Expand your production remotely, or to a public cloud

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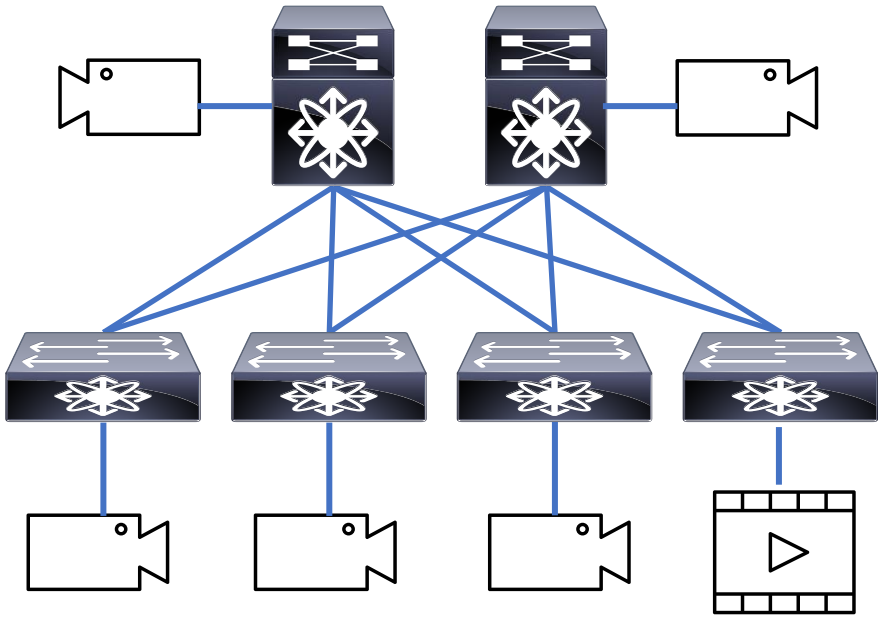
IP SHOWCASE™

Audio Engineering Society · AIMS Alliance for IP Media Solutions · AMWA Networked Media. Working. · EBU · SMPTE · VSF Video Services Forum

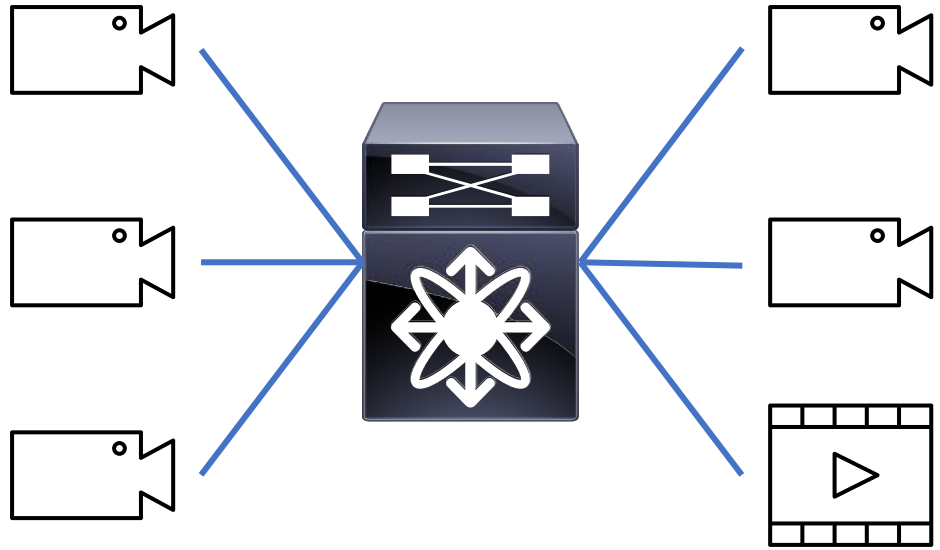
Agenda

- Deployment Scenarios
- Remote Production
- Contribution
- Distribution
- Hand-off to Public Cloud
- Importing and Decoding

Deployment options

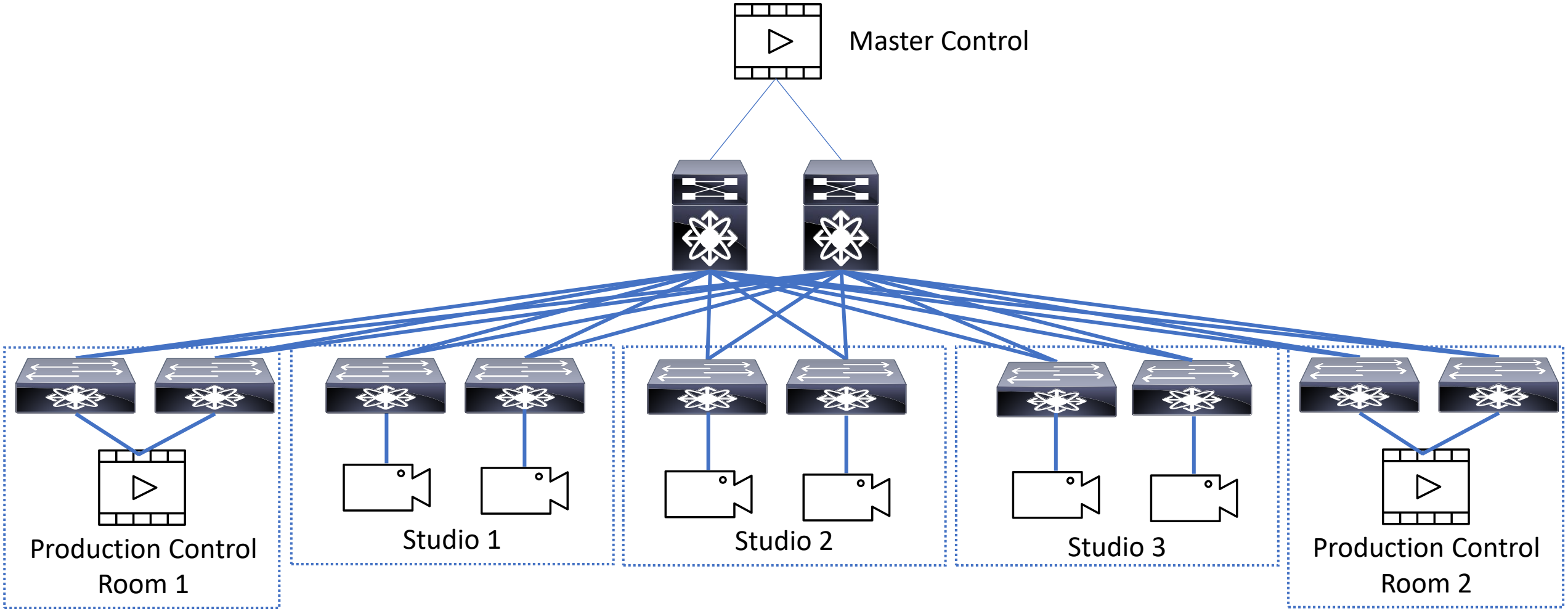


- Spine and Leaf deployment
- Pros: Distributed, scalable

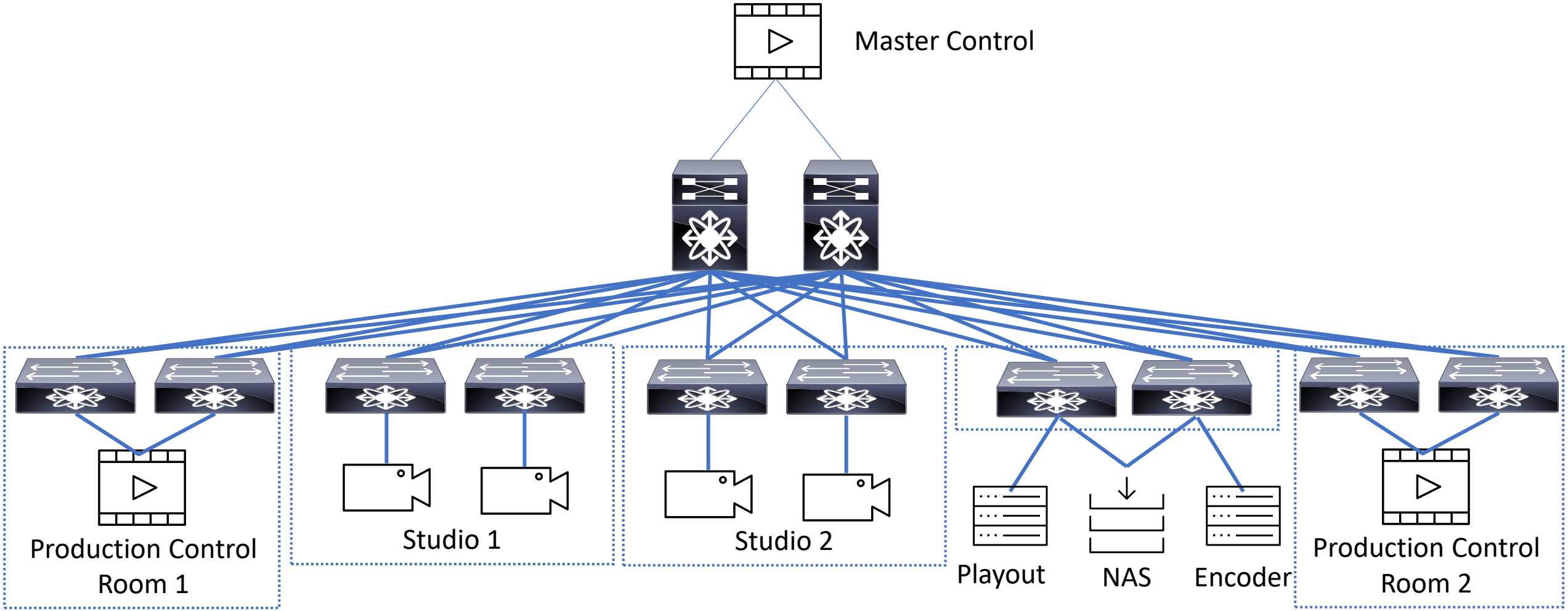


- Monolithic deployment
- Pros: Simple, centralized

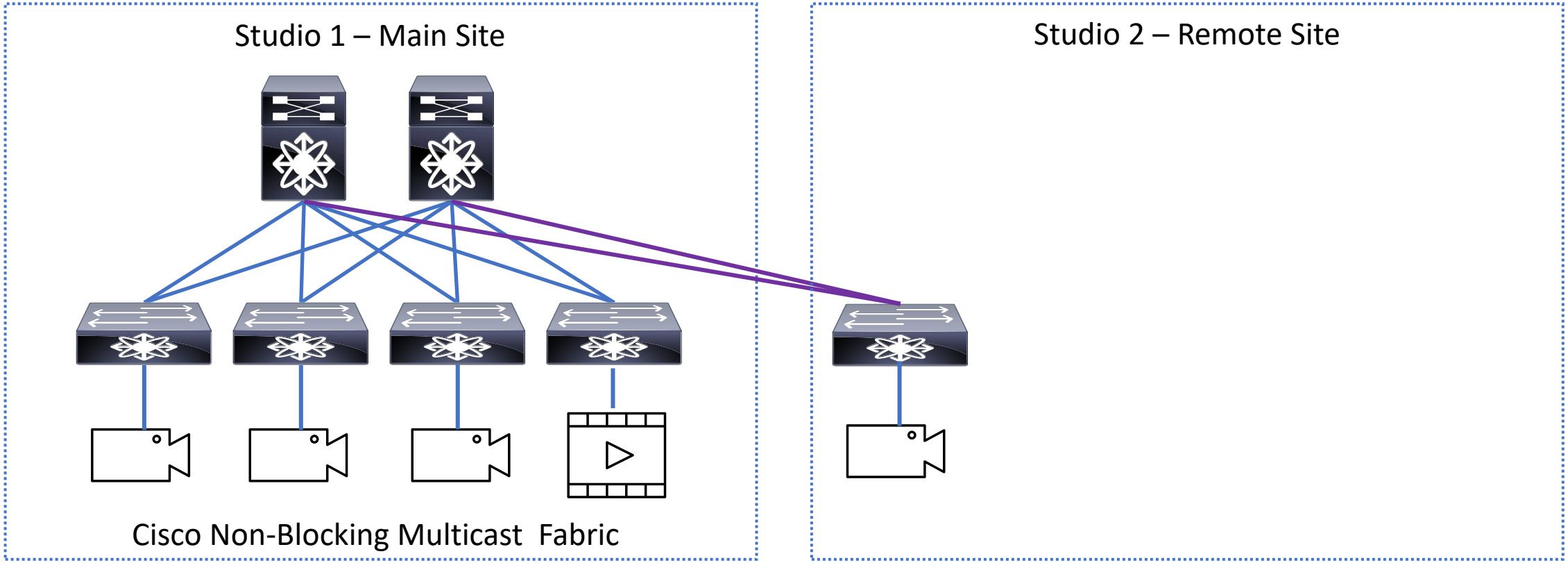
Production – Live Studio Production



Production – Live and Postproduction

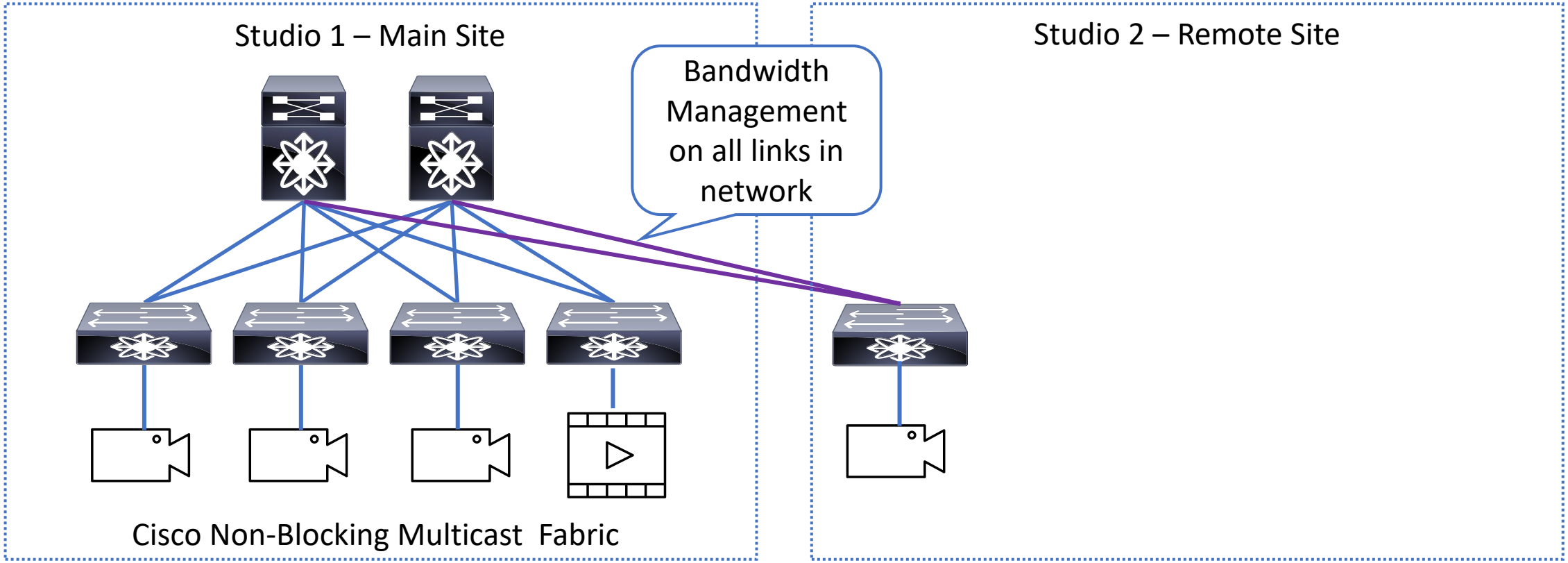


Remote production – Remote Leaf



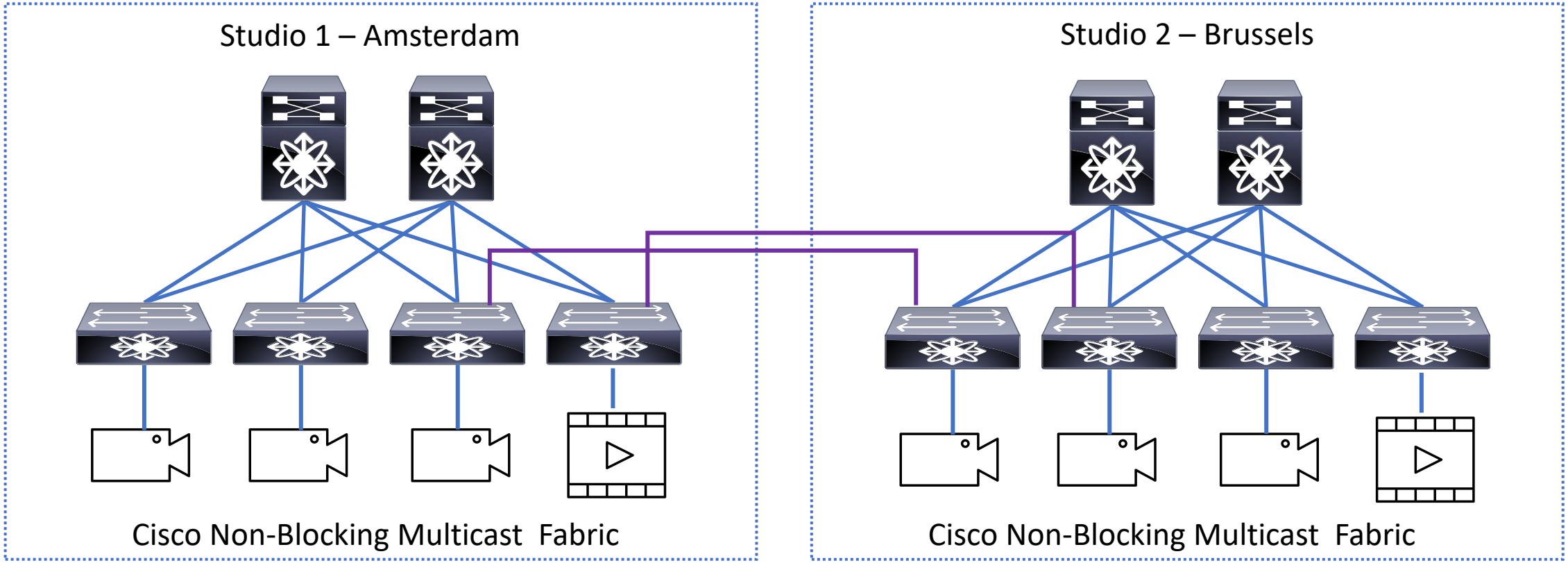
- For small site with limited amount of end-points

Remote production – Remote Leaf



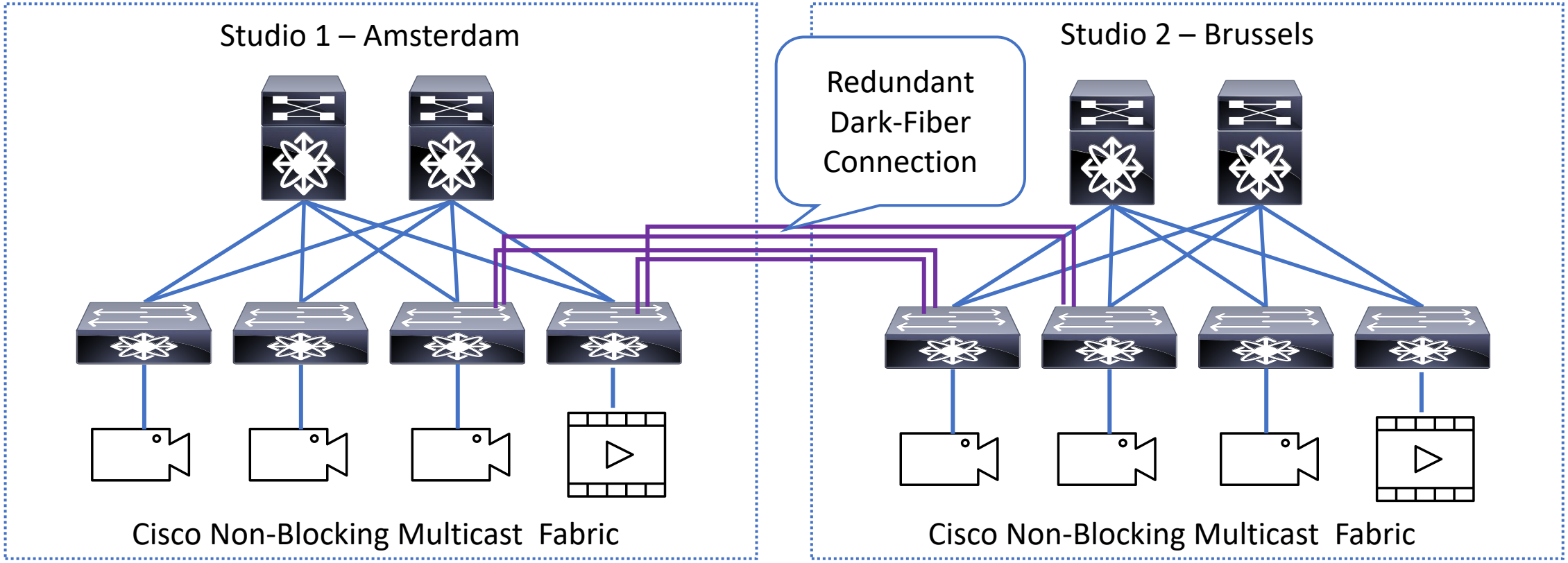
- For small site with limited amount of end-points

Remote production – Multi-Site



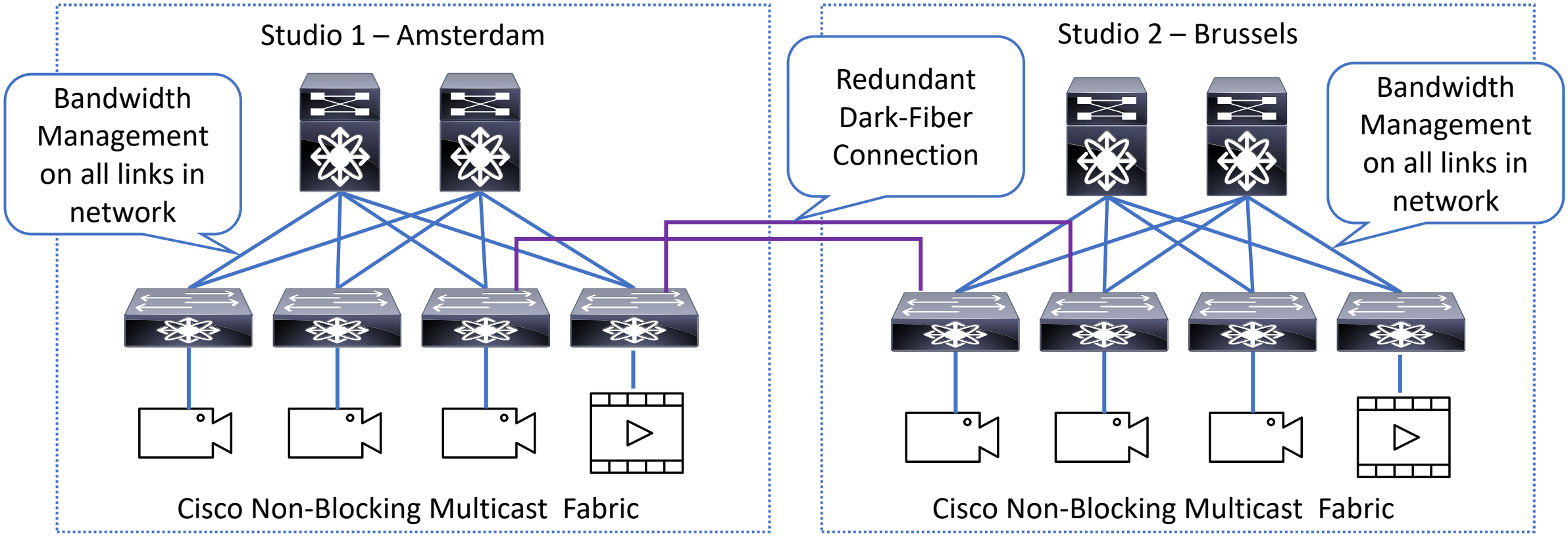
- Interconnecting two sites to exchange signals

Remote production – Multi-Site



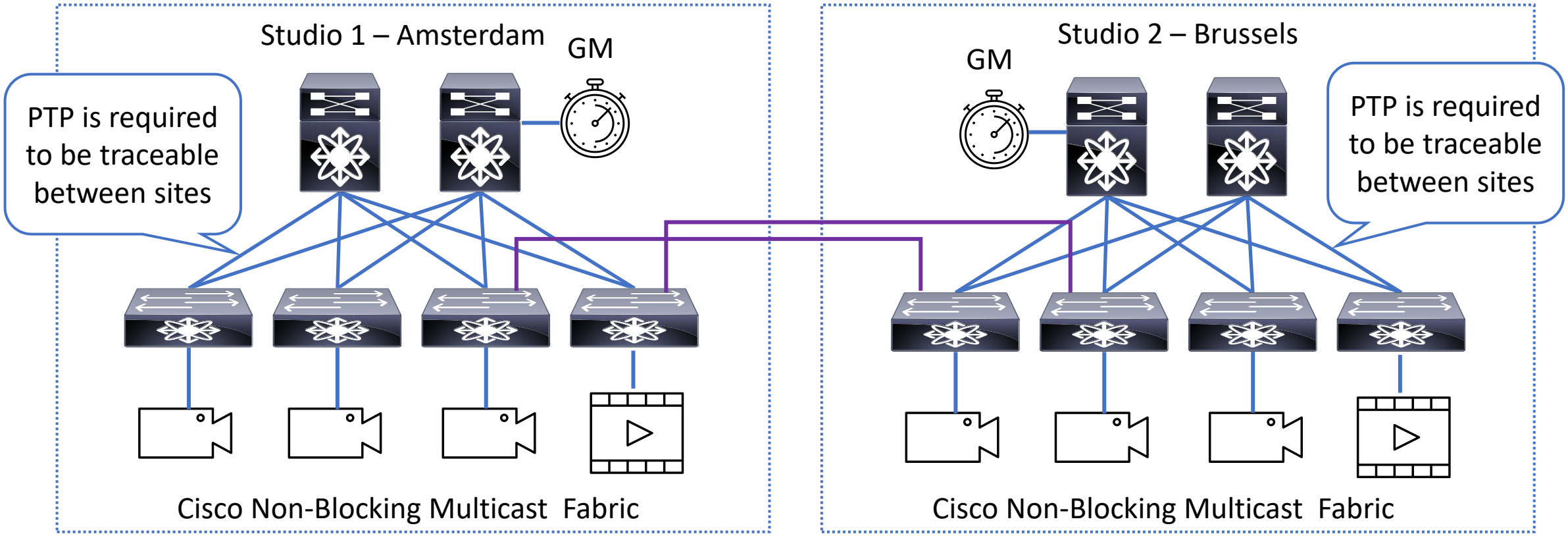
- Interconnecting two sites to exchange signals

Remote production – Multi-Site



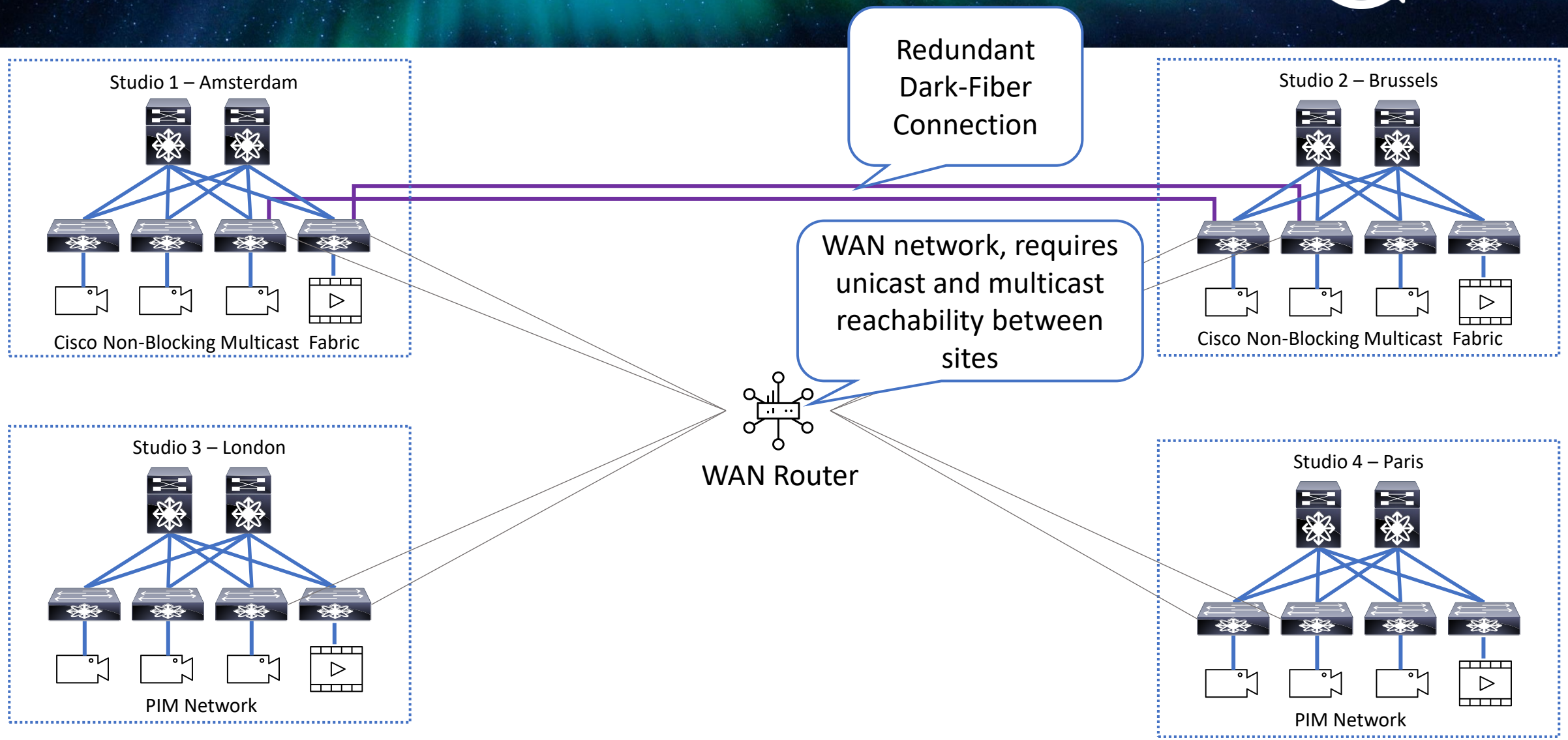
- Interconnecting two sites to exchange signals

Remote production – Multi-Site and PTP

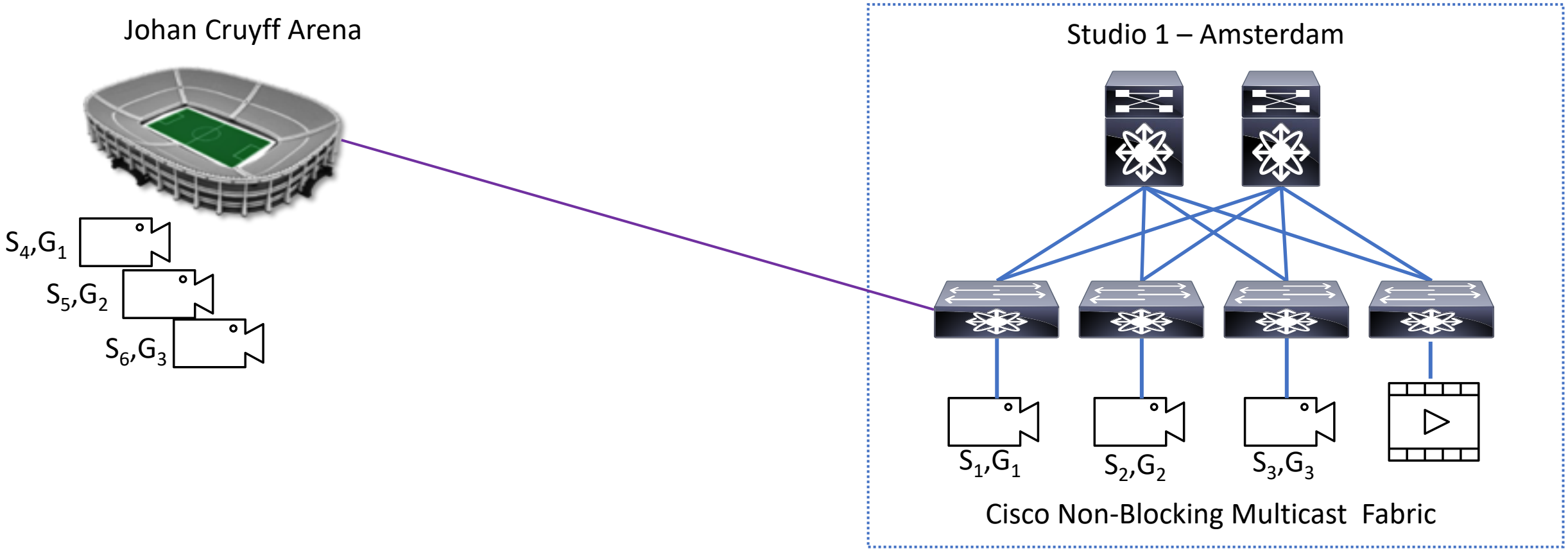


- Interconnecting two sites to exchange signals

Remote production – Multi-Site

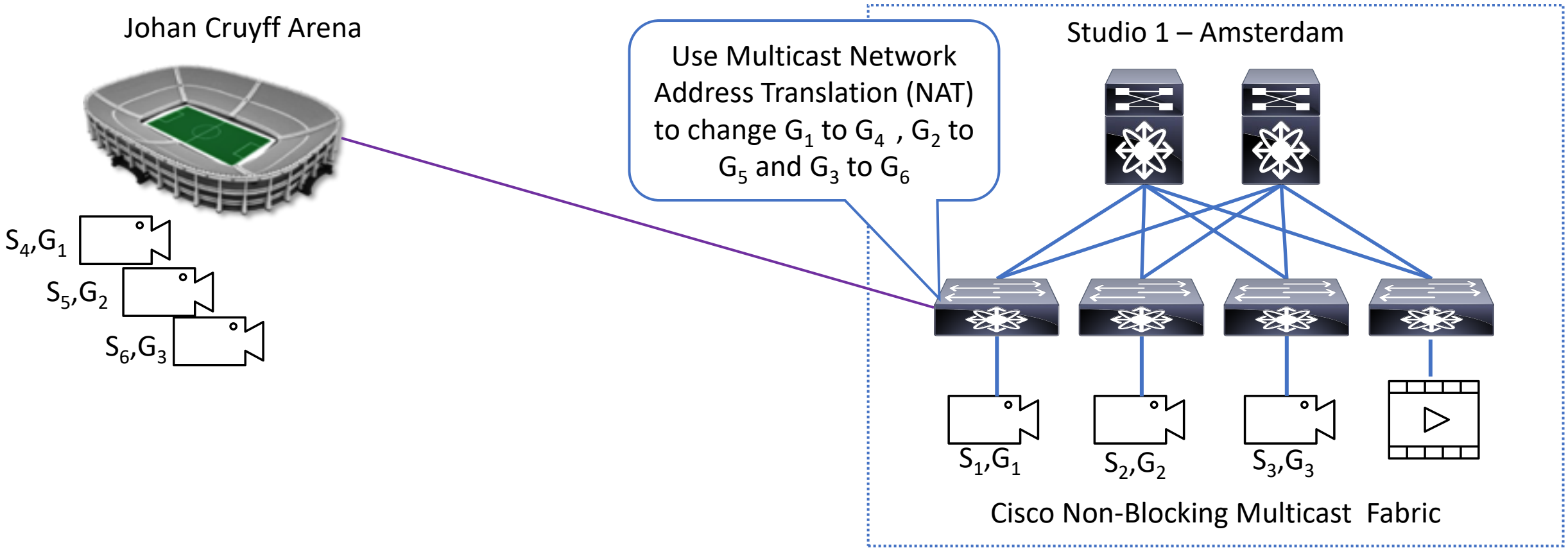


Remote production – Contribution



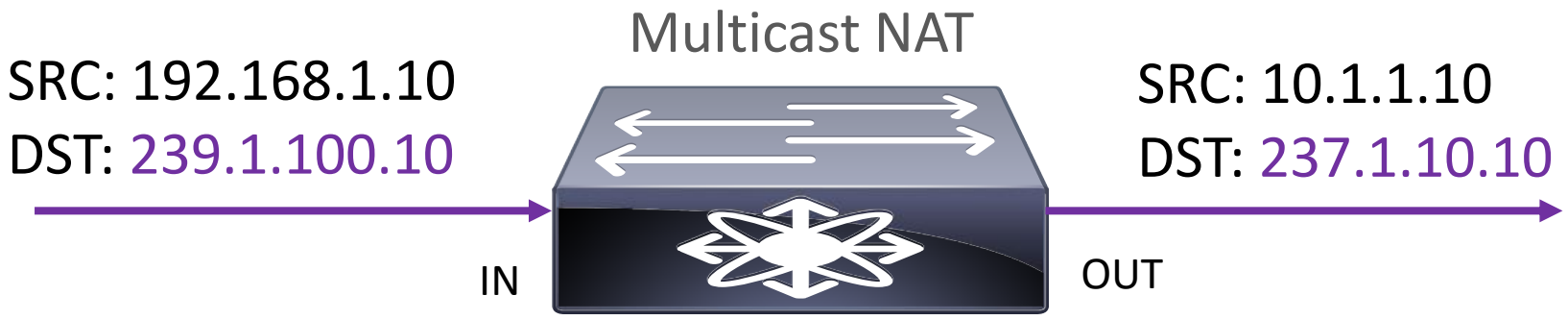
- If stadium and studio have same multicast group used, how to ingest it?

Remote production – Contribution

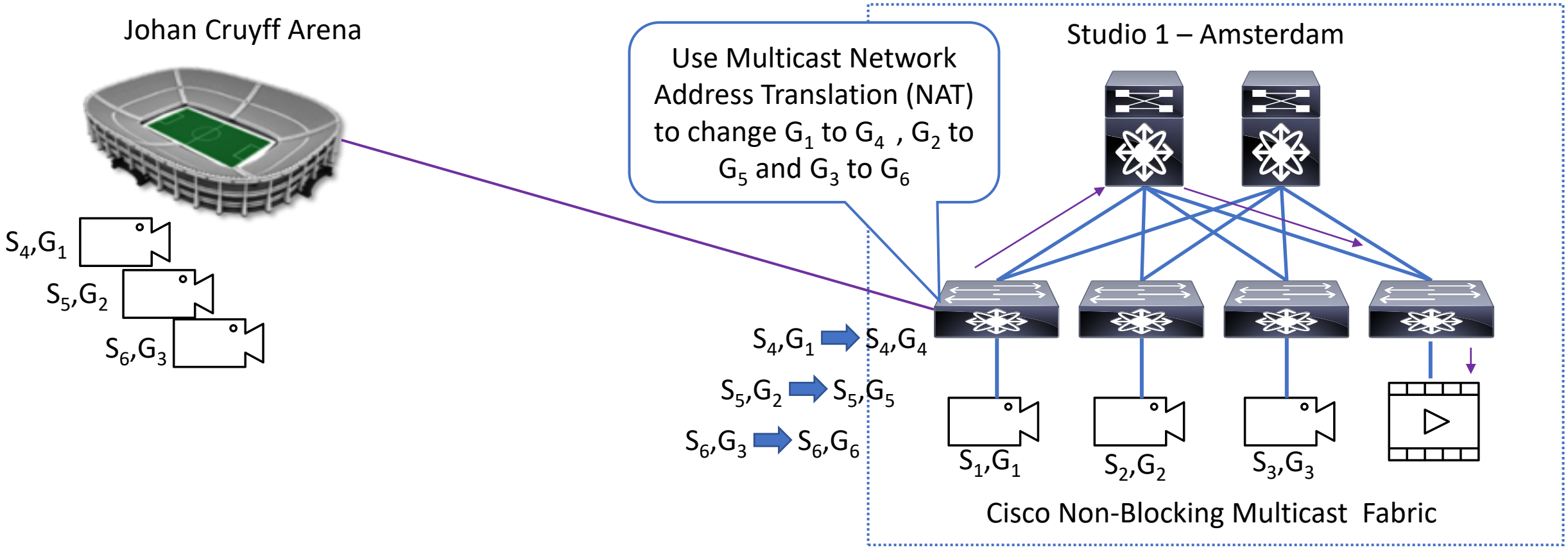


Network Address Translation - Multicast

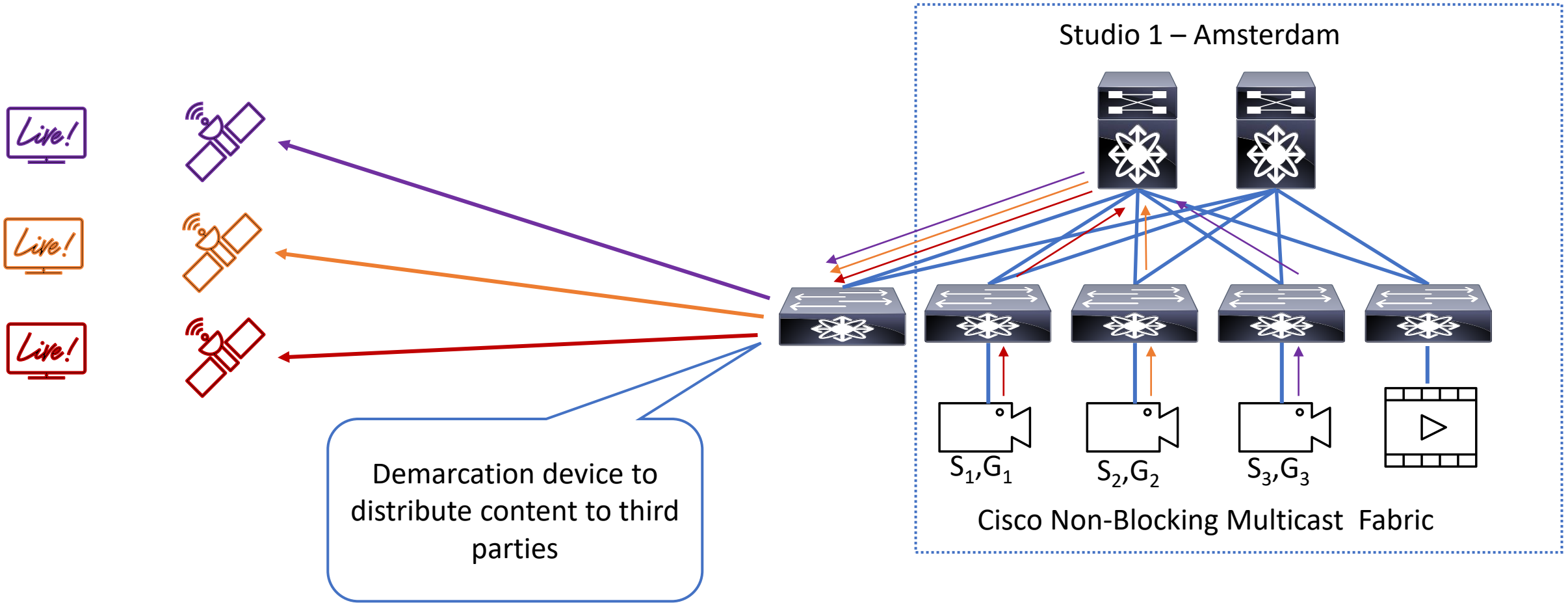
- NAT enables a device, to translate Source/Designation IP, Layer 4 port of an IP packet to new address
  - Multicast NAT > Translate multicast destination IP



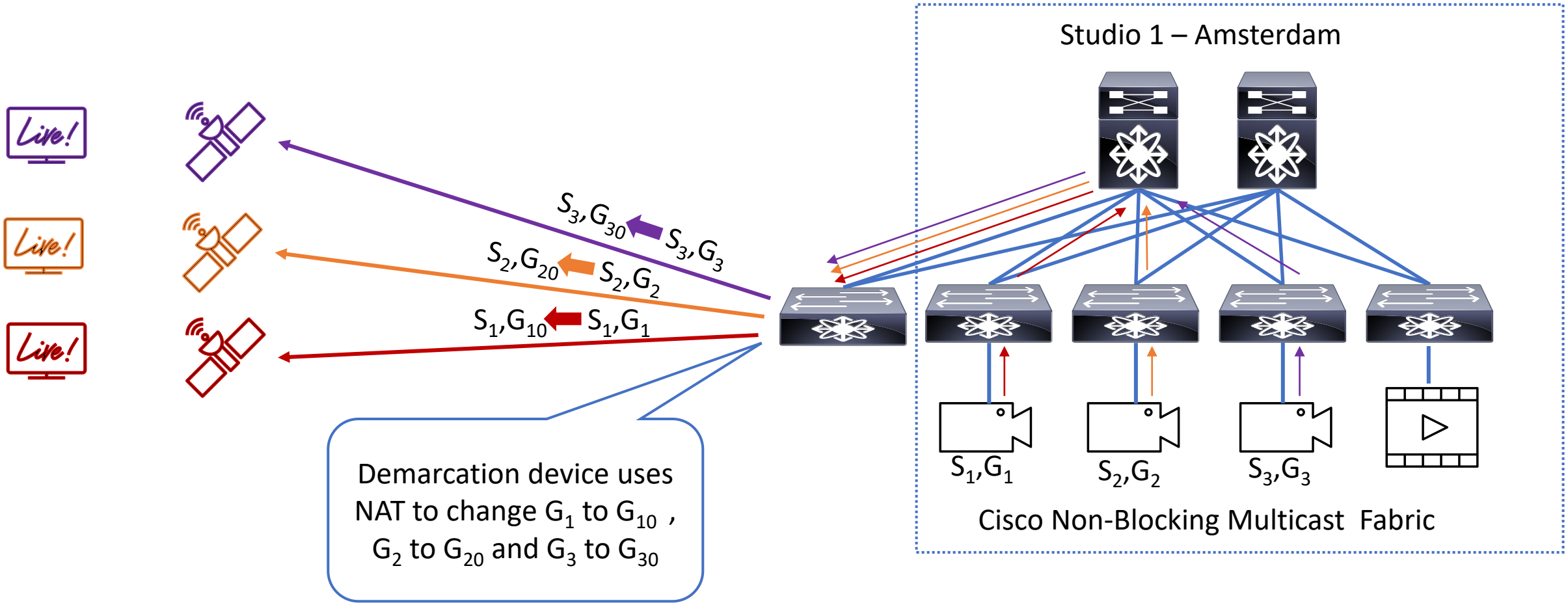
Remote production – Contribution



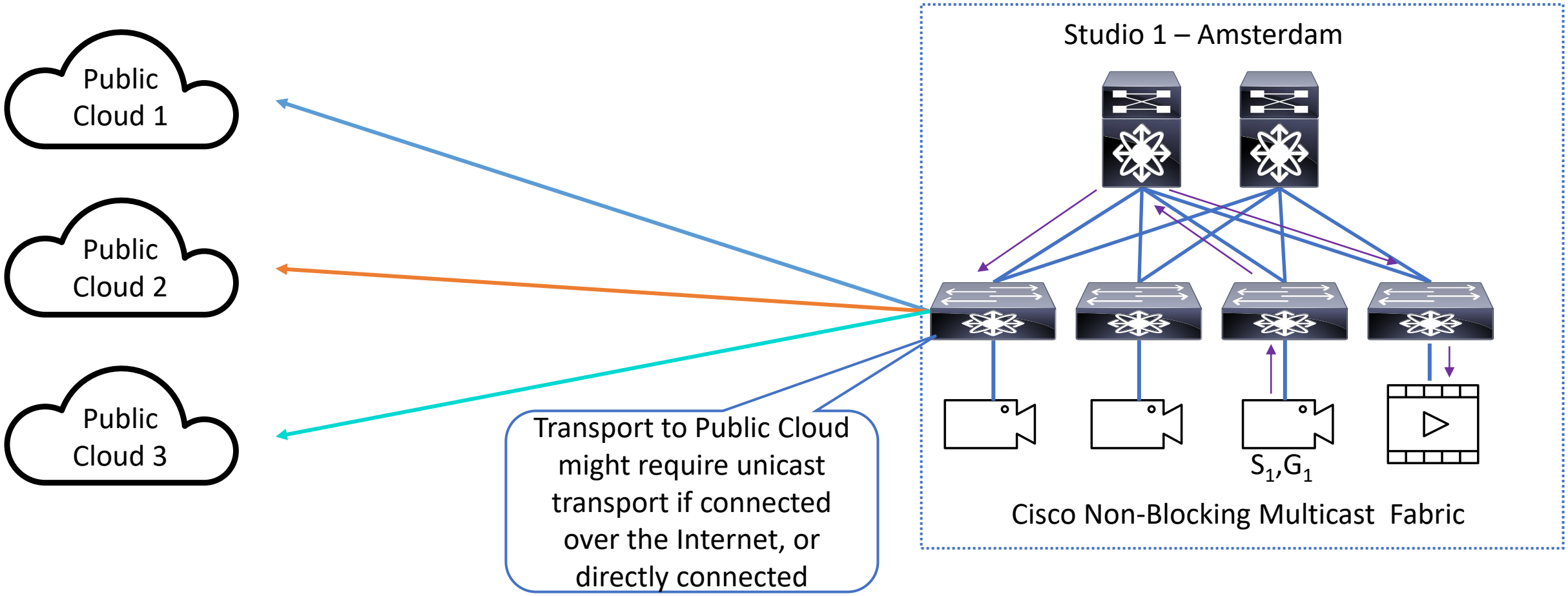
Remote production – Distribution



Remote production – Distribution

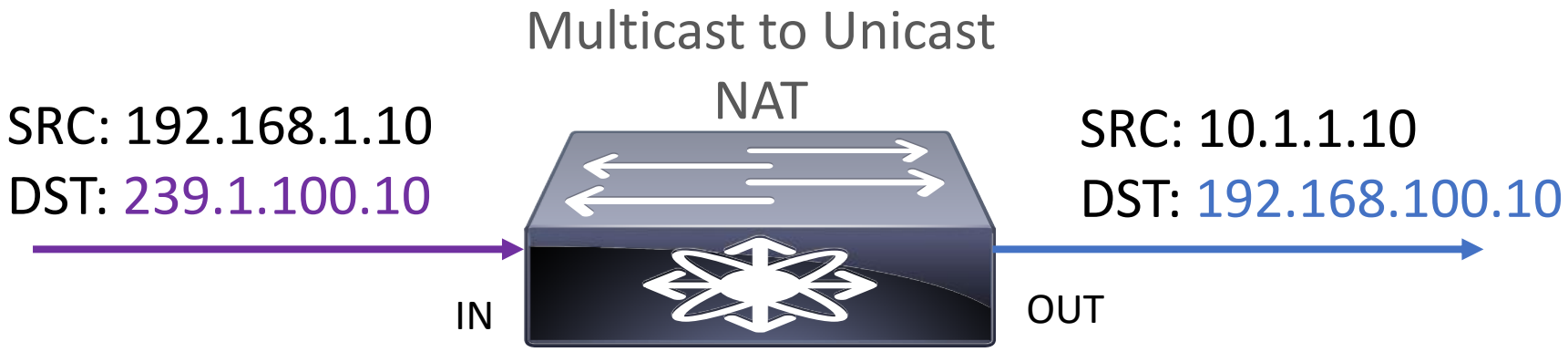


Hand off to public cloud

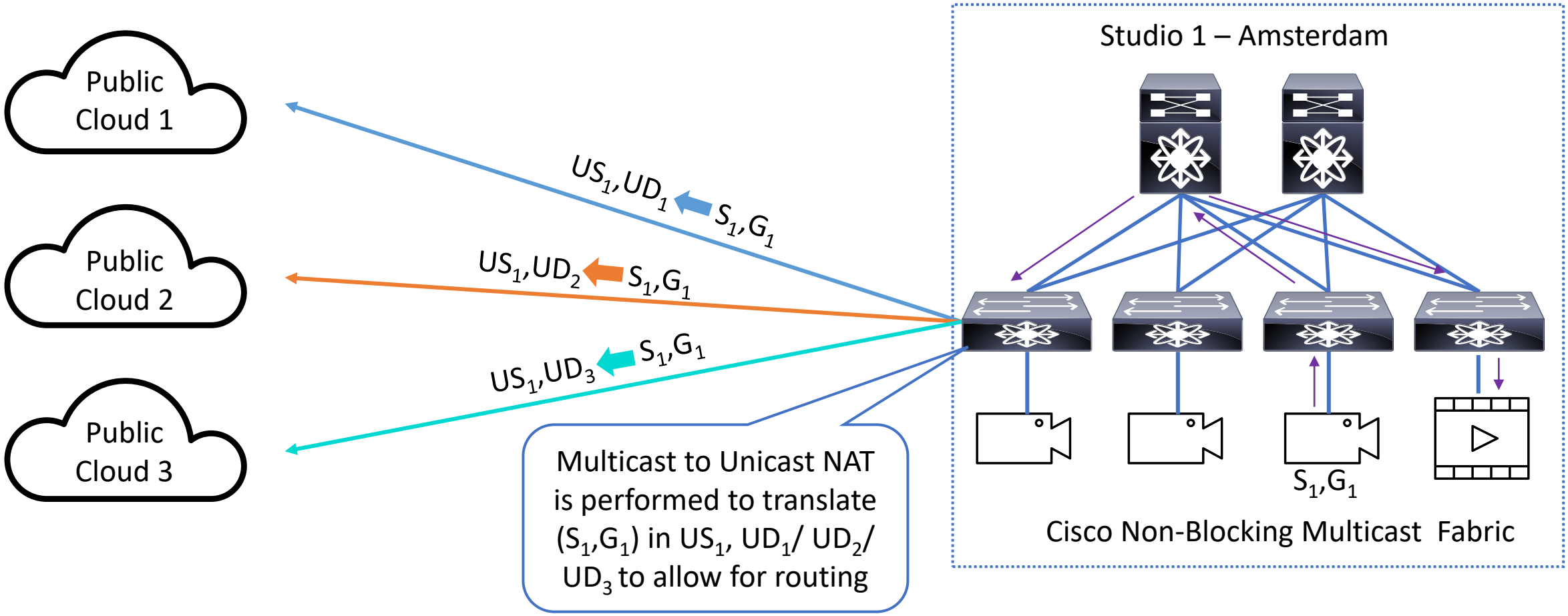


NAT – Multicast to Unicast

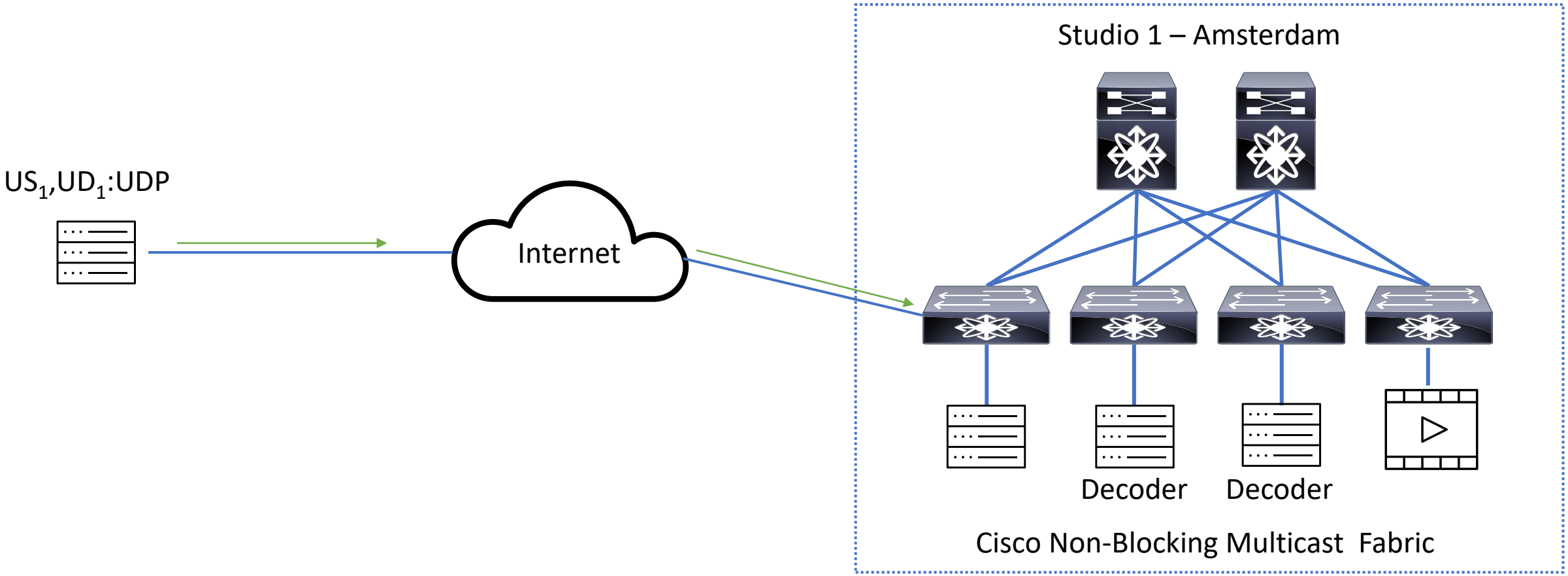
- NAT enables a device, to translate Source/Designation IP, Layer 4 port of an IP packet to new address
  - Multicast to Unicast NAT > Translate multicast destination IP in to Unicast destination IP



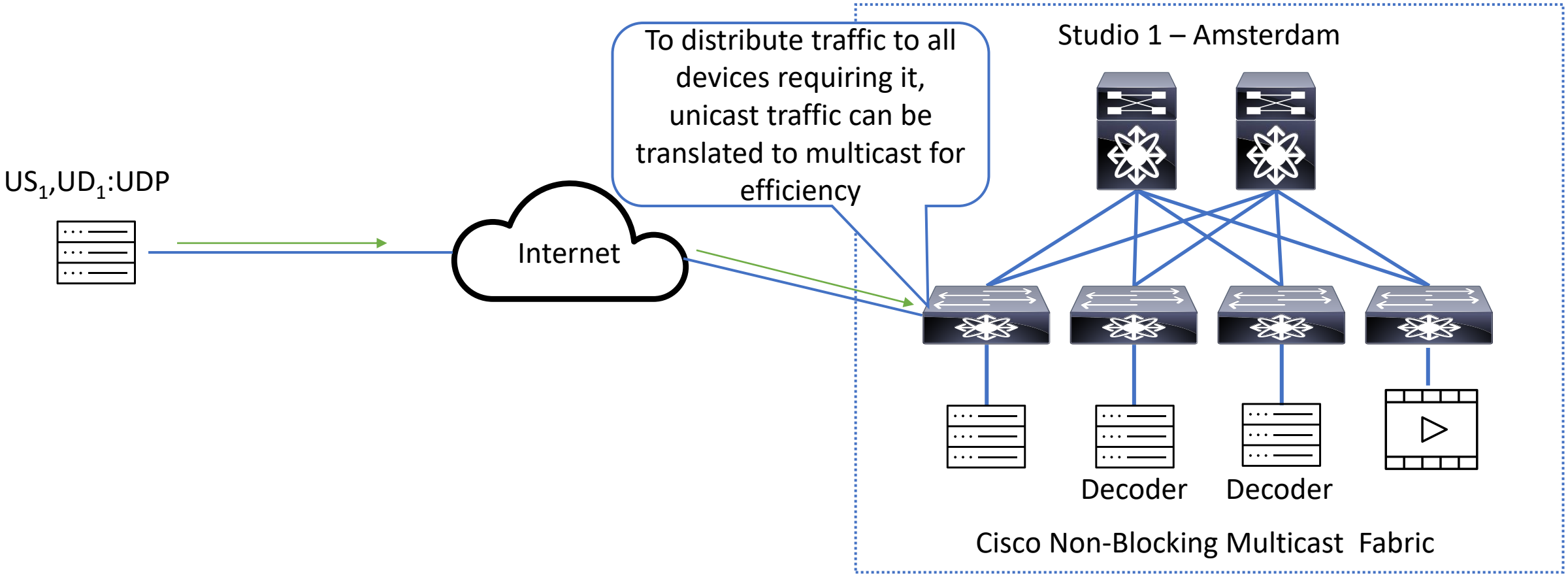
Hand off to public cloud



Decoding Video

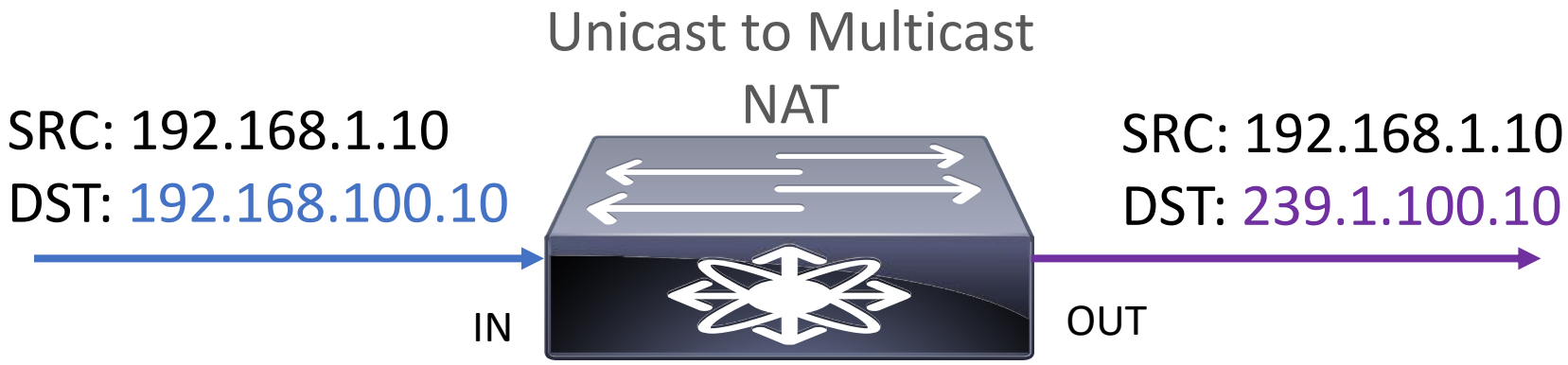


Decoding Video

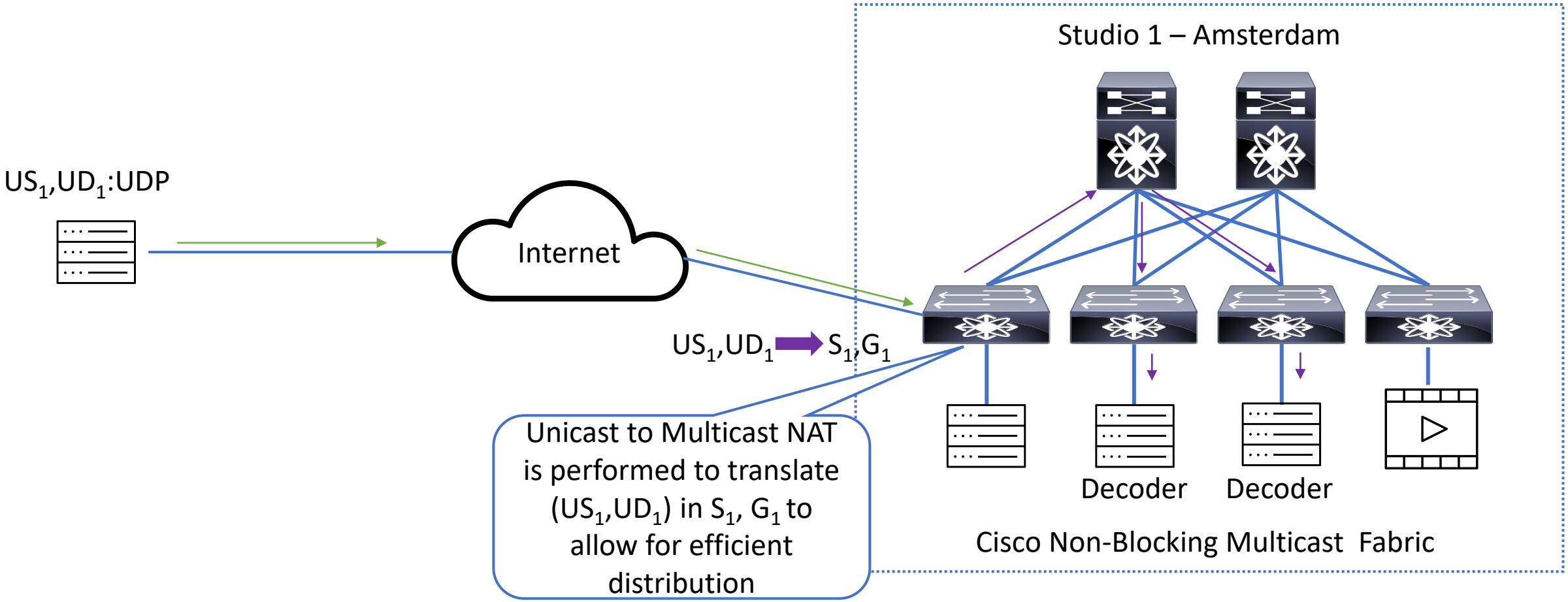


NAT –Unicast to Multicast

- NAT enables a device, to translate Source/Designation IP, Layer 4 port of an IP packet to new address
  - Unicast to Multicast NAT > Translate Unicast destination IP into Multicast cast destination IP



Decoding Video



Conclusion

- IP architecture allows flexibility, so multiple studios can be satisfied with one IP network
- Interconnecting multiple geographically distant locations is possible with multi-site deployment, over dark fiber or WAN network
- Importing signals to IP network, or exporting them to 3rd party is possible with Multicast NAT
- Exporting signals for post-production in public cloud is possible with Unicast to Multicast NAT
- Importing unicast signals to IP fabric is allowed with Unicast to Multicast NAT
- All these deployments can be done with Cisco Nexus 9000 devices, supported with IPFM deployments

Any Questions?

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