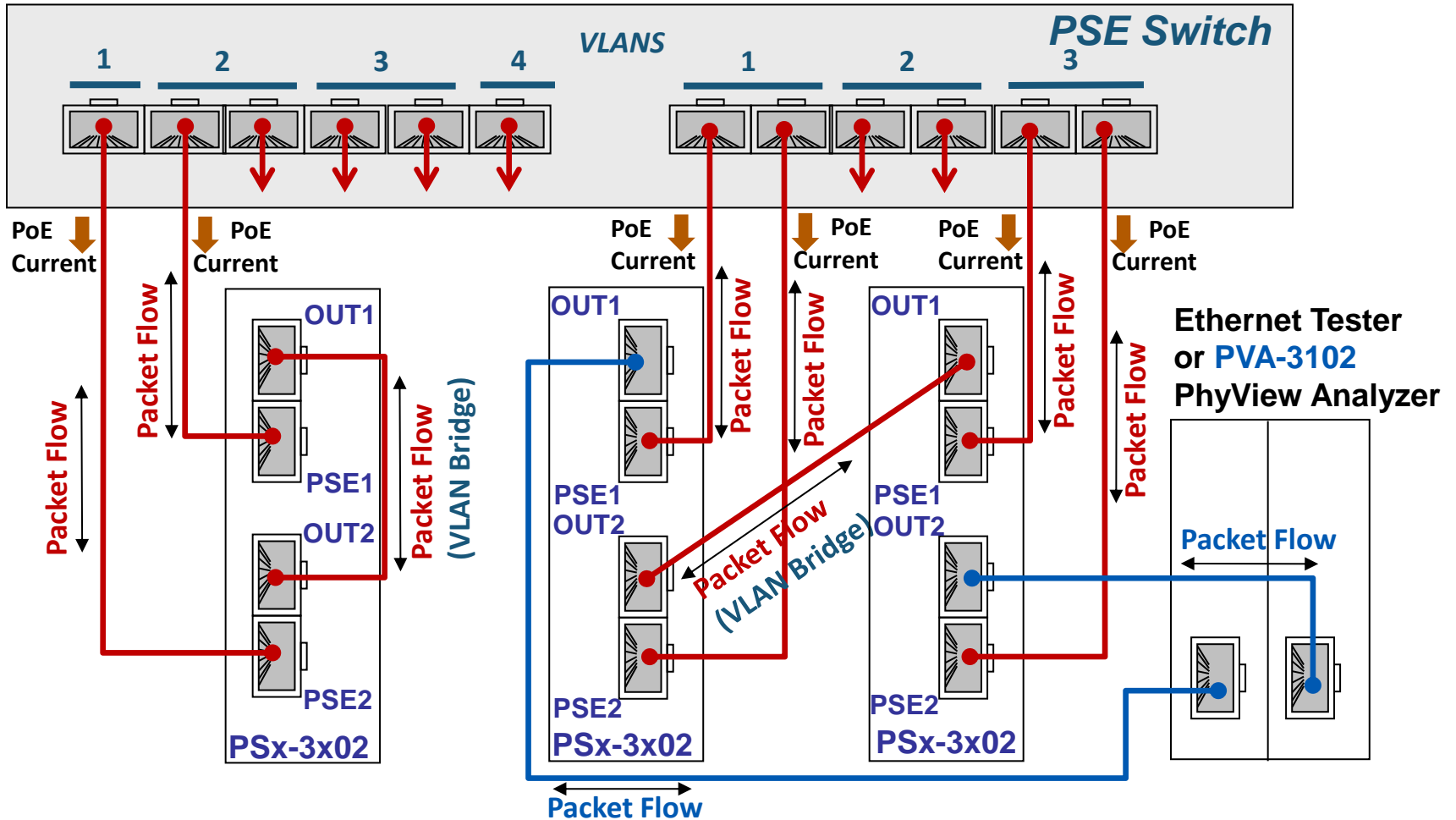


PSE Chained Data Path Testing (Passive)

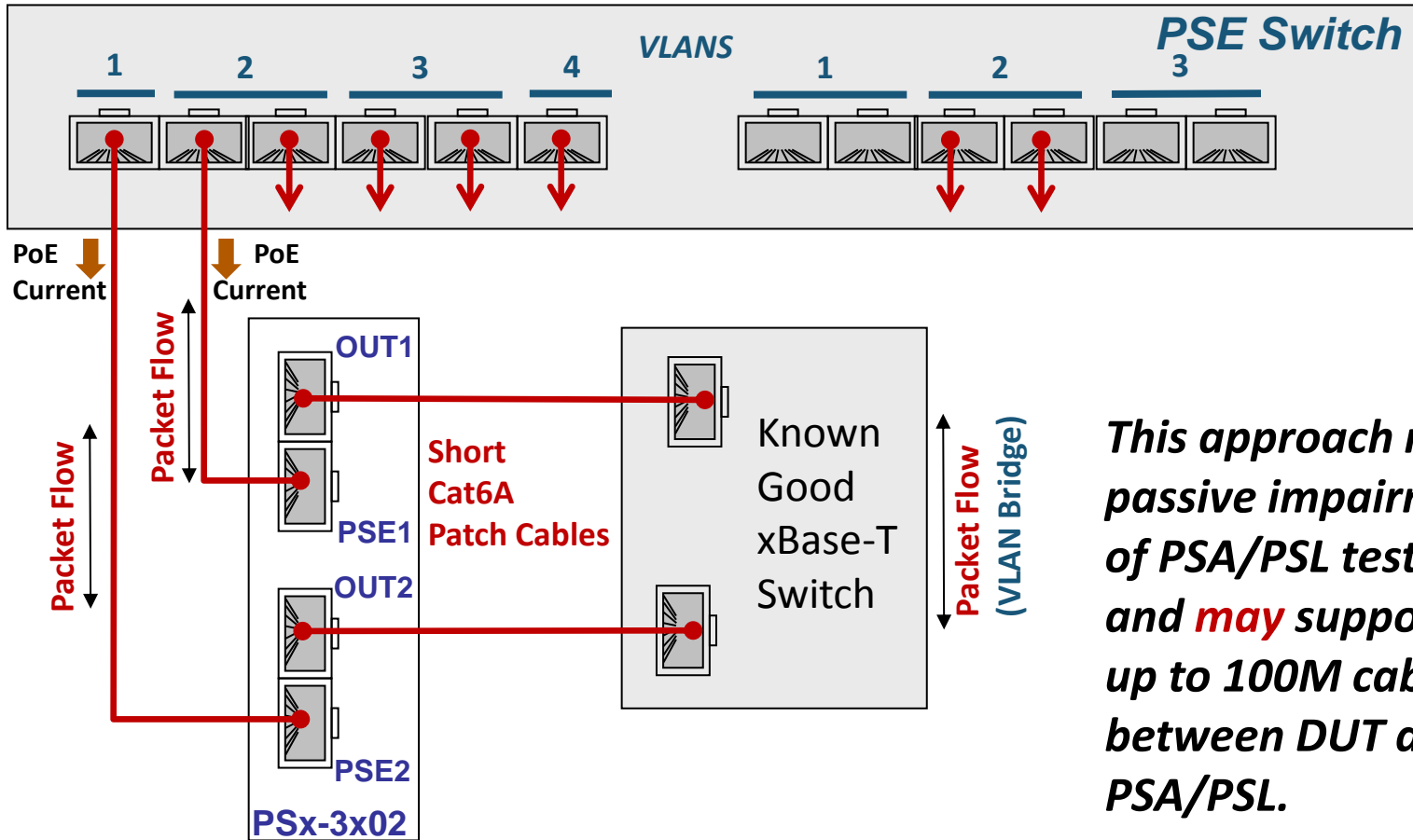


Internal Packet Source & Counter

External Packet Source & Counter

NOTE!!! Remove **OUTn** Connections Before Running PSE Conformance Tests

PSE Chained Data Path Testing (Active)

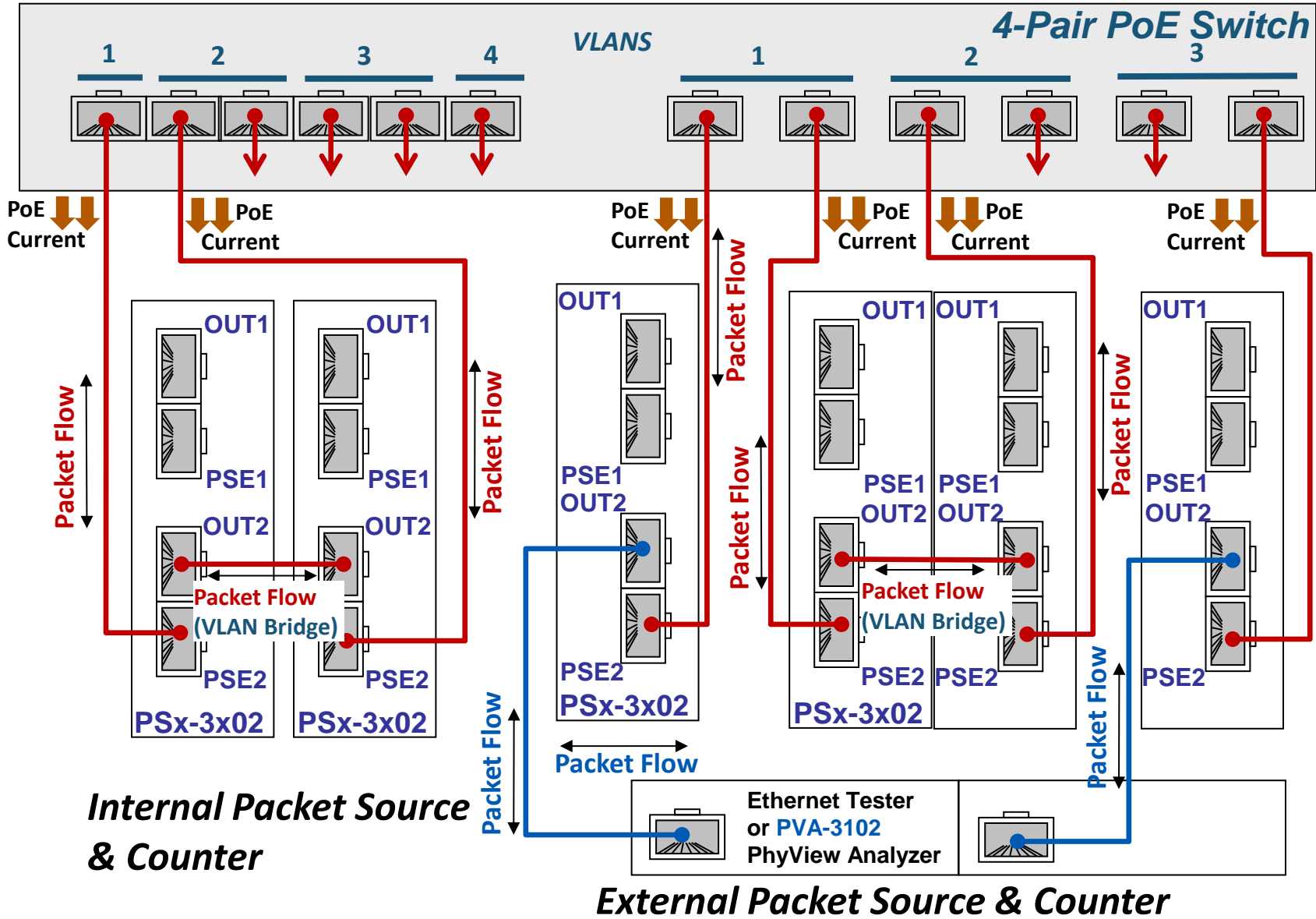


*This approach reduces passive impairment of PSA/PSL test port and **may** support up to 100M cabling between DUT and PSA/PSL.*

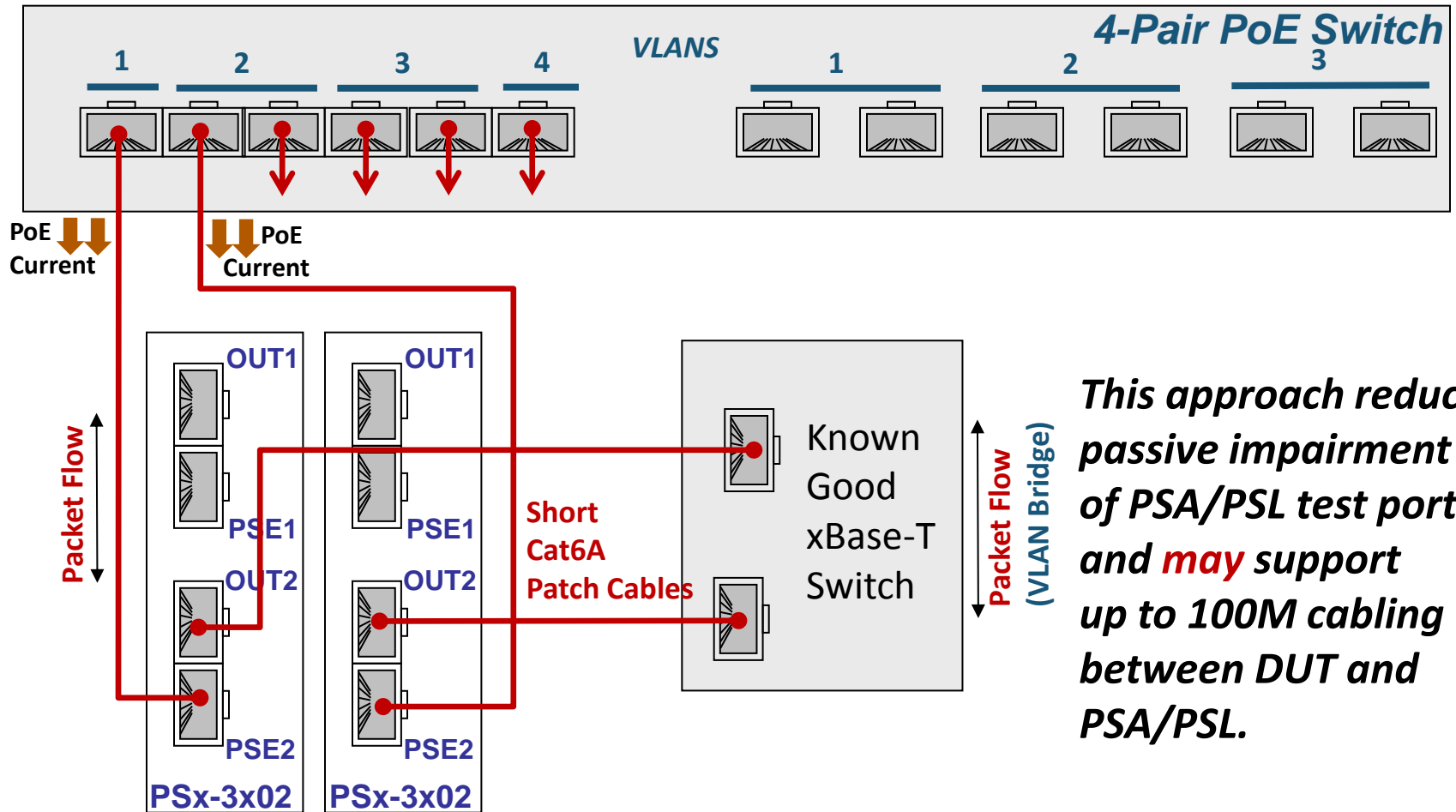
Internal Packet Source & Counter

NOTE!!! Remove **OUTn** Connections Before Running PSE Conformance Tests

4-Pair PSE Chained Data Path Testing (Passive)



4-Pair PSE Chained Data Path Testing (Active)

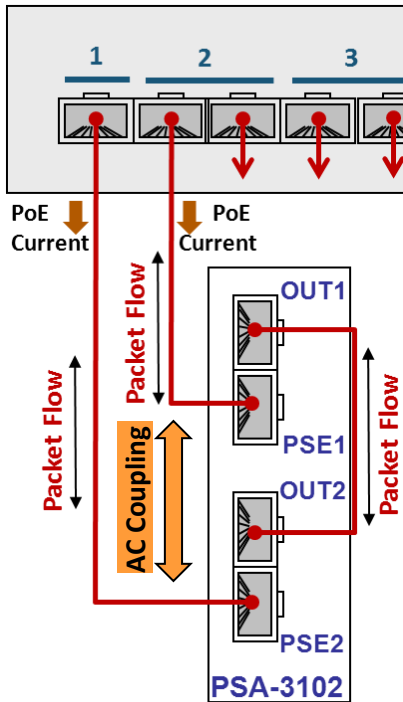


*This approach reduces passive impairment of PSA/PSL test port and **may** support up to 100M cabling between DUT and PSA/PSL.*

Internal Packet Source & Counter

External Packet Source & Counter

Potential PSE Detection Interaction



Potential Problem: AC Coupling during PSE detection: PD detection by adjacent PSE ports may be affected by the capacitive coupling ($\sim 0.1\mu\text{F}$ per PoE pair) between PSE1 and PSE2 ports.

- Symptom: Some or all PSE ports won't power up
- Only affects particular PSE types with particular PSE controllers
- May only happen on a few PSE ports some of the time

Possible Solutions:

1. Disconnect Detection Signatures on all PSA ports, then Power just one PSE port at a time. Example:


```

psa_disconnect 99,99
power_port 1,1 c 4
power_port 1,2 c 4
....
power_port 12,2 c 4

```
2. Force second PSA test port to incorrect polarity while powering the first test port. Example for MDI-X PSE:


```

polarity 1,2 pos
power_port 1,1 c 4
polarity 1,2 neg
power_port 1,2 c 4

```
3. Minimize signaling voltage on second PSA port while powering the first PSA port. Example:


```

passive 1,2 r 9
port 1,2 connect
power_port 1,1 c 4
power_port 1,2 c 4

```