

Path Tracing in Named Data Networking

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Goal of path tracing for NDN:

- At a minimum:
 - Provide path information to a NDN named object:
 - In terms of sequence of nodes and associated identifiers
 - For single path as well as multipath as provided by NFD strategy
 - Provide RTT information for each traced path
- Optionally:
 - Provide additional metrics such as those related to the state of the content store.

Existing approaches:

Tracing in IP networks:

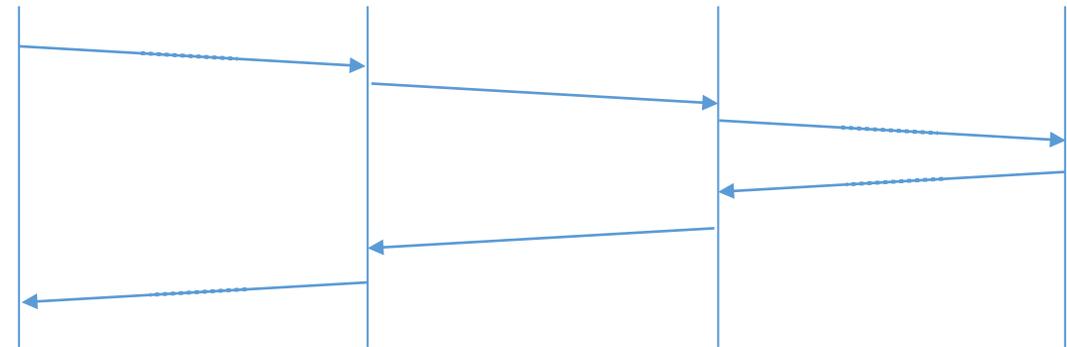
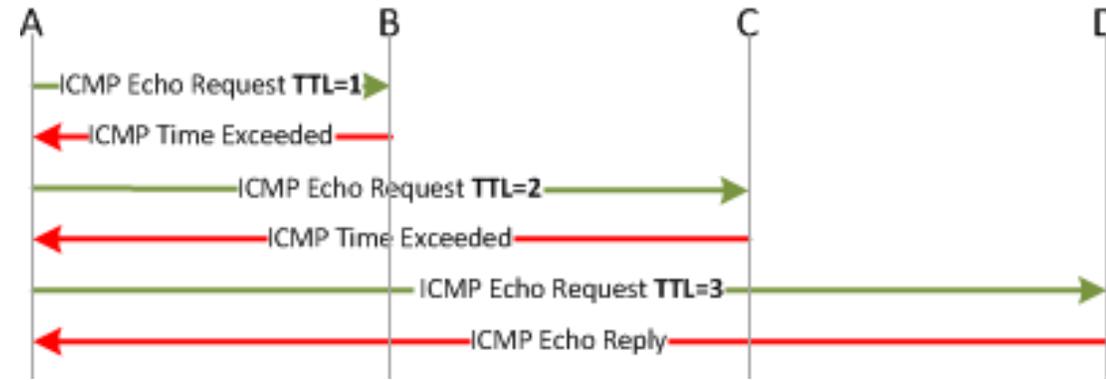
Uses an ICMP-based iterative procedure

[ICN Traceroute:](#)

ICN Traceroute Protocol Specification
draft-mastorakis-icnrg-icntraceroute-00

[Contrace:](#)

Traceroute Facility for Content-Centric
Network draft-asaeda-icnrg-contrace-02



NDN-Trace:

- ✓ Non-iterative approach
- ✓ Same Interest / Data exchange
- ✓ No changes to the NFD

Traceroute components:

Traceroute consists of three components:

- Traceroute client application
- Traceroute daemon
- Traceroute strategy that handles traceroute requests forwarding

