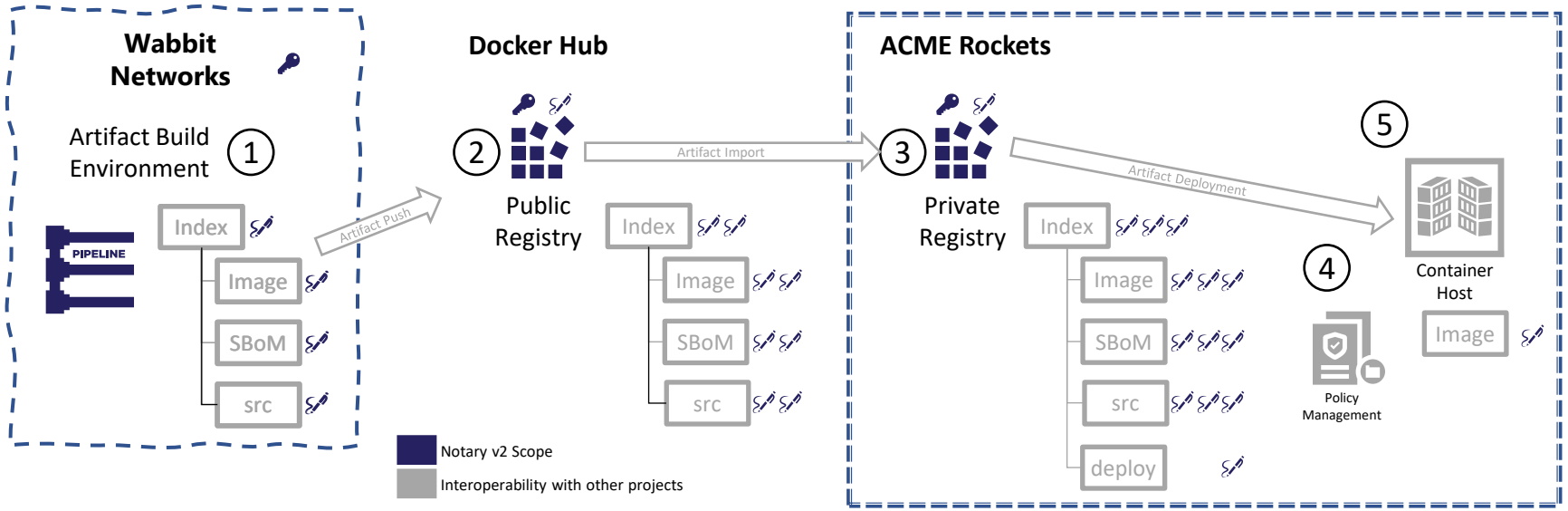
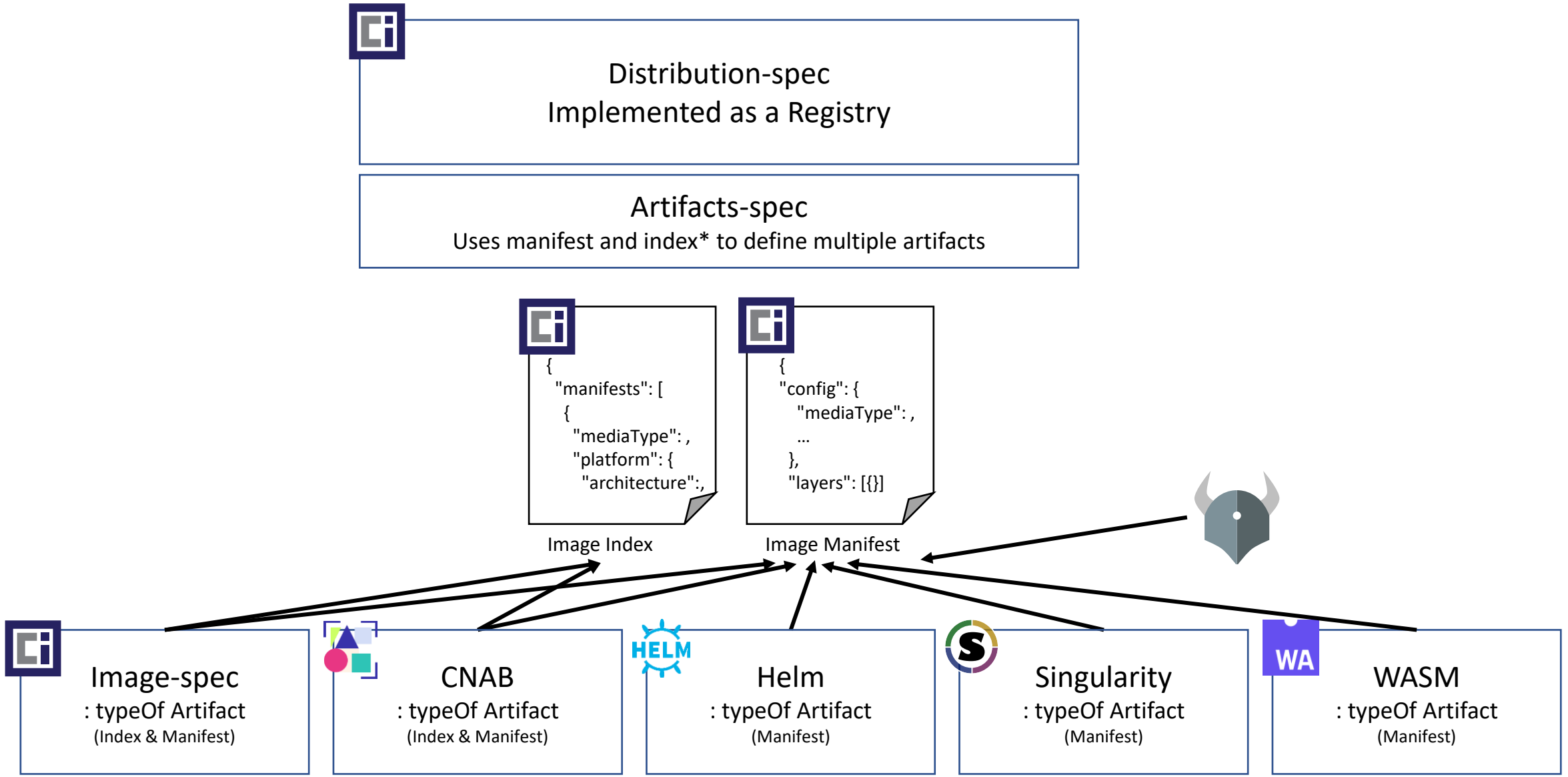
OCI Artifacts & Collections

OCI Weekly Call 9/30/2020



1. An entity authors content
   - signs their content with their key
2. Publish to a well-known location
   - May get certified by the aggregator
3. Consume the public content into an entity's private registry
   - Add a verification signature, attesting to its usage in the company
4. Policy management enforces which keys can be used for deployment, even what registries content can be pulled from
5. Only after all signatures and policies are verified can the artifact be deployed


Distribution-spec
Implemented as a Registry
Artifacts-spec
Uses manifest and index* to define multiple artifacts
{
"manifests": [
{
"mediaType": ,
"platform": {
"architecture":,
{
"config": {
"mediaType": ,
…
},
"layers": [{}]
Image Index
Image Manifest
Image-spec
: typeOf Artifact
(Index & Manifest)
CNAB
: typeOf Artifact
(Index & Manifest)
HELM
Helm
: typeOf Artifact
(Manifest)
Singularity
: typeOf Artifact
(Manifest)
WA
WASM
: typeOf Artifact
(Manifest)

Distribution Persistence Types

Individual Types

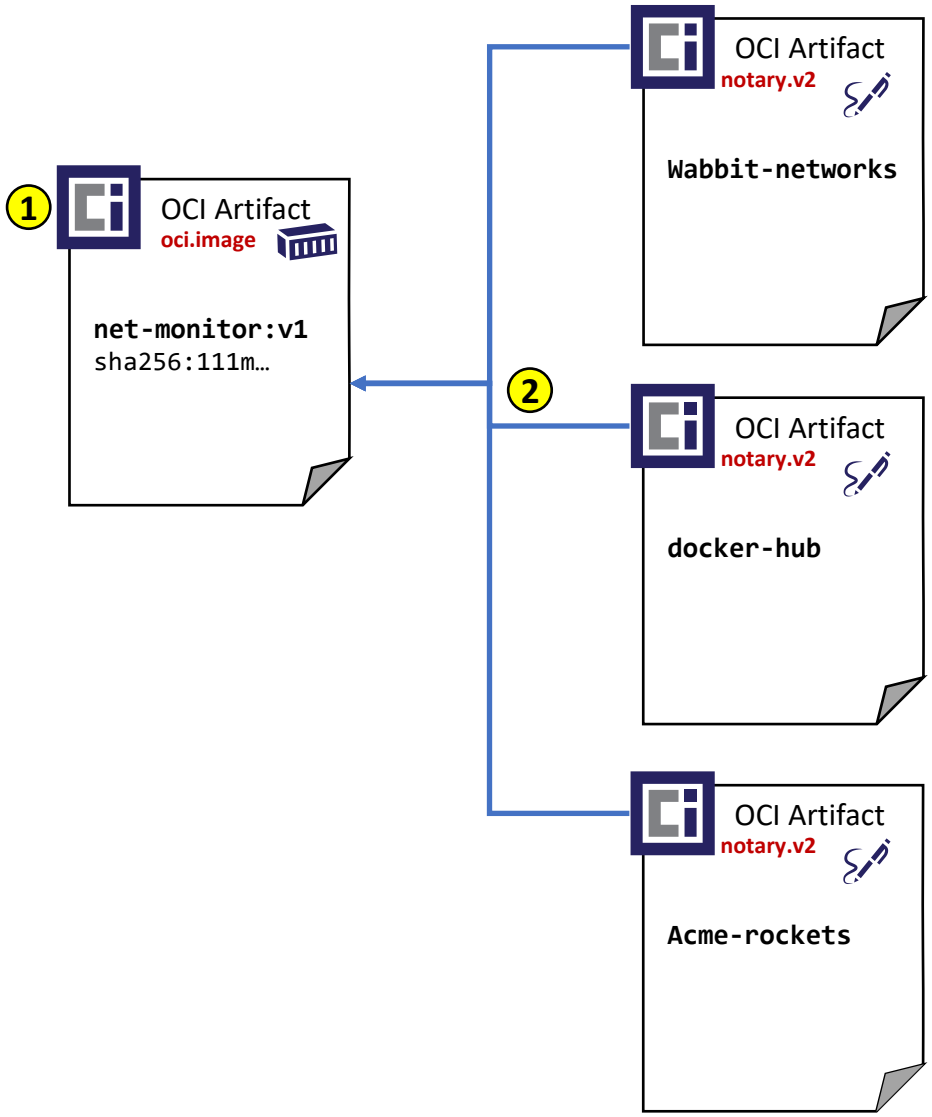
- Container Images
- Singularity Images
- WASM modules
- Helm Charts
- Terraform
- Azure Resource Manager Templates
- AWS Cloud Formation Templates

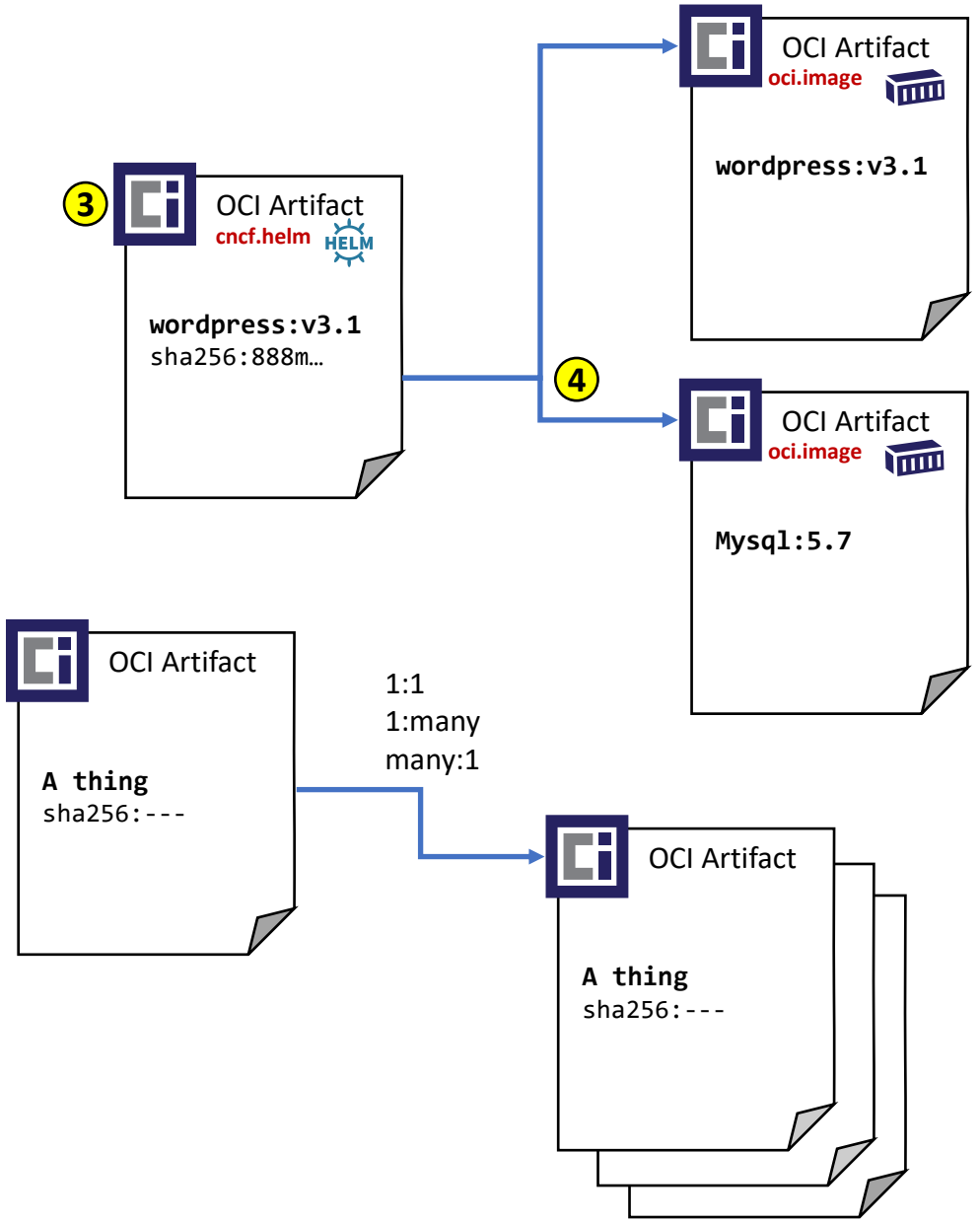
Collection Types

- Multi-arch index
- CNAB
- Signatures?

Artifacts that reference other artifacts
Not “collections” of artifacts, but a collection of references

Reference Types





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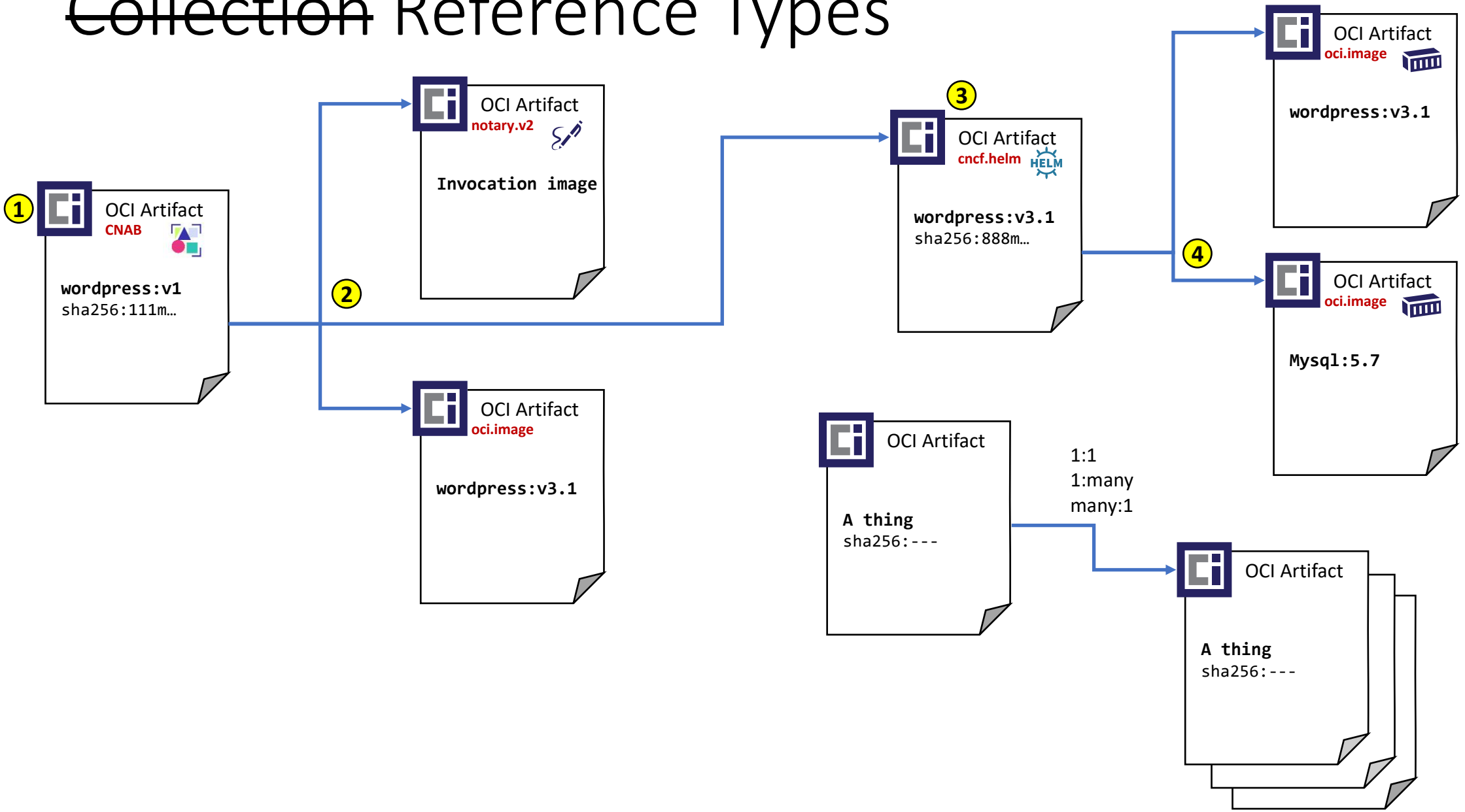
~~Collection~~ Reference Types



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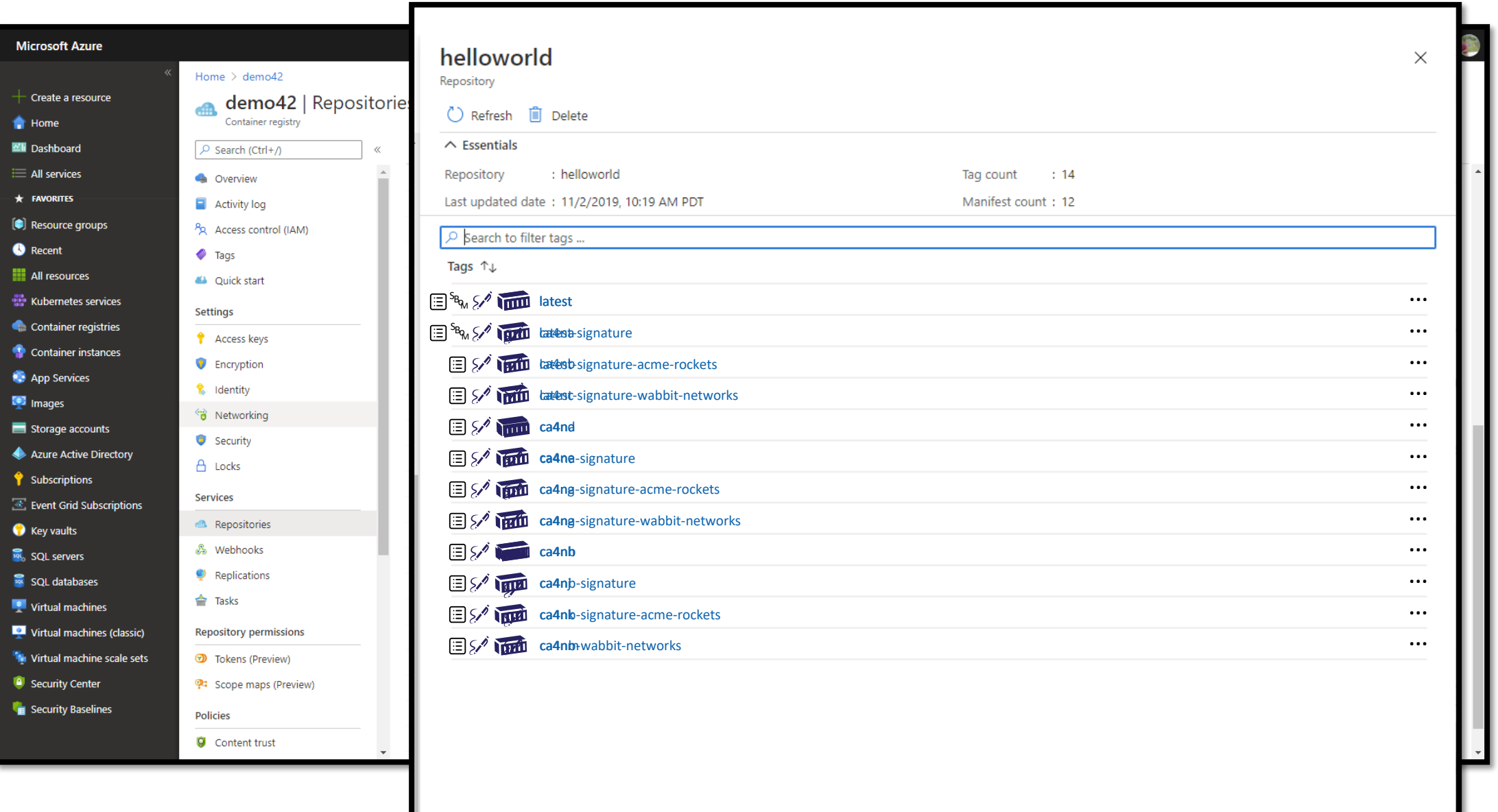
Is a signature an Artifact,
or an Attribute of an artifact?

What should be seen?



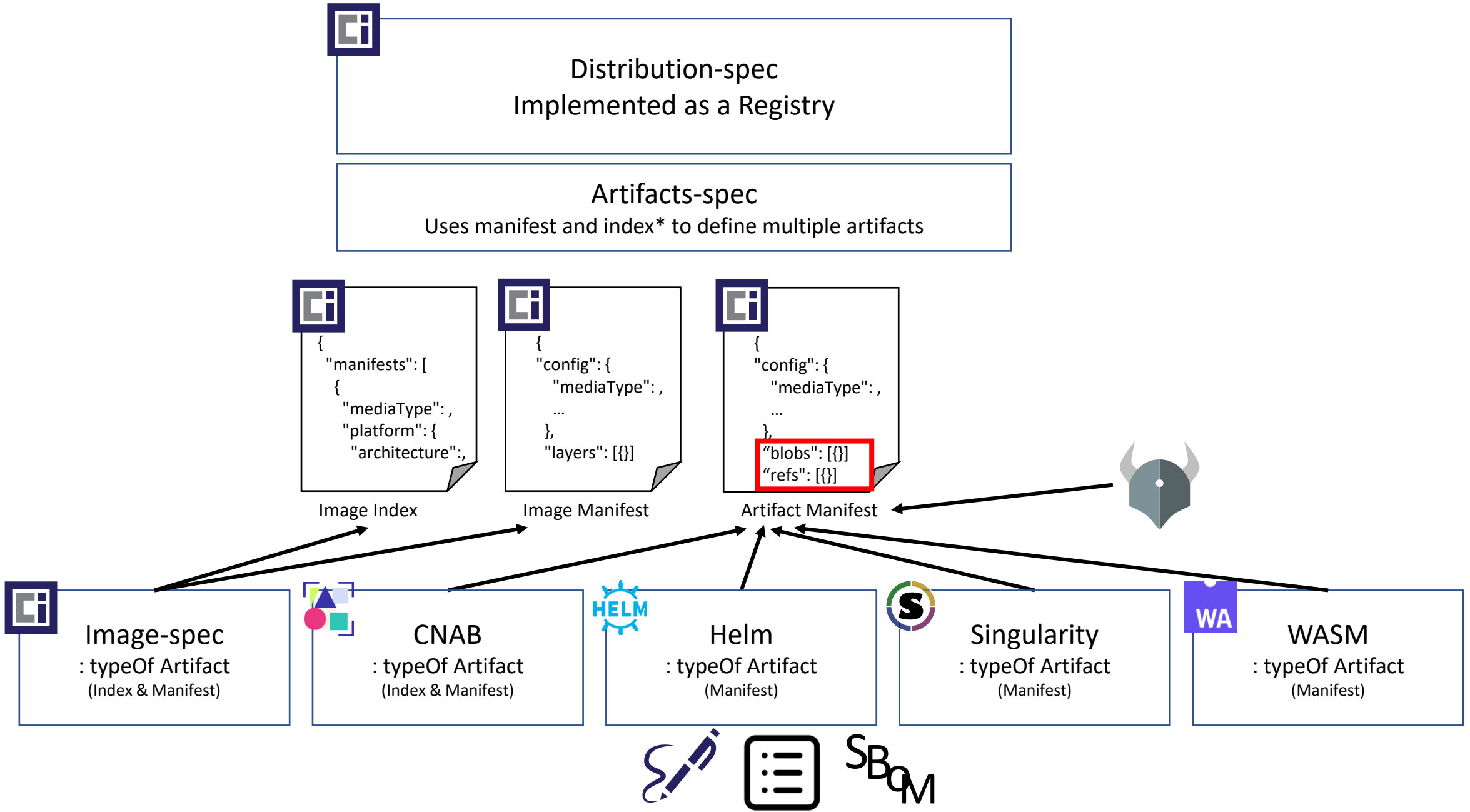
Distribution Persistence – Meta-data Services

Artifacts

- Container Images
- Singularity Images
- WASM modules
- Helm Charts
- Terraform Templates
- Azure Resource Manager Templates
- AWS Cloud Formation Templates
- CNAB

Meta-data

- Signatures
- SBoMs
- Vulnerability Summaries
- Hub –esque Docs/Descriptions
- LastTag
- TagHistory
- PullCount
- LastPullDate
- ExpirationDate
- DeployedTo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“refs”: [{}]
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