

NDNfd Development

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The network daemon

Where the network layer of the architecture is implemented.

Internal functionality

- CS/PIT/FIB, Forwarding strategy

Lower-layer interface

- Interface with underlying links

Upper-layer interface

- Interface with apps/libraries

From ccnd to NDNfd

Internal functions

- Better code modularity
- Better table structures and lookup algorithms
- More choices of strategy

Lower-layer interface

- New packet format: simplification and improvement
- Local link-level functionality
- Support more types of links

Upper-layer interface

- Expose all internal functionality
- Make programmer's life happier

What we have done so far?

Internal Functions

- Research on strategies, and new table structures/algorithms.
- Code
 - Ndnfd, V-NDN, ndnSIM, QualNet simulator...

Lower-layer interface

- Initial draft on packet format
- First sketch of link-level protocol working.

Upper-layer interface

- App/library API

Efforts outside of the NDN team

PARC

- CCNx 1.0 release coming early next year
- New packet format, new protocol spec, new code base.

Cisco

- New packet format
- Packet forwarding demo at SIGCOMM

Others

- ccn-lite

Our Plan

Need the new NDNfd quickly

- *When?*

Divide and conquer

- Internal functions
- Lower-layer interface
- Upper-layer interface
- *When, who, how?*

Testbed deployment: all

Code management: WashU/UCLA

Community building and code contribution policy