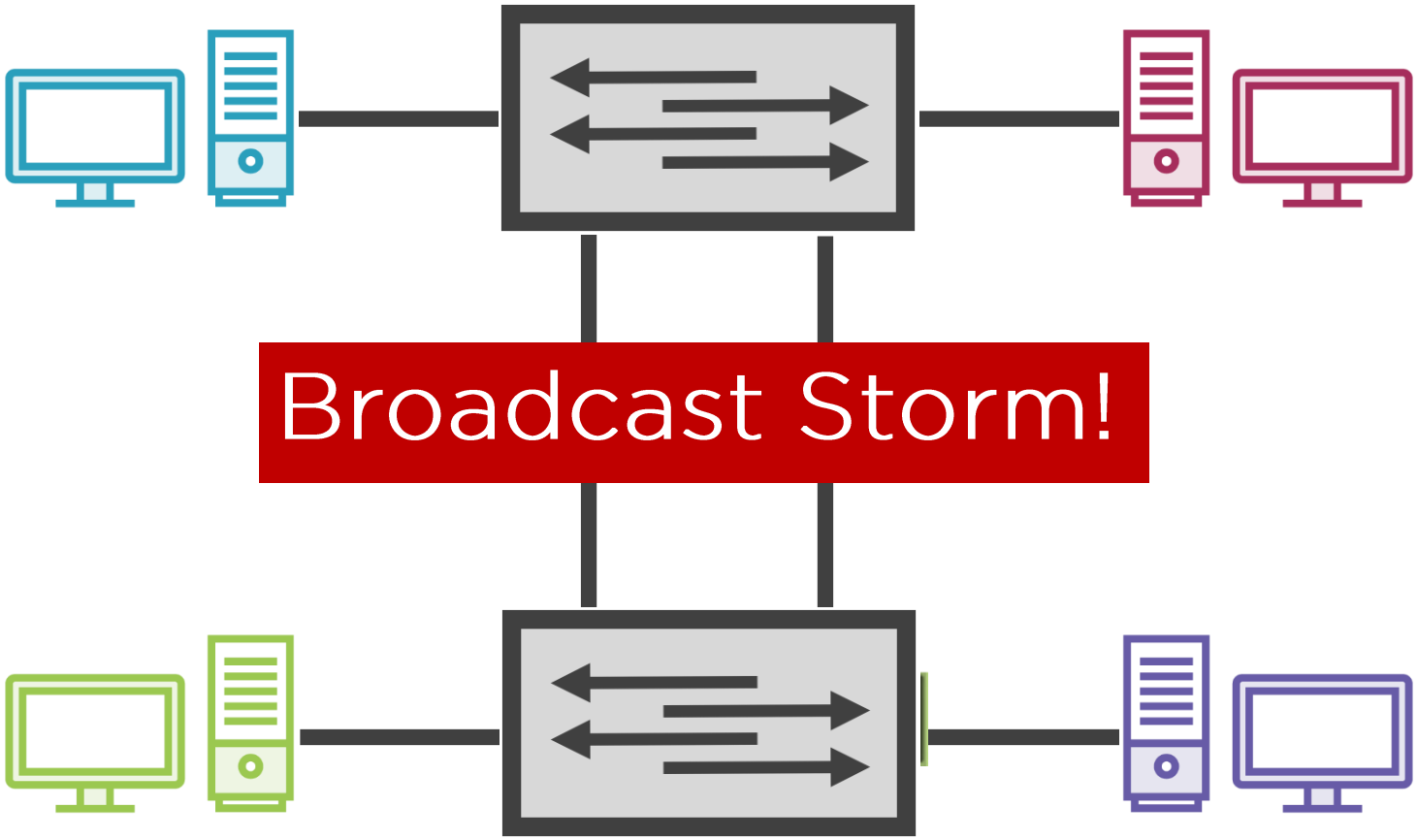
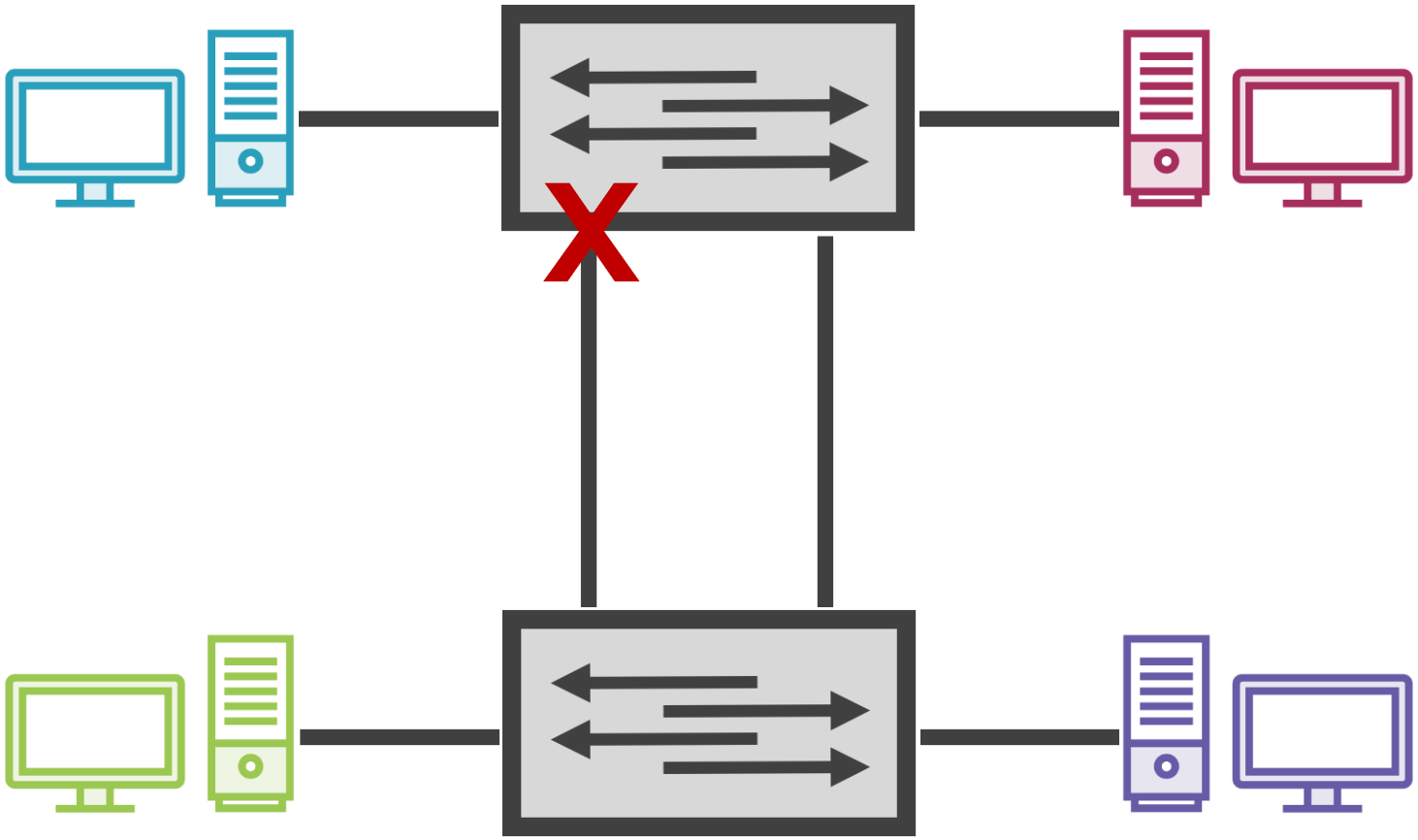
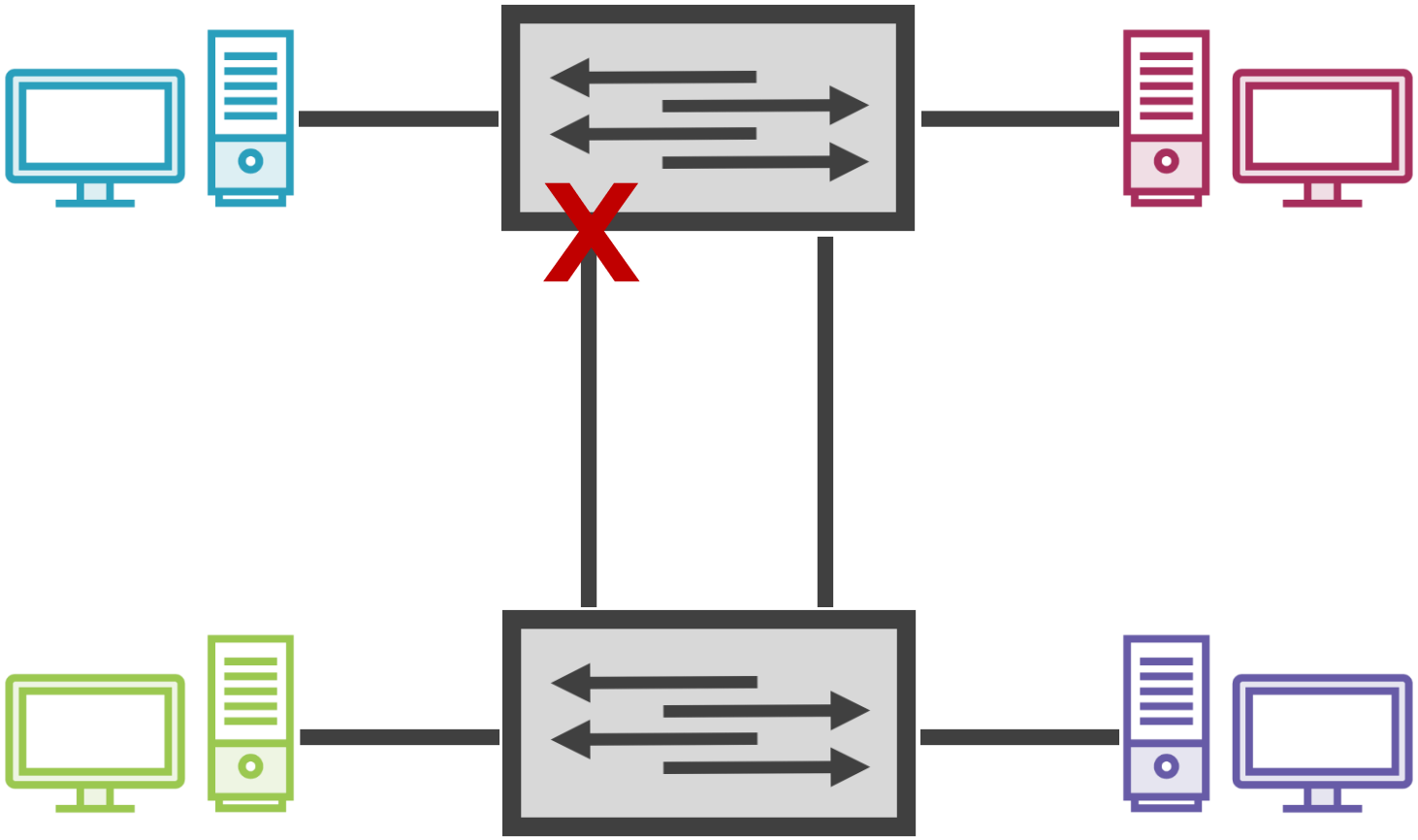


Spanning Tree Protocol Shuts Down Redundancy

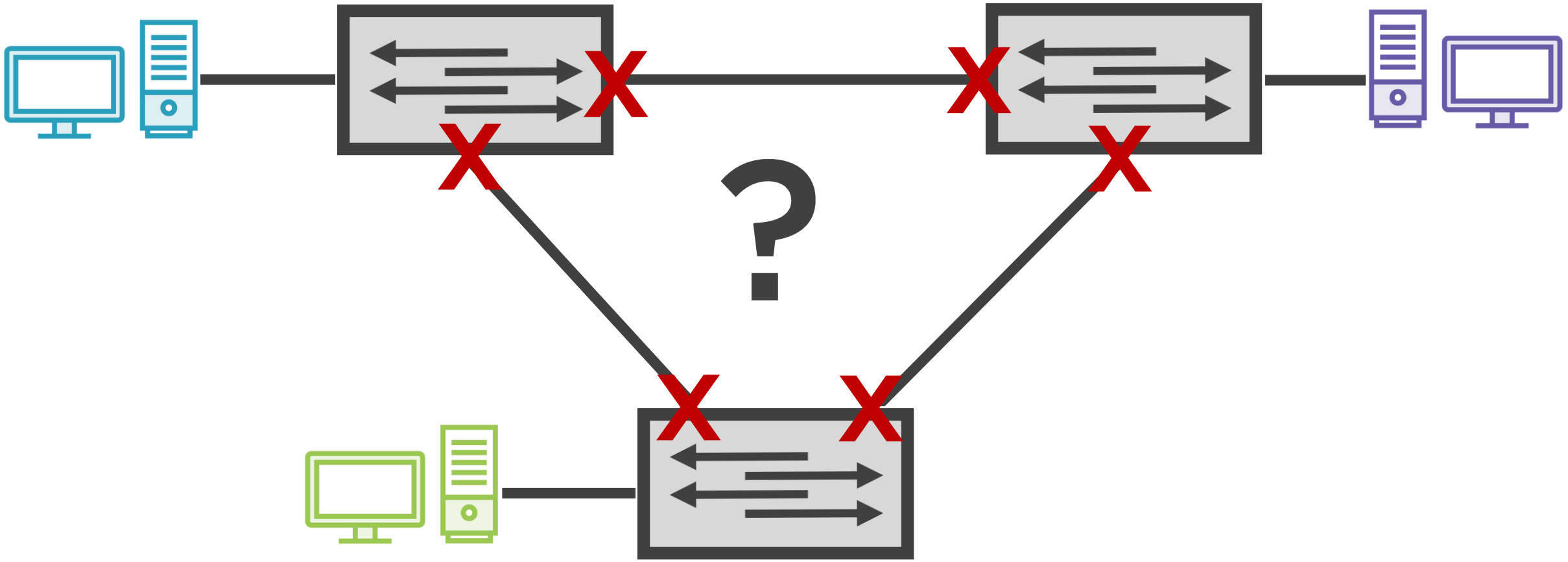


Spanning Tree Protocol

Shuts Down Redundancy

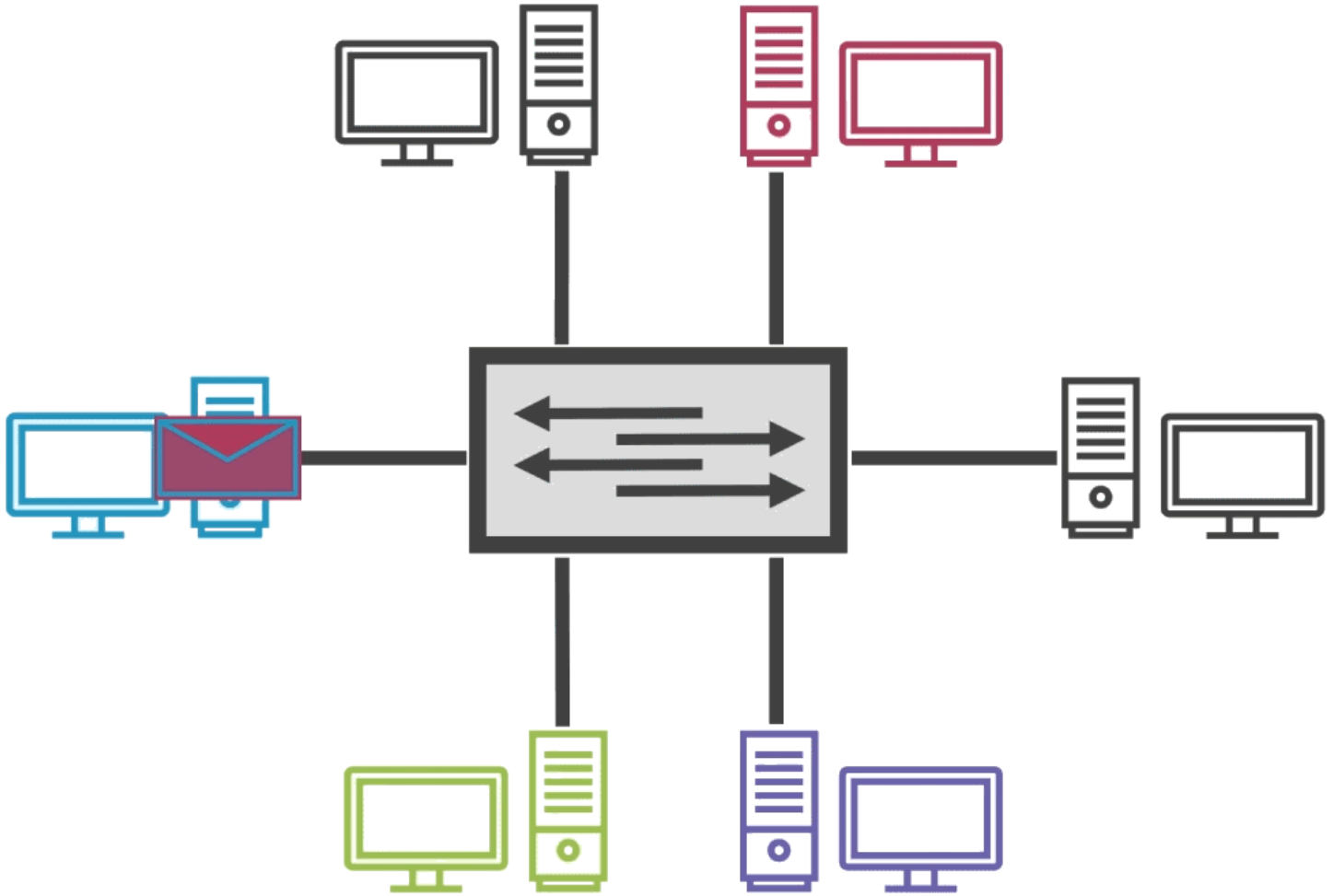


Spanning Tree Protocol



Intro to VLANS

Broadcast Domain



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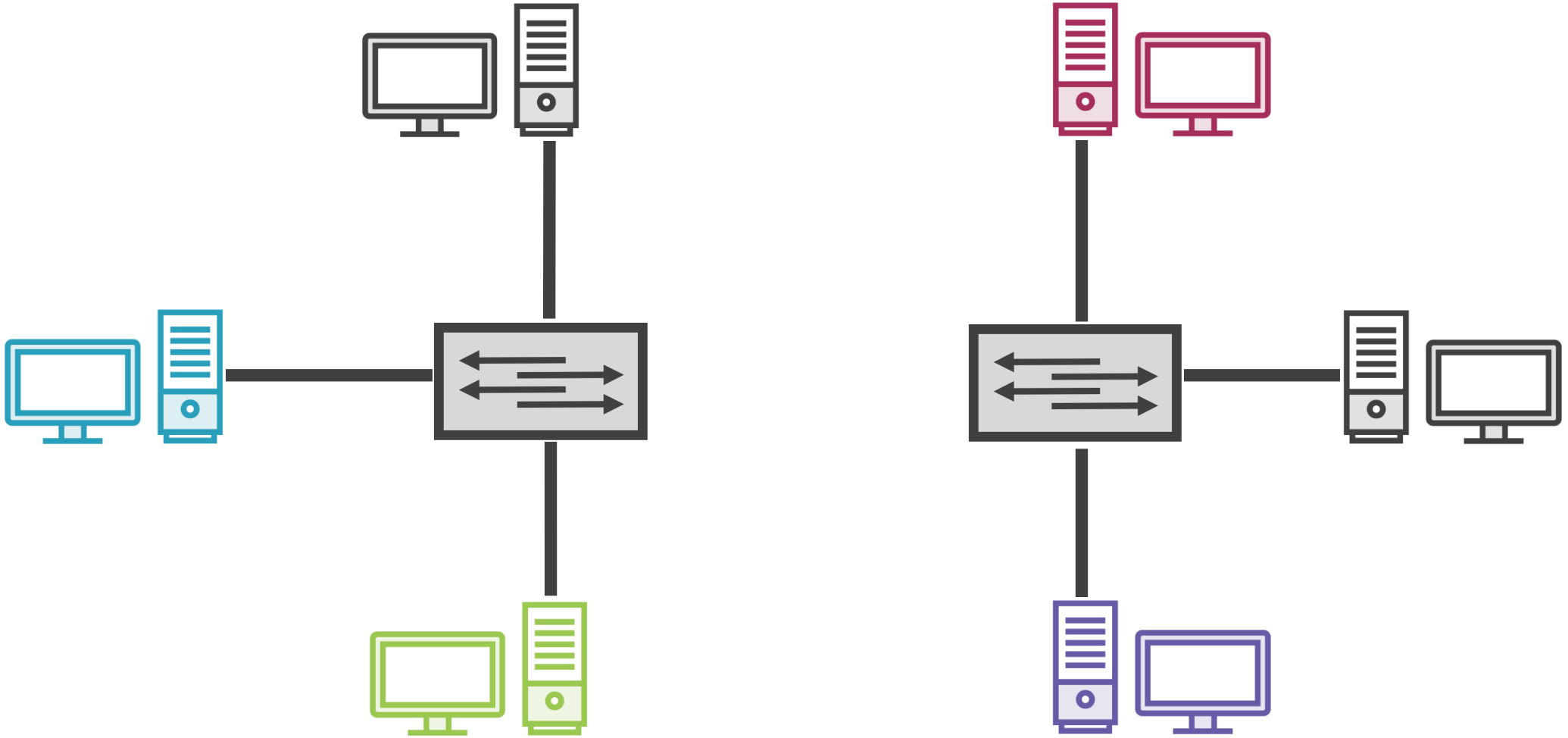

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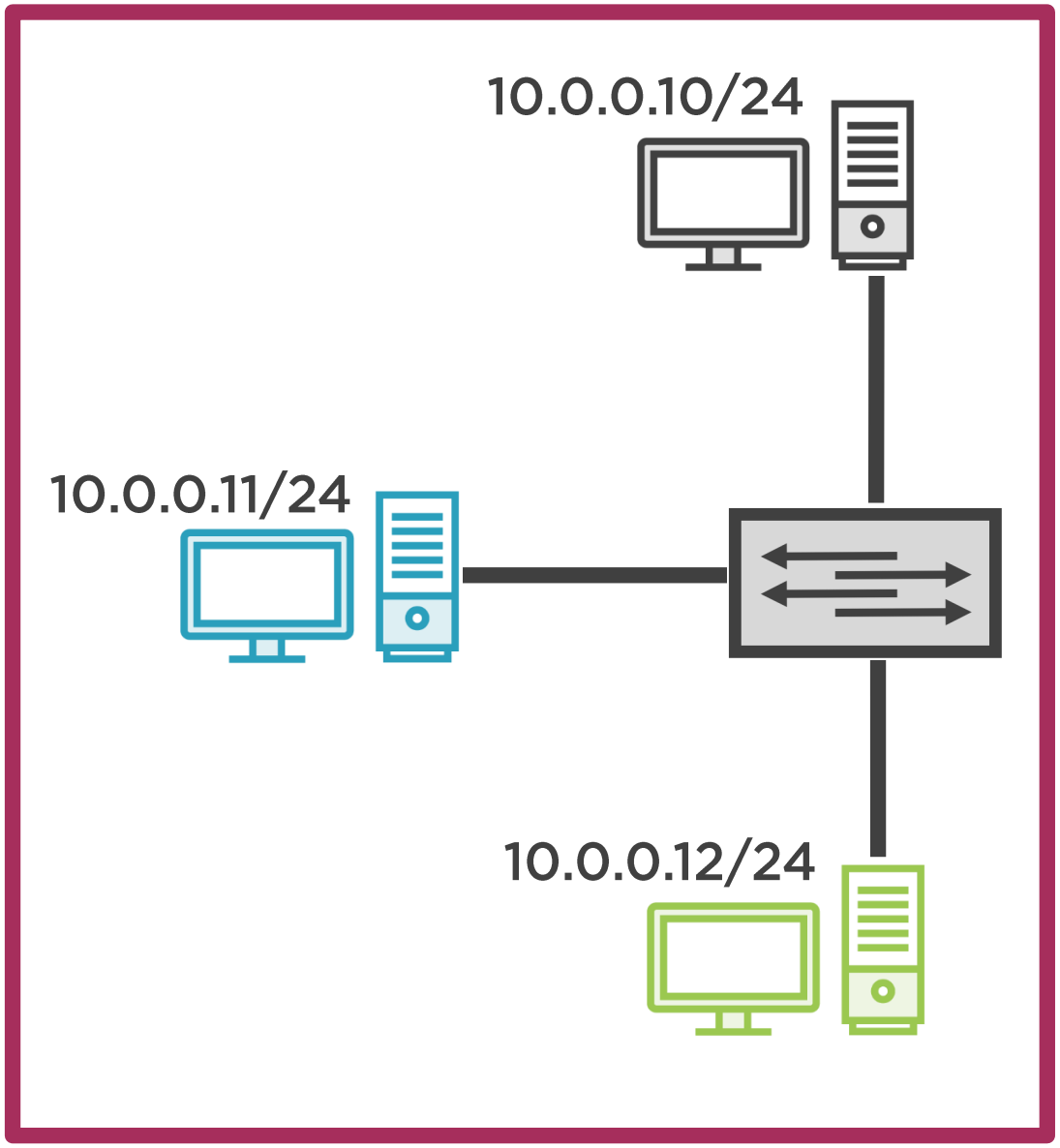

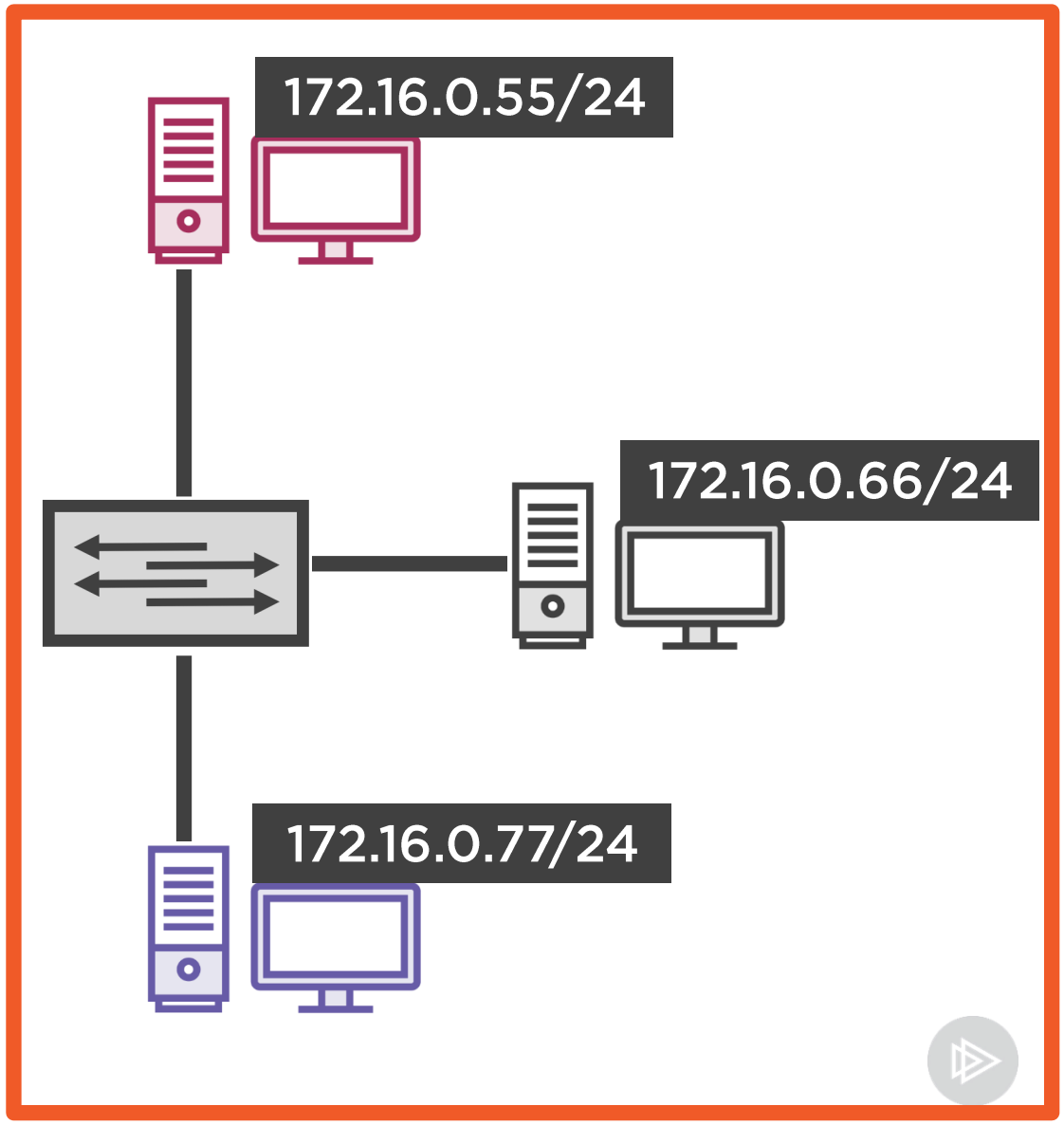

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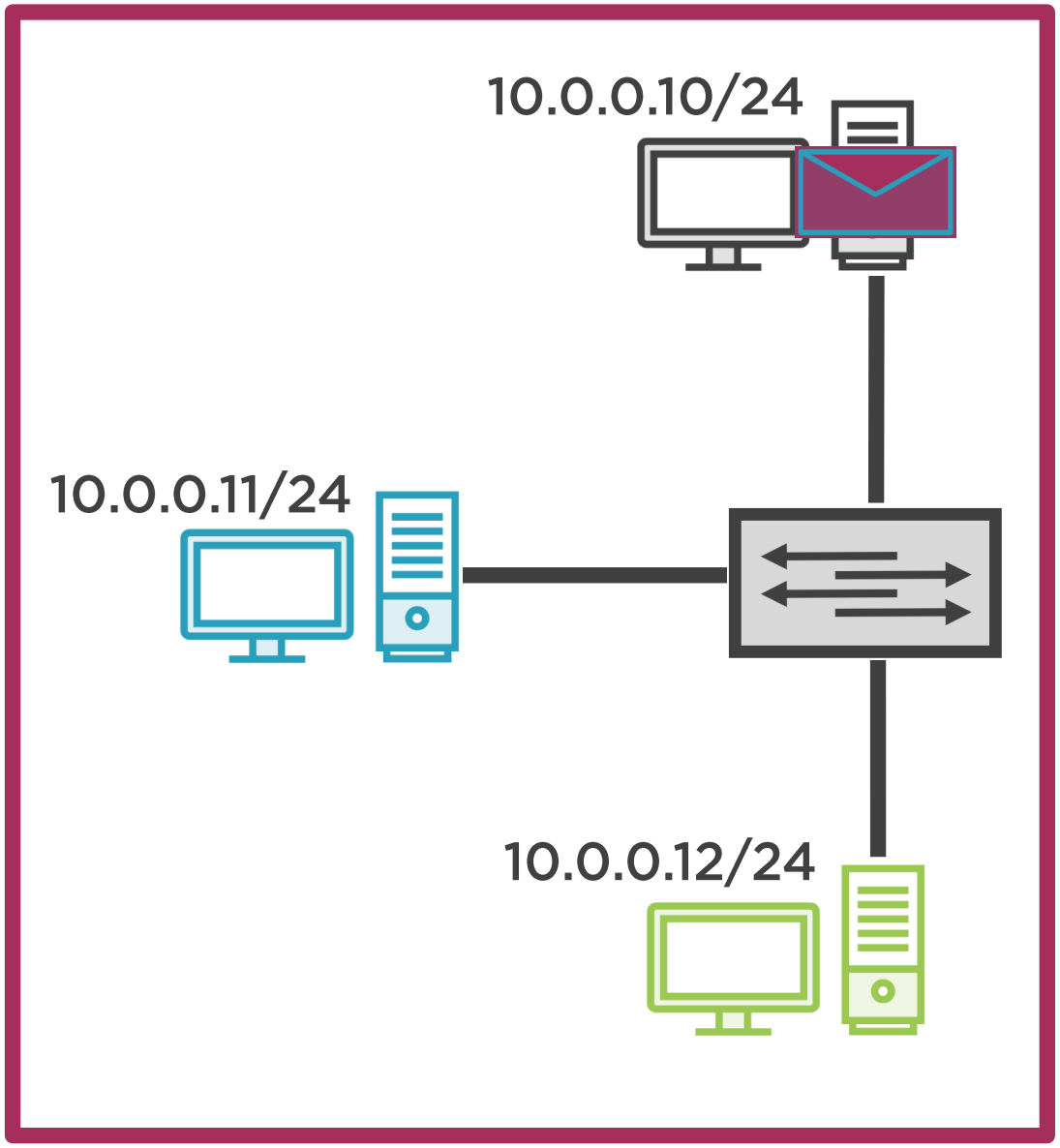

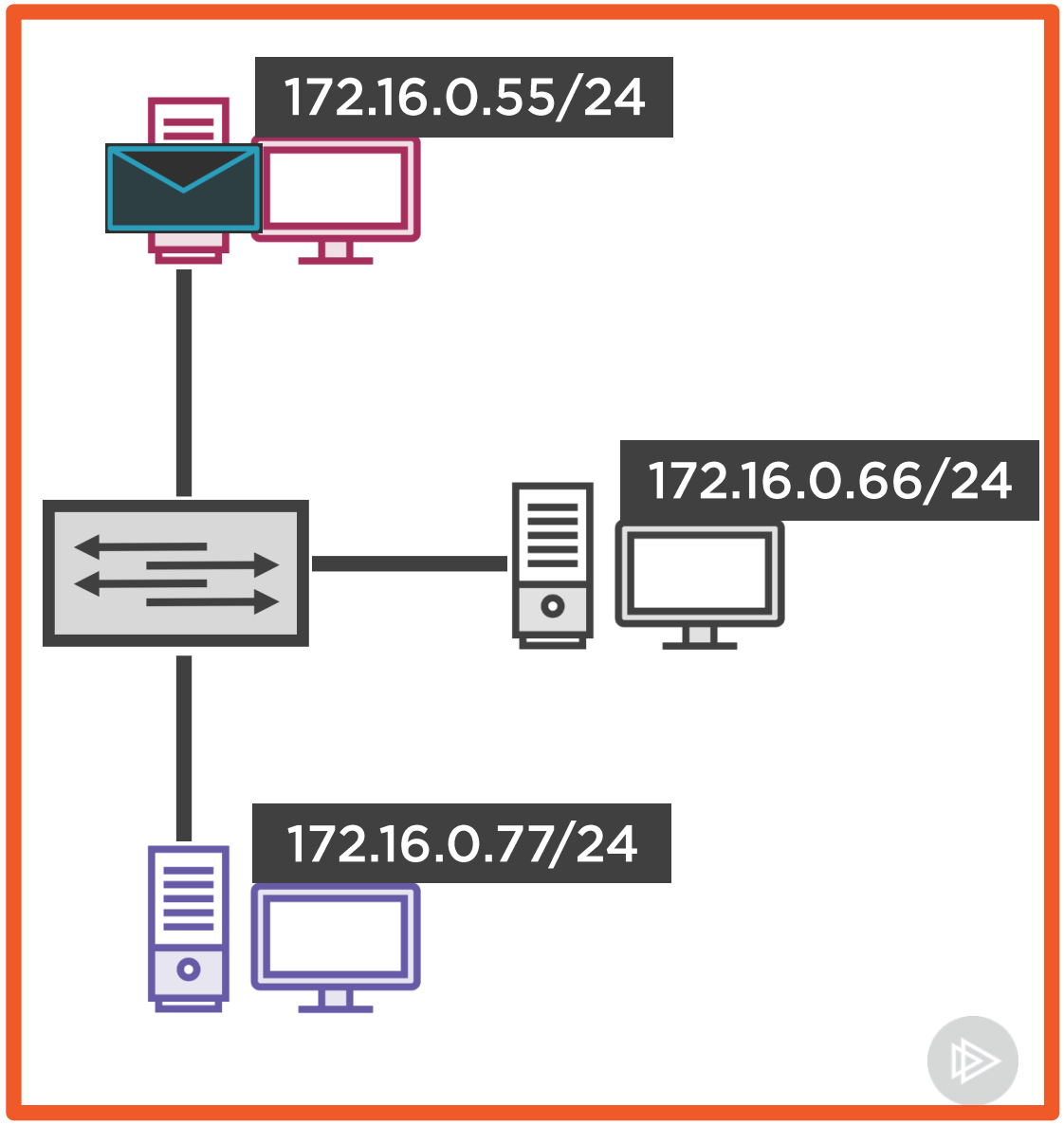

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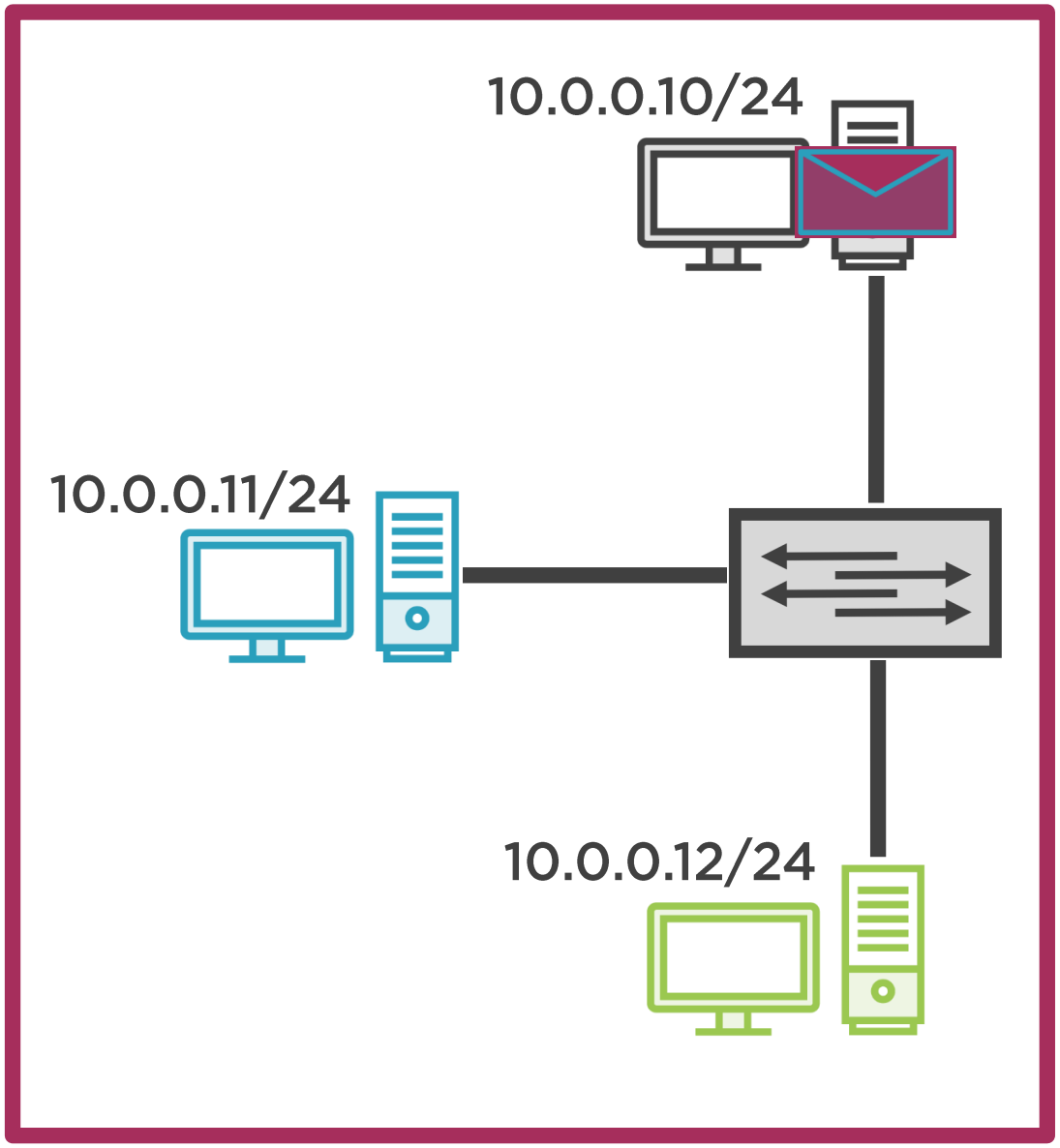

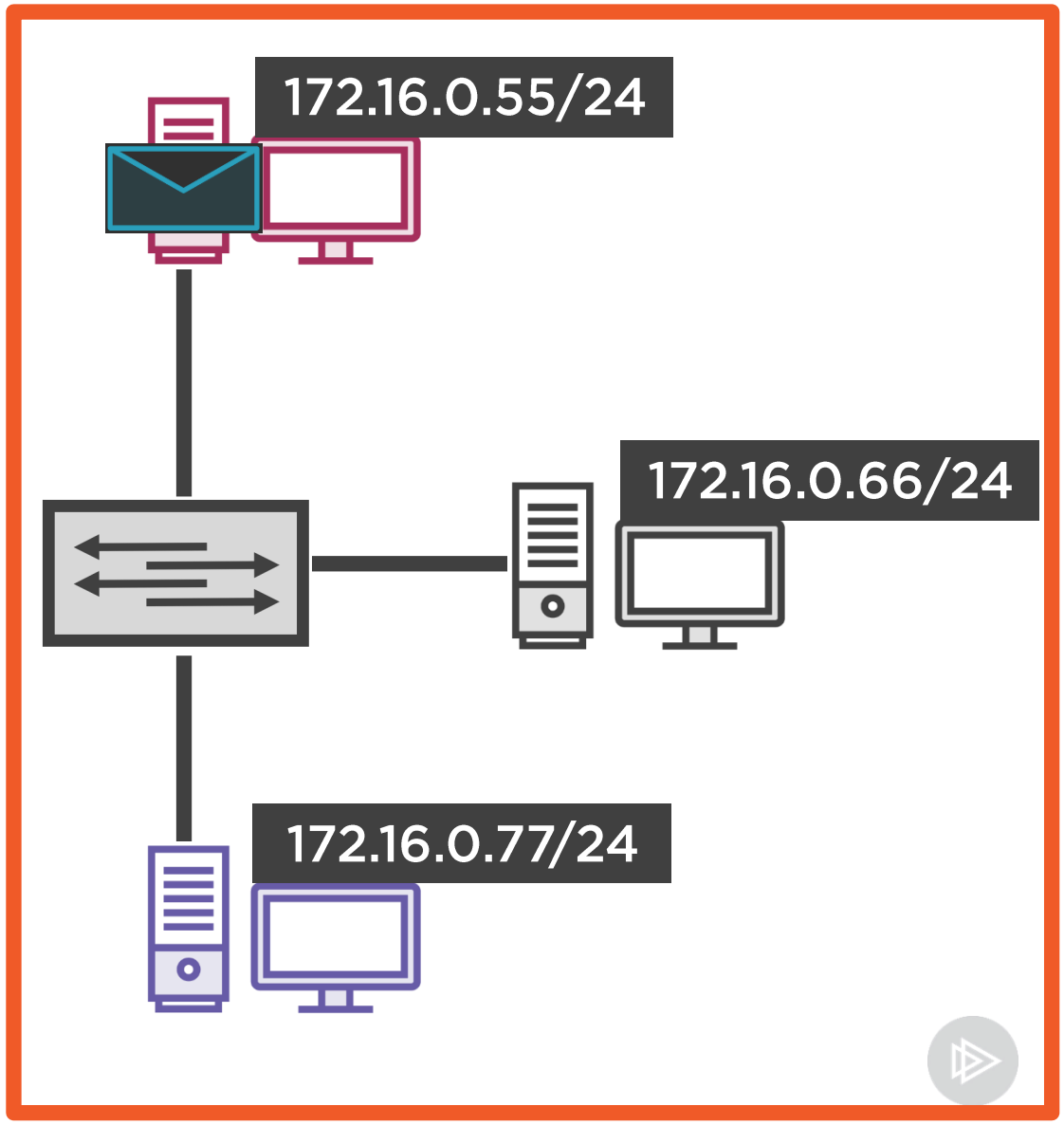

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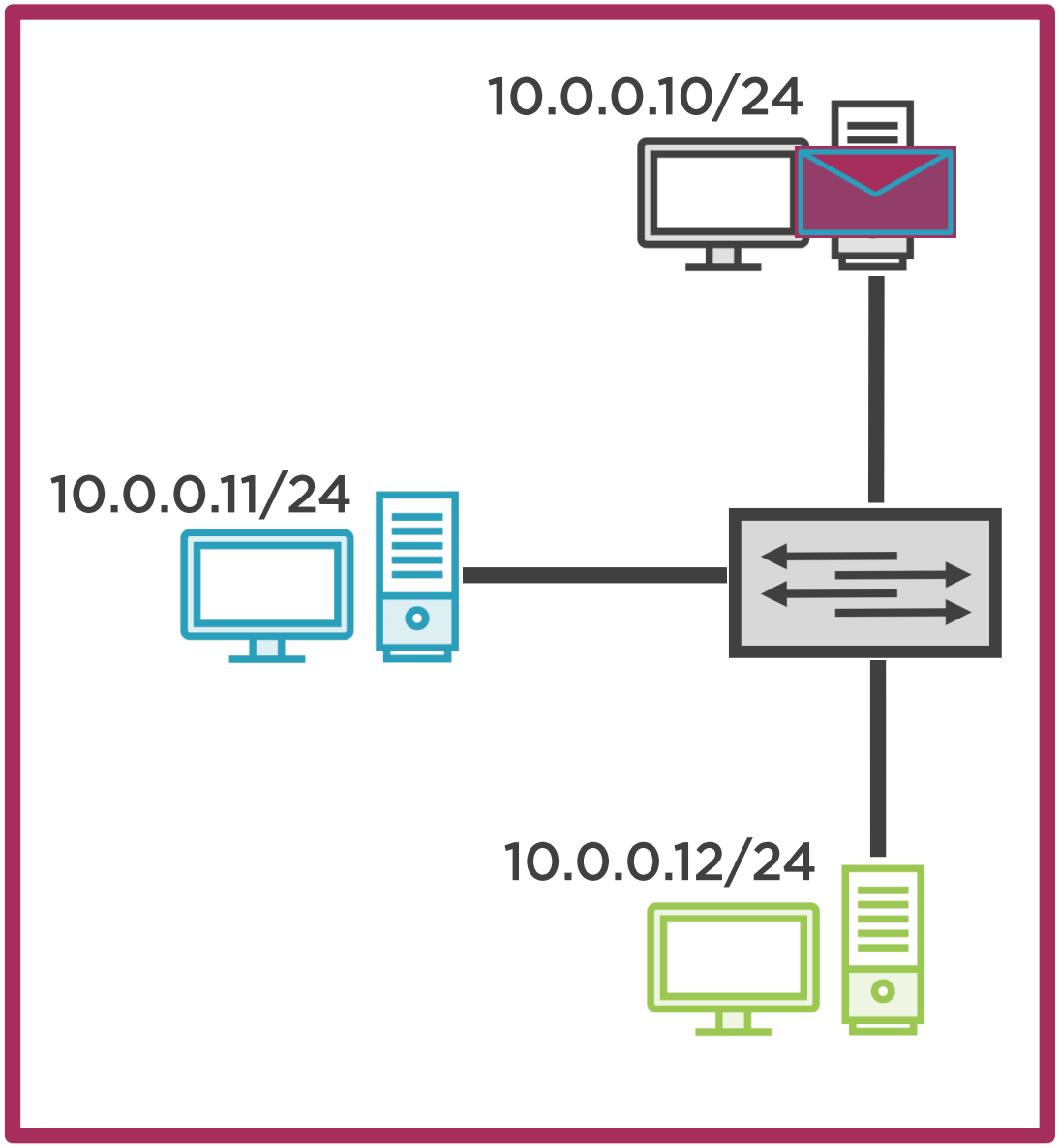

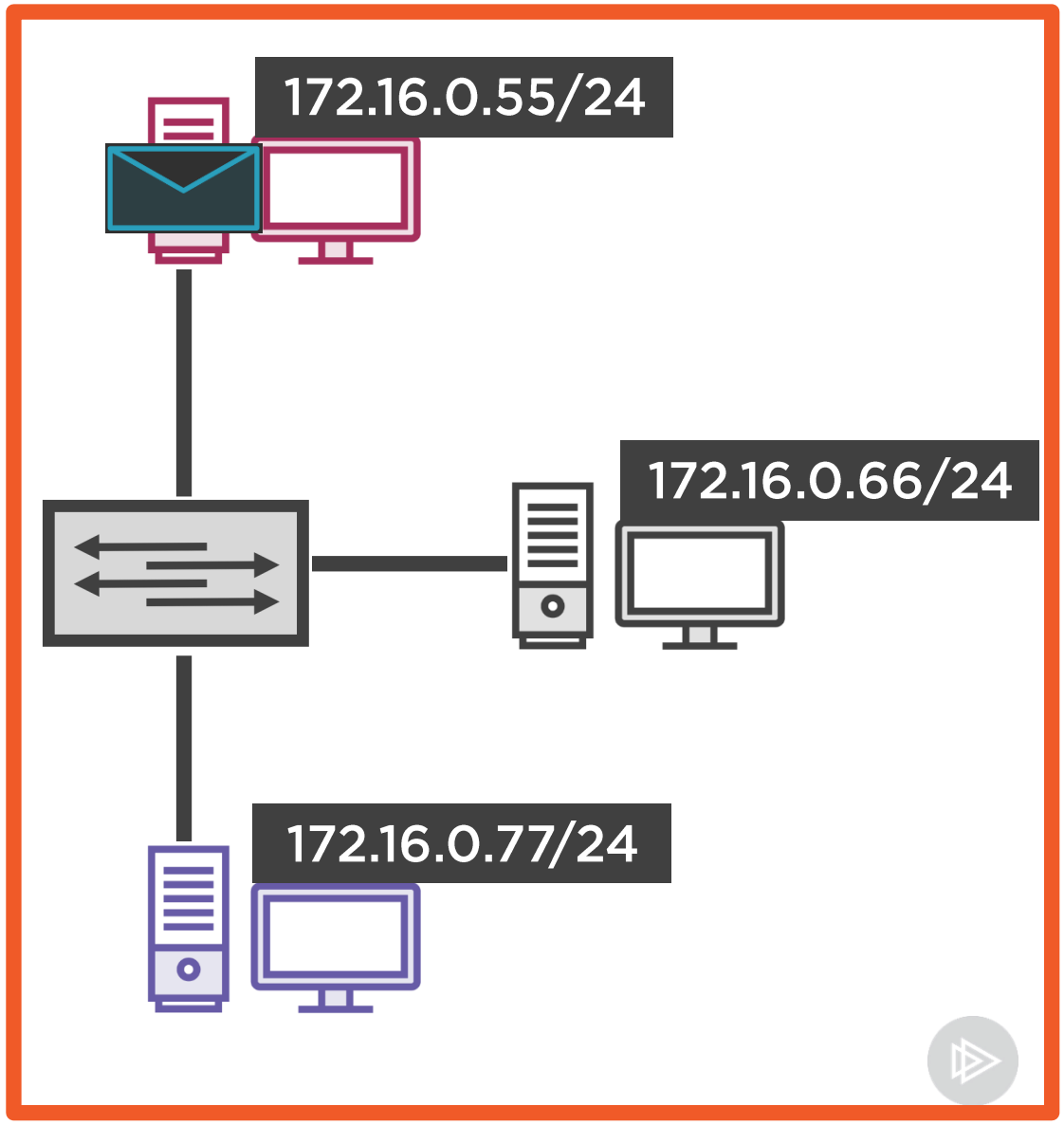

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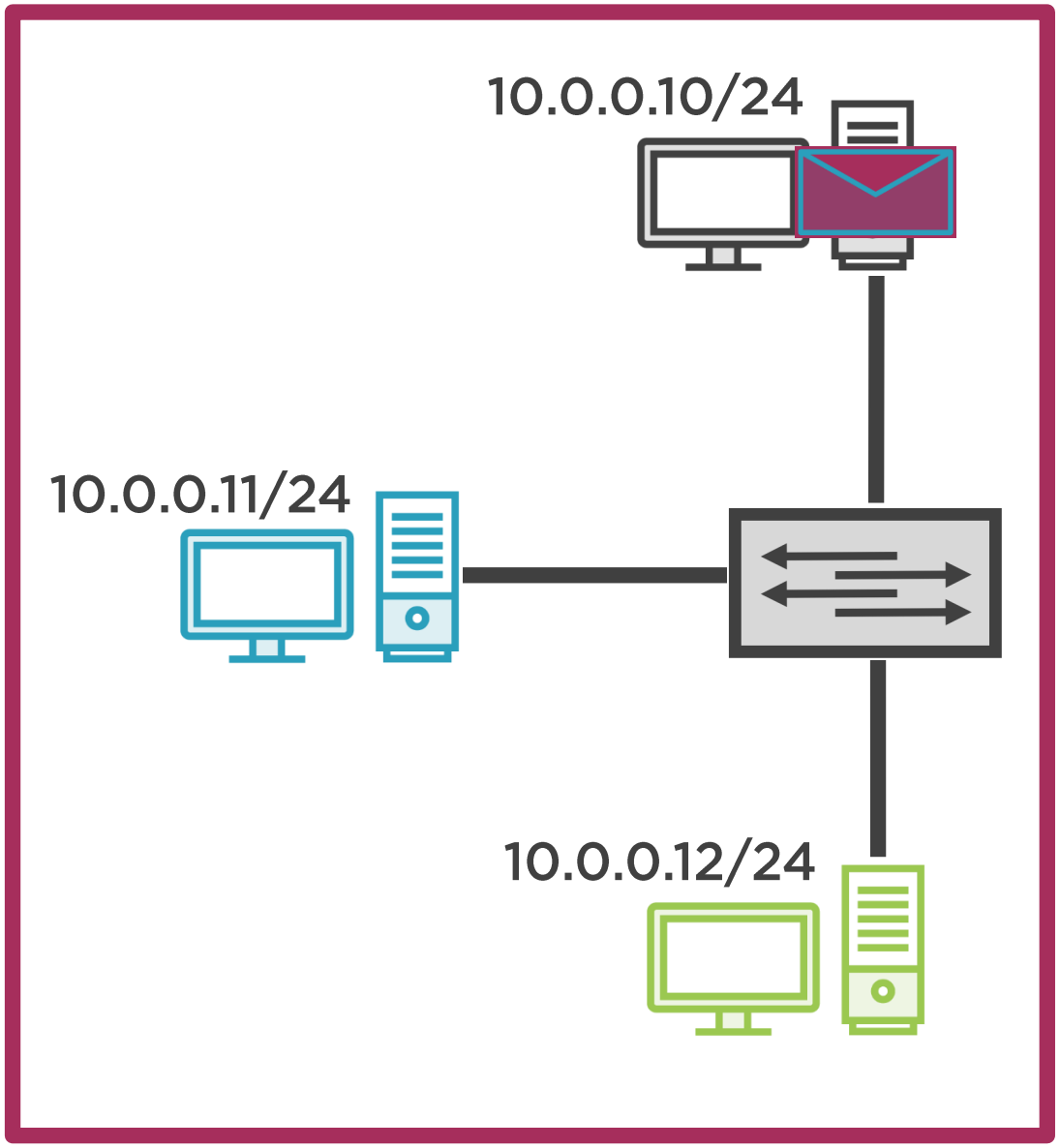

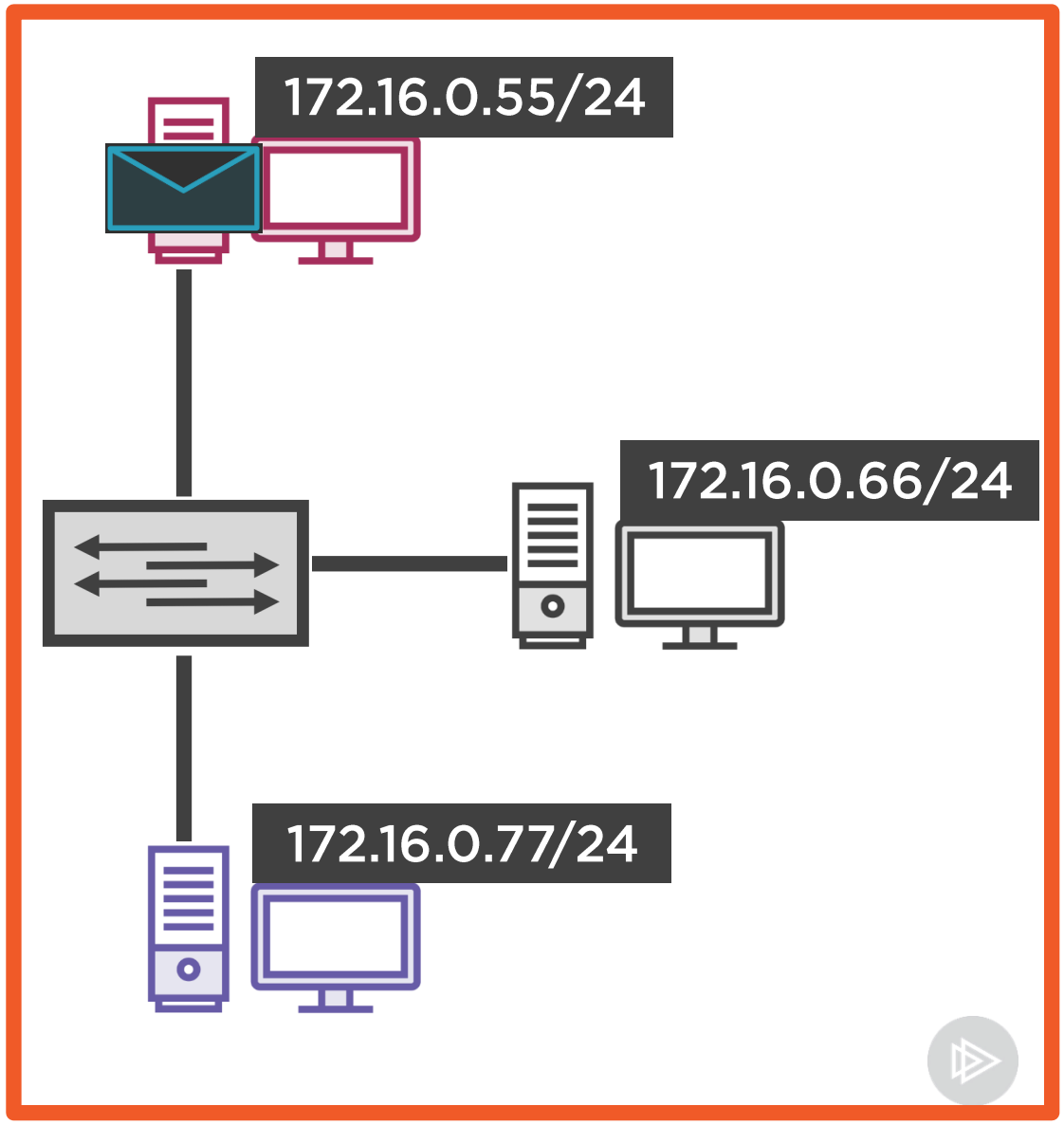

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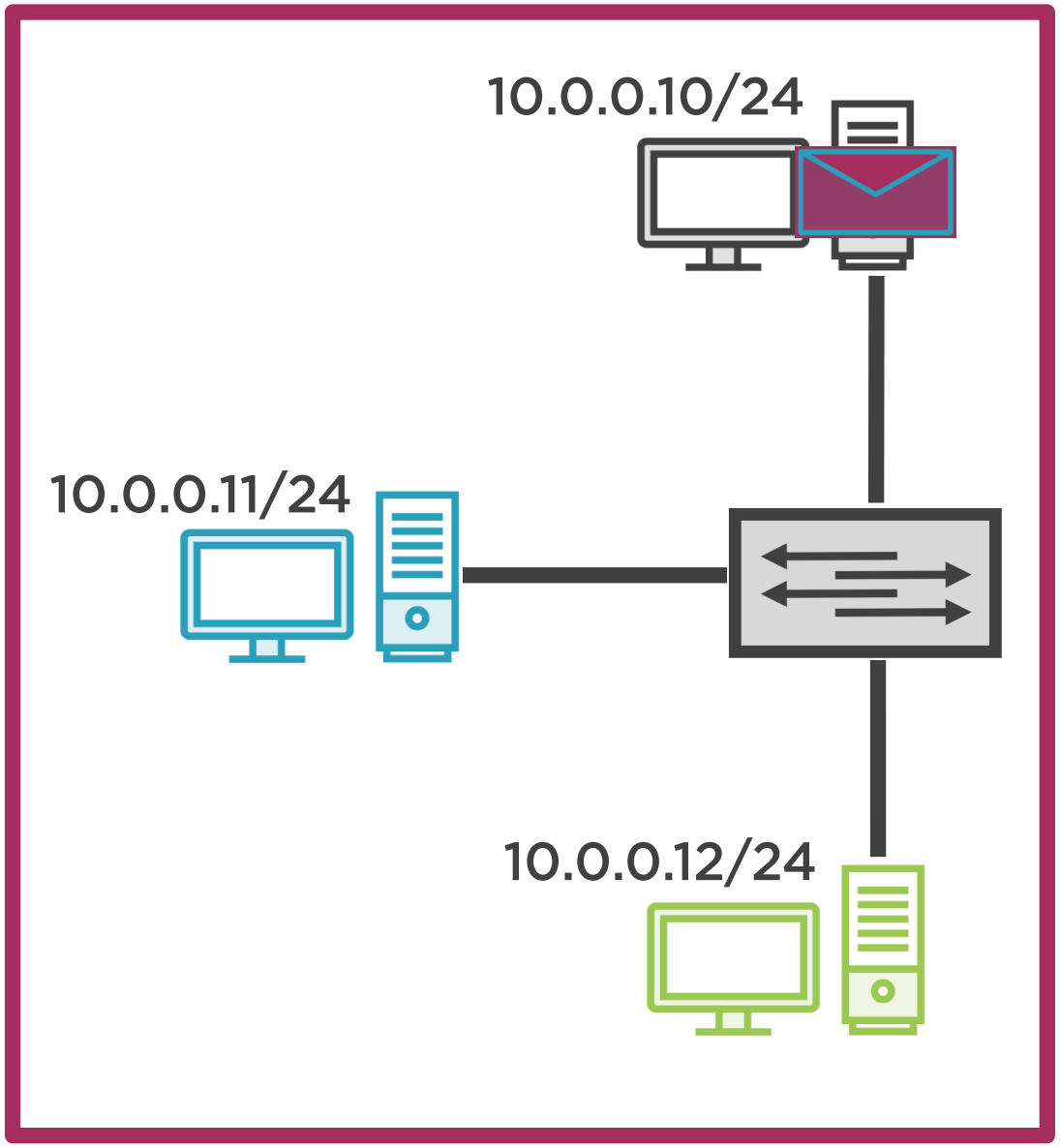

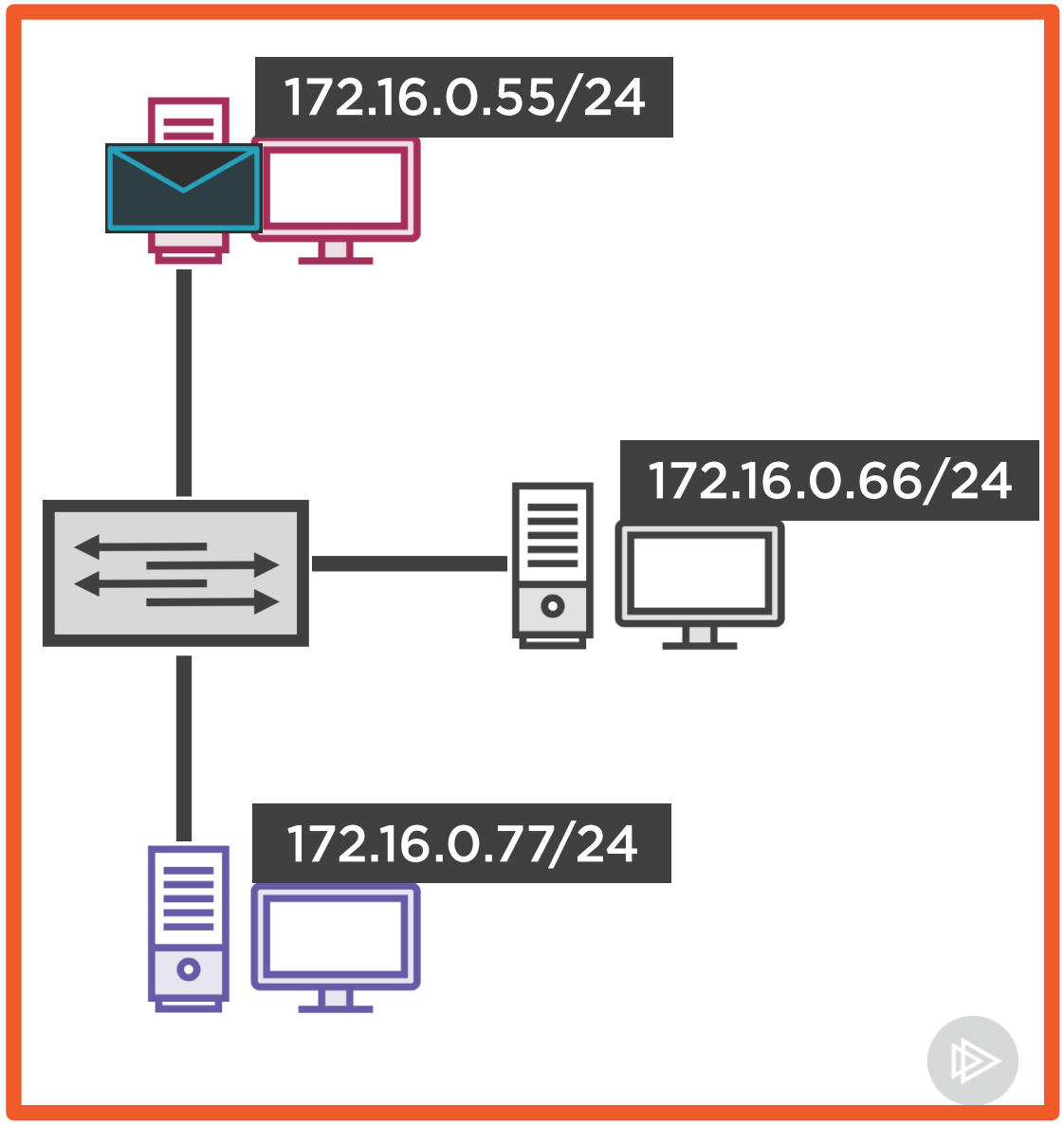

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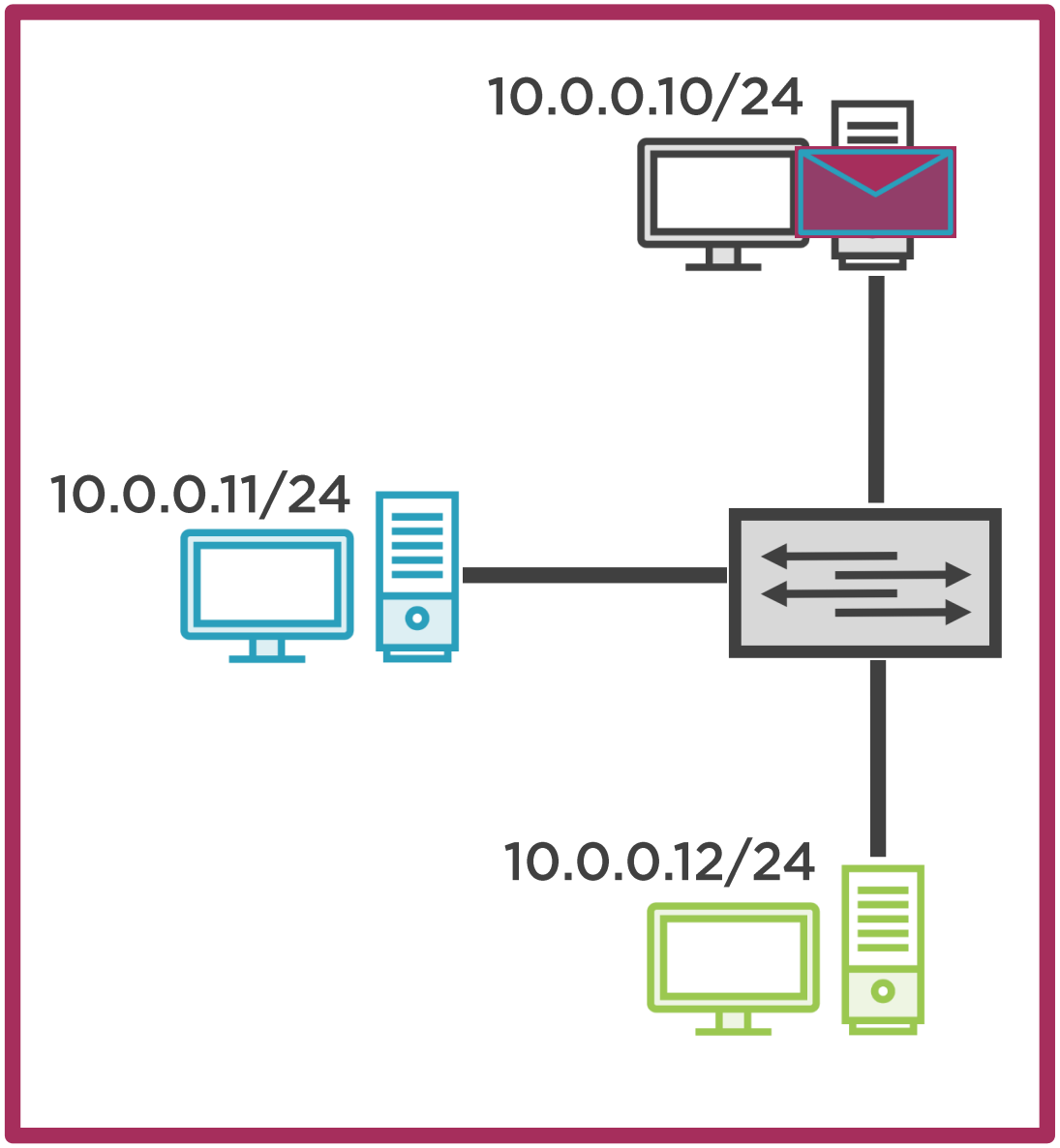

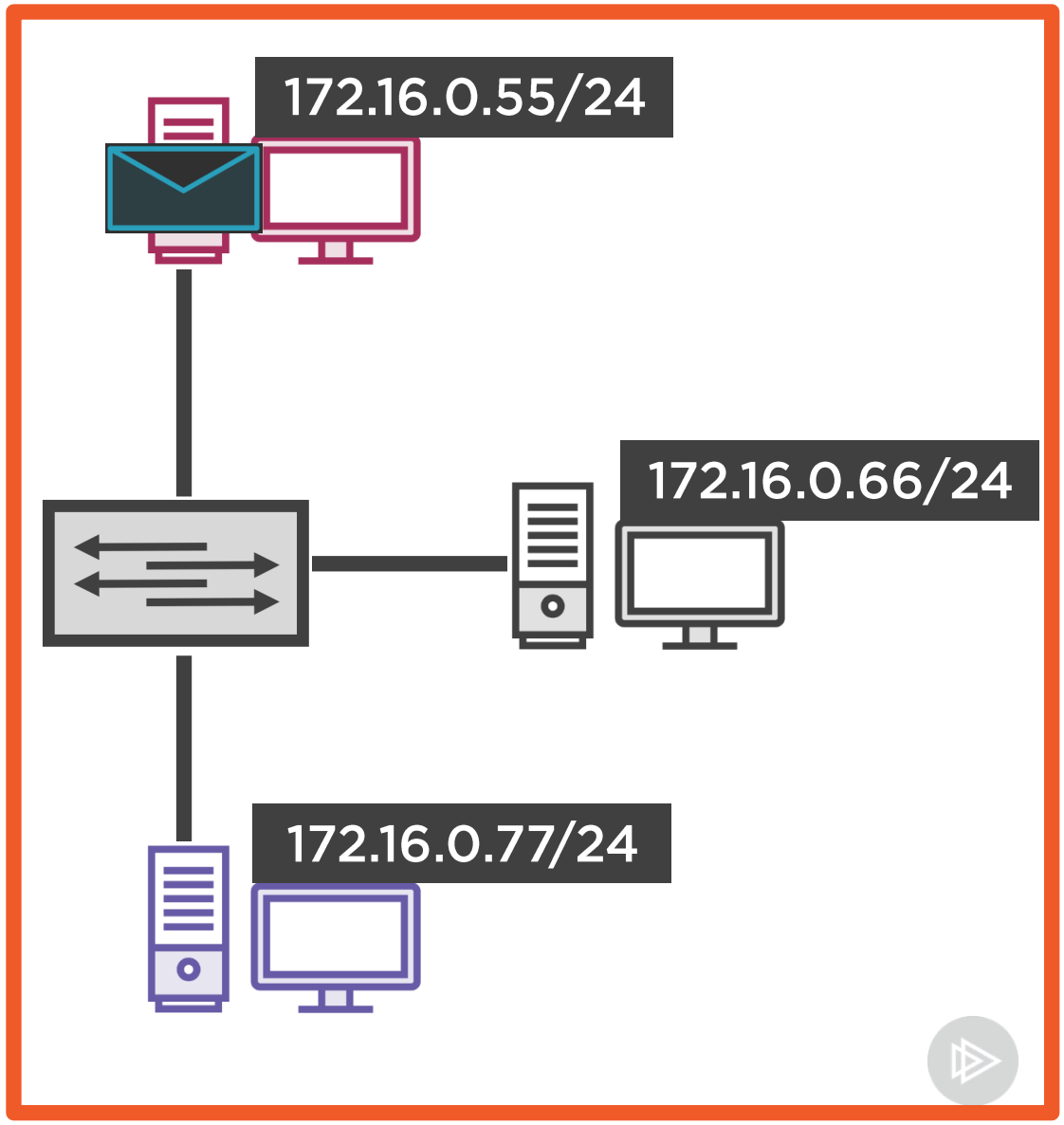

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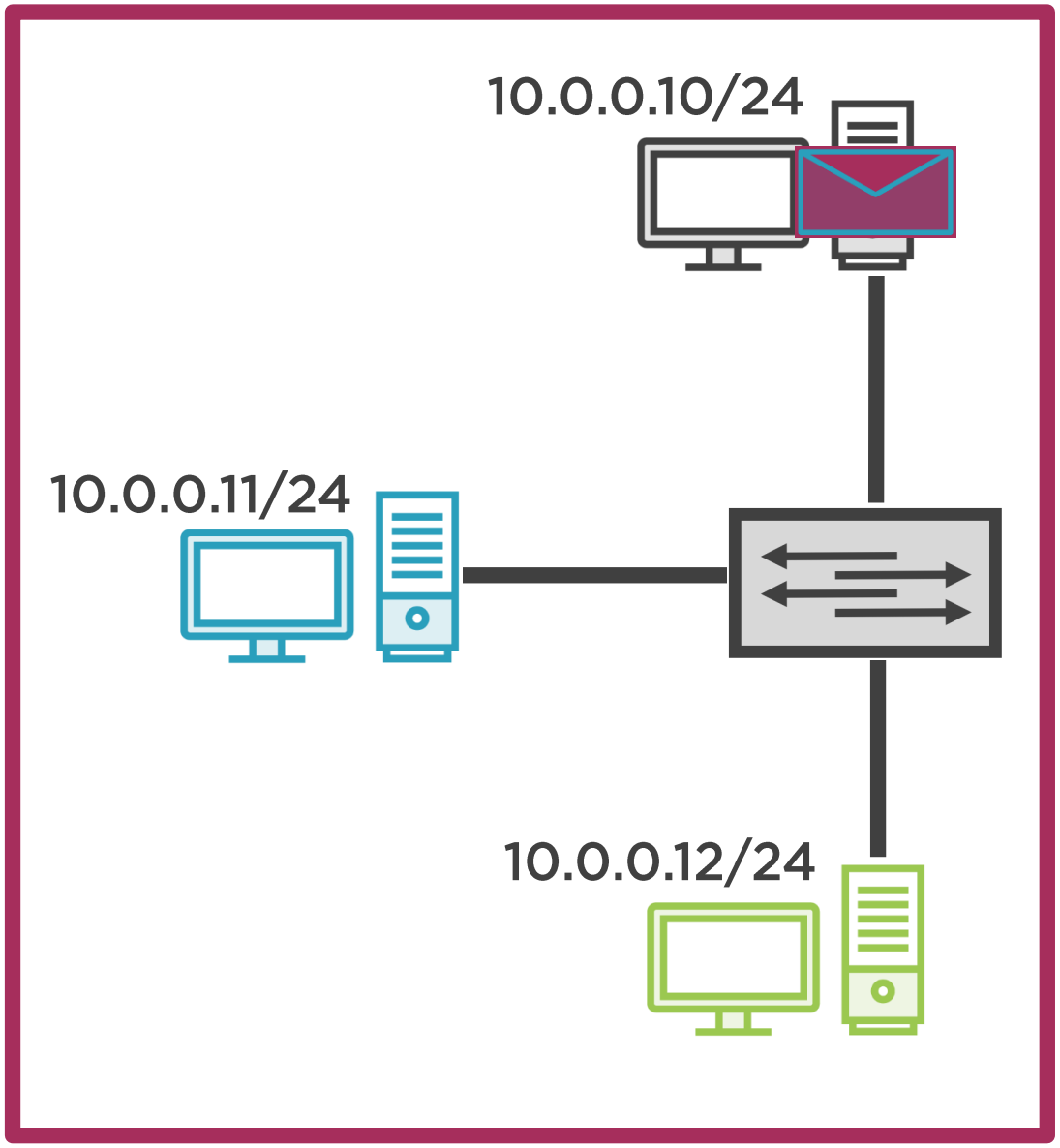

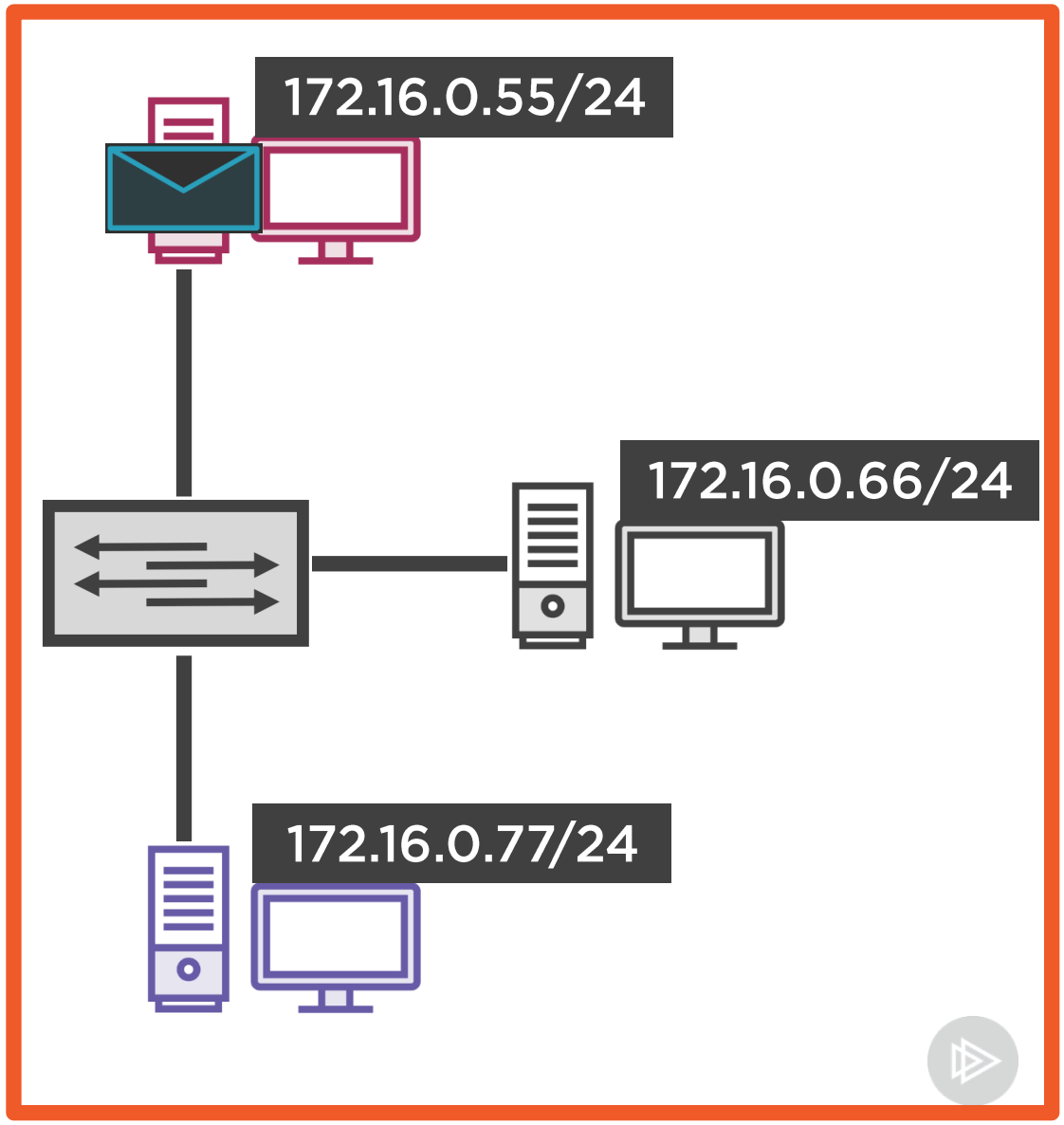

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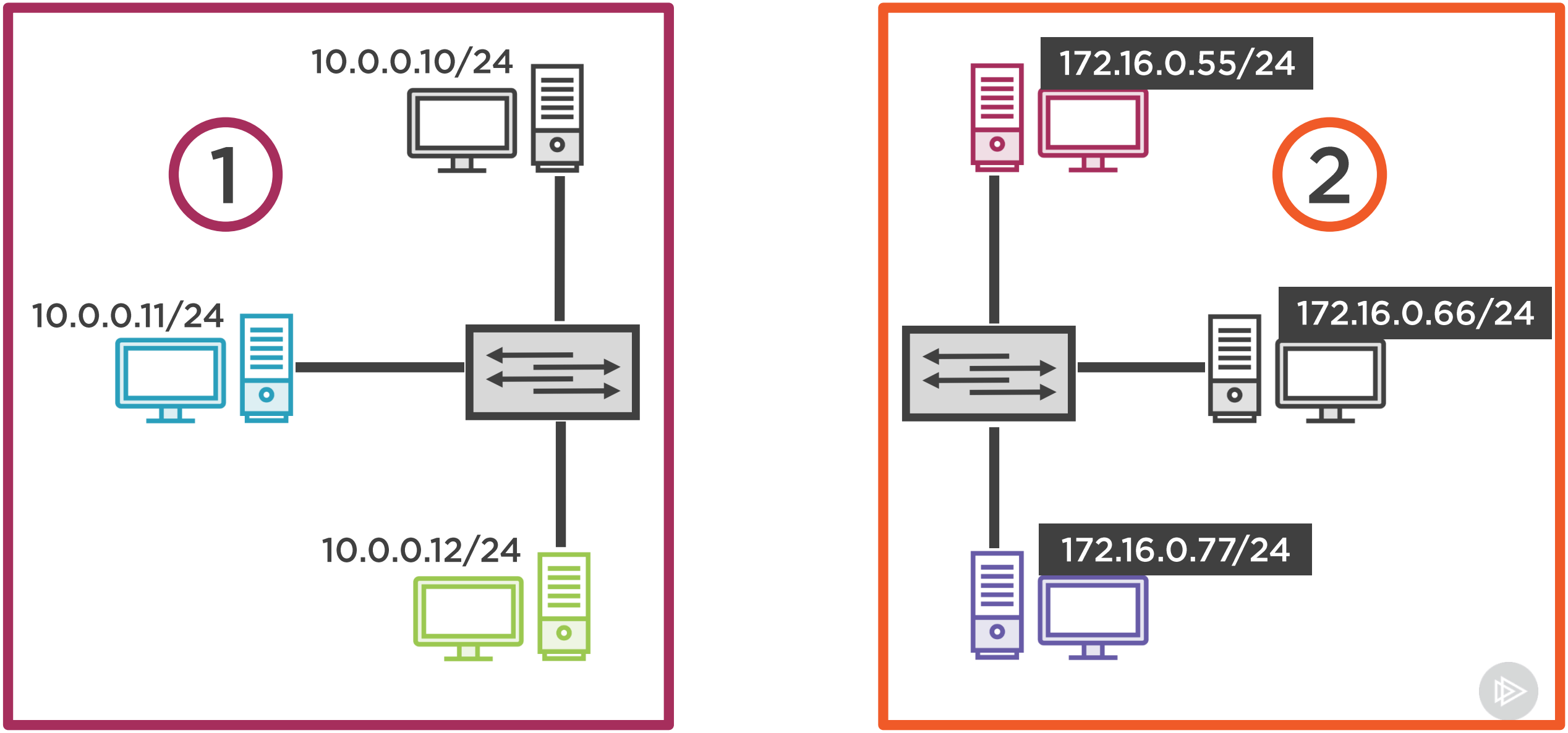

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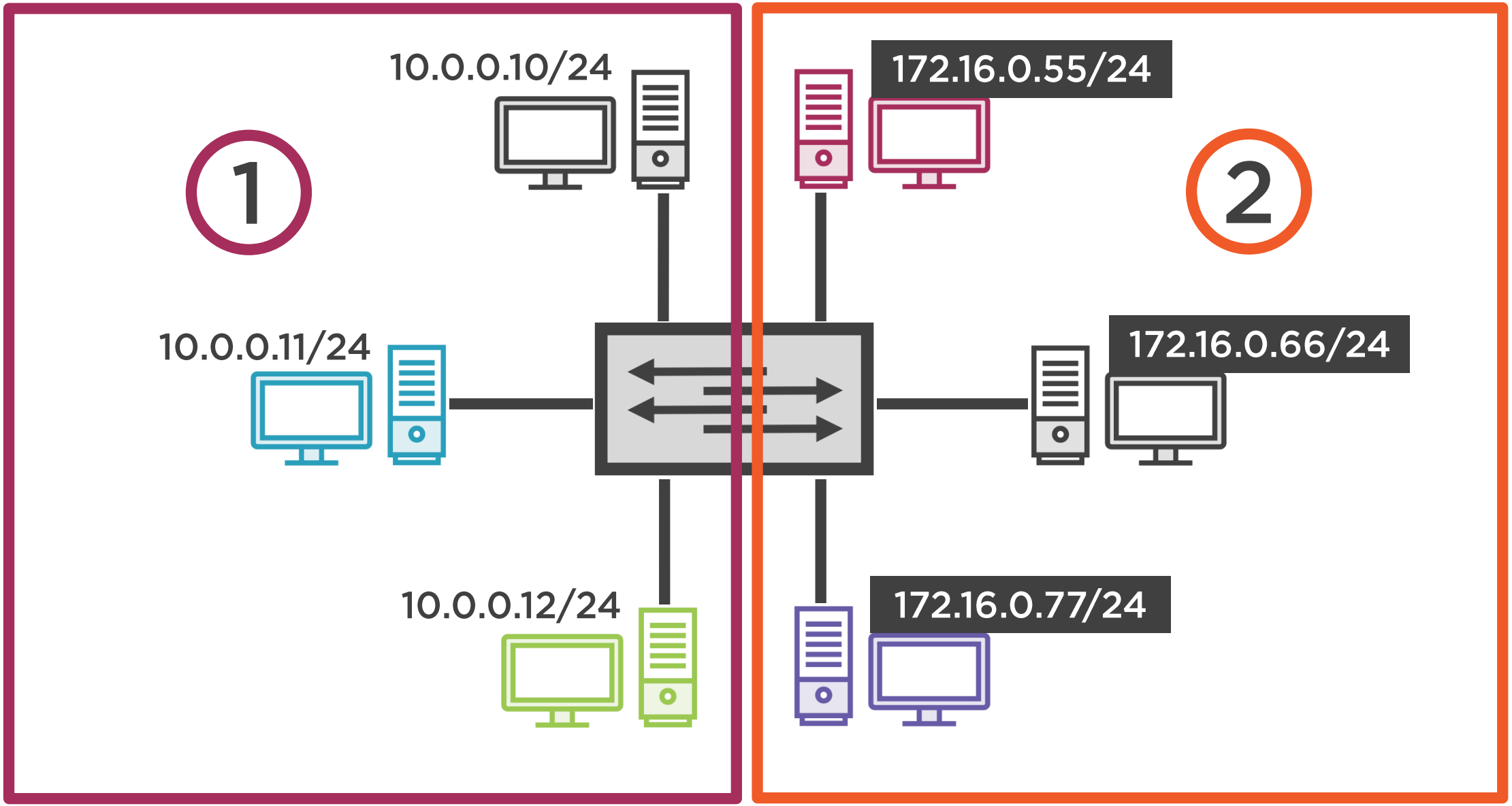
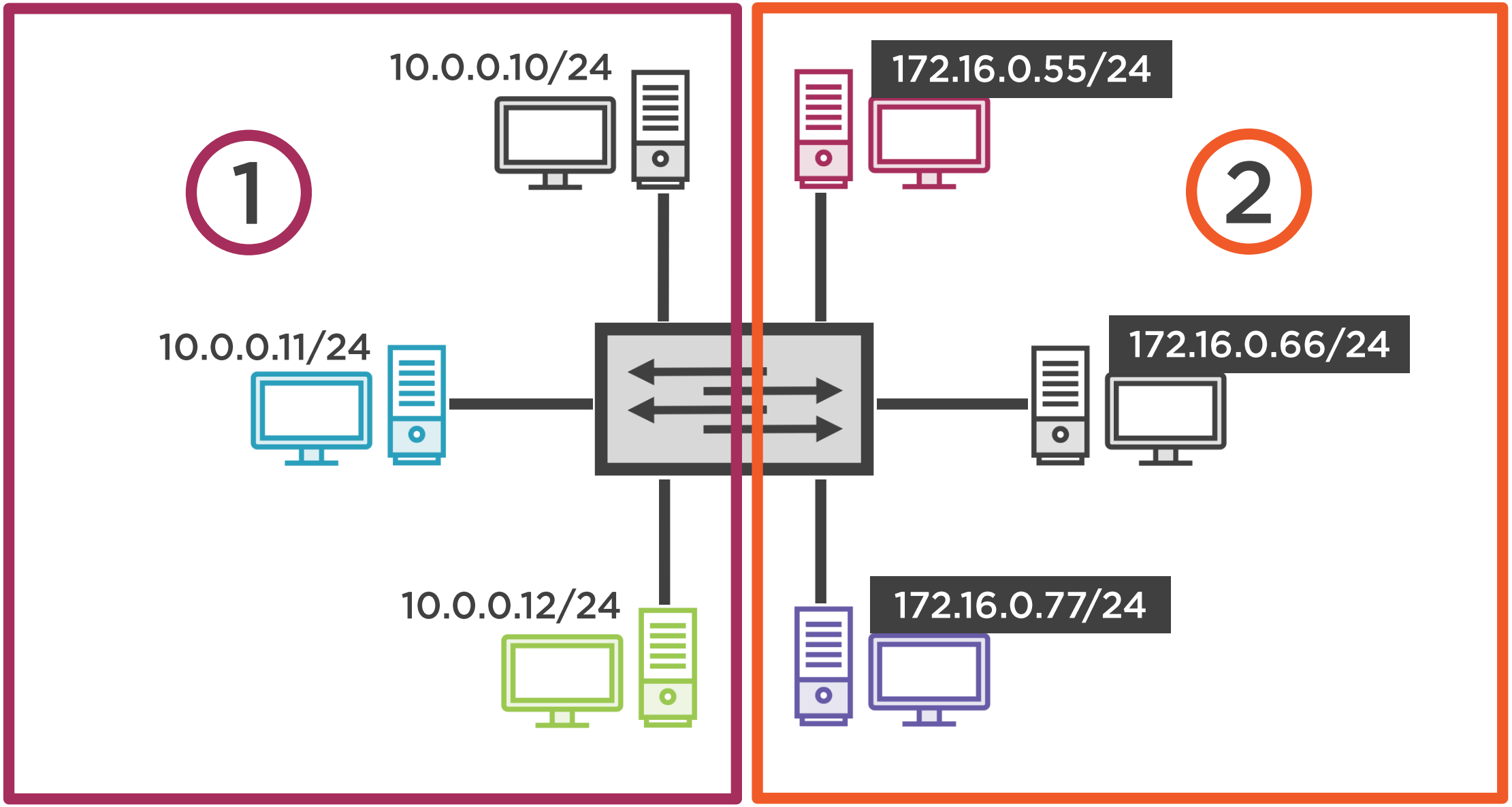


VLANs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2
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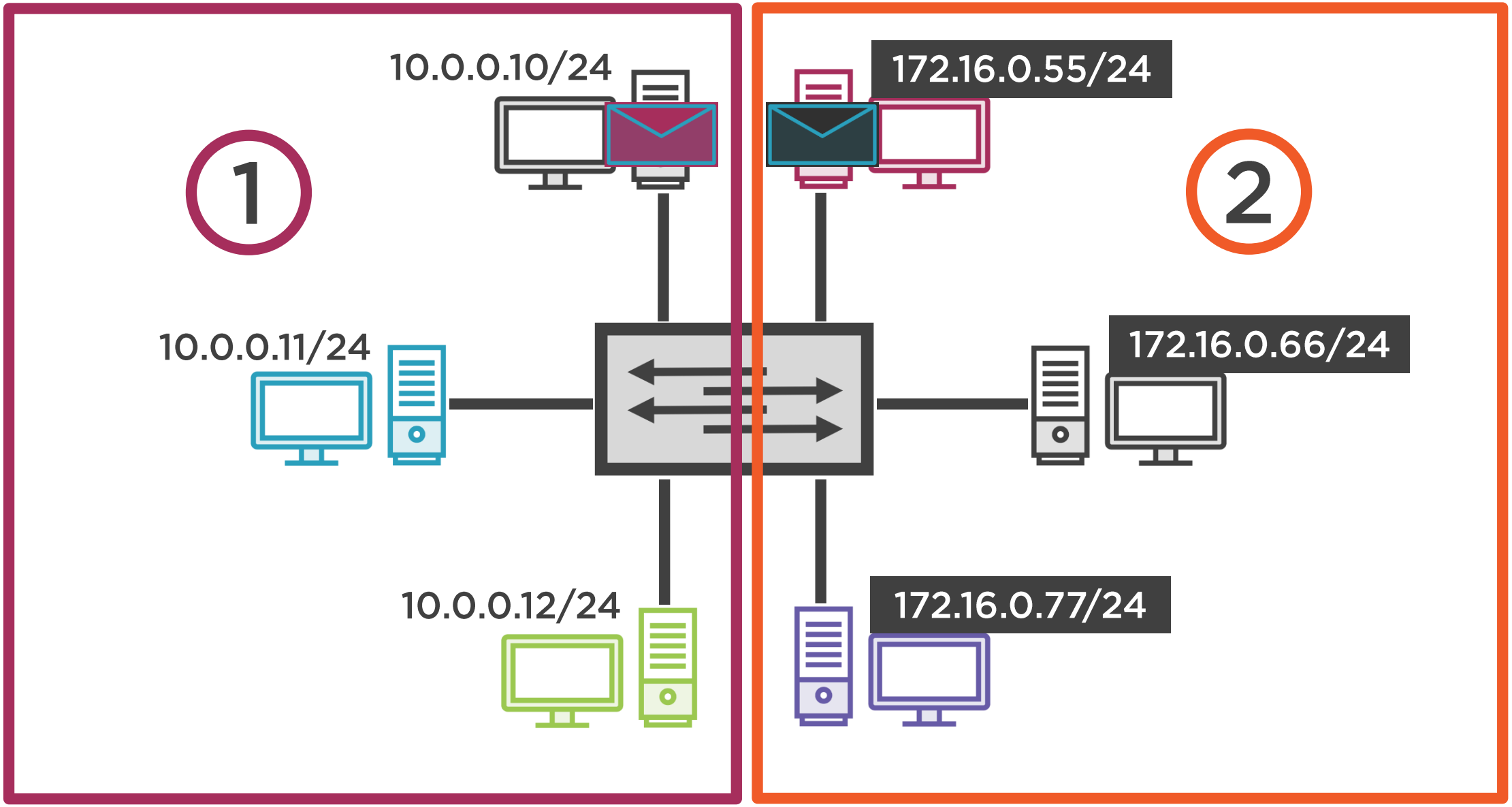
172.16.0.66/24
172.16.0.77/24

VLANs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10.0.0.11/24
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10.0.0.12/24
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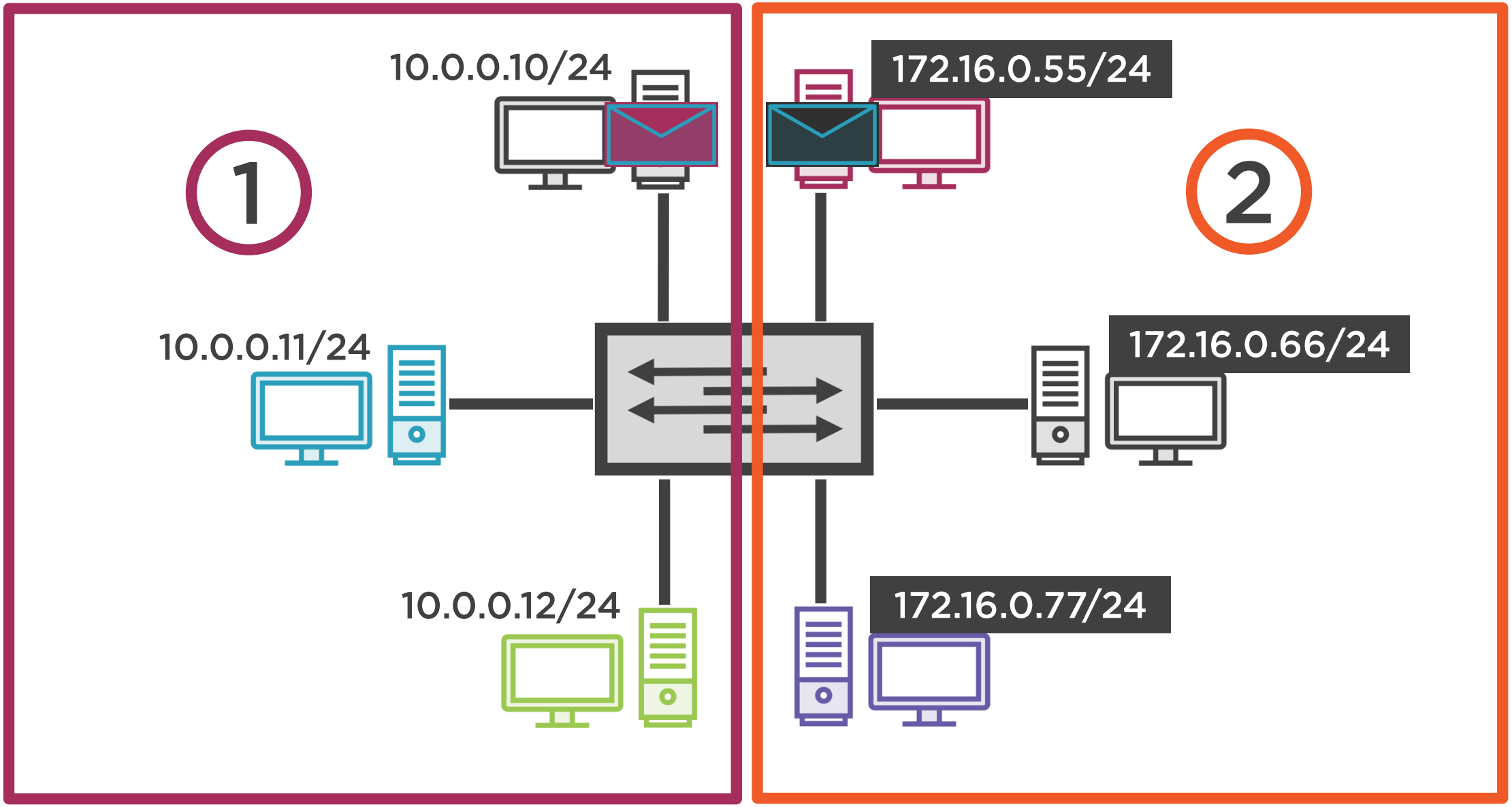
VLANs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172.16.0.55/24
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10.0.0.11/24
172.16.0.66/24
10.0.0.12/24
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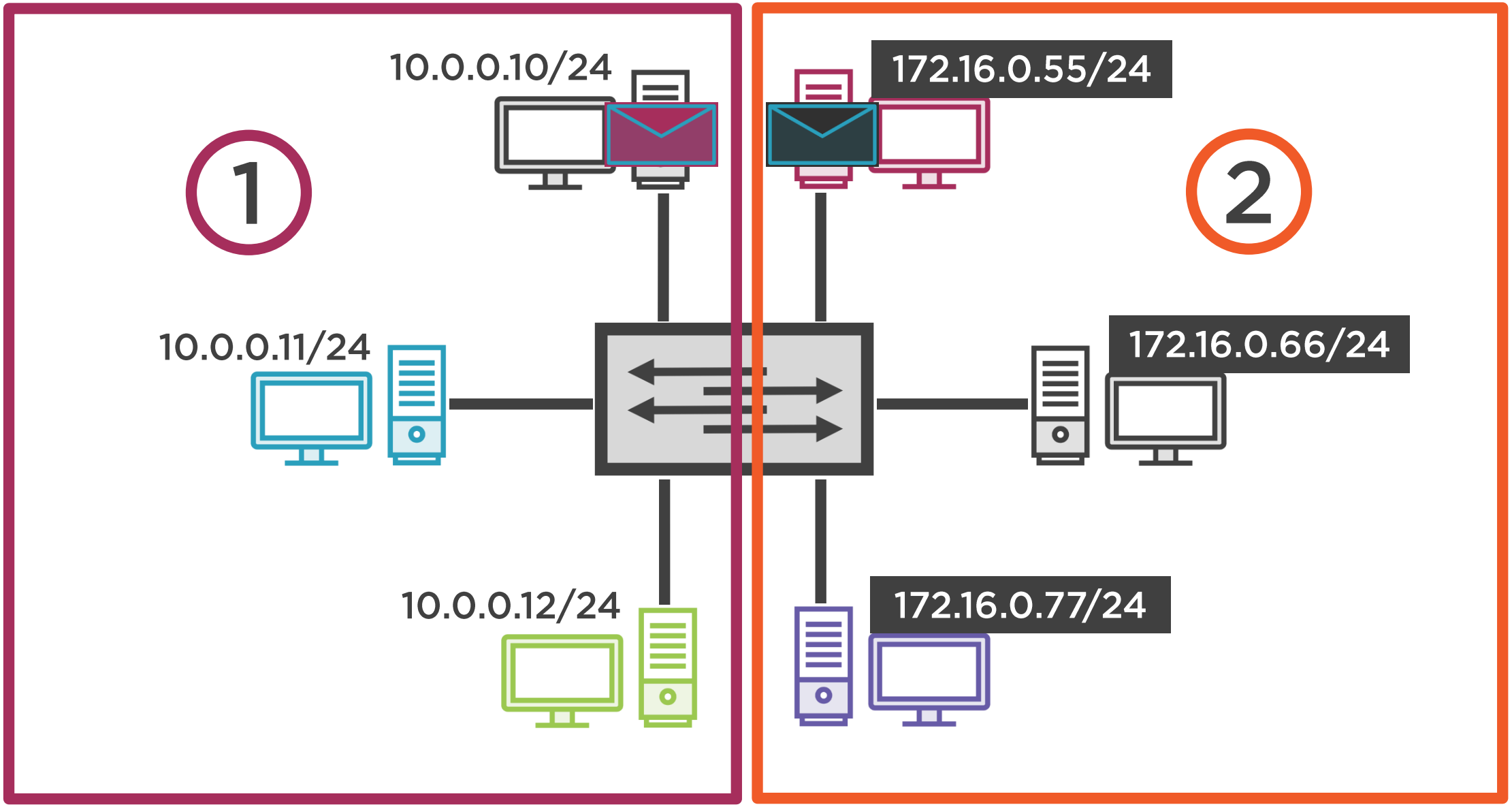
VLANs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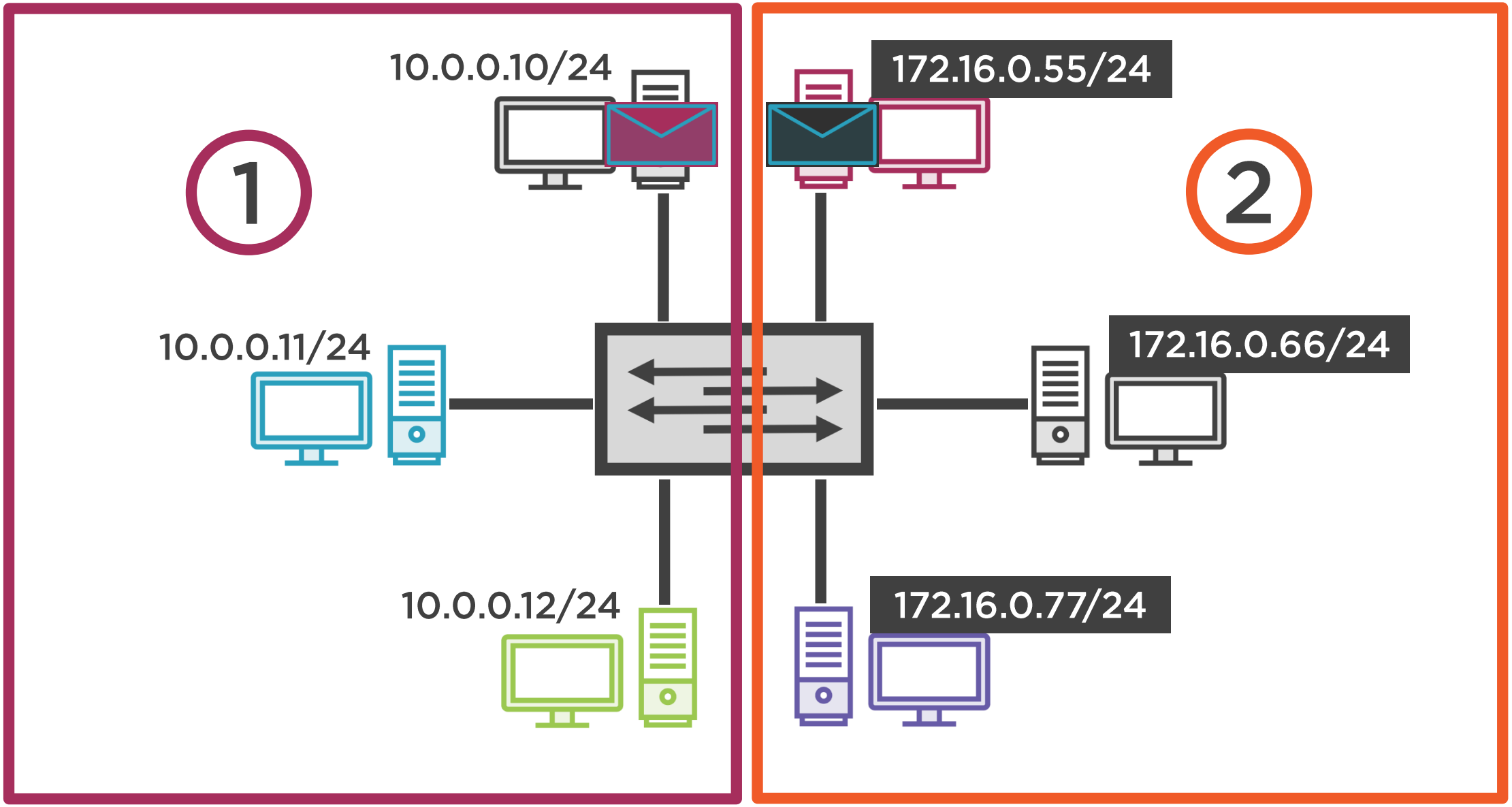
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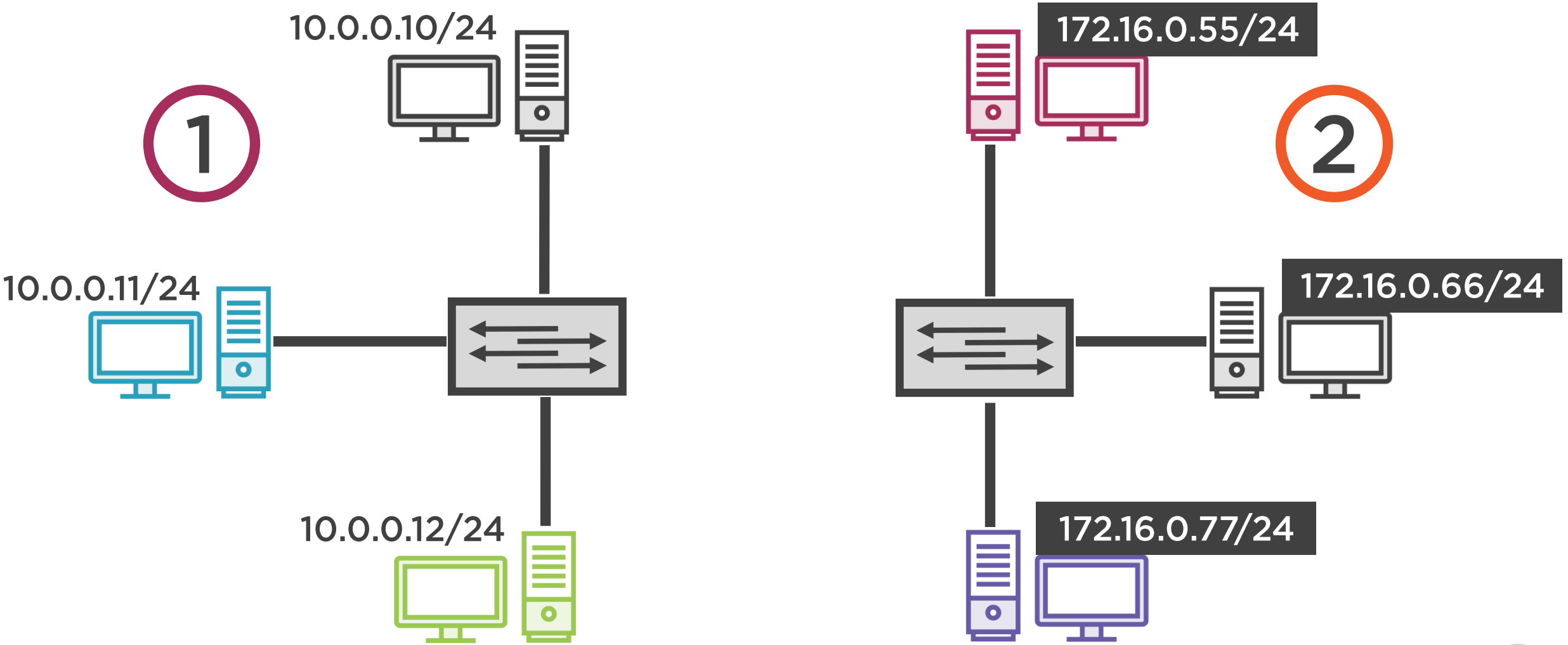
VLANs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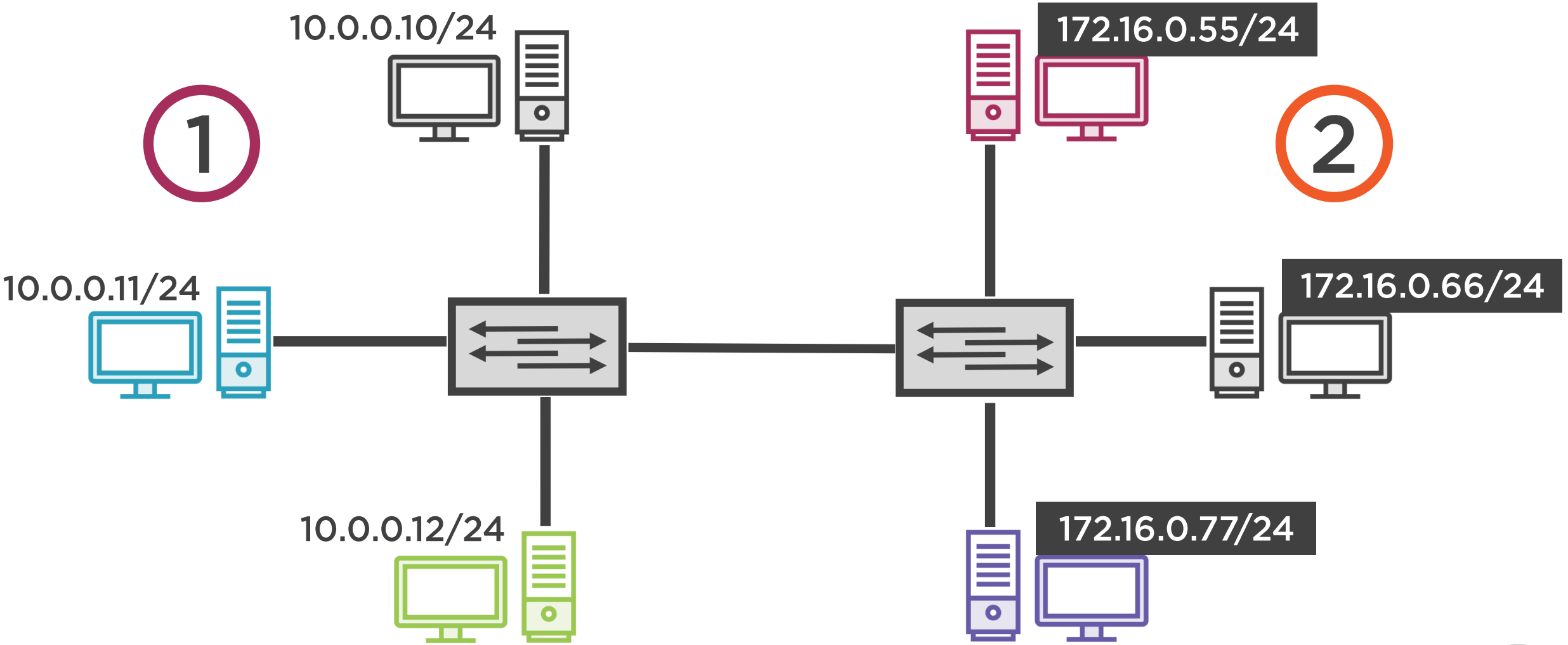
VLANs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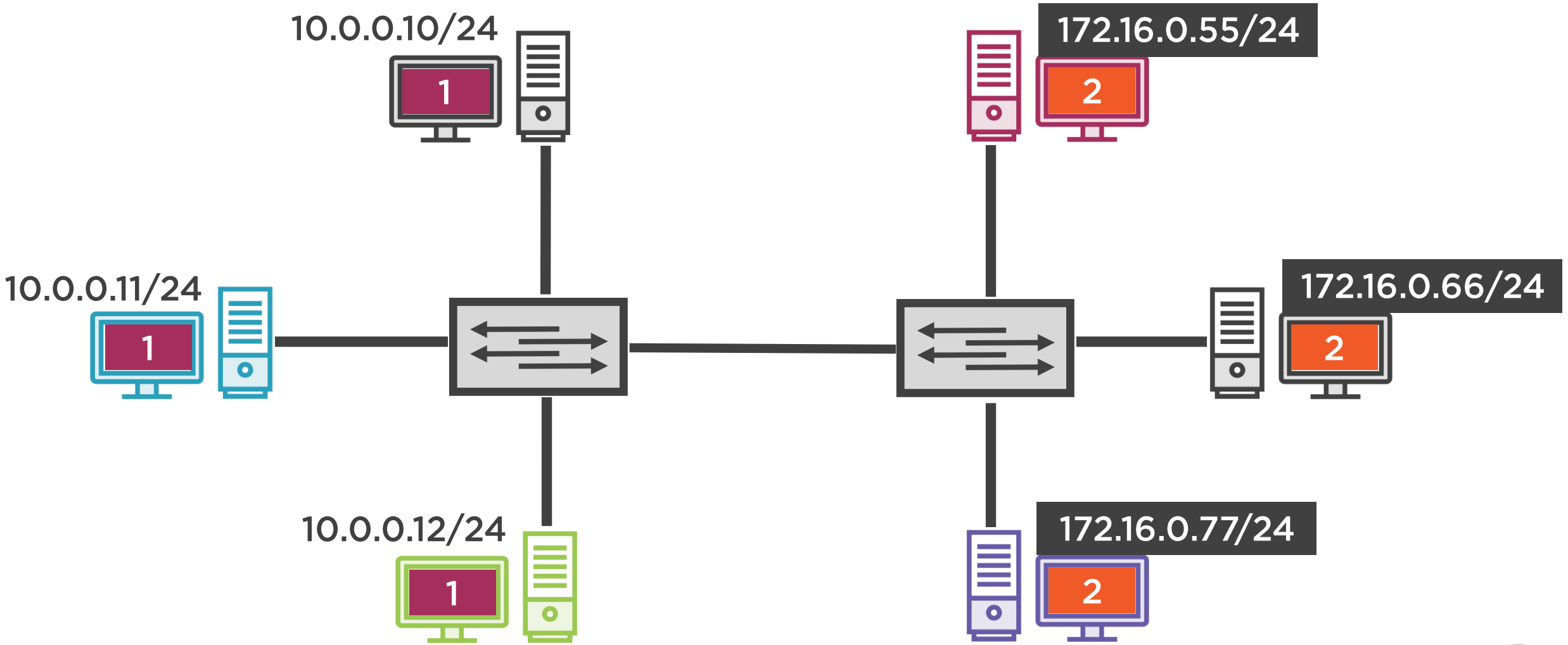
172.16.0.66/24
172.16.0.77/24

VLANs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172.16.0.77/24
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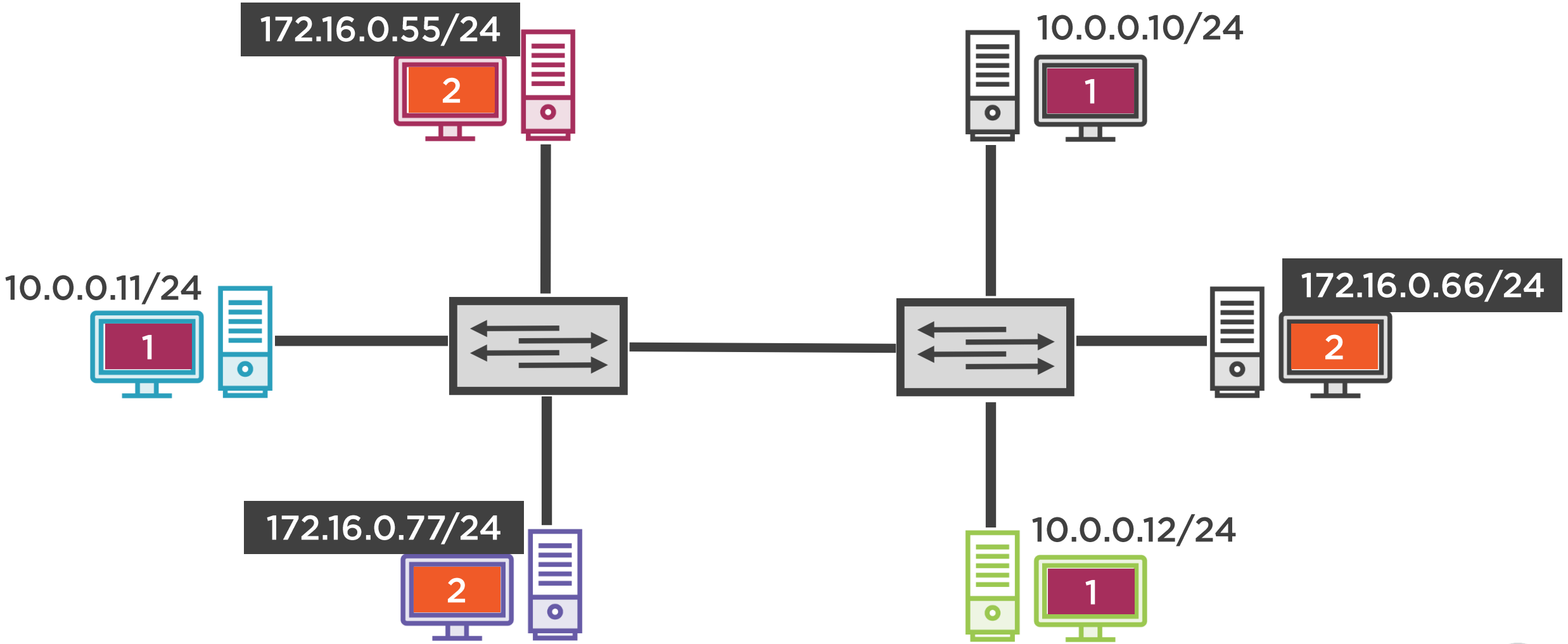
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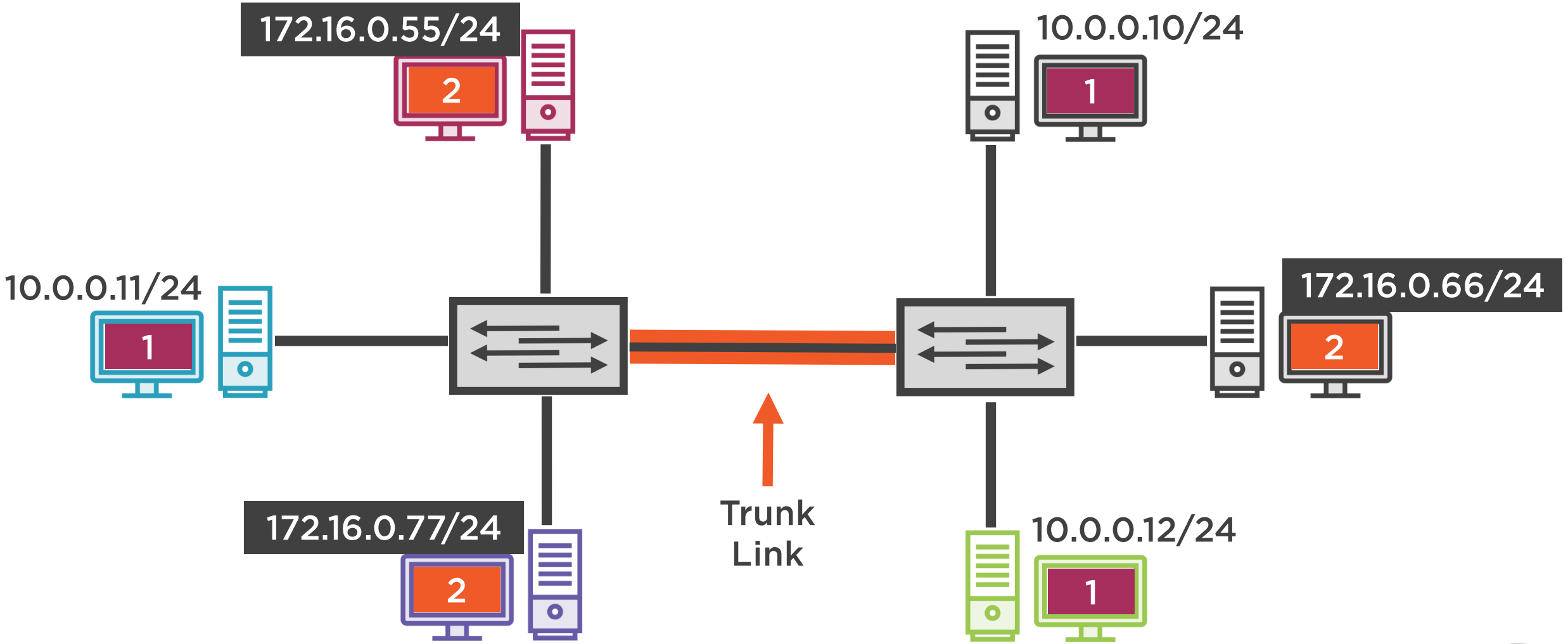
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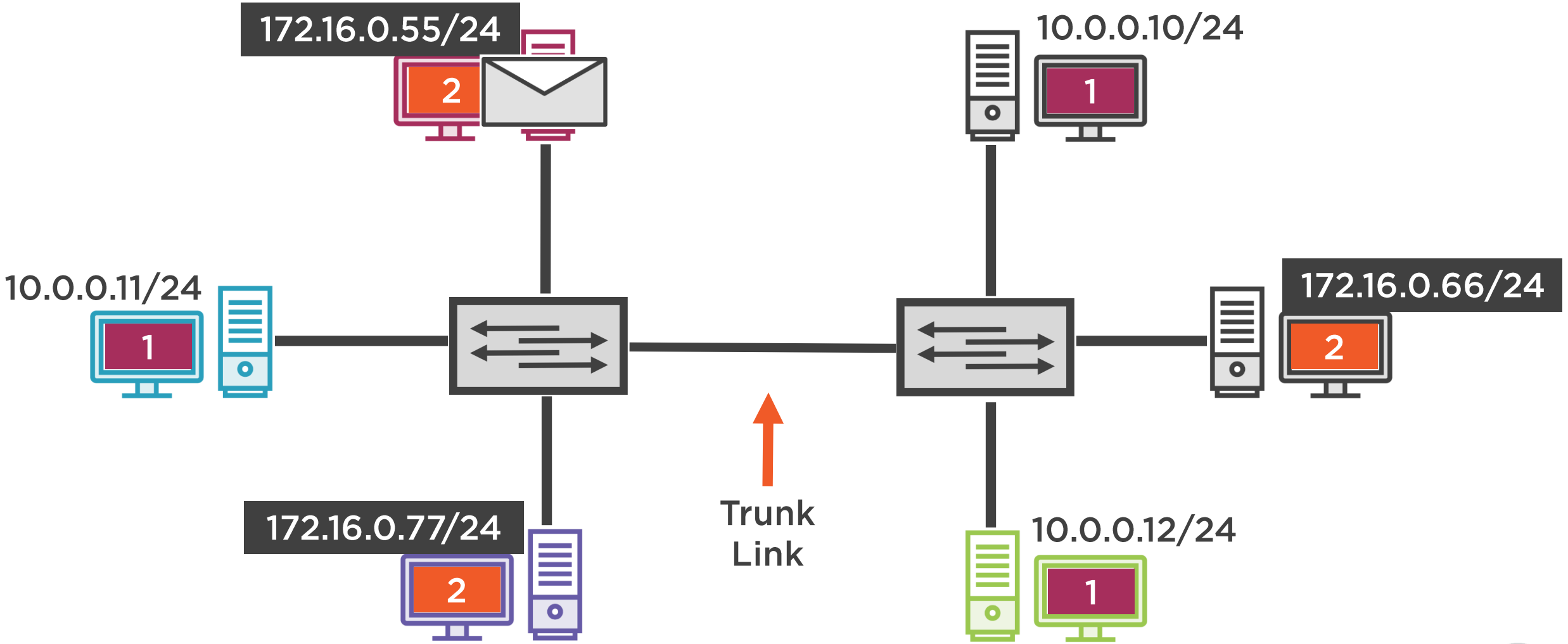
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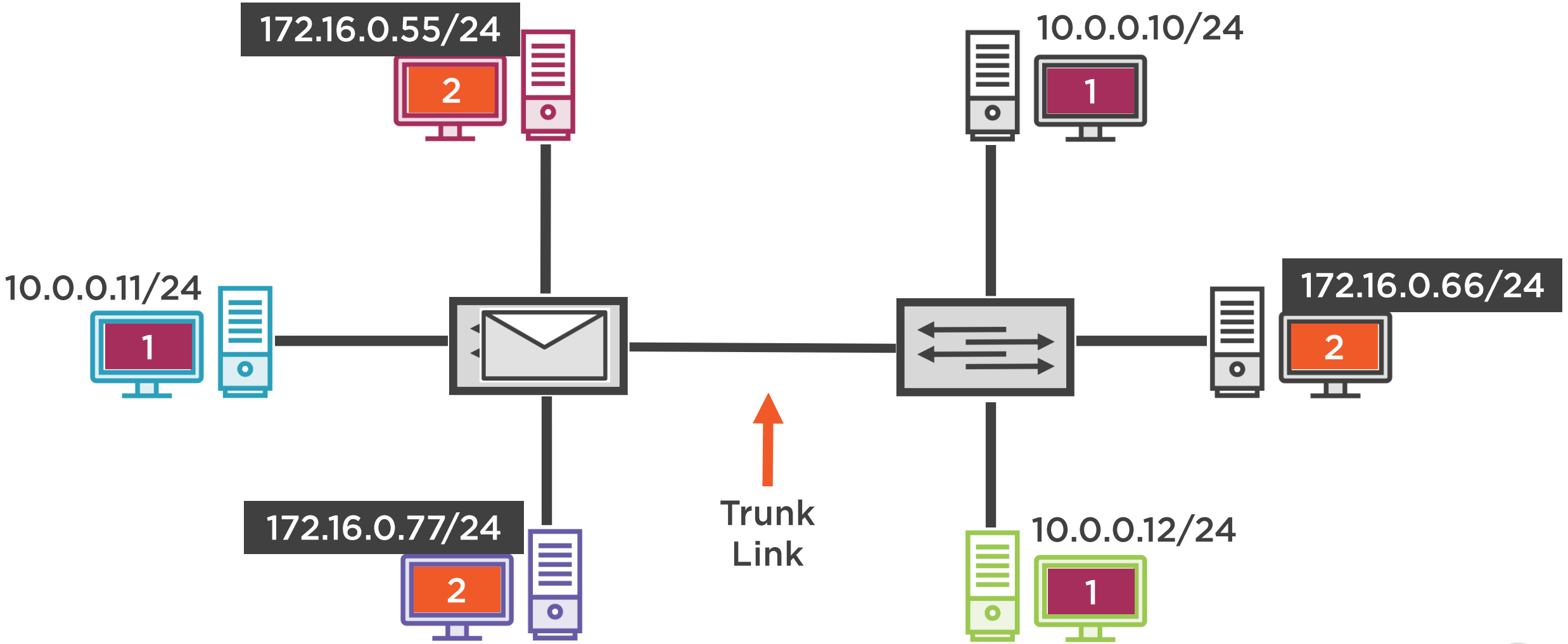
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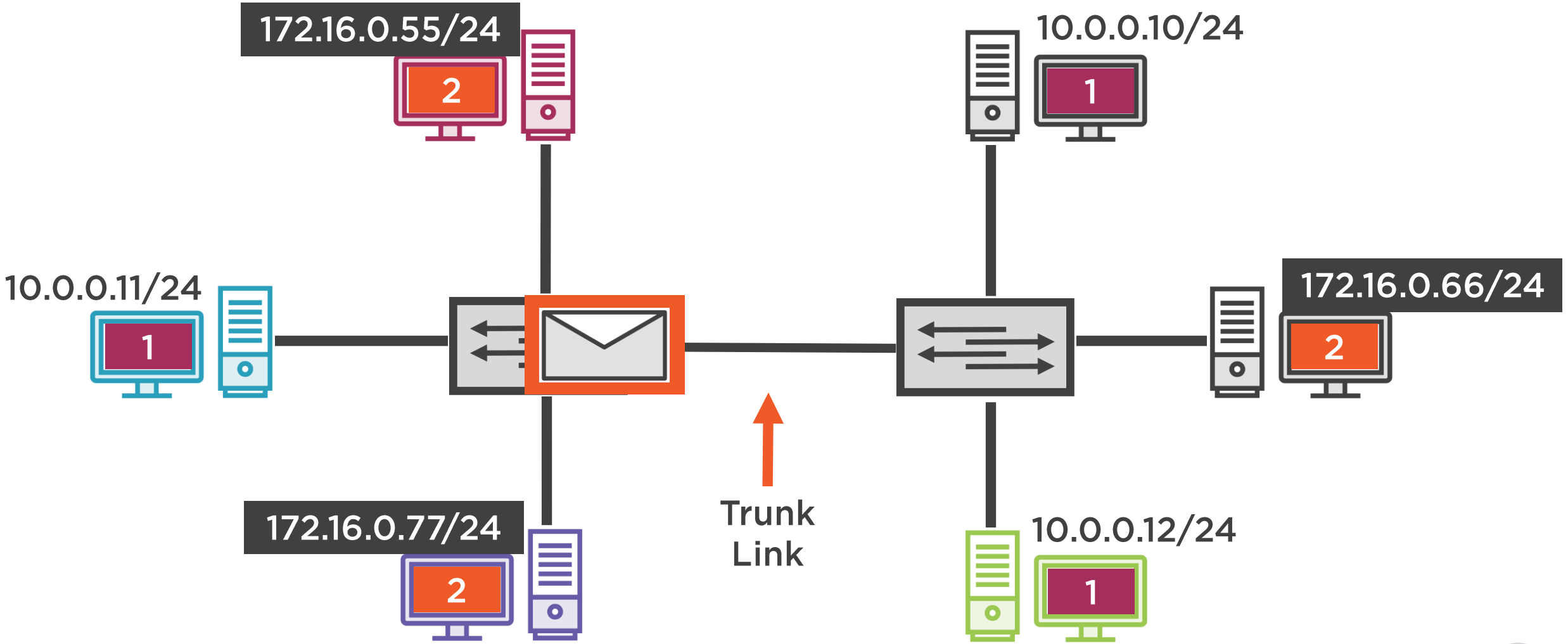
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10.0.0.12/24
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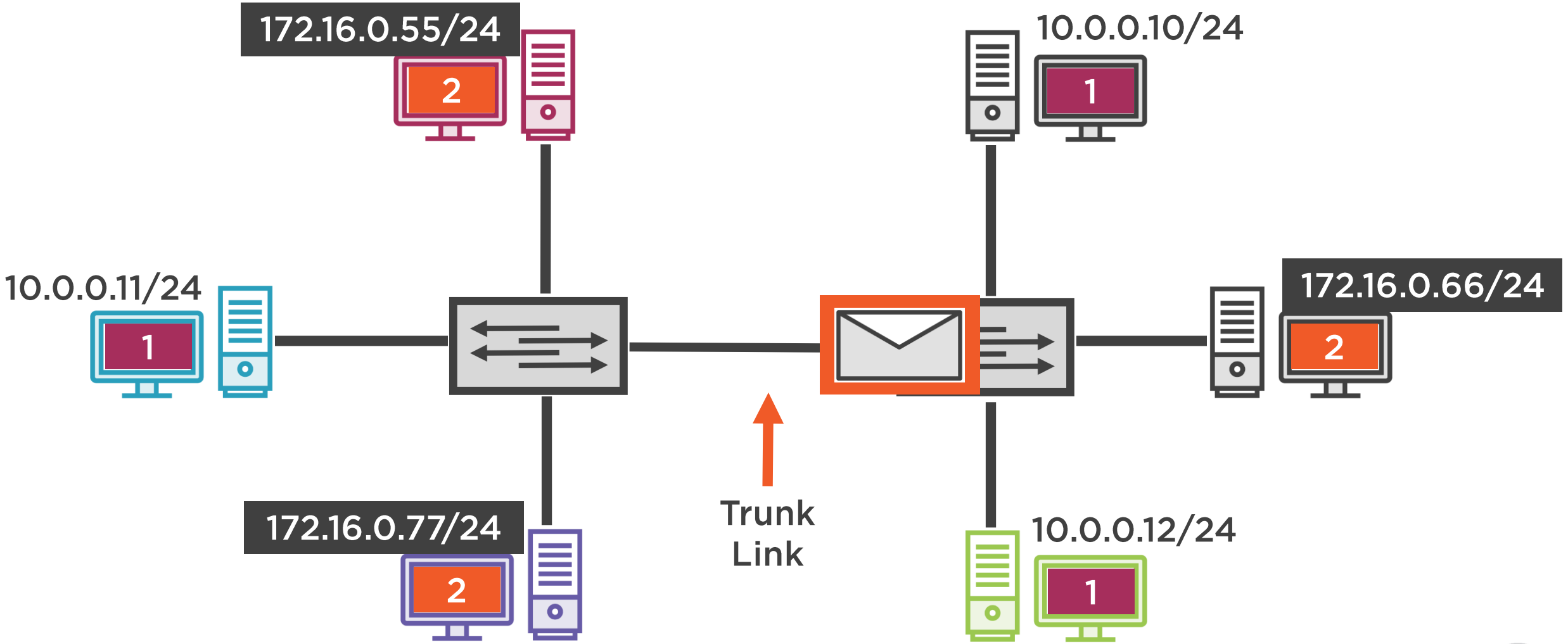
VLANs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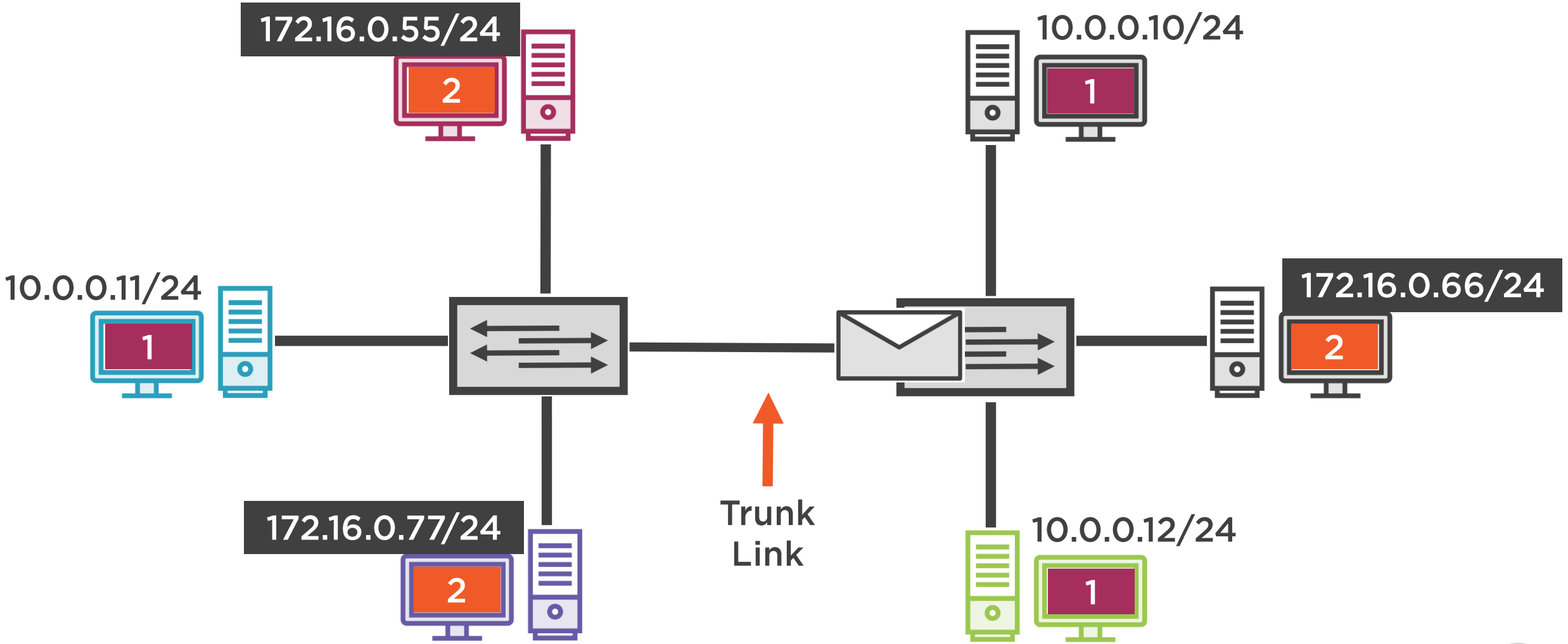
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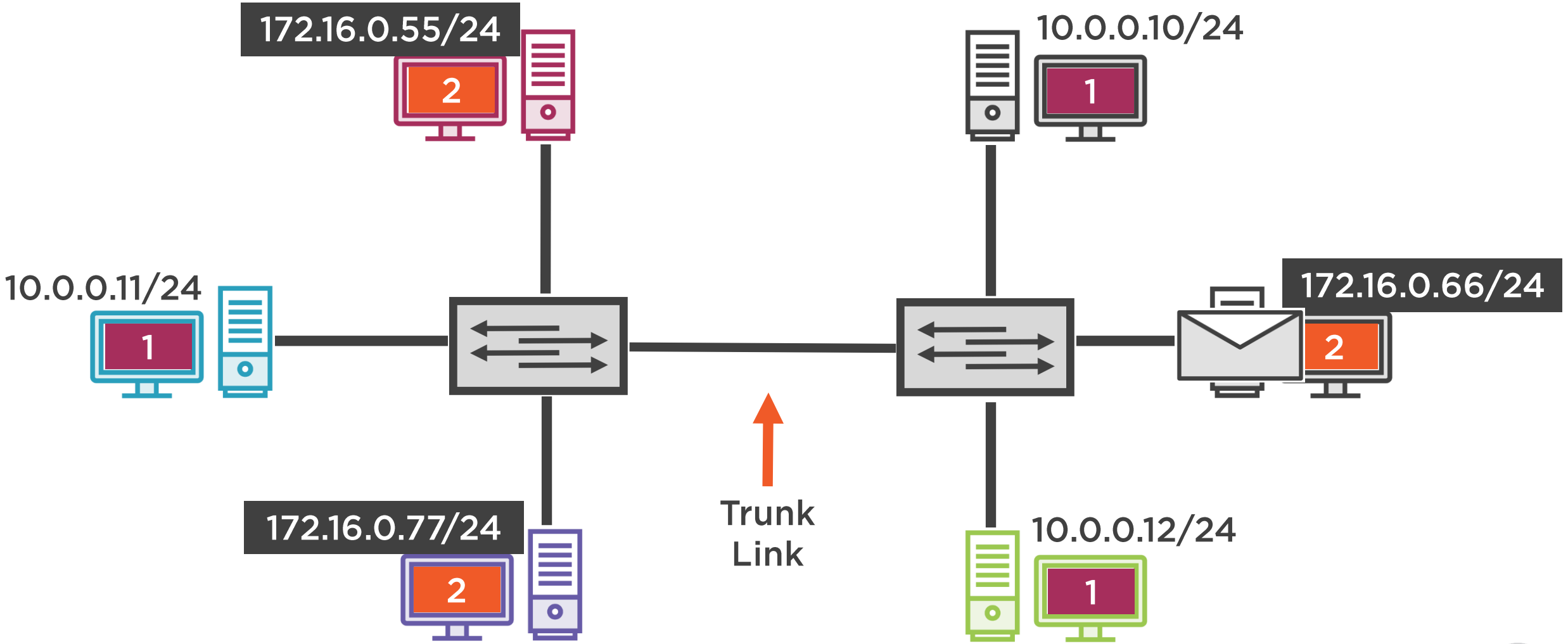
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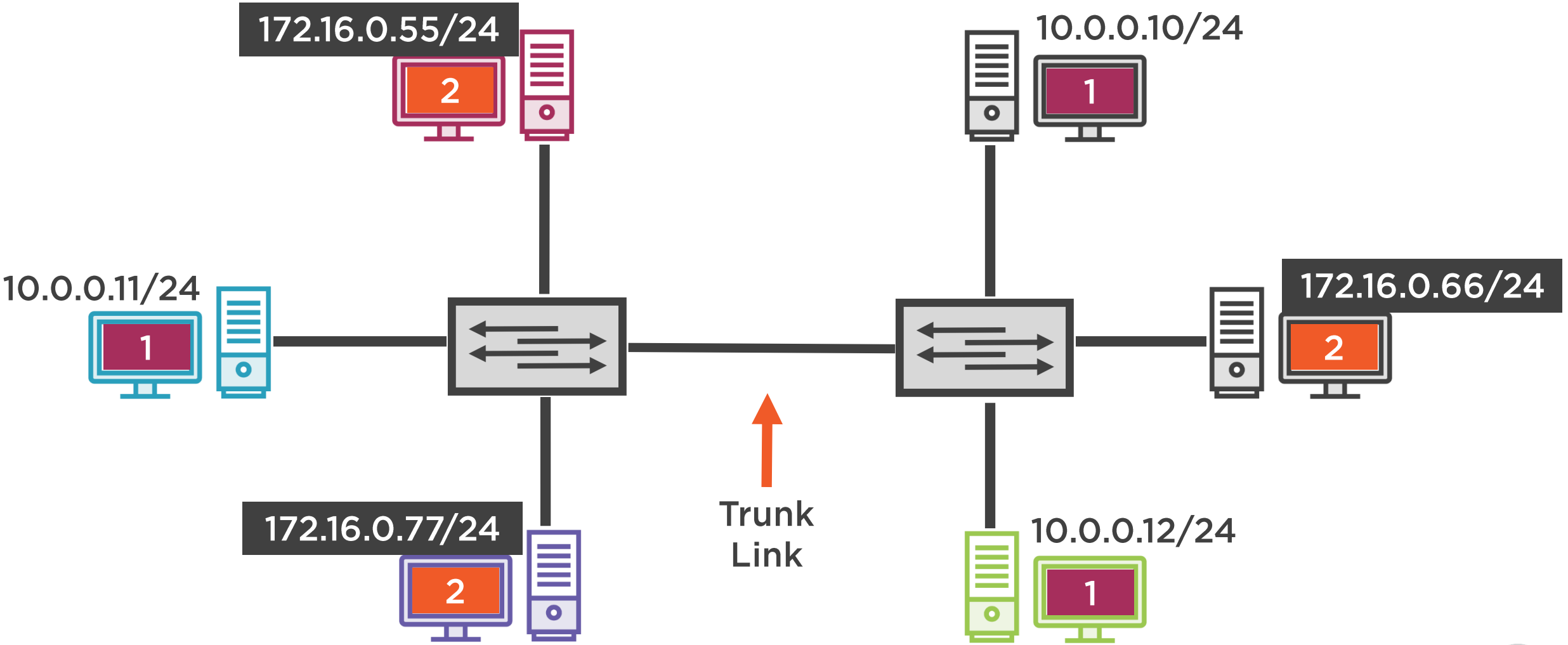
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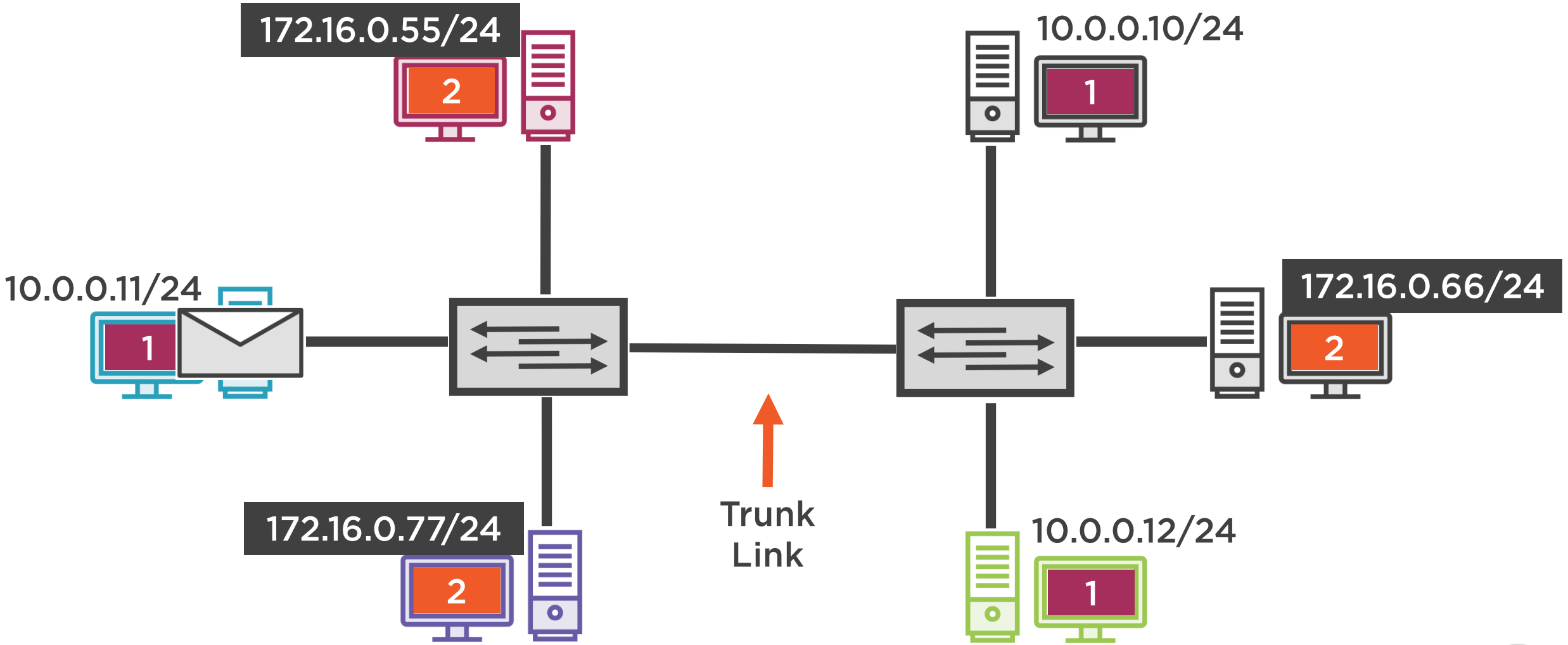
VLANs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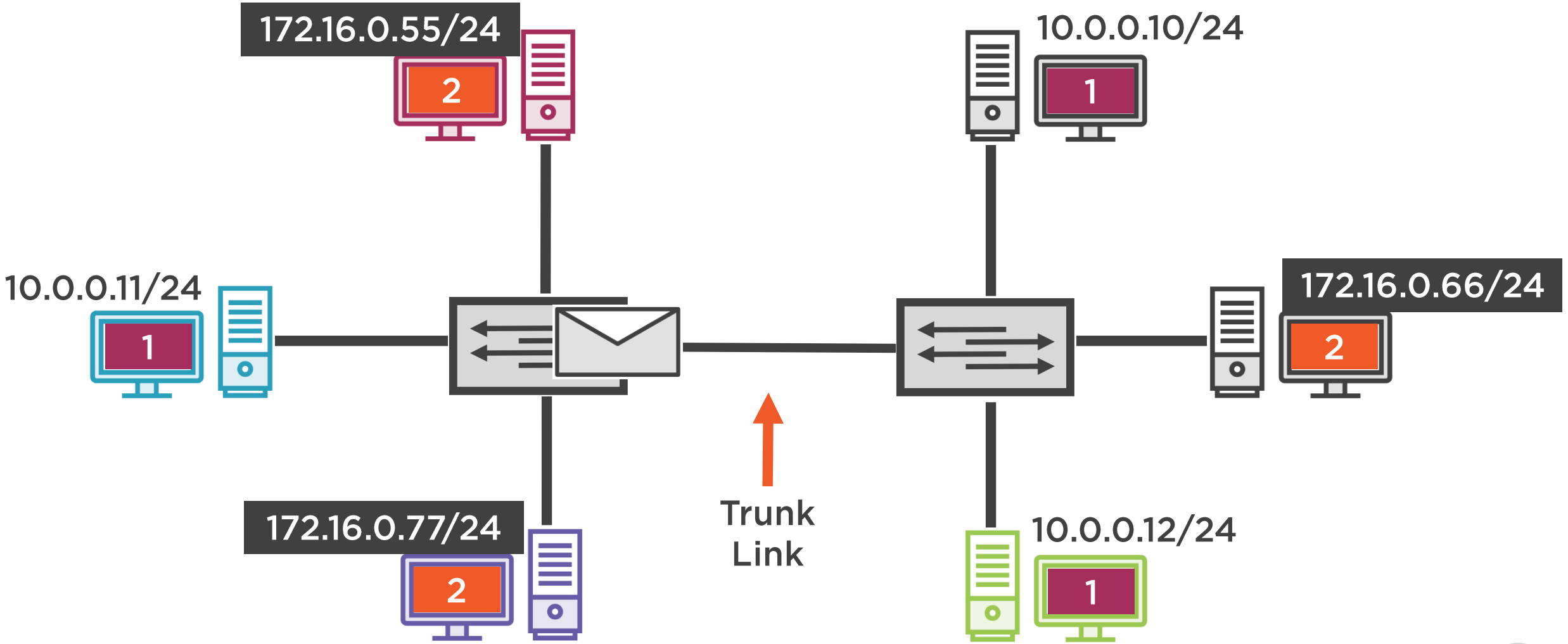
VLANs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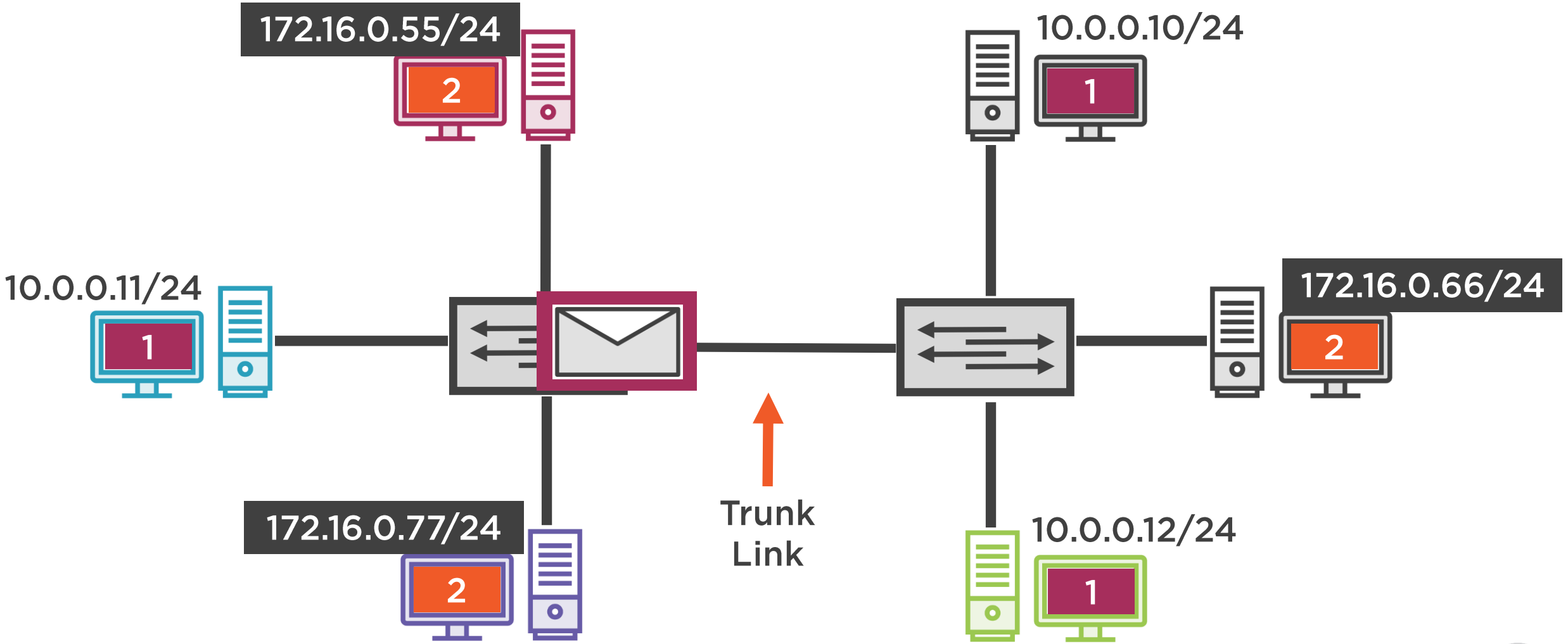
VLANs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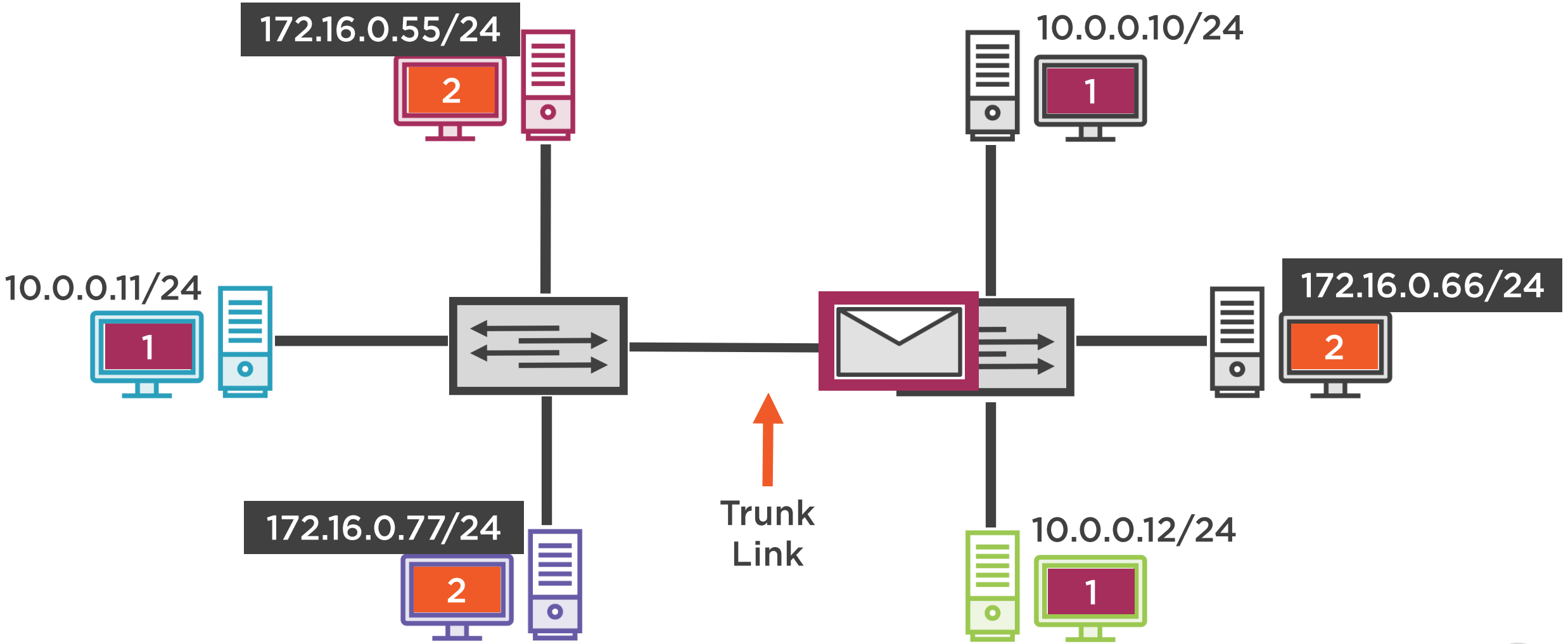
VLANs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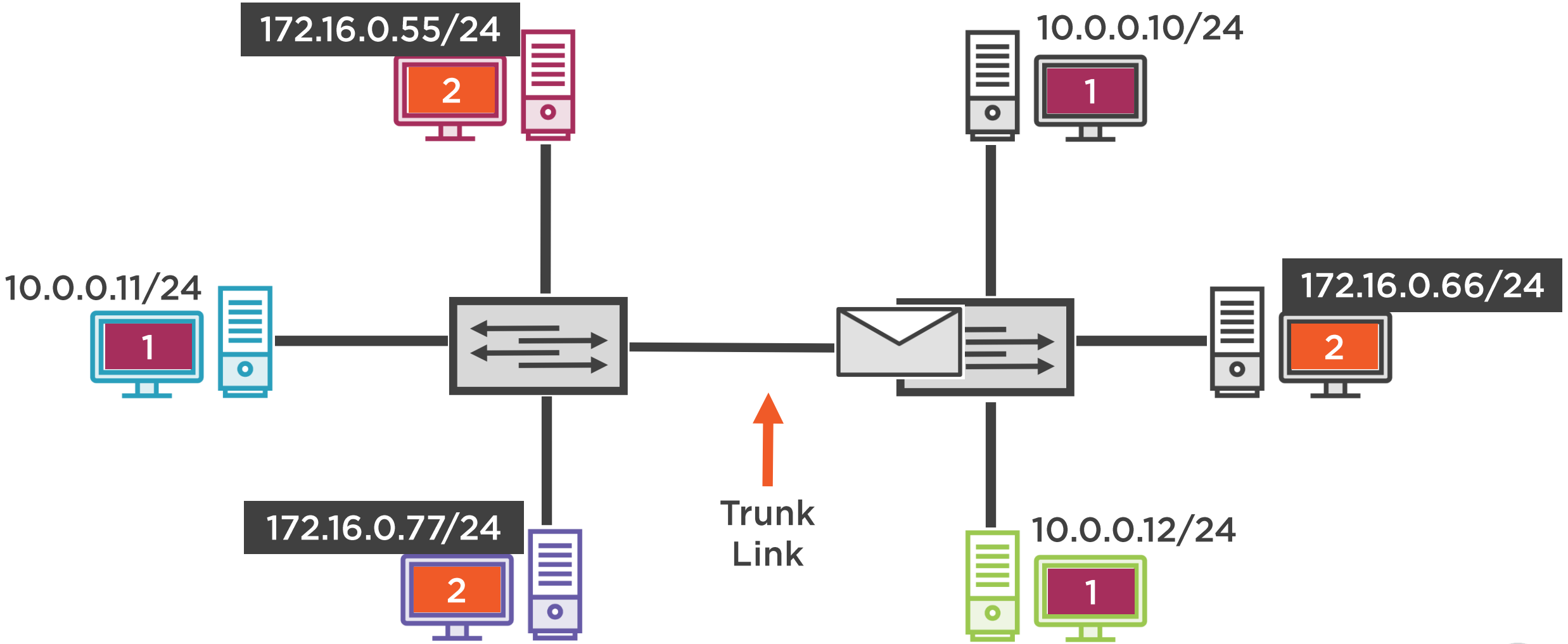
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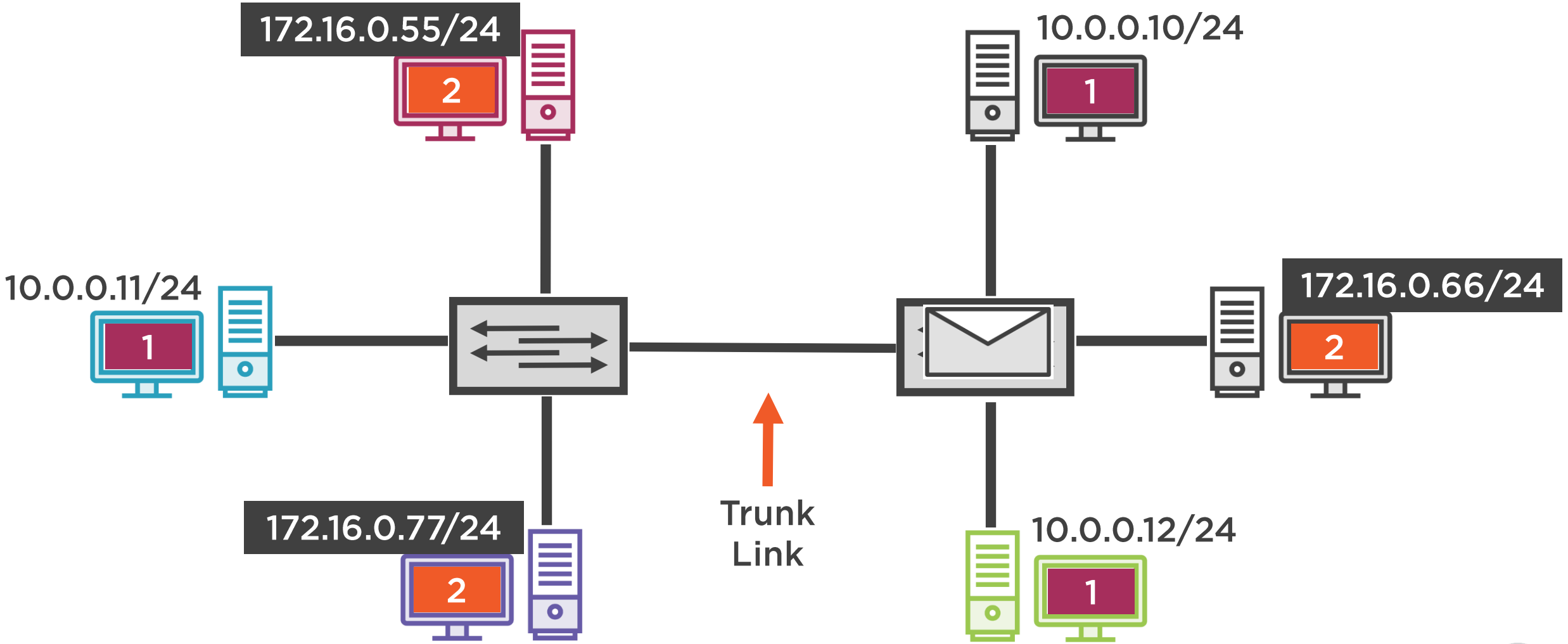
VLANs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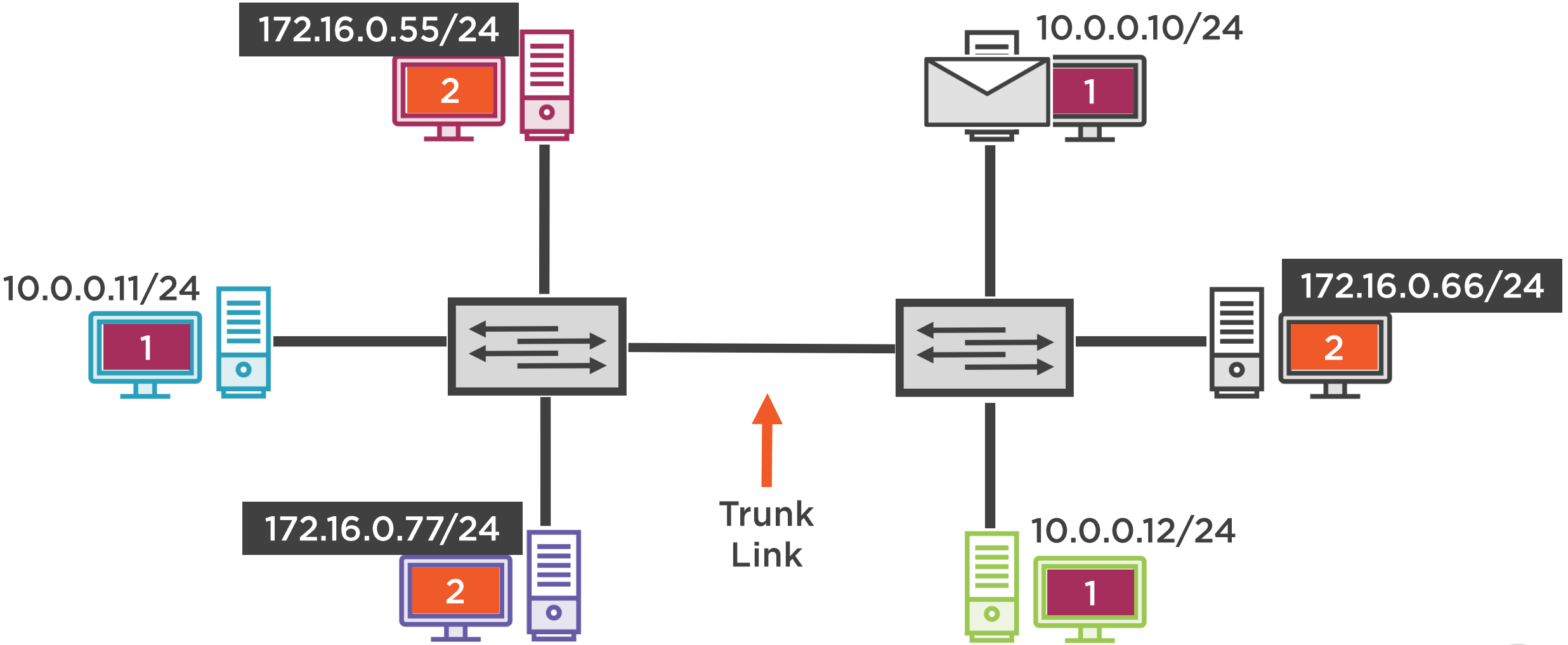
VLANs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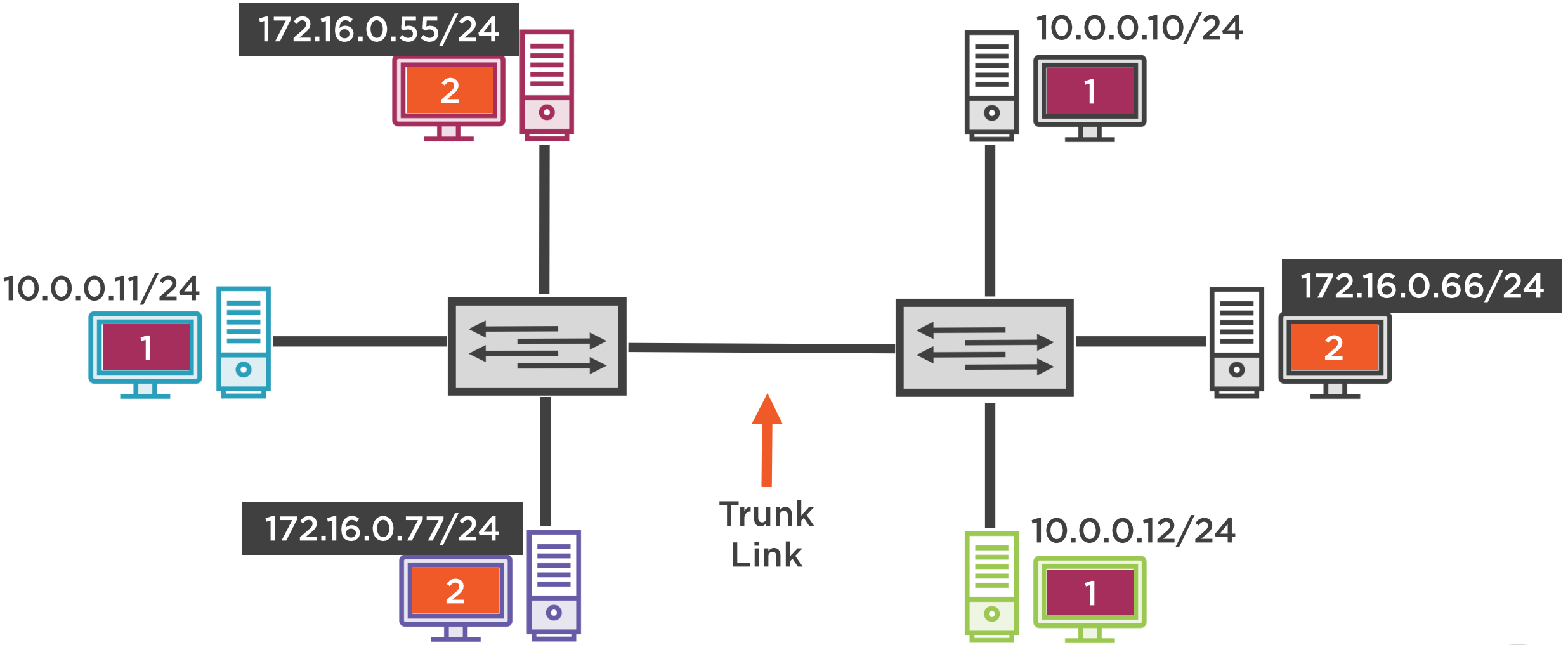
VLANs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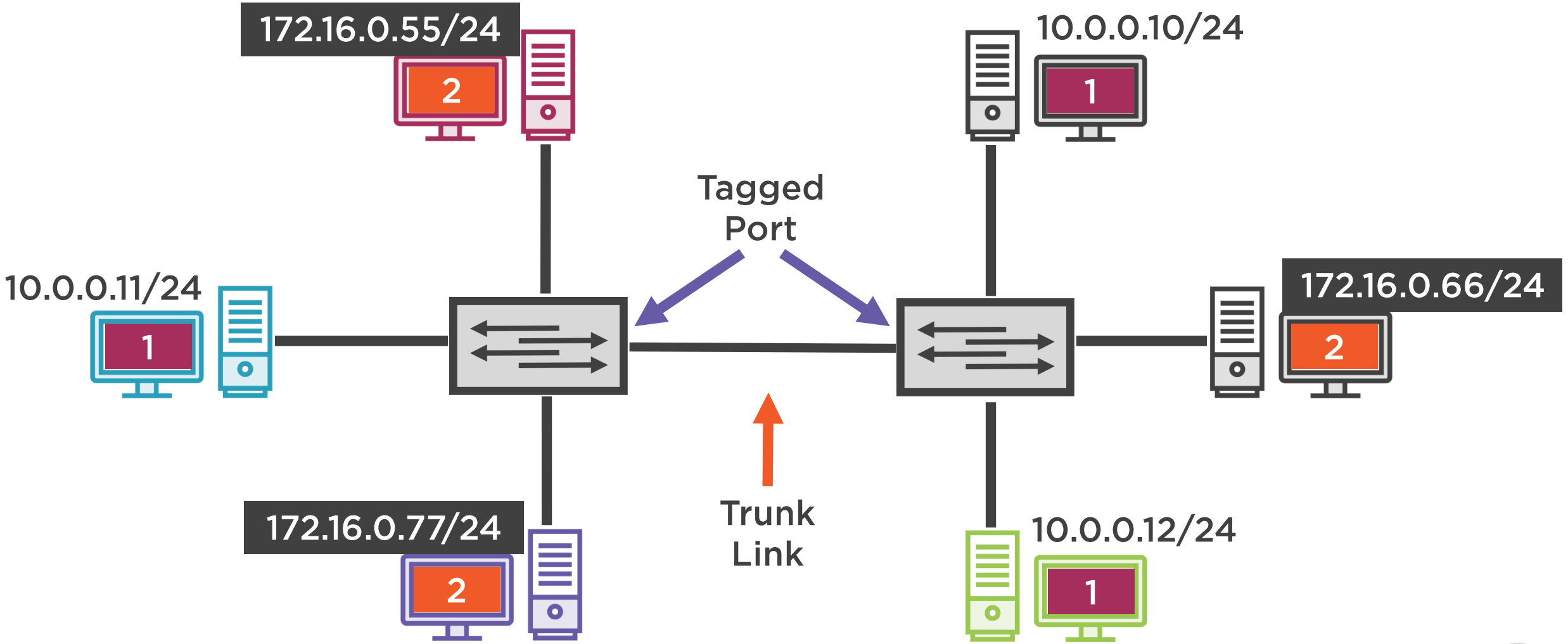
VLANs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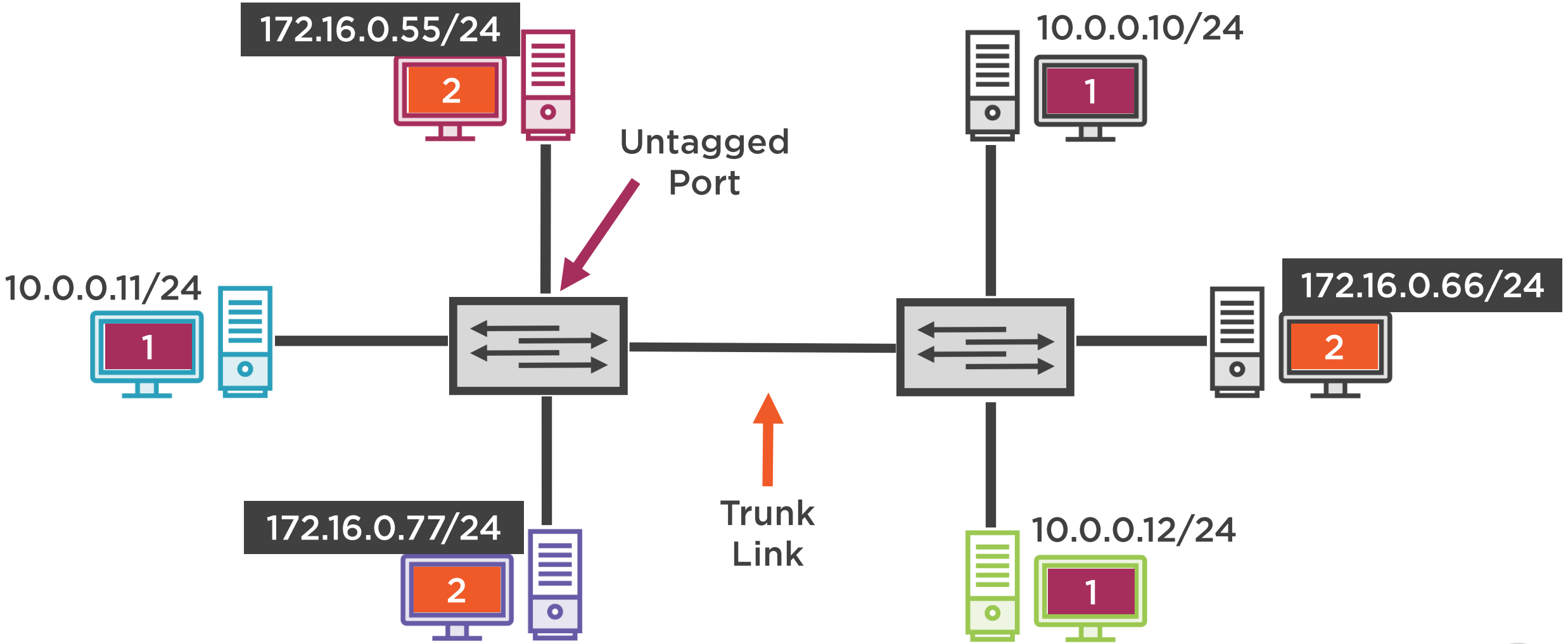
VLANs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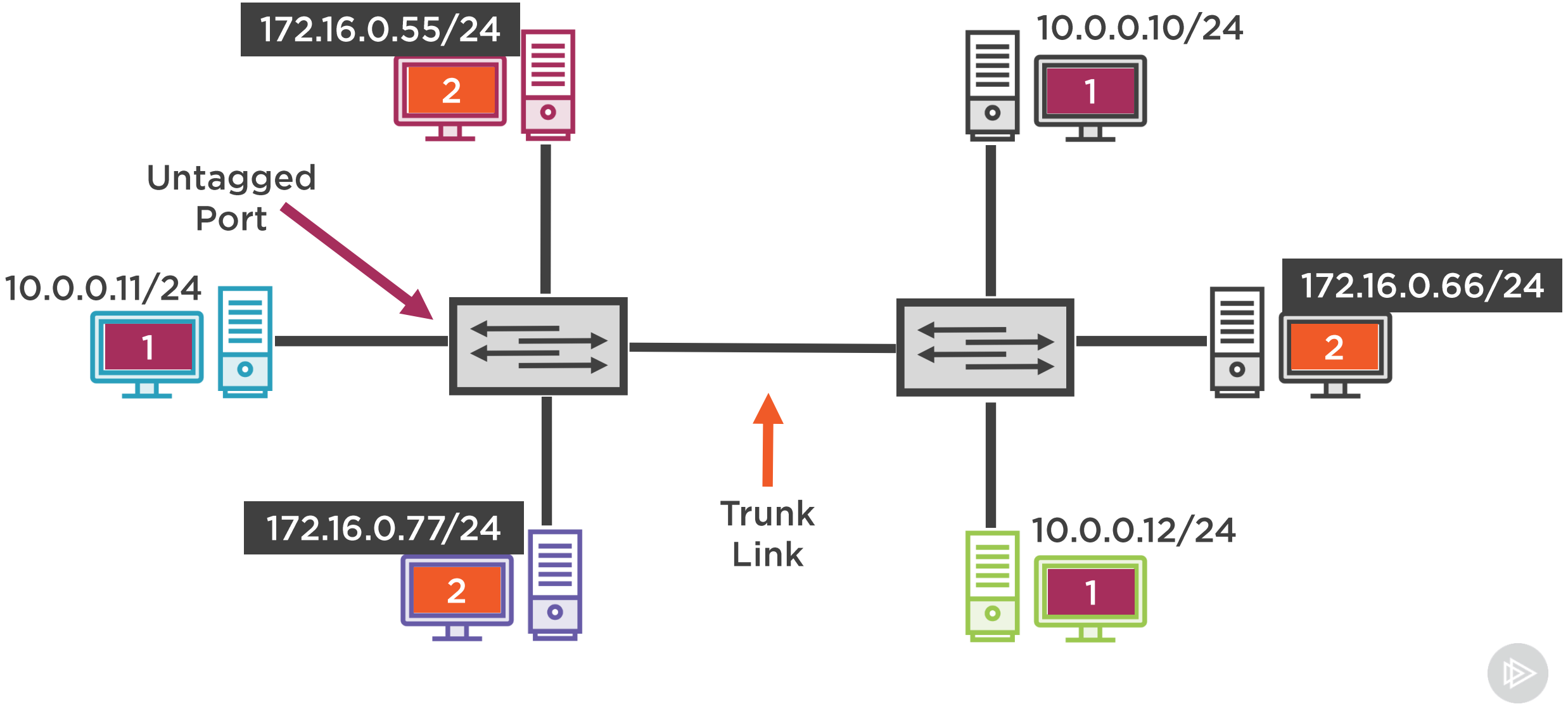
VLANs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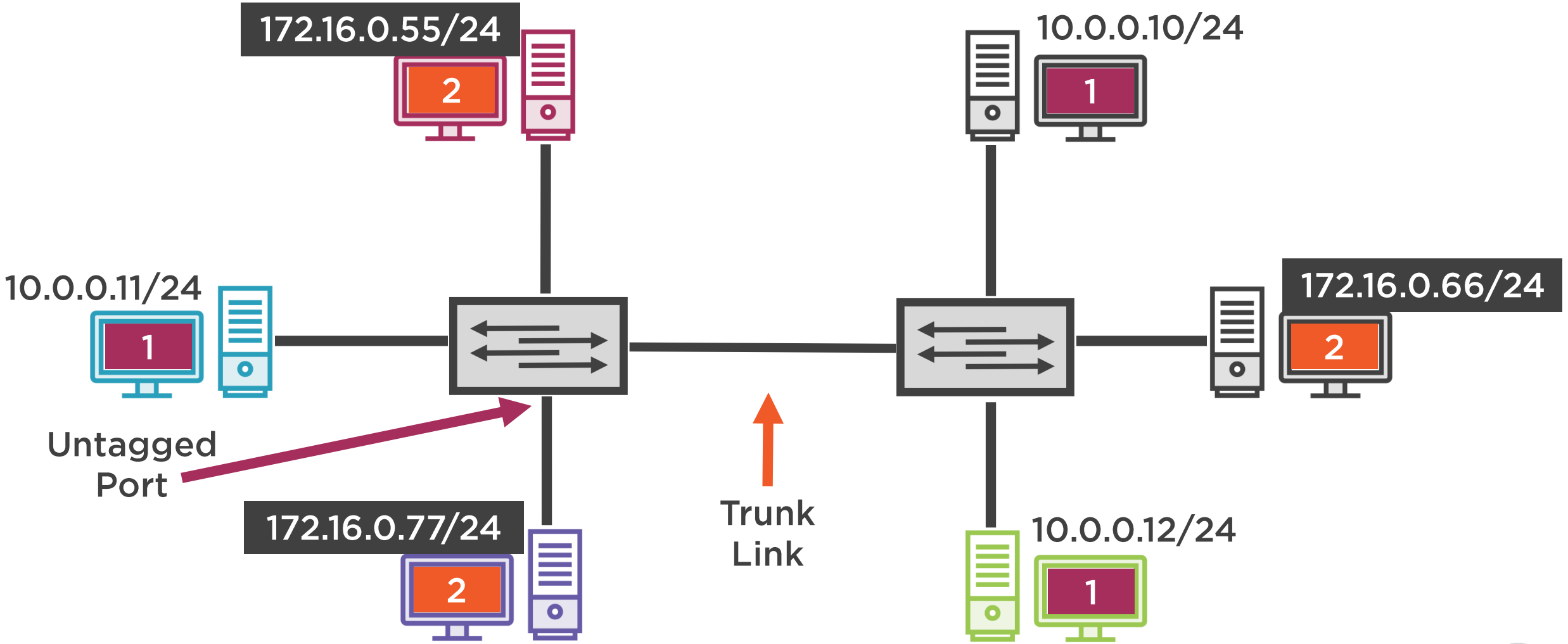
VLANs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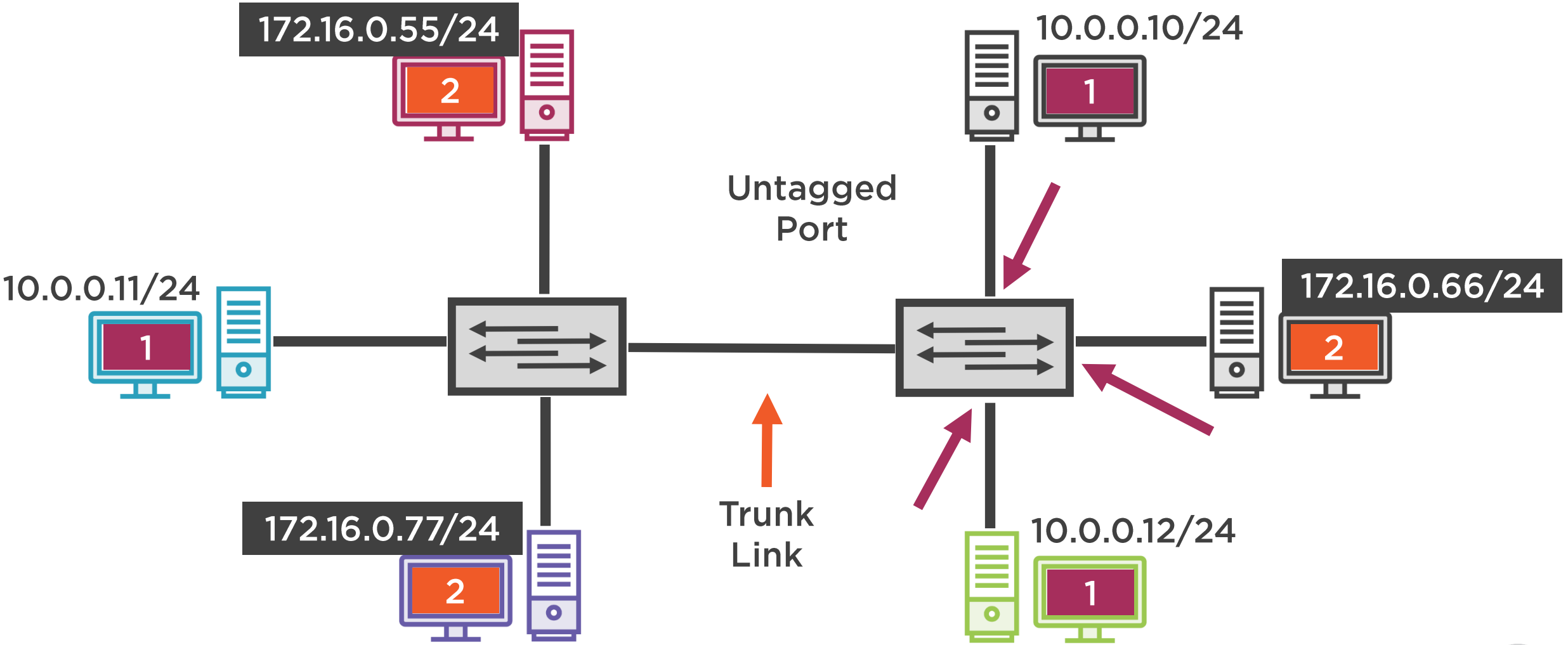
VLANs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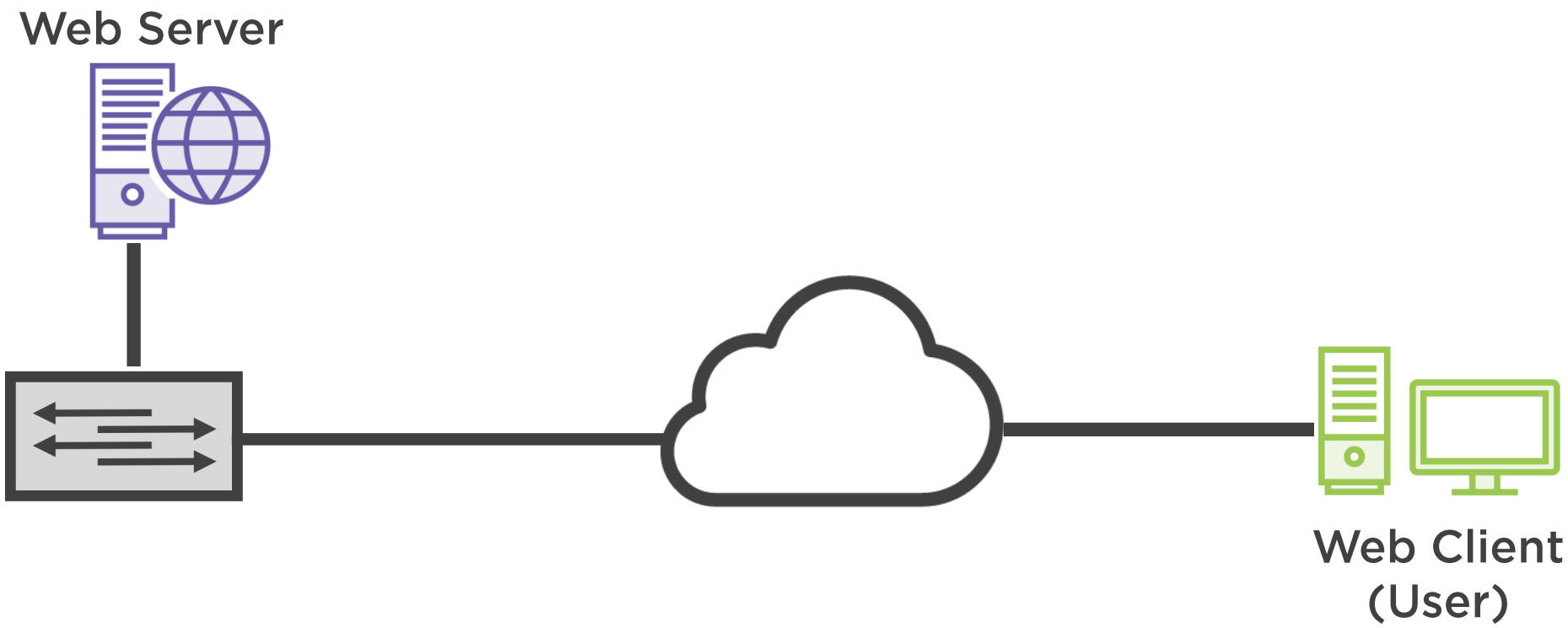
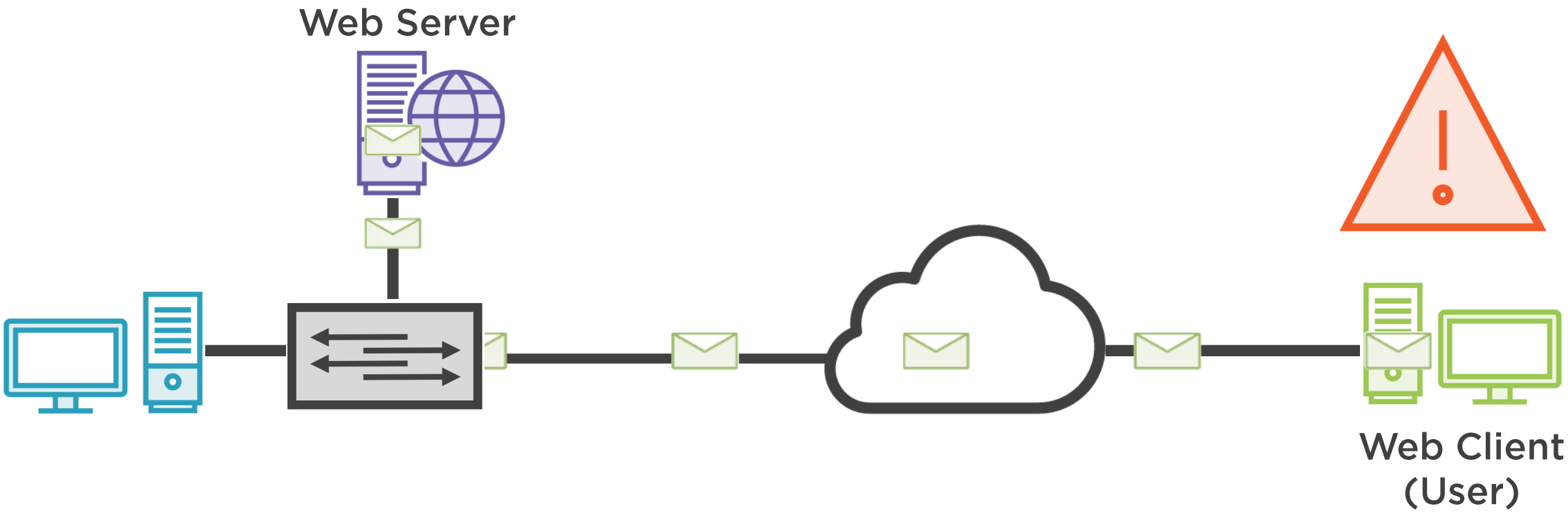
Switch Port Mirroring

Port Mirroring

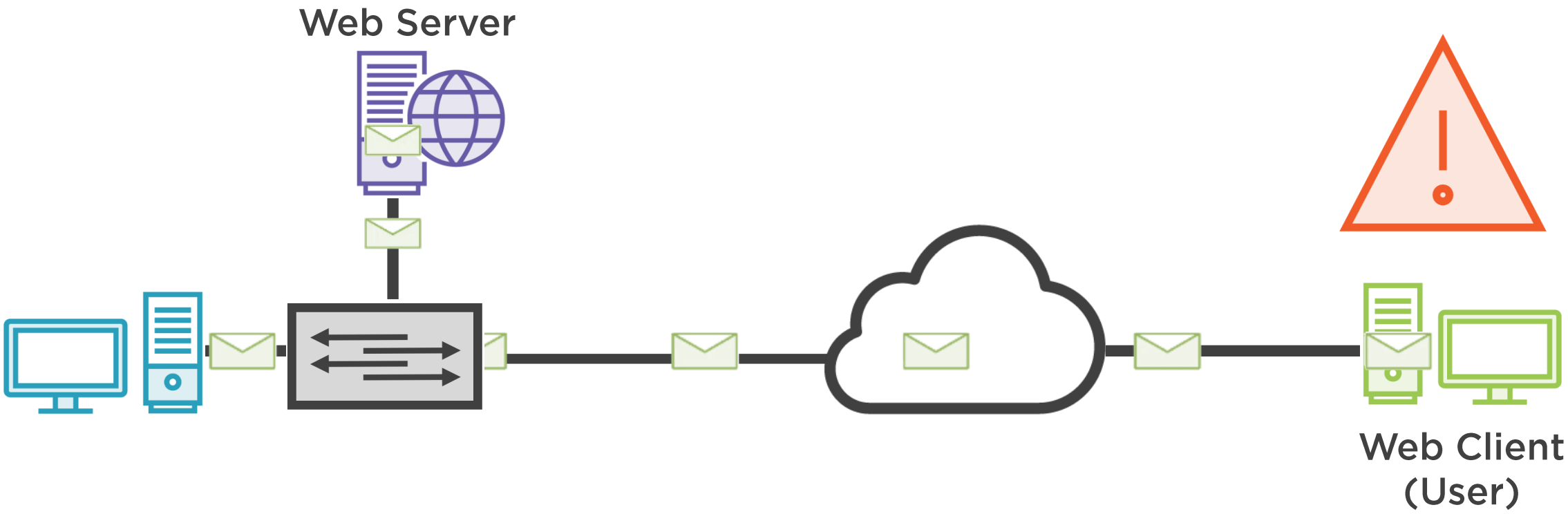


Port Mirroring

Port Mirroring

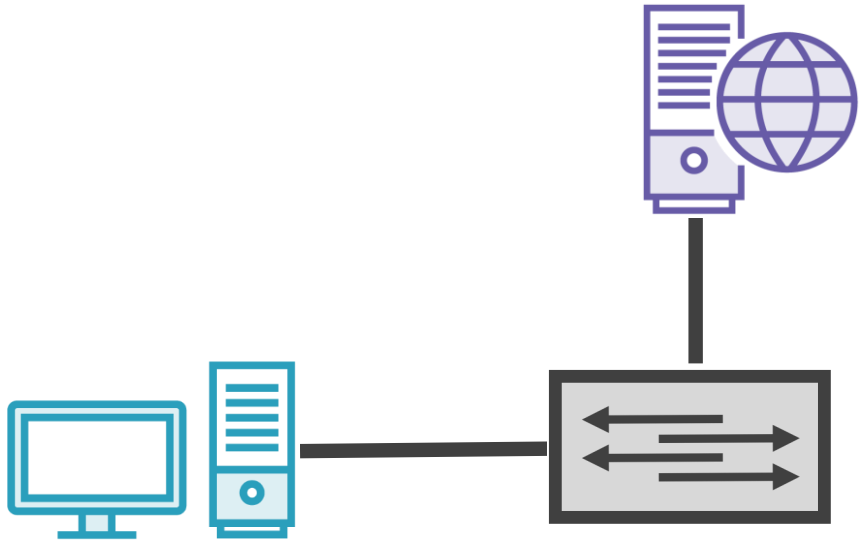


Port Mirroring



Power over Ethernet (PoE)

Power over Ethernet (PoE)



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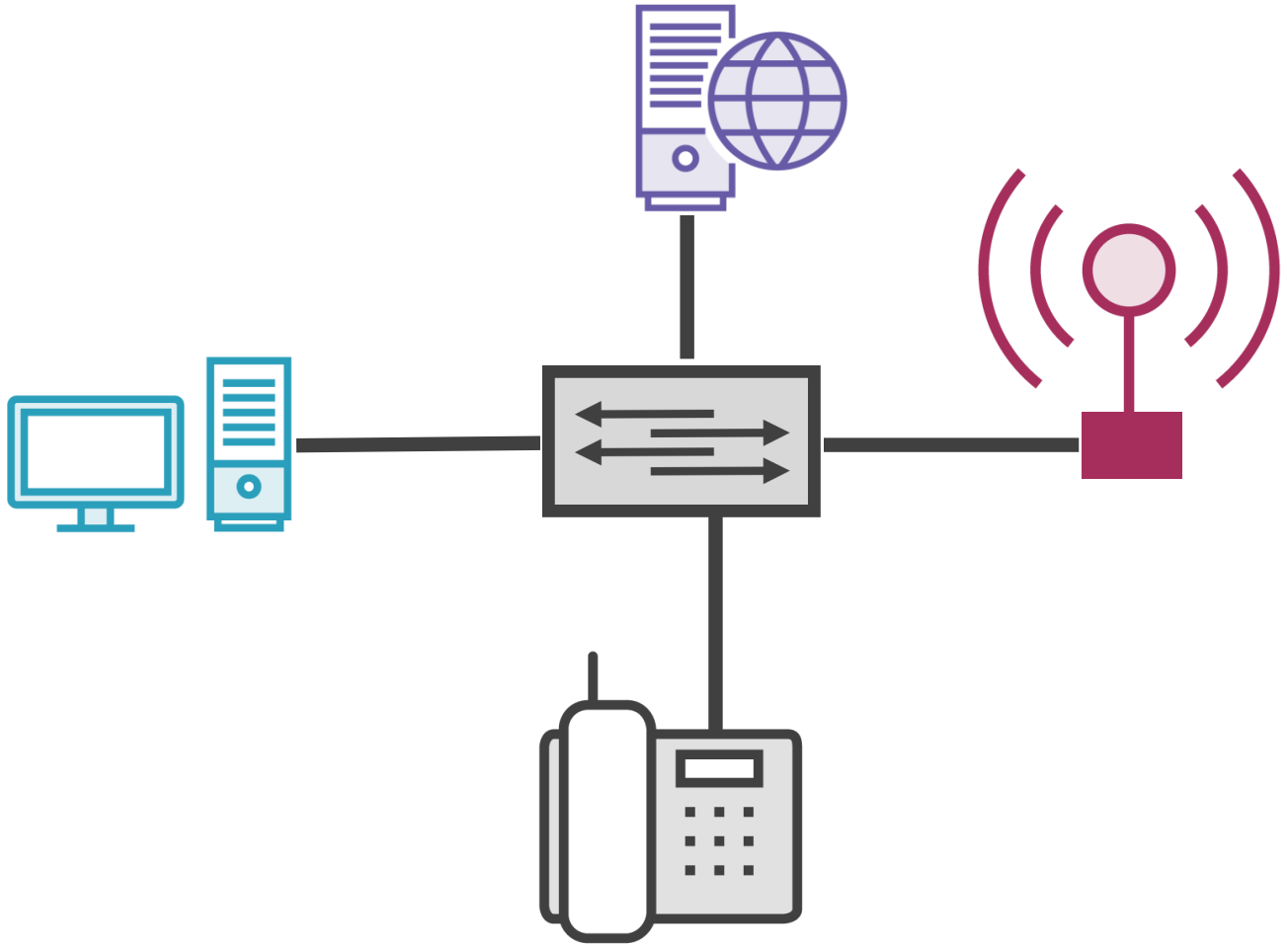
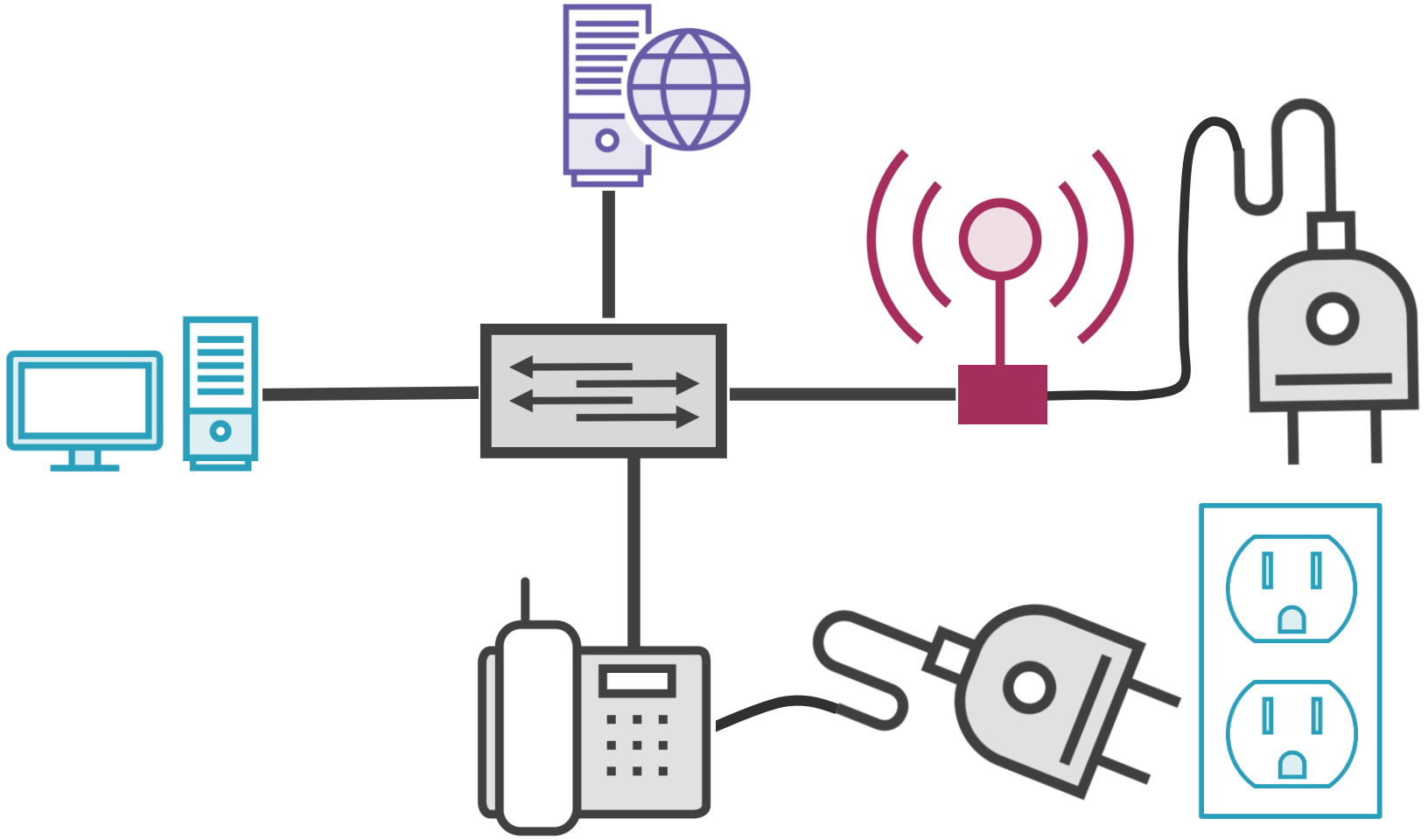
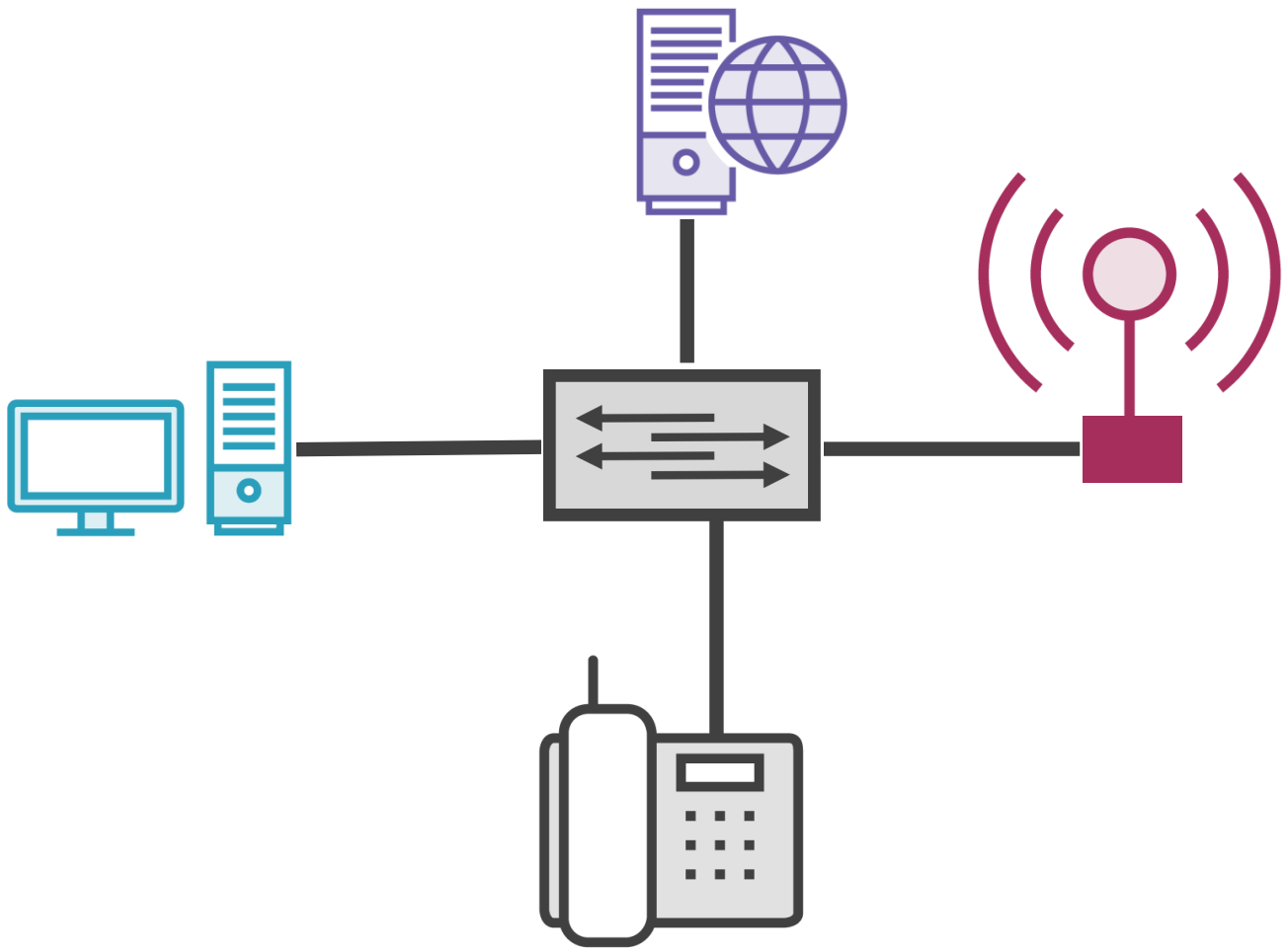


Power over Ethernet (PoE)



Power over Ethernet (PoE)



802.3af
2003
15.4 Watts DC Power

802.3at
2009
25.5 Watts DC Power

Summary

Broadcast Storms and Prevention

VLANs

Mirroring Switchports

Power over Ethernet (PoE)