XYO Network Encodings: Core Objects

0x02

August, 2018

1 Bound Witness (0x01)

A bound witness in the XYO Network.

Name	Type	Description
Total Size	Unsigned Int	Size of Entire Bound Witness
Public Keys	Array(0x02)$< KeySet >$	A keyset for every party in the bound witness.
Payloads	Array(0x03)$< Payload >$	A payload for every party in the bound witness.
Signatures	Array(0x02)$< SignatureSet >$	A SignatureSet for every party in the bound witr

2 KeySet (0x02)

A set of public keys for a single party.

Name	Type	Description
Keys	Array(0x05)	A multi-typed array of public keys.

3 SignatureSet (0x03)

A set of signatures for a single party.

Name	Type	Description
Signatures	Array(0x05)	A multi-typed array of signatures.

4 Payload (0x04)

A payload contains a set of unsigned and signed Heuristics.

Name	Type	Description
Total Size	Unsigned Int	Total size of Payload
Signed Heuristics	Array(0x06)	An multi-typed array of heuristics
Unsigned Heuristics	Array(0x06)	An multi-typed array of heuristics

5 Index (0x05)

The index in an origin block.

Name	Type	Description
Index	Unsigned integer	the index in the origin chain

6 Previous Hash (0x06)

The previous hash in an origin chain.

Name	Type	Description
Hash Type Major	Byte	Hash Type
Hash Type Minor	Byte	Hash Type
Hash	Inferred above	the previous hash

7 Next Public Key (0x07)

The next public key to use in an origin chain.

Name	Type	Description
Public Key Type Major	Byte	Public Key Type
Public Key Type Minor	Byte	Public Key Type
Next Public Key	Inferred above	The next public key in an origin chain.

8 Origin Block(s) Hash Set (0x08)

A set of hashes that point to origin blocks.

Name	Type	Description
Hashes	Array(0x05)	A multi-element array of hashes.

9 Origin Block Set (0x09)

A set of origin blocks.

Name	Type	Description
Blocks	Array(0x03)	A single-element array of bound witnesses.

10 Bound Witness Transfer (0x0a)

Data being sent when creating a bound witness.

10.1 Header

Name	Type	Description
Size	4 bytes	size of the Bound Witness Transfer.
Stage	Byte	The stage of the Bound Witness Transfer.

10.2 Stage: 0x01

Name	Type	Description
Public Keys	Array(0x02)$< KeySet >$	Transferring KeySets.
Payloads	Array(0x03)$< Payload >$	Transferring payloads.

10.3 Stage: 0x02

Name	Type	Description
Public Keys	Array(0x02)$< KeySet >$	Transferring KeySets.
Payloads	Array(0x03)$< Payload >$	Transferring payloads.
Signatures	Array(0x02)$< SignatureSet >$	Transferring SignatureSets.

10.4 Stage: 0x03

Name	Type	Description
Signatures	Array(0x02)$< SignatureSet >$	Transferring SignatureSets.