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Methods

Smart contract types

1. listSmartContactTemplates: R[CollectionSmartContractTemplate]
2. getSmartContractTemplate(smartContractTemplateId: Bytes): RSmartContractTemplate
3. registerSmartContractTemplate(feeds: Collection[XFeedType], description: CollectionDescriptionField, attributes: Collection[XFieldMeta], stateModel: Collection[XFieldMeta], classImplementation: String): R[TxResultSmartContractTemplate]

Smart contracts

1. listSmartContracts: R[CollectionSmartContractInfo]
2. createSmartContract(address: Bytes, templateAddress: Bytes, dataFeeds: Collection[Bytes], regulators: Collection[RegulationCapabilities], attributes: Collection[String]): R[TxResultSmartContract]
3. getSmartContractState(address: Bytes): RSmartContractState
4. approveSmartContract(address: Bytes): R[TxResult[Unit]]
5. rejectSmartContract(address: Bytes): R[TxResult[Unit]]
6. onSmartContractListChanged(wallet: CNFTWalletSpec, smartContractAdded: CollectionSmartContract): R[Unit]
7. onSmartContractStateUpdated(wallet: CNFTWalletSpec, smartContractState: CollectionSmartContractState): R[Unit]
8. onSmartContractRegulationUpdated(wallet: CNFTWalletSpec, smartContractRegulation: CollectionSmartContractRegulation): R[Unit]
9. onSmartContractRegulationApplied(wallet: CNFTWalletSpec, toRegulate: Collection[Bytes]): R[Unit]
10. onSmartContractRejected(wallet: CNFTWalletSpec, rejected: CollectionSCRejectedResult): R[Unit]

Tokens

1. issue(requests: CollectionIssueTokenRequest): R[TxResult[Unit]]
2. listTokens: CollectionWalletToken
3. sendToken(dealId: String, tokenIds: Collection[TokenId], to: Bytes): R[TxResult[Unit]]
4. burnToken(burnTokenRequest: BurnRequest): R[TxResult[Unit]]
5. onTokenListChanged(wallet: CNFTWalletSpec, tokensAdded: Collection[TokenId], tokensRemoved: Collection[TokenId], tokensFrozen: Collection[FreezeTokenEvent]): R[Unit]

Addresses

1. createAddress: R[Bytes]
2. createSingleOwnerAddress: R[TokenOwner]
3. createSmartContractAddress: R[Bytes]

Feeds

1. registerDataFeed(description: CollectionDescriptionField, fields: CollectionFieldMeta): R[TxResultDataFeed]
2. listDataFeeds: R[CollectionDataFeed]
3. submitDataFeedValue(values: CollectionDataFeedValue): R[TxResult[Unit]]
4. getDataFeedValue(address: Bytes): RDataFeedValue

Identity

1. getIdentity: R[Bytes]

Onboarding

1. requestEndorsement(memberId: Bytes): R[Unit]
2. listEndorsements: R[CollectionEndorsement]
3. endorseMember(memberId: Bytes, certificate: Bytes): R[Unit]
4. rejectEndorsement(memberId: Bytes, reason: String): R[Unit]
5. onEndorsementRequested(wallet: CNFTWalletSpec, requests: Collection[Bytes]): R[Unit]
6. onEndorsementRejected(wallet: CNFTWalletSpec, requests: Collection[IncomingMessageRejectEndorsementRequest]): R[Unit]
7. onEndorsementApproved(wallet: CNFTWalletSpec, requests: CollectionApproveEndorsementRequest): R[Unit]

Regulation

1. approveTransaction(transactionId: Bytes): R[Unit]
2. rejectTransaction(transactionId: String, reason: String): R[TxResult[Unit]]
3. onRegulationNeeded(wallet: CNFTWalletSpec, pendingDeals: CollectionPendingDeal, pendingBurns: CollectionPendingBurn, pendingIssue: CollectionPendingIssue): R[Unit]
4. onRegulationApplied(wallet: CNFTWalletSpec, dealsApproved: CollectionPendingDeal, dealsRejected: CollectionPendingDeal, burnsApproved: CollectionPendingBurn, burnsRejected: CollectionPendingBurn, issuesApproved: CollectionPendingIssue, issuesRejected: CollectionPendingIssue): R[Unit] //

Attributes

TXResult

Attribute name	Type	Description
blockNumber	Long	Block number the transaction
txId	String	Unique identifier of the transaction
value	T	Response itself

SmartContractTemplate

Attribute name	Type	Description
address	Bytes	Address of the smart contract templates
feeds	CollectionFeedType	The list of data feed types in the template
description	CollectionDescriptionField	Description
attributes	CollectionFieldMeta	Fields
stateModel	CollectionFieldMeta	State model of the smart contract
classImplementation	String	Implementation of the smart contract

SmartContract

Attribute name	Type	Description
address	Bytes	Address of the smart contract
templateAddress	Bytes	Address of the smart contract template
issuerAddress	Bytes	Address of the issuer of smart contract
dataFeeds	Collection[Bytes]	Addresses of the data feeds the contract is linked to with accordance to smart contract template
regulators	CollectionRegulatorCapabilities	Regulator capabilities of the smart contract
attributes	Collection[String]	Attributes of the smart contract instance (e.g. hardcap, softcap etc)
endorsements	CollectionEndorsement	Attributes of the smart contract instance (e.g. hardcap, softcap etc)
burnExtraData	CollectionFieldMeta	Extra data for burn request

SmartContractInfo

Attribute name	Type	Description
theSmartContract	SmartContract	Smart contract
owned	Boolean	Whether Identity is the owner of smart contract

SmartContractState

Attribute name	Type	Description
address	Bytes	Address of the smart contract
state	Collection[String]	Changes of the smart contract

SmartContractRegulation

Attribute name	Type	Description
address	Bytes	Address of the smart contract
approves	CollectionApprove	Approves of the smart contract

SCRejectedResult

Attribute name	Type	Description
address	Bytes	Address of the smart contract
reason	String	Reason of the rejection

Token

Attribute name	Type	Description
address	Bytes	Address of the token in blockchain

Attribute name	Type	Description
dna	Bytes	Smart contract of the token it belongs to
body	Collection[String]	Body of the token
restrictions	Collection[Restriction]	Restrictions of the token

FieldMeta

Attribute name	Type	Description
id	String	Field identifier(as referenced in contract)
typeId	String	Identifier of type e.g. Numeric, Text, Date
description	String	Short human readable description, to show in applications

DescriptionField

Attribute name	Type	Description
name	String	Name of the attribute
typeId	String	Type of the attribute e.g. Numeric, Text, Date
value	String	Value of the description attribute

RegulatorCapabilities

Attribute name	Type	Description
capabilities	Collection[String]	Capability type // e.g. freeze, unfreeze etc
regulatorId	Bytes	Address of the regulator

DataFeed

Attribute name	Type	Description
address	Bytes	Address of the data feed
feedOwner	Bytes	Owner of the data feed
description	CollectionDescriptionField	Description
fields	CollectionFieldMeta	Fields

DataFeedValue

Attribute name	Type	Description
feedAddress	Bytes	Address of the data feed
content	Collection[String]	Content of the data feed tick

FeedType

Attribute name	Type	Description
feedId	String	Feed identifier(as referenced in contract)
attributes	CollectionFieldMeta	Attributes of the data feed type

SmartContractState

Attribute name	Type	Description
state	Collection[String]	Smart contract State
approves	CollectionApprove	List of approves from regulator

Approve

Attribute name	Type	Description
regulatorId	Bytes	Id of the regulator
approved	Boolean	Tick whether regulator approved
reason	String	Reason for reject regulation

Endorsement

Attribute name	Type	Description
regulatorId	Bytes	Id of the regulator
certificate	Bytes	certificate from the regulator

IssueTokenRequest

Attribute name	Type	Description
tokenId	TokenId	token id to issue
owner	TokenOwner	new owner for token
content	TokenContent	content of the token

WalletToken

Attribute name	Type	Description
id	TokenId	Token id to issue
content	Collection[String	Content of the token
restrictions	Collectuion[Restriction]	Restricitions, applied to token

BurnRequest

Attribute name	Type	Description
tokenId	TokenId	Token id to burn
extra	Bytes	Extra content of the burn request
extraFields	Collection[String]	Extra data, which is connected with burnExtraData of the smart contract

RejectEndorsementRequest

Attribute name	Type	Description
memberId	Bytes	Id of the member
regulatorId	Bytes	Id of the regulator
signature	Bytes	Regulator signature
reason	String	Reason of the rejection

ApproveEndorsementRequest

Attribute name	Type	Description
memberId	Bytes	Id of the member
regulatorId	Bytes	Id of the regulator
signature	Bytes	Regulator signature
certificate	Bytes	Certificate from the regulator

PendingDeal

Attribute name	Type	Description
operationId	String	Id of the operation
deal	Deal	Deal of the pending deal
approvals	Collection[RegulatorApproval]	Approvals needed for deal

PendingBurn

Attribute name	Type	Description
operationId	String	Id of the operation
burnRequest	RichBurnRequest	Burn request to regulate
approvals	Collection[RegulatorApproval]	Approvals needed for deal

PendingIssue

Attribute name	Type	Description
operationId	String	Id of the operation
issueRequest	IssueRequest	Issue request to regulate

Attribute name	Type	Description
approvals	Collection[RegulatorApproval]	Approvals needed for deal