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Wood

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CCNx Manifests

draft-wood-icnrg-ccnxmanifests

Status

Basic Manifest initial work

Submitted to mailing list

➤ ICNRG discussion

Mailing list discussion

Tracker submission

IETF 94 update

Status - Continued

➡ Advanced Manifest (AM) discussion

AM design

AM draft

Mailing list discussion

Tracker submission
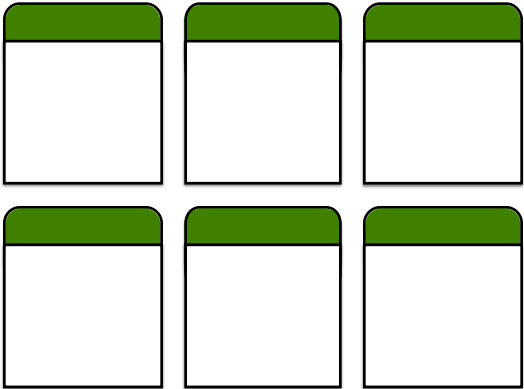
IETF 94? discussion

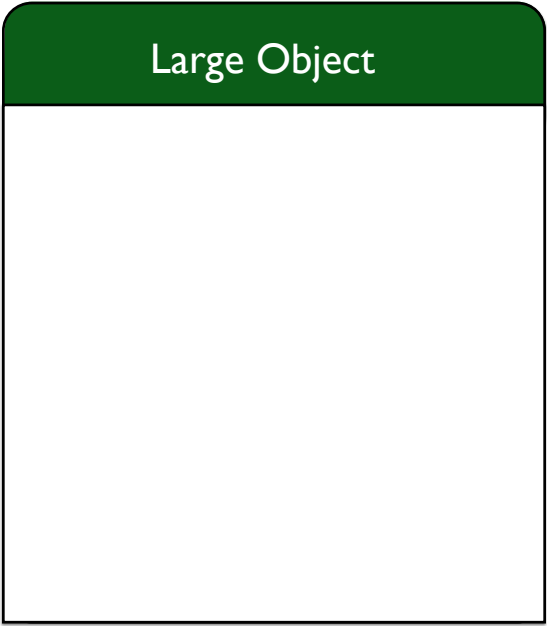# Basic manifest goals

Represent large objects with a data
structure that can be parsed and
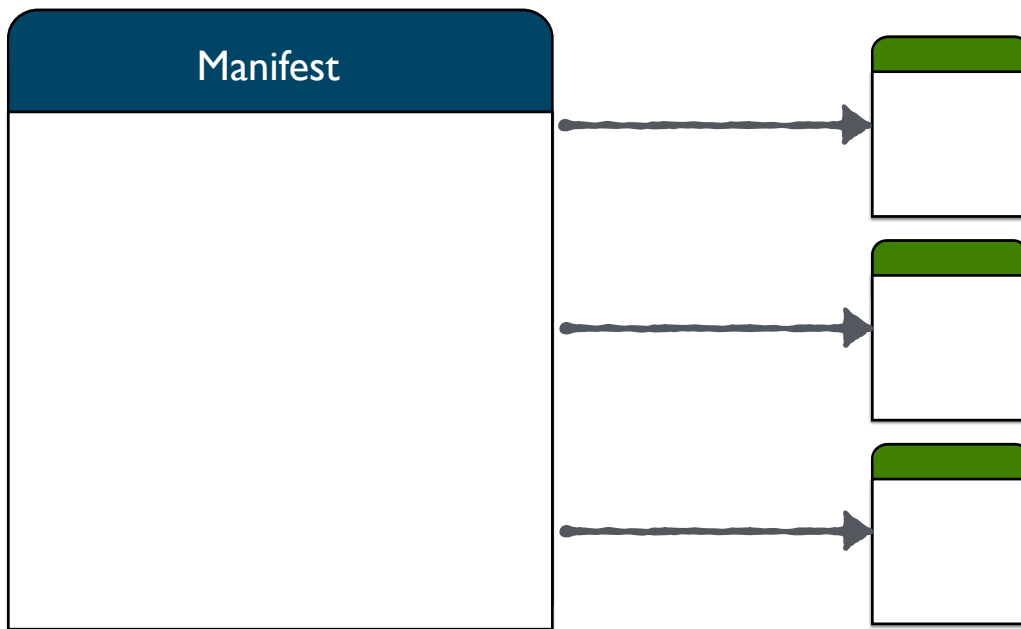understood by network entities,
applications and the stack

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Overview

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Large Object

Overview

Large Object

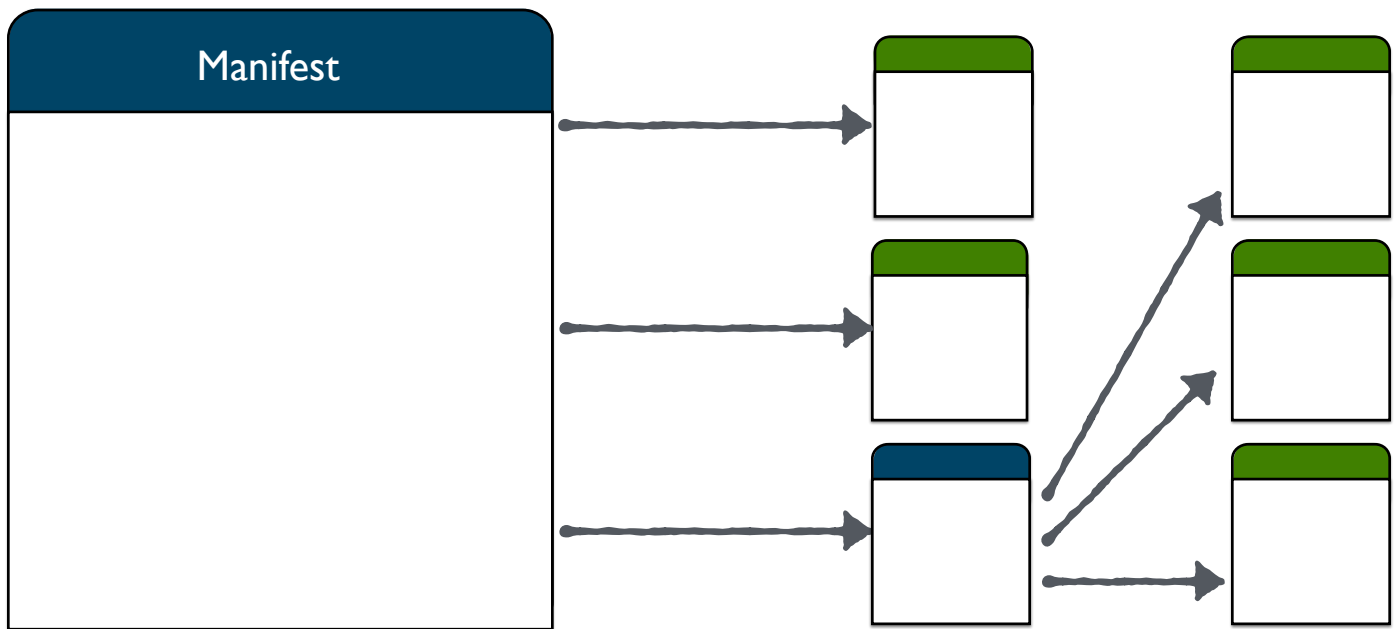# Overview

Manifest

Overview

Manifest
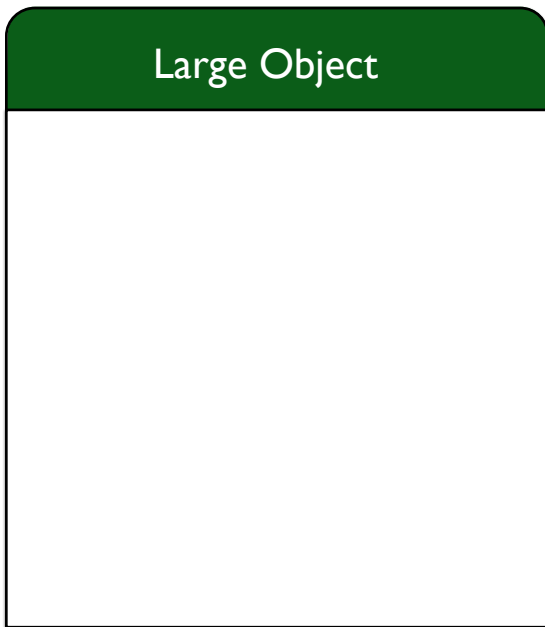
Overview
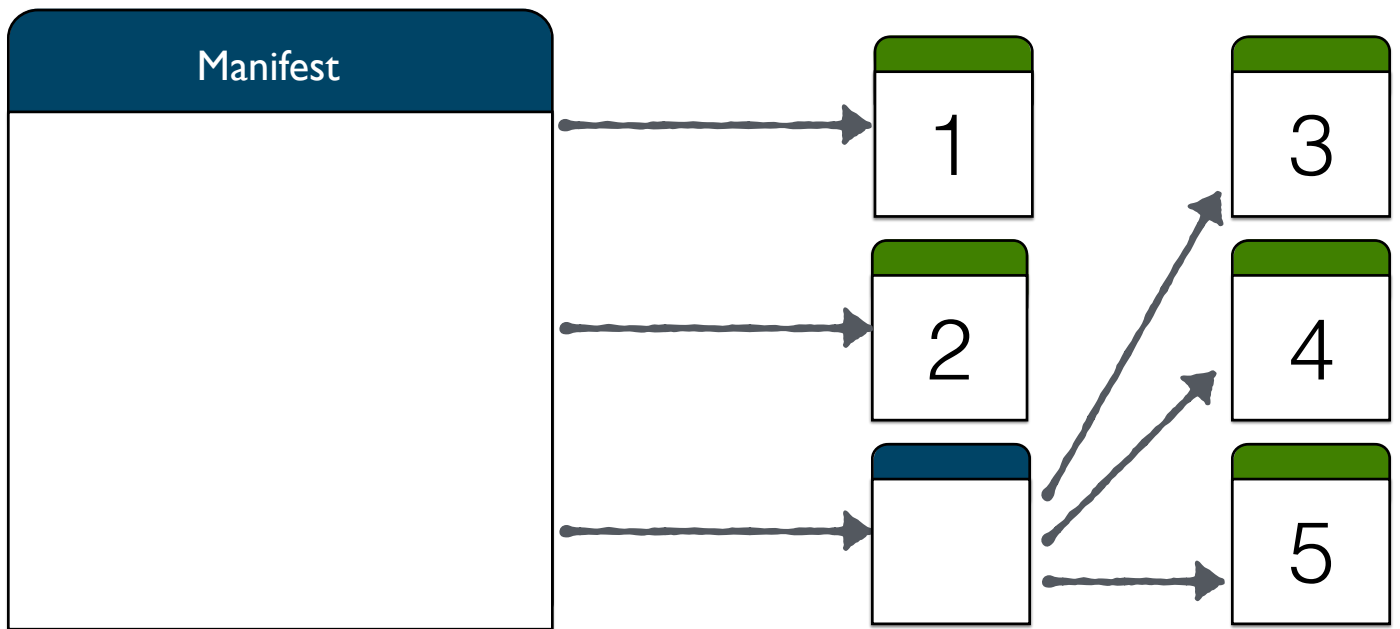
Interest list

/parc/storage/file/chunk=0

/parc/storage/file/chunk=1

/parc/storage/file/chunk=2

/parc/storage/file/chunk=3

/parc/storage/file/chunk=4

Interest list

/parc/storage/file/chunk=0   h(123)

/parc/storage/file/chunk=1   h(456)

/parc/storage/file/chunk=2   h(789)

/parc/storage/file/chunk=3   h(0ab)

/parc/storage/file/chunk=4   h(cde)

Interest list

Name Prefix	Hash List
/parc/storage/file/	h(123)
start chunk=0	h(456)
	h(789)
	h(0ab)
	h(cde)

Notes on current draft

Manifest itself may be chunked

Multiple name prefixes are allowed

Name prefixes do not need to be chunked

Manifest name counts as name prefix 0

Manifest includes link to an ACS
(Access Control Specification)

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Next steps on current draft

Single name prefix

Relative names

Define ACS

Distinguish sub-Manifests/Content Object

Clean up embedding (remove?)

Define minimal meta data

Advanced Manifests

New name?

More (general) functionality

Structured metadata
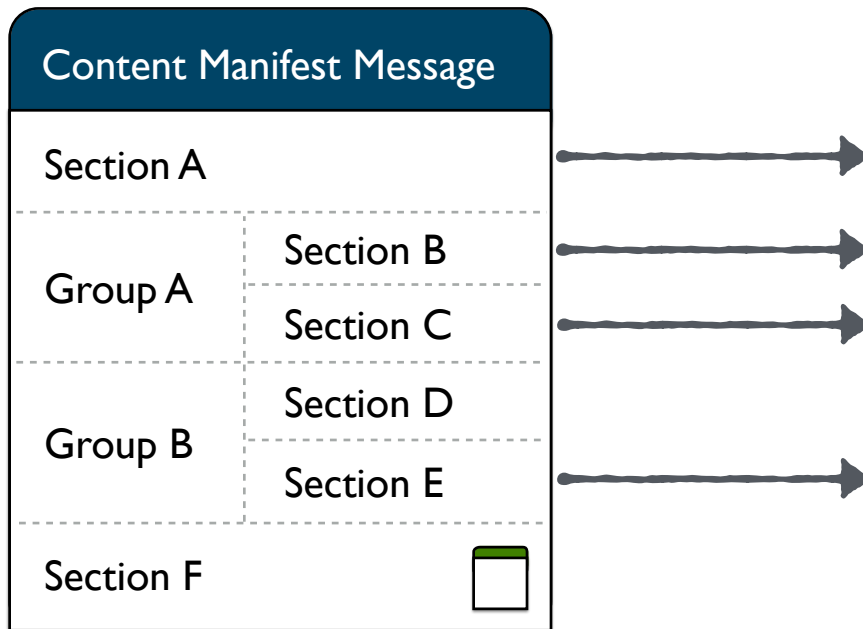
Modular structure

Allow embedding

Section groups

Advanced Manifests

Content Manifest Message	
Section A	→
Group A	Section B	→
	Section C	→
Group B	Section D	
	Section E	→
Section F	

Advanced Manifests

Groups associate sections

Each section has it's own definition (RFC?)

Sections may be embedded

Sections can reference each other

Sections may have alternatives

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Possible sections (large object)

Metadata: Size, name, author, language, digest, creation time, etc

Sources (prefixes)

Indexes (for traversal)

Options (alternate encoding)

Parallel forks

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Possible sections (other uses)

Indirection / Mobility

Encapsulation

Authenticated denial

Personalization

Grouping (web page mode)

Transport layer information

Possible sections (other uses)

Discovery (selectors?)

Streams

Head-discovery

Request acknowledgement

Delayed-response (processing time)

Aggregation

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Possible sections (other uses)

Namespace description

Deletion

Authentication key embedding

Encryption information

Validation indirection

Discussion

See basic draft

Discuss in ICNRG mailing list

Basic manifest in tracker by IETF 94

Advanced manifest structure by IETF 94 (draft?)