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COLLEGE of TECHNOLOGY

Pathtrace

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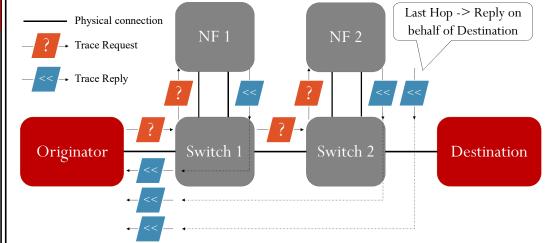


Pathtrace Protocol

L2 flow paths are traced with a network protocol implemented using a Network Function (NF).

The devices on the path will forward the probe to the NF. The NF sends a response packet back to the originator, and at the same time forwards the original probe to the next hop devices.

The process continues until the probe packet reaches the destination and all the traced information arrives at the originator.



Experiment Setup	Demo	Pathtrace Packet Format					
Setup start Run vts-muultipath.py to create Topology and reserve resources on GENI Run demo-setup.py to setup IP addresses and run NF processes	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 Ethernet Header Source MAC Destination MAC					
		Version 2		Type Request/Reply	Checksum		
		TTL 255		Unused	Length		
		Type Flowspec	Sub-type	Length	Ethernet head	er + IP header	
		Ethernet header + IP header					
		Type Transaction	Sub-type	Length	Unsued		
		Source transaction					
				nsaction	Destination transaction		
Run demo.py to start tracing	$\begin{array}{c c} 4 & 1 & 2 \\ \hline 4 & 1 & 2 \\ \hline d_{p0} & 0 \\ \hline d_{p1} \\ \hline \end{array}$	Destination transaction					
		Туре Нор	Sub-type	Length	Нор	Hop info	
		Hop info					
Press Ctrl + C to stop	h0	Type Authenticatio n	Sub-type	Length	Algorithm	Signature Data	
demo		Signature Data					