

NFD web control panel

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Motivation: NFD runtime management requires the operator to type `nfdc` commands. It's desirable to have a web control panel so that the operator can monitor and control NFD from a web browser.

Approach: web development

Contributions to NDN: Make NFD more user friendly.

Functional requirements

This project shall develop a web application that is able to display NFD status, and control NFD (similar to what can be done with nfdc).

The web application should be able to:

- display NFD version and global counters
- display a list of NFD faces and their counters
- create a TCP or UDP unicast face
- delete an existing face
- display a list of RIB routes
- add a route
- remove a route

Prerequisite: Modify NFD management initialization logic so that NFD management commands and datasets are available under `ndn:/localhop/nfd` namespace in addition to `ndn:/localhost/nfd`. This is necessary because WebSocket faces are non-local.

The web application can be delivered over HTTP, and connects to a NFD instance via WebSocket. It's okay to hard-code the WebSocket address of the NFD instance, the private key for signing commands, and the certificate for verifying packets from NFD.

Metric

UX design: the user interface should be easy to use.