

Content-Centric Networking (CCNx) @ Information Centric Networking RG (ICNRG)

RFC 8569: Content-Centric Networking (CCNx) Semantics

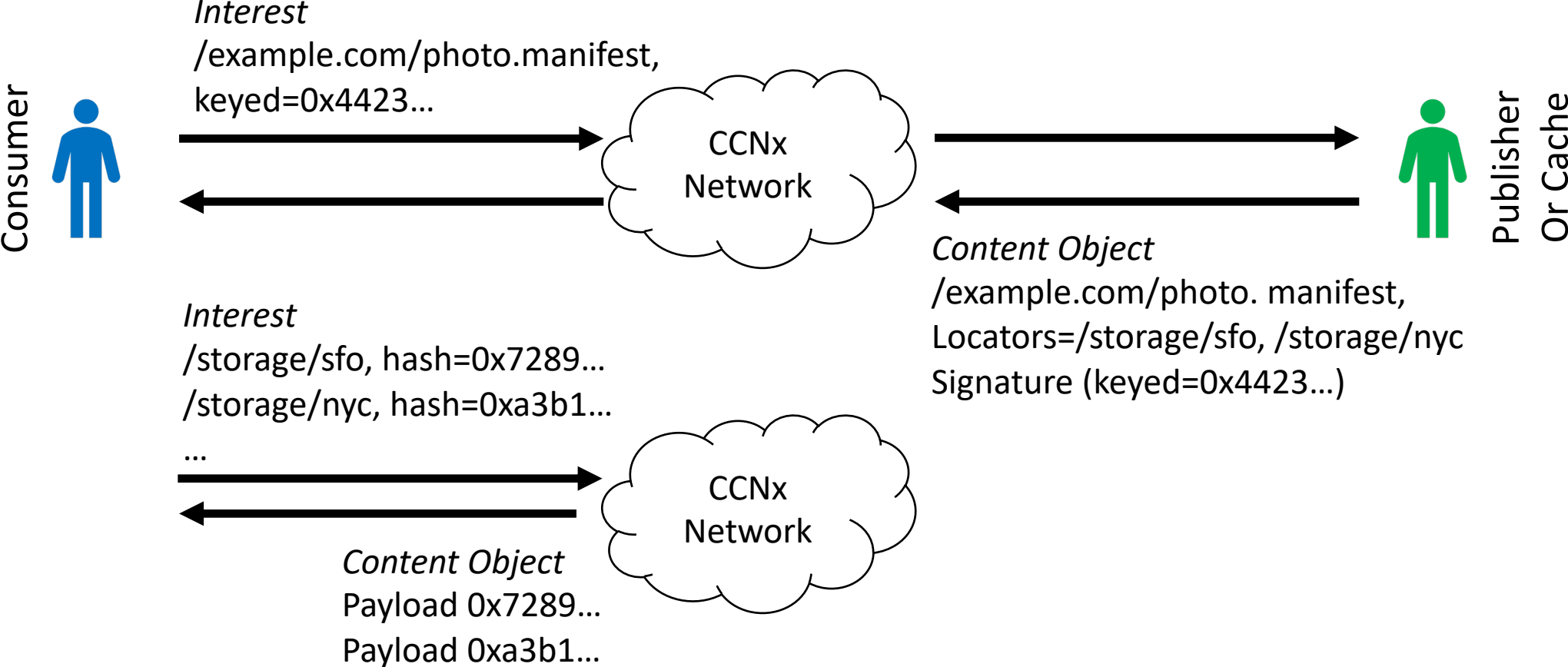
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RFC 8609: Content-Centric Networking (CCNx) Messages in TLV Format

M. Mosko, I. Solis, C. Wood, July 2019

Information Centric Networking (ICN) is a shift from host-based networking using endpoint addresses to named content. CCNx, first announced in 2009, and revised in 2014, uses a combination of URI-like path names and hash names to fetch content secured via publisher signatures.

Example Use Case



Implementations

- Community ICN (CICN)
 - Linux Foundation (<https://wiki.fd.io/view/Cicn>)
 - Vector Packet Processing (VPP), Socket-like I/O, Qt/QML video player
- CCN-Lite
 - University of Basel (<http://ccn-lite.net>)
 - User space, Linux kernel, OMNeT++, Android, Arduino (Uno and AtMega328, 2 KiB RAM), RFduino (32 KiB RAM), RIOT, and Docker
- Cefore
 - NICT (National Research Institute in Japan) (<https://cefore.net>)
 - Lightweight & extensible with a simulator and emulator.
- Hybrid ICN
 - Linux Foundation (<https://wiki.fd.io/view/HICN>)
 - CICN integrated with IPv6 forwarding – beyond an overlay
 - High-performance mobile video tests at large US carrier
 - Internet Area WG: <https://datatracker.ietf.org/doc/draft-muscariello-intarea-hicn>