

parc[®]

A Xerox Company

Manifest discussion

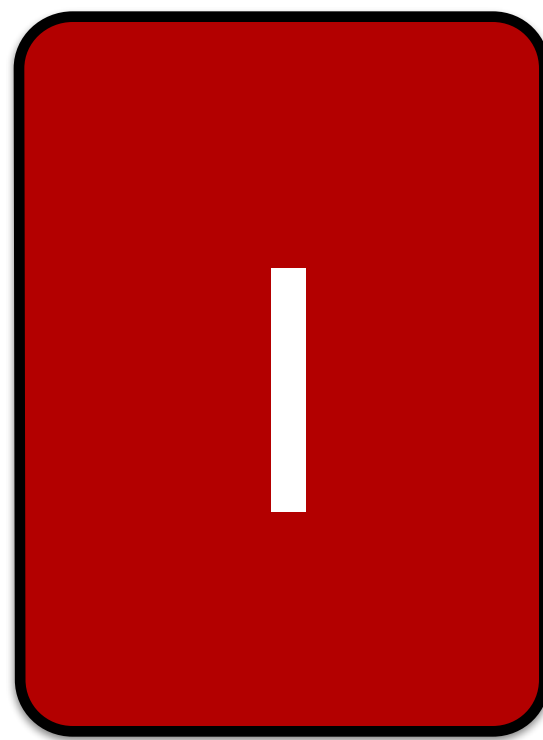
Nacho Solis, Principal Scientist

2015-05-20

Ignacio.Solis@parc.com

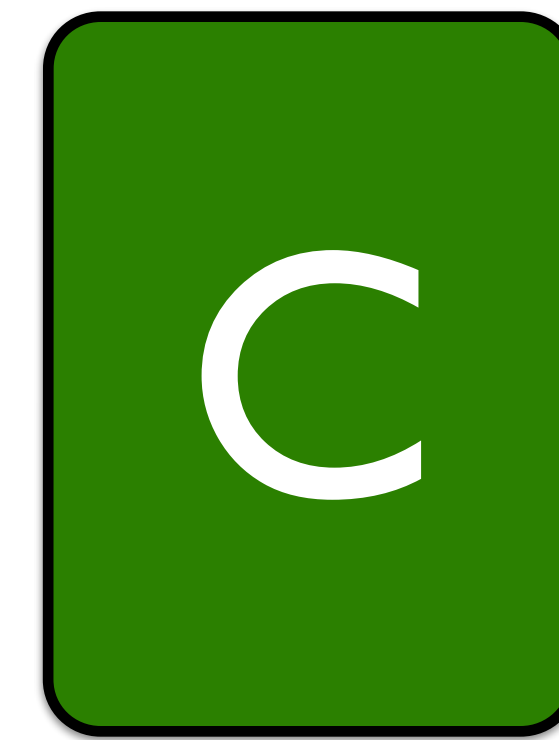
Core protocol

An Interest Message



A request for a named
piece of content

A Content Message



A reply with a named
piece of content



Manifest



Manifest goals

Efficiency

Security

Indirection

Management

Manifest design

Data organization

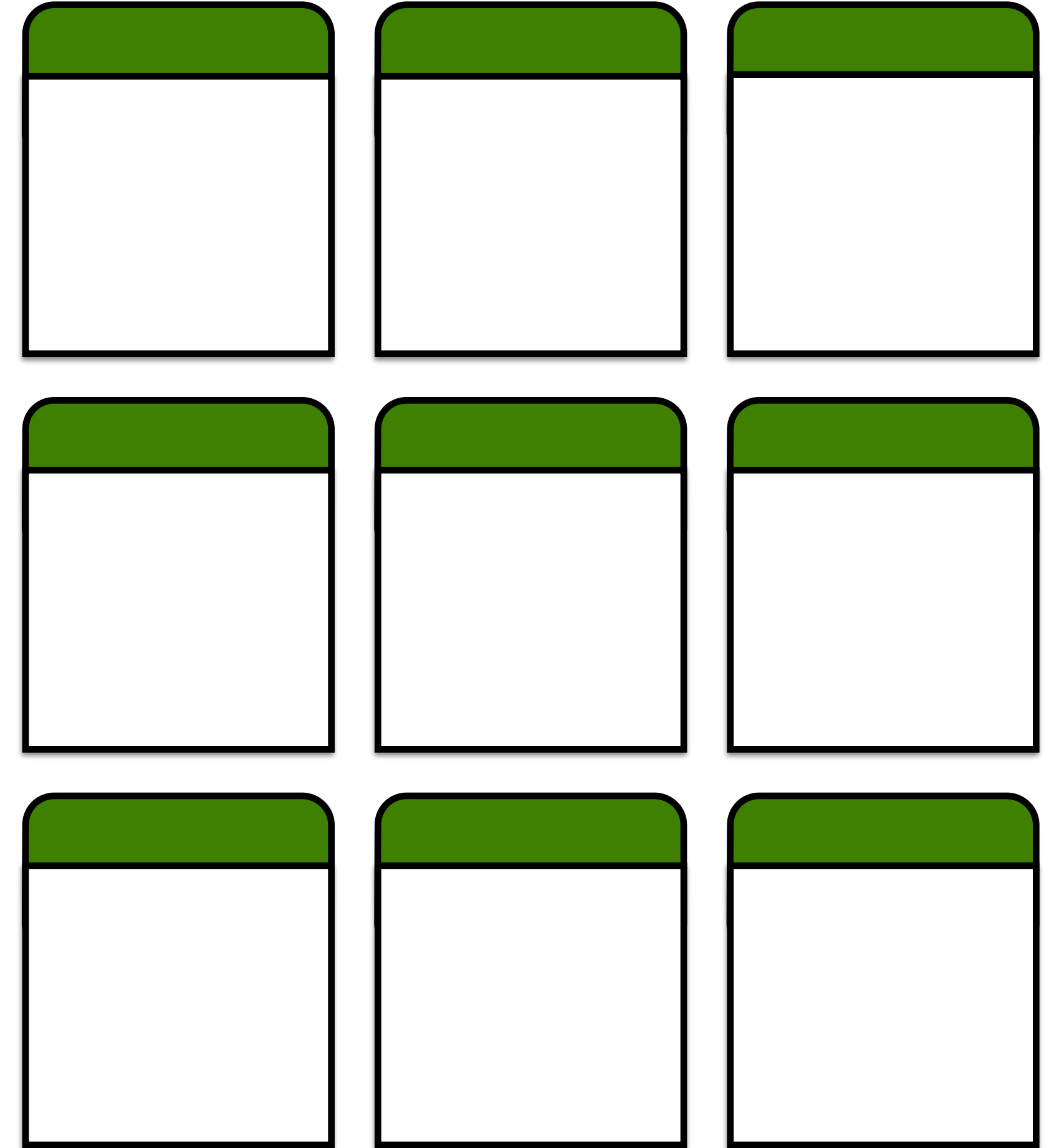
Associated Metadata

Security bindings

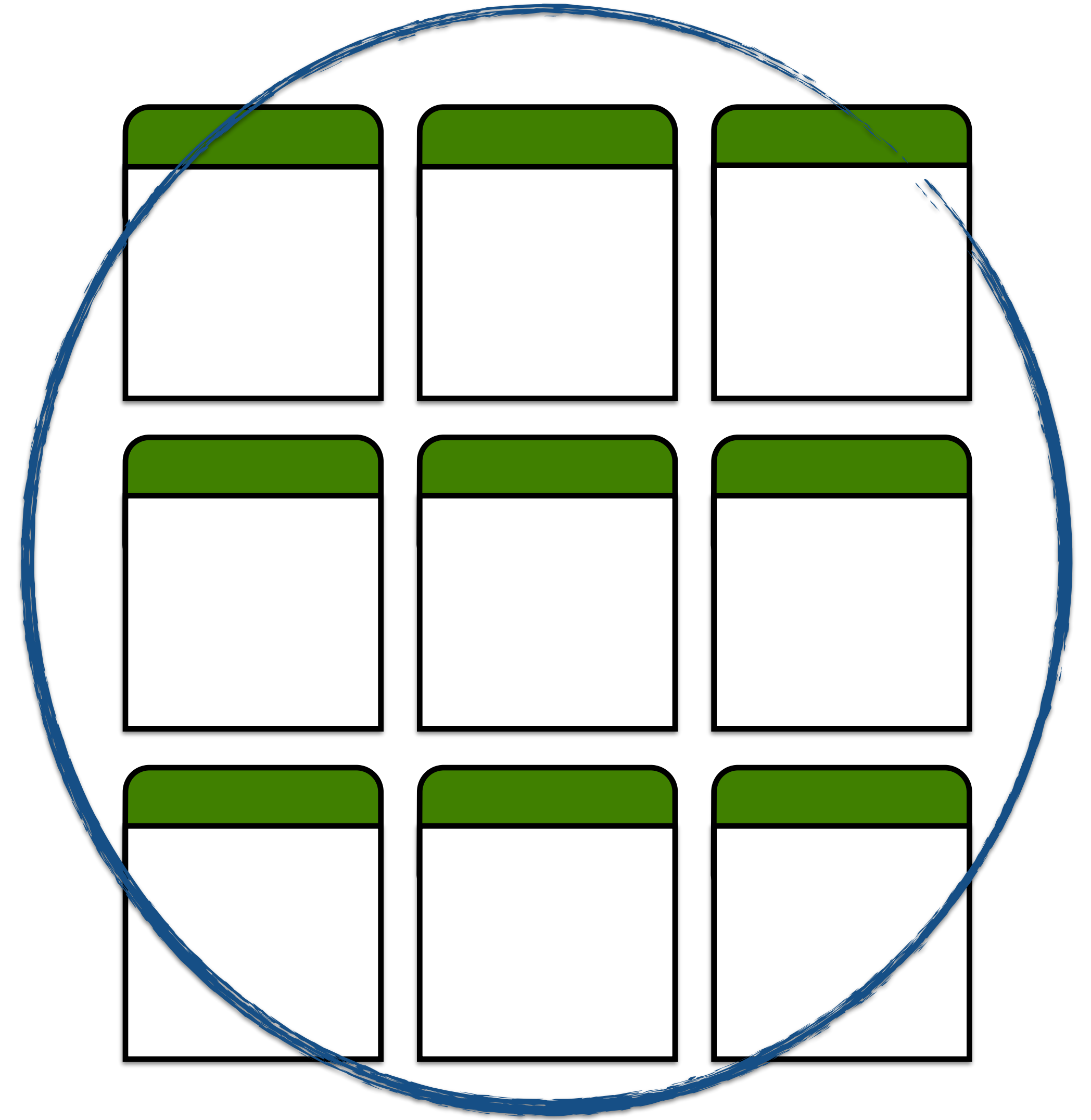
Efficient

Flexible

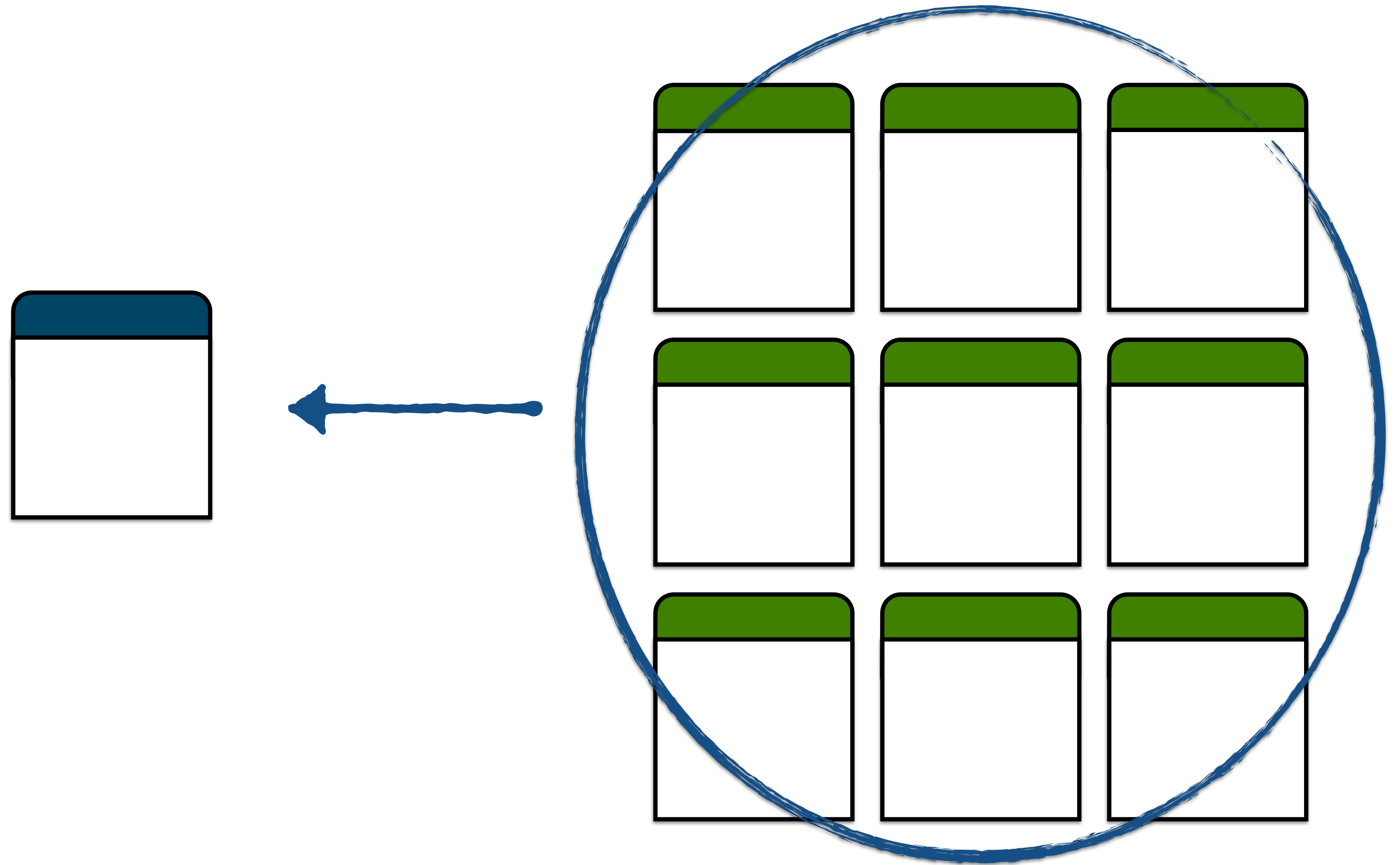
Associating



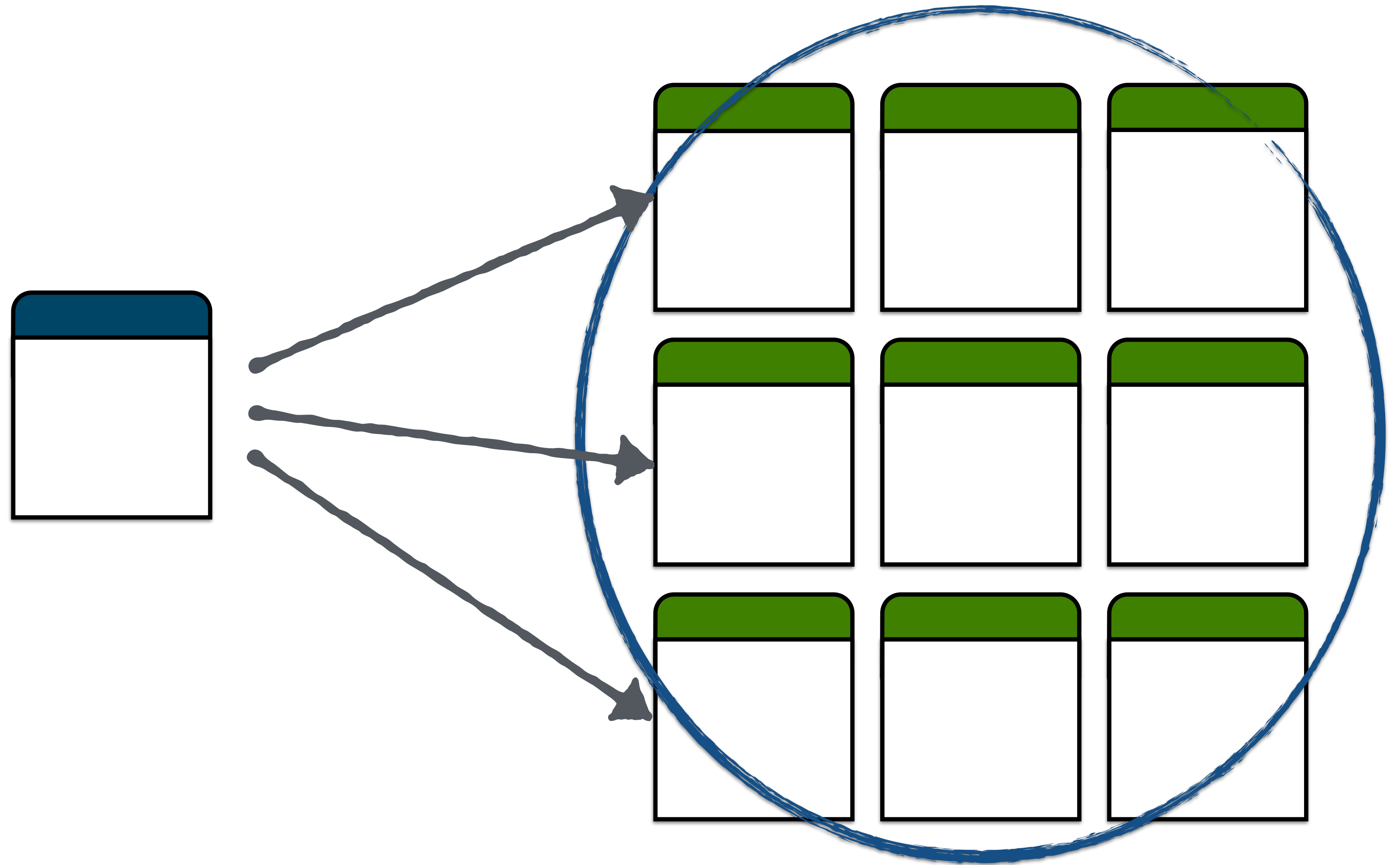
Associating



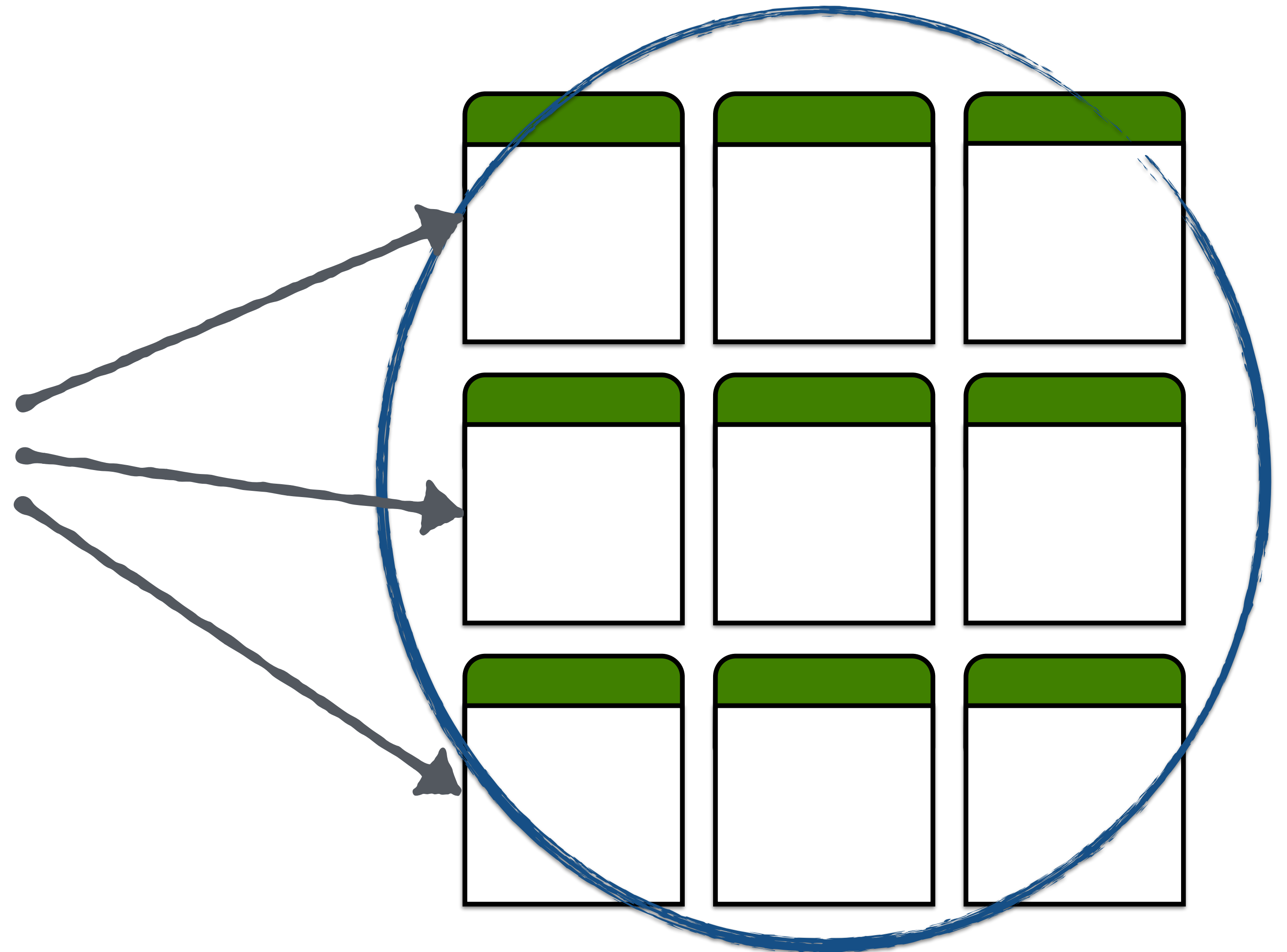
Associating



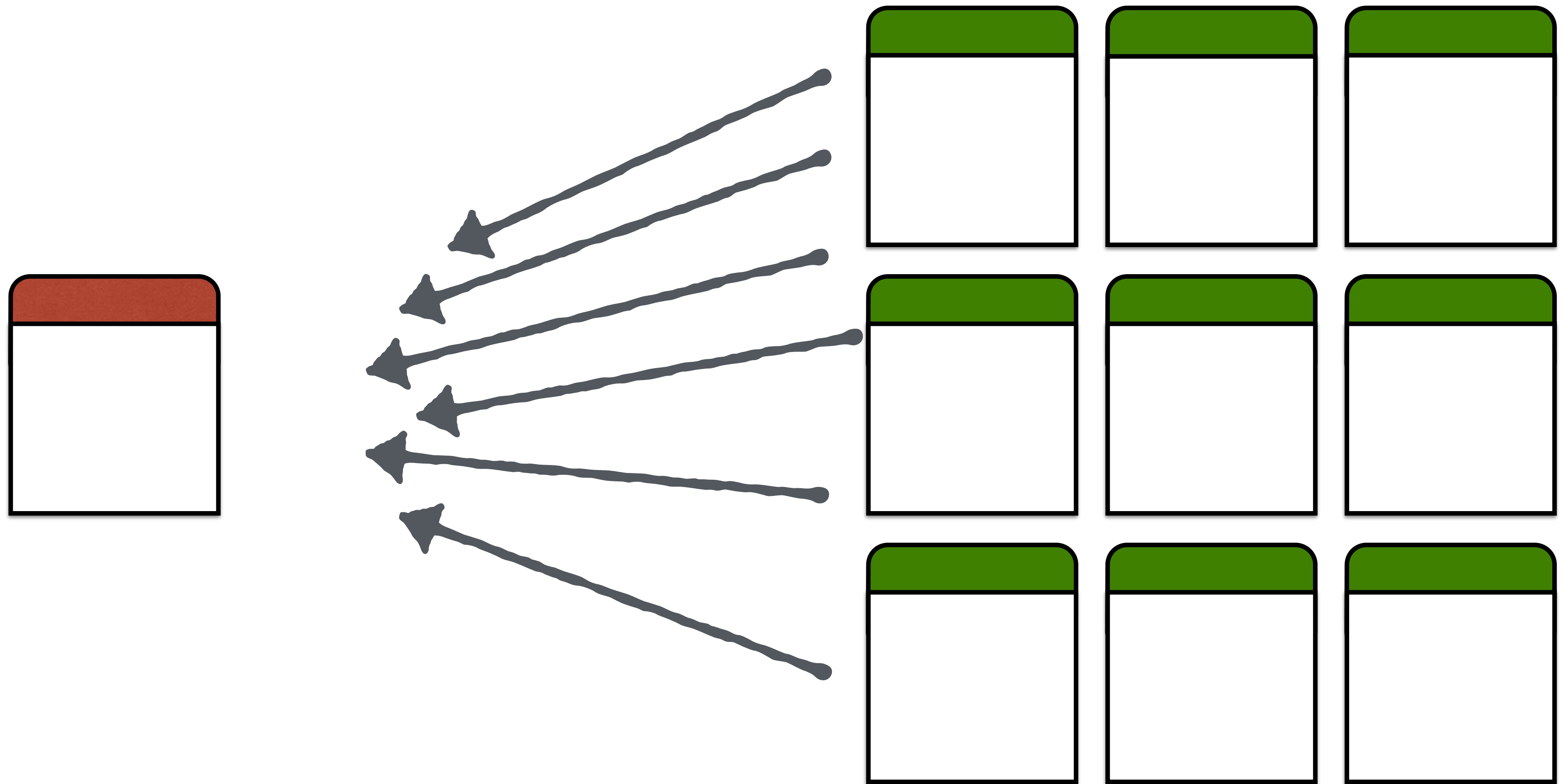
Associating



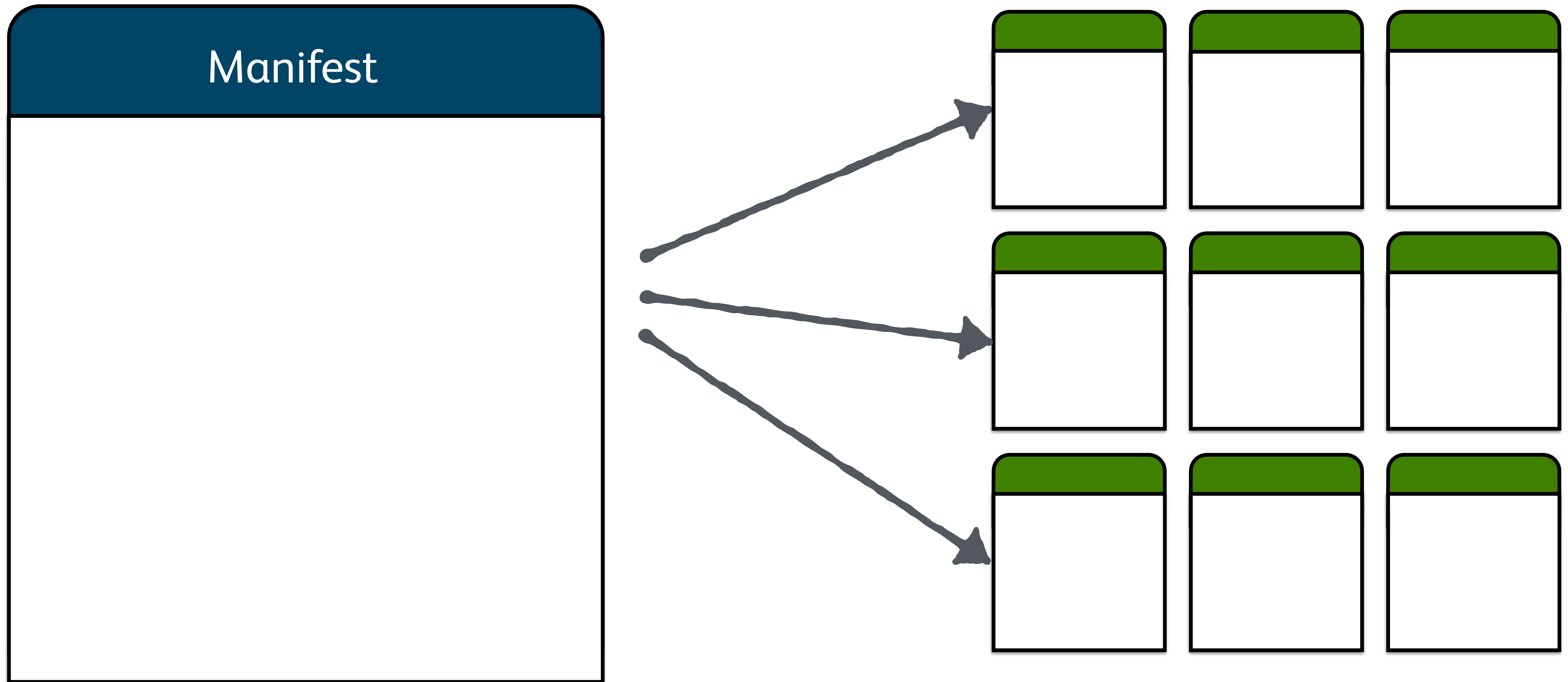
Associating



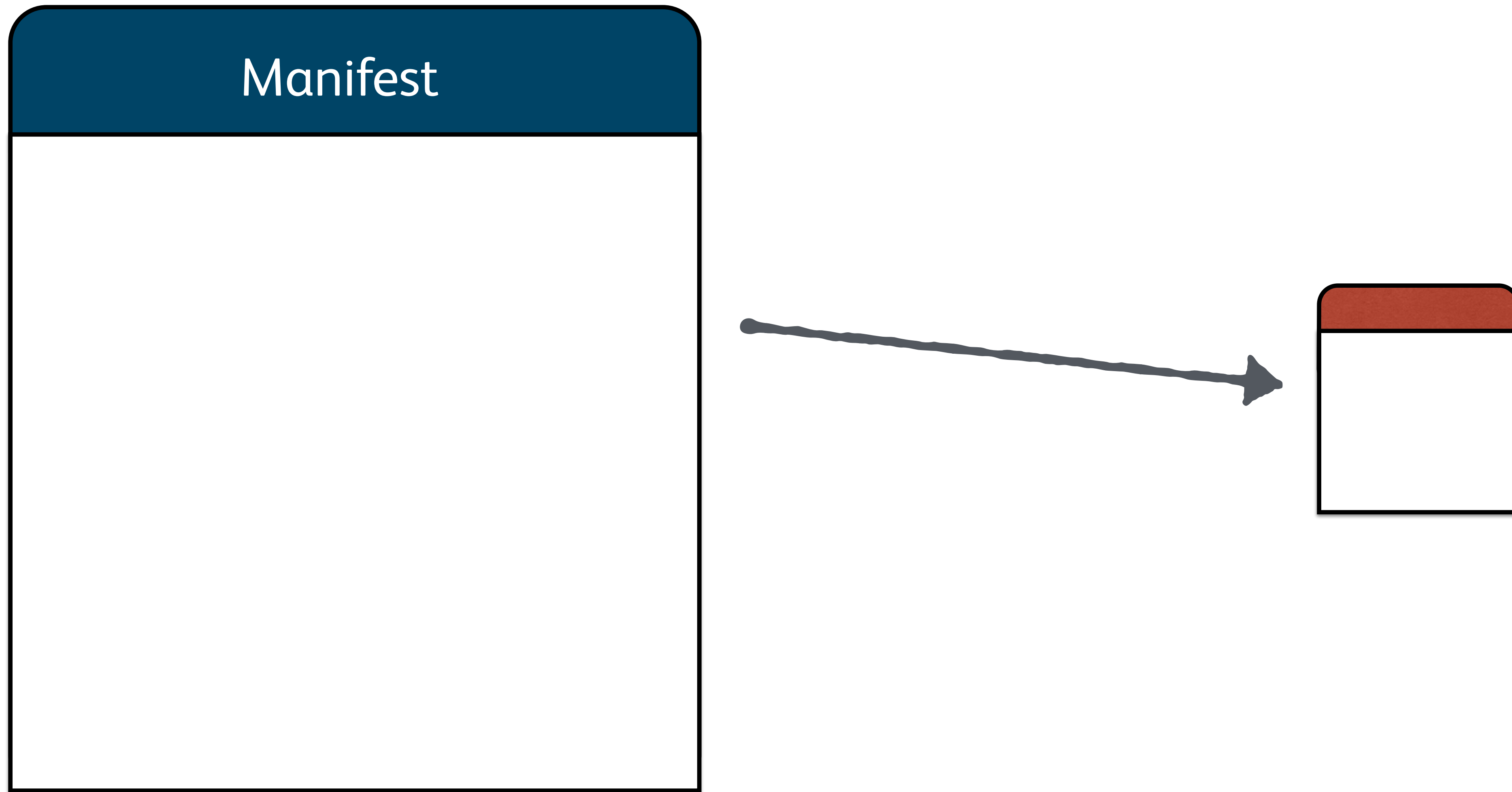
Metadata



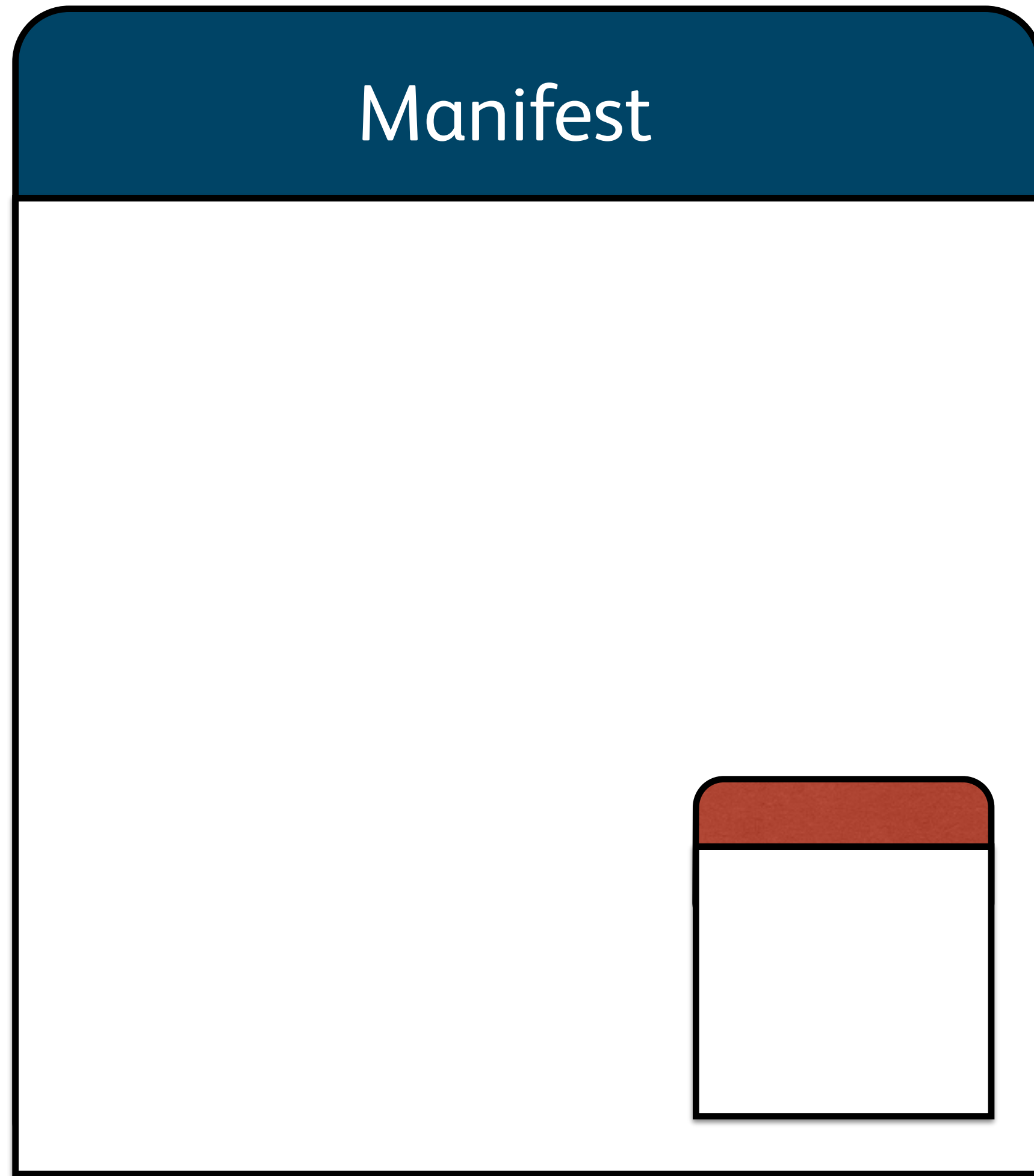
Manifest represents the group



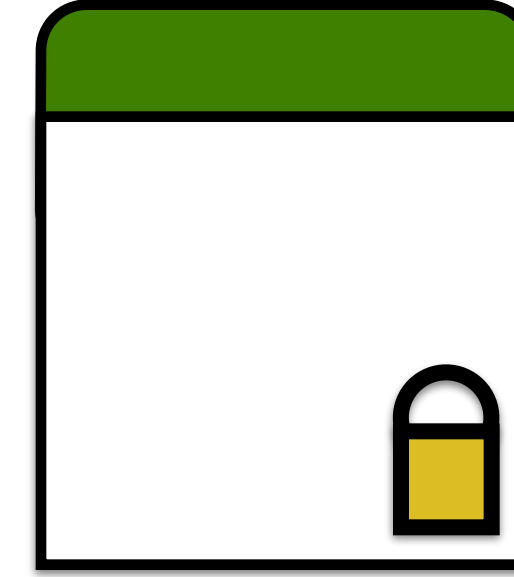
Manifest associates with metadata



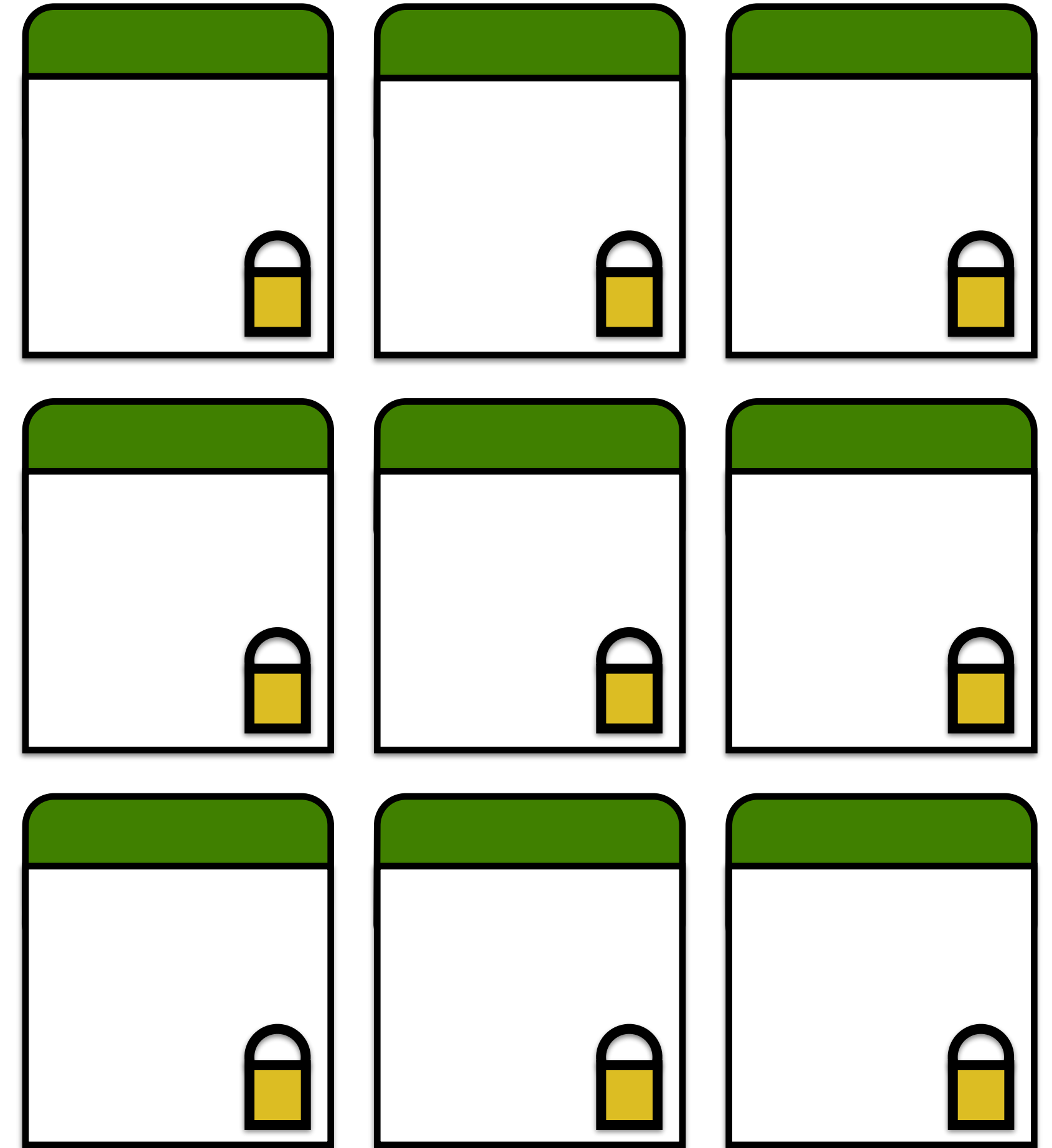
Manifest incorporates metadata



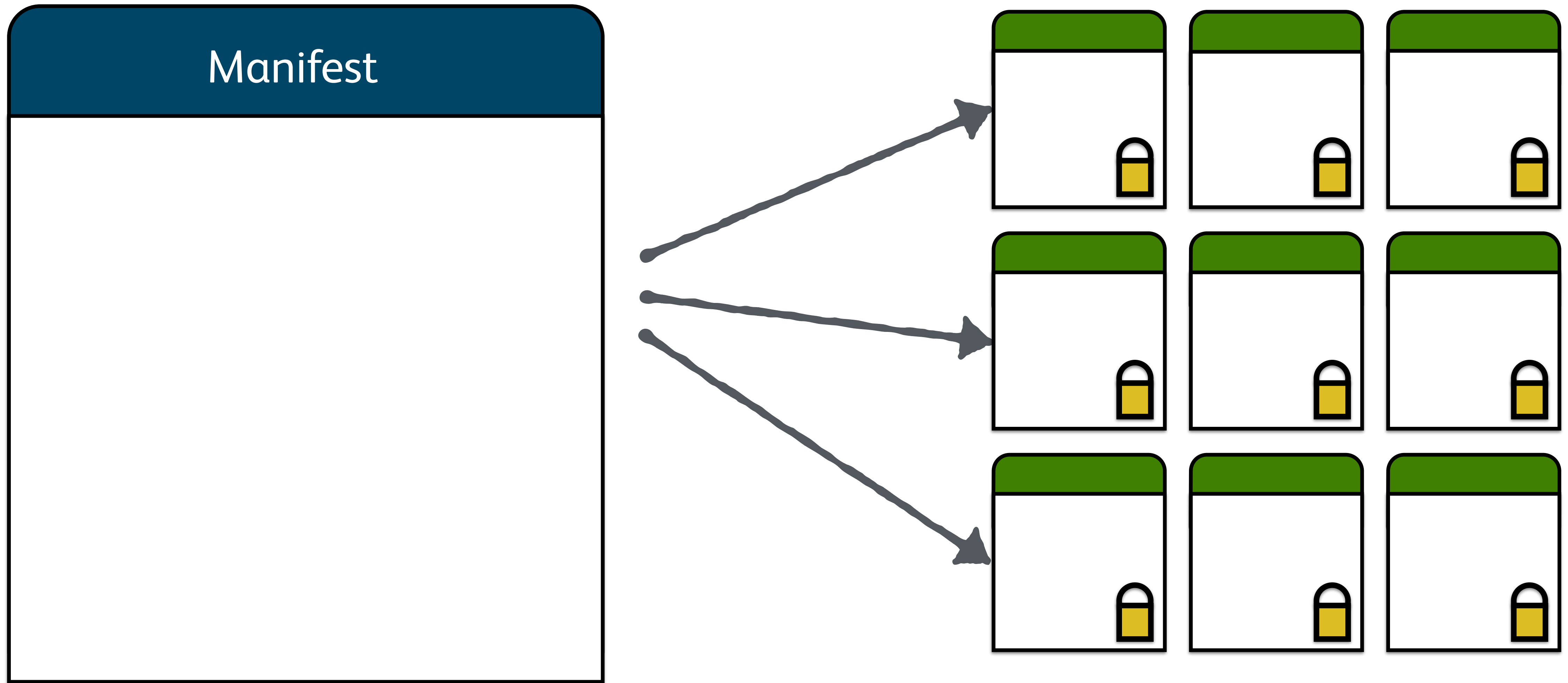
Security



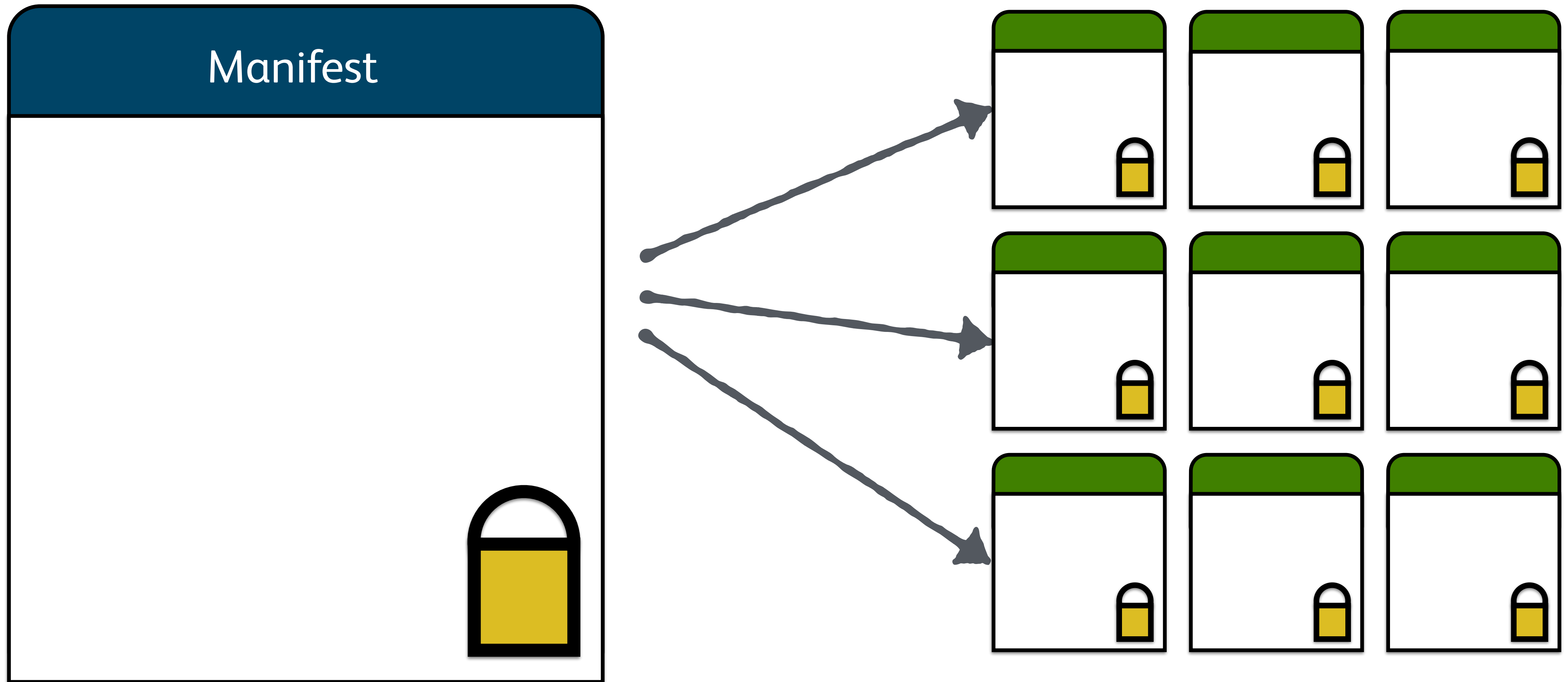
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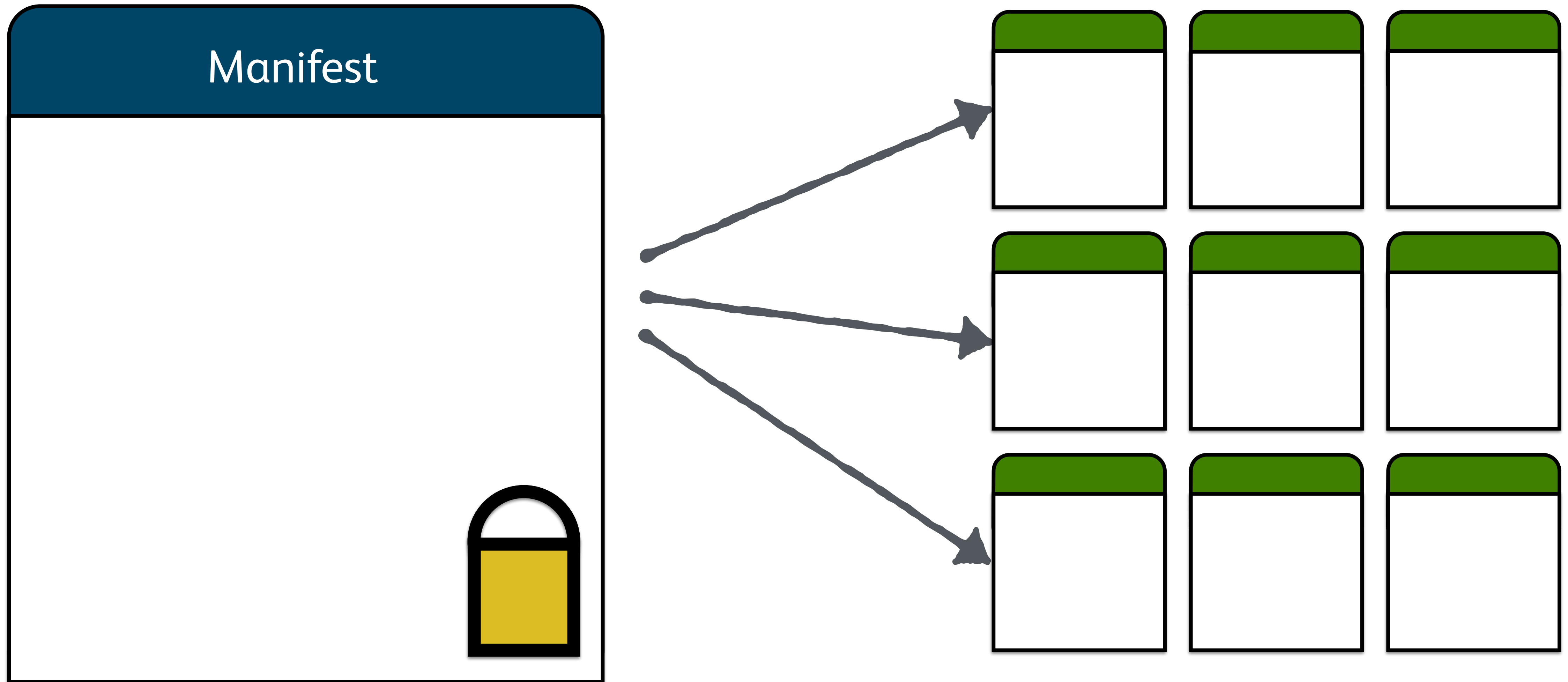
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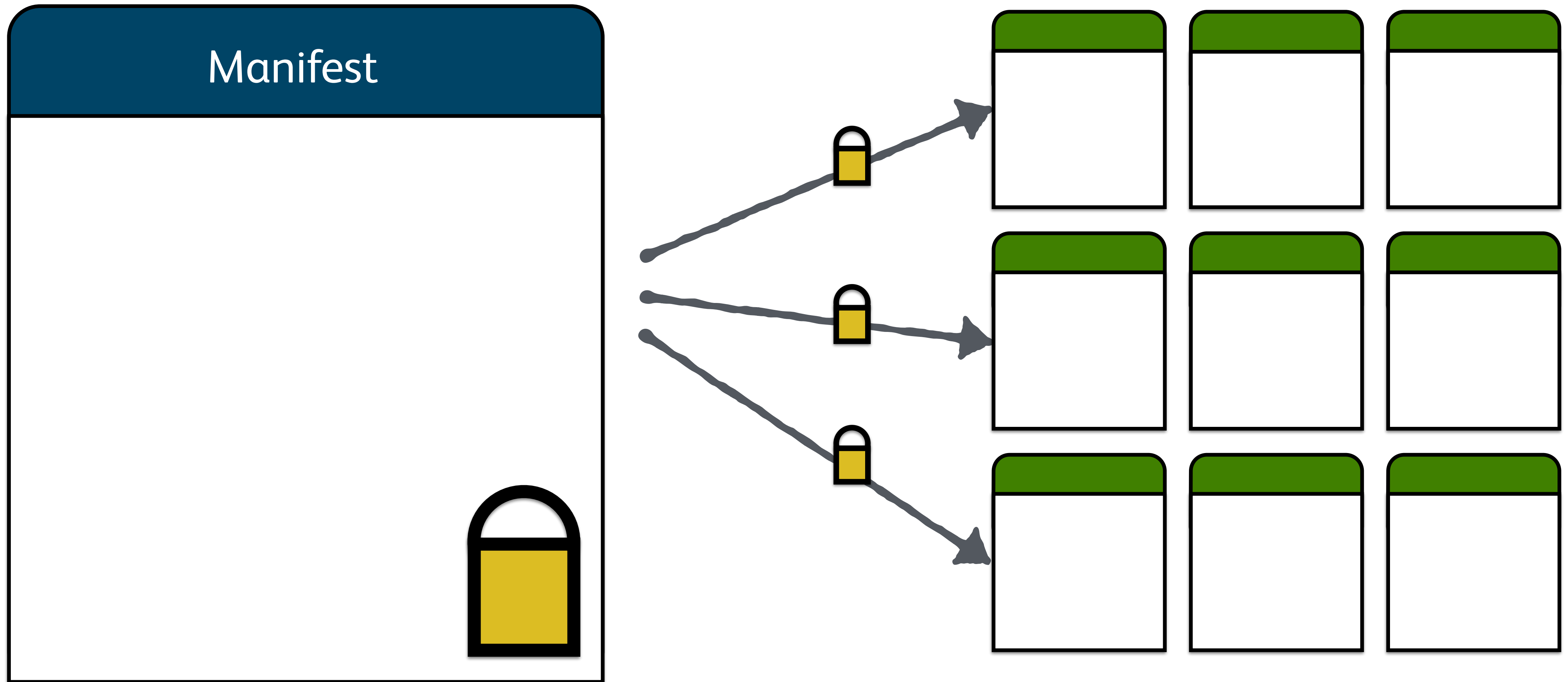
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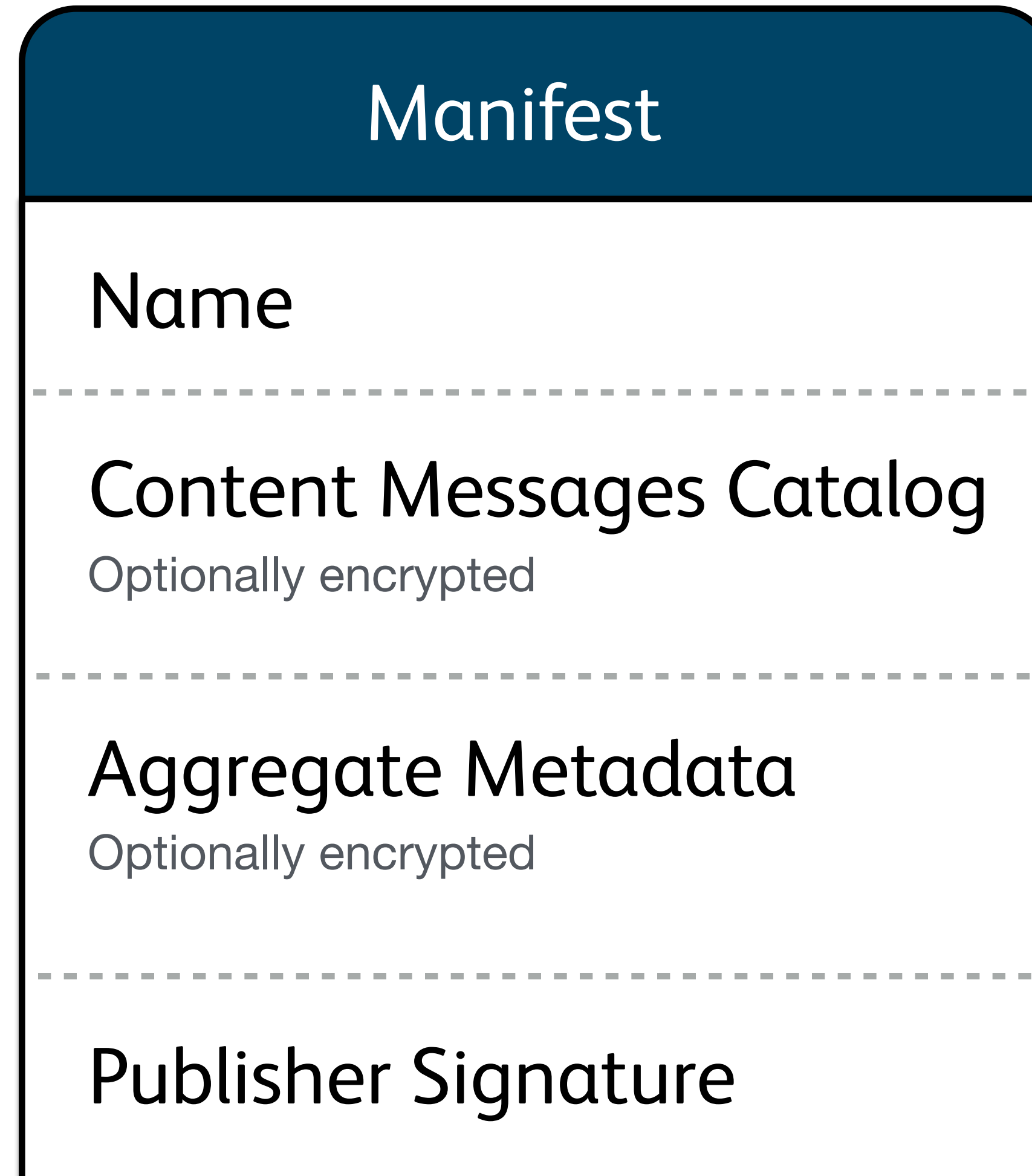
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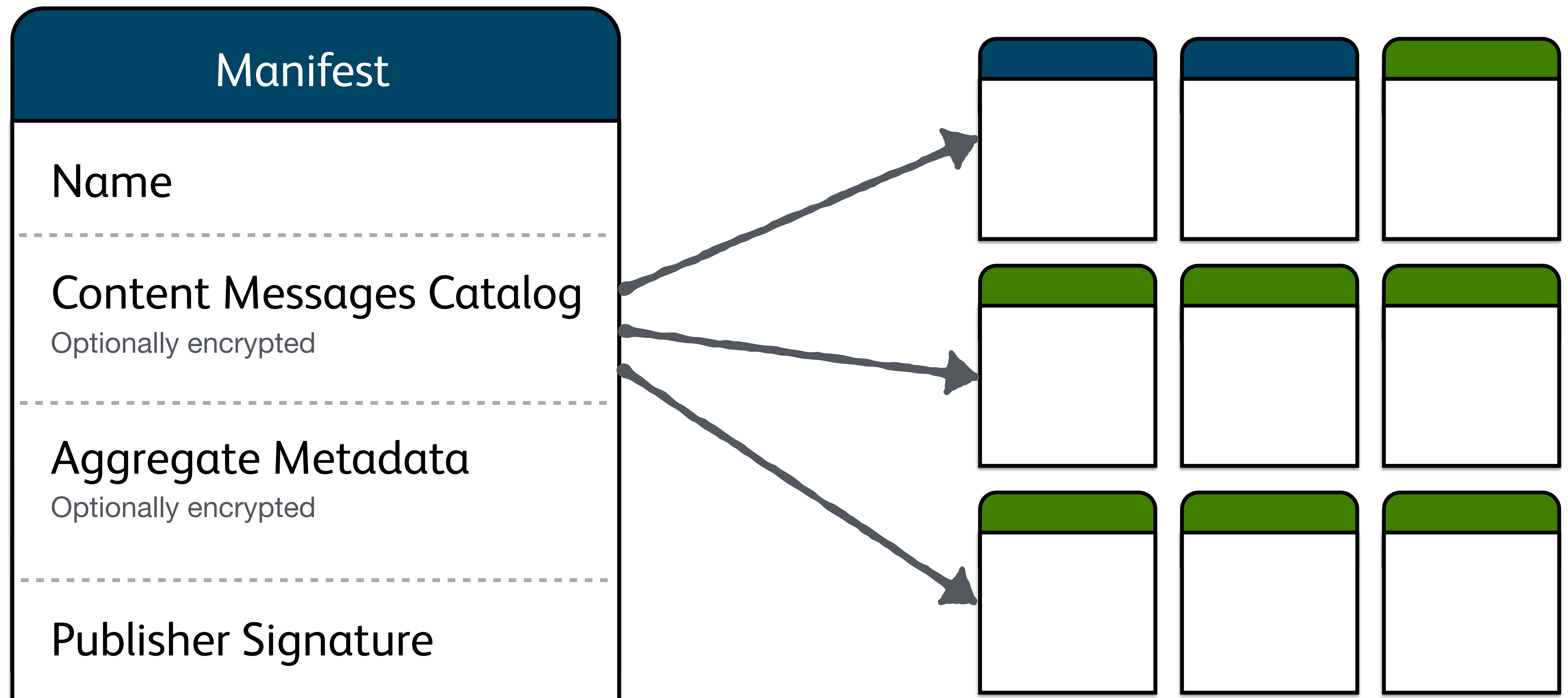
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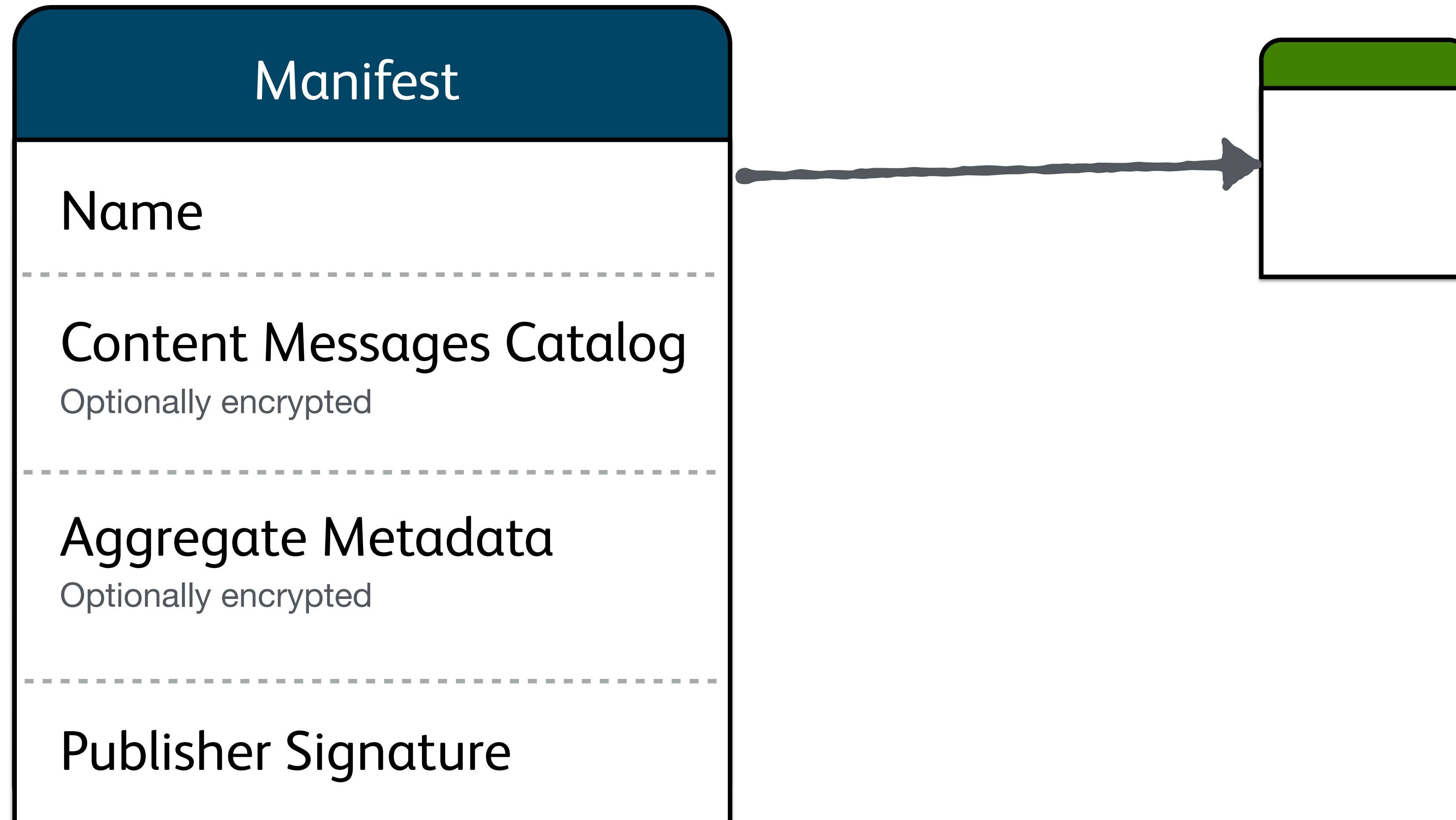
Manifest overview



Network data structures



Manifest naming



Manifest naming

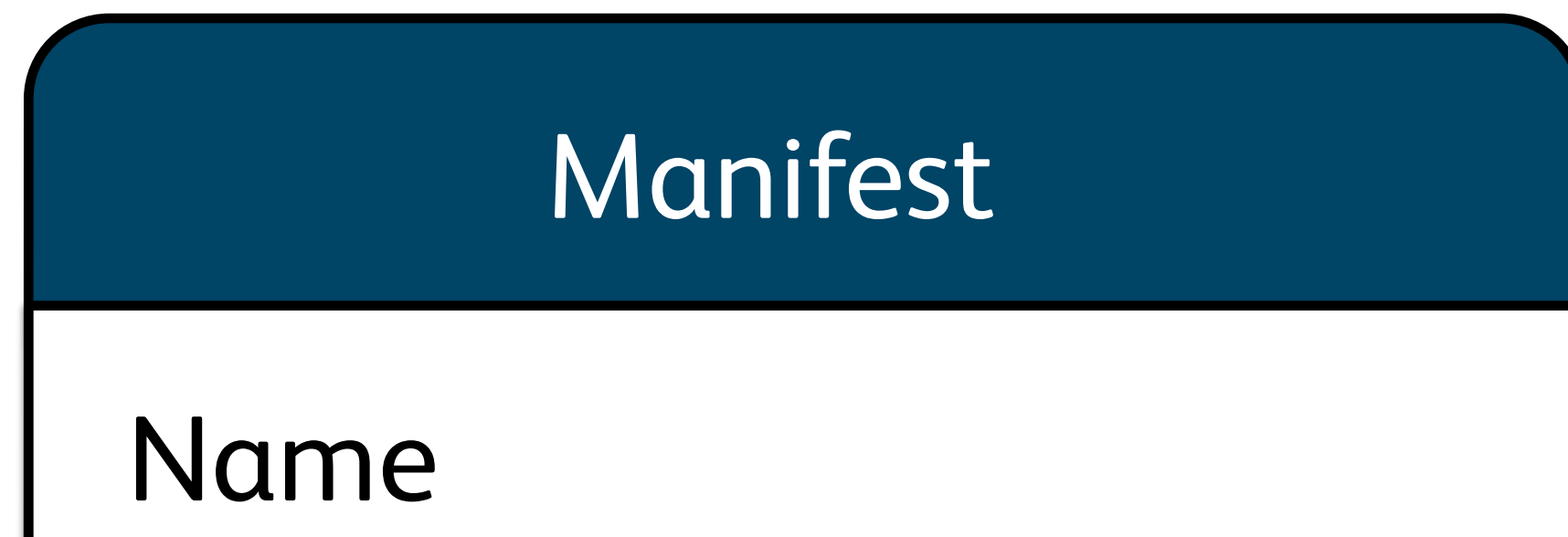
/parc/ccnxcon/program

/parc/ccnxcon/program/c=0

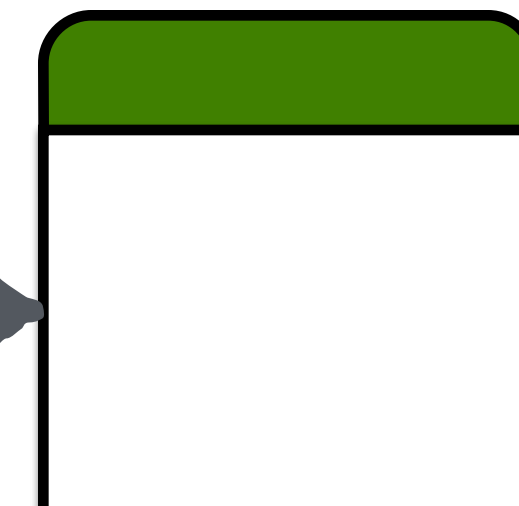
/parc/ccnxcon/program/c=1

/parc/ccnxcon/program/c=2

/parc/ccnxcon/program/c=3



/parc/ccnxcon/program/c=0 h(123)



Manifest naming

/parc/ccnxcon/program

/parc/ccnxcon/program/c=0 h(123)

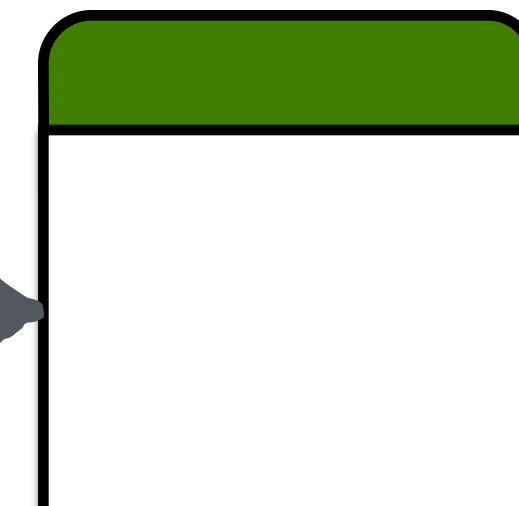
/parc/ccnxcon/program/c=1 h(456)

/parc/ccnxcon/program/c=2 h(789)

/parc/ccnxcon/program/c=3 h(abc)



/parc/ccnxcon/program/c=0 h(123)



Manifest naming - Indirection

/parc/ccnxcon/program

/ccnx/ccnxcon/program/c=0 h(123)

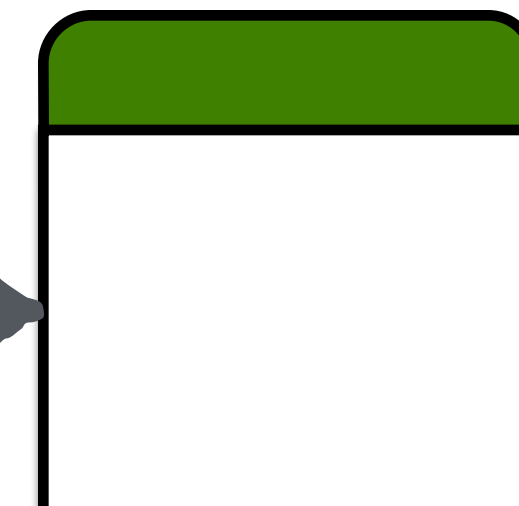
/ccnx/ccnxcon/program/c=1 h(456)

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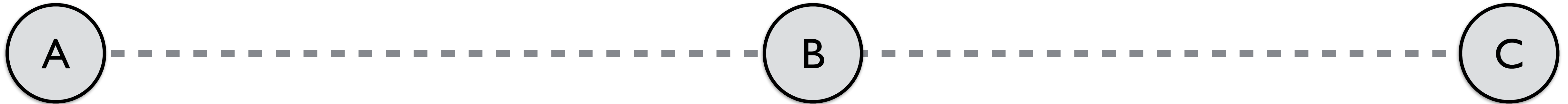
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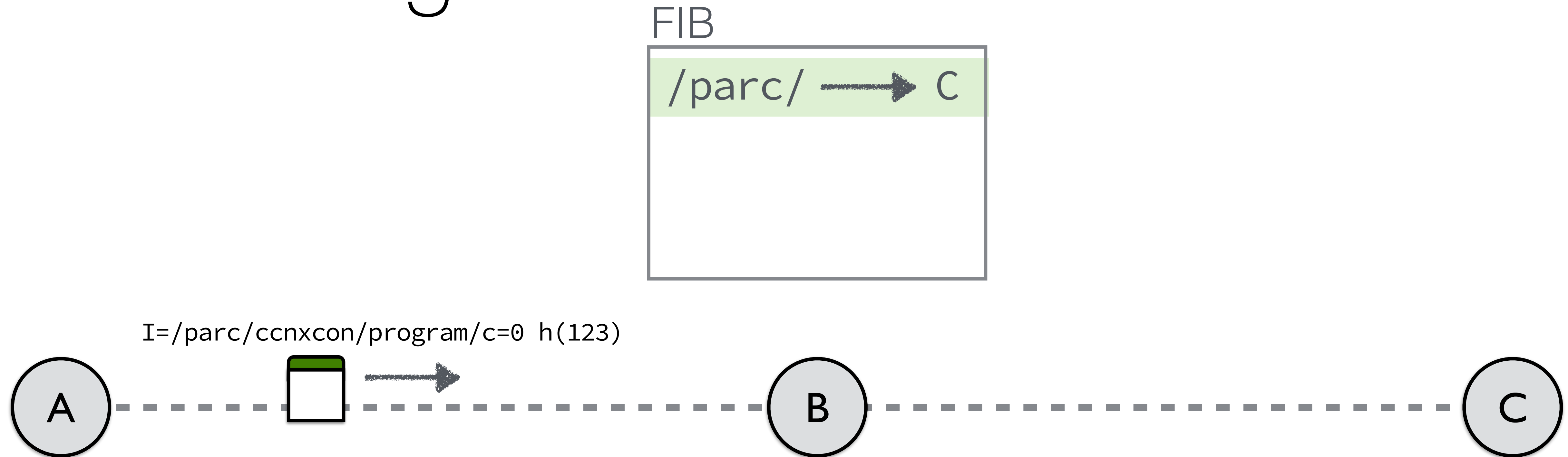
Forwarding

FIB

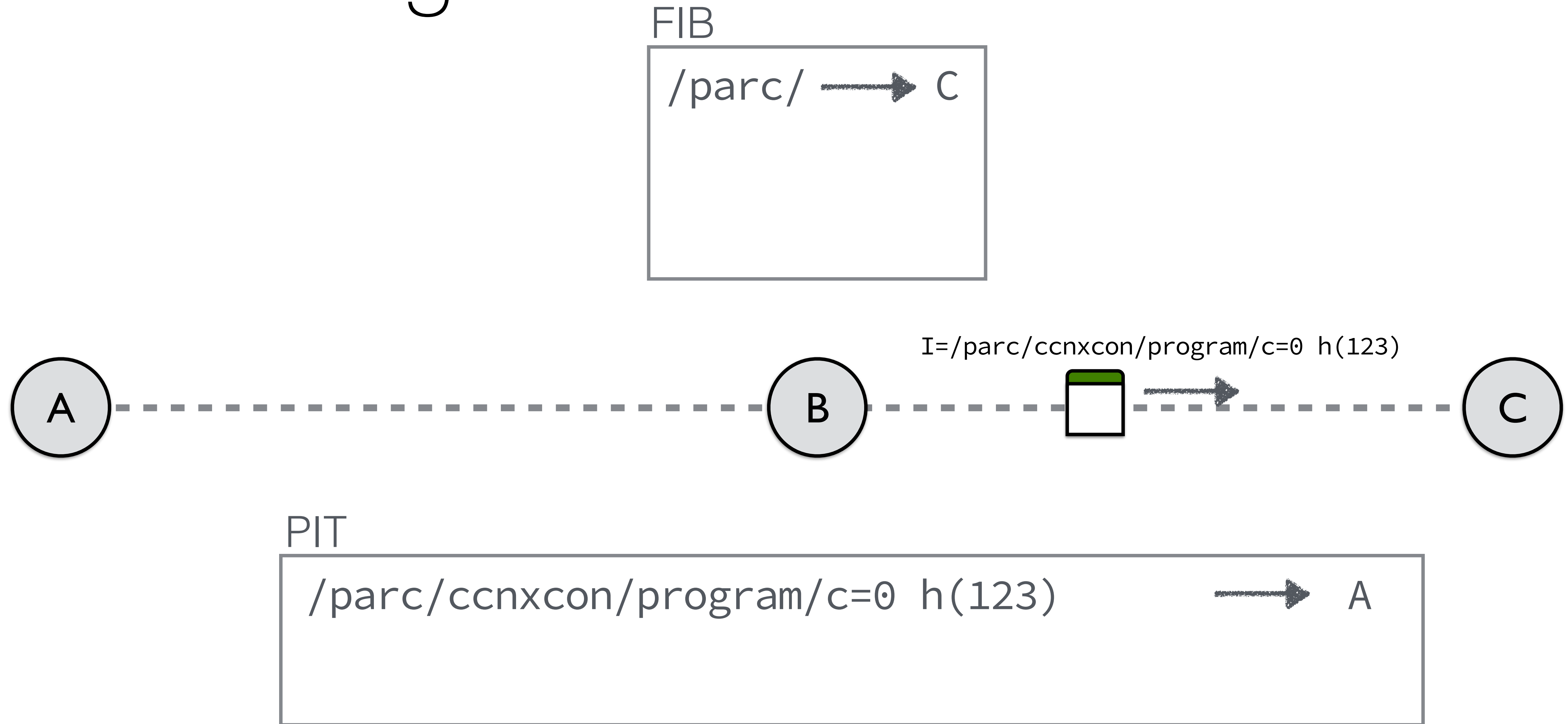
/parc/ → C



Forwarding



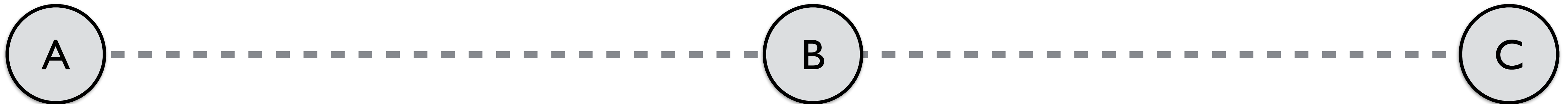
Forwarding



Forwarding

FIB

/parc/ → C

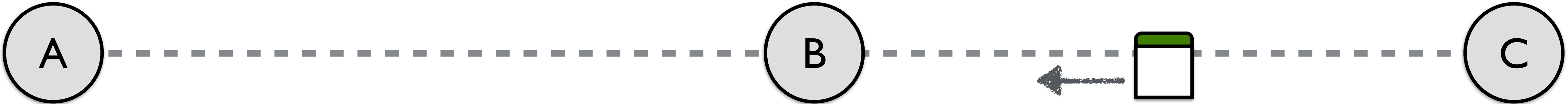
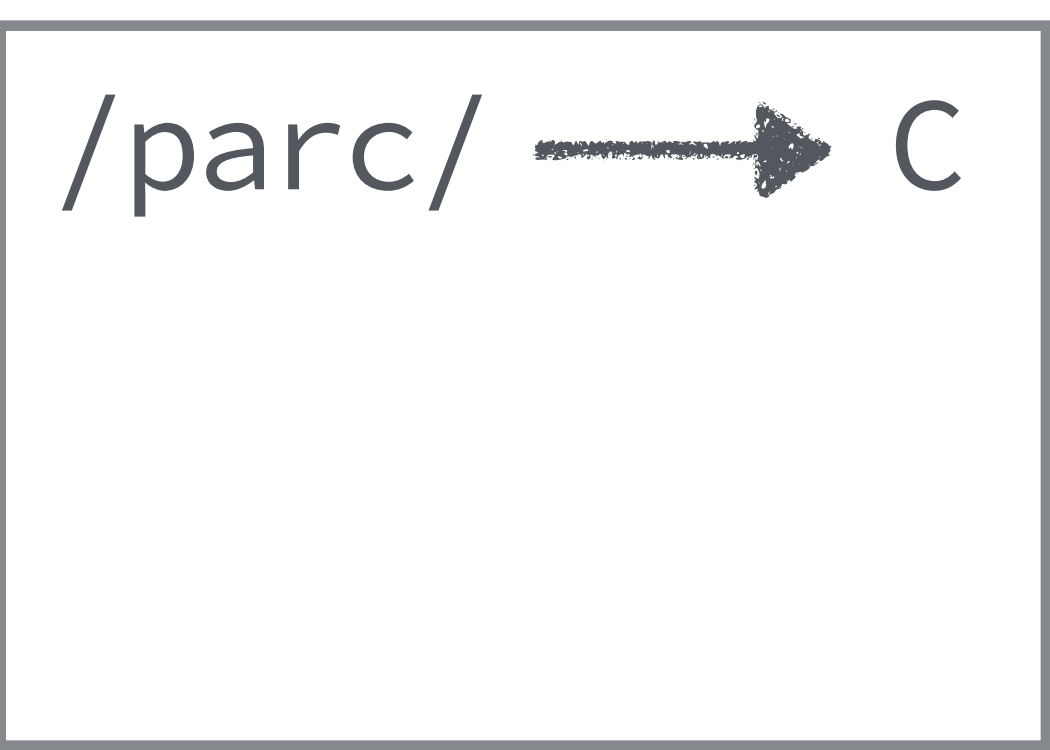


PIT

/parc/ccnxcon/program/c=0 h(123) → A

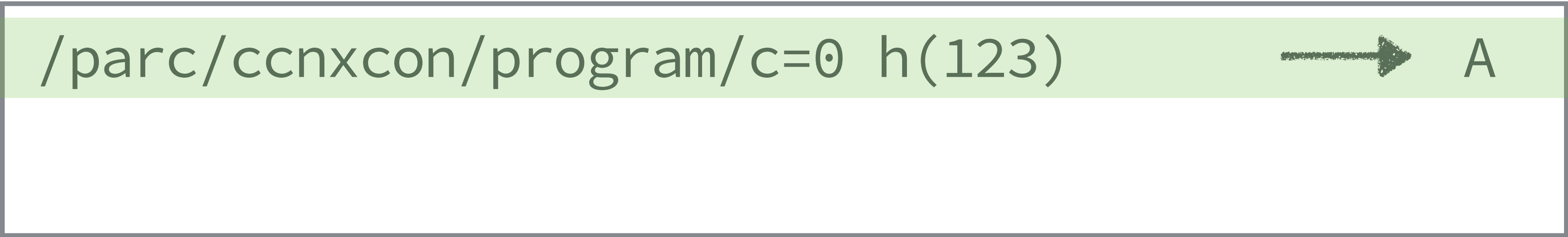
Forwarding

FIB



C0=/parc/ccnxcon/program/c=0 h(123)

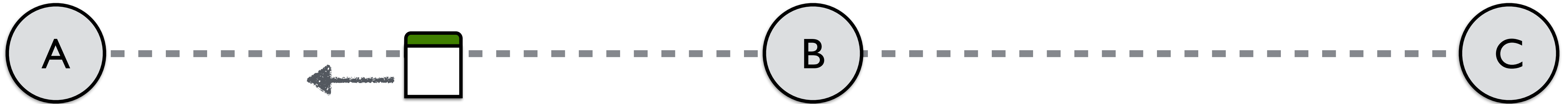
PIT



Forwarding

FIB

/parc/ → C



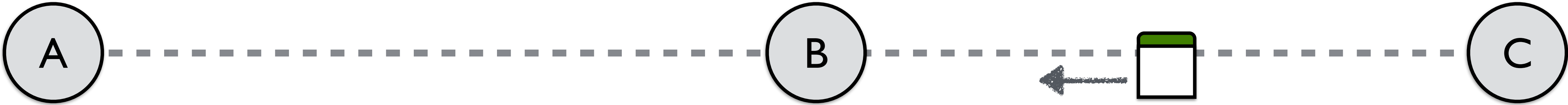
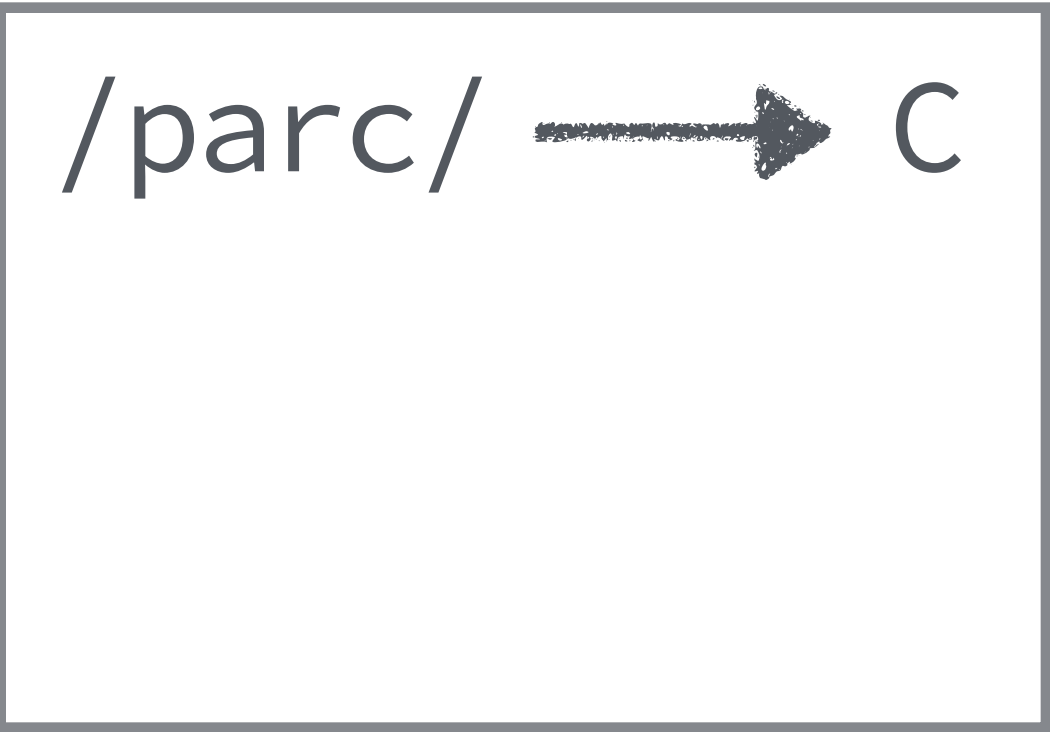
C0=/parc/ccnxcon/program/c=0 h(123)

PIT

~~/parc/ccnxcon/program/c=0 h(123) → A~~

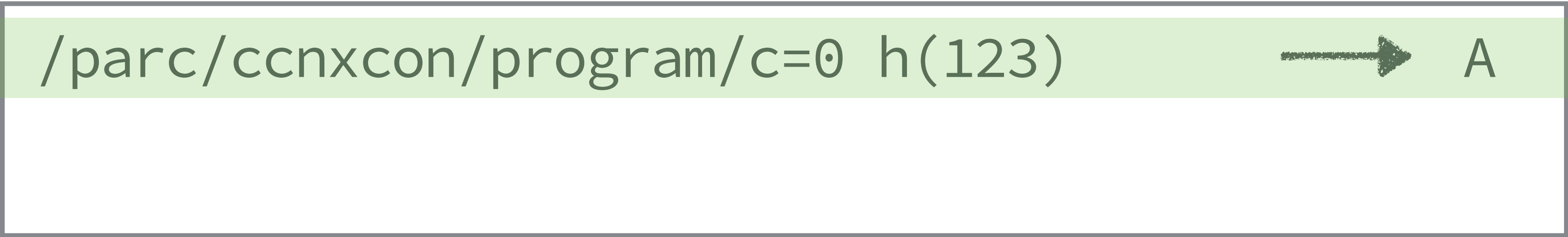
Forwarding

FIB

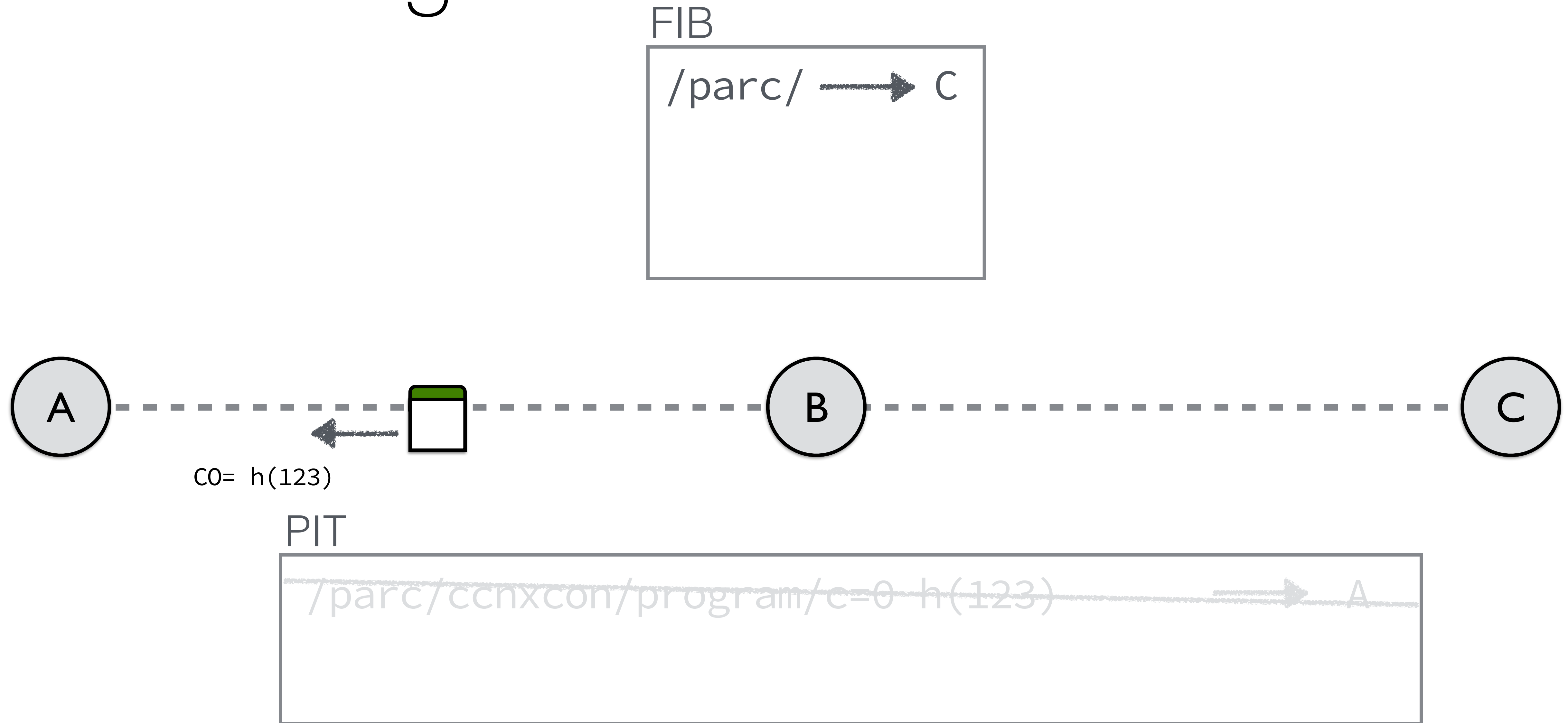


C0= h(123)

PIT



Forwarding



Manifest naming

/parc/ccnxcon/program

/parc/ccnxcon/program/c=0 h(123)

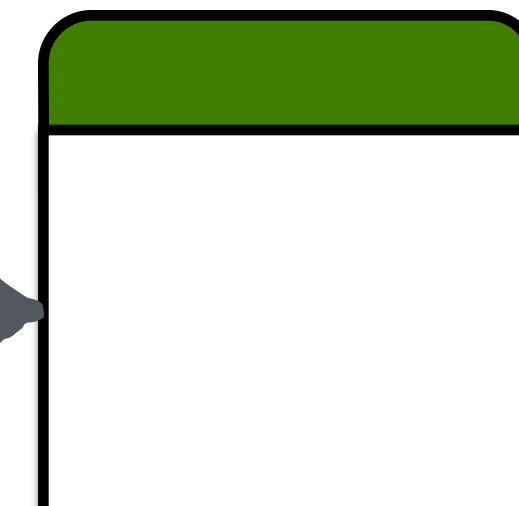
/parc/ccnxcon/program/c=1 h(456)

/parc/ccnxcon/program/c=2 h(789)

/parc/ccnxcon/program/c=3 h(abc)



/parc/ccnxcon/program/c=0 h(123)



Manifest naming

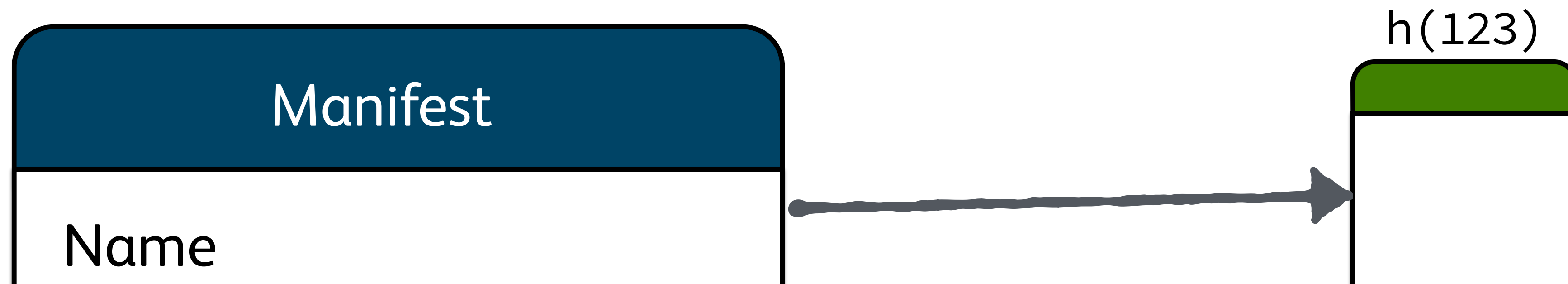
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/parc/ccnxcon/program/c=3 h(abc)



Manifest naming

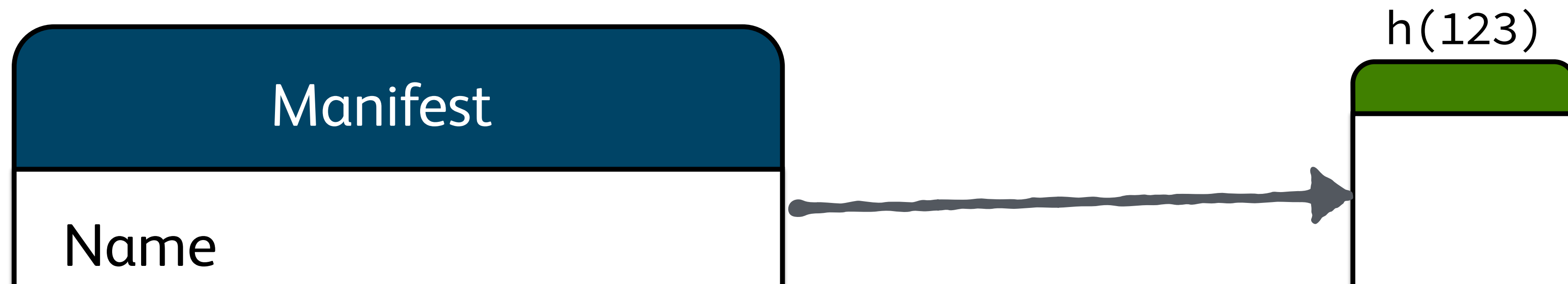
/parc/ccnxcon/program

/ccnx/ccnxcon/program/c=0 h(123)

/ccnx/ccnxcon/program/c=1 h(456)

/ccnx/ccnxcon/program/c=2 h(789)

/ccnx/ccnxcon/program/c=3 h(abc)



Manifest naming

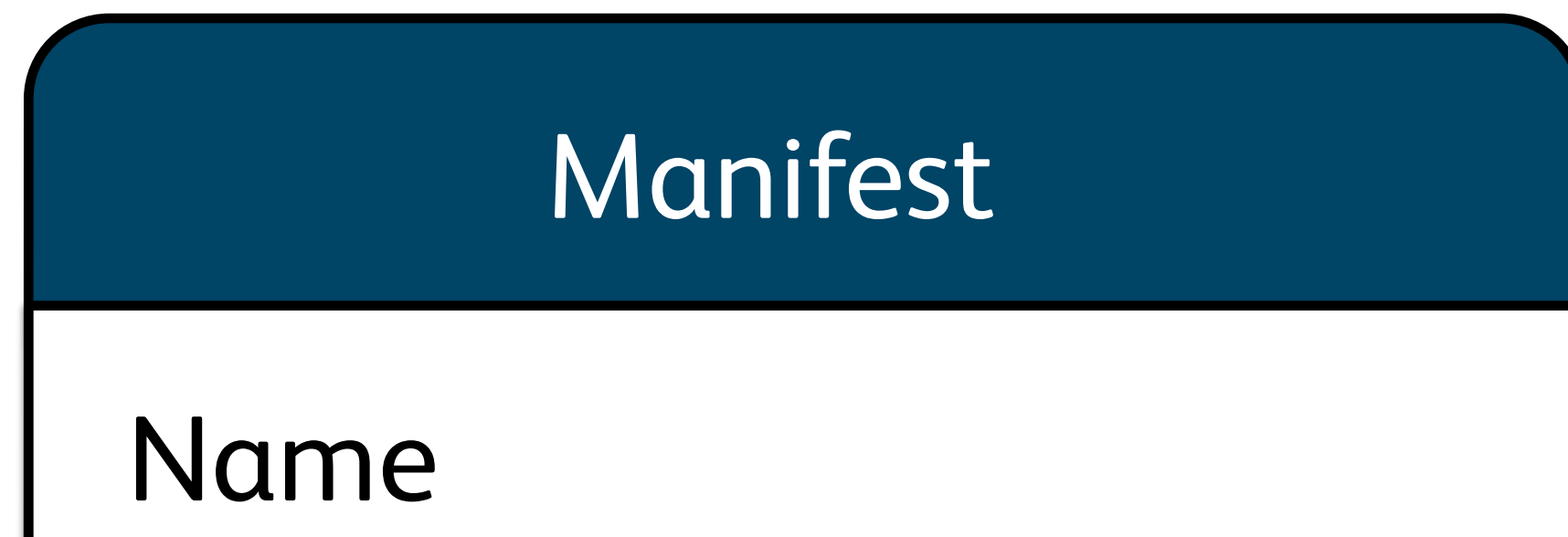
/parc/ccnxcon/program

/ccnx/ccnxcon/program h(123)

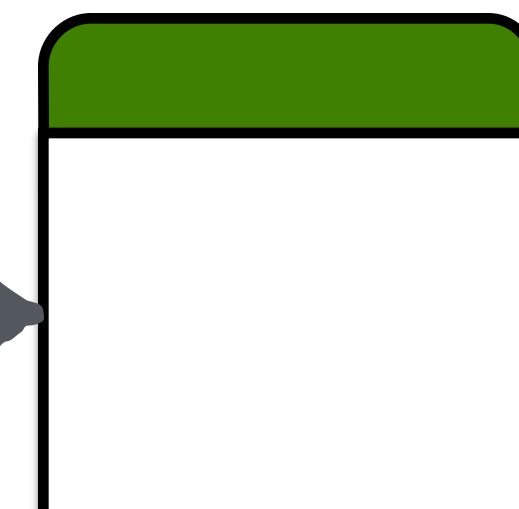
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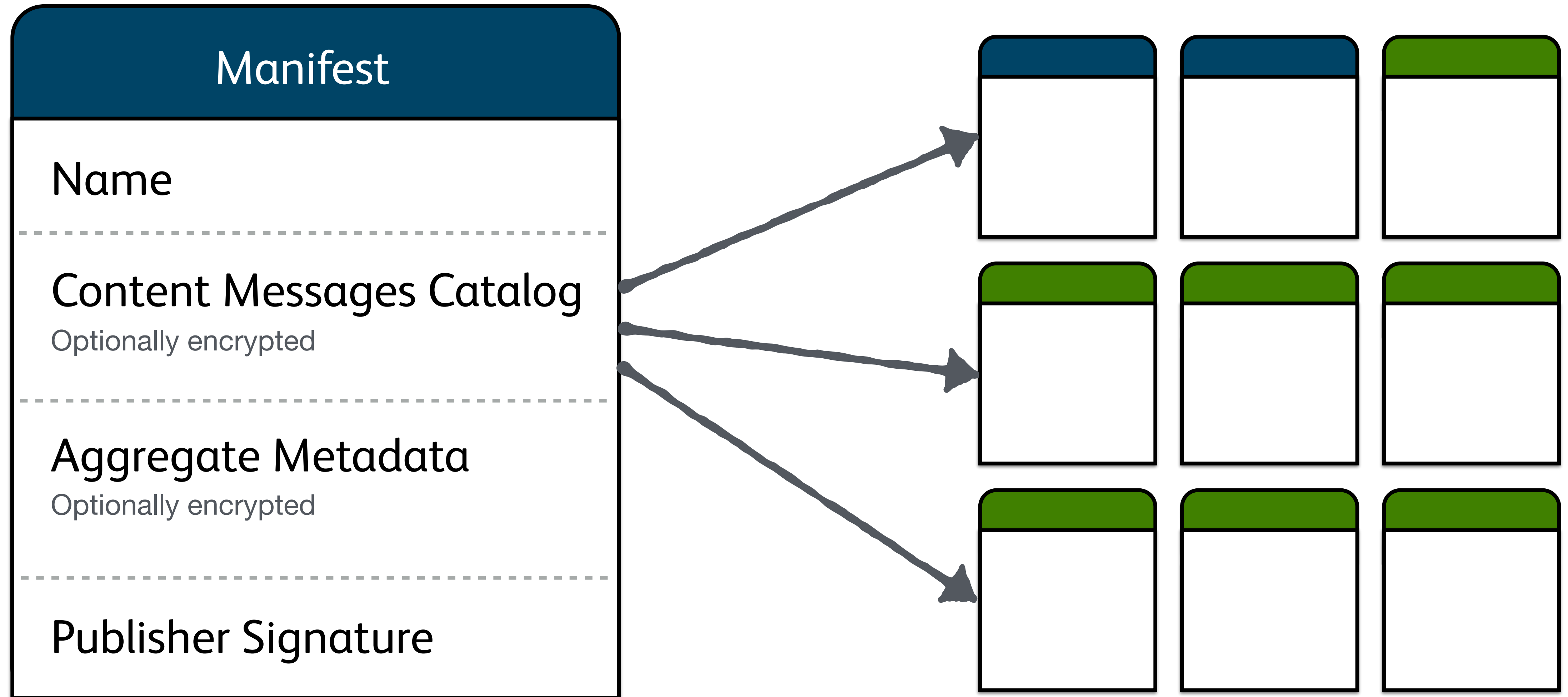
/ccnx/ccnxcon/program h(abc)



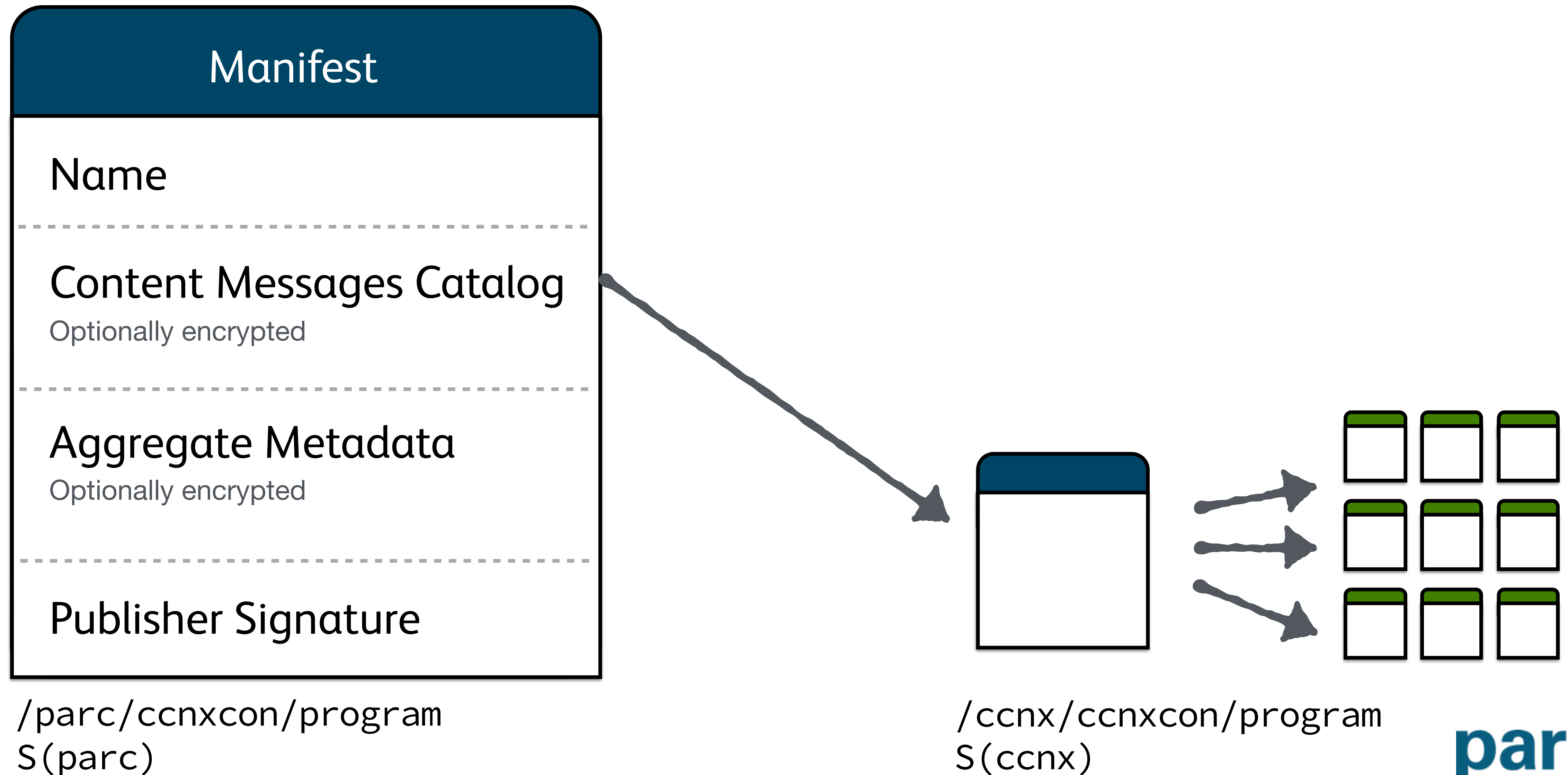
h(123)



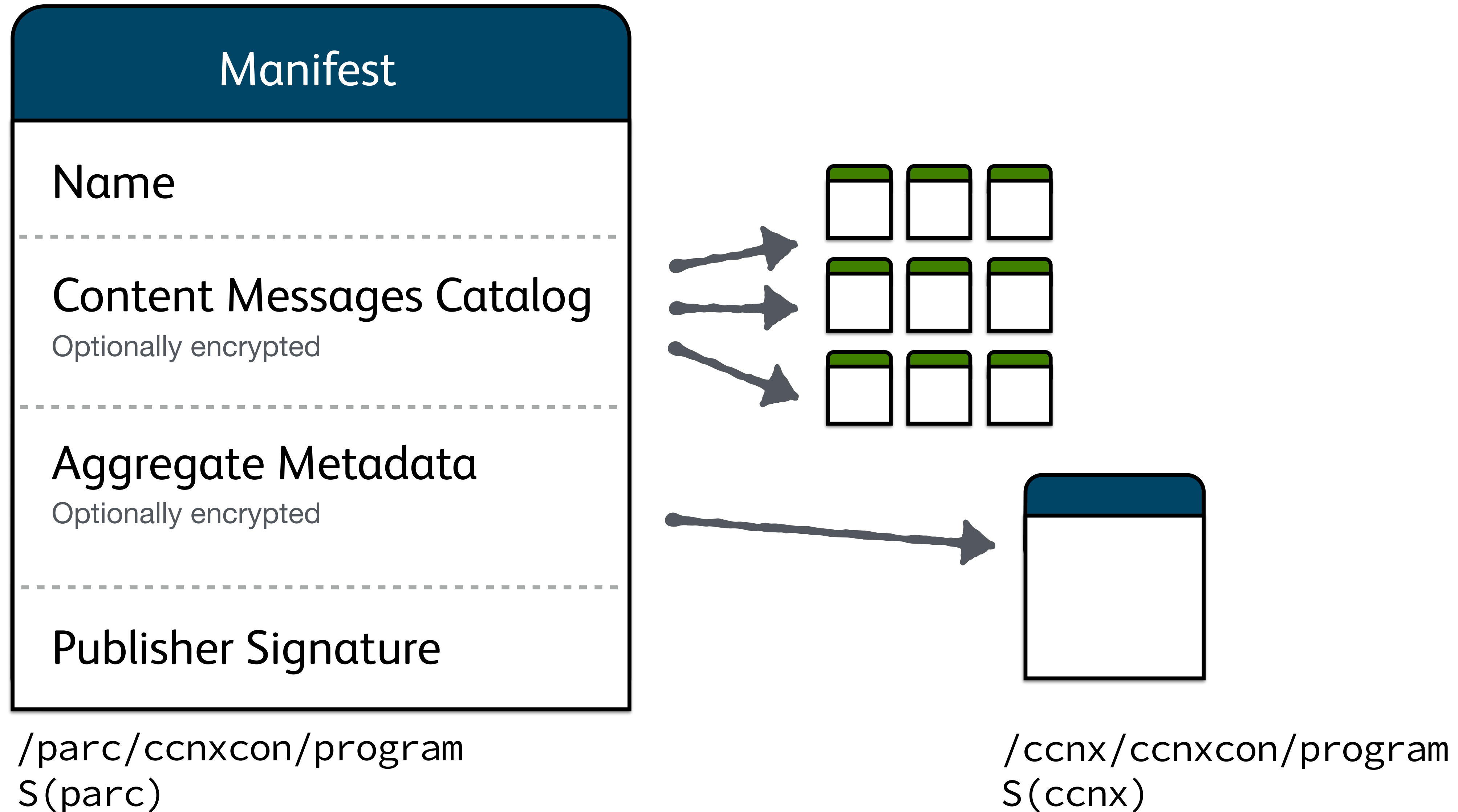
Manifest Security - Indirection



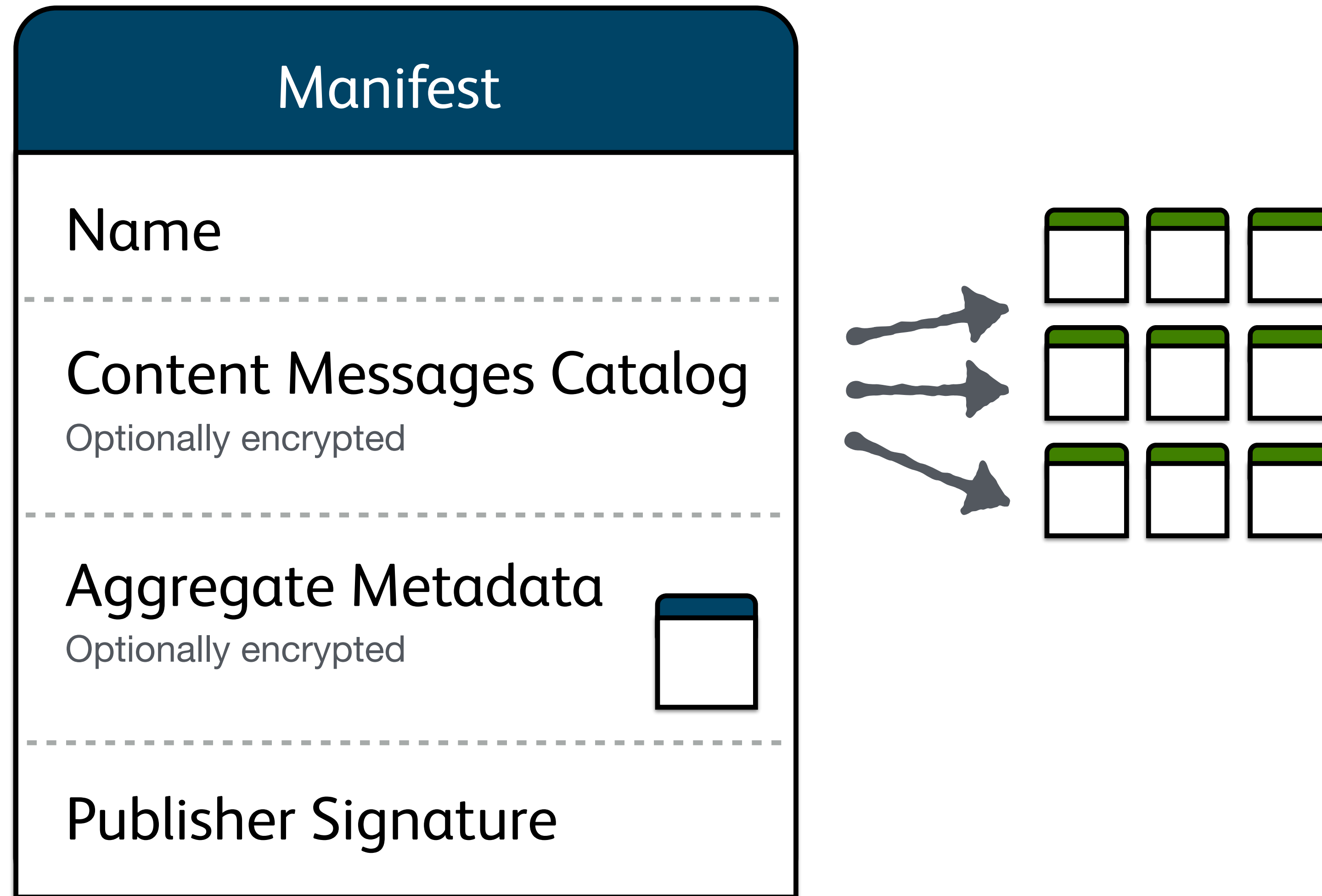
Manifest Security - Indirection



Manifest Security - Indirection



Manifest Security - Indirection



/parc/ccnxcon/program
S(parc)

Manifest specification

ICNRG

Internet-Draft

Intended status: Experimental

Expires: October 3, 2015

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G. Scott

I. Solis

C. Wood

PARC, Inc.

April 1, 2015

CCNx Manifest Specification
draft-wood-icnrg-ccnxmanifests-00

Abstract

This document specifies the usage, format, and wire representation of CCNx Manifests.

Status of This Memo

This Internet-Draft is submitted in full conformance with the provisions of BCP 78 and BCP 79.

Internet-Drafts are working documents of the Internet Engineering

Task Force (IETF). Note that other groups may also distribute

Manifests

