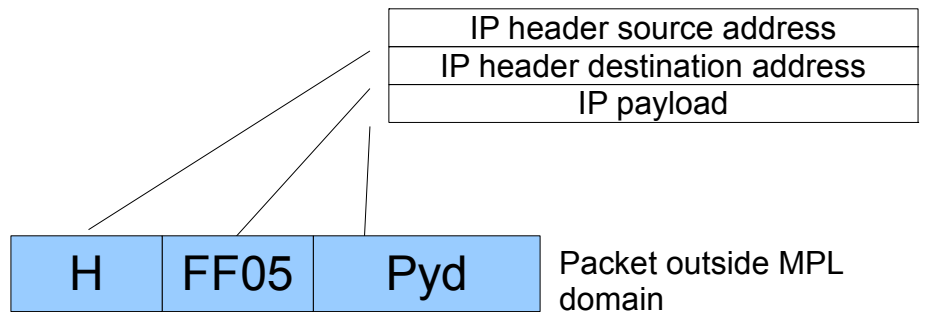
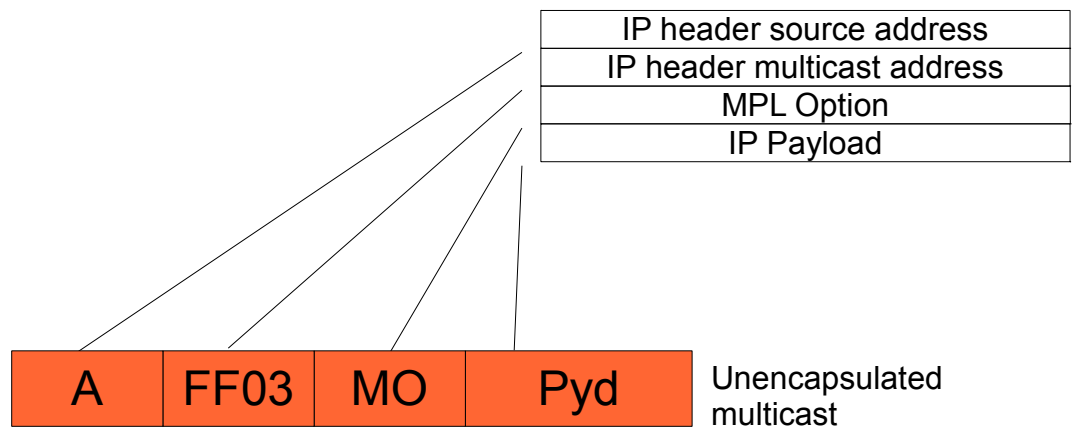
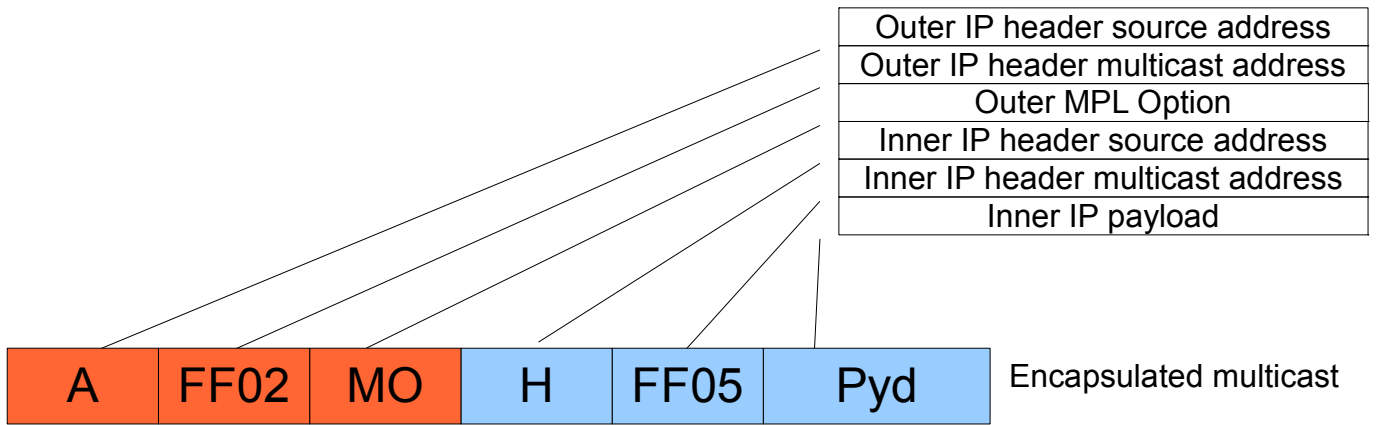
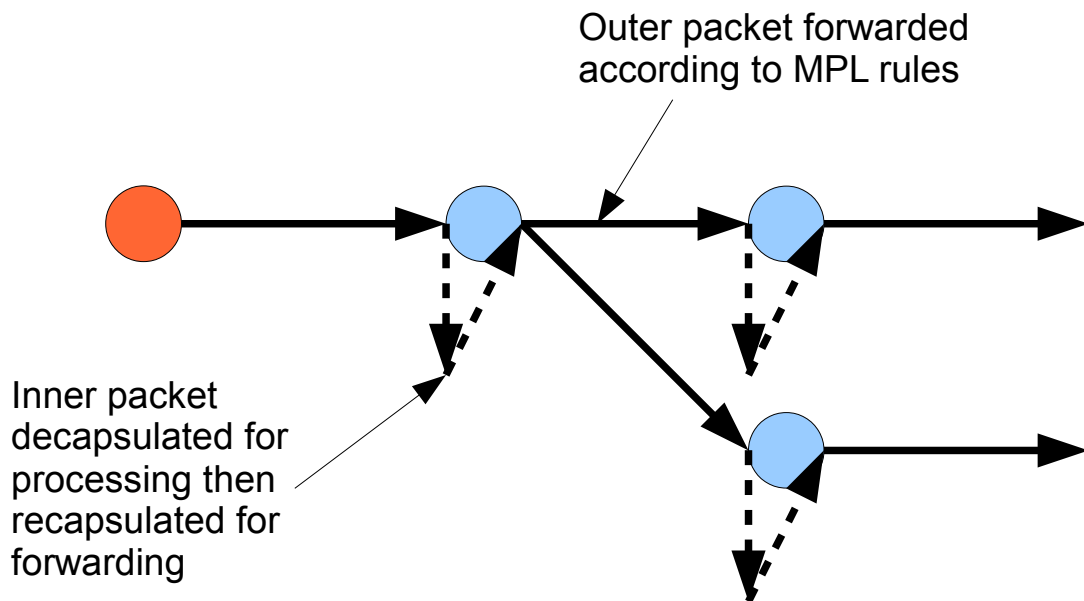


Packet descriptions

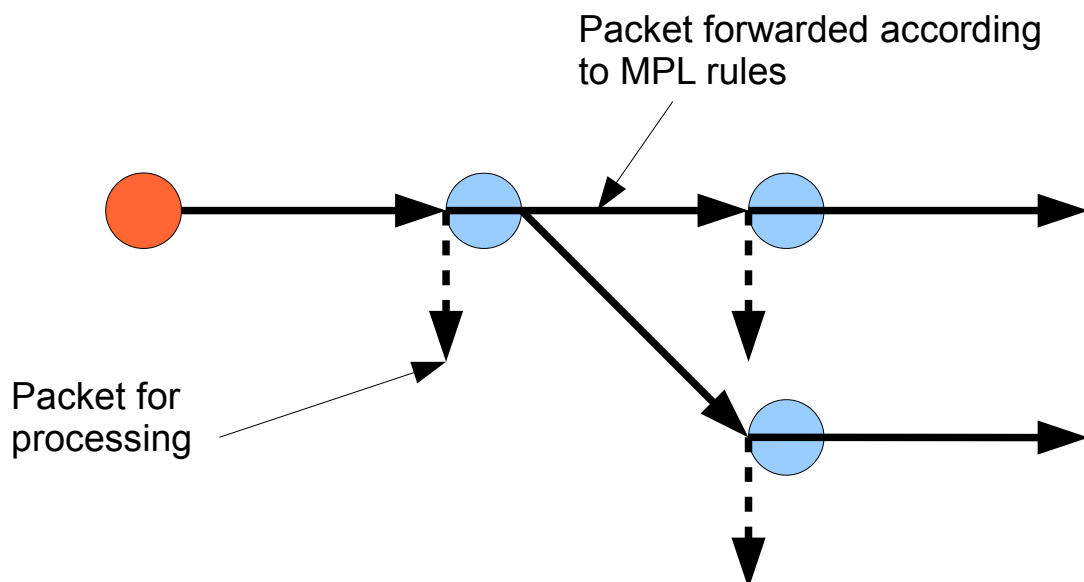


Processing graph of encapsulated packet

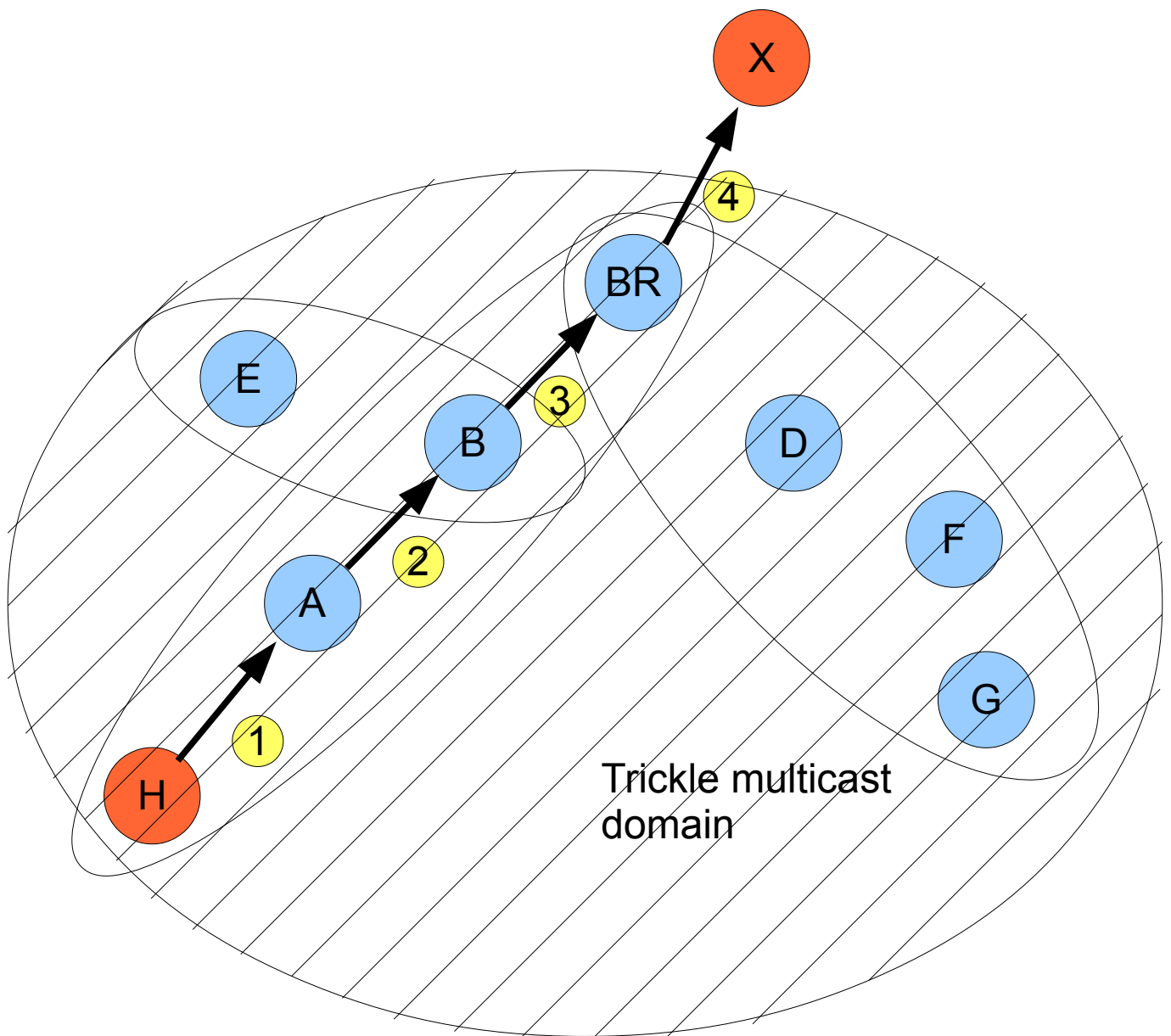


Outer header broadcasts link local scope; outer packet only goes one hop. Receiving node decapsulates and recapsulates at every node before further rebroadcast at link local scope. MPL Option used to control propagation.

Processing graph of normal (unencapsulated) packet



Header broadcasts subnet local scope. Receiving node simply forwards according to MPL rules (administration needed). MPL Option used to control propagation.



1	H	FF02	MO	H	FF05	Pyd
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2	A	FF02	MO	H	FF05	Pyd
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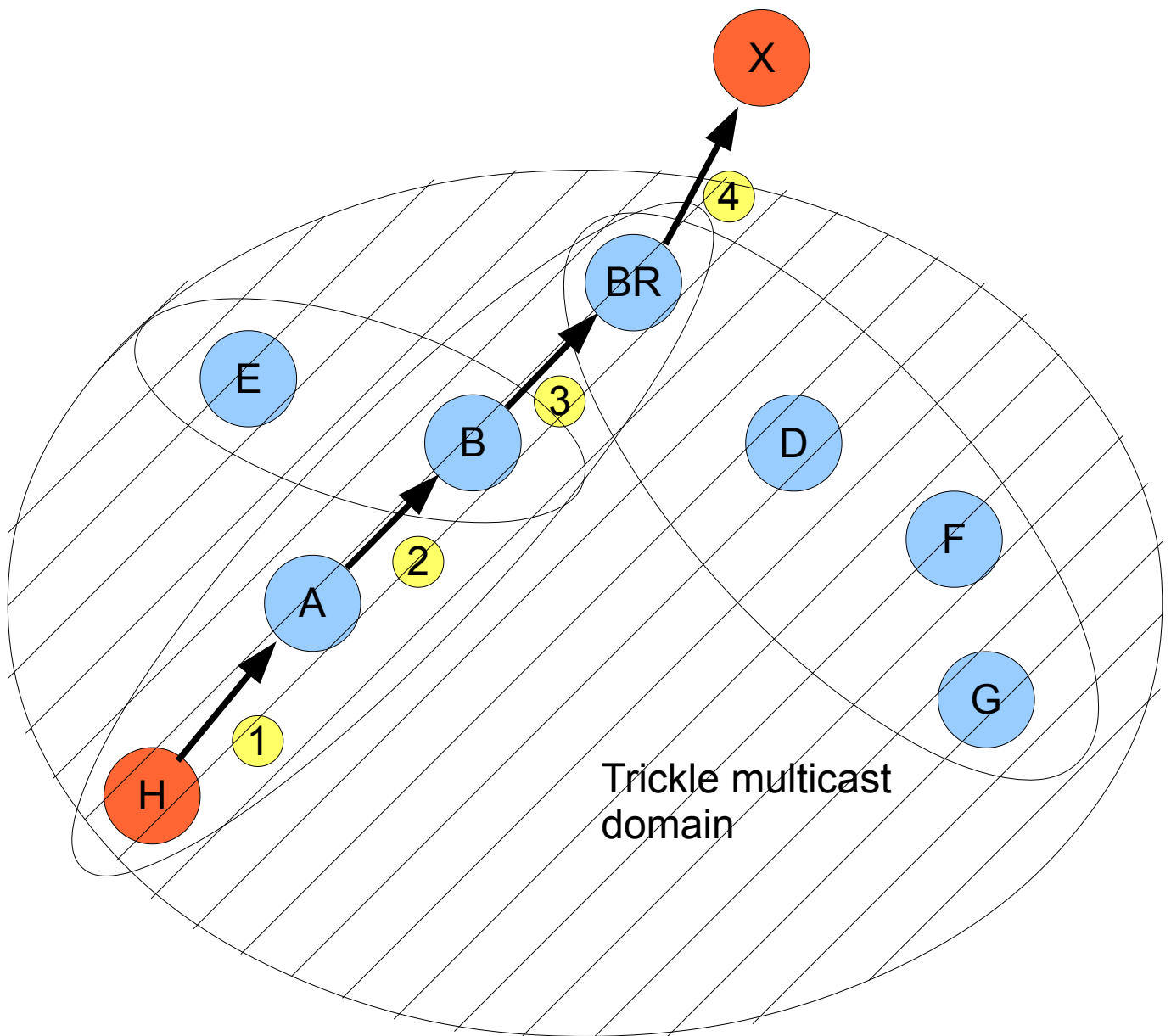
3	B	FF02	MO	H	FF05	Pyd
---	---	------	----	---	------	-----

4	H	FF05	Pyd	Decapsulated and forwarded on other network interface		
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Notes

- Host is "MPL-aware". Packet may be unicast to A
- Destination is site local, therefore need encapsulation at (1) as it may emanate from the BR
- Source addresses changes per hop; inner packet decapsulated for processing and hop count decrementing and recapsulated every hop
- MPL Option controls forwarding of outer packet
- Remains decapsulated at (3) as it is leaving the MPL domain

Site local multicast originating from MPL-aware 6LH



1

H	FF05	Pyd
---	------	-----

2

A	FF02	MO	H	FF05	Pyd
---	------	----	---	------	-----

3

B	FF02	MO	H	FF05	Pyd
---	------	----	---	------	-----

4

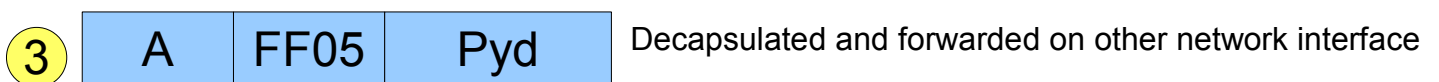
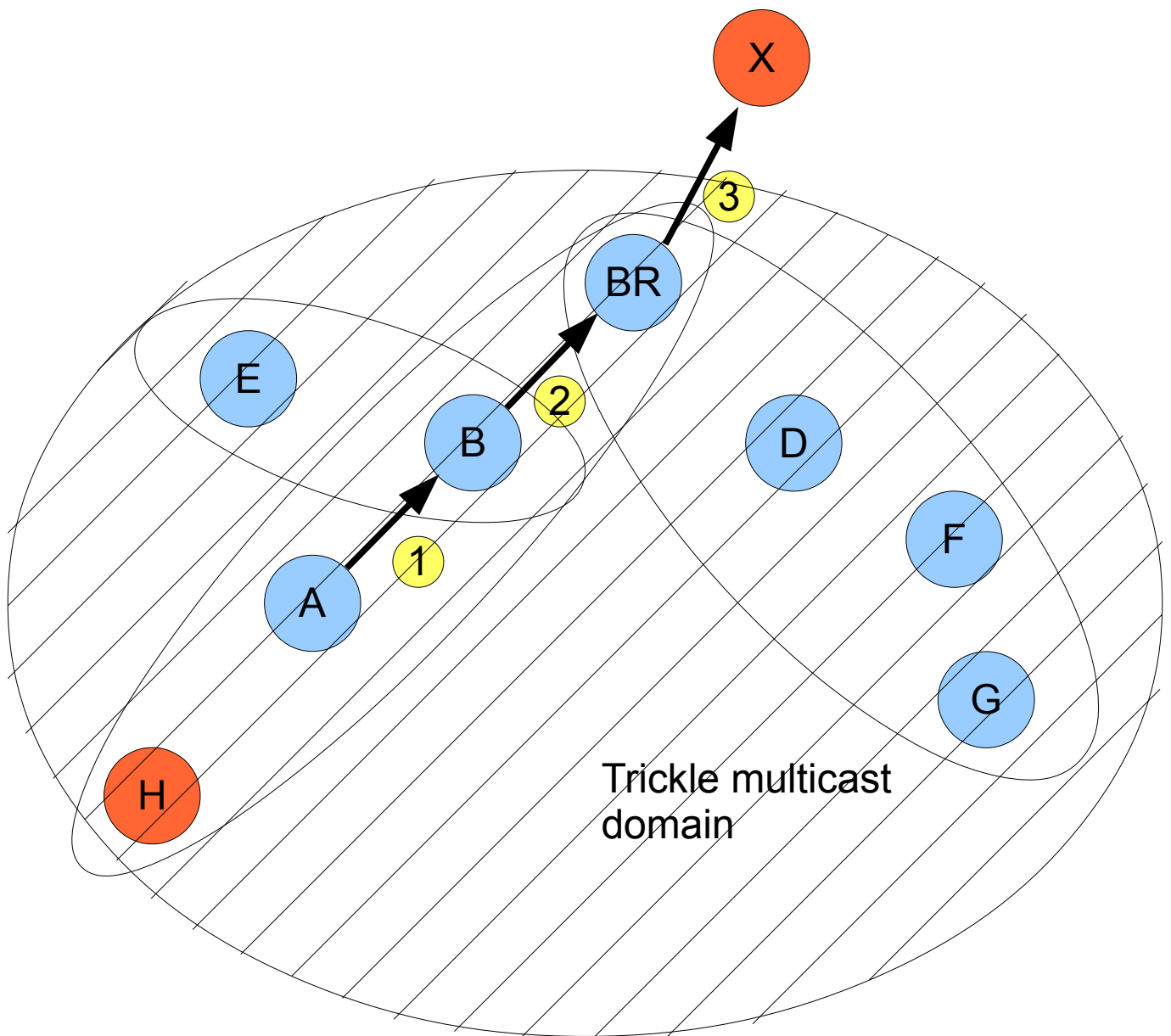
H	FF05	Pyd
---	------	-----

 Decapsulated and forwarded on other network interface

Notes

- Host is not “MPL-aware”. Packet may be unicast to A
- Destination is site local, therefore need encapsulation at (2) as it may emanate from the BR
- Source addresses changes per hop; inner packet decapsulated for processing and hop count decrementing and recapsulated every hop
- MPL Option controls forwarding of outer packet
- Remains decapsulated at (3) as it is leaving the MPL domain

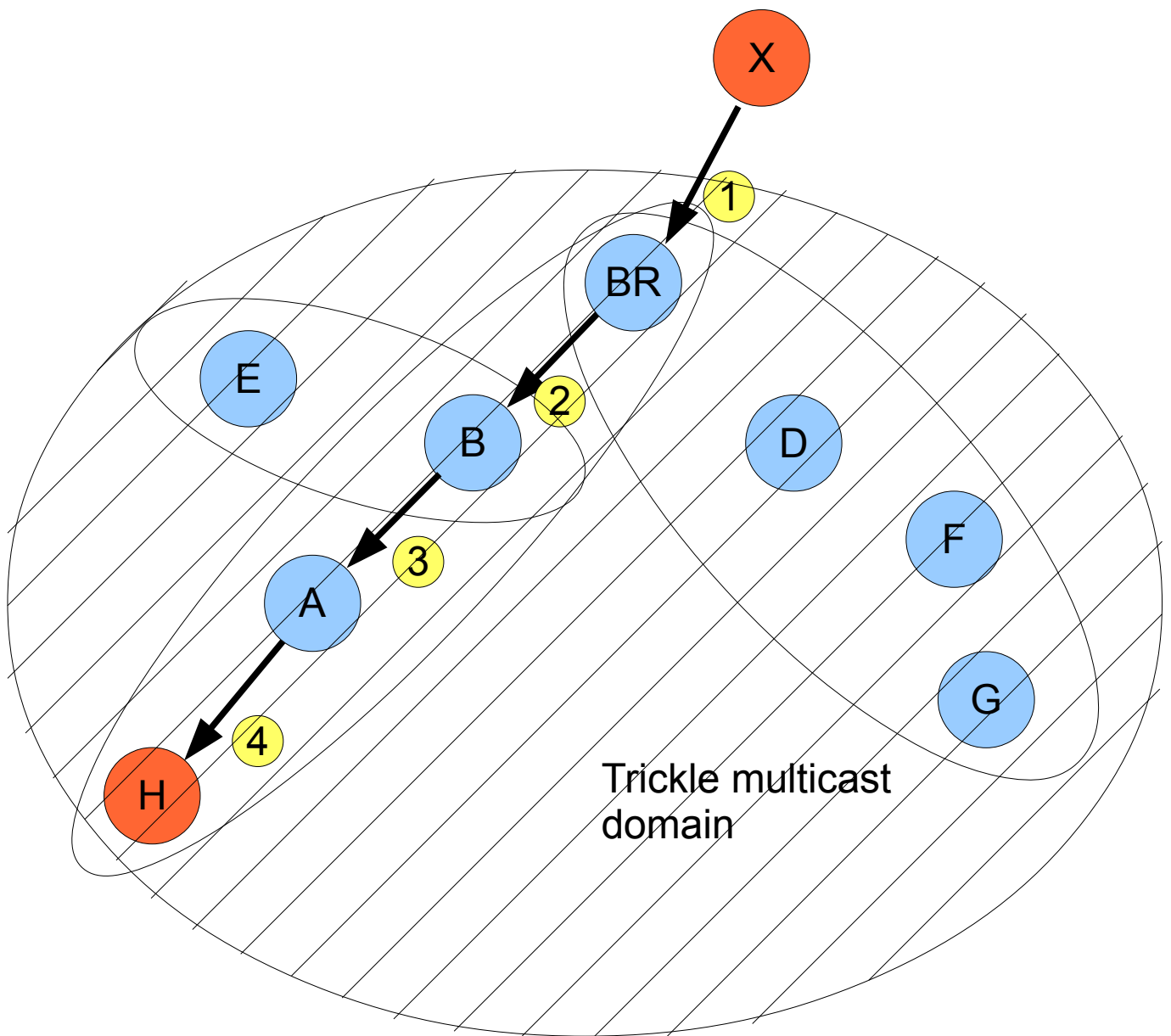
Site local multicast originating from 6LH



Notes

- Destination is site local, therefore need encapsulation at (1) as it may emanate from the BR
- Source addresses changes per hop; inner packet decapsulated for processing and hop count decrementing and recapsulated every hop
- MPL Option controls forwarding of outer packet
- Remains decapsulated at (3) as it is leaving the MPL domain

Site local multicast originating from 6LR



1 X FF05 Pyd No MPL multicast information

2 BR FF02 MO X FF05 Pyd

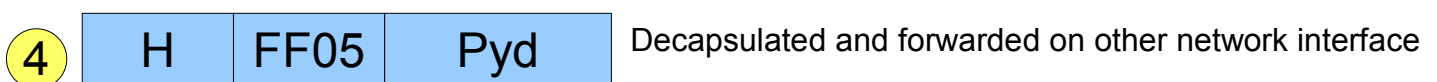
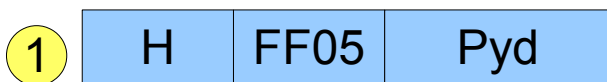
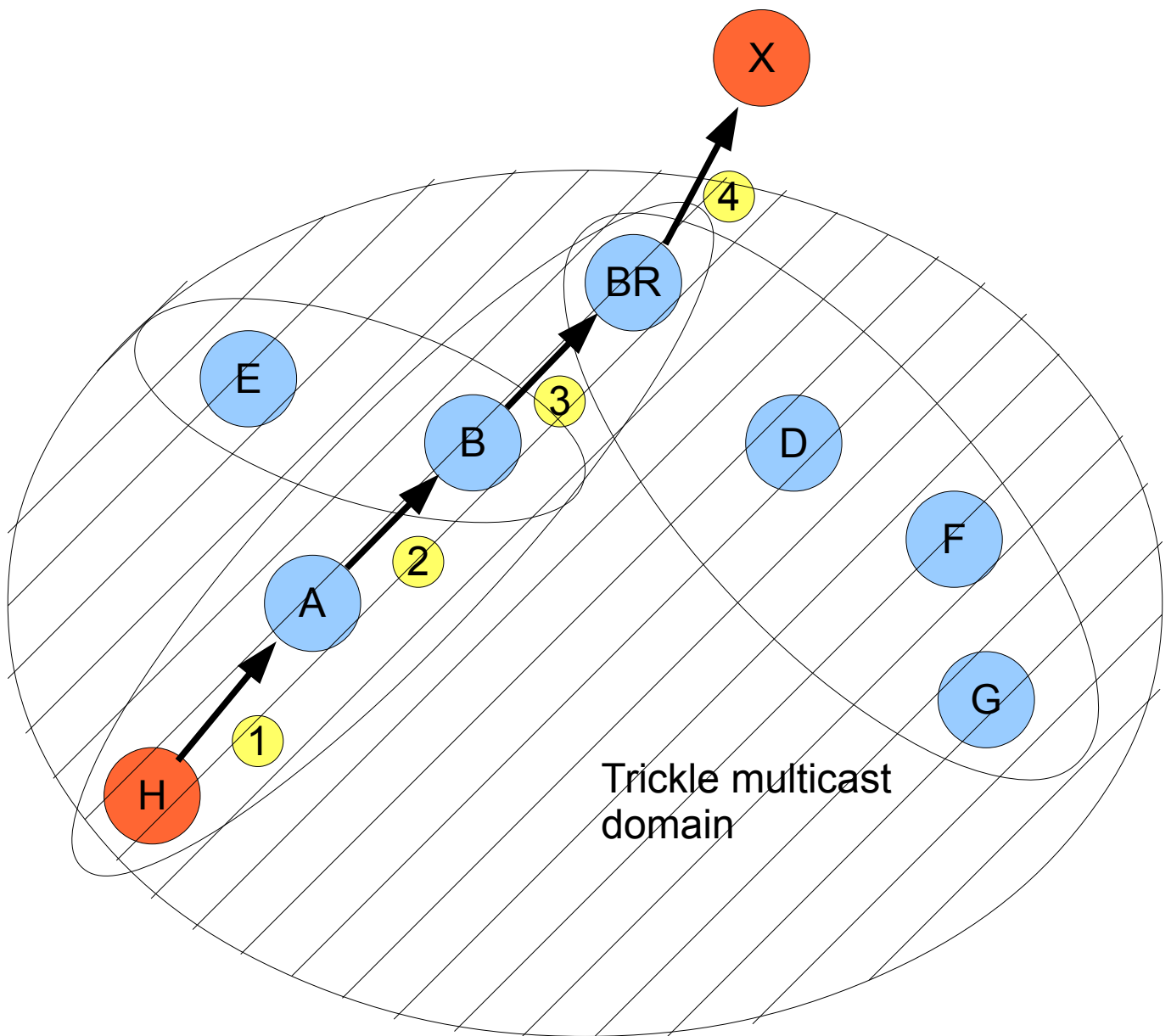
3 B FF02 MO X FF05 Pyd

4 A FF02 MO X FF05 Pyd

Notes

- BR encapsulates as it originates from outside MPL domain
- Source addresses changes per hop; inner packet decapsulated for processing and hop count decrementing and recapsulated every hop
- MPL Option controls forwarding of outer packet

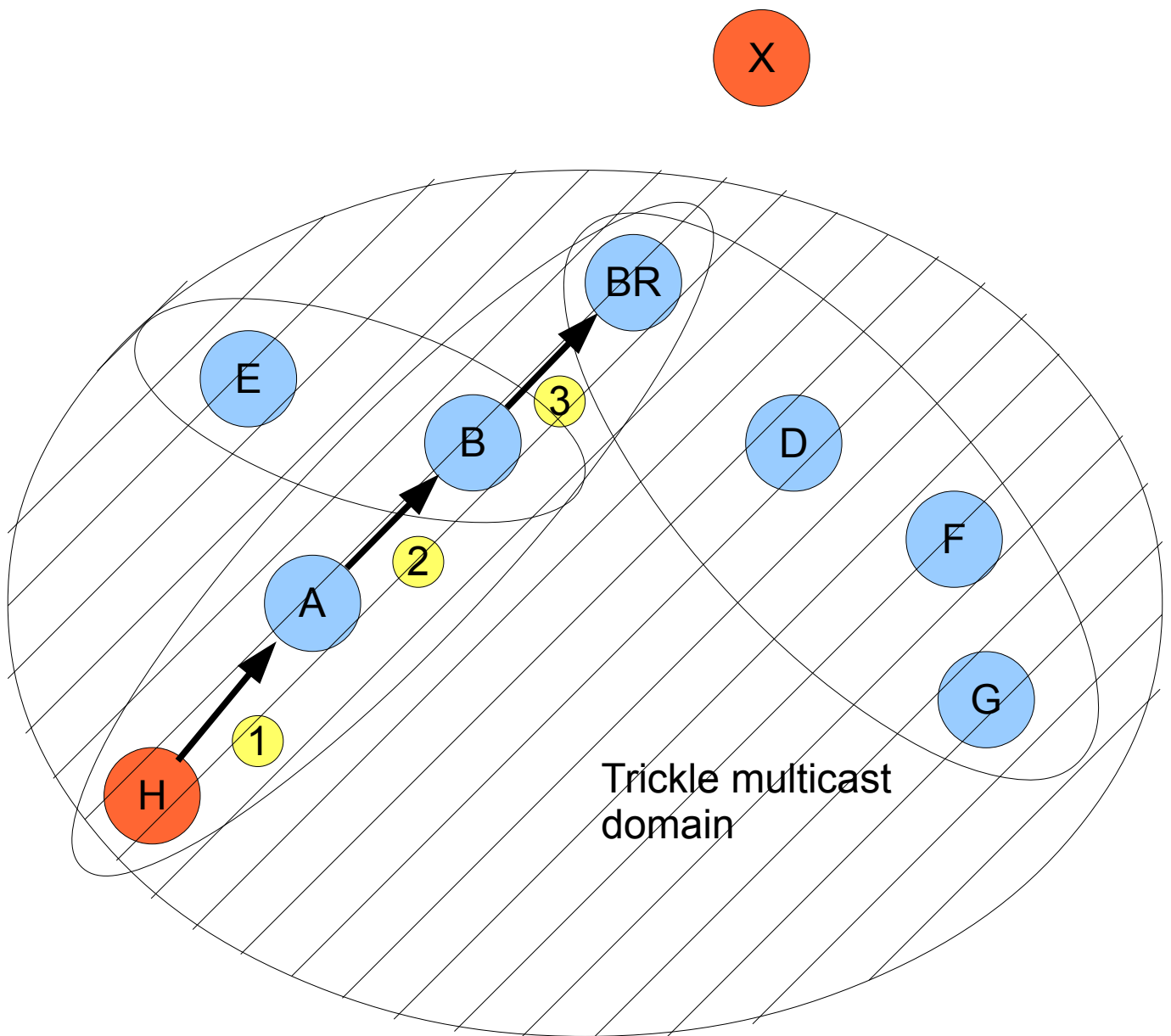
Site local multicast originating externally



Notes

- Host is not “MPL-aware”; packet may be unicast to A
- Destination is site local, therefore need encapsulation at (2) as it may emanate from the BR
- Source addresses changes per hop; inner packet decapsulated for processing and hop count decrementing and recapsulated every hop
- MPL Option controls forwarding of outer packet
- Remains decapsulated at (3) as it is leaving the MPL domain

Site local multicast originating from 6LH



1	H	FF03	MO	Pyd
2	H	FF03	MO	Pyd
3	H	FF03	MO	Pyd

Notes

- Host is “MPL-aware”.
- Destination is subnet local and assumed to be within MPL domain (adminstration needed), therefore no encapsulation needed at (1)
- Source addresses does not change per hop; inner packet decapsulated for processing and hop count decrementing. MPL forwarding forwards packet as per MPL rules
- MPL Option controls forwarding of outer packet

Subnet local multicast within MPL domain